

MALAYSIAN ECONOMIC OUTLOOK

VOL : III

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**MIER**  
**1997 NATIONAL OUTLOOK CONFERENCE**

Shangri-La Hotel, Kuala Lumpur  
2-3 December 1997

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**World Economic Outlook, 1998-99**

by

Richard J Buczynski



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

# WORLD ECONOMIC OUTLOOK

Presented at

NATIONAL OUTLOOK CONFERENCE

2 -3 DECEMBER 1997

Shangri-La Hotel  
Kuala Lumpur, Malaysia

Dr. Richard J. Buczynski  
Executive Vice President  
WEFA, Inc.

[www.wefa.com](http://www.wefa.com)

1110 Vermont Avenue, Suite 1100  
Washington, D.C. 20005 USA  
Telephone USA 202 775-0613  
Facsimile USA 202 833-3673  
Email [buczynski@wefa.com](mailto:buczynski@wefa.com)

## Executive Summary World Outlook

Excerpted from *World Economic Outlook*,  
WEFA

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### In Brief

- The troubles in South East Asia will undoubtedly have a negative impact on the world economy. Although the troubles will be severe in the South East Asian economies themselves, at present it seems unlikely that they will be large enough to provoke a global crisis. The countries embroiled in the currency crisis account for a relatively small proportion of world output and trade, and economic growth in the rest of the world seems to have gained sufficient momentum to withstand the shock. World output (measured in purchasing power parity terms) still seems to be on course to expand at a rate of around 3.5% in both 1997 and 1998, with upward revisions to the growth projections for North America, Western Europe and Latin America offsetting a weaker performance in Japan and developing Asia.
- Economic growth in North America has been somewhat stronger than expected, with the prolonged upturn in the US maintaining a robust pace and the upswing in Canada continuing to gather speed. An upward drift in inflation over the next twelve months is expected to induce the Fed to raise interest rates again, to slow economic growth to a more sustainable 2.3% - 2.5% pace from 1998 - 2002, after a strong 3.6% gain in 1997.
- In Japan, the impact of the fiscal tightening appears to be more severe and lasting longer than was originally anticipated. We still expect a gradual recovery in activity as the fiscal drag diminishes, with real GDP growth forecast to rise from only 0.8% this year to 1.9% in 1998. However, there is a risk that the support to the recovery from net exports will fall short of expectations if there is a more severe and sustained slowdown in developing Asia.
- The expected recovery in continental Europe seems to be picking up steam, and the strength in exports has started to spread into domestic demand. The domestic demand driven UK economy continues to expand at a robust rate. Real GDP growth in Western Europe as a whole is forecast to improve from an estimated 2.5% this year to an upwardly revised 2.7% in 1998, with a more broadly based upswing in mainland Europe more than compensating for a policy-induced slowdown in the UK.
- Latin America, like the Pacific Basin, has several economies with current account deficits and strong currencies. But the recovery in the largest Latin American economies from the 1994-95 recessions has not lasted long enough to generate deficits much above 3% of GDP. Moreover, none of these countries have accumulated big private local currency lending in real estate and other non-traded goods sectors. Nonetheless, we expect Latin America's major economies -- except Mexico -- to slow growth next year in order to stabilize their trade deficits.

## Forecast Summary Table

TABLE 1.0 WORLD FORECAST SUMMARY

	1992	1994	1996	1998	1999	2000	2001	2002	1992-1996	1997-1998	1999-2002
REAL GDP (PERCENT CHANGE)											
WORLD (PPP WEIGHTS)	1.8	2.1	2.0	2.4	1.4	1.9	1.5	1.9	1.9	2.0	2.0
WORLD (1990 BASIS)	0.8	2.2	2.3	2.8	3.0	3.0	3.3	3.3	3.4	3.4	3.4
DEVELOPED COUNTRIES	0.9	2.7	2.1	2.5	2.8	2.8	2.5	2.4	2.4	1.9	2.3
UNITED STATES	2.3	3.5	2.0	2.8	3.8	2.5	2.3	2.3	2.3	2.8	2.4
CANADA	2.2	4.1	2.3	1.5	3.6	3.4	3.0	2.9	3.2	2.2	3.1
JAPAN	0.3	0.7	1.3	3.7	0.8	1.8	2.8	2.8	2.4	1.1	2.4
WESTERN EUROPE	2.3	2.7	1.9	1.9	1.7	2.2	2.0	2.0	2.0	1.6	2.0
GERMANY	-1.2	2.8	1.9	1.4	2.4	2.8	2.7	2.6	2.5	1.3	2.7
FRANCE	-1.3	2.8	2.1	1.5	2.2	2.7	2.5	2.1	2.1	1.2	2.3
ITALY	-1.2	2.1	3.0	0.7	1.0	2.1	2.2	1.9	2.0	1.0	2.1
UNITED KINGDOM	2.1	4.3	2.7	2.3	3.5	2.5	2.1	2.2	2.1	2.2	2.3
AFRICA	1.9	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
LATIN AMERICA, EXCL. MEXICO	4.6	6.0	2.8	3.1	4.5	2.6	3.7	4.4	4.9	3.8	4.1
MIDDLE EAST	2.8	1.5	3.7	4.1	1.3	1.6	3.2	3.3	3.8	3.9	3.1
OTHER ASIA	3.9	6.8	6.4	4.5	6.2	6.5	6.8	6.7	6.8	6.8	6.8
PACIFIC BASIN	6.5	7.7	7.7	6.8	5.3	5.1	6.0	6.2	6.4	6.3	6.4
CHINA	10.0	12.2	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MEXICO	2.0	4.5	4.2	5.1	5.8	6.4	6.1	5.4	5.8	5.9	5.9
EASTERN EUROPE	0.9	3.8	5.4	3.0	1.3	4.0	4.3	4.5	4.8	4.7	4.4
FORMER SOVIET UNION	-10.7	-14.3	-5.7	4.2	0.1	2.5	4.5	4.9	4.9	4.7	4.0
CONSUMER PRICE INDEX (PERCENT CHANGE)											
DEVELOPED COUNTRIES, EXCL. TURKEY	2.8	2.8	1.4	2.2	2.1	2.2	2.8	2.8	2.8	2.8	2.8
UNITED STATES	3.0	2.8	2.8	2.9	2.4	2.5	2.9	2.8	2.8	2.8	2.8
CANADA	1.8	0.2	2.2	1.6	1.7	1.4	2.0	2.4	2.6	2.1	2.7
JAPAN	1.2	0.7	-0.1	0.1	1.7	1.0	1.2	1.8	2.0	2.1	2.7
WESTERN EUROPE, EXCL. TURKEY	3.6	3.6	1.0	2.4	2.0	2.0	2.7	2.7	2.7	2.7	2.7
GERMANY	4.5	2.7	1.8	1.5	1.8	1.8	2.0	2.4	2.6	2.7	3.1
FRANCE	2.1	1.7	1.8	2.0	1.3	1.7	1.9	2.0	1.9	2.0	2.0
ITALY	4.2	3.9	5.4	3.9	2.0	3.4	2.7	2.6	2.5	2.5	2.5
UNITED KINGDOM	1.8	2.5	3.4	2.4	3.1	3.7	2.8	2.2	2.0	2.3	2.7
UNEMPLOYMENT RATE (PERCENT OF LABOR FORCE)											
DEVELOPED COUNTRIES	6.1	5.1	5.7	6.7	6.4	6.2	6.3	6.2	6.0	6.3	6.3
UNITED STATES	6.9	6.1	5.8	5.4	4.9	4.7	5.1	5.4	5.5	5.8	6.3
CANADA	11.2	10.4	9.5	9.7	9.3	8.8	8.8	8.7	8.4	10.4	8.7
JAPAN	2.5	2.9	3.1	3.4	3.4	3.3	3.2	3.1	3.1	2.8	3.1
WESTERN EUROPE	11.2	11.4	11.2	11.3	11.4	11.2	11.3	11.3	11.3	11.3	11.3
GERMANY	8.9	9.5	9.4	10.3	11.1	10.9	10.6	10.2	9.7	9.2	9.2
FRANCE	11.7	12.2	11.6	12.3	12.5	12.2	11.8	11.5	11.2	11.0	11.7
ITALY	10.2	11.3	12.0	12.1	12.2	11.9	11.3	10.3	9.5	8.7	11.4
UNITED KINGDOM	10.3	9.3	8.2	7.5	5.6	4.8	4.5	4.4	4.1	3.8	9.0
CRUDE OIL PRICE (\$/BARREL) (a)											
AVERAGE CRUDE PRICE (\$/BARREL) (a)	18.8	15.9	17.2	20.4	19.8	19.2	19.2	20.3	21.0	21.7	
PERCENT CHANGE	-11.8	-5.5	8.0	16.9	-4.2	-2.0	3.1	2.8	3.2	3.3	1.1
SHORT-TERM INTEREST RATE											
LONDON INTERBANK RATE (3-MONTH)	3.3	4.7	6.0	5.5	5.7	6.2	6.4	6.2	5.8	5.7	4.7
UNITED STATES (3-MONTH CD)	3.2	4.8	5.8	5.4	5.8	5.9	5.8	5.8	5.4	5.4	4.8
JAPAN (3-MONTH CD)	3.0	2.5	1.2	0.8	0.8	1.4	2.2	2.8	2.0	4.4	2.3
GERMANY (3-MONTH PIBOR)	7.3	6.4	6.4	6.3	6.2	6.3	6.4	6.3	6.3	6.3	6.3
FRANCE (3-MONTH PIBOR)	8.8	5.8	6.8	3.9	3.4	3.9	4.8	5.3	5.3	5.2	5.8
UNITED KINGDOM (3-M INTERBANK)	5.9	5.5	6.7	6.0	6.8	7.7	7.8	6.9	5.9	5.5	6.8
EXCHANGE RATE (LOCAL CURRENCY/US DOLLAR, AVERAGE)											
DEUTSCHE MARK	1.85	1.62	1.43	1.50	1.74	1.73	1.69	1.65	1.63	1.62	-1.9
JAPANESE YEN	111.2	102.2	94.1	108.8	116.9	116.5	112.0	108.5	107.4	106.3	-4.2
POUND STERLING	0.667	0.653	0.634	0.641	0.618	0.647	0.659	0.653	0.659	0.661	2.5
CANADIAN DOLLAR	1.29	1.37	1.37	1.36	1.36	1.31	1.28	1.28	1.24	1.21	-3.5
WORLD TRADE (PERCENT CHANGE)											
VOLUME (EXPORTS) TOTAL	4.8	6.1	6.1	6.0	6.8	7.2	6.7	6.4	6.4	6.8	6.7
PRIMARY COMMODITIES	2.8	5.9	4.5	4.9	6.9	6.4	6.3	6.1	6.2	6.2	4.9
FUEL AND ENERGY	8.5	3.3	1.7	6.0	6.3	4.5	5.2	5.2	5.8	5.0	4.3
MANUFACTURED GOODS	4.4	11.1	11.5	6.1	10.1	7.8	6.9	6.6	6.8	6.8	7.4
PRICE (EXPORT/IMPORT DOLLAR)	-6.1	-3.9	-2.4	-1.1	-6.3	-7.8	-6.2	-6.8	-6.8	-6.8	-6.8
PRIMARY COMMODITIES	-4.4	3.2	10.0	-2.7	-4.3	-1.4	-2.4	-2.8	-2.7	-1.9	2.4
FUEL AND ENERGY	-21.7	-0.8	10.5	7.2	-1.6	-0.7	0.8	2.0	3.0	3.8	-1.3
MANUFACTURED GOODS	-3.8	1.8	8.2	-2.8	-7.1	0.4	3.0	2.8	2.0	2.0	1.3
CURRENT ACCOUNT BALANCES (\$/BILION)											
UNITED STATES	-91	-134	-129	-148	-173	-190	-191	-185	-179	-167	-112
JAPAN	130	129	112	87	90	95	111	105	94	94	111
WESTERN EUROPE	26	44	72	117	129	133	136	138	133	126	36
REST OF WORLD	-120	-99	-102	-106	-105	-88	-96	-100	-117	-111	-102

(a) AVERAGE OF PERIOD

(b) AVERAGE OF DUAL U.K. BRENT, AND ALASKAN NORTH SLOPE SHUT-OFF CRUDE PRICES. SOURCE OF HISTORICAL DATA: (1) F.S.

## WORLD ECONOMY: CRISIS? WHAT CRISIS?

**Asian crisis upsets financial markets.**

Concerns that the global economy may be facing a severe downturn have increased in recent weeks as the currency and stock market turmoil in South East Asia spread to financial markets in the rest of the world. At the time of writing the equity markets in the major industrial countries have largely recaptured most of the ground lost during the sell-off in late October, but there is still some uncertainty about the consequences of the Asian meltdown for the world economy.

**Concerns overblown.**

Fears that the economic slowdown in Asia may lead to a deflationary recession in the rest of the world seem to be overdone. Developing Asia as a whole certainly accounts for 22.5% of world output, based on purchasing power parity valuation. However, excluding China and India, who have so far remained relatively immune from the currency crisis, the rest of developing Asia accounts for only 7.3% of global GDP and only 4.4% of world exports of goods and services. This suggests that even a severe recession in the affected Asian economies should have a relatively modest impact on global economic growth. And the current consensus is that most South East Asian economies are heading for an economic slowdown rather than outright recession. The policy measures being implemented to deal with the currency crisis will certainly dampen domestic demand in the economies most affected by the recent turmoil, namely the countries of the Pacific Basin (i.e. Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan and Thailand). But net exports should lend support to economic activity aided by the improvement in competitiveness from the sharp currency depreciations.

**Improved performances in other regions compensate for Asian slowdown.**

WEFA's latest forecasts show that economic growth in Indonesia, Malaysia and the Philippines is now expected to be between 1.2 to 1.5 percentage points lower in 1997 than previously forecast, and between 2.0 and 4.0 percentage points lower in 1998. The projections for Thailand have been lowered even more sharply, by 3.7 percentage points this year and by 5.8 percentage points next. Overall real GDP growth in the Pacific Basin is now forecast to increase by 5.3% this year and 5.1% in 1998, compared with the August forecasts of 6.4% and 6.6% respectively. Economic growth in Developing Asia as a whole, including China, the Indian subcontinent and the Pacific Basin, is expected to average 6.7% in 1997 and 1998 (previously 7.4% in both years).

A slowdown in Asia of this magnitude has only a limited impact on WEFA's projections for world economic growth, as the shock has occurred at a time when the prospects for other regions have shown some improvement. Economic growth in North America has been somewhat stronger than expected, with the prolonged upturn in the US maintaining a robust pace and the upswing in Canada continuing to gather speed. The buoyancy in North America has been reinforced by further strong growth in the UK and a marked pick-up in activity in continental Europe. Output in Latin America is also expanding more rapidly than was previously anticipated, especially in Argentina and Mexico. At the present time, it looks very much as if the ongoing strength in these regions will fill the gap left by the shortfall in growth in developing Asia and in Japan, where the economy is suffering a larger than expected reaction to the tightening of fiscal policy. World output (measured in purchasing power parity terms) still seems to be on course to expand at a rate of around 3.5% in both 1997 and 1998, with upward revisions to the growth projections for North America and Europe, offsetting the weaker performance in Japan and developing Asia.

**Downside risks to exports.**

While the developments in Asia have not as yet fundamentally altered the generally positive outlook for the world economy, there is still a risk that economic conditions in

Asia may deteriorate more than we expect and exert a more widespread adverse impact. The potential effects on the rest of the world would be felt via a number of channels — through foreign trade, through tougher price competition from countries with devalued currencies, through the banking system, through reduced earnings from foreign direct investment and portfolio investment. Most of these effects are difficult to measure, but it is possible to roughly quantify the impact of a contraction in export demand.

Among the developed economies, Japan is likely to be the most affected by a more severe slowdown in the Pacific Basin, since these countries accounted for about 33% of total Japanese merchandise exports in 1996. This part of the world is also quite important for the US, which sells about 17% of its exports to the Pacific Basin (defined here as the four NICs plus the ASEAN four), whereas the European Union (EU) as a whole only sells about 5% of its exports to this region. However, economic activity in the member states of the EU is more dependent on external trade than the US, with merchandise exports accounting for about 24% of EU GDP compared with about 8% in the US. The contribution to GDP from exports to the Pacific Basin in the US and the EU is very similar, at 1.3% and 1.2% respectively, less than half the level in Japan (3.3%). Consequently, Japan would suffer more severely from a recession in South East Asia. The direct impact of a 10% drop in merchandise exports to the Pacific Basin might reduce real GDP growth in Japan by about 0.3 percentage point, compared with about 0.1 percentage point in both the US and the EU.

Stock market correction  
may have further to go.

The recent hiatus in global stock markets has also directed attention to the possible repercussions of a stock market "crash". The spread of the South East Asia problems to Hong Kong was the catalyst for the recent turbulence but not the cause, which was primarily concerns about the overall valuation of the US stock market. It is still not clear whether the turmoil in global equity markets has burnt itself out or whether it was merely the precursor of a more fundamental correction. However, the retrenchment and devaluations in the Pacific Basin could exert further downward pressure on the worldwide price of manufactured goods, thus exerting a squeeze on profits in the developed economies and triggering a stock market "crash".

A sharp decline in equity prices could potentially have a noticeable impact on consumer confidence and expenditure in those economies, such as the US, France, UK and Canada, where households equity holdings are large (50-80%) relative to GDP. Provisional estimates, based on the current levels of equity ownership and empirical studies of the link between financial wealth and private consumption, suggest that a 10% decline in equity prices would reduce GDP growth by about 0.4 percentage point in the US and by about 0.3 percentage point in France and the UK, compared with only 0.1 percentage point or less in Japan and Germany. However, with equity prices in most of the major markets still showing a double-digit annual gain, it seems unlikely that the wealth effects of a decline of this magnitude from the current high levels would have a significant near-term impact on global economic activity. As Gavyn Davies of Goldman Sachs has recently pointed out: "The positive wealth effects of (the previous) increases in equity prices have not yet been fully reflected in consumer spending around the world. By the same token, any decline in equity prices from current levels would not depress spending immediately."

The risks are real, but  
should not derail the  
global upswing.

The troubles in South East Asia will undoubtedly have a negative impact on the world economy, but at present it seems unlikely that they will prove severe enough to provoke a global crisis. The underlying growth momentum in the rest of the world seems to be sufficient to withstand the shock, though some countries (e.g. Japan) and sectors (e.g. manufacturing) will suffer more than most. Some worst case scenarios suggest

that the Asian crisis might reduce overall economic growth in the developed economies by about 0.5 percentage point, with Japan losing about 1.5 percentage point. The picture would obviously be bleaker if the crisis spread to the emerging markets of Latin America and Eastern Europe, which are more important export markets for the US and EU. Another risk to the outlook could arise if the dollar were to suffer, which would pose a threat to the export-led recoveries in Japan and continental Europe. However, if some of the worst risks were to materialize then the IMF and central banks would react to contain the situation.

**The prospects and risks for the main countries/regions are:**

- Although strong investment and restructuring may have raised the US economy's non-inflationary growth potential, real GDP growth continues to exceed even the most optimistic estimates of a sustainable rate. As the unemployment rate approaches 4.5%, wage gains will pick up, pushing up consumer prices and inducing the Fed to tighten modestly over the next six months. This should slow economic growth to a more sustainable 2.3-2.5% pace during 1998. Key risk: wage rises accelerate sharply in late 1997 and growth remains higher than potential. The Fed reacts aggressively, and higher interest rates push the economy into recession.
- Recent evidence suggests that the recovery in Japan has not yet regained momentum after the downturn caused by significant fiscal tightening that came into effect in April. However, the slowdown should prove temporary and modest growth is expected to resume, led by private domestic demand, particularly business investment. In addition, the yen remains at a competitive level ensuring that net exports continue to make a significant contribution to growth. Key risk: with limited scope for a monetary or fiscal stimulus, the economy may fall back into recession due to the impact of the slowdown in south-east Asia on exports and corporate profits.
- The export-led recovery in continental Europe appears to be picking up steam, while the domestic demand driven UK economy continues to expand at a robust rate. Policy tightening and the lagged impact of sterling's appreciation is expected to slow UK growth next year, while economic growth in mainland Europe should show some further improvement, as the recovery spreads to domestic demand. Key risks: Consumer spending in Germany and France continues to stagnate in the face of persistently high unemployment, and the dollar declines sharply against European currencies, undermining the hitherto robust export performance.
- Growth in the east Asian region has slowed down significantly and is expected to slacken further next year. The currency crisis has had a "contagion" effect on all the economies of the region. Exports, boosted by the improved competitiveness produced by currency depreciation, will be a key driver for growth. Key risks: the Japanese economy stumbles, limiting the market for developing Asia's exports. A full-fledged currency crisis in South Korea, which leads to another round of capital flight from the region.
- Apart from Brazil, Latin America is not very vulnerable to an Asian-style currency meltdown. The risk of a major devaluation has increased in recent weeks, however, causing Brazil to double short-term interest rates from 21% to 43% and to adopt fiscal cuts amounting to about 2.5% of GDP. We expect Brazilian growth to slow from 4% to 1% next year as a result of these measures, reducing its current account deficit to a safer 3% of GDP. Argentina will also be affected by slower Brazilian demand for its exports. Mexico and most of the other Latin American countries will be little affected by Brazil's crisis. Key risk: A major devaluation in Brazil, which would likely



slow growth to -2% in Brazil and knock Mexico and Argentina's growth down by 1% as well.

- Oil exporters continue to post positive growth rates but at a pace slower than in 1996. Growth in the non-oil Middle East, except for Israel, remains robust. Economic activity in Africa remains on an upward trend for the fourth consecutive year. Key risks: Subdued oil prices and a further slowdown in the peace process could dampen the macroeconomic environment for the Middle East region as a whole. In Africa, drought and weakness in commodity markets could send the region into a recession.
- The outlook for continued growth and stability in most East European countries remains favorable. One possible exception is Romania, where eroding political support for the reform-minded government that took office late last year threatens to derail efforts to curtail inflation and introduce market reforms. Elsewhere in the region, there is broad agreement on market-oriented economic policies. This is illustrated by the minimal impact that the change in government in Poland at the end of October is expected to have on the country's pro-market economic policies. Key risk: economic stability in the region could be jeopardized if the large current account deficits many countries are running continue to widen and are not sufficiently covered by capital inflows.
- The recent plunge in Russian stock prices has not altered the outlook for a continuing slowdown in inflation and a moderate recovery in GDP next year. The turmoil in the stock market is not expected to precipitate a currency crisis. Russia's large current account surplus and its ample foreign exchange reserves should keep the ruble stable. Key risk: stabilization and market reform remain vulnerable to the lack or weakness of appropriate market-economy institutions -- for example, an adequate tax-collection mechanism.

## THE UNITED STATES: MOMENTUM CARRIES INTO 1998

Real GDP growth slowed in the second quarter.

After an exceptionally strong performance in the first quarter of 1997, the pace of growth moderated somewhat in subsequent three months but remained well above what has traditionally been regarded as a sustainable rate. Annualized quarterly real GDP growth slowed to 3.3% in the second quarter from 4.9% in the first. A sharp slowdown in consumer spending, which had propelled the sharp growth in first quarter, was the primary cause of the deceleration. In contrast, there was there an acceleration in the rate of growth of most of the other sectors of demand. Business investment, which has been a major driving force behind the current upturn, now in its seventh year, expanded at a robust annualized rate of 14.6%, while stocks continued to be built up at high rate. Export growth also strengthened, as the recovery in demand in key export markets compensated for the retarding effect of the dollar's rise. However, net exports still exerted a slight drag on the economic activity as imports grew even more rapidly.

Employment growth has also slackened in recent months, but the labor market is still tight.

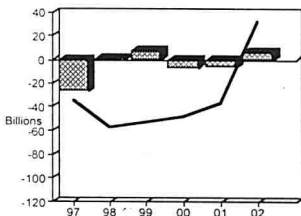
The September payroll report showed signs of a slowing in employment growth. Non-farm payrolls increased by 215,000 in September, but around 165,000 of those new jobs were UPS employees returning from the strike in August. Some of the weakness in September, however, resulted from a 47,000 payroll decline in local education employment, which is most likely a result of seasonal factors not accounting for earlier school starts, as opposed to the loss of those jobs. Over the past two months, payrolls have grown by an average of 128,000 jobs a month, about half the 254,000 average monthly gain for the year through July.

Inflation remains benign.

The unemployment rate was unchanged in September at 4.9%, reflecting the modest rise in nonfarm payrolls. Since April, the unemployment rate has been at or below 5.0% in every month. The recent level of the unemployment rate shows that the labor market is extremely tight, and remains as a significant indication of possible wage pressure problems. Average hourly earnings increased by \$0.04 per hour in September following a revised \$0.06 gain in August (previously reported as \$0.05). On a year-over-year basis, hourly earnings grew 3.6% in September, a significantly faster pace than in most of 1996, when the unemployment rate was above 5%.

Despite the tightness of the labor market, most current measures of inflation remain low. The year-on-year increase in the GDP implicit price deflator slowed to 1.8% in the second quarter, down from a 2.5% gain in the first quarter. In September consumer prices increased by 0.25% (m-o-m) after two months of 0.2% gains. Energy prices rose 1.3% following a 1.7% jump in August. Food prices slowed in September, gaining 0.1% after four months in a row of sizable increases. Core inflation (excluding food and energy) was 2.2% for the year ended September, the lowest 12-month inflation performance in over 30 years. While consumer price inflation remained steady, producer prices jumped for the second month in a row in September. The producer price index for finished goods rose 0.5% (m-o-m) in September following a 0.3% increase the previous month. This pick-up, however, is largely due to a turnaround in energy prices which have increased by an average of 1.5% per month over the past two months.

Figure 1: US Federal Budget Surplus Forecasts: CBO vs. WEFA.  
WEFA Balanced in 1998, CBO by 2002



Strong economic growth reduces the fiscal deficit.

The federal budget deficit was \$34.6 billion in August, compared to a \$41.8 billion deficit in the same month last year. Strong economic activity has increased government receipts for the eleven months ending in August by 8.4% over last year. The August number lowers the deficit for the first eleven months of the fiscal year to \$71.3 billion, 50% lower than the \$142.7 billion deficit over the same eleven months of the previous fiscal year. The recent budget agreement passed by Congress and signed by President Clinton has radically altered the prospects for the federal budget deficit. The Congressional Budget Office (CBO), in its review of the budget agreement, sees the deficit widening in fiscal 1998 from the current fiscal year, before narrowing in subsequent years to reach a surplus in fiscal 2002. This is in line with the views of The Mid-session Review released by the Office of Management and Budget (OMB), as revealed in its Mid-session Review. However, as Figure 1 shows, WEFA is more optimistic about the near-term prospects, forecasting a balanced budget for 1998, but takes a somewhat less rosy view of the long-term outlook.

A key to the fiscal position in 1998 is how long the recent phenomenal performance of revenues continues, and the rate at which special factors that could be at work dissipate. WEFA anticipates a slower dissipation of these effects, especially because of the reduction in the capital gains tax, resulting in a small surplus over the next few years. The surpluses, all less than \$20 billion, are forecast to continue over the forecast horizon. Actual surpluses are unlikely to be greater than this amount, and it is quite possible that the Federal government will register a deficit as Congress and the President crank up spending and tax cuts. Better than expected news about the deficit will reduce the pressure to keep spending and tax cuts in line, an impact we have already seen in the latest budget deal. After 2003, the budget will start to show deficits once again even on a present policy basis. The likely federal budget surpluses over the next few years do not eliminate the longer-term problem with federal entitlement programs. As the baby-boom generation nears retirement in 2012 and beyond, severe strains from entitlement spending will again put pressure on the government's finances. Even so, the budget picture entering the 21st century is far brighter than anticipated even a few years ago.

Fed Chairman suggests that the economy "is on an unsustainable track."

Federal Reserve Chairman Alan Greenspan's testimony before the House Budget Committee on October 8 put the financial markets on notice that the Fed remains prepared to act on its continuing concerns about the inflationary implications of strong growth in the context of a labor market that is already quite tight. It was not so much what he said as, in general, he did not really say anything new. Rather, it was the fact that he chose to say what he did at this particular time that shook up the markets. There was no need for him to say anything about monetary policy to the Budget Committee, as he was there to testify about fiscal policy. So, he went out of his way to say what he did. Greenspan pointed out that, despite productivity gains, increases in the demand for labor in recent years have far outstripped the underlying, long-term increases in labor supply, pointing out that increases in the supply of labor have kept up with increases in the demand for labor in recent years by reducing the amount of slack in labor markets. This, he said, is not a sustainable track: "The key point is that continuously digging ever deeper into the available working-age population is not a sustainable trajectory for job creation," and, "the performance of the labor markets this year suggests that the economy has been on an unsustainable track."

An upturn in inflation will prompt a modest monetary tightening.

Whether the Fed does tighten further and, if so, when, depends on the performance of the economy and inflation. The strong job market, with the unemployment rate now below 5%, has already helped boost wages. While goods inflation appears virtually nonexistent, service inflation is forecast to begin to pick up speed along with higher wages. After slowing to a 2.4% annual average rate in 1997, consumer price inflation will pick up to 2.9% in 1999. With higher inflation will come higher interest rates. Because of inflation concerns, WEFA expects that the Fed will raise short-term interest rates beginning in early 1998. By mid-1998, we expect the Fed Funds rate to reach 6.0%. Long-term interest rates will rise with the rise in short-term rates, with the yield on the 30-year Treasury bond hitting 7.0% in mid-1998. With the easing labor market after 1998 and slower demand growth, CPI inflation is forecast to slow to 2.6% in 2001 and 2002. The Fed will lower interest rates moderately after the economy shows signs of slowing. The Fed Funds rate drops to 5.5% in 2001 and 2002. The yield on the 30-year Treasury bond falls to 6.3% in 2001 and 6.1% in 2002.

Higher interest rates should slow economic growth to a sustainable pace.

Real GDP growth in the second half of 1997 will be slower than the first half, but will still average a robust 3.6% for 1997 as a whole, the highest annual growth of the six-year old expansion. The monetary tightening anticipated over the next six months, however, will help slow the economy down to growth rates more consistent with its longer-run potential. Real GDP growth will settle in at a more sustainable 2.3% - 2.5% pace

from 1998-2002. As the economy slows to a more sustainable growth path, the labor market will ease slightly. After dipping to 4.6% in 1998, the unemployment rate will edge up to 5.6% by 2002, more consistent with most estimates of the non-accelerating inflation rate of unemployment, or NARU.

Lower employment and disposable income gains will slow the growth in consumer spending from over 3% in 1997 to the 2.2-2.3% range from 2000-2002. Investment spending will remain a major contributor to overall growth, but real business investment growth will decelerate from the close to double digit pace of 1995-1998 to a 3.2% rate of growth by 2002. Both real exports and real imports are also currently growing at double digit rates, but, on balance, net exports will cut real GDP growth by 0.3% this year. Trade will be slightly negative for overall growth in 1998 as well. Over the longer term, net exports will contribute modestly to overall growth in 1999-2002. Faster growth in exports will narrow the current account deficit from \$173 billion in 1997 and \$190 billion in 1998 to \$167 billion in 2002.

## JAPAN: SLOW RECOVERY FROM SECOND QUARTER SETBACK

Economy suffers sharp setback in the second quarter.

Economic activity weakened significantly in the second quarter of 1997, after a period of relatively strong growth over the previous six months. Real GDP declined by 11.2% SAAR, more than offsetting the 5.7% rise in the first quarter. Although a fal in output had been widely anticipated, the second-quarter contraction was worse than expected. The downturn was led by a 21.0% annualized drop in consumer expenditure, exceeding the 18.6% annualized rise recorded in the first quarter, when spending was brought forward to beat the increase in the sales tax. However, fixed investment also fell. Public investment picked up, as the availability of funding for the new fiscal year provided a probably temporary filip. But this rebound was outweighed by a fal in private sector investment. The decline in private housing investment accelerated, following last year's surge in advance of the sales tax rise, and private business investment recorded its first quarterly decline in over two years. The severe drag on economic growth from domestic demand was partially offset by an improvement in net exports. Export growth accelerated in response to the cheap yen and while the weakening in domestic demand led to a decline in imports.

Subsequent signals are not auspicious.

Output is expected to show a modest recovery during the third quarter, but results so far suggest that the revival may be weaker than was previously anticipated. Industrial production in the first two months of the third quarter was 0.7% down on the second-quarter average. Consumer spending is still subdued. Real household spending in August was down 0.5% year-on-year following a 3.2% rise in July. The Bank of Japan's September Tankan survey of business conditions was generally unfavorable. Conditions for large manufacturers deteriorated slightly while those for non-manufacturers deteriorated significantly. The business outlook diffusion index (DI) for major manufacturers declined from +7 in June to +3. The diffusion index is the percentage of respondents who feel their business conditions are improving minus the percentage of respondents who believe conditions are getting worse. For small manufacturing firms, probably benefiting less from strong exports, results were far worse: a drop to -13 from -7 in the June survey. For non-manufacturing, the DI dropped to -15 from -7 for large businesses, and to -18 from -11 for small enterprises. In addition, the results show that, with the exception of large non-manufacturers, companies expect conditions to be no better or even worse by the time of the next survey in December.

Government economic reform proposals disappoint.

The widely heralded Liberal Democratic Party (LDP) package for revitalizing the economy through deregulation and a more expansionist fiscal policy has received a lukewarm reception. Despite widespread reports that the economic reforms, announced on October 21, would underwrite an expanding economy, the actual proposals were limited and vague. No quantitative data was given to show the likely impact of proposals nor was there any indication as to when they would be implemented. As shown in Figure 2, the words "try to" preceded key proposals for cutting corporate taxes and for abolishing the securities transaction and landholding taxes. This vagueness reflects fundamental differences between the LDP and the Ministry of Finance. The LDP is moderately expansionist while the MOF is opposed to fiscal easing.

Figure 2: The LDP Economic Proposals

- Bring 1998 public works forward to this year, with payment delayed until next year.
- Try to abolish securities transactions tax.
- Try to freeze or abolish land holdings tax.
- Review regional tax on fixed assets and land sales.
- Try to cut corporate tax.
- Enact supplementary budget to assist farmers.
- Ease rule on creating companies to securitize real estate loans.
- Broader availability of tax credits for housing purchases.
- Report land transactions ex post facto, rather than ahead of deal.
- Deregulate prices of telephone calls.
- Ease rules on foreign ownership of broadcasting and KDD (international calls).
- Ease rules over trucking fees.

The LDP says that it will introduce more specific measures next month, but action on the all-important tax measures will be delayed until December when a decision is expected from the LDP tax committee. Meanwhile an agreement must be reached with its coalition partners, all before the Diet adjourns on December 12. Since the construction industry is a strong supporter of the LDP, it seems likely that the proposals to aid the real estate market will be adopted even if the LDP has to sacrifice other proposals in its dealings with the Ministry of Finance. These include bringing public works forward to this year, by an unspecified amount, and freezing or abolishing the land holding tax.

Monetary policy to remain on hold.

Since the greater than expected drop in real GDP in the second quarter there has been very little discussion of the possibility of changing the discount rate, now at a remarkably low 0.5%. With low inflation and a depressed economy, it would be counter-productive to raise short-term interest rates anytime soon. For savers who depend on short-term interest income, the current low rate of interest income is often a near-disaster. Nevertheless, in view of the less optimistic news on the economy, WEFA does not see any likelihood of a higher discount rate before March 1998. In any event, the Bank of Japan is likely to raise the call money rate before raising the discount rate. This will give the bank greater day-by-day flexibility in monetary policy compared with changing the discount rate. Ten-year government bond yields, at 1.68% on October 28, are near a historic low. This has led to the argument that higher short-term interest rates would impact long-term yields and prevent an outflow of capital pushing down the value of the yen. However, the drop in bond yields arises to a greater extent from the poor earnings outlook in other domestic investments rather than from short-term interest rates. Moreover

Output still expected to recover as the fiscal drag diminishes.

fears of American retaliation are tending to support the yen despite the wide differences in bond yields.

We continue to expect a pick-up in activity in the third quarter. Real GDP is forecast to rise by an annualized 5.3% in the third quarter, about the same rate as the 5.7% rise in the first quarter, mainly due to a recovery of consumer expenditure. But the increases in output in the first, third and fourth quarters will barely offset the decline in the second quarter, resulting in a modest 0.8% rise in real GDP for 1997 as a whole. Economic growth is projected to rise to 1.9% in 1998 and 2.8% in 1999, an improvement on 1997 but still below the 3.7% growth in 1996.

This forecast assumes that consumer and business confidence, badly bruised in the 1997 slowdown, will gradually improve. Consumers will find their holdings of durable goods somewhat depleted after the restrained spending following the sales tax rise in second quarter. Against this background they are likely to push up growth rates of consumer spending somewhat higher than in the 1994-1996 period, before the distortions from tax increases. Business investment in plant and equipment is expected resume an upward trend, rising by 3-3.5% both this year and next, and private housing investment is expected to turn around during the course of the next twelve months. Public investment may also experience a temporary pick-up next year, as the government completes its current program of downsizing public works outlays. Net exports should still provide support to the recovery next year, with continued, albeit slower, export growth outstripping that of imports. However, there is a risk that the contribution from external trade will fall short of expectations if 1) there is a more severe and sustained slowdown in the South East Asian countries and 2) the US retaliates against higher imports from Japan.

Inflation pressures will remain muted.

Consumer price inflation accelerated to an annualized rate of 6.9% in the second quarter from 0.5% in the first, but this was due solely to the rise in the sales tax. Underlying inflation is negligible. The weaker yen has pushed up import prices and wholesale prices, but domestic inflationary pressures remain muted. Consumer prices are forecast to rise at an annualized rate of 0.3% and 0.7% in the third and fourth quarters respectively, bringing the average increase for 1997 to 1.7%. Consumer price inflation is forecast to fall back to 1.0% next year, as the effect of the sales tax hike disappears, before edging up again over the subsequent four years in response to a gradual strengthening in both domestic demand and labor cost pressures.

## WESTERN EUROPE: UPSWING REGAINS MOMENTUM

Widespread strengthening of economic growth in the second quarter.

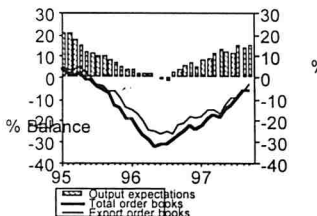
Economic growth in Western Europe gathered momentum during the second quarter of this year. Real GDP in the fifteen member countries of the European Union (EU) is estimated to have increased by 1.3% between the first and second quarters, a marked improvement on the sluggish performance in the previous six months (a 0.1% rise in 1997Q1 and a 0.2% rise in 1996Q4). Output in the second quarter was 2.4% higher than in the same period of last year, compared to 1.3% in the previous three months, which was still significantly below the corresponding growth rate for the US (3.4%) but a much stronger performance than that achieved by Japan, where real GDP was 0.3% lower than a year earlier. Most of the major EU economies experienced an acceleration in activity during the second quarter, with Italy, Germany, and the UK all achieving annualized quarterly growth rates of 4% or more, while French growth also showed a marked improvement. The main exception to this resurgence was Sweden, where the official figures show real GDP fell slightly for the second successive quarter, though the im-

Upturn appears to have maintained momentum in third quarter.

Improvement shown in most of the components of final demand suggest that this may merely be a technical recession. Outside the EU, Switzerland continued its recent recovery from a lengthy recession while Norway experienced a marked acceleration in growth on the back of robust investment and a strong rebound in consumer demand.

Recent monthly indicators point to a continuation of the upswing during the third quarter. Provisional estimates show relatively strong gains in industrial production in three of the four largest economies in the first two months of the third quarter. Industrial output in July and August combined was up a seasonally adjusted 3.7% on the second quarter average in Germany, 2.4% higher in France and 1.7% higher in the UK, but output in Italy rose by only 0.3% on the same comparison. Business survey results also show a strengthening in manufacturers' production expectations in most EU countries during the third quarter (see Figure 3). In the case of Germany, this improvement seems to be mainly attributable to external demand. The volume of new export orders received by German manufacturers in the first two months of the third quarter was 5.2% above the second quarter average, while domestic orders rose by only 0.7% over the same period and retail sales volume (excluding cars and petrol) fell by 4.6%. In France, there are signs that the strong upward trend in export orders has been reinforced by a revival in consumer demand. Average monthly household purchases of manufactured goods in July/August was up 3.4%, in volume terms, from the average for the second quarter. In the UK, consumer spending appears to have remained the mainstay of manufacturing activity, as manufacturers' export order books are still deteriorating. The continued expansion in activity has contributed to a reduction in unemployment in some economies, though unemployment remains at a relatively high level in comparison with the US and Japan. The EU unemployment rate, on the OECD standardized measure, was a seasonally adjusted 10.6% in August, unchanged from the previous month but down from 10.8% in the second quarter and 10.9% in the same period a year earlier. Unemployment remains on a downward trend in the UK, Spain and several of the smaller economies (e.g. Portugal, Ireland), and has stabilized in France, but has continued to edge higher in Germany and Italy.

Figure 3: EU Production Expectations & Order Books



Monetary policy reaches turning point.

Despite the high level of unemployment, the period of loose monetary policy in the core member states of the European exchange rate mechanism has come to an end. On October 9, two days after the Federal Labor Office released figures showing that German unemployment had risen to another post-war record of nearly 4.5 million (11.7% of the labor force) in September, the Bundesbank decided to raise interest

rates. The repo rate, the key money market rate, was raised by 30 basis points from 3% to 3.3%, the first rise in German official interest rates since July 1992. The increase was swiftly followed by the central banks of Austria, Belgium, Denmark, France, Luxembourg, and the Netherlands. The Bundesbank's explanation of the move indicated that it was motivated mainly by domestic considerations, with the sharp recovery in economic activity and some signs of inflationary pressures from the weaker DM pointing to the need for a less expansionary monetary policy stance. However, the statement by the Bank of France after its rate rise indicated that the concerted rise in interest rates was also partly motivated by the need to secure a convergence of European interest rates by the time that monetary union starts.

Although the differential between bond yields in the member states has narrowed sharply over the last twelve months, there is still a wide gap between short-term rates. Following the latest move, the repo, or equivalent, rate is now at exactly the same level, 3.3%, in Belgium, France, Germany, Luxembourg and the Netherlands but this is still well below the levels in Italy (6.02%) and Spain (5%, after a 25 basis points cut on 3 October). If the euro is introduced as planned in 1999, the countries adopting it will have the same official interest rate. Consequently, these gaps will have to narrow over the next fifteen months, and this is likely to come about as a result of a decline in Italian and Spanish rates and a further rise in interest rates in the core group. We expect short-term rates in continental Europe to gradually converge on a central rate of between 4% and 4.5% by the end of 1998.

#### Less restrictive fiscal stance.

A gradual rise in short-term interest rates in the core group should not pose a serious threat to the European recovery. The dampening influence of higher interest rates in Germany and its near-neighbors will be partly offset by lower rates in Italy, Spain and Portugal. In addition, fiscal policy, though still restrictive, should impose a less severe restraint than that experienced during the current year. Most of the 1998 budget proposals announced by European governments in recent weeks are still directed towards further fiscal consolidation by increases in indirect tax rates, removal of tax breaks, and cuts in spending plans. However, the austerity measures are generally more modest than those introduced over the last twelve months. On average, the general government financial deficit (not cyclically adjusted) of the 15 EU member states as a proportion of GDP is expected to decline by about 1.5 percentage points this year. Next year's reduction is expected to be about 0.5 percentage points. The marked reduction in budget deficits throughout Europe in 1997 means that most EU members, apart from Greece, are on course to achieve, or come very close to, the Maastricht target of 3.0% of GDP. But progress has by no means been smooth, and several EU economies may still face significant problems in maintaining fiscal rectitude in the coming years.

The Italian government's efforts to sustain its budget deficit reduction program ran into troubled waters in early October. The far-left Reconstructed Communists (RC) party's opposition to the pension reforms proposed in the 1998 budget led it to withdraw its support for the Olive Tree coalition, forcing the resignation of the Prodi administration. Fortunately, the crisis was short-lived, as the RC backed down and agreed to support the government. However, the government was forced to make concessions in order to regain the RC's parliamentary support, including a watering down of the proposals for welfare reform and an agreement to introduce legislation to reduce the working week to 35 hours in 2001, a year later than in France. The deal seems likely to ensure that the 1998 budget will be approved and keep the budget deficit on a downward track next year. However, it appears to have delayed, if not derailed, the government's plans for a structural reform of the pension system and, as in France, the planned reduction in the working week could pose a significant threat to the future competitiveness of the



Recovery spreads from exports to domestic demand.

Further moderate strengthening in European growth.

Still on track for EMU.

economy. The German government has also failed to secure parliamentary approval for its wide-spread tax reform package, but the coalition has agreed to push ahead with the valuable pre-election reduction in the solidarity tax from 7.5% to 5.5% in 1998.

In spite of these problems, the near-term prospects for the European economies are generally favorable. Exports are continuing to benefit from the improvement in competitiveness of the continental European economies, due to currency depreciation and cost moderation, and are likely to remain the main driving force for a while longer. Moreover, there are signs that the recovery in some economies is now being augmented by a strengthening in domestic demand. Although consumers remain cautious in the face of the persistently high levels of unemployment and modest wage settlements, private sector employment has begun to rise in many economies, with the notable exception of Germany, and consumer confidence has generally improved. Private consumption is already on an upward trend in Italy, the UK, Spain and several of the smaller economies, and this recovery is expected to spread to Germany and France in the coming year as the employment situation improves and the tax burden diminishes. Business investment in Germany and France has also been slow to respond to the recovery in output and rise in corporate profits. However, higher capacity utilization rates in the manufacturing sector, which now match or are close to their historical averages, and the more favorable demand outlook is expected to stimulate a pick-up in equipment investment over the next twelve months. Construction investment, however, may remain relatively weak across most of Europe, due in part to the squeeze on public sector programs from governments' fiscal consolidation efforts.

Overall we continue to forecast a moderate strengthening of economic growth in Western Europe in the coming year as the exported upswing spreads to consumer spending and business investment. Real GDP growth is forecast to improve from an estimated 2.5% this year to an upwardly revised 2.7% in 1998 before slowing to 2.6% in 1999. Stronger growth in the major economies of mainland Europe, notably Germany, France and Italy, is expected to more than compensate for the anticipated slowdown in the UK. An improving employment situation should lead to a modest drop in the current high rates of unemployment. The unemployment rate in Western Europe is expected to decline from an average of 10.9% this year to 10.7% in 1998 and 10.3% in 1999. Inflation appears to have reached a cyclical trough in most countries and is expected to pick-up as the effects of currency depreciation filter through and demand strengthens. However, the pace of inflation is expected to show a relatively moderate acceleration in view of the large amount of slack in European labor markets, generally subdued commodity prices and the continuing constraint of global competition. Consumer price inflation in Western Europe is forecast to edge up from 2.0% in 1997 to 2.4% in 1998 and expected to average 2.3% per year over the period 1999-2002.

Most of the members of the European Union still seem to be on course for participation in monetary union in 1999. Inflation rates and long-term interest rates in 14 of the 15 countries, the exception being Greece, meet the convergence guidelines. A combination of tough fiscal measures, statistical revisions and a strengthening recovery has brought most countries, again apart from Greece, within reach of the Maastricht fiscal deficit criteria. There are still some concerns about the sustainability of the budget deficit reductions, notably in the case of Italy. But we continue to expect that the criteria will, if necessary, be flexibly interpreted in order to ensure that EMU starts on schedule. We still anticipate that EMU will begin on time in January 1, 1999 and include 11 countries. Only the UK, Denmark and Sweden, who all have opt-outs, and Greece, who will not meet the convergence criteria for several more years, are unlikely to participate in the first wave. The recent political crisis in Italy indicates that it is by no means certain that there will be a smooth transition to EMU. At their meeting in Luxembourg in September,

the European Union finance ministers agreed that when the decision is made next May on the initial members of the monetary union, the bilateral conversion rates which will apply from January 1, 1999 will also be announced, eight months ahead of schedule. There is a risk that exchange rates may come under pressure in the run-up to monetary union if exchange markets feel that the proposed bilateral rates, which will probably be the current ERM central parities, are not sustainable.

## DEVELOPING ASIA: TIGERS TAKE TIME-OUT

Narendra Singh

Currency crisis will slow growth significantly.

Growth in the east Asian region has slowed down significantly and is expected to slacken further next year. The currency crisis that started with the floating of Thai baht on July 2 had a "contagion" effect on all the economies of the region. With the notable exception of China and Hong Kong, the currencies of all the major economies in the region have depreciated at least 10% since the beginning of the year. Thailand tops the list with over 50% devaluation; Indonesia, Philippines and Malaysia have seen devaluation in 30-35% range; currencies of Korea, Singapore and Taiwan have declined by 10-15%. In response to the crisis, Thailand has worked out a stand-by agreement with IMF although it is arguable if the amount of credit line (\$17.2 billion) will suffice to stabilize the currency. There were failed attempts at toppling the Hong Kong dollar. The subsequent rise in interest rates led to a sharp decline in the Hang Seng index. The currency contagion changed into a stock market contagion as financial markets across the globe fell in unison. An IMF agreement to stabilize the Indonesian rupiah in late October has had a calming effect on the markets although at the time of writing this report the financial markets remain jittery.

Asian crisis similar to 1994's "Tequila effect."

The Asian crisis bears a strong resemblance to Latin "Tequila effect" of late 1994. In both cases the crash followed a period of prolonged economic boom. The high growth potential of the region and a perception (encouraged by the central banks) that currency risks were negligible attracted foreign capital looking for high rate of return. Several years of high current account deficit (supported by large capital inflows) set the stage of the currency crisis. A significant amount of capital, especially in the case of Thailand, found its way into the real estate sector. In the case of Indonesia, the foreign capital financed reckless growth in corporate debt. To compound matters, the regulatory machinery in the region has proven inadequate in monitoring the quality of loans the banks and financial companies have made (with a significant part funded by foreign money). For many investors and debtors, lulled by the years of currency stability, the float came as a shock. Because the cost of hedging for currency volatility significantly exceeded the perceived benefit or potential loss, very few were adequately covered. As a result a run on the currencies soon became a stampede. The opaqueness of the financial system and suspicion that political interference, rather than rational policy, is guiding government decisions did further damage to investor confidence, and has prolonged the currency slide.

Domestic demand will weaken, and imports will be squeezed.

There have been predictable consequences of the crisis. Consumer demand has weakened in most countries. For instance, in Thailand demand of durables has plummeted with sales of new cars falling 70% in September. The devaluation-induced credit crunch, high interest rates, lack of financing and cut back in government spending would result in a very slow 1998. Inflation is picking up and will probably peak by the middle of next year. Currency depreciation will continue for another 3 to 4 months as investor confidence, both domestic and foreign, stabilizes. Government budgets

Exports will be the key to growth.

The Korean economy looks fragile, with a weakened banking sector.

The Hong Kong dollar should resist speculative attacks.

Recovery expected by 1999 for most economies.

across the region for 1998 are tailored to squeeze imports. Large infrastructure projects with significant import content or foreign-loan content have been put on hold. That is bad news for construction sector which is already slated for a slowdown due to excess capacity in the commercial sector.

Exports will be a key driver for growth. Since intra-ASEAN-4 exports is only 6% of their total exports, the slowdown in domestic demand will not be reinforced by slowing exports. However, continued growth in US and Europe will be crucial in preventing an outright regional recession. Since the devaluation far exceeds any overvaluation the currencies of Thailand, Indonesia and Malaysia suffered prior to the crisis, they will enjoy a large price advantage. The big risk is the outlook for Japan which accounts for 18% of exports from the ASEAN-4. However, even a modest increase in the Japanese market share translates to large increase in exports for these economies.

Outside the ASEAN-4, the Korean economy looks the most fragile. The Korean economy is on the declining phase of the business cycle and appears close to its bottom. Weak exports in 1996 and sluggish domestic demand this year has exposed the inefficiencies of the large conglomerates. The result is several high profile corporate bankruptcies which in turn has led to deterioration of the banking sector's assets. The Bank of Korea has taken 49% stake in Korea First Bank, one of the largest banks, to prevent its collapse and has offered to bail out 19 struggling investment banks in exchange for more management control. However, the timing could not be worse for such a move. The won is sliding and is vulnerable to further speculative attack. Foreign exchange reserves are running low partly due to futile attempts to contain the currency's decline. Nonetheless, a weak won, up to a point, is needed to help Korea export its way out of the slowdown. If exports, currently growing above 15%, flounder, the won's fate would be sealed and Korea would have to knock on the IMF's doors. This might happen after the December presidential elections.

Another risk over the next 3-6 months is the continued pressure on the Hong Kong dollar. The decline in stock market and the increase in interest rates will result in slowdown in domestic demand, particularly consumption spending. We do not expect the HKMA to buckle under pressure, especially in the first year of Hong Kong's return to Mainland China. It is politically too costly. In any case, there is no economic justification for devaluing Hong Kong's currency although that has not been enough to prevent speculative attacks.

Economic recovery for the region as a whole is expected by 1999 although growth in Thailand is expected stay anemic until 2000. In the coming years, capital flows into the region will be more discriminating. However, since the region does not suffer high fiscal deficit, management of monetary policy in floating exchange rate regimes will be easier. The crisis is a watershed for the financial sector of the region. Financial sector regulations are being tightened in the badly affected countries. Although floating exchange rates open the possibility of competitive devaluation, the risk of that event is very small. There has been speculation that China may be forced to devalue its currency in two years time to regain price competitiveness. This argument is untenable. China's manufacturing wages are still very low compared to the ASEAN countries and its cost advantage is not going to be eroded by the recent devaluations.

Below are some selected country GDP growth and exchange rate forecasts:

Change)	GDP Growth Rate			Avg Exch Rate, Local/US\$ (%)			
	1997	1998	1999	1996 (level)	1997	1998	1999
Thailand	1.5%	1.0%	4.0%	25.34	22.8%	27.0%	-1.9%
Philippines	4.5%	4.0%	5.5%	26.22	12.0%	23.5%	5.1%
Malaysia	6.5%	4.5%	6.4%	2.52	10.5%	21.2%	-0.9%
Indonesia	6.0%	4.9%	6.5%	2342.3	18.2%	9.6%	0.0%
Korea	5.5%	4.8%	6.2%	804.5	12.7%	13.7%	-2.4%
Singapore	6.5%	7.0%	7.3%	1.41	5.0%	6.2%	-5.4%
Taiwan	6.4%	6.3%	6.1%	27.2	64.4%	3.8%	-7.1%
Hong Kong	5.6%	4.5%	5.5%	7.73	0.0%	0.0%	-0.1%

## LATIN AMERICA: HOW VULNERABLE IS LATIN AMERICA TO CURRENCY CRISES?

Darryl McLeod

Latin American economies better-placed to withstand speculative pressures.

Some current account strains, but no domestic bubbles.

Banking sectors more restrained.

In October, Latin American equity markets absorbed yet another volley of negative sentiment and profit taking provoked by Asian currency woes. How vulnerable is Latin America to an Asian-style currency meltdown? Apart from Brazil, the answer is not very, at least right now. Fortunately, Asia's crisis catches the big Latin economies in a fairly defensible stage in their economic cycle. We expect growth to slow in some and others to show symptoms of "baptism," but none will become seriously ill.

Analysts like to point to current account deficits and appreciated currencies as key vulnerability indicators—and Latin America has some of these. But what made Asia's economies vulnerable to devaluation is not problems with their traded goods sectors—Latin Americans can only wish for the export performance of most Asian countries. Asia's economic woes reflect the impact of a long economic expansion on non-traded or closed sectors such as real estate and domestic banking. Many Asian currencies have been appreciating against the dollar for ten years or more. It was not the level but the direction of change that banks and investors got used to. Hong Kong and Thailand, for example, accumulated mountains of debt secured by steadily rising real estate values and real wage increases. These asset values would be devastated by devaluation, so Asian governments resisted adjustment as long as possible. More long term loans accumulated and now these illiquid liabilities have to be slowly unwound dragging down many lenders in the process. In this respect a number of Asian economies caught the Japanese long boom disease.

Latin America's economies have many problems, but a long real estate boom is not one of them. Nor have any of their currencies—outside of Argentina and Chile—appreciated steadily for many years. Argentina and Mexico are only two years out of a deep recession. Their banks have barely had time to restructure old loans, and in Mexico's case, much less take on new ones. Brazil's expansion is a year older, but its banking system is also just emerging from a wrenching crisis caused by rapid disinflation and fiscal reform. Consumer lending is just beginning to grow, but Brazil's authorities are always imposing this or that restriction on any new form of credit growth. Just a year out of recession, Venezuela's banks also have yet to begin any serious lending. In this re-

spect, Latin America's recent banking crises have largely inoculated them against another major financial collapse anytime soon.

It is also important to recall that an OECD report released in mid 1995 declared that Mexico's crisis would be similar to Japan's with a long banking crisis inhibiting growth for many years. This turned out to be an incorrect assessment. Mexico's recession was very deep, but its recovery was also very rapid. Real GDP is now above pre-crisis levels and growing at over 6% annually. One reason for the quick recovery was that Mexico's monetary authorities knew how to work themselves out of debt crisis in the aftermath of devaluations. Chile and Mexico both learned about these problems in the early 1980s the hard way. And, perhaps more important, the response of all four big Latin countries to banking crises has been to throw open the doors further to foreign banks, adopt international regulatory standards and push for further financial deepening through pension reform and other measures. These are measures many Asian countries have been reluctant to take, despite their outward oriented development strategies.

Some need to slow demand growth to stabilize current account deficits.

Like the emerging Asian countries, several Latin American countries have growing current account deficits and strong currencies. But this expansion has not lasted long enough to generate deficits much above 3% of GDP — Brazil's 4.3% deficit is the largest of the big four. Venezuela still has a big trade surplus. However, the major economies are vulnerable because of their widening trade deficits. Argentina and Mexico are both growing at 6-8% annually, but imports are growing much faster than exports. This is a good time for both economies to slow to 4-5% growth and bring import growth back into line with exports. Both Argentina and Mexico can and probably should slow growth enough to stabilize their current accounts, neither of which exceeds 3% of GDP. The Mexican peso is too strong and should weaken 5-10% over the next three months, an additional safety valve to diffuse pressure on its currency. Argentina would rather raise interest rates than weaken its peso, but it too has a system for cooling import growth.

Brazil has already slowed growth enough to stabilize its trade account. It needs to stay the course and prepare for a likely speculative run on its currency. With over \$50 billion in reserves and a fearless Central Bank, Brazil can withstand a long siege. Initially the authorities will raise interest rates and restrict credit. If reserve losses mount they will also accelerate the monthly depreciation of the real. However, we don't expect a long crisis. With its equity market still up over 60% in dollar terms this year, Brazil can absorb a sharp correction in equity prices. Once share prices fall, investors will again find Brazil's massive privatization program irresistible and capital will come pouring back into its equity market. With \$50-70 billion in privatization revenues over the next three years, Brazil can finance \$30 billion dollar plus current account deficits and defend its currency for at least another two years. In the meantime, the threat of an Asia style crisis will help President Cardoso push through the key reforms he needs to consolidate Brazil's stabilization program.

For these reasons, Asia's currency crisis is unlikely to cause more than a sharp correction in Latin American equity markets and perhaps an overdue depreciation of the Mexican peso. Mexico and Argentina need to use the threat of a currency crisis as a reason to slow GDP and import growth to more sustainable levels. This is a prudent response because within a year or two the major Latin economies would have large current account deficits just as they enter national election years. Had the Asian crisis hit in 1999 or 2000, the major Latin economies would be much more vulnerable. Small adjustments to growth and exchange rates now will help sustain the current expansion longer. Meanwhile, watching Asia's travails the authorities can take preventive measures that can make a major currency crisis less likely and less costly.

How much will growth have to slow?

Normally growth with rising current account deficits would continue for some time. But Asia's crisis will make investors less willing to finance current account deficits. Asia's currency crisis caught the big Latin American countries fairly early in their recovery from the 1994-95 recessions. This is fortunate because none have accumulated big private local currency lending in real estate and other non-traded goods sectors. We expect Latin America's major economies — except Brazil and Mexico — to slow growth next year in order to stabilize their trade deficits.

## RUSSIA: DAMAGE TO ECONOMY OF RECENT TURBULENCE IN WORLD FINANCIAL MARKETS IS LIKELY TO BE LIMITED

*Martin J. Kohn*

The negative effects on Russia of the recent turmoil in world stock markets are likely to be limited.

Many economic developments in recent months have been moderately encouraging. But the key question at the moment is what impact the recent turmoil in world financial markets will have on the Russian economy. The answer of course greatly depends on how much longer and how much further stocks and related financial assets prices drop. However, even if financial markets do not quickly recover, the negative effects on Russia are likely to be relatively limited. Certainly, no return to galloping inflation and downward spiraling output is to be expected.

Russian stock prices plunged in late October but remained over twice as high as they were at the end of 1996.

The contagion of the fallop in world stock markets hit Russia with particular force on October 28, when stock prices there fell almost 20%. Much of the lost ground was regained the next day but prices again fell on October 30. On the latter date, prices were only 12% below their October 27 level. Compared to their peak on October 6, they were 25% lower. But the value of Russian stocks on October 30 was more than double what it was at the end of 1996. Consequently, given the previous boom, the recent downturn, assuming it is now arrested, has not had a devastating effect on the value of Russian equity holdings.

The drop in stock prices around the world will make it much harder to borrow abroad.

Perhaps the most harmful effect on the economy of the plunge in stock prices around the world is not the decline in Russian stocks, but the difficulties it has created for Russian borrowing abroad. The turbulence in the world's financial markets will increase the reluctance of foreign lenders to make loans to such a relatively high-risk country. This will at a minimum increase the cost to the government of financing its budget deficit, almost half of which is now covered by loans from abroad. In addition, major municipalities, banks, and enterprises which have been borrowing in world capital markets or planning to do so will at least temporarily be unable to obtain loans abroad except at prohibitive cost. As a result, the evidently impending economic recovery could be somewhat weakened.

But Russia is likely to escape a currency crisis.

However, Russia is likely to escape some potentially dire consequences of recent events that threaten other countries. For example, a currency crisis seems unlikely. With the current account in surplus, inflation under control, and the ruble in purchasing power parity terms still undervalued, the recent stability of the ruble is likely to continue.

Nor is there likely to be a return to high inflation and plunging output.

Furthermore, the troubles in the financial world are not likely to cause a resumption of the decline in production. The hoped-for expansion of bank lending to productive enterprises may fail to materialize, as banks continue to invest heavily in assets such as government securities, the yields on which can be expected to rise. But, while the absence of such lending may hinder renewed investment and economic growth, it would

Inflation has continued to slow and GDP has leveled off.

The ruble has depreciated slightly.

However, the trade balance still shows a large surplus, and external debt has been reshuffled.

The Duma abandoned its plans for a no-confidence vote, but is hostile to the government's economic policies.

not likely push output down, given that bank lending has in the past played a very minor role in financing production.

As for the positive economic developments referred to above, heading the list of good economic news is the continued slowing of inflation. Consumer prices in the first nine months of 1997 rose at an annual rate of only 12%. This compares favorably with last year when prices rose about 22%. On the production front, the long-anticipated recovery has again failed to materialize this year. However, the prolonged decline in output that began in 1990, appears to have ended. As officially reported, GDP was a marginal 0.2% higher in the first nine months this year compared with the same period in 1996.

The external economic and financial position has generally continued to move in a favorable direction this year. Largely reflecting the ongoing slowdown in inflation, the ruble in nominal terms depreciated a modest 6% against the US dollar from the end of last year through late October. In real terms — that is, adjusted for inflation in Russia relative to inflation in the US — the ruble has appreciated slightly, by about 2%, vis-à-vis the dollar. In August, in what was largely a symbolic act in recognition and celebration of Russia's apparent triumph over inflation and its achievement of external economic stability, the government announced that the ruble will be re-dominated as of January 1 next year. On that date, three zeroes will be lopped off the ruble, with one new ruble worth 1,000 old rubles.

The trade balance continues to run a sizable surplus, equal to \$14.3 billion in January-August, the same as in the first eight months last year. The country's hard currency and gold reserves have risen about 50% this year, to almost \$24 billion at the end of September from almost \$16 billion at the end of 1996. In early October, Russia strengthened its external financial position when it signed a rescheduling agreement that had been under negotiation for many years with its commercial bank creditors in the "London Club." Under the agreement, Russia is granted a postponement of the payment of the \$24 billion in principal and most of the \$9 billion in interest it now owes these banks until 2002. Payments will then extend over an 18 year period. In addition, the inflow of foreign direct investment (FDI) picked up sharply in the first half of this year, rising to over \$2 billion dollars, a four-fold increase over FDI in the first six months of 1996. However, the total stock of FDI remains low proportionate to Russia's size and needs — no more than \$8 billion.

Political developments recently took a favorable turn, at least from the standpoint of President Boris Yeltsin and his government. The Duma (the lower and more powerful of Russia's two houses of parliament) in October first postponed and then called off a vote of no confidence in the government, thus giving the government more breathing room to pursue its reform agenda. The basic impetus behind the abortive effort to hold a no-confidence vote was the hostility of a majority of the Duma, which is dominated by communists and their allies, toward the government's aim of creating a market economy. The specific factors that appear to have pushed the Duma to the brink of a confrontation with the government this fall included its opposition to proposed spending cuts in the government's draft 1998 budget (which the Duma rejected in early October) and antagonism toward powerful First Deputy Prime Minister Anatoly Chubais.

The government's proposed tax code, which the Duma had passed in principle on a "first reading" in June, was another point of contention between the Duma and the government. But attacks on the tax code were spearheaded not by the communists, but by the pro-market reform Yabloko party — headed by Gregory Yavlinskiy — which holds few seats in the Duma. The tax code is a key element of the government's reform program and seeks to greatly simplify Russia's tax system, make it more equitable, and

Yeltsin made clear that he intended to back the government.

Institutional reform has made little progress.

Moderate GDP growth is expected next year, while inflation will continue to slow.

ease the tax burden on Russia's enterprises. Significant revisions may in fact be made to the draft tax code in the next few months.

The communists ultimately backed off from a no-confidence vote when Yeltsin made clear his intent to stand by his government and its program and indicated that the price of a successful no-confidence vote would be the dissolution of the parliament. With no viable or attractive alternative program of their own, they evidently feared defeat in the ensuing elections for a new parliament. The withdrawal of the motion for a vote of no confidence serves as a reminder of the great power that Yeltsin, as long as he stays healthy, can wield under Russia's constitution and of the concomitant weakness of the Duma.

Despite the advances in economic stabilization and the apparent end to the long slide in GDP, the basic institutional reform required to underpin a viable market economy in the long run appears to have made little progress. For example:

- There is little evidence of any significant gains in rooting out corruption.
- Tax collection remains seriously deficient. After a substantial improvement in the second quarter, the share of taxes actually paid relative to what was supposed to have been paid fell sharply in the third quarter. For the first three quarters as a whole, the ratio was only slightly over 50%.
- Wage arrears, both a major source of popular discontent and a symptom of institutional shortcomings such as inadequate tax collection and lack of creditor rights, have risen 15% since the end of 1996, despite the government promises to drastically reduce them this year.

As regards how the economy will fare for the rest of this year and next — assuming the accuracy of our prognosis of limited damage from the world-wide plunge in stock prices in October — real GDP in 1997 is now expected to be about what it was last year. Moderate growth of about 2% is anticipated for 1998. The official government inflation target in 1998 is 5%, but prices are likely to rise somewhat faster. However, inflation next year will almost certainly be below this year's anticipated 12%. As long as Yeltsin remains in the robust health he appears to have enjoyed over the last few months, no serious political challenge to the present government seems likely. However, progress on structural reform will nevertheless continue to be slow.

## EASTERN EUROPE: TRANSFER OF POWER IN POLAND WILL HAVE LITTLE IMPACT ON ECONOMIC POLICY

*Andrzej Roudot*

The new Polish government will not alter the country's pro-market economic policies.

But market reforms are under fire in Romania.

In a major political development, a new government will soon take over in Poland as a result of the parliamentary elections there in September. What is most striking about the impending transfer of power is how little difference it will make to the pro-market economic policies that have prevailed for several years. In Poland, as in the Czech Republic and Hungary, there is broad agreement among competing political interests on the market orientation of economic policy and, for the most part, on the need to maintain strong stabilization measures.

In Romania, by contrast, the drive to introduce market reforms by the government that took office late last year has stalled in the face of rising popular discontent, indicating



The Solidarity group was the big winner in Poland's parliamentary elections.

The UW's economic views are actually closer to those of the former communists than to those of the AWS.

Economic issues played a minor role in determining the outcome of the election.

The new government's most urgent task is to reduce the current account deficit.

the absence of basic agreement on the thrust of economic policy. More encouragingly, the government that took over in Bulgaria amidst an economic crisis earlier this year continues to enjoy popular support despite the stabilization measures it has imposed.

In Poland, which has by far the largest population and GDP in Eastern Europe, the ruling coalition of the Democratic Left Alliance (SLD), which is the successor to the former communists, and the Polish Peasant Party (PSL) failed to win enough seats in the elections to retain its hold on the government. The big winner was the Solidarity Electoral Action (AWS), which captured 43.7% of the seats in the Sejm, the more powerful of the two houses that constitute the Polish parliament. The new government will be a coalition of the AWS and the Freedom Union (UW), a strongly pro-market party that won 13% of the Sejm seats. The UW head, Leszek Balcrowicz, will occupy the post of finance minister and also will be the deputy prime minister in charge of economic affairs. Balcrowicz is the architect of the shock therapy reforms introduced in 1990 and uncompromisingly favors market reform and strong stabilization measures.

The AWS-UW coalition is somewhat paradoxical in that, with respect to economic policy, the UW is closer to the SLD than to the AWS. The economic policy of the outgoing government, which was dominated by the SLD, was a continuation of Balcrowicz's shock therapy reforms. The emphasis was on privatization and macroeconomic stability maintained through strict fiscal and monetary policies. The AWS, on the other hand, appears divided on economic policy. The party is basically pro-market, but many of its factions are primarily interested in defending workers' rights and increasing the role of trade unions. What the AWS and the UW mainly have in common is hostility toward the former communists.

However, while the AWS and the UW may seem strange economic bedfellows, the UW's significant role in economic policy is likely to neutralize substantially the influence of the less market-oriented elements in the AWS. This seems particularly likely since Prime Minister-designate Jerzy Buzek, an AWS member, will evidently support Balcrowicz.

Economic issues played a minor role in determining the outcome of the elections. The SLD-PSL coalition was turned out of office even though the economy — one of the fastest growing in Europe — has done very well under its stewardship. Real GDP rose 7.3% in the first half this year, above the already high 6.1% increase last year. Industrial production grew 11.3% in the first nine months. The jobless rate fell from 13.5% in September 1996 to 10.6% this September, while real wages increased about 7.5% over the same period. Inflation declined to 9.6% in January-September against 14.3% in the corresponding period last year.

Several factors explain why the former communists lost power despite their impressive economic record: there is widespread distrust of individuals and groups that in the past were communists or pro-communist; Poland remains a predominantly Catholic country, and the AWS took a strongly pro-Catholic stance; and, perhaps most important, the pro-Solidarity groups, which had been badly fragmented, unified in June 1996 with the formation of the AWS.

The election results are not expected to lead to major economic policy changes or threaten Poland's stability. GDP growth will continue and inflation will slow. The immediate economic task of the new government will be to curb the potentially destabilizing growth of the current account deficit, which may rise from 1% of GDP last year to 5% this year. It is almost certain that the new government will try to implement the outgoing government's plans to tighten fiscal policy and will support the already tight monetary policy of the central bank.

The Czech Republic is in the midst of a growth slowdown . . .

. . . which could topple the ruling coalition.

But Czech GDP is expected to grow more rapidly next year.

Growth in Hungary has been accelerating this year.

Upcoming Hungarian elections are not likely to produce major changes in economic policy.

Romania's economic reform program has stalled in the face of rising popular discontent.

In the Czech Republic, economic growth continues to be slower this year than last. In the first half this year real GDP growth stood at 1.3%, substantially lower than the 4.1% for the whole of 1996. Inflation, which declined in January-May due to tight monetary policy, accelerated sharply in June, partly as a result of the May currency crisis, and again in July, largely because of the liberalization of rents and energy prices. Overall in January-September consumer prices rose 8.6%, faster than the 7.1% increase in the corresponding period last year.

The slowdown in economic growth contributed to a substantial loss of popularity of the Václav Klaus government. This may result in the collapse of the ruling coalition, early elections, and formation of a new government headed by the Social Democratic Party, currently the second largest in the parliament. A change of government may lead to some loosening of fiscal policy and introduction of protectionist measures, but is unlikely to bring about any drastic policy changes.

Despite growing inflation and balance of payments problems, the Czech crown appears to be strengthening slightly. The economic slowdown this year does not seem to reflect any fundamental unsoundness in the economy. Next year GDP growth is expected to accelerate.

The Hungarian economy appears to have recovered from the recession caused by the austerity program that was launched in March 1995. Many leading macroeconomic indicators, including GDP and investment growth, have risen more rapidly than was generally expected. Economic growth accelerated in the second quarter this year compared with the first quarter and last year as a whole. GDP grew 4.3% year-on-year in the second quarter against 2.1% in the first quarter and 1% in 1997. Overall in the first half of this year GDP rose 3.2%. From end-December to end-September consumer prices rose 14.5%, slightly lower than the 16.3% growth in the corresponding period last year. Because of substantial decreases in the large current account deficit and external debt in 1996 and this year, the forint has become much stronger.

The recovery brought about a rise in real wages. However, this rise has not so far offset the sharp fall in wages in 1995-1996 caused by the austerity program. As a result of the austerity measures, the popularity of the Socialist party, the senior partner in the ruling coalition, has fallen substantially. The Socialists' representation in the parliament, where they hold about 54% of the seats, could decrease considerably after the elections scheduled for next May. However, as in Poland and the Czech Republic, changes in the government after the elections are not likely to lead to major policy changes.

In Romania, the reform program introduced by the government that replaced the former communists a year ago has stalled. The initial support the government enjoyed has evaporated because of the discontent the new regime's stabilization program has generated. In particular, little progress has been made in the closure of financially ailing enterprises — a key element in the government's industrial restructuring plan. Furthermore, the coalition government has been weakened by the threatened defection of the ethnic Hungarian party because of legislation it perceives as anti-Hungarian. Prospects that the reform program will revive next year are not promising. However, pressure from international lending organizations could compel the government to get the reform program back on track. GDP is expected to be at best flat this year. On the plus side, inflation has been relatively low during the last several months compared to earlier in the year following price liberalization.

But the Bulgarian government continues to enjoy public support despite the stabilization measures it has imposed.

Eastern Europe's economic outlook remains generally favorable despite the plunge in stock prices.

By contrast, the Bulgarian government was able to retain the public support of its stabilization policy. Bulgaria has continued to make progress in recent months in stabilizing its economy, which was hit by a severe crisis last year. Output continues to decline, but at a slower rate than earlier in the year. In the second quarter, the year-on-year GDP decline slowed to 8.3% from 11.7% in the first quarter. The overall GDP decline in the first half amounted to 9.8%. Since April, monthly price growth has remained substantially lower than in the corresponding months last year. The Bulgarian government has kept its promise to accelerate privatization, which is not only a necessary element of the transition to a market economy but also a vital source of revenue to help service the huge external debt.

As elsewhere, stock prices in Eastern Europe have plummeted recently. One result of the decline could be short-term instability of currencies there, particularly in Poland and Hungary. However, the turbulence in East European financial markets is not expected to alter the generally favorable economic outlook for most of the countries in the region.

## MIDDLE EAST: REAL GROWTH REMAINS BUOYANT, BUT THE PACE IS GENERALLY SLOWER AMONG OIL EXPORTERS

Karanta Kailey

Real economic growth among Middle Eastern oil exporters remains generally buoyant during the past three quarters, but the pace was slower than in 1996.

Growth in non-oil Middle East, except for Israel, has largely remained robust during 1997.

Although average oil prices during the first three quarters of 1997 have underperformed the 1996 average, they still remained stronger than those of 1995 and 1994. Accordingly, real output growth in 1997 continued its positive trend among the Middle East oil exporters but the pace of growth was slower than in 1996. Saudi Arabia and the other Gulf Cooperation Council (GCC) economies which are more oil-dependent and less diversified than the rest of the Middle East are estimated to underperform the regional average in 1997. Economic growth in 1998 for the GCC in general will average only slightly better than the 1997 average. Two notable exceptions in the sub-region are Qatar and Oman where growth in 1998 will be fueled by increased export of liquefied natural gas. In Iran, despite economic sanctions by the United States, economic growth has remained positive and the election of Mr. Khatami to the presidency has raised new hopes for a better economic environment and improved relations with the west.

In Turkey, economic activity accelerated during the summer months with industrial production growing at double digit rates and real GDP averaging 6.6% during the first half of 1997. However, Turkey continues to register large fiscal deficits and higher rates of inflation, creating a macroeconomic environment unlikely to be compatible with sustained growth. In the Levant, Jordan continues to benefit from a relatively broad-based economic reform program. Amid low inflation and declining fiscal and external deficits, economic growth in 1997 remains robust. As for Israel, the economy seems to have entered a state of slow growth resulting from the high interest rate policy of the Bank of Israel. Economic growth in 1996 was faster than sustainable and the Bank's concerns about inflation caused it to keep interest rates high. Growth so far in 1997 has been lackluster and we forecast continued slow growth during 1998 as monetary policy is likely to remain focused on inflation to the exclusion of other concerns such as growth.

Inflationary pressures continue to ease during 1997 in the GCC but consumer price inflation remains in double digits in Iran and Turkey.

The peace process remains stalled but it is not dead.

The increase in consumer price inflation in 1995 was partly a result of reductions in government subsidies and the subsequent increase in the prices of publicly supplied goods and services. The absence of these factors in 1996, the general decline in the price of manufactured goods and the strength of the dollar to which most Gulf currencies are pegged, combined to bring average inflation down to below 3% in the GCC. Although the surge in consumer prices has abated, somewhat in Iran, the rate of increase will remain in double digits. In Turkey, inflation has shown a marked tendency to accelerate, rising to nearly 90% in September from about 80% in June. While Iran will continue to experience a gradual reduction in 1997 and 1998, inflation is expected to stay high in Turkey in 1997 and 1998 and will only slowdown in the medium term.

Events in the past twelve months indicate that Arab and Jewish extremists have succeeded in putting a temporary halt to the peace process. While the relationship between Israel and the Palestinian Authority is at an all time low, we do not believe that the peace process is dead. Both sides were driven in the first place to the bargaining table in Oslo for pragmatic reasons: both Israelis and Palestinians realized that the cost of the continued war was higher than peace. The events of the past months have not changed this basic fact. Israelis, while concerned about security, understand that continued occupation is too costly for the country. The Palestinians know that they will not be rescued by outside Arab countries or other powers, and must therefore deal with Israel if they are to create a stable society with self-rule. Thus, despite the current stalemate, both sides have large incentives to continue the process.

## AFRICA: GROWTH STILL LARGELY DETERMINED BY WEATHER CONDITIONS AND COMMODITY MARKETS

Most major economies in the region have registered positive growth rates during the first half of 1997.

Except for Morocco where the effects of the drought have pushed real GDP growth to near anemic rates, growth in most of the major economies in the region has generally been on the upward trend in 1997. Continued reform efforts in Egypt are beginning to pay off as economic growth surges above 5% for the second consecutive year with CPI averaging below 7% for the first time during the 1990s. Growth in Algeria has been robust due to buoyant oil prices and macroeconomic reforms but the economic fortunes of this nation will continue to depend not only on structural reforms but also on developments in the political sphere. Led by a strong investment growth, especially in the oil sector, economic activity in Algeria will remain strong in the short to medium term.

In sub-Saharan Africa, while central Africa continues to stagnate, favorable weather and buoyant commodity prices have provided the momentum for increased economic activity particularly in Côte d'Ivoire, Uganda and Southern African countries of Botswana and Malawi. Growth in South Africa, the region's economic power, remains positive but subdued in 1997 while Nigeria's economy remains captive to the seemingly unending constitutional crisis and the persistent weakness in macroeconomic and structural policies.

Inflation is still a problem for some countries.

Consumer price inflation has remained high despite some success in fiscal stabilization and a slow down in the growth of money supply. However, serious problems remain as several countries continue to be ravaged by high rates of inflation. Angola and the Democratic Republic of Congo still report hyperinflationary rates while Ghana, Madagascar and Nigeria still suffer under double digit rates in consumer price inflation.

The recent turbulence in global equity markets has not spared some of Africa's emerging markets.

The crisis which began in Asian equity markets and spread like wild fire to other world equity markets largely affected those African markets with significant foreign investor activity. These were South Africa, Egypt and Zimbabwe where share prices tumbled following the global set-off and registered corrections in line with the rest of the battered markets. While we do not anticipate any significant long term effect on any of these economies, we see a potential impact on the monetary policy side of the real economy. Bond and stock market outflows, particularly in South Africa, will have a negative impact on the monetary policy side in as much as it may cause a further delay in further interest rate cuts and a possible slow down in economic activity.



# Executive Summary

## World Outlook

Excerpted from *World Economic Outlook*, WEFA  
November 3, 1997, © WEFA, Inc.

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### In Brief

- The troubles in South East Asia will undoubtedly have a negative impact on the world economy. Although the troubles will be severe in the South East Asian economies themselves, at present it seems unlikely that they will be large enough to provoke a global crisis. The countries embroiled in the currency crisis account for a relatively small proportion of world output and trade, and economic growth in the rest of the world seems to have gained sufficient momentum to withstand the shock. World output (measured in purchasing power parity terms) still seems to be on course to expand at a rate of around 3.5% in both 1997 and 1998, with upward revisions to the growth projections for North America, Western Europe and Latin America offsetting a weaker performance in Japan and developing Asia.
- Economic growth in North America has been somewhat stronger than expected, with the prolonged upturn in the US maintaining a robust pace and the upswing in Canada continuing to gather speed. An upward drift in inflation over the next twelve months is expected to induce the Fed to raise interest rates again, to slow economic growth to a more sustainable 2.3% - 2.5% pace from 1998 - 2002, after a strong 3.6% gain in 1997.
- In Japan, the impact of the fiscal tightening appears to be more severe and lasting longer than was originally anticipated. We still expect a gradual recovery in activity as the fiscal drag diminishes, with real GDP growth forecast to rise from only 0.8% this year to 1.9% in 1998. However, there is a risk that the support to the recovery from net exports will fall short of expectations if there is a more severe and sustained slowdown in developing Asia.
- The export-led recovery in continental Europe seems to be picking up steam, and the strength in exports has started to spread into domestic demand. The domestic demand driven UK economy continues to expand at a robust rate. Real GDP growth in Western Europe as a whole is forecast to improve from an estimated 2.5% this year to an upwardly revised 2.7% in 1998, with a more broadly based upswing in mainland Europe more than compensating for a policy-induced slowdown in the UK.
- Latin America, like the Pacific Basin, has several economies with current account deficits and strong currencies. But the recovery in the largest Latin American economies from the 1994-95 recessions has not lasted long enough to generate deficits much above 3% of GDP. Moreover, none of these countries have accumulated big private local currency lending in real estate and other non-traded goods sectors. Nonetheless, we expect Latin America's major economies -- except Mexico -- to slow growth next year in order to stabilize their trade deficits.

## Forecast Summary Table

TABLE 1.0 WORLD FORECAST SUMMARY

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1992-1996	1997-2002	1992-2002
REAL GDP (PERCENT CHANGE)													
WORLD (PPP WEIGHTS)	1.9	3.1	2.9	3.4	3.4	3.9	3.9	3.9	3.9	4.0	2.7	3.6	3.3
WORLD (1990 BASE)	0.8	2.2	2.3	2.8	3.0	3.0	3.3	3.3	3.3	3.4	1.8	3.3	2.6
DEVELOPED COUNTRIES	0.9	2.7	2.1	2.5	2.6	2.8	2.8	2.9	2.9	2.9	1.9	2.5	2.3
UNITED STATES	2.3	3.5	2.0	2.8	3.6	2.5	2.4	2.3	2.3	2.3	2.6	2.4	2.6
CANADA	2.2	4.1	2.3	1.5	3.6	3.4	3.0	2.9	3.0	3.2	2.2	3.1	2.7
JAPAN	0.3	0.7	1.3	3.7	0.8	1.9	2.8	2.6	2.2	2.4	1.4	2.4	1.8
WESTERN EUROPE	-0.3	2.7	2.5	1.8	2.8	2.7	2.8	2.5	2.5	2.5	1.5	2.6	2.1
GERMANY	-1.2	2.8	1.9	1.4	2.4	2.8	2.7	2.7	2.6	2.5	1.3	2.7	2.0
FRANCE	-1.3	2.8	2.1	1.5	2.2	2.7	2.5	2.1	2.1	2.1	1.2	2.3	1.8
ITALY	-1.2	2.1	3.0	0.7	1.0	2.1	2.2	2.2	1.9	2.0	1.0	2.1	1.5
UNITED KINGDOM	2.1	4.3	2.7	2.3	3.5	2.5	2.1	2.2	2.4	2.5	2.2	2.3	2.4
AFRICA	1.8	2.6	2.9	4.8	4.1	4.9	5.0	5.1	5.2	5.4	2.8	5.1	4.0
LATIN AMERICA, EXCL. MEXICO	4.8	9.0	5.4	3.9	2.0	3.4	3.7	4.4	4.2	4.9	3.8	4.1	4.0
MIDDLE EAST	2.8	1.5	3.7	4.1	1.3	1.6	3.2	3.3	3.6	4.0	3.9	3.1	3.3
OTHER ASIA	3.9	6.6	4.4	6.5	6.2	6.5	6.6	6.7	6.8	6.8	5.8	6.6	6.2
PACIFIC BASIN	6.5	7.7	7.7	6.6	5.3	5.1	6.0	6.2	6.4	6.3	6.9	6.0	6.4
CHINA	10.8	12.7	10.8	8.7	9.1	9.2	8.9	8.8	8.8	8.8	12.1	8.8	10.3
MEXICO	2.0	4.5	4.2	5.1	5.8	6.4	6.1	5.4	5.6	5.9	1.7	5.9	3.9
EASTERN EUROPE	-0.9	3.8	5.4	3.0	1.5	4.0	4.3	4.5	4.6	4.7	1.9	4.4	3.7
FORMER SOVIET UNION	-10.7	-14.3	-5.7	-4.2	0.1	2.5	4.5	4.9	4.9	4.7	-10.0	4.3	-2.8
CONSUMER PRICE INDEXES (PERCENT CHANGE)													
DEVELOPED COUNTRIES, EXCL. TURKEY	2.8	2.3	2.4	2.2	2.1	2.2	2.4	2.6	2.4	2.4	2.6	2.4	2.5
UNITED STATES	3.0	2.6	2.8	2.9	2.4	2.5	2.9	2.8	2.8	2.8	2.6	2.7	2.7
CANADA	1.8	0.2	1.2	1.6	1.7	1.4	2.0	2.4	2.6	2.1	1.4	2.1	1.6
JAPAN	1.2	0.7	-0.1	0.1	1.7	1.0	1.2	1.8	2.0	2.1	0.7	1.8	1.2
WESTERN EUROPE, EXCL. TURKEY	3.4	2.9	3.0	2.4	2.0	2.4	2.3	2.3	2.3	2.3	3.3	2.3	2.7
GERMANY	4.5	2.7	1.8	1.5	1.8	1.8	2.0	2.4	2.6	2.7	3.1	2.3	2.6
FRANCE	2.1	1.7	1.8	2.0	1.3	1.7	1.9	2.0	1.9	2.0	2.0	1.9	1.9
ITALY	4.2	3.9	5.4	3.9	2.0	3.4	2.7	2.6	3.5	2.5	4.5	2.7	3.5
UNITED KINGDOM	1.6	2.5	3.4	2.4	3.1	3.7	2.6	2.2	2.0	2.3	2.7	2.6	2.7
UNEMPLOYMENT RATE (PERCENT OF LABOR FORCE)													
DEVELOPED COUNTRIES	6.1	6.1	6.7	6.7	6.8	6.4	6.3	6.3	6.1	6.0	6.9	6.2	6.6 (a)
UNITED STATES	6.9	6.1	5.6	5.4	4.9	4.7	5.1	5.4	5.5	5.6	6.3	5.3	5.7 (a)
CANADA	11.2	10.4	9.5	9.7	9.3	8.8	8.8	8.8	8.7	8.4	10.4	8.7	9.5 (a)
JAPAN	2.5	2.9	3.1	3.4	3.4	3.3	3.2	3.1	3.1	3.1	2.8	3.1	3.0 (a)
WESTERN EUROPE	11.2	11.8	11.2	11.1	10.8	10.7	10.2	10.1	9.8	9.4	11.1	10.9	10.8 (a)
GERMANY	8.9	9.5	9.4	10.3	11.1	10.9	10.6	10.2	9.7	9.2	9.2	10.1	9.8 (a)
FRANCE	11.7	12.2	11.6	12.3	12.5	12.2	11.8	11.5	11.2	11.0	11.7	11.5	11.7 (a)
ITALY	10.2	11.3	12.0	12.1	12.2	11.9	11.3	10.3	9.5	8.7	11.4	10.3	11.0 (a)
UNITED KINGDOM	10.3	9.3	8.2	7.5	5.6	4.8	4.5	4.4	4.1	3.8	9.0	4.3	6.6 (a)
CRUDE OIL PRICE													
AVE. CRUDE PRICE (\$/BARREL) (b)	16.8	15.9	17.2	20.4	19.6	19.2	19.4	20.3	21.0	21.7			
PERCENT CHANGE	-11.6	-5.5	8.0	16.9	-4.2	-2.0	3.1	2.8	3.2	3.3	1.1	2.1	1.0
SHORT-TERM INTEREST RATE													
LONDON INTERBANK RATE (3-MONTH)	3.3	4.7	6.0	5.5	5.7	6.2	6.4	6.2	5.8	5.7	4.7	6.0	5.4 (a)
UNITED STATES (3-MONTH CD)	3.2	4.8	5.9	5.4	5.6	5.9	5.8	5.6	5.4	5.4	4.6	5.6	5.1 (a)
JAPAN (3-MONTH CD)	3.0	2.2	1.2	0.8	0.6	1.4	3.2	3.8	4.0	4.4	2.3	3.3	2.6 (a)
GERMANY (3-MONTH FIBOR)	7.3	8.4	4.5	3.3	3.2	3.9	4.8	5.3	5.3	5.2	6.0	4.8	5.3 (a)
FRANCE (3-MONTH PIBOR)	6.6	5.8	6.6	3.9	3.4	3.9	4.8	5.3	5.3	5.2	7.1	4.6	5.7 (a)
UNITED KINGDOM (3-M INTERBANK)	5.9	5.5	6.7	6.0	6.8	7.7	7.6	6.9	5.9	5.5	6.8	6.7	6.7 (a)
EXCHANGE RATE (LOCAL CURRENCY/\$ DOLLAR, AVERAGE)													
DEUTSCHE MARK	1.65	1.62	1.43	1.50	1.74	1.73	1.69	1.65	1.63	1.62	-1.9	-1.4	-0.2
JAPANESE YEN	111.2	102.2	94.1	108.8	119.9	118.5	112.0	108.5	107.4	106.3	-4.2	-2.4	-2.1
POUND STERLING	0.667	0.653	0.634	0.641	0.618	0.647	0.656	0.653	0.650	0.661	2.5	1.4	1.4
CANADIAN DOLLAR	1.29	1.37	1.37	1.36	1.34	1.31	1.28	1.28	1.24	1.21	3.5	-2.3	0.5
WORLD TRADE (PERCENT CHANGE)													
VOLUME (EXPORTS), TOTAL	4.8	8.6	8.9	6.0	8.8	7.8	6.7	8.4	8.5	8.8	8.7	8.7	7.0
PRIMARY COMMODITIES	2.6	5.9	6.5	4.9	6.9	6.4	6.3	6.1	6.2	6.2	4.9	6.2	5.7
FUEL AND ENERGY	8.5	3.3	1.7	6.0	6.3	4.3	5.2	5.2	5.8	5.0	4.3	5.1	4.9
MANUFACTURED GOODS	4.4	11.1	11.5	6.1	10.5	7.8	6.9	6.6	6.6	6.8	7.4	6.9	7.5
PRICES (EXPORT DEFATOR, DOLLAR)	-6.9	2.0	6.8	-2.1	-4.3	0.5	2.7	2.7	2.2	2.2	1.1	2.1	0.8
PRIMARY COMMODITIES	-6.4	3.2	10.0	-2.1	-4.3	1.4	2.9	2.9	2.8	2.7	1.0	2.4	1.1
FUEL AND ENERGY	-21.7	-0.8	10.5	7.2	-1.6	-0.7	0.8	0.0	3.0	3.8	-1.3	2.7	0.0
MANUFACTURED GOODS	-3.8	1.8	8.2	-2.8	-7.1	2.4	3.0	2.8	2.0	2.0	1.3	2.0	0.8
CURRENT ACCOUNT BALANCES (\$/BILION)													
UNITED STATES	-91	-134	-129	-148	-173	-190	-191	-185	-179	-167	-112	-182	-149 (a)
JAPAN	130	129	112	87	99	95	111	105	94	94	111	100	105 (a)
WESTERN EUROPE	26	44	72	117	129	133	136	136	133	126	39	133	90 (a)
REST OF WORLD	-120	-99	-102	-106	-105	-88	-96	-109	-117	-111	-102	-104	-104 (a)

(a) AVERAGE OF PERIOD

(b) AVERAGE OF DUBAI, U.K. BRENT, AND ALASKAN NORTHWEST SLOPE SPOT CRUDE PRICES. SOURCE OF HISTORICAL DATA: (1) F.S.



## WORLD ECONOMY: CRISIS? WHAT CRISIS?

### Asian crisis upsets financial markets.

Concerns that the global economy may be facing a severe downturn have increased in recent weeks as the currency and stock market turmoil in South East Asia spread to financial markets in the rest of the world. At the time of writing the equity markets in the major industrial countries have largely recaptured most of the ground lost during the sell-off in late October, but there is still some uncertainty about the consequences of the Asian meltdown for the world economy.

### Concerns overblown.

Fears that the economic slowdown in Asia may lead to a deflationary recession in the rest of the world seem to be overdone. Developing Asia as a whole certainly accounts for 22.5% of world output, based on purchasing power parity valuation. However, excluding China and India, who have so far remained relatively immune from the currency crisis, the rest of developing Asia accounts for only 7.3% of global GDP and only 4.4% of world exports of goods and services. This suggests that even a severe recession in the affected Asian economies should have a relatively modest impact on global economic growth. And the current consensus is that most South East Asian economies are heading for an economic slowdown rather than outright recession. The policy measures being implemented to deal with the currency crisis will certainly dampen domestic demand in the economies most affected by the recent turmoil, namely the countries of the Pacific Basin (i.e. Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan and Thailand). But net exports should lend support to economic activity aided by the improvement in competitiveness from the sharp currency depreciations.

### Improved performances in other regions compensate for Asian slowdown.

WEFA's latest forecasts show that economic growth in Indonesia, Malaysia and the Philippines is now expected to be between 1.2 to 1.5 percentage points lower in 1997 than previously forecast, and between 2.0 and 4.0 percentage points lower in 1998. The projections for Thailand have been lowered even more sharply, by 3.7 percentage points this year and by 5.8 percentage points next. Overall real GDP growth in the Pacific Basin is now forecast to increase by 5.3% this year and 5.1% in 1998, compared with the August forecasts of 6.4% and 6.6% respectively. Economic growth in Developing Asia as a whole, including China, the Indian subcontinent and the Pacific Basin, is expected to average 6.7% in 1997 and 1998 (previously 7.4% in both years).

A slowdown in Asia of this magnitude has only a limited impact on WEFA's projections for world economic growth, as the shock has occurred at a time when the prospects for other regions have shown some improvement. Economic growth in North America has been somewhat stronger than expected, with the prolonged upturn in the US maintaining a robust pace and the upswing in Canada continuing to gather speed. The buoyancy in North America has been reinforced by further strong growth in the UK and a marked pick-up in activity in continental Europe. Output in Latin America is also expanding more rapidly than was previously anticipated, especially in Argentina and Mexico. At the present time, it looks very much as if the ongoing strength in these regions will fill the gap left by the shortfalls in growth in developing Asia and in Japan, where the economy is suffering a larger than expected reaction to the tightening of fiscal policy. World output (measured in purchasing power parity terms) still seems to be on course to expand at a rate of around 3.5% in both 1997 and 1998, with upward revisions to the growth projections for North America and Europe, offsetting the weaker performance in Japan and developing Asia.

### Downside risks to exports.

While the developments in Asia have not as yet fundamentally altered the generally positive outlook for the world economy, there is still a risk that economic conditions in

Asia may deteriorate more than we expect and exert a more widespread adverse impact. The potential effects on the rest of the world would be felt via a number of channels - through foreign trade, through tougher price competition from countries with devalued currencies, through the banking system, through reduced earnings from foreign direct investment and portfolio investment. Most of these effects are difficult to measure, but it is possible to roughly quantify the impact of a contraction in export demand.

Among the developed economies, Japan is likely to be the most affected by a more severe slowdown in the Pacific Basin, since these countries accounted for about 33% of total Japanese merchandise exports in 1996. This part of the world is also quite important for the US, which sells about 17% of its exports to the Pacific Basin (defined here as the four NICs plus the ASEAN four), whereas the European Union (EU) as a whole only sells about 5% of its exports to this region. However, economic activity in the member states of the EU is more dependent on external trade than the US, with merchandise exports accounting for about 24% of EU GDP compared with about 8% in the US. The contribution to GDP from exports to the Pacific Basin in the US and the EU is very similar, at 1.3% and 1.2% respectively, less than half the level in Japan (3.3%). Consequently, Japan would suffer more severely from a recession in South East Asia. The direct impact of a 10% drop in merchandise exports to the Pacific Basin might reduce real GDP growth in Japan by about 0.3 percentage point, compared with about 0.1 percentage point in both the US and the EU.

**Stock market correction may have further to go.**

The recent hiatus in global stock markets has also directed attention to the possible repercussions of a stock market "crash". The spread of the South East Asia problems to Hong Kong was the catalyst for the recent turbulence but not the cause, which was primarily concerns about the overall valuation of the US stock market. It is still not clear whether the turmoil in global equity markets has burnt itself out or whether it was merely the precursor of a more fundamental correction. However, the retrenchment and devaluations in the Pacific Basin could exert further downward pressure on the worldwide price of manufactured goods, thus exerting a squeeze on profits in the developed economies and triggering a stock market "crash".

A sharp decline in equity prices could potentially have a noticeable impact on consumer confidence and expenditure in those economies, such as the US, France, UK and Canada, where households equity holdings are large (50-80%) relative to GDP. Provisional estimates, based on the current levels of equity ownership and empirical studies of the link between financial wealth and private consumption, suggest that a 10% decline in equity prices would reduce GDP growth by about 0.4 percentage point in the US and by about 0.3 percentage point in France and the UK, compared with only 0.1 percentage point or less in Japan and Germany. However, with equity prices in most of the major markets still showing a double-digit annual gain, it seems unlikely that the wealth effects of a decline of this magnitude from the current high levels would have a significant near-term impact on global economic activity. As Gavyn Davies of Goldman Sachs has recently pointed out: "The positive wealth effects of (the previous) increases in equity prices have not yet been fully reflected in consumer spending around the world. By the same token, any decline in equity prices from current levels would not depress spending immediately."

**The risks are real, but should not derail the global upswing.**

The troubles in South East Asia will undoubtedly have a negative impact on the world economy, but at present it seems unlikely that they will prove severe enough to provoke a global crisis. The underlying growth momentum in the rest of the world seems to be sufficient to withstand the shock, though some countries (e.g. Japan) and sectors (e.g. manufacturing) will suffer more than most. Some worst case scenarios suggest that the Asian crisis might reduce overall economic growth in the developed

economies by about 0.5 percentage point, with Japan losing about 1.5 percentage point. The picture would obviously be bleaker if the crisis spread to the emerging markets of Latin America and Eastern Europe, which are more important export markets for the US and EU. Another risk to the outlook could arise if the dollar were to suffer, which would pose a threat to the export-led recoveries in Japan and continental Europe. However, if some of the worst risks were to materialize then the IMF and central banks would react to contain the situation.

**The prospects and risks for the main countries/regions are:**

- Although strong investment and restructuring may have raised the US economy's non-inflationary growth potential, real GDP growth continues to exceed even the most optimistic estimates of a sustainable rate. As the unemployment rate approaches 4.5%, wage gains will pick up, pushing up consumer prices and inducing the Fed to tighten modestly over the next six months. This should slow economic growth to a more sustainable 2.3-2.5% pace during 1998. Key risk: wage rises accelerate sharply in late 1997 and growth remains higher than potential. The Fed reacts aggressively, and higher interest rates push the economy into recession.
- Recent evidence suggests that the recovery in Japan has not yet regained momentum after the downturn caused by significant fiscal tightening that came into effect in April. However, the slowdown should prove temporary and modest growth is expected to resume, led by private domestic demand, particularly business investment. In addition, the yen remains at a competitive level ensuring that net exports continue to make a significant contribution to growth. Key risk: with limited scope for a monetary or fiscal stimulus, the economy may fall back into recession due to the impact of the slowdown in south-east Asia on exports and corporate profits.
- The export-led recovery in continental Europe appears to be picking up steam, while the domestic demand driven UK economy continues to expand at a robust rate. Policy tightening and the lagged impact of sterling's appreciation is expected to slow UK growth next year, while economic growth in mainland Europe should show some further improvement, as the recovery spreads to domestic demand. Key risks: Consumer spending in Germany and France continues to stagnate in the face of persistently high unemployment, and the dollar declines sharply against European currencies, undermining the hitherto robust export performance.
- Growth in the east Asian region has slowed down significantly and is expected to slacken further next year. The currency crisis has had a "contagion" effect on all the economies of the region. Exports, boosted by the improved competitiveness produced by currency depreciation, will be a key driver for growth. Key risks: the Japanese economy stumbles, limiting the market for developing Asia's exports. A full-fledged currency crisis in South Korea, which leads to another round of capital flight from the region.
- Apart from Brazil, Latin America is not very vulnerable to an Asian-style currency meltdown. The risk of a major devaluation has increased in recent weeks, however, causing Brazil to double short-term interest rates from 21% to 43% and to adopt fiscal cuts amounting to about 2.5% of GDP. We expect Brazilian growth to slow from 4% to 1% next year as a result of these measures, reducing its current account deficit to a safer 3% of GDP. Argentina will also be affected by slower Brazilian demand for its exports. Mexico and most of the other Latin American countries will be little affected by Brazil's crisis. Key risk: A major devaluation in Brazil, which would likely slow growth to -2% in Brazil and knock Mexico and Argentina's growth down by 1% as well.

- Oil exporters continue to post positive growth rates but at a pace slower than in 1996. Growth in the non-oil Middle East, except for Israel, remains robust. Economic activity in Africa remains on an upward trend for the fourth consecutive year. Key risks: Subdued oil prices and a further slowdown in the peace process could dampen the macroeconomic environment for the Middle East region as a whole. In Africa, drought and weakness in commodity markets could send the region into a recession.
- The outlook for continued growth and stability in most East European countries remains favorable. One possible exception is Romania, where eroding political support for the reform-minded government that took office late last year threatens to derail efforts to curtail inflation and introduce market reforms. Elsewhere in the region, there is broad agreement on market-oriented economic policies. This is illustrated by the minimal impact that the change in government in Poland at the end of October is expected to have on the country's pro-market economic policies. Key risk: economic stability in the region could be jeopardized if the large current account deficits many countries are running continue to widen and are not sufficiently covered by capital inflows.
- The recent plunge in Russian stock prices has not altered the outlook for a continuing slowdown in inflation and a moderate recovery in GDP next year. The turmoil in the stock market is not expected to precipitate a currency crisis. Russia's large current account surplus and its ample foreign exchange reserves should keep the ruble stable. Key risk: stabilization and market reform remain vulnerable to the lack or weakness of appropriate market-economy institutions -- for example, an adequate tax-collection mechanism.

## THE UNITED STATES: MOMENTUM CARRIES INTO 1998

**Real GDP growth slowed in the second quarter.**

After an exceptionally strong performance in the first quarter of 1997, the pace of growth moderated somewhat in subsequent three months but remained well above what has traditionally been regarded as a sustainable rate. Annualized quarterly real GDP growth slowed to 3.3% in the second quarter from 4.9% in the first. A sharp slowdown in consumer spending, which had propelled the sharp growth in first quarter, was the primary cause of the deceleration. In contrast, there was there an acceleration in the rate of growth of most of the other sectors of demand. Business investment, which has been a major driving force behind the current upturn, now in its seventh year, expanded at a robust annualized rate of 14.6%, while stocks continued to be built up at high rate. Export growth also strengthened, as the recovery in demand in key export markets compensated for the retarding effect of the dollar's rise. However, net exports still exerted a slight drag on the economic activity as imports grew even more rapidly.

**Employment growth has also slackened in recent months, but the labor market is still tight.**

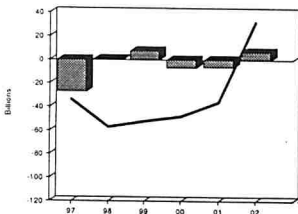
The September payroll report showed signs of a slowing in employment growth. Non-farm payrolls increased by 215,000 in September, but around 165,000 of those new jobs were UPS employees returning from the strike in August. Some of the weakness in September, however, resulted from a 47,000 payroll decline in local education employment, which is most likely a result of seasonal factors not accounting for earlier school starts, as opposed to the loss of those jobs. Over the past two months, payrolls have grown by an average of 128,000 jobs a month, about half the 254,000 average monthly gain for the year through July.

**Inflation remains benign.**

The unemployment rate was unchanged in September at 4.9%, reflecting the modest rise in nonfarm payrolls. Since April, the unemployment rate has been at or below 5.0% in every month. The recent level of the unemployment rate shows that the labor market is extremely tight, and remains as a significant indication of possible wage pressure problems. Average hourly earnings increased by \$0.04 per hour in September following a revised \$0.06 gain in August (previously reported as \$0.05). On a year-over-year basis, hourly earnings grew 3.6% in September, a significantly faster pace than in most of 1996, when the unemployment rate was above 5%.

Despite the tightness of the labor market, most current measures of inflation remain low. The year-on-year increase in the GDP implicit price deflator slowed to 1.8% in the second quarter, down from a 2.5% gain in the first quarter. In September consumer prices increased by 0.25% (m-o-m) after two months of 0.2% gains. Energy prices rose 1.3% following a 1.7% jump in August. Food prices slowed in September, gaining 0.1% after four months in a row of sizable increases. Core inflation (excluding food and energy) was 2.2% for the year ended September, the lowest 12-month inflation performance in over 30 years. While consumer price inflation remained steady, producer prices jumped for the second month in a row in September. The producer price index for finished goods rose 0.5% (m-o-m) in September following a 0.3% increase the previous month. This pick-up, however, is largely due to a turnaround in energy prices which have increased by an average of 1.5% per month over the past two months.

**Figure 1: US Federal Budget Surplus Forecasts: CBO vs. WEFA.**  
WEFA Balanced in 1998, CBO by 2002

**Strong economic growth reduces the fiscal deficit.**

The federal budget deficit was \$34.6 billion in August, compared to a \$41.8 billion deficit in the same month last year. Strong economic activity has increased government receipts for the eleven months ending in August by 8.4% over last year. The August number lowers the deficit for the first eleven months of the fiscal year to \$71.3 billion, 50% lower than the \$142.7 billion deficit over the same eleven months of the previous fiscal year. The recent budget agreement passed by Congress and signed by President Clinton has radically altered the prospects for the federal budget deficit. The Congressional Budget Office (CBO), in its review of the budget agreement, sees the deficit widening in fiscal 1998 from the current fiscal year, before narrowing in subsequent years to reach a surplus in fiscal 2002. This is line with the views of The Mid-session Review released by the Office of Management and Budget (OMB), as revealed in its Mid-session Review. However, as Figure 1 shows, WEFA is more opti-

mistic about the near-term prospects, forecasting a balanced budget for 1998, but takes a somewhat less rosy view of the longer term outlook.

A key to the fiscal position in 1998 is how long the recent phenomenal performance of revenues continues, and the rate at which special factors that could be at work dissipate. WEFA anticipates a slower dissipation of these effects, especially because of the reduction in the capital gains tax, resulting in a small surplus over the next few years. The surpluses, all less than \$20 billion, are forecast to continue over the forecast horizon. Actual surpluses are unlikely to be greater than this amount, and it is quite possible that the Federal government will register a deficit as Congress and the President crank up spending and tax cuts. Better than expected news about the deficit will reduce the pressure to keep spending and tax cuts in line, an impact we have already seen in the latest budget deal. After 2003, the budget will start to show deficits once again even on a present policy basis. The likely federal budget surpluses over the next few years do not eliminate the longer-term problem with federal entitlement programs. As the baby-boom generation nears retirement in 2012 and beyond, severe strains from entitlement spending will again put pressure on the government's finances. Even so, the budget picture entering the 21st century is far brighter than anticipated even a few years ago.

**Fed Chairman suggests that the economy "is on an unsustainable track."**

Federal Reserve Chairman Alan Greenspan's testimony before the House Budget Committee on October 8 put the financial markets on notice that the Fed remains prepared to act on its continuing concerns about the inflationary implications of strong growth in the context of a labor market that is already quite tight. It was not so much what he said as, in general, he did not really say anything new. Rather, it was the fact that he chose to say what he did at this particular time that shook up the markets. There was no need for him to say anything about monetary policy to the Budget Committee, as he was there to testify about fiscal policy. So, he went out of his way to say what he did. Greenspan pointed out that, despite productivity gains, increases in the demand for labor in recent years have far outstripped the underlying, long-term increases in labor supply, pointing out that increases in the supply of labor have kept up with increases in the demand for labor in recent years by reducing the amount of slack in labor markets. This, he said, is not a sustainable track: "The key point is that continuously digging ever deeper into the available working-age population is not a sustainable trajectory for job creation," and, "the performance of the labor markets this year suggests that the economy has been on an unsustainable track."

**An upturn in inflation will prompt a modest monetary tightening.**

Whether the Fed does tighten further and, if so, when, depends on the performance of the economy and inflation. The strong job market, with the unemployment rate now below 5%, has already helped boost wages. While goods inflation appears virtually nonexistent, service inflation is forecast to begin to pick up speed along with higher wages. After slowing to a 2.4% annual average rate in 1997, consumer price inflation will pick up to 2.9% in 1999. With higher inflation will come higher interest rates. Because of inflation concerns, WEFA expects that the Fed will raise short-term interest rates beginning in early 1998. By mid-1998, we expect the Fed Funds rate to reach 6.0%. Long-term interest rates will rise with the rise in short-term rates, with the yield on the 30-year Treasury bond hitting 7.0% in mid-1998. With the easing labor market after 1998 and slower demand growth, CPI inflation is forecast to slow to 2.6% in 2001 and 2002. The Fed will lower interest rates moderately after the economy shows signs of slowing. The Fed Funds rate drops to 5.5% in 2001 and 2002. The yield on the 30-year Treasury bond falls to 6.3% in 2001 and 6.1% in 2002.

Higher interest rates should slow economic growth to a sustainable pace.

Real GDP growth in the second half of 1997 will be slower than the first half, but will still average a robust 3.6% for 1997 as a whole, the highest annual growth of the six-year old expansion. The monetary tightening anticipated over the next six months, however, will help slow the economy down to growth rates more consistent with its longer-run potential. Real GDP growth will settle in at a more sustainable 2.3% - 2.5% pace from 1998 - 2002. As the economy slows to a more sustainable growth path, the labor market will ease slightly. After dipping to 4.6% in 1998, the unemployment rate will edge up to 5.6% by 2002, more consistent with most estimates of the non-accelerating inflation rate of unemployment, or NAIRU.

Lower employment and disposable income gains will slow the growth in consumer spending from over 3% in 1997 to the 2.2-2.3% range from 2000 - 2002. Investment spending will remain a major contributor to overall growth, but real business investment growth will decelerate from the close to double digit pace of 1995-1998 to a 3.2% rate of growth by 2002. Both real exports and real imports are also currently growing at double digit rates, but, on balance, net exports will cut real GDP growth by 0.3% this year. Trade will be slightly negative for overall growth in 1998 as well. Over the longer term, net exports will contribute modestly to overall growth in 1999-2002. Faster growth in exports will narrow the current account deficit from \$173 billion in 1997 and \$190 billion in 1998 to \$167 billion in 2002.

## JAPAN: SLOW RECOVERY FROM SECOND QUARTER SETBACK

Economy suffers sharp setback in the second quarter.

Economic activity weakened significantly in the second quarter of 1997, after a period of relatively strong growth over the previous six months. Real GDP declined by 11.2% SAAR, more than offsetting the 5.7% rise in the first quarter. Although a fall in output had been widely anticipated, the second-quarter contraction was worse than expected. The downturn was led by a 21.0% annualized drop in consumer expenditure, exceeding the 18.6% annualized rise recorded in the first quarter, when spending was brought forward to beat the increase in the sales tax. However, fixed investment also fell. Public investment picked up, as the availability of funding for the new fiscal year provided a probably temporary fillip. But this rebound was outweighed by a fall in private sector investment. The decline in private housing investment accelerated, following last year's surge in advance of the sales tax rise, and private business investment recorded its first quarterly decline in over two years. The severe drag on economic growth from domestic demand was partially offset by an improvement in net exports. Export growth accelerated in response to the cheap yen and while the weakening in domestic demand led to a decline in imports.

Subsequent signals are not auspicious.

Output is expected to show a modest recovery during the third quarter, but results so far suggest that the revival may be weaker than was previously anticipated. Industrial production in the first two months of the third quarter was 0.7% down on the second-quarter average. Consumer spending is still subdued. Real household spending in August was down 0.5% year-on-year following a 3.2% rise in July. The Bank of Japan's September Tankan survey of business conditions was generally unfavorable. Conditions for large manufacturers deteriorated slightly while those for non-manufacturers deteriorated significantly. The business outlook diffusion index (DI) for major manufacturers declined from +7 in June to +3. The diffusion index is the percentage of respondents who feel their business conditions are improving minus the percentage of respondents who believe conditions are getting worse. For small manufacturing firms, probably benefiting less from strong exports, results were far worse: a drop to -13 from -7 in the June survey. For non-manufacturing, the DI

### Government economic reform proposals disappoint.

dropped to -15 from -7 for large businesses, and to -18 from -11 for small enterprises. In addition, the results show that, with the exception of large non-manufacturers, companies expect conditions to be no better or even worse by the time of the next survey in December.

The widely heralded Liberal Democratic Party (LDP) package for revitalizing the economy through deregulation and a more expansionist fiscal policy has received a lukewarm reception. Despite widespread reports that the economic reforms, announced on October 21, would underwrite an expanding economy, the actual proposals were limited and vague. No quantitative data was given to show the likely impact of proposals nor was there any indication as to when they would be implemented. As shown in Figure 2, the words "try to" preceded key proposals for cutting corporate taxes and for abolishing the securities transaction and landholding taxes. This vagueness reflects fundamental differences between the LDP and the Ministry of Finance. The LDP is moderately expansionist while the MOF is opposed to fiscal easing.

Figure 2: The LDP Economic Proposals

- Bring 1998 public works forward to this year, with payment delayed until next year.
- Try to abolish securities transactions tax.
- Try to freeze or abolish land holdings tax.
- Review regional tax on fixed assets and land sales.
- Try to cut corporate tax.
- Enact supplementary budget to assist farmers
- Ease rule on creating companies to securitise real estate loans.
- Broader availability of tax credits for housing purchases.
- Report land transactions ex-post facto, rather than ahead of deal.
- Deregulate prices of telephone calls.
- Ease rules on foreign ownership of broadcasting and KDD (international calls).
- Ease rules over trucking fees.

The LDP says that it will introduce more specific measures next month, but action on the all-important tax measures will be delayed until December when a decision is expected from the LDP tax committee. Meanwhile an agreement must be reached with its coalition partners, all before the Diet adjourns on December 12. Since the construction industry is a strong supporter of the LDP, it seems likely that the proposals to aid the real estate market will be adopted even if the LDP has to sacrifice other proposals in its dealings with the Ministry of Finance. These include bringing public works forward to this year, by an unspecified amount, and freezing or abolishing the land holding tax.

### Monetary policy to remain on hold.

Since the greater than expected drop in real GDP in the second quarter there has been very little discussion of the possibility of changing the discount rate, now at a remarkably low 0.5%. With low inflation and a depressed economy, it would be counterproductive to raise short-term interest rates any time soon. For savers who depend on short-term interest income, the current low rate of interest income is often a near-disaster. Nevertheless, in view of the less optimistic news on the economy, WEFA does not see any likelihood of a higher discount rate before March 1998. In any event, the Bank of Japan is likely to raise the call money rate before raising the discount rate.



**Output still expected to recover as the fiscal drag diminishes.**

This will give the bank greater day-by-day flexibility in monetary policy compared with changing the discount rate. Ten-year government bond yields, at 1.68% on October 28, are near a historic low. This has led to the argument that higher short-term interest rates would impact long-term yields and prevent an outflow of capital pushing down the value of the yen. However, the drop in bond yields arises to a greater extent from the poor earnings outlook in other domestic investments rather than from short-term interest rates. Moreover fears of American retaliation are tending to support the yen despite the wide differences in bond yields.

We continue to expect a pick-up in activity in the third quarter. Real GDP is forecast to rise by an annualized 5.3% in the third quarter, about the same rate as the 5.7% rise in the first quarter, mainly due to a recovery of consumer expenditure. But the increases in output in the first, third and fourth quarters will barely offset the decline in the second quarter, resulting in a modest 0.8% rise in real GDP for 1997 as a whole. Economic growth is projected to rise to 1.9% in 1998 and 2.8% in 1999, an improvement on 1997 but still below the 3.7% growth in 1996.

This forecast assumes that consumer and business confidence, badly bruised in the 1997 slowdown, will gradually improve. Consumers will find their holdings of durable goods somewhat depleted after the restrained spending following the sales tax rise in second quarter. Against this background they are likely to push up growth rates of consumer spending somewhat higher than in the 1994-1996 period, before the distortions from tax increases. Business investment in plant and equipment is expected resume an upward trend, rising by 3-3.5% both this year and next, and private housing investment is expected to turn around during the course of the next twelve months. Public investment may also experience a temporary pick-up next year, as the government completes its current program of downsizing public works outlays. Net exports should still provide support to the recovery next year, with continued, albeit slower, export growth outstripping that of imports. However, there is a risk that the contribution from external trade will fall short of expectations if 1) there is a more severe and sustained slowdown in the South East Asian countries and 2) the US retaliates against higher imports from Japan.

**Inflation pressures will remain muted.**

Consumer price inflation accelerated to an annualized rate of 6.9% in the second quarter from 0.5% in the first, but this was due solely to the rise in the sale tax. Underlying inflation is negligible. The weaker yen has pushed up import prices and wholesale prices, but domestic inflationary pressures remain muted. Consumer prices are forecast to rise at an annualized rate of 0.3% and 0.7% in the third and fourth quarters respectively, bringing the average increase for 1997 to 1.7%. Consumer price inflation is forecast to fall back to 1.0% next year, as the effect of the sales tax hike disappears, before edging up again over the subsequent four years in response to a gradual strengthening in both domestic demand and labor cost pressures.

## WESTERN EUROPE: UPSWING REGAINS MOMENTUM

**Widespread strengthening of economic growth in the second quarter.**

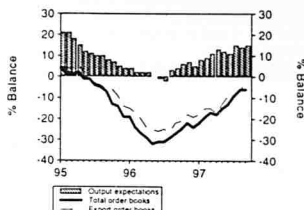
Economic growth in Western Europe gathered momentum during the second quarter of this year. Real GDP in the fifteen member countries of the European Union (EU) is estimated to have increased by 1.3% between the first and second quarters, a marked improvement on the sluggish performance in the previous six months (a 0.1% rise in 1997Q1 and a 0.2% rise in 1996Q4). Output in the second quarter was 2.4% higher than in the same period of last year, compared to 1.3% in the previous three months, which was still significantly below the corresponding growth rate for the US (3.4%) but

a much stronger performance than that achieved by Japan, where real GDP was 0.3% lower than a year earlier. Most of the major EU economies experienced an acceleration in activity during the second quarter, with Italy, Germany, and the UK all achieving annualized quarterly growth rates of 4% or more, while French growth also showed a marked improvement. The main exception to this resurgence was Sweden, where the official figures show real GDP fell slightly for the second successive quarter, though the improvement shown in most of the components of final demand suggest that this may merely be a technical recession. Outside the EU, Switzerland continued its recent recovery from a lengthy recession while Norway experienced a marked acceleration in growth on the back of robust investment and a strong rebound in consumer demand.

**Upturn appears to have maintained momentum in third quarter.**

Recent monthly indicators point to a continuation of the upswing during the third quarter. Provisional estimates show relatively strong gains in industrial production in three of the four largest economies in the first two months of the third quarter. Industrial output in July and August combined was up a seasonally adjusted 3.7% on the second quarter average in Germany, 2.4% higher in France and 1.7% higher in the UK, but output in Italy rose by only 0.3% on the same comparison. Business survey results also show a strengthening in manufacturers' production expectations in most EU countries during the third quarter (see **Figure 3**). In the case of Germany, this improvement seems to be mainly attributable to external demand. The volume of new export orders received by German manufacturers in the first two months of the third quarter was 5.2% above the second-quarter average, while domestic orders rose by only 0.7% over the same period and retail sales volume (excluding cars and petrol) fell by 4.6%. In France, there are signs that the strong upward trend in export orders has been reinforced by a revival in consumer demand. Average monthly household purchases of manufactured goods in July/August was up 3.4%, in volume terms, from the average for the second quarter. In the UK, consumer spending appears to have remained the mainstay of manufacturing activity, as manufacturers' export order books are still deteriorating. The continued expansion in activity has contributed to a reduction in unemployment in some economies, though unemployment remains at a relatively high level in comparison with the US and Japan. The EU unemployment rate, on the OECD standardized measure, was a seasonally adjusted 10.6% in August, unchanged from the previous month but down from 10.8% in the second quarter and 10.9% in the same period a year earlier. Unemployment remains on a downward trend in the UK, Spain and several of the smaller economies (e.g. Portugal, Ireland), and has stabilized in France, but has continued to edge higher in Germany and Italy.

Figure 3: EU Production Expectations &amp; Order Books



#### Monetary policy reaches turning point.

Despite the high level of unemployment, the period of loose monetary policy in the core member states of the European exchange rate mechanism has come to an end. On October 9, two days after the Federal Labor Office released figures showing that German unemployment had risen to another post-war record of nearly 4.5 million (11.7% of the labor force) in September, the Bundesbank decided to raise interest rates. The repo rate, the key money market rate, was raised by 30 basis points from 3% to 3.3%, the first rise in German official interest rates since July 1992. The increase was swiftly followed by the central banks of Austria, Belgium, Denmark, France, Luxembourg, and the Netherlands. The Bundesbank's explanation of the move indicated that it was motivated mainly by domestic considerations, with the sharp recovery in economic activity and some signs of inflationary pressures from the weaker DM pointing to the need for a less expansionary monetary policy stance. However, the statement by the Bank of France after its rate rise indicated that the concerted rise in interest rates was also partly motivated by the need to secure a convergence of European interest rates by the time that monetary union starts.

Although the differential between bond yields in the member states has narrowed sharply over the last twelve months, there is still a wide gap between short-term rates. Following the latest move, the repo, or equivalent, rate is now at exactly the same level, 3.3%, in Belgium, France, Germany, Luxembourg and the Netherlands but this is still well below the levels in Italy (6.02%) and Spain (5%, after a 25 basis points cut on 3 October). If the euro is introduced as planned in 1999, the countries adopting it will have the same official interest rate. Consequently, these gaps will have to narrow over the next fifteen months, and this is likely to come about as a result of a decline in Italian and Spanish rates and a further rise in interest rates in the core group. We expect short-term rates in continental Europe to gradually converge on a central rate of between 4% and 4.5% by the end of 1998.

#### Less restrictive fiscal stance.

A gradual rise in short-term interest rates in the core group should not pose a serious threat to the European recovery. The dampening influence of higher interest rates in Germany and its near-neighbors will be partly offset by lower rates in Italy, Spain and Portugal. In addition, fiscal policy, though still restrictive, should impose a less severe restraint than that experienced during the current year. Most of the 1998 budget proposals announced by European governments in recent weeks are still directed towards further fiscal consolidation by increases in indirect tax rates, removal of tax breaks, and cuts in spending plans. However, the austerity measures are generally more modest than those introduced over the last twelve months. On average, the

general government financial deficit (not cyclically adjusted) of the 15 EU member states as a proportion of GDP is expected to decline by about 1.5 percentage points this year. Next year's reduction is expected to be about 0.5 percentage points. The marked reduction in budget deficits throughout Europe in 1997 means that most EU members, apart from Greece, are on course to achieve, or come very close to, the Maastricht target of 3.0% of GDP. But progress has by no means been smooth, and several EU economies may still face significant problems in maintaining fiscal rectitude in the coming years.

The Italian government's efforts to sustain its budget deficit reduction program ran into troubled waters in early October. The far-left Reconstructed Communists (RC) party's opposition to the pension reforms proposed in the 1998 budget led it to withdraw its support for the Olive Tree coalition, forcing the resignation of the Prodi administration. Fortunately, the crisis was short-lived, as the RC backed down and agreed to support the government. However, the government was forced to make concessions in order to regain the RC's parliamentary support, including a watering down of the proposals for welfare reform and an agreement to introduce legislation to reduce the working week to 35 hours in 2001, a year later than in France. The deal seems likely to ensure that the 1998 budget will be approved and keep the budget deficit on a downward track next year. However, it appears to have delayed, if not derailed, the government's plans for a structural reform of the pension system and, as in France, the planned reduction in the working week could pose a significant threat to the future competitiveness of the economy. The German government has also failed to secure parliamentary approval for its wide-spread tax reform package, but the coalition has agreed to push ahead with the valuable pre-election reduction in the solidarity tax from 7.5% to 5.5% in 1998.

**Recovery spreads from exports to domestic demand.**

In spite of these problems, the near-term prospects for the European economies are generally favorable. Exports are continuing to benefit from the improvement in competitiveness of the continental European economies, due to currency depreciation and cost moderation, and are likely to remain the main driving force for a while longer. Moreover, there are signs that the recovery in some economies is now being augmented by a strengthening in domestic demand. Although consumers remain cautious in the face of the persistently high levels of unemployment and modest wage settlements, private sector employment has begun to rise in many economies, with the notable exception of Germany, and consumer confidence has generally improved. Private consumption is already on an upward trend in Italy, the UK, Spain and several of the smaller economies, and this recovery is expected to spread to Germany and France in the coming year as the employment situation improves and the tax burden diminishes. Business investment in Germany and France has also been slow to respond to the recovery in output and rise in corporate profits. However, higher capacity utilization rates in the manufacturing sector, which now match or are close to their historical averages, and the more favorable demand outlook is expected to stimulate a pick-up in equipment investment over the next twelve months. Construction investment, however, may remain relatively weak across most of Europe, due in part to the squeeze on public sector programs from governments' fiscal consolidation efforts.

**Further moderate strengthening in European growth.**

Overall, we continue to forecast a moderate strengthening of economic growth in Western Europe in the coming year as the export-led upswing spreads to consumer spending and business investment. Real GDP growth is forecast to improve from an estimated 2.5% this year to an upwardly revised 2.7% in 1998 before slowing to 2.6% in 1999. Stronger growth in the major economies of mainland Europe, notably Germany, France and Italy, is expected to more than compensate for the anticipated slowdown in the UK. An improving employment situation should lead to a modest drop

in the current high rates of unemployment. The unemployment rate in Western Europe is expected to decline from an average of 10.9% this year to 10.7% in 1998 and 10.3% in 1999. Inflation appears to have reached a cyclical trough in most countries and is expected to pick-up as the effects of currency depreciation filter through and demand strengthens. However, the pace of inflation is expected to show a relatively moderate acceleration in view of the large amount of slack in European labor markets, generally subdued commodity prices and the continuing constraint of global competition. Consumer price inflation in Western Europe is forecast to edge up from 2.0% in 1997 to 2.4% in 1998 and expected to average 2.3% per year over the period 1999-2002.

#### Still on track for EMU.

Most of the members of the European Union still seem to be on course for participation in monetary union in 1999. Inflation rates and long-term interest rates in 14 of the 15 countries, the exception being Greece, meet the convergence guidelines. A combination of tough fiscal measures, statistical revisions and a strengthening recovery has brought most countries, again apart from Greece, within reach of the Maastricht fiscal deficit criteria. There are still some concerns about the sustainability of the budget deficit reductions, notably in the case of Italy. But we continue to expect that the criteria will, if necessary, be flexibly interpreted in order to ensure that EMU starts on schedule. We still anticipate that EMU will begin on time in January 1, 1999 and include 11 countries. Only the UK, Denmark and Sweden, who all have opt-outs, and Greece, who will not meet the convergence criteria for several more years, are unlikely to participate in the first wave. The recent political crisis in Italy indicates that it is by no means certain that there will be smooth transition to EMU. At their meeting in Luxembourg in September, the European Union finance ministers agreed that when the decision is made next May on the initial members of the monetary union, the bilateral conversion rates which will apply from January 1, 1999 will also be announced, eight months ahead of schedule. There is a risk that exchange rates may come under pressure in the run-up to monetary union if exchange markets feel that the proposed bilateral rates, which will probably be the current ERM central parities, are not sustainable.

## DEVELOPING ASIA: TIGERS TAKE TIME-OUT

*Narendra Singh*

#### Currency crisis will slow growth significantly.

Growth in the east Asian region has slowed down significantly and is expected to slacken further next year. The currency crisis that started with the floating of Thai baht on July 2 had a "contagion" effect on all the economies of the region. With the notable exception of China and Hong Kong, the currencies of all the major economies in the region have depreciated at least 10% since the beginning of the year. Thailand tops the list with over 50% devaluation; Indonesia, Philippines and Malaysia have seen devaluation in 30-35% range; currencies of Korea, Singapore and Taiwan have declined by 10-15%. In response to the crisis, Thailand has worked out a stand-by agreement with IMF although it is arguable if the amount of credit line (\$17.2 billion) will suffice to stabilize the currency. There were failed attempts at toppling the Hong Kong dollar. The subsequent rise in interest rates led to a sharp decline in the Hang Seng index. The currency contagion changed into a stock market contagion as financial market across the globe fell in unison. An IMF agreement to stabilize the Indonesian rupiah in late October has had a calming effect on the markets although at the time of writing this report the financial markets remain jittery.

**Asian crisis similar to 1994's "Tequila effect."**

The Asian crisis bears a strong resemblance to Latin "Tequila effect" of late 1994. In both cases the crash followed a period of prolonged economic boom. The high growth potential of the region and a perception (encouraged by the central banks) that currency risks were negligible attracted foreign capital looking for high rate of return. Several years of high current account deficit (supported by large capital inflows) set the stage of the currency crisis. A significant amount of capital, especially in the case of Thailand, found its way into the real estate sector. In the case of Indonesia, the foreign capital financed reckless growth in corporate debt. To compound matters, the regulatory machinery in the region has proven inadequate in monitoring the quality of loans the banks and financial companies have made (with a significant part funded by foreign money). For many investors and debtors, lulled by the years of currency stability, the float came as a shock. Because the cost of hedging for currency volatility significantly exceeded the perceived benefit or potential loss, very few were adequately covered. As a result a run on the currencies soon became a stampede. The opaqueness of the financial system and suspicion that political interference, rather than rational policy, is guiding government decisions did further damage to investor confidence, and has prolonged the currency slide.

**Domestic demand will weaken, and imports will be squeezed.**

There have been predictable consequences of the crisis. Consumer demand has weakened in most countries. For instance, in Thailand demand of durables has plummeted with sales of new cars falling 70% in September. The devaluation-induced credit crunch, high interest rates, lack of financing and cut back in government spending would result in a very slow 1998. Inflation is picking up and will probably peak by the middle of next year. Currency depreciation will continue for another 3 to 4 months as investor confidence, both domestic and foreign, stabilizes. Government budgets across the region for 1998 are tailored to squeeze imports. Large infrastructure projects with significant import-content or foreign-loan content have been put on hold. That is bad news for construction sector which is already slated for a slowdown due to excess capacity in the commercial sector.

**Exports will be the key to growth.**

Exports will be a key driver for growth. Since intra-ASEAN-4 exports is only 6% of their total exports, the slowdown in domestic demand will not be reinforced by slowing exports. However, continued growth in US and Europe will be crucial in preventing an outright regional recession. Since the devaluation far exceeds any overvaluation the currencies of Thailand, Indonesia and Malaysia suffered prior to the crisis, they will enjoy a large price advantage. The big risk is the outlook for Japan which accounts for 18% of exports from the ASEAN-4. However, even a modest increase in the Japanese market share translates to large increase in exports for these economies.

**The Korean economy looks fragile, with a weakened banking sector.**

Outside the ASEAN-4, the Korean economy looks the most fragile. The Korean economy is on the declining phase of the business cycle and appears close to its bottom. Weak exports in 1996 and sluggish domestic demand this year has exposed the inefficiencies of the large conglomerates. The result is several high profile corporate bankruptcies which in turn has led to deterioration of the banking sector's assets. The Bank of Korea has taken 49% stake in Korea First Bank, one of the largest banks, to prevent its collapse and has offered to bail out 19 struggling investment banks in exchange for more management control. However, the timing could not be worse for such a move. The won is sliding and is vulnerable to further speculative attack. Foreign exchange reserves are running low partly due to futile attempts to contain the currency's decline. Nonetheless, a weak won, up to a point, is needed to help Korea export its way out of the slowdown. If exports, currently growing above 15%, flounder, the won's fate would be sealed and Korea would have to knock on the IMF's doors. This might happen after the December presidential elections.

**The Hong Kong dollar should resist speculative attacks.**

**Recovery expected by 1999 for most economies.**

Another risk over the next 3-6 months is the continued pressure on the Hong Kong dollar. The decline in stock market and the increase in interest rates will result in slow-down in domestic demand, particularly consumption spending. We do not expect the HKMA to buckle under pressure, especially in the first year of Hong Kong's return to Mainland China. It is politically too costly. In any case, there is no economic justification for devaluing Hong Kong's currency although that has not been enough to prevent speculative attacks.

Economic recovery for the region as a whole is expected by 1999 although growth in Thailand is expected stay anemic until 2000. In the coming years, capital flows into the region will be more discriminating. However, since the region does not suffer high fiscal deficit, management of monetary policy in floating exchange rate regimes will be easier. The crisis is a watershed for the financial sector of the region. Financial sector regulations are being tightened in the badly affected countries. Although floating exchange rates open the possibility of competitive devaluation, the risk of that event is very small. There has been speculation that China may be forced to devalue its currency in two years time to regain price competitiveness. This argument is untenable. China's manufacturing wages are still very low compared to the ASEAN countries and its cost advantage is not going to be eroded by the recent devaluations.

Below are some selected country GDP growth and exchange rate forecasts:

	GDP Growth Rate			Avg Exch Rate, Local/US\$ (% Change)			
	1997	1998	1999	1996 (level)	1997	1998	1999
Thailand	1.5%	1.0%	4.0%	25.34	22.8%	27.0%	-1.9%
Philippines	4.5%	4.0%	5.5%	26.22	12.0%	23.5%	5.1%
Malaysia	6.5%	4.5%	6.4%	2.52	10.5%	21.2%	-0.9%
Indonesia	6.0%	4.9%	6.5%	2342.3	18.2%	9.6%	0.0%
Korea	5.5%	4.8%	6.2%	804.5	12.7%	13.7%	-2.4%
Singapore	6.5%	7.0%	7.3%	1.41	5.0%	6.2%	-5.4%
Taiwan	6.4%	6.3%	6.1%	27.2	64.4%	3.8%	-7.1%
Hong Kong	5.6%	4.5%	5.5%	7.73	0.0%	0.0%	-0.1%

## LATIN AMERICA: HOW VULNERABLE IS LATIN AMERICA TO CURRENCY CRISES?

Darryl McLeod

**Latin American economies better-placed to withstand speculative pressures.**

In October, Latin American equity markets absorbed yet another volley of negative sentiment and profit taking provoked by Asian currency woes. How vulnerable is Latin America to an Asian-style currency meltdown? Apart from Brazil, the answer is not very, at least right now. Fortunately, Asia's crisis catches the big Latin economies in a fairly defensible stage in their economic cycle. We expect growth to slow in some and others to show symptoms of "bahtulism", but none will become seriously ill.

**Some current account strains, but no domestic bubbles.**

Analysts like to point to current account deficits and appreciated currencies as key vulnerability indicators—and Latin America has some of these. But what made Asia's economies vulnerable to devaluation is not problems with their traded goods sectors—Latin America can only wish for the export performance of most Asian countries. Asia's economic woes reflect the impact of a long economic expansion on non-traded or closed sectors such as real estate and domestic banking. Many Asian currencies have been appreciating against the dollar for ten years or more. It was not the level but the direction of change that banks and investors got used to. Hong Kong and Thailand, for example, accumulated mountains of debt secured by steadily rising real estate values and real wage increases. These asset values would be devastated by devaluation, so Asian governments resisted adjustment as long as possible. More long term loans accumulated and now these illiquid liabilities have to be slowly unwound dragging down many lenders in the process. In this respect a number of Asian economies caught the Japanese long boom disease.

**Banking sectors more re-strained.**

Latin America's economies have many problems, but a long real estate boom is not one of them. Nor have any of their currencies—outside of Argentina and Chile—appreciated steadily for many years. Argentina and Mexico are only two years out of a deep recession. Their banks have barely had time to restructure old loans, and in Mexico's case, much less take on new ones. Brazil's expansion is a year older, but its banking system is also just emerging from a wrenching crisis caused by rapid disinflation and fiscal reform. Consumer lending is just beginning to grow, but Brazil's authorities are always imposing this or that restriction on any new form of credit growth. Just a year out of recession, Venezuela's banks also have yet to begin any serious lending. In this respect, Latin America's recent banking crises have largely inoculated them against another major financial collapse anytime soon.



It is also important to recall that an OECD report released in mid 1995 declared that Mexico's crisis would be similar to Japan's with a long banking crisis inhibiting growth for many years. This turned out to be an incorrect assessment. Mexico's recession was very deep, but its recovery was also very rapid. Real GDP is now above pre-crisis levels and growing at over 6% annually. One reason for the quick recovery was that Mexico's monetary authorities knew how to work themselves out of debt crisis in the aftermath of devaluations. Chile and Mexico both learned about these problems in the early 1980s the hard way. And, perhaps more important, the response of all four big Latin countries to banking crises has been to throw open the doors further to foreign banks, adopt international regulatory standards and push for further financial deepening through pension reform and other measures. These are measures many Asian countries have been reluctant to take, despite their outward oriented development strategies.

**Some need to slow demand growth to stabilize current account deficits.**

Like the emerging Asian countries, several Latin American countries have growing current account deficits and strong currencies. But this expansion has not lasted long enough to generate deficits much above 3% of GDP — Brazil's 4.3% deficit is the largest of the big four. Venezuela still has a big trade surplus. However, the major economies are vulnerable because of their widening trade deficits. Argentina and Mexico are both growing at 6-8% annually, but imports are growing much faster than exports. This is a good time for both economies to slow to 4-5% growth and bring import growth back into line with exports. Both Argentina and Mexico can and probably should slow growth enough to stabilize their current accounts, neither of which exceeds 3% of GDP. The Mexican peso is too strong and should weaken 5-10% over the next three months, an additional safety valve to diffuse pressure on its currency. Argentina would rather raise interest rates than weaken its peso, but it too has a system for cooling import growth.

Brazil has already slowed growth enough to stabilize its trade account. It needs to stay the course and prepare for a likely speculative run on its currency. With over \$50 billion in reserves and a fearless Central Bank, Brazil can withstand a long siege. Initially the authorities will raise interest rates and restrict credit. If reserve losses mount they will also accelerate the monthly depreciation of the real. However, we don't expect a long crisis. With its equity market still up over 60% in dollar terms this year, Brazil can absorb a sharp correction in equity prices. Once share prices fall, investors will again find Brazil's massive privatization program irresistible and capital will come pouring back into its equity market. With \$50-70 billion in privatization revenues over the next three years, Brazil can finance \$30 billion dollar plus current account deficits and defend its currency for at least another two years. In the meantime, the threat of an Asia style crisis will help President Cardoso push through the key reforms he needs to consolidate Brazil's stabilization program.

For these reasons, Asia's currency crisis is unlikely to cause more than a sharp correction in Latin American equity markets and perhaps an overdue depreciation of the Mexican peso. Mexico and Argentina need to use the threat of a currency crisis as a reason to slow GDP and import growth to more sustainable levels. This is a prudent response because within a year or two the major Latin economies would have large current account deficits just as they enter national election years. Had the Asian crisis hit in 1999 or 2000, the major Latin economies would be much more vulnerable. Small adjustments to growth and exchange rates now will help sustain the current expansion longer. Meanwhile, watching Asia's travails the authorities can take preventive measures that can make a major currency crisis less likely and less costly.

**How much will growth have to slow?**

Normally growth with rising current account deficits would continue for some time. But Asia's crisis will make investors less willing to finance current account deficits. Asia's currency crisis caught the big Latin American countries fairly early in their recovery from the 1994-95 recessions. This is fortunate because none have accumulated big private local currency lending in real estate and other non-traded goods sectors. We expect Latin America's major economies — except Brazil and Mexico — to slow growth next year in order to stabilize their trade deficits.

## **RUSSIA: DAMAGE TO ECONOMY OF RECENT TURBULENCE IN WORLD FINANCIAL MARKETS IS LIKELY TO BE LIMITED**

*Martin J. Kohn*

**The negative effects on Russia of the recent turmoil in world stock markets are likely to be limited.**

Many economic developments in recent months have been moderately encouraging. But the key question at the moment is what impact the recent turmoil in world financial markets will have on the Russian economy. The answer of course greatly depends on how much longer and how much further stocks and related financial assets prices drop. However, even if financial markets do not quickly recover, the negative effects on Russia are likely to be relatively limited. Certainly, no return to galloping inflation and downward spiraling output is to be expected.

**Russian stock prices plunged in late October but remained over twice as high as they were at the end of 1996.**

The contagion of the tailspin in world stock markets hit Russia with particular force on October 28, when stock prices there fell almost 20%. Much of the lost ground was regained the next day but prices again fell on October 30. On the latter date, prices were only 12% below their October 27 level. Compared to their peak on October 6, they were 25% lower. But the value of Russian stocks on October 30 was more than double what it was at the end of 1996. Consequently, given the previous boom, the recent downturn, assuming it is now arrested, has not had a devastating effect on the value of Russian equity holdings.

**The drop in stock prices around the world will make it much harder to borrow abroad.**

Perhaps the most harmful effect on the economy of the plunge in stock prices around the world is not the decline in Russian stocks, but the difficulties it has created for Russian borrowing abroad. The turbulence in the world's financial markets will increase the reluctance of foreign lenders to make loans to such a relatively high-risk country. This will at a minimum increase the cost to the government of financing its budget deficit, almost half of which is now covered by loans from abroad. In addition, major municipalities, banks, and enterprises which have been borrowing in world capital markets or planning to do so will at least temporarily be unable to obtain loans abroad except at prohibitive cost. As a result, the evidently impending economic recovery could be somewhat weakened.

**But Russia is likely to escape a currency crisis.**

However, Russia is likely to escape some potentially dire consequences of recent events that threaten other countries. For example, a currency crisis seems unlikely. With the current account in surplus, inflation under control, and the ruble in purchasing power parity terms still undervalued, the recent stability of the ruble is likely to continue.

**nor is there likely to be a return to high inflation and plunging output.**

Furthermore, the troubles in the financial world are not likely to cause a resumption of the decline in production. The hoped-for expansion of bank lending to productive enterprises may fail to materialize, as banks continue to invest heavily in assets such as government securities, the yields on which can be expected to rise. But, while the absence of such lending may hinder renewed investment and economic growth, it would

**Inflation has continued to slow and GDP has leveled off.**

**The ruble has depreciated slightly.**

**However, the trade balance still shows a large surplus, and external debt has been rescheduled.**

**The Duma abandoned its plans for a no-confidence vote, but is hostile to the government's economic policies.**

not likely push output down, given that bank lending has in the past played a very minor role in financing production.

As for the positive economic developments referred to above, heading the list of good economic news is the continued slowing of inflation. Consumer prices in the first nine months of 1997 rose at annual rate of only 12%. This compares favorably with last year when prices rose about 22%. On the production front, the long-anticipated recovery has again failed to materialize this year. However, the prolonged decline in output that began in 1990, appears to have ended. As officially reported, GDP was a marginal 0.2% higher in the first nine months this year compared with the same period in 1996.

The external economic and financial position has generally continued to move in a favorable direction this year. Largely reflecting the ongoing slowdown in inflation, the ruble in nominal terms depreciated a modest 6% against the US dollar from the end of last year through late October. In real terms — that is, adjusted for inflation in Russia relative to inflation in the US — the ruble has appreciated slightly, by about 2%, vis-à-vis the dollar. In August, in what was largely a symbolic act in recognition and celebration of Russia's apparent triumph over inflation and its achievement of external economic stability, the government announced that the ruble will be re-dominated as of January 1 next year. On that date, three zeroes will be lopped off the ruble, with one new ruble worth 1,000 old rubles.

The trade balance continues to run a sizable surplus, equal to \$14.3 billion in January-August, the same as in the first eight months last year. The country's hard currency and gold reserves have risen about 50% this year, to almost \$24 billion at the end of September from almost \$16 billion at the end of 1996. In early October, Russia strengthened its external financial position when it signed a rescheduling agreement that had been under negotiation for many years with its commercial bank creditors in the "London Club." Under the agreement, Russia is granted a postponement of the payment of the \$24 billion in principal and most of the \$9 billion in interest it now owes these banks until 2002. Payments will then extend over an 18 year period. In addition, the inflow of foreign direct investment (FDI) picked up sharply in the first half of this year, rising to over \$2 billion dollars, a four-fold increase over FDI in the first six months of 1996. However, the total stock of FDI remains low proportionate to Russia's size and needs — no more than \$8 billion.

Political developments recently took a favorable turn, at least from the standpoint of President Boris Yeltsin and his government. The Duma (the lower and more powerful of Russia's two houses of parliament) in October first postponed and then called off a vote of no confidence in the government, thus giving the government more breathing room to pursue its reform agenda. The basic impetus behind the abortive effort to hold a no-confidence vote was the hostility of a majority of the Duma, which is dominated by communists and their allies, toward the government's aim of creating a market economy. The specific factors that appear to have pushed the Duma to the brink of a confrontation with the government this fall included its opposition to proposed spending cuts in the government's draft 1998 budget (which the Duma rejected in early October) and antagonism toward powerful First Deputy Prime Minister Anatoliy Chubays.

The government's proposed tax code, which the Duma had passed in principle on a "first reading" in June, was another point of contention between the Duma and the government. But attacks on the tax code were spearheaded not by the communists, but by the pro-market reform Yabloko party — headed by Gregory Yavlinskiy — which holds few seats in the Duma. The tax code is a key element of the govern-

**Yeltsin made clear that he intended to back the government.**

**Institutional reform has made little progress.**

**Moderate GDP growth is expected next year, while inflation will continue to slow.**

**The new Polish government will not alter the country's pro-market economic policies.**

ment's reform program and seeks to greatly simplify Russia's tax system, make it more equitable, and ease the tax burden on Russia's enterprises. Significant revisions may in fact be made to the draft tax code in the next few months.

The communists ultimately backed off from a no-confidence vote when Yeltsin made clear his intent to stand by his government and its program and indicated that the price of a successful no-confidence vote would be the dissolution of the parliament. With no viable or attractive alternative program of their own, they evidently feared defeat in the ensuing elections for a new parliament. The withdrawal of the motion for a vote of no confidence serves as a reminder of the great power that Yeltsin, as long as he stays healthy, can wield under Russia's constitution and of the concomitant weakness of the Duma.

Despite the advances in economic stabilization and the apparent end to the long slide in GDP, the basic institutional reform required to underpin a viable market economy in the long run appears to have made little progress. For example:

- There is little evidence of any significant gains in rooting out corruption.
- Tax collection remains seriously deficient. After a substantial improvement in the second quarter, the share of taxes actually paid relative to what was supposed to have been paid fell sharply in the third quarter. For the first three quarters as a whole, the ratio was only slightly over 50%.
- Wage arrears, both a major source of popular discontent and a symptom of institutional shortcomings such as inadequate tax collection and lack of creditor rights, have risen 15% since the end of 1996, despite the government promises to drastically reduce them this year.

As regards how the economy will fare for the rest of this year and next — assuming the accuracy of our prognosis of limited damage from the world-wide plunge in stock prices in October — real GDP in 1997 is now expected to be about what it was last year. Moderate growth of about 2% is anticipated for 1998. The official government inflation target in 1998 is 5%, but prices are likely to rise somewhat faster. However, inflation next year will almost certainly be below this year's anticipated 12%. As long as Yeltsin remains in the robust health he appears to have enjoyed over the last few months, no serious political challenge to the present government seems likely. However, progress on structural reform will nevertheless continue to be slow.

## **EASTERN EUROPE: TRANSFER OF POWER IN POLAND WILL HAVE LITTLE IMPACT ON ECONOMIC POLICY**

*Andrei Roudot*

In a major political development, a new government will soon take over in Poland as a result of the parliamentary elections there in September. What is most striking about the impending transfer of power is how little difference it will make to the pro-market economic policies that have prevailed for several years. In Poland, as in the Czech Republic and Hungary, there is broad agreement among competing political interests on the market orientation of economic policy and, for the most part, on the need to maintain strong stabilization measures.

But market reforms are under fire in Romania.

The Solidarity group was the big winner in Poland's parliamentary elections.

The UW's economic views are actually closer to those of the former communists than to those of the AWS.

Economic issues played a minor role in determining the outcome of the election.

The new government's most urgent task is to reduce the current account deficit.

In Romania, by contrast, the drive to introduce market reforms by the government that took office late last year has stalled in the face of rising popular discontent, indicating the absence of basic agreement on the thrust of economic policy. More encouragingly, the government that took over in Bulgaria amidst an economic crisis earlier this year continues to enjoy popular support despite the stabilization measures it has imposed.

In Poland, which has by far the largest population and GDP in Eastern Europe, the ruling coalition of the Democratic Left Alliance (SLD), which is the successor to the former communists, and the Polish Peasant Party (PSL) failed to win enough seats in the elections to retain its hold on the government. The big winner was the Solidarity Electoral Action (AWS), which captured 43.7% of the seats in the Sejm, the more powerful of the two houses that constitute the Polish parliament. The new government will be a coalition of the AWS and the Freedom Union (UW), a strongly pro-market party that won 13% of the Sejm seats. The UW head, Leszek Balcerowicz, will occupy the post of finance minister and also will be the deputy prime minister in charge of economic affairs. Balcerowicz is the architect of the shock therapy reforms introduced in 1990 and uncompromisingly favors market reform and strong stabilization measures.

The AWS-UW coalition is somewhat paradoxical in that, with respect to economic policy, the UW is closer to the SLD than to the AWS. The economic policy of the outgoing government, which was dominated by the SLD, was a continuation of Balcerowicz's shock therapy reforms. The emphasis was on privatization and macro-economic stability maintained through strict fiscal and monetary policies. The AWS, on the other hand, appears divided on economic policy. The party is basically pro-market, but many of its factions are primarily interested in defending workers' rights and increasing the role of trade unions. What the AWS and the UW mainly have in common is hostility toward the former communists.

However, while the AWS and the UW may seem strange economic bedfellows, the UW's significant role in economic policy is likely to neutralize substantially the influence of the less market-oriented elements in the AWS. This seems particularly likely since Prime Minister-designate Jerzy Buzek, an AWS member, will evidently support Balcerowicz.

Economic issues played a minor role in determining the outcome of the elections. The SLD-PSL coalition was turned out of office even though the economy — one of the fastest growing in Europe — has done very well under its stewardship. Real GDP rose 7.3% in the first half this year, above the already high 6.1% increase last year. Industrial production grew 11.3% in the first nine months. The jobless rate fell from 13.5% in September 1996 to 10.6% this September, while real wages increased about 7.5% over the same period. Inflation declined to 9.6% in January-September against 14.3% in the corresponding period last year.

Several factors explain why the former communists lost power despite their impressive economic record: there is widespread distrust of individuals and groups that in the past were communists or pro-communist; Poland remains a predominantly Catholic country, and the AWS took a strongly pro-Catholic stance; and, perhaps most important, the pro-Solidarity groups, which had been badly fragmented, unified in June 1996 with the formation of the AWS.

The election results are not expected to lead to major economic policy changes or threaten Poland's stability. GDP growth will continue and inflation will slow. The immediate economic task of the new government will be to curb the potentially destabilizing

The Czech Republic is in the midst of a growth slowdown . . .

. . . which could topple the ruling coalition.

But Czech GDP is expected to grow more rapidly next year.

Growth in Hungary has been accelerating this year.

Upcoming Hungarian elections are not likely to produce major changes in economic policy.

Romania's economic reform program has stalled in the face of rising popular discontent.

ing growth of the current account deficit, which may rise from 1% of GDP last year to 5% this year. It is almost certain that the new government will try to implement the outgoing government's plans to tighten fiscal policy and will support the already tight monetary policy of the central bank.

In the Czech Republic, economic growth continues to be slower this year than last. In the first half this year real GDP growth stood at 1.3%, substantially lower than the 4.1% for the whole of 1996. Inflation, which declined in January-May due to tight monetary policy, accelerated sharply in June, partly as a result of the May currency crisis, and again in July, largely because of the liberalization of rents and energy prices. Overall in January-September consumer prices rose 8.6%, faster than the 7.1% increase in the corresponding period last year.

The slowdown in economic growth contributed to a substantial loss of popularity of the Vaclav Klaus government. This may result in the collapse of the ruling coalition, early elections, and formation of a new government headed by the Social Democratic Party, currently the second largest in the parliament. A change of government may lead to some loosening of fiscal policy and introduction of protectionist measures, but is unlikely to bring about any drastic policy changes.

Despite growing inflation and balance of payments problems, the Czech crown appears to be strengthening slightly. The economic slowdown this year does not seem to reflect any fundamental unsoundness in the economy. Next year GDP growth is expected to accelerate.

The Hungarian economy appears to have recovered from the recession caused by the austerity program that was launched in March 1995. Many leading macroeconomic indicators, including GDP and investment growth, have risen more rapidly than was generally expected. Economic growth accelerated in the second quarter this year compared with the first quarter and last year as a whole. GDP grew 4.3% year-on-year in the second quarter against 2.1% in the first quarter and 1% in 1997. Overall in the first half of this year GDP rose 3.2%. From end-December to end-September consumer prices rose 14.5%, slightly lower than the 16.3% growth in the corresponding period last year. Because of substantial decreases in the large current account deficit and external debt in 1996 and this year, the forint has become much stronger.

The recovery brought about a rise in real wages. However, this rise has not so far offset the sharp fall in wages in 1995-1996 caused by the austerity program. As a result of the austerity measures, the popularity of the Socialist party, the senior partner in the ruling coalition, has fallen substantially. The Socialists' representation in the parliament, where they hold about 54% of the seats, could decrease considerably after the elections scheduled for next May. However, as in Poland and the Czech Republic, changes in the government after the elections are not likely to lead to major policy changes.

In Romania, the reform program introduced by the government that replaced the former communists a year ago has stalled. The initial support the government enjoyed has evaporated because of the discontent the new regime's stabilization program has generated. In particular, little progress has been made in the closure of financially ailing enterprises — a key element in the government's industrial restructuring plan. Furthermore, the coalition government has been weakened by the threatened defection of the ethnic Hungarian party because of legislation it perceives as anti-Hungarian. Prospects that the reform program will revive next year are not promising. However, pressure from international lending organizations could compel the government to get

But the Bulgarian government continues to enjoy public support despite the stabilization measures it has imposed.

Eastern Europe's economic outlook remains generally favorable despite the plunge in stock prices.

the reform program back on track. GDP is expected to be at best flat this year. On the plus side, inflation has been relatively low during the last several months compared to earlier in the year following price liberalization.

By contrast, the Bulgarian government was able to retain the public support of its stabilization policy. Bulgaria has continued to make progress in recent months in stabilizing its economy, which was hit by a severe crisis last year. Output continues to decline, but at a slower rate than earlier in the year. In the second quarter, the year-on-year GDP decline slowed to 8.3% from 11.7% in the first quarter. The overall GDP decline in the first half amounted to 9.8%. Since April, monthly price growth has remained substantially lower than in the corresponding months last year. The Bulgarian government has kept its promise to accelerate privatization, which is not only a necessary element of the transition to a market economy but also a vital source of revenue to help service the huge external debt.

As elsewhere, stock prices in Eastern Europe have plummeted recently. One result of the decline could be short-term instability of currencies there, particularly in Poland and Hungary. However, the turbulence in East European financial markets is not expected to alter the generally favorable economic outlook for most of the countries in the region.

### MIDDLE EAST: REAL GROWTH REMAINS BUOYANT, BUT THE PACE IS GENERALLY SLOWER AMONG OIL EXPORTERS

*Karanta Kalley*

Real economic growth among Middle Eastern oil exporters remains generally buoyant during the past three quarters, but the pace was slower than in 1996.

Although average oil prices during the first three quarters of 1997 have underperformed the 1996 average, they still remained stronger than those of 1995 and 1994. Accordingly, real output growth in 1997 continued its positive trend among the Middle East oil exporters but the pace of growth was slower than in 1996. Saudi Arabia and the other Gulf Cooperation Council (GCC) economies which are more oil-dependent and less diversified than the rest of the Middle East are estimated to underperform the regional average in 1997. Economic growth in 1998 for the GCC in general will average only slightly better than the 1997 average. Two notable exceptions in the sub-region are Qatar and Oman where growth in 1998 will be fueled by increased export of liquefied natural gas. In Iran, despite economic sanctions by the United States, economic growth has remained positive and the election of Mr. Khatami to the presidency has raised new hopes for a better economic environment and improved relations with the west.

Growth in non-oil Middle East, except for Israel, has largely remained robust during 1997.

In Turkey, economic activity accelerated during the summer months with industrial production growing at double digit rates and real GDP averaging 6.6% during the first half of 1997. However, Turkey continues to register large fiscal deficits and higher rates of inflation, creating a macroeconomic environment unlikely to be compatible with sustained growth. In the Levant, Jordan continues to benefit from a relatively broad-based economic reform program. Amid low inflation and declining fiscal and external deficits, economic growth in 1997 remains robust. As for Israel, the economy seems to have entered a state of slow growth resulting from the high interest rate policy of the Bank of Israel. Economic growth in 1996 was faster than sustainable and the Bank's concerns about inflation caused it to keep interest rates high. Growth so far in 1997 has been lackluster and we forecast continued slow growth during 1998 as

Inflationary pressures continue to ease during 1997 in the GCC but consumer price inflation remains in double digits in Iran and Turkey.

The peace process remains stalled but it is not dead.

monetary policy is likely to remain focused on inflation to the exclusion of other concerns such as growth.

The increase in consumer price inflation in 1995 was partly a result of reductions in government subsidies and the subsequent increase in the prices of publicly supplied goods and services. The absence of these factors in 1996, the general decline in the price of manufactured goods and the strength of the dollar to which most Gulf currencies are pegged, combined to bring average inflation down to below 3% in the GCC. Although the surge in consumer prices has abated, somewhat in Iran, the rate of increase will remain in double digits. In Turkey, inflation has shown a marked tendency to accelerate, rising to nearly 90% in September from about 80% in June. While Iran will continue to experience a gradual reduction in 1997 and 1998, inflation is expected to stay high in Turkey in 1997 and 1998 and will only slowdown in the medium term.

Events in the past twelve months indicate that Arab and Jewish extremists have succeeded in putting a temporary halt to the peace process. While the relationship between Israel and the Palestinian Authority is at an all time low, we do not believe that the peace process is dead. Both sides were driven in the first place to the bargaining table in Oslo for pragmatic reasons: both Israelis and Palestinians realized that the cost of the continued war was higher than peace. The events of the past months have not changed this basic fact. Israelis, while concerned about security, understand that continued occupation is too costly for the country. The Palestinians know that they will not be rescued by outside Arab countries or other powers, and must therefore deal with Israel if they are to create a stable society with self-rule. Thus, despite the current stalemate, both sides have large incentives to continue the process.

## **AFRICA: GROWTH STILL LARGELY DETERMINED BY WEATHER CONDITIONS AND COMMODITY MARKETS**

Most major economies in the region have registered positive growth rates during the first half of 1997.

Except for Morocco where the effects of the drought have pushed real GDP growth to near anemic rates, growth in most of the major economies in the region has generally been on the upward trend in 1997. Continued reform efforts in Egypt are beginning to pay off as economic growth surges above 5% for the second consecutive year with CPI averaging below 7% for the first time during the 1990s. Growth in Algeria has been robust due to buoyant oil prices and macroeconomic reforms but the economic fortunes of this nation will continue to depend not only on structural reforms but also on developments in the political sphere. Led by a strong investment growth, especially in the oil sector, economic activity in Algeria will remain strong in the short to medium term.

In sub-Saharan Africa, while central Africa continues to stagnate, favorable weather and buoyant commodity prices have provided the momentum for increased economic activity particularly in Cote d'Ivoire, Uganda and Southern African countries of Botswana and Malawi. Growth in South Africa, the region's economic power, remains positive but subdued in 1997 while Nigeria's economy remains captive to the seemingly unending constitutional crisis and the persistent weakness in macroeconomic and structural policies.

Consumer price inflation has remained high despite some success in fiscal stabilization and a slow down in the growth of money supply. However, serious problems remain as several countries continue to be ravaged by high rates of inflation. Angola and

Inflation is still a problem for some countries.



The recent turbulence in global equity markets has not spared some of Africa's emerging markets.

the Democratic republic of Congo still report hyperinflationary rates while Ghana, Madagascar and Nigeria still suffer under double digit rates in consumer price inflation.

The crisis which began in Asian equity markets and spread like wild fire to other world equity markets largely affected those African markets with significant foreign investor activity. These were South Africa, Egypt and Zimbabwe where share prices tumbled following the global sell-off and registered corrections in line with the rest of the battered markets. While we do not anticipate any significant long term effect on any of these economies, we see a potential impact on the monetary policy side of the real economy. Bond and stock market outflows, particularly in South Africa, will have a negative impact on the monetary policy side in as much as it may cause a further delay in further interest rate cuts and a possible slow down in economic activity.

EXECUTIVE SUMMARY — WORLD OUTLOOK

**MIER**  
**1997 NATIONAL OUTLOOK CONFERENCE**

Shangri-La Hotel, Kuala Lumpur  
2-3 December 1997

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**ASIAN ECONOMIC OUTLOOK**  
**1998-99**

by

Lawrence Krause



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

November 1997

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**Malaysian Institute of Economic Research**  
**Shangri La Hotel**  
**Kuala Lumpur, Malaysia**  
**December 2-3, 1997**

**ASIAN ECONOMIC OUTLOOK 1998-1999**

Lawrence B. Krause, Coordinator  
Pacific Economic Outlook, PECC  
University of California, San Diego

**PART I -- Introduction**

The assignment given to me for this conference was two-fold: to present the economic outlook for the Asian region and to discuss the currency crisis in Southeast Asia. As it turned out, those two subjects are actually one as the currency crisis has been prolonged, spread to Northeast Asia, and to equity markets throughout the world. It is directly and indirectly impacting on the economic outlook for the region.

The financial turmoil has brought to light two characteristics of the global economy that has not been given a great deal of attention. The first reflects the fifty years of effort to liberalize world trade. This has resulted in a situation as close to free trade as the modern world has ever seen. An unanticipated consequence of free trade is that when business firms lose their pricing power because of international competition, mistakes of monetary policy appear in asset markets rather than goods and service markets. For example, if the monetary authorities were to be too easy, property prices and stock prices would rise rather than the producer or consumer price index. Hence, traditional measures of inflation will not be an adequate guide for monetary policy.

The second characteristic is that international capital markets are even more integrated than are the underlying economies. Information technology has overcome the tyranny of distance. With instantaneous information and secure communications, money can be transmitted anywhere with the press of a button. A consequence of this is that domestic monetary policy -- the most effective policy instrument of government -- is constrained by international financial markets. In combination these two characteristics may mean that a monetary authority may not be aware that it has made a mistake or that the domestic financial system is fragile until the markets inform them.

### The Evolving Economic Outlook

The PEO forecasting team made its first forecast for 1998 at the beginning of 1997. The forecast for 1998 at that time was quite strong. The export-weighted average real growth rate for the eleven Asian economies was 5.4 percent, which was up 0.4 percent from a very positive forecast base for 1997. (The 1997 forecast was up slightly from the 1996 actual.). Eight of the eleven economies forecast higher real growth in 1998 than they were forecasting for 1997. Only China, the Philippines, and Vietnam indicated a slowdown and in all cases from a very high level. The attractiveness of the forecast was enhanced by the fact that while real growth was forecast to rise, inflation (as measured by the consumer price index) was expected to fall from 3.5 percent according to the 1997 forecast to 3.2 percent in 1998. This forecast is shown in Table 1. While real growth was expected to be strong, there was no boom anticipated in either 1997 or 1998. In other words, there was nothing internal in the forecast that suggested that the economic recovery could not be prolonged. The forecast was characterized as a high and sustainable plateau. That was, of course, before the currency turmoil struck Thailand which led to removing the fixed peg on the baht on July 2, 1997.

Several observations need be made about that original forecast. First, it was noted that the primary source of growth in practically all of the twenty PECC economies, including every Asian economy, was expected to be gross fixed capital formation. Indeed it has been an investment-led recovery in the region starting back in 1992. This came in for special accommodation because an investment-led recovery minimizes the risk of inflation since supply is put in place before demand, but the risk of the reverse imbalance was not recognized. The risk of excess capacity became evident in Thailand as completed office buildings and apartment houses remained unsold and empty in Bangkok, and factories were operating below capacity. It also became evident that the gross investment share in several economies was becoming unsustainably high. For example in Malaysia, the gross investment to gross domestic product ratio was exceeding 40 percent which is difficult to sustain for very long.

Second, the economic recovery was forecast to continue to have an export-led component. The region has three engines of growth; China, Japan, and the United States. If all three engines are moving forward at above trend rates, then the whole region will experience a non-sustainable boom. If two engines are moving forward and one is stagnating, then the region will enjoy balanced and sustainable growth. If, however, only one engine is pulling

and two are providing drag, then the region will suffer and may enter a recession. The original forecast had the desired middle configuration. Both China and the United States were forecast to grow above trend, while Japan was expected to have only slow growth (but more than 1997). As indicated below, the engines did not quite perform as expected.

Third, it was noted that the balance-of-payments for the region as a whole was continuing to deteriorate (higher current account deficits), and while no financing problem was anticipated, it was a matter of concern. That concern was expressed in a special section of the forecast in which the current accounts of the PECC economies were traced back to 1990 and the forecasts were pieced on to the data. Eleven economies were identified that had deficits in their current account that exceeded 3 percent of their GDPs through the 1998 forecast. Six of these economies are Asian -- Indonesia, Korea, Malaysia, the Philippines, Thailand, and Vietnam. None was thought to have a very difficult task of financing their deficits.

Finally, it was recognized that one of the risks to the forecast was of a financial upset. Thailand was identified as having such a risk as the problems of Thai finance companies were already making news in financial circles. It was believed at that time that the Thai monetary authorities were on top of the situation and would respond appropriately, but the risk remained.

### **The September 1997 Update**

By the time that the update of the forecast was done in early September 1997, the foreign exchange crisis was evident in Southeast Asia which was bound to impact on the forecast. For the inclusive PECC region of twenty economies, the surprise was that there was no overall surprise. The forecast average growth for both 1997 and 1998 had hardly changed. Furthermore, the small decline in the average was restored, and then some, by the extension of the forecast to 1999. However, there were significant changes in the sub-regions. The forecast indicated that seven of the eleven Asian economies were forecasting less robust growth in 1998 than they had earlier, as seen in Table 2. On average the mark-down in the forecast was 0.2 percent for both 1997 and 1998. The most significant adjustment was by Thailand which reduced its 1998 forecast from 7.2 percent to 3.5 percent. (The Thai forecast was made one month later than the others.) The financial crisis which was leading to a general rise of interest rates in the sub-region which was clearly responsible for the less robust outlook. The extension of the forecast for the Asian economies indicated that a further 0.2 percent rise of real growth in 1999 or back to a 5.4

percent level as originally forecast for 1998. The benign state of inflation was expected to persist as the CPI rise was even more moderate in the revision than in the original.

As noted above, the up-dated forecast overall average real growth did not change because weakness in Asia was matched by an enhance economic outlook in North America. The outlook for all three NAFTA countries strengthened. The United States is described as having a "goldilocks" economy; that is not too robust, not too slow, but just right. Real economic growth is seen as remaining above trend, and the trend itself may be a bit higher than thought earlier. Furthermore, productivity is also growing above trend. Hence, inflation is being held in check despite a very tight labor markets and somewhat higher wage increases. Meanwhile, the federal budget deficit is headed into surplus, and state and local finances are also back on solid ground. All geographic sections of the country have been benefiting from what may turn out to be the longest peacetime recovery in history. The only cloud on the horizon is the balance of payments which is deteriorating rapidly and headed back into record deficit territory.

The other economic engine in Asia that is moving forward, China, is also growing faster than forecast earlier being fueled by robust export expansion. However, China may not have been pulling its weight for the rest of the region. In part because of an unusually ample harvest and in part because of a miscalculation of prospective exports, China's imports have been restrained and show only minimal growth. Hence, China has been developing a large - and uncharacteristic - trade surplus. Anecdotal stories tell of a rising market share of US imports by Chinese made products, and a plunging share for Southeast Asia. For example, China's share of plastic tableware rose from 11 percent in 1989 to 44 percent in 1996, while Southeast Asia's share dropped from 60 percent to 25 percent; lamps and fixtures rose from 5 to 53 percent for China and fell from 61 percent to 16 percent for SEA; and suitcases and wallets rose from 26 percent to 47 percent for China and fell from 47 percent to 14 percent for SEA. In order to balance the takeover of Southeast Asia's export markets elsewhere, China must provide a growing market domestically, and this they have not done.

### **The World Economic Environment for 1998-99**

The world economic environment contains both good news and bad news for the Asian economic outlook. The good news is that the US and Europe will likely continue to grow at trend rates or above. The bad news is that real interest rates are likely to be rising. In the United States, economic fundamentals are likely to remain very sound, however, the

economy has simply run out of available labor supply. The Federal Reserve will feel compelled to act to prevent inflationary psychology from taking hold which, if it should occur, would require a recession to reverse. Thus they are likely to raise short term interest rates between the Spring and Summer of 1998 in several steps. The total amount of the rate rise will be designed to get the market's attention, but not so great as to cause the very recession they are trying to prevent. That is likely to be around 100 basis points (one percent). The FED is likely to keep up its pressure until the economy slows to or below its growth trend. This may take about nine months and then monetary policy will be reversed

The European economic scene is dominated by the preparations to create a common currency in 1999. EMU is likely to start on time and among a broad base of countries. This requires continuation of fiscal consolidation as most country budgets have deficits above the 3 percent EMU target. Most of the restraint will be on expenditures, and some taxes might even be reduced. On the monetary side, the authorities are maneuvering convergence of interest rates since a single money will require (almost) a single interest rate. This is being accomplished by the German rate rising, and the others falling. Since the DM is the dominant currency on the continent, this has the impact of a rise in overall rates. The UK economy is ahead of the others in economic expansion, and interest rates are rising there to restrain above trend growth. Hence, one can expect a general rise of interest rates. With this policy background, Europe is in the midst of a modest cyclical recovery as inventories have been worked down and exports have recovered. There is little prospect that this will accelerate into a boom, but on the other hand, it should last through 1999.

### **The Asian Economic Outlook: Assumptions and Background**

Making a forecast in the middle of financial instability is a tricky business, since --as will be discussed presently -- financial crises can take on a life of their own. We will make a critical assumption in order to make this tractable. The assumption is that the Korean situation will be stabilized by the beginning of 1998, and that the crisis will not spread to Japan. The Koreans will have to take tough, but not draconian measures to stabilize their finances. (More will be said about Korea below.) With the APEC endorsement of an IMF centered bailout, it is assumed that Korea will be stabilized and the financial crisis will have ended.

The 1998-99 outlook is conditioned by a legacy from 1997 and earlier. First, the Asian region evidences excess capacity in industry and in property development. The severity of the problem differs among the economies, but it is in evidence throughout the region.



Second, the level of real interest rates is higher than existed at the start of 1997. This resulted from the financial crisis when nominal interest rates were raised to prevent excessive depreciation of currencies, and from the inflationary consequence of depreciating currencies being rather limited. Third, fiscal consolidation to reduce budget deficits is quite general, also in response to the financial crisis. Finally, equity markets have been hit rather hard, and confidence is likely to be restored rather slowly.

In light of these circumstances, the Asian economy is likely to suffer a significant slowdown, but not a recession. The key to the difference is China. The financial crisis will reduce the Chinese growth rate below what it would otherwise have been in that exports to neighboring economies will be inhibited, but the domestic sources of growth are still strong. If China relaxes its excessive restraints on imports, then China will act as an engine of growth in Asia, along with the United States.

The weighted average real growth for the eleven Asian economies for 1998 is now forecast at 4.0 percent, about 1.2 percent less than forecast in September and rising to 5.0 percent in 1999 as seen in Table 3. (The Malaysian forecast has not been revised.) CPI inflation, on the other hand, is expected to remain below 3.0 percent. The main factor responsible for the lower growth estimate is a sharp slowing of fixed domestic capital formation.

Economic slowdowns in Asia are not that unusual. The last one occurred in the early part of this decade. Nevertheless, this slowdown is different. In the past, slowdowns were made necessary because of an on-going unsustainable economic boom that was leading to inflation. In response, the monetary authorities reacting to their own domestic circumstances raised interest rates to slow growth. In other words, the slowdown was self administered and carefully managed, but not this time. The current slowdown has been administered by global markets. While it may well be that domestic excesses were the underlying cause of the slowdown, the process which brought it about was much different. Rather than reacting to domestic inflation, monetary authorities this time raised interest rates to defend their currencies in the foreign exchange market. In this respect, Asia now looks more like Latin America.

## **PART II - Dynamics of a Financial Crisis**

The Asian financial crisis has been played out in three acts as follows: Act One -- Thailand and ASEAN; Act Two -- Hong Kong and Equity Markets; and Act Three -- Korea. There are two significant puzzles involved. The first question is 'Why has the contagion effect been so great?' It should be noted that the Mexican crisis in 1994-95 which was more severe than Thailand was confined fairly narrowly to that country. The second question is 'Why has it taken the foreign exchange market so long to establish a new equilibrium set of values?' We know that when the European exchange rate structure gave way and the UK pulled out of the band, the market righted itself in a matter of days. What is different about the Asian crisis?

### **Act One -- Thailand and ASEAN**

No one should have been surprised that Thailand would have financial troubles in 1997. Equity markets had been declining for over two years. Already in 1996, anyone driving through Bangkok -- which one does very slowly -- was bound to see the completed and empty buildings and the suspension of activity of many half finished building projects. The finance companies that had bankrolled these mistakes were in serious trouble, and sixteen were closed. A great deal of foreign money was borrowed to directly or indirectly finance the building boom. When Thai export growth slowed to a crawl, then concerns were raised about the balance of payments and Thailand's ability to make service on its foreign debt.

One might argue that it took foreign investors a remarkably long time to catch-on to the seriousness of the situation. Heavily reported street demonstrations and changes of Thai political leaders and ministers finally focused foreign attention on Thailand. When foreign speculators made a pass at selling the baht in early June 1997, the Central Bank was easily able to counter them and the baht appreciated to its strongest value in several years on June 17, 1997. The situation, however, was not sustainable as the baht was fundamentally overvalued. As confidence in Thailand's ability to hold a peg to the US dollar began to be seriously questioned at both home and abroad, the drain of reserves became too great and on July 2, 1997, the Central Bank threw in the towel and let the currency float. It depreciated rather quickly as seen in Graph I. By November 17, 1997, the baht depreciated 51.42 percent from its June 30 value, as shown in Table 4. When a currency is under pressure, interest rates rise naturally, and Thai rates were pushed up further by the monetary authorities to stem the currency depreciation. The distress of Thailand's financial

firms, the disappointing export performance, rising interest rates, and political uncertainty all weighted heavily on equity markets, and the Thai stock index also dived as seen in Graph II. It should be noted that most of the decline in the stock index occurred before July 2, as the depreciation of the baht was seen as a corrective measure and equity prices recovered.

Immediately after the baht was floated, attention turned to other ASEAN currencies. The Philippine Central Bank raised the overnight borrowing rate from 15 percent to 24 percent to defend the peso, and Bank Negara stepped in to defend the ringgit. As interest rates rose, stock prices declined. On July 11, Manila could no longer resist the pressure and floated the peso. By July 14, speculative pressure mounted on the ringgit and the Indonesian rupiah. Even the Singapore dollar was pressured to depreciate. The market talk was of contagion. Note that when one country's currency depreciates, the equilibrium value of the currencies of other countries that compete with it is also depreciated; that is if the nominal value is not also depreciated, the real value will appreciate. The market may have recognized this fundamental factor faster than central banks. The market seemed to have calmed down by mid July, but it was unhinged by the next act of the larger financial crisis. The International Monetary Fund was called in to provide support packages for Thailand, Indonesia, and the Philippines which included strict conditionality. By our November 17 closing date, the Indonesian rupiah had depreciated 42.9 percent, the Malaysian ringgit 32.2 percent, the Singapore dollar 8.9 percent and the Philippine peso just 2.6 percent. The stock markets of all of these countries also took a hit.

## **Act Two -- Hong Kong and Equity Markets**

When currencies of such an important group of economies as ASEAN depreciate, then attention spreads to other economies both in Asia and Latin America. A very important decision was taken by the monetary authorities in Taiwan. Despite the fact that Taiwan had been running a current account surplus for a number of years, had huge foreign exchange reserves, and had already allowed the NT dollar to depreciate marginally in previous years, the monetary authorities decided to stop resisting the pressure, and let the NT\$ depreciate 10 percent.

The Hong Kong dollar was next in line. The monetary authority in Hong Kong became alert to speculative pressures in mid August, but firmly resisted the pressure. The nominal value of the currency in Hong Kong is much more important than almost anywhere else in the world. The peg of 7.8 HK dollars to the US dollar was established in the early 1980s

as a way of sustaining confidence in the Hong Kong economy while talks were proceeding for the returning of Hong Kong's sovereignty to China. A stable nominal currency has the additional virtue of promoting Hong Kong as a regional financial center. The value of the currency was not seriously challenged from 1983 to August 1997. The monetary authority of Hong Kong has always followed very conservative policy, has amassed a huge foreign exchange reserve, and Hong Kong banks are well capitalized. Nevertheless, the real value of the HK dollar appreciated as other currencies depreciated.

A question that must be answered is 'Can Hong Kong compete for world commerce with a fixed exchange rate to the US dollar?' The answer is yes, but only if domestic prices are flexible downward. The particular price that is making Hong Kong non-competitive is high rents for housing, offices, and factories. The way to reduce rents is to reduce the value of properties. Property prices fall when interest rates rise, and the monetary authorities are quite prepared to raise interest rates to sustain the value of the currency which at the same time leads to a proper economic adjustment. Equity markets in Hong Kong became fully aware of the outlook for higher interest rates and fell dramatically, especially since a major portion of the exchange is made up of shares of property companies. The savaging of the Hong Kong stock exchange sent shock waves around the world. European markets fell sharply and the New York stock exchange (as measured by the DOW) fell 550 points, its greatest one day drop ever.

Panic in equity markets is not an unfamiliar event. It last happened in October 1987. However, just as in that earlier episode, buyers rush in when a market is seen to have overshot on the downside. By the end of November, equity prices in the United States had returned to their pre-crisis levels, although many other stock markets remained under pressure.

### **Act Three - Korea**

The Korean won has been under the same pressures as elsewhere in Asia. The Korean competitive position had eroded earlier as the Japanese yen depreciated rather notably from its high in April 1996, and Japan is Korea's most direct competitor. In response, the Bank of Korea (really the MOFE) had let the won depreciate very gradually throughout most of 1997. The Korean economy was evidencing countering trends. On the one hand, the foreign trade situation had improved markedly as export growth picked up and imports were restrained. Hence, the deficit in the current account was being sharply reduced. On the other hand, a string of corporate bankruptcies were occurring which was unhinging the

market. Seven of the top 30 Chaebol sought protection through voluntary bankruptcies, including the Kia Group, owner of the second largest automobile firm in Korea. When non-financial firms go bankrupt, they call into question the soundness of the banks that had lent them the money they cannot repay. Foreign bond rating services reduced the quality rating of Korean bonds from double A to triple B -- the next drop is to junk status.

This was all playing out in an atmosphere of great political uncertainty. Korea has a strong presidential political system. Presidents are elected for one term of five years without the possibility of re-election. The next election is slated for December 18, 1997, and there is no candidate that commands anywhere near 50 percent support (according to the polls). Thus, there is great uncertainty as to who will be president, who his economic advisors might be, and what economic policy might be followed. There is also a ten week gap between the election and when the new administration takes office. Most observers believe that the current president, Kim Young-sam, is a political lame duck and cannot steer needed legislation through the National Assembly. The National Assembly refused to pass critical financial reform and put off consideration until 1998.

As the won neared a psychologically important 900 level, the government vowed to defend the currency, but to no avail. Korea had amassed about \$70 billion of short term debts to foreigners, and there was great concern that the loans would not be rolled over, and Korea did not have enough reserves to pay them off. Furthermore, the currency intervention policy of the Bank of Korea is seriously flawed as it unwittingly announces to the market when the currency is under pressure that cannot be countered. This encourages all those needing dollars to buy immediately. The pressure became too great and the won was floated and exceeded the 1000 to the US dollar level.

The question faced by Koreans and others was how to restore stability. Most observers recognized that an IMF package was an essential ingredient. The Korean Government was loathe to take that route since it might affect the forthcoming election, and it was a sign that the world's eleventh largest economy could not manage its own affairs. After being rebuffed by both the United States and Japan in an attempt at a bailout without the IMF, Korea bowed to the inevitable and accepted IMF help.

The Korean financial crisis is of greater importance to the world economy than that of any other single economy in Asia. First, Korea is a much larger country. Second, Korea competes directly with Japan. If the Korean won should depreciate to an outrageous level -

- not impossible as the market always overshoots -- then the Japanese yen might come under such severe pressure that even the MOF of Japan could not stem the external and internal fallout. If then yen fell, then the German DM would be next and the Asian flue would have infected the entire globe. It is thus essential that a fire-wall be built around Korea. Fortunately, this is understood by finance ministers everywhere.

One further element raises the seriousness of the present situation. The US Congress has refused to enact fast track negotiating authority for the President, and therefore, the US has no positive instruments to use for trade policy. It is inevitable that the US trade deficit will balloon to gigantic numbers, probably to record territory. The US Administration will have to respond, and without any positive instruments, they might be tempted to turn to crude protectionism, or use of the 301 instrument to open foreign markets, which is greatly resented by other countries. If serious trade disputes were added to the current scene, then the cooperative atmosphere that is needed to stabilize world financial markets might be poisoned. The world is getting a whiff of the possibility of a global depression.

### The Two Questions

What can be said about the two questions posed at the outset? A possible answer comes to mind, and it relates to China. China is not just another competitor on the block. It is so large and has such a huge potential labor force, that all countries must make room for it by adjusting their market basket so as not to compete head-on, and to find niches where it can compete within China. This adjustment may require an undervaluation of currencies relative to the Chinese yuan during the adjustment period. The contagion effect was so large because all of the economies face the same challenge and only recognized it as others succumbed.

It may be taking a long time for the markets to clear because the degree of domestic financial weakness has been hidden in Asia, and only slowly is it becoming visible. There is a lesson in this in that financial liberalization forces secrets out into the open. It also gives financial institutions more leeway to get into trouble. Hence, it is imperative that financial liberalization be combined with prudential oversight so that financial systems remain basically sound.

### Analysis of a Financial Crisis

The decade of the 1980s was marked by the debt crises of Latin American developing countries, but this had little impact on Asia. Also the first financial crisis in the 1990s was in Mexico in 1994-95, but this also did not spread to Asia. The Mexican crisis, however, is worthwhile studying in detail because it contained all of the elements that would later appear in Asia. The Mexican experience suggests that there has to be five conditions present to create a foreign exchange crisis: an overvalued currency with a reluctance to devalue; a significant current account deficit being financed by other than foreign direct investment (FDI); a mishandling by the monetary authorities of the foreign exchange rate risk; existing problems in domestic financial markets and institutions; and policy uncertainty coming out of domestic politics. These may be necessary, but not sufficient condition for a crisis.

First, very severe circumstances follow when a country permits its currency to become overvalued, with the most important being a loss of international competitiveness. This usually results in a large or growing current account deficit in the balance of payments. Table 5 shows the evolution of the current accounts of the ten Asian economies during the 1990s. (Hong Kong does not report balance of payments.) Six of the ten economies had current account deficits relative to GDPs that were greater than 3 percent in 1996. The currencies of all six depreciated subsequently. In the case of Thailand, the deficit was growing rapidly and rose to about 8 percent in 1995-96.

Second, for a crisis to appear, the current account deficit must be financed by portfolio capital, that is everything but FDI. Table 6 sets out the proportion of the current account deficits that were financed by FDI (through 1995). For most of the economies, FDI was sufficient to finance most of the deficit. Vietnam is outstanding in this respect where over 90 percent was financed by FDI. Many of the others are in the 50 percent range. Thailand is a clear exception. From slightly over 30 percent in 1992, FDI dropped to only 8.7 percent in 1995. This suggests that Thailand was relying on very uncertain forms of financing, and it is not surprising that the crisis originated there. Indeed, it is uncertain that any other country could have triggered off the crisis other than Thailand.

Third, to turn a difficult foreign exchange problem into a crisis, the monetary authorities (possibly under the direction of the finance ministry) must mishandle the foreign exchange rate risk facing the country. The most common mistake is to throw their foreign exchange

holdings into the market in the vain hope that such intervention will stem the selling spree. In fact, using up of reserves is a sign to the market that the currency is under severe pressure and will likely devalue. The monetary authorities can compound the problem -- as was done in Mexico -- by borrowing foreign exchange themselves for intervention purposes, or by providing a foreign exchange rate guarantee for private borrowers. When the selling pressure overwhelms the monetary authority, the crisis ripens.

Fourth, the financial intermediaries in the economy must have already been in some trouble, usually because their asset portfolios contain too many non-performing loans. The reason that this is an element is that weak financial institutions keep the monetary authorities from restraining domestic liquidity sufficiently to head off the crisis. Higher interest rates put borrowers up against the wall, and keep them from making service on their borrowings. This impacts badly on the lending institutions which, if weak to start with, will themselves face insolvency. Central banks are then in a dilemma in that the proper restraining macro policy will force them to undermine the domestic financial system for which they are also responsible, and thus they are likely to temporize and not head off the impending crisis. The problems with Thai finance companies that preceded the currency crisis has already been noted.

Finally, there must be some political uncertainty which makes the policy outlook unsure for a full currency crisis to develop. Decisive corrective actions, even if taken on the brink of a crisis, will usually calm the markets because the policy actions will include the correction of the overvaluation. If domestic political concerns prevent a country from taking decisive action, then a crisis is inevitable. It may well be that appropriate action can only be taken under crisis conditions because it is only then that some political forces recognize that something must be changed, the status quo is not sustainable.

Possibly two additional lessons can be learned from the Japanese experience and the way that they failed to properly handle the collapse of their financial bubble in 1990-91. One lesson is that it is a mistake to fail to fully inform the public. The Japanese authorities kept minimizing the extent of the bad loan problem and therefore failed to generate public support for resolving it through collective action. The worst mistake is for a political leader to declare that the currency will not be devalued when there is a good chance that it will. This misleads the least sophisticated portion of the population, and can completely undermine the credibility of the government.



The second lesson is that there is great cost through delay in responding to a financial problem. When a problem appears, it is best to deal with it promptly rather than trying to grow out of the problem in the hope of saving weak financial institutions. They became weak through bad management, and if rescued, will be convinced they did nothing wrong and will continue to be badly managed. Delay only prolongs the agony and can make it worse. Facing up to a problem usually requires political leadership as the bureaucracy is likely to be very defensive because they were not vigilant enough to prevent the problem from developing.

### **Conclusions: Where Does the Region Stand?**

It was not long ago that financial experts were talking about the Asian miracle economies. How much has actually changed? While the eleven are a diverse group of economies, they have several similarities that have led to rapid industrial catch-up and rapid GDP growth, and these fundamentals have not changed. All eleven are outward oriented. They all accept FDI and several are originators of FDI. It has been FDI that is closely integrating the region with a cross pattern of investment, and that is likely to continue. Rapid growth in the past has been due to hard work, a willingness to save and invest --including huge investment in human capital -- and generally stabilizing macro economic policy. That is also unlikely to change. There is still much potential in Asia to expand international trade in goods and services, especially tourism. The firms in the region relish such opportunities. The region is also quick to adopt new technology regardless from where it was originally developed. In my view, there is no basic reason why the region cannot remain the most dynamic in the world.

There certainly will, however, be changes as a result of the currency crisis. A maturing process has begun. Business firms might well be less reckless in their investments with one eye on what is going on in China. Also financial institutions are going to be more cautious in their lending, insisting on a business plan that promises profit, rather than just accepting inflated property as collateral. The monetary authorities will likely keep closer watch on both banks and non-bank deposit institutions. Asia may also witness a more aggressive role for mergers and acquisitions. This will be possible as financial markets are liberalized and improve. And with the notable exception of Hong Kong, no economy is likely to announce a pegged exchange rate for the foreseeable future. This may add up to somewhat slower growth. Such a slowdown is inevitable as economies near the technological frontier. There is no reason, however, for Asia's growth to be any less outstanding as compared to other regions for the foreseeable future.

TABLE 1

14-Nov-97

Original Forecast of Real Economic Growth and Increase of Consumer Prices of Eleven Economies, 1997-1998						
(Percent)	(early 1997)					
		Real GDP/GNP		CPI		
		1997	1998	1997	1998	
China		9.8	9.0	6.3	5.6	
Hong Kong		5.1	5.2	5.9	5.7	
Indonesia		7.3	7.8	7.2	7.8	
Japan		1.7	2.6	1.3	0.6	
Korea		6.0	6.8	4.7	4.4	
Malaysia		8.2	8.6	3.4	3.5	
Philippines		6.0	5.7	7.5	7.0	
Singapore		7.5	7.7	1.8	2.0	
Taiwan		6.4	6.5	3.3	3.5	
Thailand		7.1	7.2	5.0	4.8	
Vietnam		9.6	9.2	12.5	9.5	
<b>Weighted Average ('92-'94)</b>		5.0	5.4	3.5	3.2	

The weighted average is based on the respective economies' exports during the period indicated.

TABLE 2		Revised Forecast of Real Economic Growth and Increase of Consumer Prices of Eleven Economies, 1997-1999									
(Percent)		1997		Real GDP/GNP		1999		1997		CPI	
				1998		1999				1998	
	China	10.3	11.2	11.2	11.5			3.8	4.4	4.8	
	Hong Kong	5.4	5.2	5.2	4.9			5.9	5.0	4.2	
	Indonesia	6.8	7.0	7.0	7.3			9.4	7.3	6.8	
	Japan	1.4	1.9	1.9	2.7			1.3	0.6	0.8	
	Korea	6.3	6.8	6.8	6.5			4.4	4.7	4.1	
	Malaysia	8.0	8.2	8.2	8.2			3.2	3.3	3.2	
	Philippines	5.2	5.0	5.0	4.8			7.5	7.0	6.8	
	Singapore	7.4	7.5	7.5	7.5			1.8	2.0	2.1	
	Taiwan	6.7	6.7	6.7	6.5			1.8	2.0	2.0	
	Thailand	2.5	3.5	3.5	N/A			7.0	8.0	N/A	
	Vietnam	9.0	9.1	9.1	9.1			5.0	7.0	8.0	
	Weighted Average ('92-'94)	4.8	5.2	5.2	5.4			3.2	2.9	2.9	

The weighted average is based on the respective economies' exports during the period indicated.

The weighted average is based on the respective economies' exports during the period indicated.

Table 3

Mid-Crisis Forecast of Real Economic Growth and Increase of Consumer Prices of Eleven Economies, 1998-1999

(Percent)	(November 1997)								
			Real GDP/GNP					CPI	
			1998	1999				1998	1999
China			9.2	9.5				4.4	4.8
Hong Kong			4.5	4.9				4.0	4.5
Indonesia			5.2	6.5				7.3	6.8
Japan			0.7	2.5				0.6	0.8
Korea			4.2	5.8				5.2	4.1
Malaysia*			8.2	8.2				3.3	3.2
Philippines			4.8	5.0				7.0	6.8
Singapore			6.1	7.0				2.0	2.1
Taiwan			6.2	6.5				2.0	2.0
Thailand			2.5	5.0				8.0	7.0
Vietnam			8.0	9.0				7.0	8.0
Weighted Average ('92-'94)			4.0	5.0				2.8	2.9
* Not revised									

The weighted average is based on the respective economies' exports during the period indicated.

Table 4

Financial Measures from June 30, 1997 to November 17, 1997, in Fourteen Economies

	Exchange Rate	Stock Market
	Change (%)	Index Change (%)
Australia	-7.24	-8.74
Brazil	-2.70	-27.72
Chile	-2.04	-13.73
Colombia	-18.99	17.76
Indonesia	-42.92	-39.34
Korea	-13.58	-33.33
Malaysia	-32.21	-38.06
New Zealand	-8.05	-4.24
Philippines	-2.60	-12.20
Peru	-29.21	-36.20
Singapore	-8.90	NA
Taiwan	-10.20	NA
Thailand	-51.42	-16.21
Vietnam	-4.50	NA

Table 5

### Current Account as a Percentage of GDP/GNP in Ten Asian Economies

	1990	1991	1992	1993	1994	1995	1996
China	3.3	3.6	1.3	-2.7	1.3	0.2	0.8
Indonesia	-2.8	-3.7	-2.2	-1.5	-1.6	-3.6	-4.0
Japan	1.2	2.0	3.1	3.1	2.8	2.4	1.7
Korea	-0.7	-2.9	-1.3	0.3	-1.0	-1.8	-5.0
Malaysia	-2.1	-8.8	-3.8	-4.8	-6.3	-8.5	-4.7
Philippines	-5.8	-1.9	-1.6	-5.5	-4.5	-3.6	-3.9
Singapore	9.0	12.2	12.2	7.6	16.4	17.7	15.0
Taiwan	6.7	6.7	3.8	3.0	2.6	2.1	4.4
Thailand	-9.1	-8.1	-5.7	-5.1	-5.7	-8.2	-8.0
Vietnam	-4.2	-1.9	-0.7	-7.5	-8.6	-10.1	-10.8
Hong Kong does not report balance of payments statistics							

Source: Pacific Economic Outlook, 1997-1998 , PECC.

Table 6

Percentage of Current Account Financed by Foreign Direct Investment in Ten Asian Economies

	1990	1991	1992	1993	1994	1995
China	S	S	S	194.2	S	S
Indonesia	36.6	34.8	63.9	78.3	53.7	53.3
Japan	S	S	S	S	S	S
Korea	-15.4	-3.9	-12.2	S	-44.5	-21.2
Malaysia	254	94.4	234.8	162.6	94.4	55.4
Philippines	20.6	62.5	26.5	28.6	43.7	54.5
Singapore	S	S	S	S	S	S
Taiwan	S	S	S	S	S	S
Thailand	31.6	24.4	31.2	24.7	10.8	8.7
Vietnam	93.0	218.5	2812.5	96.5	99.7	96.3

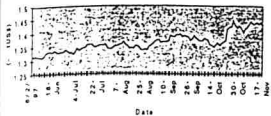
S = Surplus

Negative number indicates net FDI outflow.

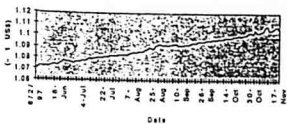
Hong Kong does not report balance of payments statistics.

Source: *Pacific Economic Outlook, 1997-1998*, PECC.

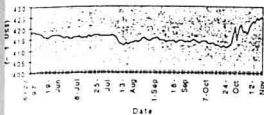
Australian Exchange Rate



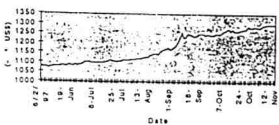
Brazilian Exchange Rate



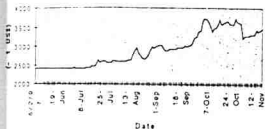
Chilean Exchange Rate



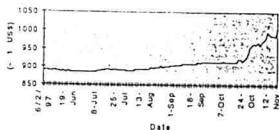
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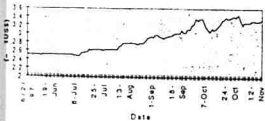
Indonesian Exchange Rate



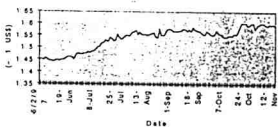
Korean Exchange Rate



Malaysian Exchange Rate

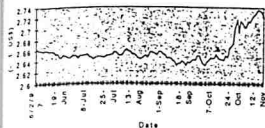


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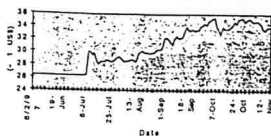




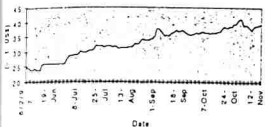
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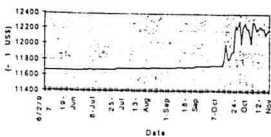
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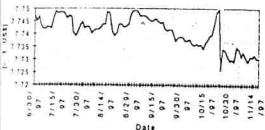
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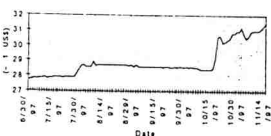
Vietnam Exchange Rate



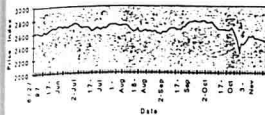
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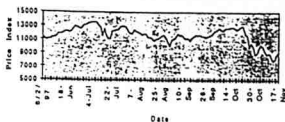
Taiwan Exchange Rate



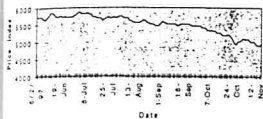
Australia SE All Ordinary



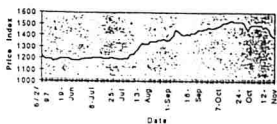
Brazil BOVESPA



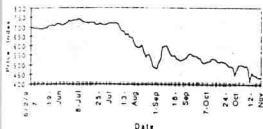
Chile General IGPA



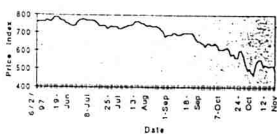
Bogota SE (IBB)



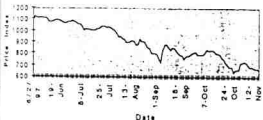
Jakarta SE Composite



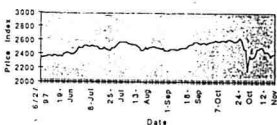
Korea SE Composite (KOSPI)



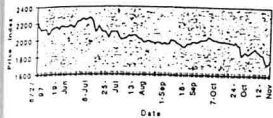
Kuala Lumpur Composite



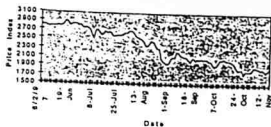
New Zealand SE Capital 40



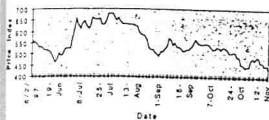
Lima SE General IGBL



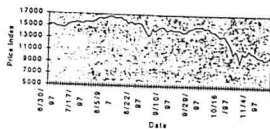
Philippines SE Composite



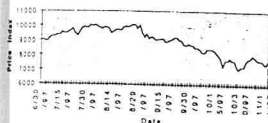
Bangkok SET



Hang Seng Index



Taiwan SE Weighted



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**ASIAN ECONOMIC OUTLOOK**  
**1998-99**

by

Lawrence Krause



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

# ASIAN ECONOMIC OUTLOOK 1998-1999

## PART I

### INTRODUCTION

The assignment given to me for this conference was two-fold: to present the economic outlook for the Asian region and to discuss the currency crisis in Southeast Asia. As it turned out, those two subjects are actually one as the currency crisis has been prolonged, spread to Northeast Asia, and to equity markets throughout the world. It is directly and indirectly impacting on the economic outlook for the region.

The financial turmoil has brought to light two characteristics of the global economy that has not been given a great deal of attention. The first reflects the fifty years of effort to liberalize world trade. This has resulted in a situation as close to free trade as the modern world has ever seen. An unanticipated consequence of free trade is that when business firms loose their pricing power because of international competition, mistakes of monetary policy appear in asset markets rather than goods and service markets. For example, if the monetary authorities were to be too easy, property prices and stock prices would rise rather than the producer or consumer price index. Hence traditional measures of inflation will not be an adequate guide for monetary policy.

The second characteristic is that international capital markets are even more integrated than are the underlying economies. Information technology has overcome the tyranny of distance. With instantaneous information and secure communications, money can be transmitted anywhere with the press of a button. A consequence of this is that domestic monetary policy -- the most effective policy instrument of government -- is constrained by international financial markets. In combination these two characteristics may mean that a monetary authority may not be aware that it has made a mistake or that the domestic financial system is fragile until the markets inform them.

### THE EVOLVING ECONOMIC OUTLOOK

The PEO forecasting team made its first forecast for 1998 at the beginning of 1997. The forecast for 1998 at that time was quite strong. The export-weighted average real growth rate for the eleven Asian economies was 5.4 percent, which was up 0.4 percent from a very positive forecast base for 1997. (The 1997 forecast was up slightly from the 1996 actual.). Eight of the eleven economies forecast higher real growth in 1998 than they were forecasting for 1997. Only China, the Philippines, and Vietnam indicated a slowdown and in all cases from a very high level. The attractiveness of the forecast was enhanced by the fact that while real growth was forecast to rise, inflation (as measured by the consumer price index) was expected to fall from 3.5 percent according to the 1997 forecast to 3.2 percent in 1998. This forecast is shown in Table 1. While real growth was expected to be strong, there was no boom anticipated in either 1997 or 1998. In other words, there was nothing internal in the forecast that suggested that the economic recovery could not be prolonged. The forecast was characterized as a high and sustainable plateau. That was, of course, before the currency turmoil struck Thailand which led to removing the fixed peg on the baht on July 2, 1997.

Table I  
Original Forecast of Real Economic Growth and Increase of Consumer Prices of Eleven  
Economies  
1997-1998  
(Percent)(early 1997)

	Real GDP/GNP		CPI	
	1997	1998	1997	1998
China	9.8	9.0	6.3	5.6
Hong Kong	5.1	5.2	5.9	5.7
Indonesia	7.3	7.8	7.2	7.8
Japan	1.7	2.6	1.3	0.6
Korea	6.0	6.8	4.7	4.4
Malaysia	8.2	8.6	3.4	3.5
Philippines	6.0	5.7	7.5	7.0
Singapore	7.5	7.7	1.8	2.0
Taiwan	6.4	6.5	3.3	3.5
Thailand	7.1	7.2	5.0	4.8
Vietnam	9.6	9.2	12.5	9.5
Weighted Average ('92-'94)	5.0	5.4	3.5	3.2

*The weighted average is based on the respective economies' exports during the period indicated.*

Several observations need be made about that original forecast. First, it was noted that the primary source of growth in practically all of the twenty PECC economies, including every Asian economy, was expected to be gross fixed capital formation. Indeed it has been an investment-led recovery in the region starting back in 1992. This came in for special accommodation because an investment-led recovery minimizes the risk of inflation since supply is put in place before demand, but the risk of the reverse imbalance was not recognized. The risk of excess capacity became evident in Thailand as completed office buildings and apartment houses remained unsold and empty in Bangkok, and factories were operating below capacity. It also became evident that the gross investment share in several economies was becoming unsustainably high. For example in Indonesia, the gross investment to gross domestic product ratio was exceeding 40 percent which is difficult to sustain for very long.

Second, the economic recovery was forecast to continue to have an export-led component. The region has three engines of growth; China, Japan, and the United States. If all three engines are moving forward at above trend rates, then the whole region will experience a non-sustainable boom. If two engines are moving forward and one is stagnating, then the region will enjoy balanced and sustainable growth. If, however, only one engine is pulling and two are providing drag, then the region will suffer and may enter a recession. The original forecast had the desired middle configuration. Both China and the United States were forecast to grow above trend, while Japan was expected to have only slow growth (but more than 1997). As indicated below, the engines did not quite perform as expected.

Third, it was noted that the balance-of-payments for the region as a whole was continuing to deteriorate (higher current account deficits), and while no financing

problem was anticipate, it was a matter of concern. That concern was expressed in a special section of the forecast in which the current accounts of the PECC economies were traced back to 1990 and the forecasts were pieced on to the data. Eleven economies were identified that had deficits in their current account that exceeded 3 percent of their GDPs through the 1998 forecast. Six of these economies are Asian -- Indonesia, Korea, Malaysia, the Philippines, Thailand, and Vietnam. None was thought to have a very difficult task of financing their deficits.

Finally, it was recognized that one of the risks to the forecast was of a financial upset. Thailand was identified as having such a risk as the problems of Thai finance companies were already making news in financial circles. It was believed at that time that the Thai monetary authorities were on top of the situation and would respond appropriately, but the risk remained.

## THE SEPTEMBER 1997 UPDATE

By the time that the update of the forecast was done in early September 1997, the foreign exchange crisis was evident in Southeast Asia which was bound to impact on the forecast. For the inclusive PECC region of twenty economies, the surprise was that there was no overall surprise. The forecast average growth for both 1997 and 1998 had hardly changed. Furthermore, the small decline in the average was restored, and then some, by the extension of the forecast to 1999. However, there were significant changes in the sub-regions. The forecasts indicated that seven of the eleven Asian economies were forecasting less robust growth in 1998 than they had earlier, as seen in Table 2. On average the mark-down in the forecast was 0.2 percent for both 1997 and 1998. The most significant adjustment was by Thailand which reduced its 1998 forecast from 7.2 percent to 3.5 percent. (The Thai forecast was made one month later than the others.) The financial crisis which was leading to a general rise of interest rates in the sub-region which was clearly responsible for the less robust outlook. The extension of the forecast for the Asian economies indicated that a further 0.2 percent rise of real growth in 1999 or back to a 5.4 percent level as originally forecast for 1998. The benign state of inflation was expected to persist as the CPI rise was even more moderate in the revision than in the original.

As noted above, the up-dated forecast overall average real growth did not change because weakness in Asia was matched by an enhance economic outlook in North America. The outlook for all three NAFTA countries strengthened. The United States is described as having a "goldilocks" economy; that is not too robust, not too slow, but just right. Real economic growth is seen as remaining above trend, and the trend itself may be a bit higher than thought earlier. Furthermore, productivity is also growing above trend. Hence, inflation is being held in check despite a very tight labor markets and somewhat higher wage increases. Meanwhile, the federal budget deficit is headed into surplus, and state and local finances are also back on solid ground. All geographic sections of the country have been benefiting from what may turn out to be the longest peacetime recovery in history. The only cloud on the horizon is the balance of payments which is deteriorating rapidly and headed back into record deficit territory.

Table 2  
Revised Forecast of Real Economic Growth and Increase of Consumer Prices of Eleven Economies  
1997-1999  
(Percent)

	Real GDP/GNP			CPI		
	1997	1998	1999	1997	1998	1999
China,	10.3	11.2	11.5	3.8	4.4	4.8
Hong Kong	5.4	5.2	4.9	5.9	5.0	4.2
Indonesia	6.8	7.0	7.3	9.4	7.3	6.8
Japan	1.4	1.9	2.7	1.3	0.6	0.8
Korea	6.3	6.8	6.5	4.4	4.7	4.1
Malaysia	8.0	8.2	8.2	3.2	3.3	3.2
Philippines	5.2	5.0	4.8	7.5	7.0	6.8
Singapore	7.4	7.5	7.5	1.8	2.0	2.1
Taiwan	6.7	6.7	6.5	1.8	2.0	2.0
Thailand	2.5	3.5	N/A	7.0	8.0	N/A
Vietnam	9.0	9.1	9.1	5.0	7.0	8.0
Weighted Average (92-94)	4.8	5.2	5.4	3.2	2.9	2.9

The weighted average is based on the respective economies' exports during the period indicated

The other economic engine in Asia that is moving forward, China, is also growing faster than forecast earlier being fueled by robust export expansion. However, China may not have been pulling its weight for the rest of the region. In part because of an unusually ample harvest and in part because of a miscalculation of prospective exports, China's imports have been restrained and show only minimal growth. Hence, China has been developing a large - and uncharacteristic - trade surplus. Anecdotal stories tell of a rising market share of US imports by Chinese made products, and a plunging share for Southeast Asia. For example, China's share of plastic tableware went from 11 percent in 1989 to 44 percent in 1996, while Southeast Asia's share dropped from 60 percent to 25 percent; lamps and fixtures rose from 5 to 53 percent for China and fell from 61 percent to 16 percent for SEA; and suitcases and wallets rose from 26 percent to 47 percent for China and fell from 47 percent to 14 percent for SEA. In order to balance the takeover of Southeast Asia's export markets elsewhere, China must provide a growing market domestically, and this they have not done.

## THE WORLD ECONOMIC ENVIRONMENT FOR 1998-99

The world economic environment contains both good news and bad news for the Asian economic outlook. The good news is that the US and Europe will likely continue to grow at trend rates or above. The bad news is that real interest rates are likely to be rising. In the United States, economic fundamentals are likely to remain very sound, however, the economy has simply run out of available labor supply. The Federal Reserve will feel compelled to act to prevent inflationary psychology from taking hold which, if it should occur, would require a recession to reverse.



Thus they are likely to raise short term interest rates between the Spring and Summer of 1998 in several steps. The total amount of the rate rise will be designed to get the market's attention, but not so great as to cause the very recession they are trying to prevent. That is likely to be around 100 basis points (one percent). The FED is likely to keep up its pressure until the economy slows to or below its growth trend. This may take about nine months and then monetary policy will be reversed.

The European economic scene is dominated by the preparations to create a common currency in 1999. EMU is likely to start on time and among a broad base of countries. This requires continuation of fiscal consolidation as most country budgets have deficits above the 3 percent EMU target. Most of the restraint will be on expenditures, and some taxes might even be reduced. On the monetary side, the authorities are maneuvering convergence of interest rates since a single money will require (almost) a single interest rate. This is being accomplished by the German rate rising, and the others falling. Since the DM is the dominant currency on the continent, this has the impact of a rise in overall rates. The UK economy is ahead of the others in economic expansion, and interest rates are rising there to restrain above trend growth. Hence, one can expect a general rise of interest rates. With this policy background, Europe is in the midst of a modest cyclical recovery as inventories have been worked down and exports have recovered. There is little prospect that this will accelerate into a boom, but on the other hand, it should last through 1999.

## THE ASIAN ECONOMIC OUTLOOK: Assumptions And Background

Making a forecast in the middle of financial instability is a tricky business, since -- as will be discussed presently -- financial crises can take on a life of their own. We will make a critical assumption in order to make this tractable. The assumption is that the Korean situation will be stabilized by the beginning of 1998, and that the crisis will not spread to Japan. The Koreans will have to take tough, but not draconian measures to stabilize their finances. (More will be said about Korea below.) With the stabilization of Korea, it is assumed that the financial crisis will have ended.

The 1998-99 outlook is conditioned by a legacy from 1997 and earlier. First, the Asian region evidences excess capacity in industry and in property development. The severity of the problem differs among the economies, but it is in evidence throughout the region. Second, the level of real interest rates is higher than existed at the start of 1997. This resulted from the financial crisis when nominal interest rates were raised to prevent excessive depreciation of currencies, and from the inflationary consequence of depreciating currencies being rather limited. Third, fiscal consolidation to reduce budget deficits is quite general, also in response to the financial crisis. Finally, equity markets have been hit rather hard, and confidence is likely to be restored rather slowly.

In light of these circumstances, the Asian economy is likely to suffer a significant slowdown, but not a recession. The key to the difference is China. The financial crisis will reduce the Chinese growth rate below what it would otherwise have been in that exports to neighboring economies will be inhibited, but the domestic sources of growth are still strong. If China relaxes its excessive restraints on imports, then China will act as an engine of growth in Asia, along with the United States.

The weighted average real growth for the eleven Asian economies is for 1998 is now forecast at 4.0 percent, about 1.2 percent less than forecast in September and rising to 5.0 percent in 1999 as seen in Table 3. (The Malaysian forecast has not

been revised.) CPI inflation, on the other hand, is expected to remain below 3.0 percent. The main factor responsible for the lower growth estimate is a sharp slowing of fixed domestic capital formation.

Table 3  
Mid-Crisis Forecast of Real Economic Growth and Increase of Consumer Prices of Eleven Economies, 1998-1999  
(Percent)

	Real GDP/GNP		CPI	
	1997	1998	1997	1998
China	9.2	9.5	4.4	4.8
Hong Kong	4.5	4.9	4.0	4.5
Indonesia	5.2	6.5	7.3	6.8
Japan	0.7	2.5	0.6	0.8
Korea	4.2	5.8	5.2	4.1
Malaysia*	8.2	8.2	3.3	3.2
Philippines	4.8	5.0	7.0	6.8
Singapore	6.1	7.0	2.0	2.1
Taiwan	6.2	6.5	2.0	2.0
Thailand	2.5	5.0	8.0	7.0
Vietnam	8.0	9.0	7.0	8.0
Weighted Average ('92-'94)	4.0	5.0	2.8	2.9

\* Not revised

*The weighted average is based on the respective economies' exports during the period indicated.*

Economic slowdowns in Asia are not that unusual. The last one occurred in the early part of this decade. Nevertheless, this slowdown is different. In the past, slowdowns were made necessary because of an on-going unsustainable economic boom that was leading to inflation. In response, the monetary authorities reacting to their own domestic circumstances raised interest rates to slow growth. In other words, the slowdown was self administered and carefully managed, but not this time. The current slowdown has been administered by global markets. While it may well be that domestic excesses were the underlying cause of the slowdown, the process which brought it about was much different. Rather than reacting to domestic inflation, monetary authorities this time raised interest rates to defend their currencies in the foreign exchange market. In this respect, Asia now looks for like Latin America

## PART II - Anatomy of a Financial Crisis

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2-3 December 1997

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**MALAYSIAN ECONOMIC OUTLOOK**  
**1998-1999**

by

MIER Short-Term Forecasting Team



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

**MALAYSIAN INSTITUTE OF ECONOMIC RESEARCH**

**National Outlook Conference  
2-3 December 1997  
Shangri-La Hotel, Kuala Lumpur**



**Malaysian Economic Outlook, 1998-1999**

**MIER Short-Term Forecasting Team\***

Mohamed Ariff  
Michael Yap Meow Chung  
Azidin Wan Abdul Kadir  
Elaine Tan Lae-Imm  
Ong Gaik Ean

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\* We would like to thank Daniel AA Percival and Kala Rani Selvadurai for assisting with the presentation slides, and Susela Thangavelu for helping to format the report.

## Executive Summary

The International Monetary Fund projects world economic growth in 1997 and 1998 at 4.2 per cent and 4.3 per cent respectively (1996: 4.1%). The United States economy continued to expand impressively for the sixth consecutive year, accompanied with low inflation. In Europe, economic growth was more wide-spread and is expected to gain further momentum. The state of the Japanese economy, however, is quite depressing with the recent collapse of Yamaichi adding to the problems. More disturbing news comes from the worsening economic and financial crisis in East Asia. South Korea, the world's eleventh largest economy, has already sought monetary aid from the IMF.

On the domestic front, real Gross Domestic Product (GDP) in Malaysia is estimated to grow by 7.8 per cent in 1997. MIER's surveys of the manufacturing sector and consumers in the third quarter of 1997, however, indicate that the business community and consumers are noticeably less optimistic about the future and feeling tentative following the sharp depreciation of the ringgit and the related downturn in the Kuala Lumpur Stock Exchange (KLSE). On the external trade front, data up to the month of September indicate a lower merchandise trade surplus this year, estimated at RM8.4 billion. The current account deficit in 1997 is estimated at RM15.3 billion. Inflation is anticipated at 3.0 per cent, while the unemployment rate is projected at 2.5 per cent in 1997.

Export growth, though, is trending steadily upward and this augurs well for economic prospects in 1998. The recovery in the global electronics industry will benefit Malaysia. Growth in imports, although forecast to pick up in 1998, will however lag behind that of exports. Some domestic substitution is anticipated, especially in consumption goods. The deferment of several large infrastructure projects with high import content will lessen the pressure on imports growth. But the higher cost of foreign currency denominated intermediate inputs will be a cause of concern, to the extent that domestic substitution is limited. Overall, we forecast the merchandise balance to show stronger surpluses in 1998 and 1999, benefiting from a weaker currency and adjusting to a lower growth in the economy. The merchandise surplus is projected at RM11.6 billion in 1998 and RM14.9 billion in 1999. The current account balance is forecast to register deficits of RM12.7 billion and RM11.0 billion in 1998 and 1999 respectively.

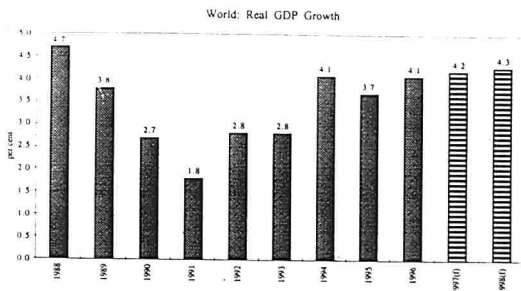
In 1998, we forecast real GDP growth at 5.8 per cent, picking up momentum in 1999 with a growth of 6.1 per cent. The export sector will continue to recover. Export of goods and non-factor services is forecast to grow by 11.5 per cent, following 7.0 per cent growth in 1997. In 1999, exports are anticipated to grow by 12.1 per cent. The better performance in export-oriented manufacturing sub-sectors will provide some boost for private investment in 1998. Private investment is projected to expand by 4.4 per cent in 1998, down significantly from a growth of 10.5 per cent estimated for 1997. It is forecast to recover to a growth of 7.4 per cent in 1999. Although lower economic growth is expected for 1998, nevertheless the labour market is not anticipated to see any sharp downturn and wages will remain fairly stable. This would lend some support to private consumption, which is forecast to expand by 2.9 per cent in 1998, down from 5.2 per cent growth in 1997. For 1999, private consumption is forecast to edge up to a 4.6 per cent growth. In tandem with the better growth expected for exports, imports will pick up in 1998. Import of goods and non-factor services is forecast to rise by 9.1 per cent following a 7.5 per cent growth in 1997. Imports will rise by 10.8 per cent in 1999.

The higher cost resulting from a weaker ringgit will see inflation edging up in 1998 before moderating slightly in 1999 when adjustments have been more fully made. We forecast the inflation rate to be at 5.3 per cent in 1998 and 4.0 per cent in 1999. The unemployment rate is projected at 2.7 per cent for both these years.

## External Developments

### World Economy

According to the International Monetary Fund (IMF), world economic growth is projected to be strong in 1997 and 1998 with output growth expected to be at 4.2 per cent and 4.3 per cent respectively (1996:4.1%). In the period 1990-1996, world economic growth averaged at 3.1 per cent. The global economic expansion will be supported by relatively strong growth in the United States, Canada and Europe. The United States economy continued to expand impressively for the sixth consecutive year, accompanied with low inflation. In Europe, economic growth was more widespread and is expected to gain further momentum. The state of the Japanese economy, however, is quite depressing as major indicators are weak at the moment. The recent collapse of Yamaichi adds to the problems. The disturbing news with regards to global outlook is the economic and financial crisis in East Asia which appears to be getting more serious. South Korea, the world's eleventh largest economy, has already sought monetary aid from the IMF which is needed to finance bad debts in its financial institutions.

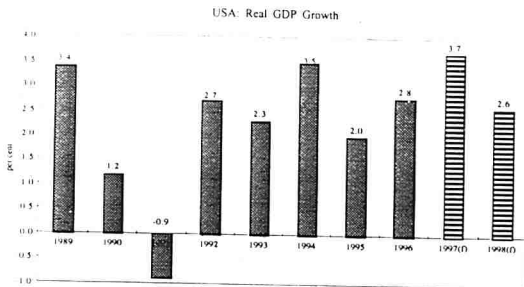


Global inflation is moderating. In advanced economies, inflation rate is projected to moderate further to 2.2 per cent and 2.3 per cent in 1997 and 1998 respectively, from 2.4 per cent in 1996. The depreciation of Asian currencies would have some bearing in reducing imported inflation in advanced economies. Inflation in developing countries is projected to moderate as well, to 10.0 per cent and 8.9 per cent in 1997 and 1998 respectively (1996:13.2%).

With the expectations of strong world economic activity, the IMF projected world trade, in volume terms, to gain momentum with expansions of 7.7 per cent and 6.8 per cent in 1997 and 1998 respectively (1996:6.3%). The IMF also forecast that Asian exports would be gaining pace to grow by 9.4 per cent and 9.9 per cent in 1997 and 1998 respectively (1996:4.4%). East Asian exports are expected to be boosted by their weaker currencies.

### United States of America

The United States (US) economy continued to grow at a comfortably strong rate during the first half of 1997. Real GDP grew at a brisk pace of 4.9 per cent (seasonally adjusted annualised rate-SAAR) in the first quarter of 1997. In the second quarter, real GDP moderated to 3.3 per cent (SAAR) but is still strong compared to the average of 2.2 per cent during the period 1995-1996. The growth level is considered to be strong and unsustainable as it may increase inflationary pressures.



Nevertheless, inflation rate has remained under control for now and was at a modest 2.2 per cent (year-on-year) in September, falling from 3.0 per cent in January. Consumer prices were low despite the unemployment rate of 4.7 per cent in October, a 24-year low figure. The unemployment rate has been below 5.0 per cent since April. Meanwhile, the Producer Price Index rose marginally by 0.1 per cent on a monthly basis in October, down from a 0.5 per cent rise in September, indicating moderate price pressures. The Federal Reserve Chairman, Alan Greenspan, told the US Congress that the tight labour market will lead to a rise in wages and will eventually raise inflation as well. Wage inflation is seen rising moderately with hourly wages increasing at a slightly faster rate of 4.2 per cent year-on-year in October, from

3.6 per cent in September. Higher productivity has enabled output to rise with moderate wage growth.

On the prospects for the second half, the increase in the number of non-farm payrolls was seen to be declining, indicating some slowdown in hiring. Meanwhile, the NAPM index, which indicates manufacturing orders, declined in September to the 54.2 per cent level from 56.8 per cent in August. Housing starts showed a much slower growth, and retail sales have been declining in September and October. Overall, the indicators suggest some moderation for the economy in the second half.

The Federal Reserve did not increase interest rates during their FOMC meeting in November, most likely due to the instability in world financial markets and also the low inflation rate. The New York Stock Exchange(NYSE) had also felt the effect of the tumble in Asian stock markets when the Dow Jones plunged 7.2 per cent on 27th October. Nevertheless, the NYSE has recovered much of the losses but the conditions of Asian markets are still uncertain as stock markets continued to dip. The IMF projects the US real GDP to grow by a robust 3.7 per cent in 1997, and with the likelihood of an interest rates hike in the near term, growth is forecast to moderate to 2.6 per cent in 1998. The economic slowdown in Asia, according to the Fed chairman, is expected to have a minimal impact on the US economy. This may be due to the fact that US exports to Asia is not large, at about 15 per cent of its total exports in 1996. Inflation is projected to remain moderate being at 2.1 per cent in 1997, rising to 2.6 per cent in 1998. Inflation may be lower as imports from Asia, which accounts for roughly 24 per cent of total imports in 1996, would be cheaper due to the currency depreciation.

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### Japan

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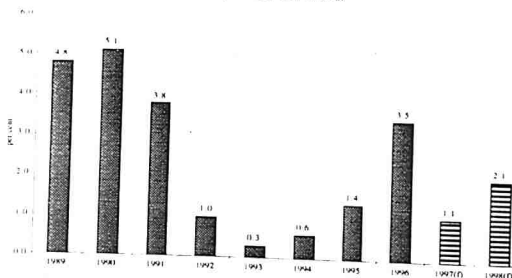
The Japanese economy continued to be generally weak. After a strong real GDP growth of 5.7 per cent (SAAR) in the first quarter, growth plummeted to a 11.2 per cent decline. The steep decline in growth in the second quarter was due to a large drop in private consumption. The latest indicators continued to point to disappointing economic conditions. The Tankan survey was unfavourable with the index for manufacturing falling to 3 from 7 in last June's survey. Meanwhile, the leading indicator for July was at 22.2 per cent, below the cut-off point of 50.0 per cent, which indicates possible worsening of economic conditions ahead. Housing starts continued to show a general downtrend. Industrial production remained relatively flat with growth of 1.6 per cent on a monthly basis in September, and furthermore, is forecast to decline in the coming two months.

Despite the gloomy indicators, the governor of the Bank of Japan said that gradual recovery will continue once the inventory adjustment process takes place. Some



economists feel less optimistic, expecting production to be stagnant for some time. Besides weak production, consumption is expected to continue to remain sluggish with the slump in the stock market. Business confidence and investment plans are also being affected by the weak stock market.

Japan: Real GDP Growth



The economic turmoil in Asia will affect Japanese exports to Asia, which accounts for 44.2 per cent of total exports in 1996, although that is not happening yet. In fact, in September, the merchandise trade surplus rose by 30 per cent compared to the same month a year ago. Of late, the Japanese government has announced a stimulus package to boost the economy through deregulation and structural reform measures. The package is expected to revive private sector demand and improve business and consumer sentiments. There is, however, no mention of direct government spending involved but some form of tax incentives are being planned. On account of the slower economic growth, the IMF is estimating 1.1 per cent real GDP growth for Japan in 1997. In 1998, supported by the government's deregulation and reform efforts and easy monetary policy, real GDP growth is forecast to rise by 2.1 per cent. However, the slowdown in Asian economies may actually result in a lower growth figure for Japan.

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## Europe

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In the European Union, economic performance is improving as most major economies showed better growth. After a moderate growth of 1.7 per cent in 1996, the EU is projected to recover with a stronger growth of 2.5 per cent in 1997, and further gaining pace to 2.8 per cent growth in 1998. The recovery in economic growth is attributed to easy monetary policy, relatively weaker currencies, and prudent fiscal management in pursuit of the Economic Monetary Union (EMU). The main concern

in EU has been the persistent unemployment rate which has not shown any satisfactory improvement. The IMF projects EU unemployment rate to improve only marginally to 11.1 per cent and 10.7 per cent in 1997 and 1998 respectively, from 11.4 per cent in 1996. Unemployment rate has been double-digit since 1993.

The German economy continued to show improvement. Real GDP growth increased by 1.0 per cent (from previous quarter) in the second quarter of 1997, picking up from 0.3 per cent growth in the first quarter. The major contribution for the second quarter growth came from net exports, accounting for ninety per cent of the growth. Domestic demand grew only marginally. However, business sentiment showed an encouraging improvement. Real GDP growth for Germany is forecast to rise to 2.3 per cent in 1997, picking up further to a growth of 2.8 per cent in 1998 (1996:1.4%).



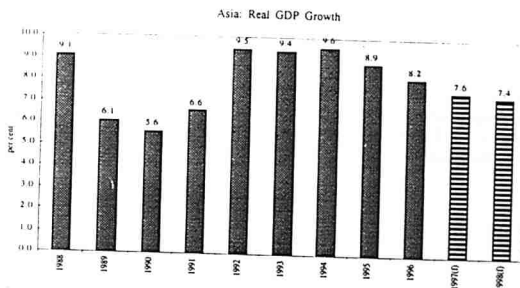
The United Kingdom's (UK) economy maintained a robust growth in the second quarter, expanding by a year-on-year growth of 3.6 per cent, accelerating slightly from 3.2 per cent growth in the first quarter. Growth contribution came from private consumption, and supported by stronger growth in exports and fixed investment. The strong growth has resulted in a pick up in inflation which was at 3.7 per cent (year-on-year) in October, the highest in two years, and up from 2.8 per cent in January. The high inflation prompted the Bank of England to raise interest rates in early November. The IMF projected real GDP growth for the UK to grow by 3.3 per cent in 1997, slowing down to 2.6 per cent in 1998 as the tight monetary policy takes effect.

Real GDP growth in France accelerated in the second quarter growing by 1.9 per cent compared to the previous quarter. In the first quarter, real GDP grew by 0.3 per cent. The stronger second quarter growth was due to improved export performance but

domestic demand has been rather stagnant. Inflation remained subdued but unemployment continued to remain high at 12.5 per cent in August. Economic growth for France is expected to be better in 1997, forecast at 2.2 per cent, up from 1.5 per cent growth in 1996. Growth is forecast to be higher at 2.8 per cent in 1998.

### Asia

The Asian economy is predicted to moderate in 1997 and 1998. Real GDP growth is projected by the IMF to slow down to 7.6 per cent in 1997, slightly down from a robust 8.2 per cent growth in 1996. In 1998, economic growth would be relatively stable, growing at 7.4 per cent. The slowdown in growth is expected to be partly due to the economic turmoil in Southeast Asia, and of late, in South Korea. Inflation rate in Asia, which was reduced to 6.6 per cent in 1996 due to lower inflation rate in China, is projected to moderate further to 5.8 per cent and 5.9 per cent in 1997 and 1998 respectively.



The Chinese economy, which moderated to a growth of 9.7 per cent in 1996 after four years of double-digit growth, is forecast to sustain growth at 9.5 per cent in 1997, and to pick up slightly to 10.0 per cent in 1998. Growth will continue to be supported by buoyant investment as well as exports. The Newly Industrialised Economies of Asia (NIEs) are forecast to moderate to a growth of 6.0 per cent in 1997 and 1998, from 6.4 per cent in 1996. In view of the recent developments in Korea, growth for the NIEs may be lower. Nevertheless, on the bright side, the recent depreciation of currencies of the NIEs may actually increase their export competitiveness.

In Southeast Asia, growth is projected to slow down as the economic turmoil resulting from the currency and financial crises becomes more acute. The Asian Development

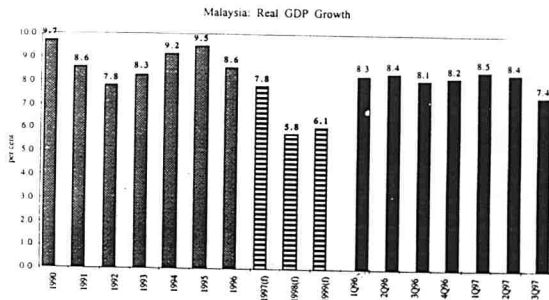
Bank (ADB) forecast economic growth in Southeast Asia to average about 4.9-5.7 per cent in 1997, slowing down to 4.5-5.0 per cent in 1998. In 1996, growth was at 7.4 per cent. Thailand will be the worst hit with growth for 1997 expected to be less than 1.0 per cent. The steep depreciation in the currencies of Southeast Asian countries will impact on inflation which is forecast to rise to 9.0 per cent in 1997 and 11.0 per cent in 1998, from a lower figure of 6.6 per cent in 1996.

The speculative currency attacks which started in Southeast Asia in July has recently spilled over to some other East Asian countries. The Korean won and the Taiwan dollar have both depreciated substantially. Even the Hong Kong dollar has been threatened by the speculative attacks. Also, stock markets have dropped sharply in those countries. As of late November, the Korean government announced that they would seek IMF assistance to help stabilise their economy. The preliminary estimate is at US\$20 billion but the amount may reach as high as US\$60 billion. The Korean financial crisis was brought about by failures of companies (chaebols) to pay their loans which then amounted to huge debts, impacting on the banking system. The depreciation of the Korean won of 20 per cent or so has contributed to further economic instability. Korean companies were said to have owed about US\$100 billion in foreign debt, of which US\$24 billion is to Japan. The inability of Korean companies to pay their debts can have bad repercussions on the Japanese financial system which is already facing severe problems. Korea is the third East Asian country to seek IMF assistance as a result of the currency and financial crises. In August, Thailand was granted a US\$17.2 billion loan aid package. Then, in October, Indonesia went into financial turmoil which led to an IMF rescue package estimated at US\$40 billion.

## Malaysian Economic Outlook, 1998-1999

### Overview

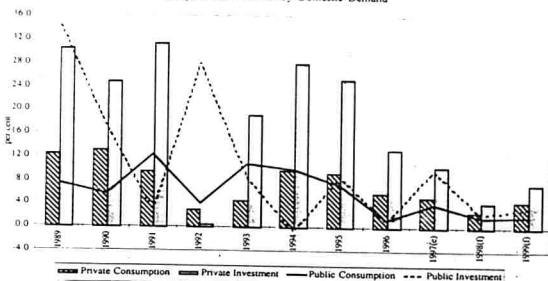
Real Gross Domestic Product is estimated to grow by 7.8 per cent in 1997, given the already strong growth of about 8.5 per cent in the first half of the year. MIER's surveys of the manufacturing sector and consumers in the third quarter of 1997, however, indicate that the business community and consumers are noticeably less optimistic about the future and feeling tentative following the sharp depreciation of the ringgit and the related downturn in the Kuala Lumpur Stock Exchange (KLSE). On the external trade front, data up to the month of September indicate a lower merchandise trade surplus this year, estimated at RM8.4 billion. The current account deficit in 1997 is estimated at RM15.3 billion, or 5.8 per cent of nominal Gross National Product (GNP). Inflation, as measured by the Consumer Price Index (CPI), is estimated at 3.0 per cent, while the unemployment rate is projected at 2.5 per cent in 1997.



A trade deficit to the tune of RM1.2 billion was recorded for the period January-September 1997. There were two consecutive months of a trade surplus in August and September. Notwithstanding this piece of positive news, the trade deficit for the period thus far in 1997 was significantly higher than the RM22.9 million deficit in the corresponding period in 1996. Export growth, though, is trending steadily upward and this augurs well for economic prospects in 1998. The recovery in the global electronics industry will benefit Malaysia, although prices are not expected to recover

sharply in the near future. Commodity exports are also expected to benefit from the weaker ringgit. Growth in imports, although forecast to pick up in 1998, will however lag behind that of exports. Some domestic-substitution is anticipated especially in consumption goods. The deferment of several large infrastructure projects with high import content will mean that additional pressure on imports growth will not likely be of the magnitude widely expected prior to the Budget 1998 announcement. But the higher cost of foreign currency denominated intermediate inputs will be a cause of concern, to the extent that domestic-substitution is limited. Overall, we forecast the merchandise balance to show stronger surpluses in 1998 and 1999, benefiting from a weaker currency and adjusting to a lower growth in the economy. The merchandise surplus is projected at RM11.6 billion in 1998 and RM14.9 billion in 1999. The services balance, however, will continue to be in deficit for the two years, resulting in current account deficits of RM12.7 billion and RM11.0 billion in 1998 and 1999 respectively.

Malaysia: Real Growth by Domestic Demand



While a better export performance is anticipated to underpin growth prospects in 1998, most domestic-related components of GDP are anticipated to be significantly affected by the unfavourable developments in the KLSE and the ringgit's weakness. Growth in private expenditure, both consumption and investment, will be noticeably lower in 1998 compared to this year as a result of the negative wealth effect and adverse expectations following recent happenings. Already showing up in MIER's surveys of business conditions and consumer sentiments, the effect of these negative expectations and uncertainty will be strongly felt in 1998. Following the almost 30 per cent depreciation of the ringgit against the US dollar at its lowest point in mid-November, the effect of higher cost of imported inputs and its inflationary impact on the domestic economy will adversely affect some business sectors. Much more serious will be the possible debilitating effect of a depressed stock market with its

adverse implications on corporate financial position. The downturn in the local bourse and a possible softening of property prices may also impact upon the asset quality of banks with large exposure to these sectors. The negative wealth effect impinging upon the purchase of consumer durables such as motor vehicles, expected to decline rather sharply in 1998, will have similar consequences on finance companies with large exposure to motorcar hire-purchase loans.

In 1998, we forecast real GDP growth at 5.8 per cent. The economy will pick up further momentum in 1999, with forecast growth of 6.1 per cent. The export sector will continue to recover. Export of goods and non-factor services is forecast to grow by 11.5 per cent, following 7.0 per cent growth in 1997. In 1999, exports are anticipated to grow by 12.1 per cent. The better performance in export-oriented manufacturing sub-sectors will provide some boost for private investment in 1998. Property-related investment will not see robust growth though. Private investment is projected to expand by 4.4 per cent in 1998, down significantly from a growth of 10.5 per cent estimated for 1997. It is forecast to recover to a growth of 7.4 per cent in 1999. Although lower economic growth is expected for 1998, nevertheless the labour market is not anticipated to see any sharp downturn and wages will remain fairly stable. This would lend some support to private consumption, which is forecast to expand by 2.9 per cent in 1998, down from 5.2 per cent growth in 1997. The Commonwealth Games hosted by Malaysia is another factor that is expected to provide some boost to private consumption. For 1999, private consumption is forecast to edge up to a 4.6 per cent growth. In tandem with the better growth expected for exports, imports will pick up in 1998. Import of goods and non-factor services is forecast to rise by 9.1 per cent following a 7.5 per cent growth in 1997. Imports will rise by 10.8 per cent in 1999.

The declining growth pace of the economy will take place in an environment of adjustment to a higher cost of imports and uncertainty in the business sector. The higher cost resulting from a weaker ringgit will see inflation edging up in 1998 before moderating slightly in 1999 when adjustments have been more fully made. We forecast the inflation rate to be at 5.3 per cent in 1998 and 4.0 per cent in 1999. The unemployment rate is projected to be at 2.7 per cent for both these years.

The recently unveiled Budget 1998, as widely expected, has proposed a surplus budget and this continues the trend of fiscal prudence in economic management. The deferment of some RM65.6 billion worth of mega projects will serve to avert high import requirements in the coming years. Projects that are not crucial to economic growth should be called off. This will ensure that resources are not diverted from economic activities that can generate exports or higher domestic value-added. Monetary policy is anticipated to remain tight in 1998. This is required to provide some support for the ringgit and to moderate excessive loans growth in the banking system. The potential risk of higher percentage of bad loans in the banking system in

the coming year and possible corporate financial stress in the wake of necessary adjustments will require continued vigilance on the authorities' part. In this regard, clear policies, transparency and timely disclosure of information to financial markets will go a long way towards confidence-building and averting systemic risks. The weakness in the ringgit may be a more long-drawn episode than initially anticipated, especially when linked to external developments over which policy-makers have little direct influence. Sustainability of the current account deficit, risk of over-exposure of the banking system to the property sector and loans for purchase of stocks, the impact of the KLSE slump on corporate finance are concerns that will have a significant influence on the ringgit's perceived value. Until the evidence is borne out in terms of how the Malaysian economy will emerge from this quandary, and how the authorities manage it, foreign portfolio investors are likely to remain on the sidelines. Meanwhile, addressing these issues will take time. The ringgit's exchange rate will hinge on the unfolding of these developments.

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### **MIER Economic Indicators**

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#### **Composite Leading Index**

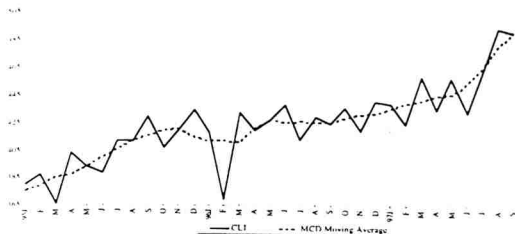
The Composite Leading Index (CLI), constructed using actual data up to September, was on a rising trend in the third quarter of 1997. The CLI expanded by 6.4 per cent and 7.2 per cent in July and August respectively before declining marginally by 0.7 per cent in September. The strong rise in the CLI was mainly attributed to a surge in exports and the slight downtrend in interest rates in August and September following the spike in July at the height of the speculative attack on the ringgit. The pick-up in production in the electronics sector as well as the rise in the export revenue of palm oil have also contributed to the higher CLI. However, with interest rates being higher in October and November and share prices steeply lower, the CLI may ease somewhat in the fourth quarter of 1997 or early 1998. The year-on-year growth was strong at rates of 11.7 per cent in July, picking up to 15.4 per cent and 15.8 per cent in August and September respectively.

#### **Composite Coincident Index**

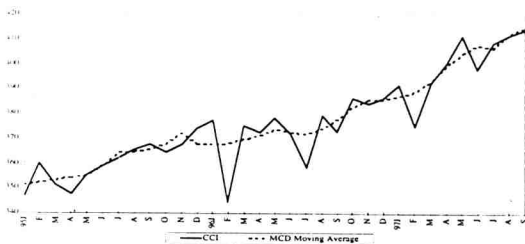
The Composite Coincident Index (CCI) was on a moderate uptrend, growing by 2.7 per cent in July, but slowing down to a growth of 0.7 per cent and 0.6 per cent in August and September respectively. The stable rise in the CCI suggests that economic growth would still be strong in the third quarter, mainly indicated by the sustained rise in the manufacturing production index. This is in tandem with the 7.4 per cent GDP growth for the quarter. The year-on-year growth was relatively strong at 14.0 per cent, 8.6 per cent and 11.1 per cent in July, August and September respectively.



Composite Leading Index  
January 1995 - September 1997



Composite Coincident Index  
January 1995 - September 1997

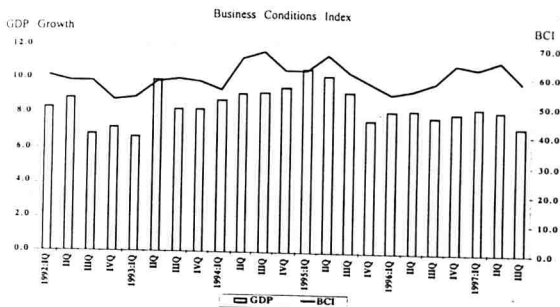


### Business Conditions Survey

Reflecting the uncertainty over economic growth prospects, business confidence appears dented somewhat following the sharp depreciation of ringgit and bearish performance in the local stock exchange. This is reflected by the latest MIER Business Conditions Survey result. The MIER Business Conditions Index (BCI) stood at 58.7 points in the third quarter of 1997, retreating by 6.5 points from the previous quarter. Nonetheless, the resilience of business sentiments is still evident as,

on a year-to-year basis, this quarter's BCI is almost unchanged from the 58 points registered in the corresponding quarter a year ago.

Growth in manufacturing sales were on a slight downtrend. Of the 174 manufacturing firms that responded to this survey, 34 per cent reported good sales performance. The reading is lower than the 39 per cent recorded in the last quarter. As domestic orders remained forthcoming, manufacturers remained optimistic about their short-term local sales, with 38 per cent of the respondents expressing confidence of achieving better sales. However, indicative of a possible slowdown in local sales in the coming quarter, the reading is markedly lower than the 50 per cent posted in the second quarter of 1997. Some 37 of the respondents were expecting higher export sales in the next quarter, down from 53 per cent registered previously.



Amidst declining sales, growth pace in manufacturing production appeared to have downshifted a notch. Parallel to the projected moderation in short-term outlook for sales, manufacturers were planning to scale down their production volume in the next quarter. Inventory levels remained relatively stable in the quarter under review. With the current uncertainty surrounding the ringgit, manufacturers appeared cautious in their investment spending. Survey responses pointed to weaker investment sentiment. Capacity utilisation in the manufacturing industry remained tight amidst sustained manufacturing production growth and two consecutive quarters of lower investment spending.

There appeared to be no major changes in domestic sales prices in the quarter under review. But prices of locally sold manufactured products are expected to rise in the next quarter. In tandem with the overall moderation, manufacturing employment appears less active in the third quarter of 1997. No major slowdown is, however,

### Box 1: Potential Output of the Malaysian Economy - Initial Estimates

Potential output is a useful concept used by economists in estimating the level of output (and its growth path), given a set of input, that is deemed as "sustainable". This often means that the economy will not be put under undue stress for example in the form of sustained price increases or escalating wages. There are also implications on the external balance of the economy, for example current account sustainability, if the analysis is extended somewhat. We estimate potential output for the Malaysian economy using a fairly standard methodology. The Malaysian economy has grown at very rapid growth rates over the past nine years, averaging at 8.9 per cent. Questions of sustainability and its accompanying macroeconomic consequences naturally arise at this stage.

To obtain potential output, an important step is to estimate the non-accelerating inflation rate of unemployment or *NAIRU*. This is the unemployment rate below (above) which inflation accelerates (declines). Since changes in the *NAIRU* are likely to happen gradually over time, observations in adjacent time periods on the inflation rate and actual unemployment rate are used to obtain a time series that correspond to the implicit value of the *NAIRU*. This indicator is based on a simple linear definition of *NAIRU*. Hence, it is assumed that the rate of inflation is proportional to the gap between the actual unemployment rate and the *NAIRU*. That is,

$$d\ln P = -\mu(UR - NAIRU) \dots (1)$$

$$\mu > 0$$

where  $P$  = price level  
 $UR$  = actual rate of unemployment  
 $d$  = first-difference operator

Using (1), an estimate of  $\mu$  can be generated on the basis of consecutive observations of unemployment rates and inflation. The assumption used is that the *NAIRU* is constant between two consecutive periods.

Thus,

$$\mu = -d^2 \ln P / dUR \dots (2)$$

Combining (1) and (2), the estimate of the *NAIRU* in any time period is calculated as:

$$NAIRU = UR - (dUR/d^2 \ln P) * d\ln P \dots (3)$$

The resulting estimated series of *NAIRU* are then smoothed to remove any outliers and/or stochastic variations.

The next step involves estimating a production function in the following form:

$$\ln Y = \ln a + \alpha \ln L + \beta \ln K + \epsilon$$

where  $Y$  = real GDP  
 $L$  = number of people employed  
 $K$  = capital stock  
 $\epsilon$  = stochastic error term

Constant-returns-to-scale is imposed on the above function, i.e.  $\alpha + \beta = 1$ . Having estimated the share of labour and capital in the production function, the values are then substituted into the following potential output function,  $Y^*$ , along with trend capital stock,  $K^*$ , and potential employment,  $L^*$ :

$$\ln Y^* = \ln \hat{a} + \hat{\alpha} \ln L^* + \hat{\beta} \ln K^*$$

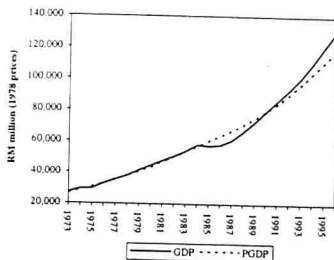
where potential employment,  $L^*$ , is obtained as follows:

$$L^* = LF^* (1 - \text{NAIRU})$$

where  $LF^*$  = trend labour force, which is the product of working age population, *WORKAGE*, and the trend participation rate, *tptr*.  
That is,  $LF^* = \text{WORKAGE} * \text{tptr}$

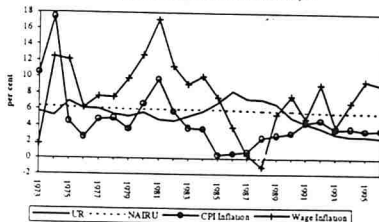
The resulting potential output series obtained is depicted in the following figure together with the actual output. It is immediately observed that the actual GDP was very close to the estimated potential from 1973 to 1984. Then, following the recession of 1985-86, when GDP contracted in 1985 and grew by just 1.2 per cent the following year, the potential output was above that of the actual. In the period that followed, up till the late 1980s, there was excess capacity in the economy, especially labour surplus. The actual output of the economy during this period was below that of the potential. The resource gap closed at about 1990, and from then onwards the output gap (measured as the percentage of actual less potential output) turned positive. In 1996, the output gap was estimated at around ten per cent.

Malaysian Economy: Actual and Potential Output



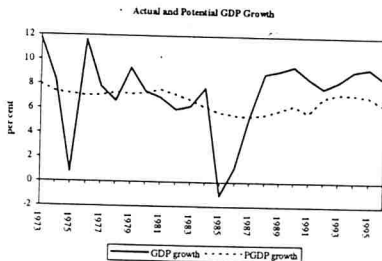
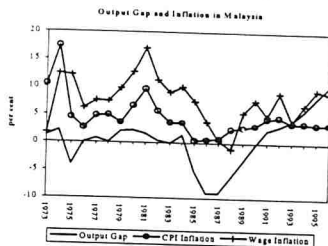
The figure below shows the unemployment rate (UR), estimated NAIRU and inflation rate in Malaysia.

Unemployment Rate, NAIRU and Inflation in Malaysia



It is observed that UR was significantly below the NAIUR briefly in 1973-74, and thereafter for two longer periods, in 1978-1983, and in 1990-1996. The inflation rate (both CPI inflation and wage inflation) generally rose in tandem during these three periods, indicating sustained inflationary pressures. Nevertheless, we should also bear in mind that in the early 1970s and the early 1980s, there were two world oil shocks which caused inflation to surge up, especially in 1974 and 1981. Reflecting the higher consumer price inflation, wages also increased during these two periods. In 1990, the unemployment rate was again below the NAIUR, following a period of rapid recovery in the economy after the mid-80s recession. Inflation again increased during this period, although in the case of consumer price inflation, there was a slight downtrend since 1993.

The following figure shows the estimated output gap (the percentage in which actual output differs from potential output) and inflation. It is immediately noticeable that the two are very closely related. There were small positive output gaps (indicating actual output above potential) in 1973-74 and 1976-84 prior to the recession in 1985. The output gap turned negative following the recession of 1985-86 (indicating actual output below potential). From 1985-1988, the negative gap was substantial, at an average of -7.4 per cent. The unemployment rate during this period averaged 7.4 per cent while the estimated NAIUR for the period averaged 5.9 per cent. Inflation rate averaged 1.1 per cent for the period. Since 1991, the positive output gap increased steadily from 2.3 per cent to 10.4 per cent in 1996. The unemployment rate averaged 3.2 per cent for this period, significantly below the estimated NAIUR of 5.6-5.7 per cent. The average inflation rate for the period was 3.9 per cent.



### Actual and Potential Output - Malaysia

	GDP (RM million)	GDP growth (%)	Potential GDP (RM million)	Potential GDP growth (%)	Output Gap (%)
1973	27,048	11.7	26,714	7.9	1.3
1974	29,293	8.3	28,685	7.4	2.1
1975	29,527	0.8	30,753	7.2	-4.0
1976	32,953	11.6	32,928	7.1	0.1
1977	35,523	7.8	35,260	7.1	0.7
1978	37,886	6.7	37,857	7.4	0.1
1979	41,428	9.3	40,584	7.2	2.1
1980	44,512	7.4	43,536	7.3	2.2
1981	47,602	6.9	46,844	7.6	1.6
1982	50,430	5.9	50,209	7.2	0.4
1983	53,582	6.3	53,610	6.8	0.1
1984	57,741	7.8	56,924	6.2	1.4
1985	57,093	-1.1	60,182	5.7	-5.1
1986	57,751	1.2	63,498	5.5	-9.1
1987	60,863	5.4	66,927	5.4	-9.1
1988	66,303	8.9	70,667	5.6	-6.2
1989	72,409	9.2	74,854	5.9	-3.3
1990	79,326	9.6	79,613	6.4	-0.4
1991	86,149	8.6	84,189	5.7	2.3
1992	92,866	7.8	90,086	7.0	3.1
1993	100,617	8.3	96,682	7.3	4.1
1994	109,915	9.2	103,735	7.3	6.0
1995	120,309	9.5	111,110	7.1	8.3
1996	130,628	8.6	118,281	6.5	10.4

The table below shows the average growth rate of actual and potential GDP for Malaysia for different periods. Potential GDP growth averaged just below 7 per cent in the period 1991-96, while that for actual averaged at 8.7 per cent.

### GDP growth - Actual and Potential

Period average	GDP growth	PGDP growth
1971-75	8.0	7.5*
1976-80	8.6	7.2
1981-85	5.2	6.7
1986-90	6.8	5.8
1991-95	8.7	6.9
1991-96	8.7	6.8

\*for 1973-75

Taking into consideration the uncertainties in estimating NAIRU, we did a sensitivity analysis on the effect of using different values of NAIRU to see the resulting difference in the derived potential output. The results obtained are summarised in the table below for the period 1991-96.

### Output Gap under Different NAIRU Assumptions

NAIRU assumption:	Resulting Output Gap (%)			
	6.0	5.0	4.0	3.0
1991	2.5	2.0	1.5	1.0
1992	3.3	2.8	2.3	1.8
1993	4.3	3.8	3.3	2.8
1994	6.2	5.7	5.2	4.7
1995	8.5	8.0	7.5	7.0
1996	10.7	10.1	9.6	9.1
average 1991-96	5.9	5.4	4.9	4.4

Even assuming a NAIRU as low as 3.0 per cent resulted in an output gap of 9.1 per cent for 1996. This indicates actual output significantly above its potential.

In conclusion, these estimates of potential output indicate that actual GDP has been above its potential level since 1991. By 1996, the output gap is quite substantial, at about 10 per cent. This raises questions on the sustainability of the present growth path of the economy and macroeconomic management in the near to medium term future. Further work using alternative methods of estimating potential output, and also on the macroeconomic implications of persistent large positive output gaps will provide useful information to policy-makers.

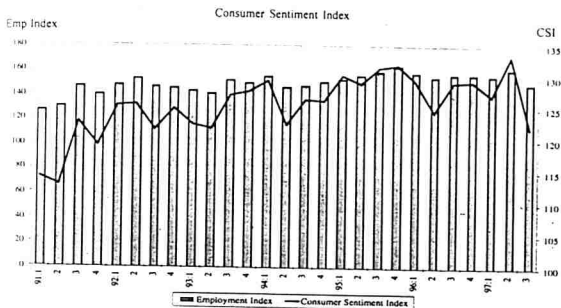
- contributed by Michael Yap

(Note: Views expressed in the box articles do not necessarily reflect that of MIER.)

anticipated for manufacturing employment growth in the coming three months. Upward pressures on wage costs remained high despite the relatively less upbeat employment scenario. Wage cost pressures are expected to persist in the final quarter of 1997. Given the prevailing sentiments, the current business moderation is expected to extend into the next quarter.

## Consumer Sentiments Survey

Consumers appear to be feeling tentative following the ringgit depreciation and poor performance in the local stock market. As indicated by the latest MIER Consumer Sentiments Survey, the Consumer Sentiments Index plunged sharply from the record high of 133.4 points registered in the second quarter of 1997 to 122.1 points in the third quarter of 1997. The third quarter's reading is 11.3 points down from the previous quarter, the steepest quarterly drop since the inception of this survey in 1988. On an annual basis, the index is 7.8 points lower than the 129.9 points posted in the corresponding quarter of 1996.



The uncertainty over future economic growth prospects has also negatively affected consumers' confidence in short term employment outlook. The MIER Employment Index, which depicts consumers' expectations about short term employment opportunities, dropped sharply from 161.1 points in the second quarter of 1997 to 149.4 points in the third quarter.

Compared to the second quarter of 1997, consumers appear slightly less buoyant about their financial income position in the present quarter. Of the total 1,258 consumers interviewed in Peninsular Malaysia, 17 per cent evaluated their financial



income positions to have improved compared to six months ago. The reading is 8 percentage points lower than the previous quarter and 5 percentage points down from the corresponding quarter in 1996.

Consumer optimism regarding short-term financial income gains dwindled somewhat. The proportion of consumers anticipating an improvement in their financial income position in the next six months declined from 29 per cent in the second quarter of 1997 to 22 per cent in the third quarter of 1997.

Consumers seemed relatively less upbeat about the current employment outlook, attributed perhaps to the concern over a possible moderation in economic activities. Fifty-four per cent of the consumers surveyed thought that there were more employment opportunities now in the economy. This quarter's reading is the lowest in more than two-and-a-half years.

Although high, inflationary sentiments appeared stable since the past three quarters. Given the current economic uncertainty, consumers appeared cautious about their spending plans. House-buying intentions appeared to have softened somewhat. There was no change in car buying intentions as compared to the previous quarter. On major consumer durable products, except for furniture and washing machines, buying intentions on other items were mostly down. Given this relatively less optimistic outlook of consumer sentiments, some moderation is anticipated in private consumption growth in the coming months.

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## Commodities

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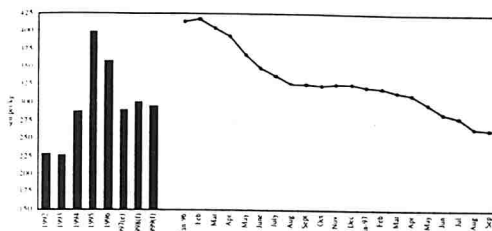
- **Rubber**

Earnings from rubber exports fell by 18.0 per cent during the period January-September 1997 when compared to the same period in 1996. The lower earnings were due to a decline in export unit price to 294.7 sen per kg, from 369.8 sen per kg in the corresponding period in 1996. Export volume actually rose by 2.9 per cent during the period. At the local exchange, rubber prices were not seen to be affected much by the weaker ringgit as it was at 276.0 sen per kg on 20th November, compared to 301.52 sen per kg in January. This is mainly due to reduced demand from the US and Korea in the midst of higher supply from producer countries. For the whole of 1997, we estimate an average export unit price of 290 sen per kg. Despite higher production in Thailand and Indonesia, we are projecting relatively stable prices in 1998 and 1999, at around 295-300 sen per kg due to support from the weaker ringgit.

- **Palm Oil**

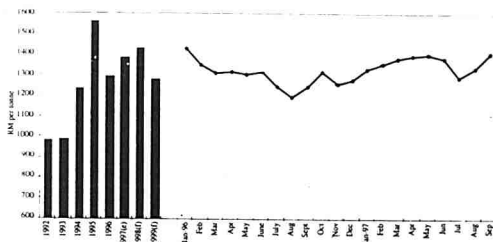
Export revenue from palm oil rose by 12.3 per cent during the first nine months of 1997 compared to the corresponding period in 1996. The higher revenue was due to

Rubber: Export Unit Value (sen per kg)



both the rise in export unit price as well as higher export volume. Export volume increased by 8.6 per cent during the period January-September 1997 while export unit value rose to RM1,341.8 per tonne from RM1,296.7 per tonne during the same period in 1996.

Palm Oil: Export Unit Value (RM per tonne)

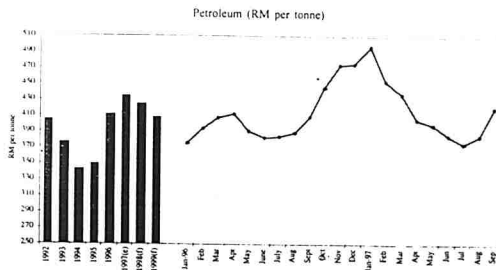


At the Kuala Lumpur Commodity Exchange (KLCE), palm oil price rose to RM1,705 per tonne at the end of October, from 1,182 per tonne in July, a 44.2 per cent rise. As at 20th November, the price of palm oil at the local exchange went up further to RM1,735 per tonne as the ringgit plunged to cross the 3.5 level against the US dollar on that day. Palm oil prices are strongly affected by the ringgit movement as sales

proceeds are in US dollars. As for the export unit value of palm oil, we are projecting a firm level of RM1,580 per tonne in 1998 on account of the weak ringgit, and stabilising to around RM1,330 per tonne in 1999 in anticipation of some strengthening of the ringgit as well as sustained demand. In 1997, export unit value for palm oil is estimated to be at RM1,385 per tonne, supported by strong external demand from Pakistan and China and the depreciation of the ringgit.

#### • Crude Petroleum

Export value of petroleum exports declined by 6.7 per cent during the first nine months of 1997 compared to the same period in 1996. The fall in revenue was due to the 12.7 per cent decline in export volume. In the first seven months of 1997, export unit value for petroleum declined to around US\$19.3 per barrel compared to US\$20.75 per barrel during the same period in 1996. In ringgit terms however, crude petroleum export unit value rose to RM421.2 per tonne during the period January-September 1997 from RM394.3 per tonne during the same period in 1996. The fall in unit value was in tandem with the slight easing in global prices due to "oil for food" exports from Iraq worth US\$2 billion. Our forecast for petroleum export unit value is at a moderate US\$19.3 per barrel in 1998 on account of higher supply, stabilising to around US\$19.2 per barrel in 1999. For 1997, we estimate the export unit price for crude oil to average at US\$20.5 per barrel.

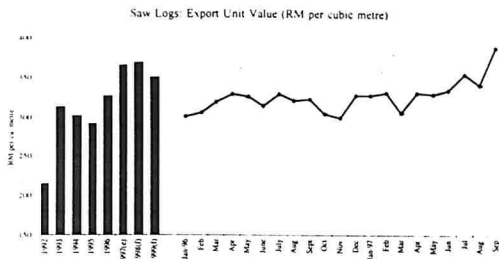


#### • Liquefied Natural Gas (LNG)

Export revenue from LNG rose sharply by 43.9 per cent during the first nine months of 1997. This was the result of both higher export unit value and export volume. Export volume increased by 21.0 per cent while unit price has gone up to RM419.1 per tonne during the period mentioned (Jan-Sep'96:RM352.7 per tonne). With continued sustained off-take from major buyers like Japan, Korea and Taiwan, we

estimate export unit value at RM425 per tonne in 1997, moderating slightly to RM420 per tonne in 1998 and RM410 per tonne in 1999.

## • Saw Logs

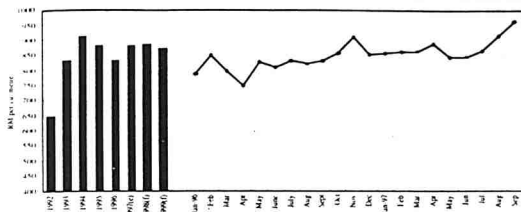


Revenue from exports of saw logs declined slightly by 0.8 per cent during the period January-September 1997 when compared to the same period in 1996. The fall in revenue was due to the decline in export volume which fell by a substantial 10.6 per cent. However, export unit value for saw logs rose to RM355 per cubic metre during the period compared to RM319.9 per cubic metre in the corresponding period in 1996. In view of the weaker ringgit, we are estimating an export unit value of RM365 per cubic metre for 1997. In 1998, export unit value for saw logs is forecast to firm up to around RM370 per cubic metre due to the weaker ringgit and moderating export supply in view of further domestic development in downstream activities. Export unit price is projected to moderate to RM350 per cubic metre in 1999.

## • Sawn Timber

Receipts from exports of sawn timber declined by 10.0 per cent during the period January-September 1997. The decline in export value of sawn timber was due to a substantial decline in export volume which dropped by 15.8 per cent. However, export unit price rose strongly to RM876.1 per cubic metre compared to RM820.1 per cubic metre during the same period in 1996, mainly due to the ringgit depreciation. We are expecting the export unit value of sawn timber to be firm at RM885 per cubic metre in 1998, moderating to RM870 per cubic metre in 1999. The export unit value for sawn timber is anticipated to average at RM880 per cubic metre in 1997.

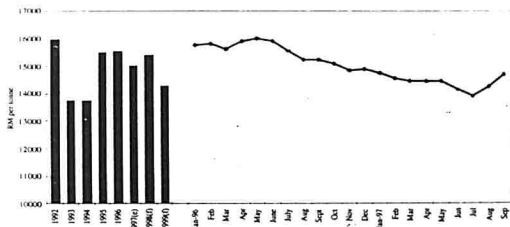
Sawn Timber: Export Unit Value (RM per cubic metre)



## • Tin

Receipts from tin exports fell by 11.5 per cent during the period January-September 1997 compared to the same period last year. The decline in revenue was due to both the fall in export unit price and export volume. Export volume fell by 3.8 per cent, while export unit price dropped to RM14,426.9 per tonne during the period January-September 1997 compared to RM15,685 per tonne during the same period in 1996.

Tin: Export Unit Value (RM per tonne)



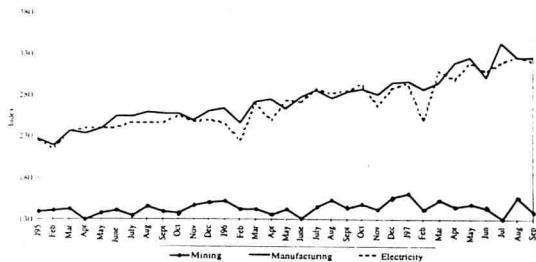
At the Kuala Lumpur Tin Market, the price of tin rose from RM13,780 per tonne in July to RM18,010 per tonne during the end of October, rising further to RM19,200 per tonne as at 20th November due to the ringgit depreciation as well as a pickup in demand. Despite the expected higher global tin supply in 1998, the weak ringgit is anticipated to boost the export unit price for tin somewhat. Prices are projected at RM15,400 per tonne in 1998, stabilising to RM14,300 per tonne in 1999.

## Industrial Sector

### • Industrial Production

The industrial sector of the economy expanded at a rate of 11 per cent in the period January-September 1997 compared to a 10.6 per cent increase during the corresponding period last year. The upward movement of the index can be seen from the three major divisions.

Malaysia: Index of Industrial Production



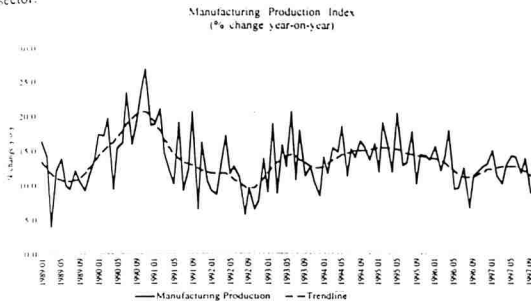
The Electricity index posted a 14.7 per cent growth for the period January-September 1997 compared to the 12.9 per cent increase last year. The Manufacturing index grew at a rate of 13 per cent from an expansion of 11.9 per cent in 1996. Nevertheless, there was a slowdown in the growth of the Mining index to 1.4 per cent for the period compared to a higher growth of 5.1 per cent last year.

The encouraging expansion in the manufacturing sector for the first three quarters of the year was brought about by the higher production of almost all major groups within the sector.

At the sectoral level, the largest leap in production was in *plastic products, not elsewhere classified*, which recorded a growth rate of 55.9 per cent from 3.2 per cent in last year's corresponding period.

The *electrical, machinery, apparatus, appliances and supplies* industry registered an increase of 15.1 per cent in the period January-September 1997 from a growth rate of 9.8 per cent in 1996. The increase was contributed mainly by the *semiconductor and other electronic components* industry (with weightage of 20.2 per cent in the manufacturing index) which expanded sharply by 23.4 per cent this year from 14.5

per cent in the previous period. However, overall growth in the manufacturing sector was dampened by the decline of 9.8 per cent in the *radio, television sets etc.* sub-sector.



Sectors related to the production of the food manufacturing industry, namely the *fish, crustacea & similar foods* and the *palm oil* industries registered an increase in growth rates by more than two-fold compared to the corresponding period last year. The former recorded a higher growth rate of 31.5 per cent against 15.5 per cent last year while the latter showed a strong growth of 15.0 per cent compared to 6.7 per cent last year. The overall food sector, which contributed 9 per cent to the manufacturing index, showed an increase in its growth rate from 4.6 per cent to 10.2 per cent.

Other sectors which showed high production growth rates include *non-ferrous metal basic industries* (34.1%), *tobacco manufactures* (14.9%) and *non-metallic mineral products* (13.1%). The industrial chemicals sector (weightage of 9.4% in the manufacturing index) recorded a growth rate of 17.3 per cent in the period of analysis. This compares to a higher growth rate of 25.9 per cent last year. One sector which showed a decline in production was *footwear (except vulcanised or moulded rubber or plastic footwear)* which registered a drop in output by 20.9 per cent in the first three quarters of 1997.

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**1997 NATIONAL OUTLOOK CONFERENCE**

Shangri-La Hotel, Kuala Lumpur  
2-3 December 1997

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**FINANCIAL SECTOR LIBERALIZATION:  
The Taiwan Experience**

by

Ya-Hwei Yang



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia



# FINANCIAL SECTOR LIBERALISATION: The Taiwan Experience

## 1. INTRODUCTION

In the process of economic development, the financial system acts as a channel between savings and investment. Usually, in the early stages of economic development, the financial system is under strict regulation by the government. As the economy grows, the demand for financial reform becomes stronger. Several measures for financial liberalization and financial internationalization are proposed and enacted sequentially. However, the use of improper methods for opening up the financial sector might be accompanied by the potential danger of financial crises. Therefore, the use of optimal measures for financial reform, and the question of deciding upon the most effective optimal measures, is a subject worthy of discussion and analysis.

Taiwan has experienced high economic growth and price stability for decades. Originally, the financial system was strictly regulated, however, since the late 1980s several acts concerning financial reform have been put into effect. Although there have been some financial crises locally, the damage was not very serious. The proper order of economic reforms are often discussed by the scholars and government. The optimal choice of policy combinations have been considered by the government. The issue of worldwide financial crises, as seen in the 1990s, can also provide a valuable reference-point for the pursuit of an optimal policy choice.

This paper is structured as follows. Section II describes the characteristics of Taiwan's economy and financial system. Section III explains the suitable order for economic reform. Section IV is a discussion of macroeconomic stability policy in Taiwan. Section V is a brief review of financial liberalization and financial internationalization measures. Finally, Section VI, looking back at some of the financial problems of the 1990s, gives a summary.

## 2. CHARACTERISTICS OF TAIWAN'S ECONOMY AND FINANCIAL SYSTEM

Taiwan has experienced a stable financial environment for decades. Price stability has enjoyed a good record in Taiwan and it boasts a high economic growth rate and equal income distribution. This chapter examines these factors in close detail.

Table 1 shows that the economic growth rate has maintained a steady level over the years. The annual growth rates of real GNP were 9.82% from 1966-70, 9.03% from 1971-75, and 10.62% from 1976-80. From 1981-85, however, the average real GDP growth rate dropped to 6.74%. The economic growth rebound in the late 1980s. In the early 1990s, economic growth became stable once more.

Let us look at the inflation rate. Whether in terms of growth rates of GDP deflators, CPI, or WPI, the inflation rate in the past 30 years has been usually below 4% except during two oil crises in 1973-74 and 1979-81.

Table I  
Economic Growth Rate, Inflation Rate and Financial Deepening Indicator

Year	Economic Growth Rate %	Inflation Rate		Financial Deepening	
		GDP Deflator %	CPI %	WPI %	Indicator M2/GDP %
1966-70	9.82	4.76	4.39	1.88	39
1971-75	9.03	11.69	13.33	12.57	49
1976-80	10.62	8.94	8.81	8.89	64
1981-85	6.74	3.78	4.09	0.83	83
1986-90	9.17	2.38	2.21	-1.83	131
1991-95	6.64	3.03	3.76	1.71	172
1981	6.16	12.07	16.33	7.63	63
1982	3.55	3.42	2.96	-0.19	74
1983	8.45	1.92	1.37	-1.17	84
1984	10.60	0.89	-0.03	0.46	90
1985	4.95	0.59	-0.16	-2.59	105
1986	11.64	3.39	0.70	-3.34	112
1987	12.74	0.56	0.52	-3.26	121
1988	7.84	0.92	1.29	-1.56	134
1989	8.23	3.29	4.40	-0.37	142
1990	5.39	3.75	4.13	-0.61	144
1991	7.55	3.85	3.62	0.16	154
1992	6.76	3.93	4.47	-3.67	165
1993	6.32	3.51	2.94	2.51	173
1994	6.54	1.89	4.09	2.17	184
1995	6.03	1.94	3.68	7.37	186
1996	5.67	2.68	3.07	-1.00	187

Notes: Economic Growth Rate if Annual Change Rate of Real GDP.

Sources:

1. Economic Growth Rate "Inflation Rate of GDP Deflator" GDP -- Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Statistical Abstract of National Income in Taiwan Area, Republic of China.
2. Inflation Rate of CPI "Inflation Rate of WPI -- Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Commodity-Price Statistics Monthly in Taiwan Area of the Republic of China.
3. M2 -- Economic Research Department, The Central Bank of China, Financial Statistics Monthly, Taiwan District, The Republic of China.

If we observe a financial deepening indicator, M2/GDP, it shows that Taiwan has experienced a rising financing deepening phenomena for decades. The indicator increased from 39% in 1966-70 to 172% in 1991-95. The financial system is supposed to play the role of communicator between savings and investment. As the economy grows, the demand for financial services grows more and more. Therefore, financial deepening occurs in most countries. Taiwan has also experienced financial deepening in past decades.

Apart from the financial system, the real sector also performed well. Sound fiscal policy prevailed in the 1960s and 1970s. Trade liberalization was also undertaken in the 1980s.

Generally speaking, stability has been one of the characteristics of Taiwan's economy. Sometimes its economic strength is challenged due to domestic and international situation change and the question of sustaining stability and growth has become a priority issue.

### 3. THE IMPORTANCE OF THE SEQUENCE OF REFORMS

In order to achieve success, the order and speed of reform implementation is vital, receiving a great deal of attention from policy-makers and scholars. Several scholars agree on the reform process, such as McKinnon (1994), McKinnon (1992), and Edwards (1986). Their viewpoints concerning the order of economic reform can be summarized as follows:

1. Price stability and a balanced budget are the premises of economic liberalization:

Fiscal deficit forces the government (and trading enterprises) to borrow heavily from the banking system. The threat of inflation makes the financial system unstable.

2. Trade liberalization should be favoured over capital liberalization:

The foreign exchange rates are determined by current and capital accounts. Current accounts are more closely related to the trade sector and interact with the real economy. Capital accounts involve long-term and short-term capital inflows and outflows, always accompanied with high speculation.

3. Domestic financial liberalization should come before international capital liberalization

The domestic banking system should be proved healthy before capital accounts are liberalized. The enormous bad-loan portfolio from past years, with banks lending to loss-making enterprises, impedes the development of a healthy financial system. Further, the calling for international capital makes domestic financial institutions susceptible to international challenges.

Looking at past budget deficits from Table 2, it is found that Taiwan maintained a budgetary surplus from 1971 to 1980. Since the 1980s, the government has been suffering a budget deficit. During the 1990s, the level of budget deficit has increased greatly.

This phenomena implies that the 1970s provides a good foundation for economic reform. However, the large budget deficit of the 1990s might not be advantageous to further opening up of the economy. The government should keep a close eye on this phenomena.

Current account liberalization has already been enacted. The effective tariff rate is measured by the ratio of tariff revenues over import values (excluding tariff revenues). Table 2 shows that this ratio has been declining. It indicates that the tariff rate has been reduced as trade liberalization is pushed. While current account liberalization has already been enacted, the government is still mulling the liberalization of capital accounts.

Table 2  
Fiscal Surplus and Effective Tariff Rate

Year	Fiscal Surplus or Deficit (Million NT\$)	Effective Tariff Rate (%)
1971-1975	6355	11.81
1976-1980	7227	10.58
1981-1985	-24964	8.23
1986-1990	-92569	6.69
1991-1995	-369342	4.87
1981	-5448	8.02
1982	-39287	8.29
1983	-59494	7.33
1984	-16298	8.42
1985	-4294	9.10
1986	-2676	7.48
1987	37273	7.35
1988	4207	5.84
1989	-328015	6.90
1990	-173635	5.89
1991	-379094	4.92
1992	-290235	5.12
1993	-306745	5.16
1994	-363009	4.77
1995	-507629	4.39
1996	-602827	3.87

Notes: Effective tariff rate = tariff revenue/(import value-tariff revenue)

Sources:

1. Fiscal Surplus or Deficit -- Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Quarterly National Economic Trends, Taiwan Area, The Republic of China.
2. Tariff Revenue -- Department of Statistics Ministry of Finance, Monthly Statistics of Exports and Imports, Taiwan Area, The Republic of China.

In examining the Taiwan experience, it is found that Taiwan has closely followed the above-mentioned sequence of economic reform over the years. Taiwan had a sound fiscal system in the 1970s and maintained price stability for decades. In the future, the Taiwan government must continue to come up with ways to maintain stability. Otherwise, new dangers may arise.

#### 4. MACROECONOMIC STABILITY POLICY

Monetary policy includes money supply control, an interest rate policy and a foreign exchange rate policy. How monetary policy helps stabilize the financial environment will be examined in this section.

##### (a) Money Supply Control

Money supply control and interest rate regulation has been adopted to keep down inflation. The central bank employs various monetary policy instruments, such as

the required reserves policy and an open market operation, in order to influence domestic financial markets.

Table 3 shows the data for money supply growth rate and inflation rate in Taiwan. Except for the 1980s, the money supply was always under control. A high money growth rate and a low inflation rate appeared simultaneously in the 1980s in Taiwan. Traditional money-demand theory is not comprehensive enough to explain this phenomenon. Yang and Shea (1996) set up a theoretical model incorporating stock trading and import prices to analyse the relationship between the money supply and the GDP deflator. The results showed that stock trading absorbed, to a certain extent, the influence of money supply on prices in the period from 1986-1991.

Table 3  
Growth Rate of Money Supply and Prices

Year	Growth Rate of Price			Growth Rate of Money Supply		
	GDP Deflator	CPI	WPI	M1A	M1B	M2
1966-70	4.76	4.39	1.88	15.10	16.83	18.90
1971-75	11.69	13.33	12.57	28.13	30.16	29.52
1976-80	8.94	8.81	8.89	22.61	25.20	23.87
1981-85	3.78	4.09	0.83	9.33	14.04	22.56
1986-90	2.38	2.21	-1.83	23.17	23.62	19.95
1991-95	3.03	3.76	1.71	5.89	10.41	15.60
1981	12.07	16.33	7.63	11.03	14.50	18.89
1982	3.42	2.96	-0.19	8.48	15.53	23.03
1983	1.92	1.37	-1.17	11.13	17.92	26.25
1984	0.89	-0.03	0.46	11.75	14.07	23.33
1985	0.59	-0.16	-2.59	4.28	8.19	21.29
1986	3.39	0.70	-3.34	28.57	33.55	23.31
1987	0.56	0.52	-3.26	40.32	45.66	26.25
1988	0.92	1.29	-1.56	26.31	29.45	22.06
1989	3.29	4.40	-0.37	22.16	12.75	16.83
1990	3.75	4.13	-0.61	-1.50	-3.31	10.96
1991	3.85	3.62	0.16	1.25	6.62	16.03
1992	3.93	4.47	-3.67	8.96	15.70	19.89
1993	3.51	2.94	2.51	6.10	8.24	16.17
1994	1.89	4.09	2.17	12.26	16.79	15.02
1995	1.94	3.68	7.37	0.86	4.70	10.90

Sources:

1. GDP -- Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Statistical Abstract of National Income in Taiwan Area, Republic of China.
2. CPI WPI -- Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Commodity Prices Statistics Monthly in Taiwan Area of the Republic of China.
3. M1A, M1B, M2 -- Economic Research Department, The Central Bank of China, Financial Statistics Monthly, Taiwan District, the Republic of China.

The above-mentioned paper discusses what factors help stabilize domestic prices. These factors include New Taiwan dollar appreciation, import decontrol, stock market price spirals, and various monetary policy tools for money supply control. The facts show that reserve policy, among the various monetary control tools, has been the most powerful. The money supply growth rate has dropped dramatically since the Central Bank raised the required reserve ratio in 1988. These required reserve ratios were raised further in 1989. The money supply growth rate then fell again, and the stock price index also dropped as a result.

In the 1990s, the money supply has never been as wayward as it was in the 1980s. In the early 1990s, the Central Bank set a ceiling and a floor on money supply targets. The target was 10-15% in the early 1990s, adjusted to 9-14% by the end of 1995. However, from late 1995 to the end of 1996, the money growth rate in most months did not hit the floor. There were two reasons for this. One was the low money demand which resulted from sluggish economic growth. The other was a misjudgment made by the Central Bank when it set up the monetary targets. The data available at the end of 1995 suggested the possibility of low monetary growth in the future, but the conservative attitude of the government meant the degree of adjustment was too small to match the real economic situation.

Generally speaking, Taiwan has not, for the most part, suffered the threat of inflation, apart from during the two oil crises. Cautious monetary supply control deserves the credit for this. Caution may have adverse results, such as stock market volatility and the misjudgment of monetary growth rate targets. With the opening up of the financial system, the Central Bank will find its job of controlling the money supply more and more difficult.

#### (b) Interest Rate Policy

The high interest rate policy was adopted by Taiwan in the 1950s. Early in 1950, super high inflation rates hurts the Taiwan economy, forcing the Taiwan Bank to adopt high interest rates. Monthly interest rates were 7% and compound annual interest rates were 125%, which being higher than the inflation rate, kept real interest rates positive. This policy was announced in May 1950, and large sums were deposited in the banking system. By June of 1950, inflation was under control. It turned out that a high interest rate policy with positive real interest rates can effectively combat an inflation crisis. However, such a high interest rate could not be long maintained because of its high interest burden on the banking system. For most of the time since the 1960s, Taiwan has employed a low interest rate policy in order to reduce the capital costs of firms. This kind of subsidy usually results in an excess demand on bank funds, and forces the government to over-issue funds. As a result, the flood of funds threatens economy with inflation.

The purpose of regulating interest rates at the early stages of economic development is to provide low-cost capital to entrepreneurs. After the economy grows to some extent, interest rate liberalization is pursued in order to improve the allocational efficiency of financial markets.

The government in Taiwan has controlled bank interest rates for a long time. Only in recent years has such control been slackened. Prior to 1975, government prescribed interest rates for loans and deposits were uniform. After that, several measures were implemented to broaden the range of interest rate limits.

Since the promulgation of the new Banking Law on July 19, 1989, both the ceiling and floor limits for interest rates on deposits and loans have been abolished, putting the final seal on interest rate liberalization. The interest rate recommendation committee was dissolved at the same time. Before private commercial banks started operations, although interest rates could technically be decided by each bank,

market interest rates remained stable for a period of time. The capital costs for the three major commercial banks were similar so their interest rate structures were also alike. After interest rate liberalization, they acted as the price leaders for a time, and the interest rates of the three were identical for most of the period. However, since new private banks began to set up in late 1991, the variance in the primary rate of different banks has widened, from 0.24% before August of 1991 to over 0.45% after September of 1991.

Yang (1997) proposes several indexes by which to measure interest rate liberalization. The decreasing difference between bank rates and money market rates, and the difference between domestic rates and international rates proves the increasing degree of interest rate liberalization and internationalization.

#### (c) Foreign Exchange Rate Policy

The foreign exchange rate system in Taiwan was officially converted from a fixed rate system to a managed floating rate regime in February 1979. Under the new rules, exchange rates were to be limited to a very small margin on either side of a central rate, which was to be set daily by a group of five major commercial banks together with the Central Bank. The day-to-day fluctuations around the central rate was initially limited to 0.5%. Subsequently, the Central Bank withdrew from participation in rate-setting and the limit on the day-to-day fluctuations was widened to 2.25%. The heavily-controlled float kept the domestic currency (the New Taiwan dollar) undervalued at a stable level during the period 1981 to 1985. As a result, the current account balance in Taiwan increased drastically in 1985. Due to the limitation of sterilization operations and persistent pressure from the U.S. government, the Taiwan monetary authorities finally let the currency start appreciating at the beginning of 1986. During the 1986 to 1988 period, the New Taiwan dollars appreciated by 40 percent relative to the U.S. dollar.

In 1989, the Central Bank announced the acceptance of a flexible exchange rate system, and the government stopped regulating the market price. Since then, the exchange rate has been determined by the market. However, the Central Bank continues to intervene in market activity to influence the foreign exchange rate trend through open market operations in order to stabilize fluctuations in the foreign exchange rate.

Generally speaking, the policy to keep the New Taiwan dollar under-valued contributed to a tremendous export performance, which has stimulated economic growth to a great degree. The announcement of the policy to allow gradual appreciation in 1986 had two opposing results. One benefit was the buffering of the harmful impact on export firms by allowing them an adjustment period, while on the downside, it provided room for hot capital to enter the domestic stock and real estate markets, resulting in the danger of creating a bubble economy. If the exchange rate system had been changed earlier, pressure from the U.S. might have been avoided, and the negative influence on the domestic economy might have been smaller.

### 5. FINANCIAL SECTOR LIBERALIZATION MEASURES

Since the late 1980s, several financial deregulation measures have been adopted by the government, including interest rate deregulation and bank privatization. In the 1990s, both financial liberalization and financial stability have been demanded by the public. However, several financial crises have occurred in the 1990s, raising the problem of how to balance the pursuit of financial efficiency with the maintenance of financial stability during the process of financial reform.

Several financial liberalization measures have been enacted since the 1980s. These measures are related to the banking sector, the money market, the capital market and the financial center.

#### (A) The Banking Sector

In order to completely secure the stability of financial markets and to control the flow of funds, the government favours government-owned financial institutions over private banks. However, the efficiency of government banks is usually lower than that of private banks and foreign banks. Yang(1994) has proved this supposition with theoretical models and empirical studies. Financial liberalization becomes a trend as an economy develops. The privatization of the banking sector was one of the major financial reforms of Taiwan's financial history. The deregulation of private banks was authorized by the Banking Law of 1989. In June of 1991, 15 new banks were permitted to begin operations. By the end of 1996, 18 new banks were up and running, creating an emphasis on better service and increasing competition in the whole banking industry.

In order to attract foreign capital, local branches of foreign banks were welcomed. In order to reduce the operating pressures of local financial institutions, foreign banks are, however, subject to some restrictions. Despite the restrictions, the activities of foreign banks did create some competition for local banks. Swimming with the tide of financial liberalization and internationalization, the regulations on foreign banks were gradually reduced. Limitations on the number of local branches for each foreign bank illustrates the kind of restrictions which were imposed. The foreign banks were allowed to open just one branch before 1986. In 1987, the operation of two branches was approved, and in 1991, three. Since 1994, there have been no restrictions on the number of branches owned by foreign banks as long as the transmitted capital from their head office is over NT\$150 million for the first branch or over NT\$ 120 million in other branches.

Approved activities for banks were broadened, too. For example, in the past, bill transactions were allowed to be conducted only by bill finance companies, but these activities were opened up to some private banks in 1992. The Ministry of Finance seems to be planning to develop the banking industry into a universal banking system.

#### (B) The Money Market

Originally, the scale of the money market was quite small, accounting for only 10% of the fund source for businesses around the 1980s. The interbank call market for foreign reserves was opened up in 1989; eight new bill finance companies had opened by the end of 1996, adding to the three existing companies. The size of the money market has grown rapidly in the 1990s.

#### (C) The Capital Market

The government originally set limits on capital outflow. This regulation has been relaxed gradually over the past five years. By the beginning of 1996, this restriction had been adjusted to a US\$5 million ceiling for both capital inflow and outflow for each individual. For a company, the limit can be extended to US\$20 million per year.

In June 1997, government has modified the following act concerning overseas capital increasing in domestic stock market: (a) The ceiling ratio of overseas capital investing in a company's stock over the company's total volume is extended from 7.5% to 10%. (b) The ratio ceiling of total overseas capital investing in a company's stock over the company's total stock volume is extended from 20% to 25%.



(D) Plans to turn Taipei into an Asian financial center

The government of Taiwan wants to follow Singapore, Japan, and Hong Kong in becoming a financial centers of Asia. Abundant savings, foreign reserves, and highly-educated human resources are advantages. However, some other areas still need to be improved, such as free capital movement, a preferential tax system, information systems, and financial which accommodate international business regulations and affiliated financial services. It will take time for Taipei to reach the appropriate standards.

6. CONCLUSION:  
The Financial Issues off the 1990s

Taiwan has enjoyed stable price levels and a stable monetary environment for decades. The inflation problems are not serious so far. The high money supply

growth and stable price phenomena in Taiwan deserves attention. Interest rates were regulated by the government until 1989. Interest rate liberalization and banking privatization were undertaken in the same year. The foreign exchange rate policy changed from a fixed rate policy to a managed exchange rate policy in 1978, and then to a flexible exchange rate policy in 1989. Foreign exchange rates are mostly determined by the foreign exchange market. However, the Central Bank intervenes in foreign exchange market operations and open market operations to some degree.

Official measures aimed at financial liberalization and Financial internationalization are currently underway. However, lots of financial deregulation measures need to be implemented before Taiwan can be considered a regional financial center.

Financial policy and development in Taiwan has the following characteristics: it lacks efficiency but boasts financial stability. It is not easy to achieve financial efficiency and financial stability simultaneously. Therefore, a suitable policy mix is very important. In order to pursue financial efficiency, steps for financial liberalization and financial internationalization have been implemented over recent years.

Some conflict exists between different policies. When financial reform is undertaken to increase financial efficiency, strong competition may put fragile financial institutions in danger of bankruptcy when the economy goes into recession. There were several serious financial crises in the early 1980s, and during the slow economic growth period of 1995 to 1996, more financial crises, especially those -involving local fundamental financial institutions, occurred. This prompts us to consider how financial efficiency and financial stability can be combined. Another problem is price stability and market efficiency. If the Central Bank wants to stabilize the foreign exchange rate, it may have to sacrifice control of the money supply. Although the Central Bank may try to sterilize surplus money, it still has a limited influence.

This conflict can be verified by the 1997 financial crisis. The financial crisis in Southeast Asia in 1997 has spilled over into many neighbouring countries, which have felt the shock wave of the crisis. The currencies of these Asian countries have depreciated against the greenback. Taiwan has also suffered from the strong pressure on the New Taiwan Dollar to depreciate. However, the central bank has shown a positive attitude in supporting the value of NT\$. In order to fight the continually increasing pressure on the NT\$, the Central Bank has been absorbing NT dollars and selling out US dollars since July 1997. Therefore, a large amount of foreign currency reserves have been sacrificed. The contradictory measures make the domestic credit environment tighter and tighter. At the same time, the domestic

stock market has been experiencing abnormal highs in the share index over the last several months. The unhealthy stock market itself has already developed a tendency to take a dive. Accompanied by a tighter credit policy, the stock market crashed. In order to lessen the tight credit environment, the Central Bank announced reductions in the required reserve ratio and other related expansionary policies. However, this did not have any significant stimulating effects on the stock market. Then, on October 17, the Central Bank announced that it had just released the exchange rate market, allowing it to reach its own equilibrium price. Immediately after the announcement, the value of the NT dollar and the stock price index surged for several days. A mood of instability prevailed for several days, however. Finally, the NT dollar adjusted itself to the equilibrium point. The Ministry of Finance is still considering several other measures to boost the stock market by end of October 1997.

Comparing the currency value fluctuations and the stock price index in Table 4, we can see that financial price fluctuations in Taiwan are not as severe as in other countries. Table 4 shows data from the end of June, 1997, to October 20, 1997. Taiwan experienced a 8.67% local currency depreciation and a 18.98% fall in stock prices. Adding the two figures together, we get -27.64%. Every country on the list shows negative figures in sum. Singapore and Hong Kong perform comparatively better than other countries. Thailand's case is middling, while the Philippines, Malaysia, and Indonesia have the poorest data in the Table. South Korea performed similarly to Taiwan. Taiwan is currently facing problems similar to those of other countries in Table 4. The governments of most countries have the conflict between stability and market efficiency. Policies relating to the stock market, the foreign exchange market and the credit market have also become very touchy and sensitive issues.

Table 4  
The Exchange Rate and Stock Price Variations of Main Countries of Southeast Asia

Items/Countries	Exchange Rate			Stock Price Index			Total
	local currencies/ US Dollars		%	Index		%	%
	end of June	Oct 20		end of June	Oct 20		
							(1) + (2)
Taiwan	27.812	30.451	-8.67	9030.28	7316.78	-18.98	-27.64
Singapore	1.4305	1.5617	-8.40	1987.95	1799.74	-9.47	-17.87
Hong Kong	7.7470	7.7413	0.07	15196.79	12970.88	-14.65	-14.57
Thailand	24.70	37.90	-34.83	527.28	511.59	-2.98	-37.80
Philippines	26.376	33.920	-22.24	2809.21	2015.78	-28.24	-50.48
Malaysia	2.5245	3.3235	-24.04	1077.30	770.49	-28.48	-52.52
Indonesia	2432.0	3645.0	-33.28	724.556	511.381	-29.42	-62.70
Korea	888.00	923.00	-3.79	745.40	565.64	-24.12	-27.91

Sources: Collected from Various Financial News Information.

Taiwan's economy has not suffered collapse because of its solid economic foundation. The opening up of Capital accounts does not surpass current account liberalization, and financial internationalization does not surpass domestic financial development. A stable Inflation rate has also been maintained. In addition, the production and investment of the manufacturing sector have kept their momentum. In other words, an appropriate sequence of economic reform is generally followed in Taiwan.

The current worldwide financial crises may have a significant influence on worldwide financial development and economic growth in the near future. We should pay attention to this eventuality. More importantly, we should learn a lesson from the regional financial formal, and consider the best route to financial development and financial liberalization.

## References

- Cunningham, T.J. and R.T. Cunningham (1991), "The Behavior of Real Rates of Interest in a Small, Opening Economy," *Journal of Economic Development*, 16, pp.191 -202.
- Edwards, S. (1986), "The order of liberalization of the current and capital accounts of the balance of payments," in Choksi, A.M. and D. Papageorgiou, (eds.), *Economic Liberalization in Developing Countries*, Basil Blackwell, Oxford.
- Emery, Robert F. (1984), "Postwar Financial Policies in Taiwan," *Federal Reserve Board International Finance Discussion Papers*, 252, Dec.
- Emery, Robert F. (1987), "Monetary Policy in Taiwan, China," *Board of Governors of the Federal Reserve System International Finance Discussion Paper*, 313, Nov.
- Lee, Sheng-Yi (1990), *Money and Finance in the Economic Development of Taiwan*, Macmillan Press Ltd.
- Liang, Fa-Chin (1983), "The Money Supply, Prices and the Balance of Payments," *Collected Essays on Money and Finance: In Honor of Professor Lin Hsir Fan at Age 81*. (In Chinese)
- Moreno, Ramon and Norman Yin (1992), "Exchange Rate Policy and Shocks to Asset Markets: The Case of Taiwan in the 1980s," *Economic Review*, Federal Reserve Bank of San Francisco, pp.14-34.
- McKinnon, Ronald I. (1992), "Macroeconomic Control in Liberalizing Socialist Economies: Asian and European Parallels," *Pacific Basin Working Paper Series*, No.PB92-05, Center for Pacific Basin Monetary and Economic Studies. Economic Research Department, Federal Reserve Bank of San Francisco.
- Ramon, Moreno (1989), "Exchange Rate and Trade Adjustment in Taiwan and Korea," *Economic Review*, Federal Reserve Bank of San Francisco, spring, pp.30-48.
- Shirley W.Y. Kuo (1990), "Liberalization of the Financial Market in Taiwan in the 1980s," in *Pacific Basin Capital Markets Research*, edited by S. G. Rhee and R.P. Chang, Elsevier Science Publishers.
- Yang, Ya-Hwei (1994), "Taiwan: Development and Structural Change of the Banking System," *The Financial Development of Japan, Korea and Taiwan: Growth, Repression and Liberalization* edited by Hugh Patrick and Yang-Chul Pak, Oxford University Press.
- Yang, Ya-Hwei (1997), "Monetary Policy and Capital Flows in Taiwan during the 1980s and 1990s," *AT9 meeting*, Tokyo Study club, Nomura Research Institute, January 30-31.

Yang, Ya-Hwei and Jia-Dong Shea (1996), "Money and Prices in Taiwan in the 1980s," in Takatoshi Ito and Anne O. Krueger, eds., **Financial Deregulation and Integration in East Asia**, The University of Chicago Press, pp.229-243.

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**1997 NATIONAL OUTLOOK CONFERENCE**

Shangri-La Hotel, Kuala Lumpur  
2-3 December 1997

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**RECENT DEVELOPMENT IN THE  
THAI FINANCIAL SECTOR: LESSONS**

by

Bhanupong Nidhiprabha



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

## RECENT DEVELOPMENT IN THE THAI FINANCIAL SECTOR: LESSONS\*

Financial stability is an essential condition for conducting efficient economic transactions. When financial stability is threatened, the financial sector cannot perform its intermediation role which allocates available financial resources to the most productive users. In recent months the Thai financial system has undergone through various crises: currency speculative attacks, sharp currency depreciation, bank runs, stock market crashes, rising non-performing loans, and economic recession.

In March 1997, the Bank of Thailand announced the names of 10 finance companies which were undercapitalized and order them to raise their capital subsequently. By late June, the Bank of Thailand suspended 16 financed companies which severely suffered from the liquidity shortage, due to the eroding confidence of depositors and creditors. The Bank of Thailand and the Ministry of Finance announced that there would be no further suspensions and all depositors would be fully protected. In August, another 42 finance companies and finance and securities companies were suspended. The announcement has started off the systemic crisis of confidence in the financial sector, leading to deposit runs to from small financial firms to large banks and foreign banks. The Bank of Thailand tried unsuccessfully to recycle funds from large commercial banks and foreign banks to those small banks and finance companies which suffer deposit losses because of the bank panics. It was estimated that the Financial Institution Development Fund (FIDF), an operating arm of the Bank of Thailand, has lent 430 billion baht to the suspended firms and 300 billion baht to the 33 finance companies still in operation. As can be seen from Figure 1, the rapid increase in the BOT's development credit has become more pronounced since the beginning of 1997, when liquidity problems were intensified. It is noted that the net claims of the BOT on financial institutions remained stable due to the issuance of the Bank of Thailand bonds. The total net claims of the Bank of Thailand on financial institutions in October 1997 amounted to only 139 billion--the small amount which does not allude any degree of excessive bailout.

This paper analyzes the causes of Thailand's financial distress and examines the macroeconomic impact of the financial crisis. In addition to providing anecdotal evidence on how and why Thai financial institutions are facing financial difficulties, the paper argues that macroeconomic instability, technical mismanagement, and the lack of prudent regulation and quality supervision are responsible for the financial crisis in Thailand. The financial crises could have been averted or mitigated had the authorities anticipated and realized the severity of the problem. The current policy applied in response to the financial crisis is evaluated. The paper also discusses the likely outcome of the new financial environment and suggests that the remaining financial institutions would emerge as an efficient firms, capable of withstanding tough international competition in the future. The study draws lessons that other countries can learn from Thailand's past mistakes when facing with huge capital inflows, in particular during a long decade of high economic growth with stability in prices and the foreign exchange rate.

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\* A paper presented at the 1997 National Outlook Conference, organized by Malaysian Institute of Economic Research, Kuala Lumpur, December 2-3, 1997.

## 1. ANATOMY OF THE FINANCIAL CRISIS

In general, the starting point of the financial crisis is the slowdown in economic activity, which inevitably leads to asset price corrections. Although macroeconomic shocks can lead to bank distress, some conservative banks are able to bear the brunt of external shocks much better than those banks with aggressive behaviors. In this section, we show that the asset and liability structures of banks are different from those of finance companies. Until recently, the Thai commercial banks engaged less in speculative lending, but they have relied more on foreign borrowings than finance companies. Consequently, both types of financial institutions experience different impacts of currency devaluation and economic downturn. Financial institutions committed technical errors during the boom years, partly due to the poor quality of regulations and supervision of the central bank. Sound banking management can mitigate the effects of external shocks and retain the confidence of depositors during a financial crisis of bank runs.

### 1.1 Macroeconomic Instability

The Thai economy had experienced 8.5 percent GDP growth between the period 1991-1995. Except for the Philippines, other countries in Southeast Asia achieved high economic growth during the same period (Table 1). The real effective exchange rate of the baht appreciated by an annual average of 0.6 percent between 1986 and 1995. Back then, the baht was considered as the most stable currencies in the world, especially the exchange rate between the baht and the US dollar was extremely stable, as a result of the large weight of the dollar in the basket exchange rate system. Other currencies in the region also exhibited similar trend of stable foreign exchange rate. This could be a reason for the contagion effect which originated from the baht crisis, since speculators tend to view countries as a group sharing the same characteristics as Thailand in the past decade: high economic growth, large current account deficit, and exchange rate stability. One stylized fact from historical episodes of financial instability is the existence of a well-ground sense of economic property, which provide the environment most conducive to instability (Spotten, 1997). In fact, low unemployment, low inflation, and high economic growth were the perception of the Thai economy before 1996.

But during the economic booms, the demand for loans increased rapidly and the expansion of credit in turn causes output expansion. In a recent study of the effect of Tequila and its aftermath in 20 emerging countries, Sachs and others (1996) found that exchange rate overvaluation, lending booms, and low international reserves relative to short-term debts are the main culprits for financial crises. In the absence of this fundamental weaknesses, self-fulfilling panic or contagion was at worst short-lived. And there was no long-lasting impact of the Tequila effect for well-behaved countries. Although Thailand suffered indiscernible effects after the Mexican devaluation in 1994, it simply implies that the weak symptoms have not developed to a full blown crisis, until the baht devaluation in July, which triggered the regional crisis..

The lending booms are evident in the ratio to GDP of bank credit, which rose from 42 percent in 1990 to 140 percent in 1995 (Table 1). Other Southeast Asian countries exhibited the same increasing trend of bank credit. Nevertheless, one might interpret this trend as a sign of advancing financial development stage, where both lending and deposits are rising as a share of GDP, reflecting the degree of financial deepening. Except for Singapore, other countries has to rely on foreign savings to finance the current account deficit. In the case of Thailand, where the interest spread between lending rate and deposit rate has been lower than the spread between lending and the international market interest rate (LIBOR), commercial banks have incentives to borrow from abroad rather than to mobilize domestic



savings. Figure 2 illustrates the extent that commercial banks borrowings expanded rapidly between 1992 and 1995; the size of the borrowings far exceeded the level of monetary base by more than 250 percent. This is not surprising since the domestic cost of fund is higher than the foreign cost of fund. During the same period, the international reserves or the net foreign assets (NFA) of the Bank of Thailand increased *pari passu* with the monetary base, leaving the ratio of the NFA to monetary base remain relatively stable compared with the late 1980s. Huge capital inflows produced balance of payments surplus and led to Thailand's large accumulation of international reserves, ranked number 10 in the world in 1995. The stability of the exchange rate that existed for too long caused excessive foreign borrowing, since there had been virtually no foreign exchange risks. Asset prices went up because credit expansion facilitated the buying in anticipation of a continuation of the rising price trend. But once the unexpected change in the foreign exchange regime took place, the private sector would have to bear the burden of the overestimation of the return on previous investment.

The sharp fall in exports in 1996 triggered the fear of devaluation. After unfavorable news puncture confidence, investors revised downward the expected return from their projects, causing a sharp decline in asset prices such as properties and stock prices which were bid up highly during the boom years.

Commercial banks' foreign borrowing increased gradually from 1991 to 1993 (Figure 3), but it rose sharply in 1994 after the establishment of the Bangkok International Banking Facilities (BIBF) which encourage out-in capital flows through fiscal incentives measures. Some foreign banks competed aggressively to show impressive lending volume to the Bank of Thailand in order to be qualified for full banking licenses, despite a very tight interest spread. In 1994, we observe a sharp fall in the private sector's borrowing, suggesting that bank and non-bank capital flows have some degree of substitution (Figure 4).

Not only commercial banks engaged in massive foreign borrowings, but non-bank private sectors also took the advantage of cheap foreign funds to finance investment projects in Thailand. The non-bank private sector's capital flows in terms of loans increased significantly between 1995 and 1996 (Figure 4). Between 1991 and 1996, the share of non-bank private sector's foreign borrowings in total private flows averaged 15 percent, whereas short-term capital flows in terms of portfolio investment and non-resident baht account at commercial banks registered 30.3 and 34.3 percent respectively. If the short-term flows can be considered as hot money, Thailand has been financing current account deficit with a very large component of highly volatile flows, since the cold money or the foreign direct investment share averaged only 20 percent. Despite the fact that these hot money can be persistent since short-term debt can be rolled over, the self-fulfilling expectation of foreign exchange speculators can lead to an abrupt capital flight during confidence crisis and export slumps.

## 1.2 Mismanagement

A prudent financial management rule requires that financial firms should not mismatch the maturity between borrowing funds and extending credits. Financial firms are fragile by nature since they depend on short term liabilities, due to unexpected withdrawals, to produce long-term assets. As long as the law of large number operates, finance firms can be in a good equilibrium, where deposits intakes are larger than withdrawals. Once the confidence is lost, depositors would continue to withdraw their money even if they know that banks would remain solvent if nobody withdraw money at the same time. Since financial firms use hold only a small portion of their assets in terms of equity, they rely on creating liabilities to build income yielding assets. As a result, the nature of the banking is fragile and

highly sensitive to public confidence. Yet some banks and non-bank financial institutions adopted an aggressive strategy by trying to expand their assets through liability management.

It is obvious from Table 2 that Thai commercial banks have become dependent on foreign borrowings; the share of foreign liabilities in total liabilities increased from 6 percent in 1990 to 22 percent in 1996 (Table 2), while finance and finance and securities companies' source of foreign funds marginally declined from 4.8 to 4.3 percent during the same period. Hence, the impact of baht devaluation would be more damaging to commercial banks than finance companies. While commercial banks rely less on interbank money market—only 2.2 percent, finance companies borrowed from commercial banks about 8.2 percent in 1996. Disturbances in finance companies can also affect commercial banks to some extent. As required by law, finance companies have maintained higher equity to asset ratio at 12.5 percent in 1996, compared with 8 percent of commercial banks. Table 2 indicates that commercial banks over the years has considerably reduced its source of funds from domestic savings mobilization, from 77 percent of their liabilities in 1990 to 60 percent in 1996, which is close to the ratio of domestic funding of finance companies. In sum, both Thai banks and finance companies have exposed themselves to foreign exchange rate risks, international market risks, and interest rate risks, thereby weakening their ability to protect themselves in the period of external disturbances.

The long span of high economic growth means rising permanent income and higher expected rate of return from investment projects. Manufacturing output rose rapidly as a proportion of GDP, and so did the financial institutions' credit extension to manufacturing sector (Table 3). Bank lending concentrated mainly in manufacturing, wholesale and retail trade, and personal consumption. The share in total bank lending for these three lending categories was close to 60 percent in 1996. It should be noted that commercial bank lending to real estate business was on the declining trend after 1992, as a result of the Bank of Thailand's regulation that limits bank lending to non-priority sectors.

Excessive lending of commercial banks is illustrated in Figure 5, where the year-on-year percentage changes in bank credit and deposits are compared. In the early 1990s, when credit growth rate exceeded deposit growth, liquidity shortage led to an upward pressure in the bank lending rate, represented by the minimum lending rate (MLR). However, after the capital control liberalization in 1993, the liquidity crunch during the frenzy lending years did not translate to rising lending rates. When households' savings slowed down in 1994, bank lending volume kept on rising above 30 percent in 1995. Commercial banks were able to satisfy the rising demand for credit by seeking funds from international money markets. During those years, Thailand was such a darling country that any banks would be willing to lend with only a small interest premium different from the world money market rates. Since 1995, commercial banks credit decelerated continuously, because of the tight monetary policy applied to contain overheating economy and burgeoning current account deficit. The lending interest rate remained at high level to fend off speculative attack on the Thai baht throughout 1996 and 1997.

Compared with commercial banks, finance companies' lending exhibited higher degree of loan concentration; the share of the top three lending sectors, including personal consumption, real estate business, and manufacturing, was 66 percent in 1996. Since consumer loans are non productive and property loans are highly speculative, finance companies are likely to suffer more than commercial banks during recession and bubble bursts. The share of property lending of finance companies rose concomitantly with the share of consumer lending. These activities are pro-cyclical and likely to generate high profit during the boom years. Figures 6a

and 6b compare property lending of commercial banks and finance companies. Lending booms in this sector for commercial banks took place between 1987 and 1990, but the property lending has been slowing down below the average lending growth after 1993, when the Bank of Thailand began to exercise its control. The property lending boom episode of finance companies is similar to the case of commercial banks, except that even after 1993, finance companies still actively engaged in property lending as if they expected that the property prices would never collapse. High degree of loan concentration to a specific and vulnerable sector such as real estates defy the prudent law of asset diversification.

While lending of financial institutions concentrates on long-term loans for real estates and manufacturing establishments, their sources of funds are highly liquid (Table 4). Domestic sources of funds of commercial banks consist of 22 percent in saving accounts, and 60 percent in fixed deposits less than 3 months. For finance companies, their domestic funds are mainly short term liabilities: 23 percent from call loans, 51 percent from less than 3 month maturity promissory notes. While almost half of foreign borrowings of finance companies are short-term loans, commercial banks' foreign sources of funds are dominated by short-term loans and volatile deposits of non-resident baht account, representing more than 60 percent of total foreign liabilities. As a result, commercial banks' exposure to foreign exchange risks would be higher, considering the fact that a large part of those borrowings are short-term hot money.

### 1.3 Inadequate Supervision

The Bank of Thailand's supervision department was fully aware of the inevitable crisis and should have exercised its power earlier. One of the mistake of the Bank is the false hope on the economic turnaround. Since there was a risk of widespread loss of confidence in the entire financial sector, the BOT hesitated to react swiftly to warn the public when the economic recession was only a remote possibility. The Bangkok Bank of commerce (BBC) had extended 80 billion baht to some business groups and politicians, mostly for speculative purposes. These loans are pledged by overvalued collateral. Loans were extended to fund securities purchases for takeover purposes, and to fund share purchases of BBC's capital increases. The BBC problem surfaced to the public in 1994, but the Bank of Thailand bailed the BBC by injecting 100 billion baht to improve its status, instead of reducing its capital by writing off its bad debts.

The Bank of Thailand has the department of bank examination and analysis as well as the financial institutions supervision and development department to oversee the irregularities of financial institutions. There are at least 600 personnel in both departments, examining 15 commercial banks and 91 finance companies. The only examination method of financial institutions is financial auditing, with no analytical and management auditing techniques. Nor has there been an early warning system in the Bank of Thailand, despite the fact that the most recent major financial crisis took place in 1983.

## 2. POLICY RESPONSES TO THE FINANCIAL CRISIS

In an attempt to stem the flows of short-term foreign borrowings of financial institutions, the Bank of Thailand imposed a 7 percent reserves requirement on foreign borrows of these institutions in 1995. The policy has effectively raised the cost of foreign borrowings. Nevertheless, the capital control policy can be considered as too late and too little to redress the problem of over-borrowing problems accumulated over the period of capital control relaxation. In this section, we discuss the role of the bailing out program of the Bank of Thailand through the

Financial Institution Development Fund. The role of new institutions which are established to deal with troubled financial institutions is examined, together with the attempt of the Bank of Thailand to improve its regulation and supervision role.

## 2.1 The Role of Financial Institution Development Fund

During the financial crisis in 1983, the FIDF bailed out 44 finance companies, whose assets represented 12 percent of the entire assets in the financial system. Between 1984 and 1987, the BOT intervened in 5 commercial banks to solve their liquidity problems. The 1984 devaluation was 14.7 percent, and the Thai economy was able to recover quickly after the economic slowdown in 1985. Thus the task of the Bank of Thailand in dealing with financial crises in past was relatively easy compared with the current problems, which become more complicated due to higher degree of integration between the real and financial sector, and increasing degree of interlocking claims in the interbank and interfinance money markets.

Since the lending interest rate charged by the FIDF was lower than the interbank rates, some firms turned to the FIDF as a lender of last resort and borrowed more than their capital funds, not knowing that it would be used as a criterion for closing them down. One finance company faked promissory notes and used them as a basis to borrow fund from the FIDF, the result of which led to a replacement of the management by officials from the Bank of Thailand. Commercial banks annually contributed to the FIDF by 0.1 percent of their deposits. Since FIDF has already spent 100 billion baht to bail out the Bangkok Bank of Commerce, it was not unreasonable for some finance companies, in anticipation of the lack of credit availability and the increase in the market cost of fund, to borrow heavily from FIDF. The criterion for suspension of the 42 finance companies was based on whether they borrowed more than their equity from the Financial Institutions Development Fund (FIDF). Questions were raised by suspended firms regarding the fairness and the transparency of criterion, since there was a wide difference finance companies' borrowings from the FIDF. As Glaessner and Mas (1995) argue, if supervising organization has a high degree of regulatory discretion, it might cause unpredictability, the abuse of power, inaction in the rehabilitation process, and even charges of financial impropriety, and legal challenges. The Bank of Thailand should employ more rules and less discretion in the rehabilitation and supervision, while those rules must be transparent together with enhanced disclosure accounting standard to enforce prudent market behaviors.

Commercial banks are required to increase their contributions to the FIDF from 0.1 percent of their deposits to 0.2 percent by the end of 1997. The required contribution in 1998 would be based on 0.4 percent of deposits and total liabilities. For the first half of 1998, the payments will be only 0.05 percent, and the remaining of 0.15 percent will be paid in the remaining second half. It should be noted that this requirement is similar to a proportional tax which is regressive, considering the fact that large banks would have to pay higher insurance premium to the future deposit insurance corporation. The contributions should reflect the degree of risks undertaken by each bank in order to reduce the problem of moral hazard. The Bank of Thailand has a plan to upgrade the FIDF into a deposit insurance corporation. Nevertheless, as argued by Miskin (1997), deposit insurance institution may not prevent bank panics, since the root of the problem is the asymmetric information. An increase in the safety nets through the creation of the deposit insurance scheme would intensify moral hazard incentives for excessive risk taking by banks. A strong regulation and supervisory system is more appropriate in preventing financial crisis in LDCs, where asymmetric information problems are serious.

## 2.2 New Institution Establishments

Financial Restructuring Authority (FRA) was established to review and evaluate the rehabilitation plans of the 58 suspended finance companies. FRA made recommendations to the Ministry of Finance about the firms which will be allowed to operate, about which firms have to be merged with the others, and which firms must be liquidated. The agency has discussed closely with the IMF about the rehabilitation plans. One of the IMF's conditions for the \$17.2 billion bailout loan from the IMF is that the Thai government must solve the problems of financial institutions without political interference. FRA also consulted closely with the Bank of Thailand, the Finance Ministry, and the Financial Institutions Development Fund regarding the closure of some of the 58 suspended firms.

The criteria set by the FRA include the ability of the finance companies to (1) raise the capital funds to the required level, (2) to obtain sufficient funds for liquidity management, (3) to repay outstanding debt to the FIDF, and (4) to meet the management qualifications set by the Bank of Thailand. In addition, firms must verify their reliable sources of funds to meet the requirements. The criteria stipulate that firms merging with suspended firms must maintain capital-to-risk assets ratio at 15 percent for the first year, 12 percent for the second, and 10 percent for the third year of operation.

FRA would monitor the finance companies whose rehabilitation plans have been approved to ensure that they comply with the terms and conditions set by the FRA board and the Ministry of Finance. For those firms whose plans are disapproved, for they are too weak to rehabilitate, FRA would control them by sending a team to serve as a chairman and directors, with all operation ceased. Their bad assets will be transferred to the Asset Management Corporation (AMC), which will liquidate them. Finance companies are not satisfied with the AMC liquidation options, since their assets may be heavily discounted and they prefer to manage their bad debts themselves. The Secondary Mortgage Corporation (SMC) will be established by the Ministry of Finance with an initial capital of one billion baht. Another four billion baht could be raised if SMC has insufficient funds. SMC would convert debts borne by real estate developers and financial institutions into equities. SMC notes will be issued and can be used by financial institutions as reserves as required by the Bank of Thailand.

With very stringent conditions set by the FRA, it is expected that only a few of the 58 suspended firms would meet the requirements. The size of the firms in the industry would be reduced from the existing 91 firms to less than 40 firms, 33 of which are now operating.

## 2.3 Establishing Prudent Regulations and Strengthening Supervisions

The Bank of Thailand has strengthened domestic provisioning and accounting requirements towards international standards. As of January 1, 1998, financial institutions must stop recognizing accrued interest as income from debtors who are more than six months behind in payments. Only actual amounts received for accrued interest can be recorded as income. Loan assets classified as substandard as of June 30, 1997 must have loan-loss provisions equal to 15 percent for commercial banks, and 20 percent for finance companies, finance and securities companies, and credit fonciers. Doubtful debts provisions remain at 100 percent as previously stipulated. The provisions must be fully met by the end of 1998. Financial institutions are allowed to gradually build up provision during a grace period, with 50 percent of the provisioning amount by the end of 1997, and 75 percent by the end of the first half in 1998. As of July 1, 1998 debts more than six

months behind interest and principal payments must be classified as substandard, with all provisioning according to the new regulations. In the long run, financial institutions are expected to reserves 1 percent of total outstanding credit for general provisions, and to reduce the interest accrual period from 6 to 3 months when defining substandard loans.

One crucial condition required by FRA for any suspended firms to resume operations is to be able to raise capital funds as much as 15 percent of risky assets. This condition, needless to say, is very difficult during the downturn of the economy. It is noted that the required capital adequacy ratio (CAR) for the 58 suspended firms is higher than the remaining 33 finance companies, which are subject to the normal 8.5 percent CAR. The suspended firms also suffer income loss from the suspension of securities operation. They request the debts from FIDF be converted into equity. For all commercial banks, the capital adequacy ratio is expected to be raised to 12 percent, with a minimum 9.5 percent for the first tier equity.

Provisioning against substandard loans will be increased from 15 percent to 20 percent, while another general provision of 1 percent on performing loans is imposed. Nevertheless, full tax deductibility on reserves will begin in the fiscal year 1997 to encourage banks to set higher provision standards by reducing their financial burden. Banks are also required to hedge most of their foreign liabilities. Only 15 percent of equity can be unhedged for banks and 20 percent for finance companies. With all these new system of regulations and the improvement in supervision, we may be able to reduce technical errors to some extent. However, as Honohan (1997) has warned us, we should also be aware of abuses of the system, which is related to the issues of governance and political corruption.

In November 1997, the Bank of Thailand allowed cross-shareholding of more than 49 percent for 10 years for sound local financial institutions. Previously the maximum holding an institution could have in another firm was 10 percent. The new rule would facilitate capital increases of these nearly insolvent finance companies, some of which are backed by commercial banks but cannot raise funds from supporting banks, due to the 10 percent cross share restriction. Bangkok Bank has expressed the intention to buy additional shares in the Union Asia finance to strengthen the financial position of its subsidiary.

Foreign investors will also be allowed to hold a majority share in a Thai financial institution for 10 years and they must reduce their holding below 49 percent after 10 years, because they will not be able to buy new shares during capital increases. Thus the foreign stake would be gradually reduced; the speed of reduction depends on the size and frequency of capital calls after year 10. Fear of foreign domination in the Thai banking sector, the Bank of Thailand remains the full right to refuse a foreign bank additional full branch in Thailand if it holds more than a 49 percent stake in a Thai bank. The monetary authorities would consider application on a case-by-case basis and each bank will be given a holding period renewal every 10 years. It appears that the openness of the financial sector stems from the pressure to increase capital to avoid deepening financial crisis rather than a genuine desire to improve competition between local and foreign banks.

During deposit runs, small banks and troubled finance companies aggressively competed for liquidity by offering very high interest rates. As a result of this kind of desperate management, the high cost of funds in ailing financial institutions eventually compounds the problem of cash flow. Although the interest ceilings in Thailand had been abolished since 1991, the Bank of Thailand reintroduced the ceilings on deposit rate after the deposit runs in an attempt to control interest hike compassion to lure daring depositors. The maximum deposits interest rate of small

and medium sized banks and finance companies was set at 3 percentage point above the average fixed deposits of the five largest banks, which now stands at 11.5 percent. It is noted that since the risk premium of finance companies and small banks is higher than 3 percent, these finance companies are now facing serious liquidity problems.

### 3. MACROECONOMIC CONSEQUENCES OF THE CRISIS

The Thai economy is heading for a hard landing after the July de facto devaluation of the baht. Without non-performing loans problems, the economy might suffer only a few percentage point loss in GDP growth rate. When Thailand abandoned the so-called basket system of exchange rate determination, it has also lost an important anchor of price stability. What was needed then was the policy credibility. Contractionary effect of devaluation would not last long if the government can restore public confidence in economic management. With regained consumer confidence and policy credibility, there would be no need to raise interest rate at higher level to attract capital flows and to prevent further currency attacks after devaluation. But the confidence in the Bank of Thailand was eroded further after the suspension of the 42 finance companies. In the past the Bank of Thailand had gained the reputation of being an independent institution which prevented the country from political interference with economic management. Once the reputation is lost, it becomes very difficult to restore its policy credibility. In fact, the Bank of Thailand has to fight two wars in defense of the baht and in maintaining the financial stability. Unfortunately, both goals are not separated from each other, since the currency depreciation has threatened the solvency of commercial banks, while weak financial institutions cannot withstand economic contraction and high interest rate policy needed to defend the baht. Figure 7 indicates that the attempt to shore up the value of the baht during the major episodes of four speculative attacks in July 1996, February 1997, May 1997, and the final chapter of the defense in June 1997 led to extremely high interbank rates. The increased forward premium also echoed the high degree of expectation of baht devaluation during the turbulent periods. Some banks were more exposed to currency risks if they did not fully hedge their positions.

As mentioned earlier, bank loan growth has decelerated sharply from 30 percent in 1995 to less than 15 percent in 1997. Consequently investment activities in construction and importation of capital goods contracted, as shown by the continuous decline in the private investment index in Figure 8. The slowdown in the economic activity was also reflected by the 7 percent decline in the number of cheques issued in the first 10 months of 1997. The number and the value of bounced cheques also rose rapidly, compared with the same period last year. The IMF austerity measure imposed on the Thai government to produce a budget surplus of one percent of GDP has effected the expenditure budget cut from 923 billion to 805 billion baht. Private consumption has been declining, as indicated by the reduction in department store sales. The sharp fall in the stock market leads to a reduction in households' financial wealth, while the threat of being layoff further undermines consumer confidence. In addition to the negative wealth effect on consumption, the depreciating baht, the rising cost of gasoline, and the increase in the value added tax rate from 7 to 10 percent have compounded the severity of recession by discouraging private spending. Private investment will not recover until liquidity problem is solved. Even if the interest rate can be reduced, it is not likely that investment will pick up under the current pessimistic investment climate. Since the government budget must be surplus; public spending cannot be used to stimulate the economy. Only strong exports performance can bring Thailand out of the recession.

Whether exports would expand fast enough to offset contraction in other sectors depends on the responsiveness of exports to price adjustment and to economic conditions in Japan and USA. The depreciation of other currencies in the region would reduce the competitiveness of Thai products after the baht float. The financial crisis has also inversely affected the export sector, which is supposed to be more competitive after the baht devaluation. Despite the attractiveness of foreign markets, small and medium-sized firms could not obtain credit from commercial banks to secure their overseas orders. To improve their cash flows, the Export-Import Bank has to extend a 20 billion baht loan to facilitate their export production.

The large depreciation of the baht, the asset price bubble, and the increasing amount of non-performing loans lead to the downgrade of sovereign credit rating of Thailand, which is just 2 notches above junk bond status. The cost of securing foreign funds has become very expensive due to risk premium and foreign exchange risk, some foreign financial institutions has recalled loans and have ceased offering new liquidity to Thai firms. The domestic interest rate would remain at high level as long as Thailand cannot solve the problem of foreign exchange instability and financial distress.

The official foreign reserves at the end of October 1997 were \$31.3 billion, compared with the \$24 billion minimum requirement by the IMF. Although the October level of reserves is still higher than the IMF requirement, the BOT still has forward contract obligations to sell the dollar in the future. As of October 15, the forward obligations totalled \$23.9 billion. Furthermore, according to the chairman of the Thai Bankers' Association, \$16 billion in foreign debt of Thailand was expected to mature over the next 14 months. The Bank of Thailand may not have sufficient reserves to cover maturing debts. Without confidence from foreign creditors, some loans may not be rolled over; thereby increasing the level of credit crunch, corporate bankruptcies, and financial instability.

Since the size of bank credit to GDP ratio was more than 140 percent, the chance of having an early recovery is very small. This is the characteristic case of a debt-deflation economy, where banks are not willing to lend because of high default risks and low values of collateral during deflation period. At the same time, investors are not willing to borrow because they have already accumulated high level of debt and the expected return on new investment is extremely low during the period of depressed consumer confidence. Excessive debt burden of the private sector accumulated during the booms exacerbates recessionary tendency when the economy experiences a downturn.

#### 4. FINANCIAL ENVIRONMENT AFTER RESTRUCTURING

As a result of asset quality problems, most commercial banks rush to increase their capital funds to comply with the new capital adequacy ratio. While only a few of 58 finance companies can find foreign partners to boost their equity, small commercial banks would be able to secure strategic partners. Banking industry in Thailand has been protected from competition of foreign banks. While there are some foreign banks operating in Thailand, they are limited by a single branch. By allowing foreign stake in Thai banks more than 49 percent for ten years would imply a fierce competition between local and foreign banks. It is expected that efficiency in the financial sector would improve considerably through both quality and price competition.

If a foreign bank can own 100 percent of a Thai bank for a ten year period before the stake is gradually diluted by further capital call, investment in the Thai banking system may be viable in the long run because of the cheap prices and expected



profitability would outweigh the current bad debt problems. City corp's citibank unit is negotiating to buy the First Bangkok City Bank, which has been beset by bad debts from loan extension to property developers. ABN-Amro has shown interest in purchasing new shares of Thai Danu bank, while ING bank has obtained shares in Siam City bank. Laem Thong bank also has a Kuwait partner. These are family-owned, small banks, which find it difficult to raise funds during recession. As a result, the management style would become more professional, in the sense that insider loan problems should phase out gradually. The involvement of foreign banks can lead to technology transfer and improved management. Hence, the trouble in the financial sector has accelerated the opening of the Thai financial sector to foreign competition earlier than previously expected results from GATT concessions. The new cross shareholding regulation eases the process capital increases, but it also paves way to interconnectedness among financial institutions and enhances monopolistic power of large banks. Nevertheless, experiences show that a large number of finance firms has led to fierce competition and bankruptcy. It is therefore a tradeoff between efficiency and the financial stability.

## 5. CONCLUDING REMARKS

Although macroeconomic shocks in the forms of export shortfalls or a change in the foreign exchange rate regime can adversely affect the performance of the financial sector, conservative and sound managed financial institutions can survive the crises. By avoiding technical mismanagement, aggressive management and fraudulent behaviors, banks can recover quickly from the economic downturn. In addition, the importance of prudential regulations and competent supervisions cannot be understated. It might be a conventional wisdom in the Bank of Thailand's banking supervision department that there is no need to establish an early warning system since the Bank of Thailand has to supervise only 15 domestic banks. The recent experience strongly contradicts to that notion. The inescapable conclusion is that there is no bank too big to fail and market discipline imposed to financial institutions by depositors can be effective in controlling risky behaviors of finance companies. More frequent bank runs and the threat of runs can also keep pressure to regulators to realize that it may not be worth bailing out insolvent financial institutions at the cost of tax payers. Since the cost of systematic failure to the financial system as a whole is extremely high through contagion effect, accountability must be established for all parties concerned. Management and shareholders of financial institutions must bear the brunt of their own mistakes, before creditors and depositors can bear the burden of financial distress. On the other hand, those who examine and supervise financial institutions must hold responsible for the failure to warn the public of the danger of financial collapse. Political interference or unethical behaviors of authorities cannot be tolerated in the future. It seems that no matter how stringent supervision rule and prudential regulations are imposed to the financial sector, those rules may not be sufficient to prevent the crisis if there is an intention to bend the rules. To reduce the fragility of the financial sector, the abuse of the regulatory system must be eliminated. This requirement is related to the issue of governance and political interference. The end of an era of no-entry and no-exit policy of the financial sector in Thailand would lead to a more competitive environment, while efficiency gain can be expected at the cost of bankruptcies of inefficient firms.

## References

- Crockett, Andrew (1996) "The theory and practice of financial stability" **De Economist**, Vol. 144, No. 4, 531-568.
- Gluessner, Thomas and Ignacio Mas (1995) "Incentives and the resolution of bank distress" **The World Bank Research Observer**, Vol. 10, No. 1, 53-73.
- Honohan, Patrick (1997) "Banking system failures in developing and transition countries: diagnosis and prediction" **Bank for International Settlements Working Papers**, No.9
- Mishkin, Frederic S. (1996) "Understanding financial crisis: a developing country perspective" **Annual World Bank Conference on Development Economics**
- Sachs, Jeffrey, Aaron tornell, and Andres Velasco (1996) "Financial crises in emerging markets: the lessons from 1995" **Brookings Papers on Economic Activity**, 1.
- Spotton, Brenda (1997) "Financial instability reconsidered: orthodox theories versus historical facts" **Journal of Economic Issues**, Vol. XXXI, No. 1.
- World Bank (1989) **World Development Report**, Oxford: Oxford University Press

**Table 1**  
**Comparison of Monetary Sector in South East Asia**

Country	Annual average GDP growth rate	Exchange rates <sup>a</sup>	Credit to private sector % of GDP		Interest rate spread <sup>b</sup>		Spread over LIBOR <sup>c</sup>	
	1991-95	1986-95	1990	1995	1990	1995	1990	1995
Indonesia	7.8	-2.8	8.8	-	3.3	-	8.2	13
Malaysia	8.6	-2.3	49.9	129.5	1.3	1.7	-1.1	1.6
Philippines	2.2	1.1	42.2	45.0	4.6	6.3	15.8	8.7
Singapore	8.5	2.4	81.0	106.7	2.7	2.9	-0.9	0.4
Thailand	8.5	-0.6	41.7	139.9	4.2	5.9	8.2	9.7

Source: Economic and Social Survey of Asia and the Pacific 1997, United Nations (Table II.3, P.46).

Note: a. Refers to trend growth rate of real effective exchange rate.

b. Lending minus deposit rate percentage points.

c. Lending minus deposit rate.

**Table 2**  
**Liabilities Structure of Financial Institutions**

(% of total liabilities)

	1990	1991	1992	1993	1994	1995	1996
<b>Commercial Banks</b>							
Total deposits of nongovernment sector	76.9	77.4	75.7	71.6	63.5	59.8	59.9
Foreign liabilities	6.1	5.7	6.6	11.0	19.2	23.1	22.0
Liabilities to commercial banks and borrowings from other financial institutions	1.9	1.1	1.7	1.7	2.4	2.5	2.2
Capital accounts	6.2	6.6	6.7	6.9	7.5	7.8	8.0
<b>Finance and Finance &amp; Securities Companies</b>							
Borrowing from business and household sector	62.0	61.8	60.2	60.0	62.4	58.7	59.7
Foreign liabilities	4.8	5.7	6.0	6.3	5.8	7.3	7.3
Credits from commercial banks	7.5	8.1	7.6	7.4	8.1	9.2	8.2
Capital accounts	8.5	9.2	11.1	10.8	11.9	12.4	12.5

Source: Quarterly Bulletin, Bank of Thailand.

**Table 3**  
**Sectoral Loan Structure**

	1990	1991	1992	1993	1994	1995	1996
<b>Commercial Banks</b>							
(1) Manufacturing	25.1	25.3	23.7	24.0	24.2	25.8	27.1
(2) Wholesale and Retail Trade	17.6	17.4	17.0	17.7	18.2	17.8	17.9
(3) Real estate Business	11.9	11.5	11.5	11.3	10.5	9.4	8.8
(4) Personal Consumption	10.6	11.2	12.3	12.6	12.7	12.3	12.6
<b>Loan concentration ratio</b>	<b>53.3</b>	<b>53.9</b>	<b>53.1</b>	<b>54.3</b>	<b>55.0</b>	<b>55.9</b>	<b>57.6</b>
[CR <sub>3</sub> = (1) + (2) + (4)]							
<b>Finance and Finance &amp; Securities Companies</b>							
(1) Manufacturing	17.1	16.1	15.1	14.2	13.7	14.3	15.4
(2) Wholesale & retail trade	9.1	7.8	7.3	7.2	6.9	7.3	8.1
(3) Real Estate Business	22.9	23.9	23.4	22.3	23.8	25.0	24.4
(4) Personal Consumption	28.9	32.1	32.5	32.9	31.6	28.9	25.9
<b>Loan concentration ratio</b>	<b>69.0</b>	<b>72.1</b>	<b>70.9</b>	<b>69.5</b>	<b>69.1</b>	<b>68.2</b>	<b>65.6</b>
[CR <sub>3</sub> = (1) + (3) + (4)]							

Source: Quarterly Bulletin, Bank of Thailand.

**Table 4**  
**Borrowing Maturity Structure**

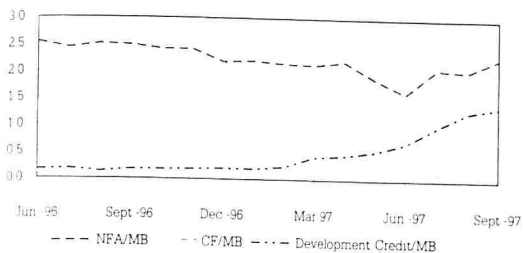
(% of total)

		<b>Commercial Banks</b>	<b>Finance company</b>
		(December, 1996)	(February, 1997)
<b>Domestic</b>	(1) Saving	22	-
	(2) Call	3	23
	(3) < 3 months	60	51
	(4) 3 to < 12 months	3	15
	(5) 12 months	11	5
	(6) > 12 months	1	6
<b>Foreign</b>	(1) Foreign borrowings		
	short-term	47	46
	long-term	37	53
	(2) Deposits from non-resident	16	-

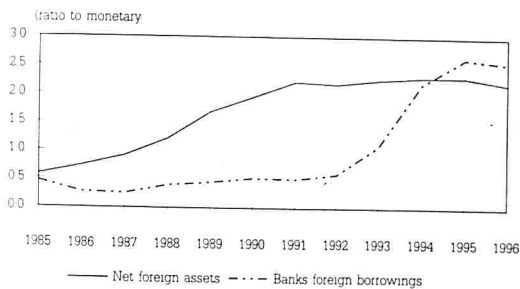
Source: Bank of Thailand.

Note: \* 1996

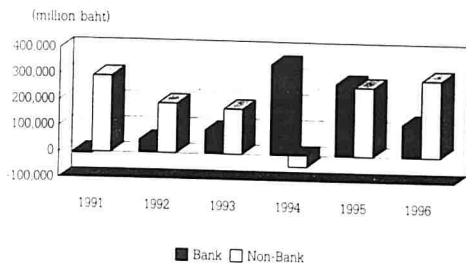
**Figure 1**  
**Financial Institution Bailout**



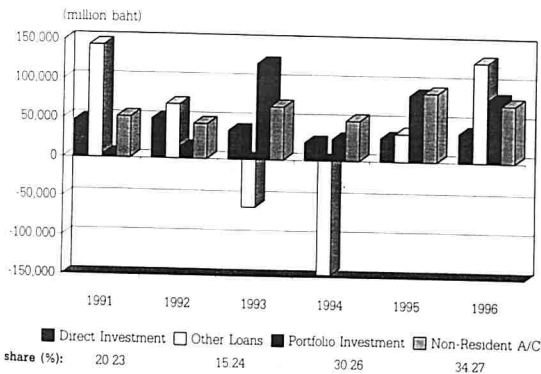
**Figure 2**  
**Capital Inflows and Monetary Base**



**Figure 3**  
**Bank and Nonbank Capital Flows**



**Figure 4**  
**Composition of Non-Bank Private Capital Flows (Net)**





**Figure 5**  
**Excessive Credit Expansion**

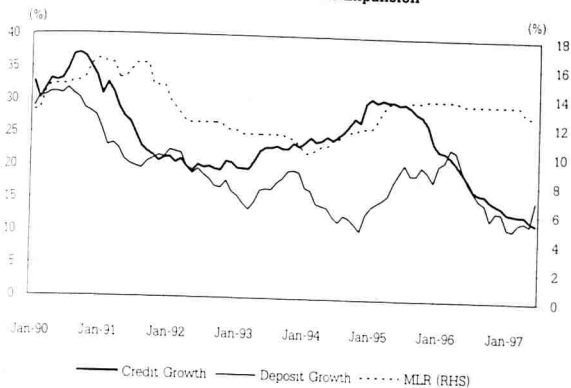


Figure 6a

Property Lending Booms in Commercial Banks

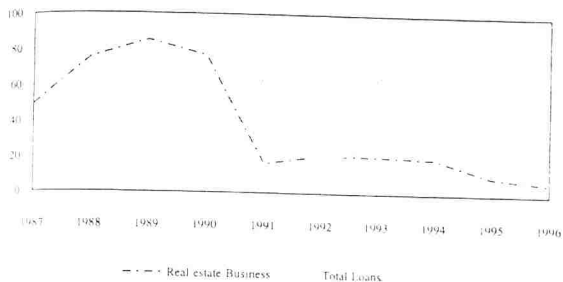


Figure 6b

Property Lending Booms in Finance and Finance & Securities Companies

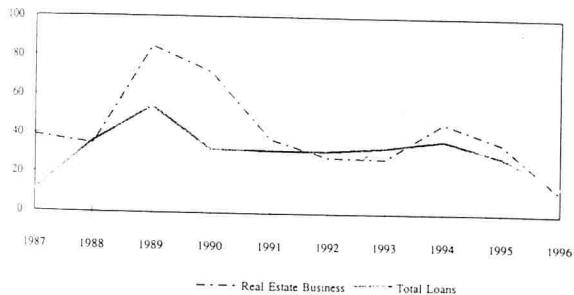


Figure 7  
In defense of the baht

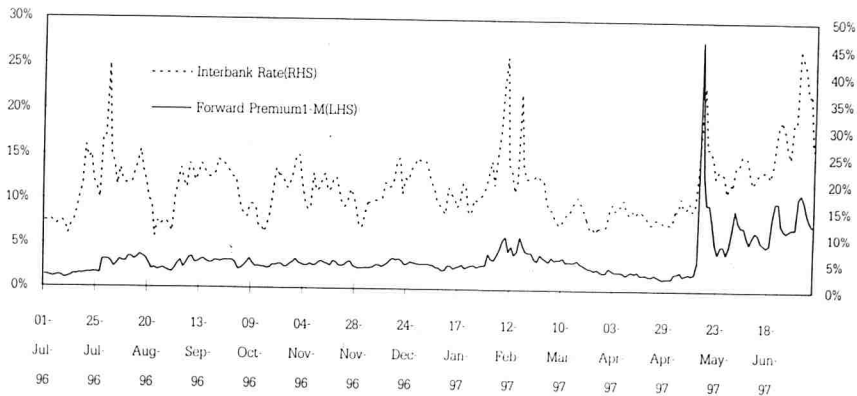
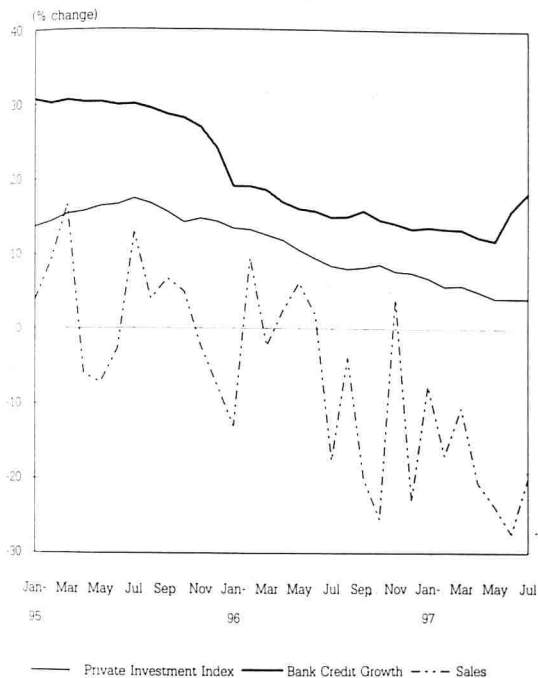


Figure 8

The Thai Economy in Recession



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Shangri-La Hotel, Kuala Lumpur  
2-3 December 1997

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**COMMERCIAL BANKING OF MALAYSIA:  
Performance and Issues**

by

**M G Kanbur**



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

## COMMERCIAL BANKING OF MALAYSIA: Performance and Issues

### 1. INTRODUCTION

The issues of financing economics development have attracted attention of many researchers over many years. In particular, the subject concerning the relationship between financial development and economic development gain much prominence during 1960s and 1970s. Mention may be made in this connection of studies by Gurley and Shaw (1955, 1960, 1967), Goldsmith (1969), McKinnon (1973), Bhatia and Khatkhate (1975) and Galbis (1977). It is argued that as financial system influences economic development, it is in turn stimulated by economic growth. Thus the dynamic system of the financial sector of the developing country could imply the effect of growing economic development.

Malaysia is a typical instance amongst developing countries where financing developmental activities are geared towards continued needs of the economy. The Malaysian financial sector has experienced an increased growth throughout the two decades (1970-1990). In meeting the continued needs of local developing economy, the expansion of existing financial institutions and the emergence of new financial institutions and instruments have taken place.

Finance companies in Malaysia which formed part of the financial institutions started functioning in early 1960s and expanded their operations substantially to become the second largest group of deposit taking financial institutions after the commercial banks. More than 80 percent of the deposits with the finance companies have been in the form of fixed deposits of varying maturities. Besides, it is expected of the finance companies to play some intermediate significant roles in enhancing the pace of economic development. Thus the enormous growth over the past two decades has put the finance companies in a vulnerable position in the overall financial system of Malaysia. However, the relatively little empirical research concerning performance of financial companies and that of commercial banking of Malaysia is surprising given the economic influence which these vital institutions have on the economy.

An empirical study on the performance of financial companies of Malaysia was made by Kanbur (1996) and a paper on it was presented at the Winter meeting of South and South East Asian Chapter of World Econometric Society in Dec. 1996 in Delhi (India). From 1980 to 1995, the number of commercial banks which included foreign banks has more than doubled. While the number of foreign banks has remained almost stable the number of domestic banks during this period has inverted more than two and half times. Statistics of number of commercial banks including foreign owned is given in Table 1.

The growth of commercial banks in Malaysia from 1980 to 1995 has made it timely, and worthwhile to undertake the empirical analysis of performance of commercial banking structure in Malaysia

Table 1  
Number of Commercial Banks in Malaysia

Year	Number	Percentage Inverse	
1980	546	1980 to 1984	31.1
1984	716		
1985	770		
1989	950	1985 to 1989	21.6
1990	998		
1994	1283	1990 to 1995	43.7
1995	1434		

Source: Bank Negara: Quarterly Bulletins.

The purpose of this paper is to examine the performance behaviour and test the applicability of the structure-performance model to the Malaysian commercial banks. In view of the growing importance of commercial banking in the Malaysian economy, we have confined in this study to the performance of commercial banks. The paper is organized as follows: Section 1 gives the analytical framework which attempts to explore variates to measure the performance of Malaysian commercial banking. Section 2 gives the measures of performance. The estimate of simultaneous equations model using two stage least squares (2SLS) procedure used in this paper discussed in section 3. The estimated empirical results are presented and discussed in section 4. The final section contains the conclusions of the paper.

### 1.1 Analytical Framework

Numerous theories and their practical applications have been put forward to explain the performance of firms. One of them is the Industrial Organisation (IO) model of firms performance which describes structure-conduct-performance (S-C-P) relationship (S-C-P) hypothesises that "the exogenous basis conditions determine market structure and that there is a Unidirectional flow of causality from market structure through conduct to performance.

There are several performance studies which have been undertaken on the patterns of United States banks. Growth of these studies has raised considerable interest in determining their viability and performance. But some of these studies consisted largely of single equation methods and some with application of univariate analysis. Graddy and Kyle(7) have noted that estimating performance equations with single equation methods will ignore statistical properties associated with interdependence among errors terms across nations. They also said that the specification of the performance measure should not be univariate but multivariate built in to a set of simultaneous equations.

Recent contributions to the theory of banking firm and performance provide the basis for the theoretical framework developed in this paper. Our approach has been to look at the commercial banking industry as a multiproduct, multifactor, profit maximising economic operative.

The simultaneous nature of the bank performance and the identification of the junctures where market structure logically impinge on bank performance are considered within the context of this model.

Our main objective is to determine whether a group of variables which constitute market structure factors exerts a significant influence upon the performance of commercial banks of Malaysia. The main hypothesis is

$$(Y_1 Y_2 \dots Y_m) = f(X_1, X_2 \dots X_n)$$

where  $Y_i$  ( $i = 1, 2 \dots m$ ) are indices of bank performance and  $X_j$  ( $j = 1, 2 \dots n$ ) are independent or determining factors which influence bank performance. The model suggests that the bank performance is defined as a combination of several performance indicators and that there are a number of variables which constitute the various factors that from a theoretical point of view hypothesised to affect bank performances. Variables representing performance measures and variables which are exogenous are as under:

We wish to define bank performance as a linear combination of several performance indices. The variables which we will propose to represent the performance of commercial banks of Malaysia include.

#### Performance Measures (Endogenous Variables)

- (1) LAAR : ratio of liquid assets to total assets
- (2) LAR : ratio of total loans to total assets
- (3) PFAR : ratio of purchased funds to total assets
- (4) ECAR : ratio of equity capital to total assets
- (5) PRICE1 : ratio of average lending rates to total assets
- (6) PRICE2 : ratio of interest paid on fixed deposits to total deposits.

There are a number of variables which either alone or combined, constitute the various factors that, from a theoretical point of view, seen likely to effect bank performance. They may be grouped in to the following categories.

#### I. Asset Management Measures

- (1) FDDR : ratio of total fixed deposits to total deposits
- (2) NON : number of offices
- (3) EGR : economic growth rate
- (4) SR : statutory reserves of finance companies prescribed by Bank Negara
- (5) PRICE : ratio of average lending rates to total deposits and ratio of interest paid on fixed deposits to total deposits.
- (6) ECAR : ratio of equity capital to total assets
- (7) FFBE : ratio of total fixed deposits from business enterprise to total deposits



## II. Management of Source of Funds (Liability and Capital Management Measures)

- (1) PRICE 1 : ratio of average lending rates to total assets
- (2) FDDR : ratio of total fixed deposits to total deposits
- (3) NON : total number of offices operating
- (4) EGR : economic growth rate

## III. Pricing Measures

- (1) PRICE2 : ratio of interest paid on fixed deposits to total deposits
- (2) TAER : ratio of total assets to employees
- (3) PRICE1 : ratio of average lending rates to total assets
- (4) POR : number of employees per office
- (5) NON : number of offices
- (6) EGR : economic growth rate

It may be noted that the specification of the model hypothesised to reflect the performance measures does not capture the impact of recent or potential bank entry on market performance. Both the studies of Chandrose [ ] and Fraser and Rose [ ] have indicated that potential bank entry is important.

The first category relates to assets management performance which includes (1) and (2). The assets structure reflects the extent of finance company's contribution to the Malaysian economy. The second category consists of measures relating to the management of sources of funds. This includes (3) and (4). Item (3) is a ratio that measures the company's dependence on purchased funds and item (4) measures the company's capital cushion.

It is assumed however that the company's shareholder's fund is the same as the equity. The final category includes two pricing measures; interest paid on deposits and interest changes on total income. Meinster and Enyasian (10) in their study on bank performance have considered sixteen performance measures. But our study for want of detailed data could not consider more than six performance measures. For example, profitability measure could not be included as time series data on profitability were not available.

The exogenous variables of the model comprise of composition of bank deposits (FDDR, FFBE), market structure (NON), government influence (SR), economic situation of the country (EGR), demographic factors (POR) and productivity (TAER). These exogenous variables are included as internal and external factors or quantitative control variables which also affect performance.

## Section 3 : Simultaneous Equations Model

The six linear equation giving six endogenous variables are:

$$\begin{aligned}
 \text{LAAR} &= a_0 + a_1 \text{PRICE1} + a_2 \text{FDDR} + a_3 \text{NON} + a_4 \text{EGR} + a_5 \text{SR} + U_1 \\
 \text{LAR} &= b_0 + b_1 \text{ECAR} + b_2 \text{FDDR} + b_3 \text{FFBE} + b_4 \text{NON} + U_2, \dots \dots \dots [2]
 \end{aligned}$$

$$\text{PFAR} = c_0 + c_1\text{PRICE1} + c_2\text{FDDR} + c_3\text{NON} + c_4\text{EGR} + U_3 \dots \quad [3]$$

$$\text{ECAR} = d_0 + d_1\text{PRICE1} + d_2\text{EGR} + d_3\text{NON} + U_4 \dots \quad [4]$$

$$\text{PRICE1} = e_0 + e_1\text{PRICE2} + e_3\text{TAER} + e_3\text{NON} + U_5 \dots \quad [5]$$

$$\text{PRICE2} = f_0 + f_1\text{PRICE1} + f_2\text{TAER} + f_3\text{POR} + f_4\text{NON} + f_5\text{EGR} + U_6$$

Notation  $a$ ,  $b$ ,  $c$ ,  $d$ ,  $e$ , and  $f$ , represent structural parameters of the six equations model while  $U_i$  is the random disturbance term satisfying standard assumptions of the linear regression model.

The structure model given by equations (1) to (6) can be summarized in matrix notation as

$$Y_i = Z_i B_i + X_i C_i + U_i$$

where  $Y_i$  is an  $(n \times 1)$  vector of sample observations on the dependent variable (performance measure) in the  $i^{\text{th}}$  equation,  $Z_i$  is an  $n \times k$  matrix of observations on other endogenous variables (performance measure) in the equation,  $X_i$  is an  $n \times m$  matrix of observations on the exogenous variables in the equation,  $B_i$  and  $C_i$  are vectors of parameters of structural equations of the model and  $U_i$  is a vector of disturbances satisfying the usual assumptions of linear regression model.

Given the preceding discussion of the underlying economic structure of performance measures and the specification of simultaneous equation model, the model was estimated using two stage least squares (2SLS) method which has an advantage over the use of ordinary least squares (OLS). In bank performance modeling exercise, there exists substantial interdependence or mutual causality. The use of OLS under these conditions is statistically not advisable as it leads to biased and inconsistent estimates. Previous empirical studies, in particular studies, by Graddy (7) and Clark (3) have justified the use of 2SLS in estimating the simultaneous equation model of bank performances. According to Clark (3) if all the equations of the structural model are correctly specified, 3SLS would provide greater efficiency than 2SLS. If any of the structural equations are misspecified, 3SIS will result inconsistent estimates of all model parameters while 2SLS will result in consistent estimates of all equation (8). Since some misspecification is likely, given the highly aggregated nature of the data employed in this study 2SLS was selected to minimise its effects. A more reasonable methodology is required in order to get a more realistic and wider picture of commercial banking in relation to the performance aspects.

#### Section 4: Estimated empirical results: 2SLS Procedure

The primary source of the highly aggregated financial data employed in the estimation of simultaneous equation model is mostly derived from the published Annual Reports of Bank Negara. The data related to the years 1980 to 1995 and the estimated empirical results are based on 16 observations. Some variables included in the model are calculated either in terms of percentages or ratios.

The principle contention of this paper as indicated in their paper by Graddy and Kyle[7] that performance measures utilised in past studies are interdependent and thus OLS estimation is inappropriate. The 2SLS estimation procedure was used in preference to single equation estimation technique. These results are reported in table 2.

Empirical results presented in table 1 suggest that most estimated coefficients are as expected according to economic theory. Six performance measures were estimated with  $R^2$  indicating goodness of fit as high as 0.96, 0.95 and 0.92. In only two cases  $R^2$  has been 0.57 and 0.58. Durbin-Watson test does not indicate autocorrelation in the error term although in equation with LAAR as dependent variable the test has been inconclusive. There may be statistical reasons for this situation but it appears that the inconclusive test may be due to smaller number of observations. Based on a two tail test, the intercepts of performance equations are found significantly different from zero. The F test also indicated that the combined effect of estimated coefficients upon performance measures turns out to be significant.

We observe that the first two equations with LAAR and LAR as dependent variables are negatively related with variable NON and are significant at 5 percent level of significance. Results suggest that risk management and promotion of savings merit some concern as the structure changes. The analysis of the results of equation (1) shows that Price<sup>2</sup>, SR and NON have significant impact although coefficient of NON is very small, almost negligible. In equation (3), we notice that Price1 has a negative sign and its coefficient is statistically significant.

EGR is positively related to PRICE2 as the upturn in EGR stimulates the economy thus requiring the resources for investment and expansion.

### Section 5: Conclusion and Policies Issues.

The present paper which is one of very few studies for Malaysia has been designed to determine simultaneously the performance of Malaysian Commercial banks. The coverage of commercial banks in this study includes both domestic and foreign owned commercial banks.

Deciding on the number of performance variables is an obvious problem in the formulation of a simultaneous structure performance model. Our selection criteria was that the performance measures should be comparable to those analysed in previous published research as well as they cover the general areas of bank policy decisions such as liquidity lending, investment and capital adequacy. However our estimated results comply with our agreements regarding the simultaneously of bank policy decisions and the existence of statistical difficulties in the single equation techniques.

Except the number of bank employees per office, we have not incorporated other demographic factors to measure whether the relevant banking market was located in a standard Metropolitan area of Malaysia. This variable would have captured the effect of differences if any in the behaviour of similar sized banks in large urban as opposed to rural or small urban environments. We prepare to include urban rural mix of the market area in our future research.

Previous published research on the performance of commercial banking have taken into consideration in their model the measures of composition of bank loans. Finally, we have ignored because of data limitations, the quality aspect of banking series a dimension which may be more sensitive to public policy than the quantity dimension.

### Policy Issues

The application of simultaneous equations model to the performance of commercial banks of Malaysia has indicated that the main factors which influence these measures are those which are often considered within the control of bank management. Bryan Williams in his study on the determinants of bank profits of

medium sized banks attempted to measure the impact of managerial factors on bank profits. Besides an attempt should be made to look at more closely at the prices of individual banking services such as rates on certain types of loans before a decision is taken on the role played by market structure factors in the determination of bank performance. Also relevant is the issue of bank variable costs which plays a crucial role as an exogenous variable of the performance model. It is suggested that a proxy variable is defined as the ratio of wages and salaries to total assets. Composition of bank loans should be shown as an explanatory variable in the model.

Table 1  
Commercial Banking of Malaysia  
Performance Model Estimated Empirical Results  
1980-1995

Dependent Variables						
Explanatory	Assets Management Measures		Management of Sources of Funds		Pricing Measures	
Variables	LAAR (1)	LAR (2)	PFAR (3)	ECAR (4)	Price1 (5)	Price2 (6)
Intercepts	0.32* (3.59)	0.53* (4.78)	0.20* (3.17)	0.066* (2.32)	0.176* (2.09)	-0.052* (3.85)
Price2	-3.09* (2.31)	-	-	-	-	-
FDDR	0.13 (1.09)	-	-0.030 (0.35)	-	-	-
NON	-0.32 x 10 <sup>-1</sup> *	-	-0.73 x 10 <sup>-1</sup> 4*	0.80 x 10 <sup>-1</sup> (0.34)	0.41 X 10 <sup>-1</sup> (0.22)	-
EGR	(4.67)	-	(2.61)	-0.17 x 10 <sup>-2</sup> (2.23)	-	0.41 x 10 <sup>-1</sup> * (2.72)
SR	0.19 x 10 <sup>-2</sup> (0.97)	-	-0.43 x 10 <sup>-1</sup> (0.32)	-	-	-
ECAR	0.85 x 10 <sup>-1</sup> * (3.13)	-	-	-	-	-
FFBE	-	0.32 (1.68)	-	-	-	-
NON	-	-0.36 (1.03)	-	-	-	-
Price1	-	-0.11 x 10 <sup>-1</sup> * (2.71)	-	-	-	-0.45 x 10 <sup>-1</sup> * (3.18)
TAER	-	-	-360.62* (4.86)	-72.13 (1.17)	-	-22.15 (0.55)
POR	-	-	-	-	-0.57 (1.50)	0.98 x 10 <sup>-1</sup> * (4.01)
	-	-	-	-	-	0.16 x 10 <sup>-2</sup> * (0.17(4.66))
R2	0.92	0.57	0.83	0.58	0.95	0.96
D.W.	2.46	1.52	1.72	1.65	1.68	1.95
F	23.60	3.90	13.42	5.55	58.14	36.73

Note:

- (i) Values appearing in parenthesis are t statistics
- (ii) An asterisk (\*0 indicates that the coefficients significant at the .05 level

## References

1. Bhatia R.J. and Khatkate D.R. Financial Intermediation, Saving Mobilisation and Entrepreneurial Development: The African Experience IMF Staff Papers, 22(1), March 1975, pp. 132-158
2. Bank Negara, Annual Reports
3. Clark J.A Single Equation, Multiple Regression Methodology: IT is Appropriate Methodology for the Estimation of the Structure Performance Relationship in Banking, Journal of Monetary Economics, 18(1986). P.p.295-312.
4. Choy Yen Nye. An Econometric Study of the Performance of Licensed Finance Companies of Malaysia. Unpublished thesis submitted to Universiti Utara Malaysia in partial fulfillment of Bachelors Degree in Economics with Honours, June 1991.
5. Fraser Donald R, Wallace Phillips JR and Ross Peters: A Canonical Analysis of Bank Performance Journal of Financial and Quantitative Analysis. 1974.
6. Goldsmith R.W. Financial Structure and Development. New Haven, Yale University Press, 1969.
7. Graddy D.B and Kyle II Reuben. The Simultaneity of Bank Decision-Making, Market Structure and Bank Performance. The Journal of Finance XXIV(1), March 1979.
8. Kanbur M.G.: An Empirical Analysis of the Performance of Licensed Finance Companies of Malaysia. Paper Presented at the South and South East Asian Econometric Society held in Delhi (India) in Dec.1996.
9. Mckinnon R.I Money and Capital in Economic Development. Washington D.C. Brooking Institution USA, 1973.
10. Meinster David R. and Elyasian Elyas. The Performance of Foreign Owned, Minority Owned, and Holding Company Owned Banks in the US. Journal of Banking and Finance 12(1988),pp.293.313.

**MIER**  
**1997 NATIONAL OUTLOOK CONFERENCE**

Shangri-La Hotel, Kuala Lumpur  
2-3 December 1997

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**OFFSHORE FINANCIAL CENTRE:  
The Labuan Experiment**

by

Awang Adek Hussin



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

## Offshore Financial Centre: The Labuan Experiment

### Introduction

In ancient times, Labuan was an important port of call. The Labuan of old saw ships laden with goods and riches from China, India, Arabia and Europe doing a brisk and thriving trade at its harbor. Even under the Majapahit empire and subsequently the British empire, Labuan had international callers from all over Asia and Europe. During the Second World War, the island was seen as a strategic military base. Not surprisingly, therefore, numerous fierce battles had been fought between the Allied and Japanese forces on the island. Labuan, since then, had remained very much a military base and a fishing village.

The road to recapture the past glory of Labuan earnestly began when the island became a Federal Territory on 16 April, 1984. In the late 1980s, it was realized that the manufacturing sector cannot in the long run remain to be the major engine of economic growth for Labuan. Other parts of the country are likely to be more attractive and strategically placed for the manufacturing activities to flourish. At the national level, services including financial services have to play an increasing important role to support economic transformation towards productivity-driven growth and capital intensive investment. In this regard, Labuan was seen to have a tremendous potential to support the growth of Kuala Lumpur to turn Malaysia into a regional financial centre. The Government proposed on 6 November 1989 to turn Labuan into an international offshore financial centre. The following year, on 1 October 1990, the Labuan International Offshore Financial Centre (IOFC) was established.

### Labuan as an IOFC

The Labuan IOFC was launched with the objectives to (i) complement Kuala Lumpur to make Malaysia as a regional financial centre, (ii) strengthen the contribution of the financial services sector to the gross national product of Malaysia, and (iii) promote the economic development of Labuan and its vicinity.

Labuan has been developed as an IOFC to cater mainly for investment requirements in Asia. There are many offshore centres in the world today, but most of them are located in Europe and the Caribbean. Labuan IOFC, on the other hand, is an integrated offshore centre which provides a wide range of offshore financial products, well established in the vicinity of expanding economies in Asia. The wide scope of offshore financial services and products offered by the Labuan IOFC to customers worldwide (particularly those in Asia) includes offshore banking, offshore insurance, trust business, fund management, investment holding, Islamic financing, company management services and capital market activities. The scope and level of offshore financial services and activities in Labuan have increased steadily over the years and are set to gain momentum for further growth in the future. In line with the progress recorded in the area of conventional offshore financing, Labuan IOFC is now broadening its activity by focusing on making it at the same time an international centre for Islamic financing and fund management. Labuan intends to meet demands by international investors in an offshore environment which is tax efficient and well governed by a conducive legal framework.

Labuan is also committed to maintaining its image as a serious offshore centre which is clean and reputable. As an IOFC, Labuan could have easily followed the model of offshore centres which are very relaxed in their supervision and liberal in their operating environment, which might well attract many players in a short period of time. However, Labuan has been deliberately designed to build its offshore



centre on more solid ground through the exercise of prudence and commitment to clean reputation. After a gradual build-up in its 7 years of operation, indications are that the business development strategy and supervisory approach of the Authorities are now showing positive results for Labuan.

### Progress of Labuan IOFC

The development of the Labuan IOFC is spearheaded by the Labuan Offshore Financial Services Authority (LOFSA) - a Single Regulatory Agency or One-stop Agency which was established in 1996. To have a single regulatory body in place renders another competitive edge to Labuan, as opposed to other offshore centres where supervision is still handled by many different agencies. The purpose of LOFSA is to streamline the administrative machinery in supervising and regulating the activities and operations of the offshore financial services industry in Labuan. It is also responsible for the conduct of research and development work focused on promoting new offshore activities, deepening the offshore financial market, improving operational efficiency and creating a conducive environment for the conduct of offshore business in Labuan. This is in line with the aspiration to turn Labuan IOFC into an active and well-functioning financial centre and not as a booking centre with mere "brass-plate" operators.

Since Labuan was declared an IOFC in October 1990, more than 1,600 offshore and supporting companies have been established. The number of companies incorporated and registered in the past one and a half years alone has exceeded the number of companies established in the first five years. To-date, Labuan has 63 offshore banks, 25 insurance and related companies, and 20 trust companies. It is encouraging to note the success of Labuan in attracting world-class offshore banks comparable to what has been achieved in other established offshore centres in the world. The ability of Labuan to attract 63 offshore banks in 7 years is commendable when compared to other offshore centres which have been around much longer, but have a smaller or almost similar number of banks in their jurisdictions as shown in the table below:-

Comparison with Other Offshore Centres

Centre	Years in Operation	No. of Banks
Labuan	7	63
Guernsey	> 35	75
Vanuatu	26	5
Mauritius	20	7
Bahrain	24	48
Jersey	> 30	77

Source: Websites - Internet

As can be seen above, Jersey and Guernsey, fully developed offshore centres which have been operating for over 30 years, each has less than 80 offshore banks. Today, all the top 10 largest banks in the world are present in Labuan. Of the top 20 largest banks in the world, 18 are in Labuan and of the top 50, 30 are in Labuan. A total of 14 countries are represented by the banks operating in Labuan including Japan, United Kingdom, Belgium, France, Germany, Switzerland, The Netherlands, Hong Kong, Taiwan, Singapore, Canada, the United States of America, Australia and Ireland.

As for the offshore insurance industry, 14 insurance licences have been issued so far this year, compared to only 6 licences for the first five years from 1990 to 1995.

We are also seeing the bigger insurance companies coming to Labuan now. It is expected that by the end of this year, we should have more than 30 insurance and related companies in Labuan.

The recent growth of Labuan was indeed very encouraging. In the first five years of its operations, Labuan recorded a total of 600 offshore companies. Last year alone, a total of 400 companies were registered. And this year, it is expected to attract more than 600 companies resulting in the number of offshore companies to jump from 12 in December 1990 to over 1,600 in October 1997. The table below gives a breakdown of the various types of offshore companies in Labuan.

**Growth of Offshore Companies by Type**

Year	1990	1991	1992	1993	1994	1995	1996	Oct 1997
Banks	3	8	8	21	35	43	82	63
Insurance Companies	0	1	2	3	5	5	9	25
International Leasing	0	0	0	0	0	0	0	
Fund Manager	0	0	1	1	3	3	3	3
Trading/Non Trading Cos	0	27	79	186	313	543	873	1,462
Trust Cos	5	8	11	11	11	13	17	20
Others	4	9	12	15	15	15	25	30
Total	12	50	113	237	382	622	979	1,604

Source: LOFSA

International institutions are attracted to set up a base in Labuan because of its efficiency and advantages in the conduct of offshore business. Some of the advantages of Labuan include:-

- having a competitive tax regime. The tax rate imposed on offshore companies is among the lowest in the world. Non-trading companies such as investment holding companies are totally exempted from tax. For trading companies, they are taxed at 3% of net profits or RM20,000 a year, depending on the choice of the company. Labuan is also a duty-free island, a shopping haven for both tourists and business travelers alike. Malaysians could also exploit the tax-efficient system in Labuan to set up offshore companies as vehicles for their investments overseas in this increasingly globalised business environment;
- having a long history of political stability in the country. A factor which is crucial in the investment decisions of the potential players;
- lower operating cost in Labuan compared to other financial centres in the region. This is true in terms of the cost of physical facilities as well as the rate of professional fees charged by accountants, lawyers and other professional service providers. For instance, the rental rate in Labuan is only one fifth of that in Hong Kong and about a third of Singapore;
- easy access by air. Labuan is easily accessible by air (within 3-4 hours) from many capital cities in the region such as Hong Kong, Bangkok, Jakarta, Singapore, Manila and Brunei. It is not much further from Seoul, Tokyo and Taipei. An added advantage of Labuan is that it shares virtually the same time zone with most of these cities making the conduct of business extremely convenient.

In addition, new laws have been promulgated and existing ones being reviewed to provide an even more conducive environment for the conduct of business in Labuan. The Government passed the Labuan Offshore Trusts Act in 1996 and the Labuan Offshore Limited Partnership Act this year. The latter provides the legal basis for the setting up of partnerships in the Labuan IOFC, which allows for some partners to have limited liabilities. At the same time, the existing Offshore Companies Act 1990, the Offshore Banking Act 1990 and Offshore Insurance Act 1990 have all been amended. The amendments in Offshore Companies Act include allowing Malaysians to set up offshore companies in Labuan. It also allows offshore companies owned by non-residents to invest in Malaysia so long as the investment is made through existing companies and that such investment does not result in controlling interest. The amended Offshore Banking Act allows the entry of specialised banking institutions into Labuan to focus on investment banking activities as well as Islamic banking. The business of offshore banking was also expanded to include a wider range of banking business normally undertaken by banks including treasury operations, leasing, foreign exchange dealings, derivatives as well as advisory services. Indeed, the promotion of treasury operations in Labuan has been given high priority, that new measures are being considered to further spur its growth. And the amendment to the Offshore Insurance Act is to make it more attractive for insurance captives to be established in Labuan, where the capital requirement has been reduced substantially from RM1.0 million to RM300,000. Meanwhile, the Labuan Offshore Securities Industry Bill is expected to be passed by Parliament before the end of the year. The Act will provide the legal framework for the creation and management of Collective Investment Schemes, including Islamic funds, thus giving the necessary thrust for further development of the fund management industry in Labuan. At the same time, an Exchange can be established for the listing of mutual funds and other offshore instruments.

### Labuan's Economic Success

Labuan has grown from a fishing community with a population of 35,000 and an unemployment rate of over 11 percent in the 1980s, to a modern island with about 60,000 people and with almost no structural unemployment. For example, the offshore financial industry has helped to create jobs and its level of employment has increased over the years. The situation of full employment in Labuan has contributed to a relatively high level of average household income in Labuan as indicated in the following table.

Household income in Malaysia

State	Income (1992)
Labuan	1719
Sabah	1358
Sarawak	1199
Selangor	1790
Kuala Lumpur	2102
Malaysia	1254

Source: Labuan Development Authority

More importantly, the offshore financial industry has helped to equip Malaysians, in particular the locals, with banking and financing skills through their work experience with the offshore financial institutions. This is very much in line with the national aspiration of creating a large pool of skilled human resource for long-term economic growth and global competition. As a matter of fact, working in an

essentially international business environment of the offshore financial industry should give the workforce in Labuan a better exposure to face the increasing global competition. The stream of activities generated by the offshore companies especially by the offshore banks and the construction sector in building the necessary infrastructure has raised the employment level of the country. According to Labuan Pengerusi, in Labuan, there are approximately 300 individuals registered for employment in Labuan. It is used as an indicator of the current unemployment level (1.5%) of the total population in Labuan. Labuan could be said to be truly operating at full employment level. The level of employment in the offshore financial industry also has steadily grown over the years.

**Level of Employment in the Offshore Financial Industry**

	Dec 1994	Dec 1995	Dec 1996	June 1997
Banks	269	353	500	506
Insurance	0	22	43	46

Source: LOFSA

Since Labuan was declared as an IOFC, the island's natural and economic landscape has undergone tremendous changes. In tandem with the growth of the Labuan IOFC, an array of infrastructural facilities have mushroomed to suit the needs of a sophisticated business hub operating round the clock with links to the rest of the world. Infrastructure facilities are critical to the development of a successful IOFC. Allocations have been made under the Seventh Malaysia Plan for the construction of additional infrastructure facilities and beautification of tourist spots. While these infrastructure are vital to the effective functioning of the offshore industry in Labuan, it is worthy to note that at the same time, such developments have contributed a lot of economic benefits and generated greater income for the local people in terms of increased economic activities. The quality of living of the locals has also improved due to the infrastructural developments. For example, Labuan now has an international school, a new nucleus hospital with 109 beds and equipped with modern medical equipment, a few world class hotels and an industrial training institute. Labuan can also boast of a modern Financial Park Complex which provides over 726,000 sq. ft of office space, 344,000 sq ft. of residential area, 276,000 sq ft of shopping area and a conference hall which can accommodate more than a thousand people. Most of the offshore financial industry players are housed in this complex. The telecommunication facilities in Labuan are equipped with state-of-the-art technology including teleports and fibre optic communication highway. A satellite station and a 230,000 km high-capacity submarine cable system were built to cater to the sophisticated needs of offshore players. Telecommunications such as Intelsat Business Services, simultaneous transmission of voice, text, data and image through Integrated Services Digital Network, teleconferencing, video conferencing and other business communication services are readily available. Besides these, the existing airport is being expanded and upgraded to meet the expected increase in air traffic.

Of course, Labuan is not just about the serious offshore financial businesses. Commonly known as the "Pearl of the South China Seas", Labuan also offers divers and nature lovers an opportunity to explore the beautiful reefs, sites of shipwreck as well as flora, fauna and marine life. An exotic bird park which is nearing completion will add on to the number of tourist spots in Labuan. Besides, Labuan is a tax-free port where imported goods are cheaper than those on the mainland. This in itself has developed into lucrative retail business for the islanders and could be further expanded to include exports and imports of such goods, as well as the management of depots and sea freight since Labuan is naturally endowed

with deep-sea port. Although more could be done to develop the tourism industry in Labuan, it is steadily improving based on the encouraging number of visitors to the island over the past 4 years as shown in the table below.

Travelers to Labuan

Mode Year	1993	1994	1995	1996
Sea	365,181	322,848	328,050	302,346
Air	151,864	172,029	255,113	248,404
Total	517,045	494,877	583,163	550,750

Source: Labuan Development Authority

Notwithstanding the extensive infrastructure development, a critical element in the development of the island is the full support and unwavering commitment of the Government to make Labuan work. This will ensure that Labuan will continue to be placed high on the priority list in the overall planning for the future progress of Malaysia. This will also mean that continuing support and commitment of the Government in the development of Labuan will be sustained well into the future. Ultimately, wealth creation should continue to go on not only for the locals but also for those staying in the vicinity of the island. As a matter of fact, the GDP per capita for Labuan, as shown in the table below, is expected to grow at quite a rapid pace for the next decade.

Projection of Labuan's GDP per capita

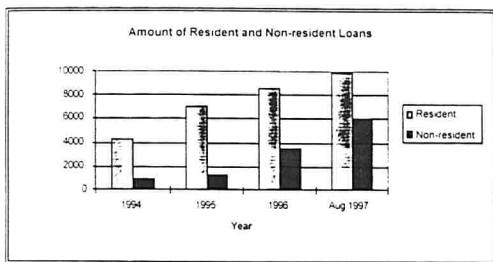
Year	GDP per Capita (RM)	% change
1991	2650	-
1995	3010	14
2000	3579	16
2005	4606	29
2010	6378	38

Source: Labuan Development Authority

### Labuan as a Funding Center

Under the Seventh Malaysia plan, private investment is estimated at RM385 billion compared with RM207 billion during the Sixth plan period, an increase of 86 percent. This poses a challenge to the financial sector to mobilize and allocate adequate funds to support the requirements of private investment. The financial sector will need to be further strengthened and modernized to provide new instruments of funding and promote savings. The development of Labuan IOFC is one of the key strategies to achieve this. It has been quoted that Malaysia will require US\$1.5 trillion in funding over the 10-year period of 1995 to 2004. Conventional local funding, whether from the equity markets, bond markets or banks is unlikely to meet this financing demand. Malaysian businesses will therefore find themselves increasingly turning to the international market for funding. On the other hand, offshore funds could be cheaper if managed properly. There is therefore a need to facilitate the process of raising capital abroad for those qualified to do so. In this connection, Labuan IOFC provides the vital link between them and the international financial markets. Since Malaysian residents are now allowed to own offshore companies in Labuan, they can utilize these companies as

raising vehicles to raise capital, instead of using other offshore companies in other jurisdictions. They would still be required to obtain Bank Negara's approval if the capital raised is to be used in Malaysia. Such approval is not required if the funds are used fully to finance overseas investments by Malaysian companies. The value of Malaysian reverse investments overseas has surged from RM1.3 billion in 1992 to RM16.6 billion in 1996<sup>1</sup>. The upward trend of reverse investments has occurred in parallel with the rapid pace of liberalization and globalization. Sourcing the financing of capital from the Labuan IOFC would not have a negative impact on the current account of the country as foreign borrowings will be used to finance these overseas ventures. On the contrary, when the Malaysian companies start to repatriate profits to Malaysia, it would certainly help to alleviate the current account deficit problem. With the move by the Government to withdraw the "Approved Loan Status" previously granted to loans raised outside Labuan by residents which exceeded US\$100 million, Labuan IOFC now plays a greater role as a funding centre to meet the financing requirements of large corporations in Malaysia. As indicated in the chart below, residents of Malaysia remain to be the major user of the Labuan IOFC for the sourcing of international loans, rendering in the process some benefits to Labuan in terms of expertise and economic activities which otherwise would have gone outside the country.



Source: LOFSA

The raising of funds by Malaysian residents through Labuan instead of through other jurisdictions would help to rein-in foreign exchange outflows. For instance, arrangement fees and cost of capital paid by the Malaysian borrowers to the off-shore banks in Labuan particularly the "domestic" offshore banks will be repatriated in the form of dividends to the shareholding banks in Malaysia.

The success of the Malaysian economy would require its institutions to adequately deal with the continuing internationalization of Malaysia's domestic business environment, the globalisation of business activities and the increasing speed of changes and dynamism of the markets. In this regard, Labuan can provide the base and window of opportunities for Malaysian institutions, particularly financial institutions and large corporations, to compete on the global stage in a more competitive manner.

### Labuan as a Financing Centre for BIMP-EAGA

Source: Malaysian Business, October 1997, p. 55

While the Labuan IOFC is meant to cater to the needs of Asian investors in general, it is well positioned to serve the more immediate region of the BIMP-EAGA or Brunei, Indonesia, Malaysia, Philippines East ASEAN Growth Area. The central location of Labuan which is easily accessible from any part of the area as well as its existing financial infrastructure which is already developed should make Labuan a natural choice as a financial centre. Among the roles which Labuan plays to promote economic growth and development of BIMP-EAGA are as follows:-

- Centre to raise external loans to meet financing need of projects to be carried out in the BIMP-EAGA;
- Due to its attractive tax regime, it is advantageous for venture capital companies to be formed in Labuan for undertaking investments in the region;
- As a host to large financial institutions from the BIMP-EAGA region to set up operations as well as for offshore companies to be established to facilitate investment ventures overseas;
- Regional center for the setting up of mutual funds, unit trusts and the related services of fund management and fund administration, to benefit investors in the region

There are tremendous opportunities for Labuan to contribute to the growth and development of BIMP-EAGA. The extensive network and expertise of international banks in Labuan, providing world-class financial services virtually at the door-step of the region, can only be mutually beneficial to all parties in the BIMP-EAGA region.

### **Challenges to the Labuan IOFC**

Labuan is on its way to be a major IOFC in Asia. Its name is getting increasing recognition internationally and wider acceptance among investors in the region. Its offshore activities have expanded and the number of players has risen rapidly in recent years. The prospects are indeed excellent for this strong momentum to continue in the future. However, much more needs to be done to make Labuan a truly successful and vibrant IOFC, one which includes having a booming local economy providing a wide range of products for shoppers and quality services to a growing domestic population, as well as serving the needs of business travelers and tourists. Labuan's present population base is small and is insufficient in the short run to create an effective market to drive the local economy. Based on a survey of the problems confronting the retail establishments, the most frequently cited problem is the low turnover of business and small size of the market.

### *Labuan as Tourist Destination*

Labuan can be turned into a major regional tourist spot, the Langkawi of Borneo, by attracting tourists from Brunei, Sabah and Sarawak to come to Labuan both for duty-free shopping and other recreational activities. However, this can only be successful if there are shopping outlets which sell quality duty free goods at reasonable prices, perhaps specialising in niches such as textiles, leather goods and electronic goods. A yearly carnival affair operated like "Pesta Pulau Pinang" would help to pull in tourists and shoppers. There is a large pool of potential shoppers in Brunei, Sabah and Sarawak to be lured to come to Labuan, provided relatively cheap and convenient modes of transportation is available. As for Sabahan shoppers and tourists, they could come to Labuan by road which should take them no more than one and a half hours using a new highway from Kota Kinabalu to Menumbok, and another 45 minutes of ferry ride (vehicle carrying type) to Labuan. This will also provide further impetus for the development of the

KK-Mentumbok-Labuan economic corridor. In this context, the upgrading of the highway should be expeditiously completed. Ferry service should be upgraded urgently and made available every hour on the hour. These incremental investments are small when compared to the additional benefits that could be reaped in promoting further growth of Labuan.

While "external" tourists and shoppers are important to develop the tourism industry, it is equally critical for Labuan to have a large population, particularly those who can provide the necessary manpower and purchasing power to the local economy to sustain itself in the long run. For this, Labuan will need to have a bigger population but more importantly to increase the size of the middle class to enhance purchasing power. Most of the successful IOFCs in Europe have either larger population or a large tourism sector which brings a lot of tourists from outside. One quick and sure way to help achieve a higher population in Labuan is to set up University campuses on the island. There is scope for University of Sabah and Institut Teknologi Mara to have a branch campus each in Labuan for students to do degree or diploma courses in economics and business administration. In fact, the niche of these schools should be in international business and finance in line with Labuan being an IOFC. Syllabus can be drawn up to give focus on international finance, insurance, trust business, funds management and international Islamic finance. Some of the lecturers can be obtained from the offshore industry either on part time basis or as adjunct lecturers. Students can do practical training at the numerous offshore institutions in Labuan and this should make it easier for them to get jobs upon graduation. It is an excellent way to develop skilled manpower in Labuan and at the same time increase purchasing power not only by students but also by family members who will be visiting students from time to time, and in the process, promote domestic tourism.

The universities, on the other hand, will also benefit because they will be better recognised as being strong in certain areas of specialisation such as international business and finance. The Government is not likely to spend more money to send students to Labuan campuses as the same distance is involved for students to go to campuses in Sabah from the Peninsula.

#### *Manpower Requirements*

As indicated, the university campuses would serve a critical role as the training ground to provide the necessary skills needed by the offshore financial industry. It is well known that Labuan IOFC has to operate within a highly competitive global market. So it needs to remain modern and efficient, and able to create a professional and skilled workforce to support its expansion. The availability of skilled professionals to support and drive the highly-skilled intensive nature of offshore financial services remains to be an important ingredient for success. At one time, several newly licensed offshore banks and insurance companies were forced to postpone their commencement of operations or were unable to operate fully due to the shortage of skilled workers. In addition, offshore banks have been experiencing a high level of staff turnover partly due to staff moving on to newly licensed banks. In mitigating this problem, the measures instituted by the Government on various tax incentives to attract Malaysian or foreign expatriates to work in Labuan should go a long way in attracting the required skills to the IOFC. Expatriate managers are given 50% abatement on their income for tax purposes. Malaysians working in the offshore financial industry and the public sector are given a 50% reduction in custom duty on cars purchased in Labuan and brought to other parts of the country after the owner has served in Labuan for a period of time. Furthermore, allowances and facilities enjoyed by Malaysian residents in their jobs in Labuan such as housing facilities provided by employers or housing allowances, regional allowances and special Labuan allowance are exempted from tax.



Notwithstanding these measures, the availability of a pool of skilled workers continues to remain an issue in the development of Labuan as an IOFC.

#### *Deepening of the Offshore Financial Industry*

For Labuan to be a truly premier IOFC, it has to have an offshore financial industry which can offer to the world a complete range of products and services. A lot of efforts have been directed at deepening the financial market in Labuan. For example, the legislations in Labuan are reviewed periodically and new activities are constantly being developed and introduced into the market.

The offshore insurance and takaful industries in Labuan have remained relatively unexplored; there is a great potential and scope for expansion. Captive insurance, for example, which is a promoted activity in Labuan has been recognized as an important vehicle for risk management and retention of funds for large corporations. This activity is particularly relevant as Malaysian and Asian corporations have now reached a size where the option to set up captives has become very real. One factor which can provide further impetus to growth in the captive sector is the increase in the privatisation of companies on the global scale. Such newly privatised companies may be required to insure risks, which may not have been the case previously as a state controlled organisation, and a captive may be an ideal way to structure large global risk management programmes. There are opportunities for captives to grow in Labuan. Perhaps measures can be taken to further promote the establishment of insurance captives, including by large Malaysian companies in 1998.

Being a relatively new comer to the offshore financial scene, Labuan has to carve out its own market niche, i.e. Islamic financing, to make an impact in a highly competitive global offshore industry. At the same time, Labuan can help to contribute towards greater internationalization of Islamic banking and financing. Labuan intends to offer to the world competitive Islamic offshore financial products, such as Islamic financing, takaful, Islamic trusts, Islamic investment funds and Islamic capital market instruments. Efforts are being intensified to admit full Islamic banks and other Islamic institutions from other parts of the world into Labuan as well as the setting up of specialised management companies providing consultancy and advisory services in the offshore Islamic instruments. Efforts are also being intensified to create a viable International Islamic Money Market in Labuan which would enable all financial institutions with Islamic funds to manage their short-term assets and liabilities efficiently.

Fund management industry in Labuan will receive a great boost for expansion and growth once the Labuan Offshore Securities Industry Act is passed later this year. The Act will provide for the establishment of the Labuan International Financial Exchange (LIFE) and the licensing for dealing in securities as well as for the formation and regulation of mutual funds in Labuan. At the initial stage, LIFE will focus on the listing of funds and other permitted instruments in Labuan. The challenge is to ensure the funds industry and the Exchange in Labuan will remain competitive and internationally recognised, and for Labuan to be a major focal point for the expanding mutual fund industry in Asia.

The challenges to Labuan IOFC are many. The way to overcome is to harness the will and commitment of the Government and the skills and energy of the private sector, particularly the offshore players in Labuan, into a potent force to transform Labuan into a world premier IOFC.

## Conclusion

Sustained growth and increased sophistication of the financial sector is critical not only to the stability of the national economy but also to the achievement of Malaysia's objective to be a regional financial centre. The development of the financial sector is likely to be influenced by the enhancement in liquidity situation, the increasing depth and breadth of the banking industry, improved efficiency and productivity of the financial institutions, expansion of markets, increased capacity in insurance and re-insurance business and higher turnover in the capital and debt market. Malaysian institutions need to gear themselves up to face these challenges, more so in the face of increasing competition as a result of further liberalization of markets worldwide. Labuan with its excellent infrastructure and conducive business environment is in a position to help Malaysian institutions to adapt and master these changes. While it provides a window of opportunities for Malaysian companies to venture out globally, it plays an equally attractive role as a competitive financial centre to usher in international companies venturing eastwards to do business in Asia.

In a relatively short period of time, Labuan has established itself as a major offshore financial "supermarket" and is poised to play a greater role for the region in the future. Opportunities and potentials are abound for Labuan to scale greater heights. It is time for Labuan to capture its past glory just as its sister island Langkawi does, in their respective niche areas. Indeed, Labuan is no longer an experiment but rather a success story which has contributed significantly to the nation's economy and, more importantly, in making Malaysia a major regional financial centre - complete with its offshore financial services. Perhaps Labuan is well on its way to regain and relive its glorious past.

**MIER**  
**1997 NATIONAL OUTLOOK CONFERENCE**

Shangri-La Hotel, Kuala Lumpur  
2-3 December 1997

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**OPENING OF MALAYSIA'S FINANCIAL SECTOR:  
Challenges and Opportunities**

by

Abdul Ghafar Ismail  
Nor Zakiah Ahmad



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

## ABSTRACT

Financial markets become more globally integrated. The trend is evident in commercial banking, in regulation and in settlement and clearing practices and so on. These developments affect the competition among major financial centers. A review of the competitive conditions in six product markets will be discussed to clarify which financial institutions are successful competitors on both international and domestic markets. The findings show that: first, financial institutions compete primarily by building on the strengths developed in their domestic markets. Thus, the characteristics of an institution's home-country market appear to be a critical determinant of its overall competitive success. Second, the globalization also affects on the safety of individual financial institutions and financial interdependence among the central bank.

# OPENING OF MALAYSIA'S FINANCIAL SECTOR: Challenges And Opportunities

## 1. INTRODUCTION

The opening of the financial markets in Malaysia and, also in other countries, has been driven by technological advances in the areas of information processing and telecommunications, the removal or liberalization of restrictions on the cross border flow of capital, the deregulation of domestic financial markets, the development of unregulated offshore markets, the rapid growth of derivative products that allow fluid movements between currencies, and ever greater competition among the financial market centers for a share of the world's transaction business.<sup>1</sup> These factors have helped to bring about an increasing integration of the Malaysia financial market and the rest of the world's financial markets.

This article examines the factors that appear to affect the competitive position of Malaysia's banks. It synthesizes the results of a study of bank product markets and a study of assessing the competitive performance of banks on the basis of conventional quantitative measures.

The discussion of this paper is divided into five sections. In section two, a brief discussion on the developments that are now taking place and likely to soon take place as the globalisation process continues. This involves areas of uniformity of regulation and market supervision, better access to all markets by all market participants, standardization of capital requirements, the economic integration of financial markets and the opening of the Malaysia's financial sector. Section two reviews the performance of financial institutions in the six separate product markets.

Three of these markets, i.e., the Eurocredit, Swaps and foreign exchange markets, are essentially international in nature-product attributes and prices differ little across national trading centers. In contrast, the remaining four markets, i.e., commercial lending, retail banking, government bonds and equities are largely national in character. The findings from section two and three are used to derive the implications for the future of Malaysia's financial markets. Throughout, we are going to focus our discussion on the role played by commercial banks, as this is the level at which globalisation is most directly felt.

## 2. A RECAP OF RECENT DEVELOPMENT TOWARD FINANCIAL LIBERALIZATION

The present state of market integration is the result of the convergence of a number of powerful factors. First, *the development of nearly unregulated offshore markets*. These centers include the Bahamas, Singapore, Bahrain, and Labuan. Labuan International Offshore Financial Center (LOFC) has been developed in order to diversify its economic base and to tap the world financial market.<sup>2</sup> Over the last thirty years, offshore financial centers have been established in every corner of the world, and it is expected that Labuan can challenge the dominance of the large financial centers of industrial countries, such as New York and Tokyo which report more than 32.5% of the world cross-border assets in 1994 transits through offshore centers, see Table 1. With the tax and regulatory incentives that are given to

<sup>1</sup> In this paper, the words, opening will be used interchangeable with globalization.

<sup>2</sup> Unlike the case of Bahrain and Luxembourg, where they are heavily dependent on one source of income (oil) and on one sector (steel), respectively

nonresident investors and the complete flexibility granted to the management of foreign assets, it is expected that the offshore centers will attract more funds in the future.

**Second, advances in telecommunications and data processing.** The development of the offshore centers are not, however, in and of itself sufficient to bring about globalisation. When combined with advances in telecommunications and data processing, for example, the introduction of the *Society for Worldwide Interbank Financial Telecommunications (SWIFT)*, it provides a computer-controlled system for transmitting messages throughout the world. These development make it possible to search the world over for available financing opportunities and execute the tedious calculations necessary to make these alternative opportunities directly comparable on an all-in cost basis.

**Third, competition.** Globalisation also implies more perfect competition. In addition to the challenge posed by domestic competitors, globalisation opens the door to foreign competitors as well. The Malaysian government's policies regarding market access in banking, insurance and the securities industries have, as shown in Table 2, resulted in the establishment of 14 commercial banks, 4 finance companies and 10 insurance companies, which are 100% controlled by foreigners at the end of 1995. In addition, foreigners equity participation in the domestic banking and insurance industries are also remarkable where 12 domestic banks, 7 finance companies, one merchant bank, and eight insurance companies have foreign participations.<sup>3</sup> This intensifies competition and can leave banks that carry a greater regulatory burden at a significant disadvantage to banks less encumbered.

**Fourth, regulatory dialectic.** Not surprisingly, globalisation has contributed to a rethinking of regulation. In Malaysia, as shown in Table 3, this rethinking has led to some relaxation of the old regulations, the lifting of ceilings on interest rates, and other forms of deregulation or more accommodative regulation.

**Fifth, financial integration.** This development has important for the future shape of regulation, especially toward greater uniformity of regulation. Such an effort is already well advanced in so far as bank capital requirements (or *Basle Accord*) are concerned in Malaysia. This new standard for bank capital is the clear signal the agreement sent that and bank regulators and supervisors understand the global evolution of the financial marketplace and the need for uniformity in regulation and supervision.

**Sixth, derivative products and hedging techniques.** This development is aimed towards a global competition and the introduction of efficient risk management instruments and techniques.

### 3. DEVELOPMENT OF NEW MARKETS AND MARKET LINKAGES

The competition offered by the increasing globalisation of the financial markets has led to a number of new market developments worthy of mention some. Therefore, this section reviews competitive conditions in six product markets to clarify which financial institutions are successful competitors on both international and domestic markets. The review primarily focuses on banks grouped by national affiliation, especially to examine the ability of Malaysian banks to face global market

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<sup>3</sup> Despite the enlightened thinking involved in the admission of foreign banks into the Malaysia financial market, prohibitions against branching network continue.

challenges. The six product markets discussed are not an exhaustive list of the activities in which financial institutions participate; rather, they are meant to provide general insights about the characteristics making for competitive success across various markets. The final part of this section takes a more integrated of these institutions by reviewing a range of conventional quantitative measures of competitive success.

### *International product markets*

In each of the international product markets-the Eurocredit, swaps and foreign exchange markets-market activities are highly integrated across national trading centers, resulting in little if any differentiation in product attributes or price along national lines. Thus, the national affiliation of financial institutions participating in these markets is potentially less important than other bank-specific characteristics. These markets come closest to constituting a "level playing field" for institutions from different countries and, as such, provide a means of highlighting the factors associated with competitiveness in an international setting.

#### *a. Eurocredit market<sup>4</sup>*

The Eurocredit market appears to be a leading example of a truly global financial market. Consisting of the markets for international loans and bonds originated and sold outside of the country of both the borrower and the currency of the issue, the Eurocredit market serves a diverse group of multinational customers conducting transactions in a wide variety of currencies. Borrowers can escape domestic market regulations, restrictions, and taxation; at the same time, international banking competitors can operate on a relatively level playing field.

Despite the potential for banks to participate equally in most sectors of the Eurocredit market, a high degree of segmentation is evident in the following discussion. Different financial institutions specialize in and dominate different sectors of the market, which are often related to their classification (for example, "bank") and nationality.

Nationality appears to be a strong factor in the Eurobond sector of the market. In the non-USD bond sector, the nationality of the lead underwriter tends to be strongly correlated with the nationality of the currency, reflecting the importance of ties to home-country investors in placing non-USD issues. However, in the USD-denominated bond sector, the nationality of the banks and the bond issuer are strongly correlated. Therefore, the greater international acceptance of the USD and greater ease in placing USD-denominated issues mean that borrower rather than investor relations are the key to competitiveness in this sector.

In addition to the specialization in various sectors of the Eurocredit market associated with nationality, there is specialization along institutional lines. Commercial banks dominate the Euroloan market while investment banks/merchant banks tend to dominate Eurobonds. This segmentation (in spite of the relative freedom of any bank to offer any financial service in the Eurocredit market) points to a tendency for borrower/issuers to rely on their traditional domestic market strengths in the face of intense competition.

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<sup>4</sup> The findings in this section are an extension from the research done by Pavel and McElravey (1990).

### *b. Swap Market*

The swap market has also a strong international focus. The rapid growth of the swap market during the 1990s has been driven in large part by the expansion of international financial flows and a more volatile interest rate environment. Interest rate and currency swaps are important financial tools used by firms both to reduce the costs of borrowing in overseas and domestic capital markets and to manage the interest rate and currency risk exposures generated by international economic and financial market activity. As such, swaps are denominated in a wide variety of currencies to meet the financing needs of a diverse, multi-national customer base.

The strength of commercial banks in the area of interest rate risk management tends to give those institutions an advantage in transactions relating to balance sheet management. As a counterpart to specialization along institutional lines, there is also a tendency for swap dealers to specialize in swaps denominated in their home-country currency, particularly in the non-USD sector. These trends together suggest that competitive success in the swap market continues to be influenced by domestic market factors.

Overall, the strongest competitors in the swap market are large global financial institutions, including U.S. money center banks and European universal banks. These major competitors suggest that a variety of bank-specific factors influence competitive success in the swap market. For instance, the size and breadth of an institution's financial market activities appear to be important to the efficient management of risks associated with swap market transactions.

### *c. Foreign exchange market*

The foreign exchange market is one of the most important international links between national financial markets. Consisting primarily of the buying and selling of demand deposits in different currencies, the foreign exchange market has grown rapidly and changed significantly during the past few decades. The growth in the market has been spurred by economic developments that have led to large trade imbalances among major economies and thus to significant increases in international capital flows.<sup>5</sup> These impact of these economic developments has in turn been reinforced by advances in technology and the liberalization of financial markets that have led to tighter integration of money and capital markets.

Financial institutions have pursued a variety of strategies in their approach to foreign exchange trading. A number of large dealers, primarily commercial banks, provide a diversified range of foreign exchange services and make markets in many currencies. In contrast, other foreign exchange dealers specialize in transactions involving particular currencies and instruments, offering a more limited range of services. This specialization frequently reflects the institution's overall market strengths, especially the information and experience acquired by participation in both domestic and overseas financial markets.

A study by Bank International Settlement shows that the trading operations of U.S. multinational banks appear to be among the most profitable relative to other international institutions, both in terms of absolute foreign exchange income and in terms of the share of total operating income derived from foreign exchange

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<sup>5</sup> Net foreign portfolio investment increased from US\$10 billion during 1983-1989 to US\$63 billion during 1990-1994, although foreign direct investment has remained the most important source of external financing in East-Asian countries (50% of the world capital inflow). see Abdul Ghafor and Nor Zakiah (1997).



activities. This reflects the importance of the USD as an international reserve currency. Among the non-U.S. institutions, Swiss banks are strong performance in terms of the profitability and income derived from their foreign exchange operations, while U.K. institutions are rated highly in foreign exchange market surveys assessing the quality of foreign exchange services.

### *National product markets*

The three national markets for banking products and services-commercial lending, retail banking and government bonds-are largely independent across national boundaries. Although markets in different countries may offer similar products and services, differences in regulatory structure, financial market sophistication, and traditions governing the relationship between banks and their customers may create significant national differences in the way that the markets function. These national differences can represent a barrier to foreign financial institutions wishing to become successful competitors in overseas financial markets.

Thus, evaluating the ability of foreign banks to compete successfully in these markets not only helps identify factors that may enable institutions to establish themselves in overseas markets, but also provides a measure of the strength of local institution's domestic franchise.

#### *a. Commercial lending markets*

Commercial credit, consisting of credit extended by banks to nonfinancial business customers, has historically been the most important component of lending by commercial banks. In recent years, however, alternative sources of nonbank commercial credit such as public debt and credit extended by nonbank financial institutions have become increasingly important in commercial lending markets.<sup>5</sup> The existence of these alternative credit sources has changed the competitive environment of several of the national commercial lending markets.

A number of factors affect the competitive position of banks in the commercial lending markets. For instance, the ability of a bank to sustain competitive advantage in loan pricing is strongly influenced by its cost of capital, which includes the cost of debt and equity and takes into account tax effects. A bank with a lower cost of capital can price more aggressively while still earning an acceptable rate of return on the loans in its portfolio.

In addition, customer relationships seem to be the leading sources of competitive advantage in commercial lending, but their precise importance appears to vary with national market. Aggressive pricing strategies have been most influential in the some countries, where customers are more price sensitive and relationships between banks and corporations appear to be weaker. Customer relationships seem particularly important in the German and Japanese corporate lending markets, in part because of the traditional links between banking and commerce in these economies.

Foreign banks have experienced much less success in the domestic commercial lending markets of Germany and Japan. In these countries, customer relationships

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<sup>5</sup> As quoted by Abdul Ghafar and Nor Zakiah (1997), some of the borrowers are not eligible to borrow from the banking system.

with domestic firms are long-established and reinforced by interlocking directorships and mutual ownership.<sup>7</sup>

#### *b. Retail banking markets*

Retail banking includes the deposit-taking and lending activities that commercial banks conduct for individuals and small businesses. In the retail banking markets, the intensity of competition has increased during the 1980s, furthered by interest rate deregulation and the increased price sensitivity shown by customers. Technological advances in data processing and electronic equipment have been associated with a continuing reorganization of the production of banking services. The ability of banks to process and deliver multiple retail services on increasingly larger scales appears to be driving this reorganization.

In addition, a strong physical presence appears to be important for full-scale deposit-taking activities. Domestic institutions that have already invested in a substantial branch network thus have an advantage; the costs of achieving such a presence present a significant barrier to new banks, including new foreign banks, seeking to enter a local retail market. In most retail markets, it appears that national preference continues to matter, with consumers preferring to transact their retail banking business with domestic institutions.

For foreign banks wishing to enter overseas retail banking markets, niche banking has emerged as a leading competitive strategy. Alternatively, foreign banks may use a "product niche" strategy by opting to specialize in a limited range of products or attempting to use a single product to create name recognition.

#### *c. Government bond markets.*

The government bond markets in the United States, Japan, Germany and Malaysia are largely dominated by domestic financial institutions. The dominance of domestic institutions is due to the limited participation in government bond underwriting to a specified group of domestic banks (tier-1). Although foreign banks currently face the same general regulatory requirements as domestic financial institutions, their penetration into most national government bond markets has been limited.

The limited role of foreign banks in the bond markets primarily reflects the competitive advantages accruing to large, established domestic institutions. In addition to facing these information-related competitive disadvantages, foreign financial institutions must cope with the difficulties arising from their lack of a natural distribution network and local customer base for the securities. Many foreign firms have attempted to overcome this disadvantage by targeting as likely customers affiliates of firms from their home countries.

#### *Conventional competitive performance measures*

This section summarizes the results of a study that used conventional quantitative performance measures to assess the performance of banks in eight different countries, namely, U.S., U.K., Japan, Canada, France, Switzerland, Germany and Malaysia. The study augments the more descriptive review of the six product markets by examining the performance of these large financial institutions on a consolidated basis, that is, across all the markets and activities in which they

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<sup>7</sup> These interlocking and mutual ownership can also be applied in Malaysia by capitalizing the concept of *Mudharaba* and *Murabahah*.

participate. This approach yields insights into the aggregate effects of the competitive strategies pursued by these institutions in individual banking markets.

The study focuses primarily on the performance of six national groups of institutions across four broad categories: size, profitability, productivity, and capitalization. The study employs return on assets and return on equity as measures of profitability, the levels and growth rates of total assets and revenue as indicators of size, the shareholders' equity and price earning ratios as measures of capitalization, and the ratio of total revenue to non-interest expense as an estimate of productivity. The data analyzed consist primarily of information published by respective central banks for the 1992-96 period.

As Table 2 indicates, the Japanese banks' performance appear formidable across most measures, notably those relating to size, growth, and productivity. The Swiss banks also appear strong, especially in capitalization and size. The German bank group turns in a solid performance in many categories, showing strength in growth and profitability. These measures may actually understate the performance of German and Swiss banks, since unreported earnings and hidden reserves at these institutions tend to conceal additional underlying strength in profitability and capitalization. The U.K. Banks also show strength in a few criteria.

The performance of the sample of U.S. banks as a group is uneven, although a few of these firms showed considerable overall strength. By measures such as the shareholders' equity ratio, the U.S. banks perform relatively well, although their showing is only fair in terms of other criteria, including return on assets and return on equity. On the other hand, the Malaysia's banks show a good performance in many categories, except in return on assets.

While this analysis gives a sense of the performance of banks along national lines, any conclusions about the relative performance of national institutions should be drawn with caution. Differences in national accounting practices and standards limit the accuracy of performance comparisons based on reported data. The problem of cross-national comparability of data may be especially acute for German and Swiss banks, but it affects Japanese financial data also. Accounting conventions in some of these countries may have resulted in an understatement of the actual financial strength of financial institutions over the study periods.

Even if we assume that the data are comparable, additional difficulties arise in assessing the implications of the analysis for the overall competitive position of individual firms and national groups. The particular statistics chosen to represent the four aspects of competitive performance—size, profitability, productivity, and capitalization—may not be accurate measures in some important respects. For instance, use of total assets as a measure of size ignores off-balance sheet activities, which are an important component of the activities of large financial institutions. More importantly, performance in the four categories selected may not tell the full story about firm-level competitiveness. Factors such as technological sophistication and innovative capacity, potentially critical to a firm's future success, they not been taken into account in this analysis because they generally cannot be quantified using standard measures. Failing to consider such "human capital" elements may understate the competitive standing of some firms, particularly those whose competitive strategies are formed around providing technically sophisticated products and services. In addition, the balance sheet data used in the study are for the most part retrospective. In many cases, the past performance of these institutions may not be a good indicator of future success.

#### 4. LOOKING AHEAD

The development of new technology and the growth of worldwide financial linkages have major implications for the future of Malaysia's financial markets, financial institutions, and financial regulations. The future will be interesting as financial institutions take advantage of new technologies to reduce the costs and evade regulations that increase their costs or limit customer demand for certain products. In the following discussion, two major implications, namely on the safety of individual financial institutions and financial interdependence, will be highlighted.

##### *Safety of Individual Financial Institutions*

The key to providing a safe financial system is to have it populated by safe institutions. In addition, since the future cannot be foreseen with certainty, it is necessary to have an institutional and regulatory structure that can survive unforeseen shocks to individual institutions or to the financial system as a whole. Two suggestions to provide a financial safety net: first, by having a central bank that can create credit when needed and serve as a lender of last resort to institutions that encounter temporary difficulties.<sup>8</sup> By providing liquidity, the central bank can ensure that deserving institutions will not fail because they are forced by their illiquid nature to liquidate assets at bargain sale prices.

Second, by providing an insurance to reassure the depositors in financial institutions that their money will be safe. That will reduce the tendency of depositors to "run" on weak institutions or "panic" when they fear the institutions or the economy is unsound.

Other policies can also adopted to protect institutions, such as maintenance of adequate capital, bank examinations to ensure that financial institutions do not take imprudent default risk, interest rate risks or managerial risks.

##### *Financial Interdependence*

The growth of global finance in recent years has been facilitated both by the growth of international trade and by the rapid development of communications and computer technologies. These technologies have resulted in a more closely integrated financial markets. In addition, these technologies have also developed a greater awareness of investors to find out new investment opportunities in various location around the world. Thus, the flows of investment funds between countries have caused exchange rate to fluctuate sharply. The demand for financial derivative contracts is expected to increase to offset or control the currency risk. Therefore, the growth of currency futures, forward, swap and option trading has increased the size of foreign exchange markets dramatically in recent years, and has reduced the power of central bank to influence currency prices substantially.<sup>9</sup>

Hence, the central bank have lost power in the international foreign exchange market is that the daily volume of currency transactions exceeds the entire stock of reserve currencies held by the central bank. Thus, their power to intervene on any given day is small relative to the size of the market. Furthermore, currency traders

<sup>8</sup> This measure has been done continuously, especially after the currency turmoil, where the amount of BNM's deposits in the financial institutions has increased from RM1.9 billion (15 January 1997) to RM23.3 billion (15 November 1997) (refer to [www.bnm.gov.my](http://www.bnm.gov.my)).

<sup>9</sup> In order to achieve the currency price objectives, the central bank can expand or contract the domestic money supply accordingly.

know that the central bank's currency interventions are likely to be ineffective as long as the interventions are "sterilized" in order to keep domestic monetary policies unaffected by the currency transactions.

## 5. CONCLUSIONS

Financial markets become more globally integrated. The trend is evident in commercial banking, in regulation and in settlement and clearing practices and so on. These developments affect the competition among major financial centers. A review of the competitive conditions in six product markets has been discussed to clarify which financial institutions are successful competitors on both international and domestic markets. The principal finding of this paper is that financial institutions compete primarily by building on the strengths developed in their domestic markets. Thus, the characteristics of an institution's home-country market appear to be a critical determinant of its overall competitive success. The globalisation also affects on the safety of individual financial institutions and financial interdependence among the central bank.

## REFERENCES

- Abdul Ghafar Ismail and Nor Zakiah Ahmad (1997) Financial Liberalisation and Speculative Bubbles. *Banker's Journal* June/July
- Abdul Ghafar Ismail and Nor Zakiah Ahmad (1997) Pawnshop as an instruments of microenterprise credit in Malaysia. *International Journal of Social Economics* 24, 1343-1352.
- Pavel, C. and J.N. McElravey (1990) Globalisation in the financial services industry. *Economic Perspectives, Federal Reserve Bank of Chicago* 14(3), May/June, 3-18.

**Table 1**  
**Comparative Performance of Selected Offshore Centres Cross-border Assets, 1980-94**

	1980	1985	1990	1994
<i>(In Billions of US Dollars)</i>				
The Bahamas	135.2	143.1	174.7	110.7
Bahrain	31.4	50.7	59.3	16.4
Cayman Islands	84.5	167.2	389.4	196.5
Hong Kong	35.8	101.2	463.8	493.9
Luxembourg	104.8	130.9	355.1	324.7
Netherlands Antilles	7.4	6.6	16.4	28.4
Panama	34.2	33.1	10.2	33.2
Singapore	44.6	120.5	346.7	247.9
United Kingdom	356.3	590.1	1069.0	863.0
Offshore Centres <sup>1</sup>	373.1	622.3	1460.5	2314.7
All countries	1836.3	2984.0	6788.2	7111.8
<i>(In Percent of Total)</i>				
The Bahamas	7.4	4.8	2.6	1.6
Bahrain	1.7	1.7	0.9	0.2
Cayman Islands	4.6	5.6	5.7	2.8
Hong Kong	1.9	3.4	6.8	6.9
Luxembourg	5.7	4.4	5.2	4.6
Netherlands Antilles	0.4	0.2	0.2	0.4
Panama	1.9	1.1	0.2	0.5
Singapore	2.4	4.0	5.1	3.5
United Kingdom	19.4	19.8	15.7	12.1
Offshore Centres <sup>1</sup>	20.3	20.9	21.5	32.5

Source: Bank for International Settlements, International Banking and Financial Market Developments, Basle (Various issues).

<sup>1</sup> Offshore Centres refer to the seven offshore banking centres as defined by the IMF, excluding the United Kingdom and Luxembourg.

**Table 3**  
**Process of Financial Reforms in Malaysia**

Type of regulation	When was abolished
<b>a. Price regulations</b> <ul style="list-style-type: none"> <li>ceiling on deposits</li> <li>ceiling on loans</li> <li>no interest for Islamic banks</li> </ul>	from 1978 from 1978 from 1983
<b>b. Quantity regulations</b> <ul style="list-style-type: none"> <li>capital</li> <li>required reserve requirement</li> <li>minimum liquidity</li> <li>lending to the priority sectors</li> </ul>	still apply, only the ratio always changed controls widely used in 1980s and early 1990s controls not widely requirement used always changed every year
<b>c. Power regulations</b> <ul style="list-style-type: none"> <li>licensing</li> <li>investment in private debt securities</li> </ul>	from 1989, foreign banks locally incorporated mainly in the early 1980s

Table 2  
Commitments of Malaysia in banking and insurance industries

Banking Services	Insurance Services
Entry of foreign banks is limited to equity participation in domestic banks up to 30%	Branches of foreign insurance companies are required to be locally incorporated and aggregate foreign shareholding shall not exceed 30% or 40%
Single persons or jointly with related persons limited to a maximum of 20%	unbound for new licences
New entry of offshore banks through branch and subsidiary	limited entry to equity participation of: <ul style="list-style-type: none"> <li>• 30% aggregate foreign shareholding</li> <li>• 20% for shareholding by a single person or jointly with related persons</li> <li>• Seven new licences for general reinsurance companies</li> <li>• New offshore insurance/reinsurance companies through branch or subsidiary</li> </ul>
Unbound for new licences for commercial banks and merchant banks	
14 foreign banks allowed to maintain present shareholding structure by existing shareholders.	

Table 3  
Competitive Performance of Commercial in a Selected Countries

Performance measure	U.S.	Canada	France	Germany	Japan	Switzerland	U.K.	Malaysia
<b>Size</b>								
Total assets <sup>1</sup>	1/10	0/10	2/10	0/10	6/10	0/10	1/10	0/10
Real asset growth	2.2	0.5	3.1	5.5	12.6	3.1	3.6	25.1
Real revenue growth	4.3	6.1	4.3	5.6	16.0	4.9	5.7	31.4
<b>Profitability</b>								
Real return on assets	0.08	0.17	0.21	0.24	0.27	0.32	0.20	-1.50
Real return on equity	1.6	3.5	9.7	6.8	11.5	5.3	4.2	24.0
<b>Productivity</b>								
Total revenue/Non-interest expense	1.51	1.74	1.46	1.44	2.06	1.36	1.52	3.8
<b>Capitalization</b>								
Equity ratio	8.8	8.9	8.2	9.6	8.5	9.2	8.1	10.4

Note

1. Figures are based (the largest ten banks in the world) on ranking of individual banks at financial year-end 1996.



**MIER**  
**1997 NATIONAL OUTLOOK CONFERENCE**

Shangri-La Hotel, Kuala Lumpur  
2-3 December 1997

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by

R Thillainathan



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

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**R THILLAINATHAN**

(Paper prepared for the 1998 National Outlook Conference of the Malaysian Institute of Economic Research on December 1-2, 1997. The views expressed herein do not in any way reflect the views of the institutions to which the writer is associated.)

# PROPOSALS FOR THE REFORM OF THE MALAYSIAN FINANCIAL SECTOR & FINANCIAL MARKETS

## I. INTRODUCTION

As compared to the goods sector, the financial sector, (not unlike the services sector), has been subject to over-regulation and restriction on competition. This has made the domestic banking sector inward-looking. It has also made the economy too reliant on the banking industry and not enough on the fund management industry to intermediate funds between savers and investors. As a result, the higher cost of financial services and the under-development of risk management products and of risk intermediaries, have penalised the goods sector which has been exposed always to keen world market competition. Unless this situation is rectified, the Malaysian economy which has been raised on the back of the goods sector, may remain in a state of imbalance and may not become a fully developed economy.

The liberalisation and deregulation of the financial sector can, however, make the economy more vulnerable to internal and external shocks if the banking system is not sound and if the macroeconomic policies pursued are inconsistent. And as banks are the conduit for payments, there is also the fear that any banking crisis can expose the economy to systemic risk. In fact, as a result of the fear of such risk, Governments in many countries have not been prepared to let their banks, especially their big banks, to go bankrupt. This in turn has increased the problem of moral hazard, namely of bankers having an incentive to engage in more risky lending. This incentive will be greater the lower the capitalisation of a bank.<sup>1</sup>

A case is made in the paper for the deregulation of the financial sector in Malaysia in two critical areas, **firstly**, with respect to the country's exchange control regime and **secondly**, with respect to the banking system's reserve and liquidity requirements. With respect to the exchange control regime, I am not calling for its dismantling. I am only making a case for freer investing and borrowing and for investors and borrowers to be given the right to hedge their foreign exchange exposures. Presently only exporters and importers enjoy this right. With respect to the system of reserve and liquidity requirements, I am making a case for a substantial reduction in these requirements (if necessary on a phased basis).

Given the current problems of the Malaysian economy, the timing may not be considered right for the deregulation of the financial sector in these two critical areas. But this is a debatable point in respect of the exchange control regime. As the value of the ringgit appears to be entirely market-determined now and as volatility is therefore higher, (especially given the uncertainties engendered by the current regional financial market crisis), a strong case can be made for the central bank to approve hedging requirements on a freer basis.

In what follows, there is a discussion in Section II of the soundness of the Malaysian banking system and macroeconomic policies as well as of the vulnerability of the country's banks and economy to internal and external shocks. Thereafter, there is an overview of the financial revolution in Section III that has been sweeping the developed world from the 70s. As Malaysia and much of Asia has been cut-off from this revolution, this Section examines how this has disadvantaged us. In Sections IV and V, there is a review of the rationale for the

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<sup>1</sup> A bank's low capitalisation can be due to its under-capitalisation or because its capital has been impaired by actual or potential loan losses.

deregulation of the country's exchange control regime and the banking system's reserve and liquidity requirements. Section VI draws the conclusions on the required reforms to be undertaken for ushering in the financial revolution in Malaysia.

## **II. A REVIEW OF SOUNDNESS OF MALAYSIA'S BANKING SYSTEM & ITS MACRO POLICIES AND OF VULNERABILITY OF THE COUNTRY'S BANKS & ECONOMY TO SHOCKS**

Major strides were made during the 80s towards the prudential regulation of the banking industry. The authorities persisted in this effort in spite of the economic and banking crisis of the mid 80s, which was caused partly by weaknesses in prudential regulations:

- i) The capital adequacy requirement is now in line with the Basle Capital Accord of July 1988.
- ii) Lending has also been made subject to a single customer limit.
- iii) But the guidelines on interest accrual, loan classification and loan loss provisioning did not meet the standards of international best practice and we were a little slow in recognising this. However, with effect from financial year beginning 1 January 1998, the default period for classifying a loan as a non-performing loan (NPL) and for suspending interest by a licensed financial institution (FI) has been lowered from six to three months. But FIs will be required to claw-back interest to day one only for new NPLs. As regards provisioning, the required loan loss provision remains unchanged at zero for a sub-standard loan, 50% for a doubtful account and 100% for a bad account. But the period of default beyond which a worse-off classification is required has been reduced from twelve to six months in respect of a sub-standard loan and from twenty-four to twelve months in respect of a doubtful account (unless there is evidence to support a worse-off classification). With this change, the extent of provisioning for a sub-standard and a doubtful account has improved significantly but it is still short of current international best practice.
- iv) The quality of an FI's financial reporting has been improved with the improving guidelines on interest accrual, loan classification and loan loss provisioning. There are also disclosure requirements on whether these guidelines are being adhered to. Further disclosure requirements on loan quality will be introduced from financial year 1 January 1998, including disclosure on the size of a FI's NPL (net of interest-in-suspense and specific provision). However, the reporting standards of a FI in respect of its portfolio of investment securities (as opposed to trading securities) needs to be tightened as it is currently based on the higher of cost or market value. The difference is amortised over the remaining life of the securities and it is this amortised sum which is charged to the profit and loss account. The reporting standard of off-balance sheet items also do not meet best international practice.
- v) There has been, for a long time, strict overnight limits on a bank's foreign exchange (FX) exposures by individual currencies and in the aggregate. Unlike currency risk, BNM does not set any specific limits on a bank's

maturity risks.<sup>2</sup> The maturity mismatch in a bank funding its long-term assets with short-term funds gives rise primarily to a liquidity risk, rather than to an interest rate risk. Most loans including term loans with long maturities granted by a FI are priced on a variable basis which minimises any interest rate risk from a bank's over-reliance on short term funds.

A FI is exposed to the highest degree of interest rate and liquidity risk in the management of its liquid asset portfolio. Under Malaysian regulations 177 of a FI's eligible liabilities has to be held in the form of certain designated liquid assets. Most FIs have been relying a great deal on fixed rate MGS of up to ten year maturities to comply with their liquid asset requirements. The lack of a well-developed and liquid cash and futures market in bonds has made it impossible for a FI to hedge the interest rate risk on its MGS portfolio. This is also the case with respect to the leasing portfolio of a FI and the hire purchase portfolio of an FC as these loans are priced on a fixed rate basis and carry a tenor of three to five years.

The rapid growth of Cagamas Berhad, a national mortgage corporation, which specialises in buying and refinancing housing loans on a securitised basis through the issue of Cagamas bonds, and which commenced operations in 1987, has reduced the liquidity risk of the banking system from the big mismatch it faced in funding its sizeable portfolio of long-term housing loans with short-term funds. In fact, the development of the mortgage bond market has also enabled the banking system to raise long-term fixed rate funds from the sale of such housing loans to Cagamas Berhad.

- vii) New legal provisions to regulate the size of shareholdings in a FI came into force in January 1986. This was "to provide for a wider distribution of shareholders so that no one party would dominate the ownership of a single FI. The maximum holding of an individual, including family holding companies, in the equity of a FI is 10%, while any company or cooperative may not hold more than 20%." (P35, BNM AR, 1986). There are however, provisions in the legislation to empower the authorities to exempt any person from these shareholding limits. This exemption was aimed primarily at meeting the Government's goal on equity ownership with respect to the indigenous community. However, in the mid-90s, non-indigenous groups have also been given the approval to acquire a majority interest in a FI. Although there were no provisions in the legislation specifying who should or should not be shareholders of a FI, there was an unwritten consensus restricting cross-ownership between banks and the corporate sector. This consensus has also been broken in the mid-90s with conglomerates being given the approval to take majority stakes in FIs. But this may not create the incentives for a moral hazard type of behaviour because of prohibitions on the granting of director or shareholder related loans, (except in cases where the shareholding interest is non-material).
- viii) Until 1986 the Malaysian banking model was specialised and not universal. Malaysia had benefitted to the extent that regulating and monitoring specific activities would have been more difficult under a universal than under a specialised banking system. This would have been especially so given the constraints on hiring in the public sector by distributional considerations and

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<sup>2</sup> It is not advocated that such limits be set as they can interfere too much with a FI's commercial operations. What is necessary is to encourage the development of markets and instruments for the management of such risks. See [4] for an analysis of the regulatory changes that are required to develop an active and liquid secondary market in fixed rate debt.

civil service rules. The resulting hiring limitations would have made the regulatory burden even more onerous under a universal banking system.

From 1986 a financial institutions groups has been permitted to engage in banking as well as in securities business but under separate subsidiaries and regulatory agencies. Supervising a group engaged in these two lines of business and hence in universal banking under separate subsidiaries may have been less difficult than if these two businesses had been conducted under the same entity. To the extent that there is less consensus in providing capital against market risk than credit risk, this move of the Malaysian banking system to universal banking has made it more prone to systemic risk in the discharge of its payment function.

This will be more so as prices of new issues of securities are more and more market-determined and are not fixed at deep discounts to market values (as was the case until early 1996) thus making securities underwriting a much more risky business. Apart from not having an accepted system for determining capital requirement for such underwriting business (as well as for trading and making markets in marketable securities) presently the regulatory agencies are not setting any exposure limits on the amount of underwriting or trading a FI can do in such securities.

From the preceding discussion, it should be evident that there are still some weaknesses in the supervisory regime of the Malaysian banking system. Managing a bank which is growing rapidly (through organic growth and/or merger) in an environment of a tight labour market (and one where the bank does not have complete freedom on hiring, especially from abroad), was indeed a challenging one. And the distinct policy-bias in favour of local banks made the challenge a more daunting one.

In this environment the financial sector and hence the economy becomes vulnerable if consistent macroeconomic policies are not being pursued. The Government has been running a balanced or surplus budget from the mid 90s. However, from 1995 the growth rate in money supply including base money has been growing at or above 20% p.a. (as against real GDP growth rate of 8.5% p.a.). With the ringgit pegged or managed against the USD, (which has experienced a sharp appreciation from mid 95), the rapid expansion in monetary aggregates led to an investment and lending boom, a persistent external current account deficit and an asset price inflation. With the resulting over-exposure of the banking system to share and property financing as well as the actual or expected bursting of the asset price bubble, problem loans are expected to mount, though most observers do not expect it to reach the mid 80s level.

The regional financial market crisis has triggered if not aggravated the Malaysian financial and economic problems. The sudden sea-change in investor sentiments, which may have been aggravated by an inadequate policy response on the macroeconomic front (at least initially), and some inappropriate policy response, initiatives or pronouncements on the regulatory front, have led to an increase in risk premium.

The burden of adjustment to the change in sentiments has fallen on exchange rate and less on interest rate. Given the higher risk premium savers are demanding now, an unchanged exchange and interest rate would have led to a bigger external deficit or a higher shortfall of savings over investment. The burden of adjustment to the change in sentiments (and to contain the deficit) has fallen on exchange rate and less on interest rate. As the sharp exchange rate fall in a lax monetary environment can unleash sizeable inflationary pressures, interest rates will have to go up more. How much more depends on how much monetary tightening has

taken place to date. Until September 1997, the loss in FX reserves of around RM10 billion in July has been more than offset by the massive injection of liquidity from mid 97.

The authorities have been slow in pushing down the growth rate in base money below 25% p.a. for fear that a high interest rate will cause more problem loans and problem banks. But the inflationary-bias of continued excessive growth in money supply with its attendant problems of a depreciating RM and rising nominal interest rates, will undermine the long-run stability of the economy, (without necessarily minimising its short-run problems), thus aggravating both the magnitude and the duration of the financial crisis. Given this dilemma, the Government has no choice but to bring down the monetary growth to a prudent level, at the minimum, on a staggered basis.

The deterioration in an FI's balance sheet will be caused mainly by a deterioration in the credit standing of its customers from the increase in the interest rate, depreciation in the exchange rate and/or a slowdown in the economy. An FI is also exposed to an interest rate risk, especially in relation to its portfolio of liquid assets as well as its leasing and hire purchase assets which are long dated with fixed rate yields. To an extent, an FI has been able to manage its interest rate risk, thanks to the limited access it now has to fixed rate funds from the refinancing of its housing loans with Cagamas Berhad as well as from the nascent interest rate swap market that has been emerging as a result of opportunities provided by the MME for the trading of Klibor interest rate futures contracts from mid 96. BNM's strict control on a FI's currency mismatches will minimise its direct exposure to exchange rate risk from the sharp depreciation of the ringgit. Its exposure will be an indirect one to the extent that its customers have foreign currency borrowings or investments and to the extent that these customers had not hedged such currency exposures either because the exchange control regulations made such hedging cumbersome or because they did not see a need for such hedging because of widespread perception of the ringgit as a stable or strong currency.

### **III. GLOBAL FINANCIAL REVOLUTION & HOW ASIA'S SELF-IMPOSED ISOLATION HAS DISADVANTAGED US**

A financial revolution has been sweeping the developed world from the seventies. The financial revolution we are referring to and which has taken place in the West has been characterised by the emergence of the fund management industry which has quickly displaced the banking industry as the biggest mobiliser of savings on the one hand and as the biggest investor and lender on the other hand (and securitisation has made this eminently possible). In the face of this onslaught, the banks have had no choice but to transform themselves from being intermediaries of credit to being intermediaries of risk. This transformation of the banking industry has been facilitated by the development of new risk management products (many of which are in the nature of derivatives). Thus the banks are now engaged much less in lending and much more in arranging and in underwriting debt issues. To be in a better position to discharge their new role in pricing, warehousing and placing out debt issues, the banks have had to develop expertise in trading and market making in markets such as the currency, money and bond markets.

This financial revolution is by-passing much of Asia including Malaysia, because of over-regulation and restriction on competition. The development of the fund management industry had been adversely affected by several historical factors which are easing up only now:

Firstly, a sizeable portion of national savings was captured by the Employees Provident Fund (EPF) through its forced-savings scheme for employees. Such

savings was then invested by the EPF on a captive basis in Malaysian Government Securities (MGS), the proceeds of which the Government used for financing its development expenditures. It is only with the turnaround in the Government's budget deficit from the 90s has the EPF started looking for alternative investments in a significant way. Investment management has also been centralised at the EPF with little reliance on external fund managers. The first tentative steps for the decentralisation of fund management, with the individual contributor given the choice of fund manager, was introduced only in 1996. This had led to the under-development of the fund management industry as well as of the equity and private debt markets.

**Secondly**, the existence of a cartel in the stock broking industry and the levy of a flat fixed rate commission of 1% irrespective of the value of each transaction did not give sufficient incentive for the accumulation and management of funds on a pooled basis. The shift to a graduated commission structure took place in mid 95 but the maximum and minimum fees have still been fixed at 1% and 0.5%. Only a move to a negotiated commission structure can give the full incentive for the pooled management of funds.

**Thirdly**, a foreign fund manager is not permitted to have a majority stake in managing a fund which has mobilised local savings for investment in local financial assets and

**Finally**, there is a restriction on all fund managers, including the EPF, on the type of investments they can make. In fact, no part of these funds can be invested on overseas assets without Government approval, which can be difficult to obtain. This restriction on international and currency diversification does not enable a fund to maximise returns and minimise risks. In particular, such a restriction will penalise the retail investor whose transaction cost in accessing the overseas markets is very high. Such a restriction on investment as well as the under-development of the debt markets is also hampering the insurance industry from offering such products as annuities which is a staple product in the developed world.

The restrictions on and the under-development of the private sector fund management industry has meant that the banking industry in Malaysia, unlike that in the West, has been sheltered from competition from fund managers for the savings of depositors and the loan business of borrowers. And unlike fund managers, as banks are also engaged in the payment function, over-reliance on banks have increased the risk of the Malaysian economy to systemic risk.

The reduced fear of disintermediation have also not given the banks the right incentive to move with the times from being an intermediary of credit to being an intermediary of risk. This factor combined with over-regulation has dampened the development of risk management products and risk intermediaries as well as of trading and market making.

This can be illustrated readily with respect to the Malaysian bond market. In Malaysia, the banks are not prepared to trade or make a secondary market in bonds because of the high cost and risk of carrying inventory. Even if the yield curve is upward sloping and the funding of the inventory or investment of a bank does not entail a negative carry, this is almost bound to be the case once an adjustment is made for the lower yield of a captive bond market and once there is an accounting for reserve cost, liquidity cost and interest rate risk premium. It is this high incidence of negative carry which discourages secondary trading activity in bonds. To develop an active secondary market, it is necessary to free yields, reduce or eliminate reserve and liquidity costs as well as to reduce interest rate risk premium. Liberalisation of the liquid asset requirements will have the effect of freeing yields and reducing liquidity costs. Reserve costs can be reduced either by relying less on



variations in statutory reserves as a tool of monetary policy or by the central bank making compensating interest payments on such reserves or by exempting banks from holding reserves against such investments. The interest rate risk premium can be reduced by improving opportunities for hedging through the development of a market in bond futures.

The authorities are slow in effecting the necessary reforms in liquidity and reserve requirements. Therefore, reserve and liquidity cost continue to be high which discourage banks from playing a more active role in bond market trading and market making.

#### IV. THE NEED FOR HEDGING & REQUIRED REFORM OF EXCHANGE CONTROL REGIME<sup>5</sup>

The Exchange Control (EC) Regime we have inherited from the past is characterised by controls both on capital inflows as well as capital outflows. (See Schedules I & II). The rationale for the simultaneous control of inflows and outflows is not apparent. It is in all likelihood to reduce instability in forex (foreign exchange) markets.<sup>6</sup>

If the goal is to reduce instability in forex markets, this is presumably to decrease risk. If this is so, then it is not clear why there is a restriction on forex hedging by borrowers and investors. Afterall forex hedging is the most optimal way to reduce such forex risk.

Foreign currency borrowing which is combined with forex hedging is equivalent to a borrowing in ringgit.<sup>7</sup>

And yet the EC Regime we have inherited imposes a restriction on foreign currency borrowing unless the borrower can demonstrate that it has matching foreign currency earnings.<sup>8</sup> This has been justified on the ground that a mismatch in

<sup>5</sup> The write-up in this section reflects the situation as it prevailed until 1996. In more recent months, it appears that the authorities have been more willing to let a foreign currency borrower to hedge its exposure but only during the one-year period prior to the expiry of its facility. Furthermore, in reviewing applications, there is still a close scrutiny by BNM if the foreign currency borrower has the required foreign currency cashflows. A foreign currency borrowing which is combined with forex hedging and which is equivalent to a borrowing in ringgit, is not permitted under normal circumstances.

This section which appeared in reading [6] and which was circulated to key policy makers has been kept intact for the reason that if the authorities permit foreign currency borrowing with forex hedging more freely, then the cost and risk of borrowing can come down significantly.

<sup>6</sup> It is not clear at what cost this can be accomplished in terms of the value of the ringgit or the level of the interest rate unless we know what the net capital flow position is as a result of the sum total of the controls.

<sup>7</sup> This is so, so long as there are no exchange controls on current and capital account transactions. For instance, if there is a restriction on the purchase of foreign exchange to undertake certain types of imports, but there is no restriction on the use of foreign currency loan proceeds, then foreign currency borrowing will be preferred to ringgit borrowing.

<sup>8</sup> This is a credit issue and if the lender and the borrower are happy with a transaction, it is not clear why it should be made subject to the prior approval of BNM. I am also of the view that an entity's foreign currency (FX) borrowings should not be subject to that entity having the required foreign currency cashflows. A domestic market-oriented project may have exactly the same FX exposure as an equivalent export-oriented project even though the former does not have the same FX cashflows. Let us consider a paper manufacturer which is using waste

cashflows between borrowings and earnings can cause an adverse foreign exchange exposure. But this is not true. There is a problem with foreign currency borrowing only if the borrower is not permitted to hedge its forex exposure through cross-currency swaps, forwards or the likes. It is not clear why the EC Regime has all along denied the borrower the opportunity to hedge its currency exposure. By doing this, the Regime increases the borrower's cost of raising bank funds by around 2% (under the current regulatory and interest rate environment) and makes Malaysia less competitive in the international market place.

A foreign currency borrowing on a hedged basis means that a borrower is only running a ringgit exposure, is paying a ringgit interest rate and the margin it commands on its borrowings (in whatever currency) is approximately the same and will be competitively determined. Thus if the likes of Petronas, Telecoms and Tenaga only pay 0.25% over Libor in the euromarket, (which was the margin they were paying in 1996 on a ten year floating rate loan), the margin they have to pay for swapping this debt into ringgit is also around 0.25% so long as there is no restriction on their currency hedging activity.

Let us take the case of Tenaga which has only ringgit cashflows and assume that it has borrowed in USD at 0.25% above Libor. If it is permitted to hedge its USD exposure in the forward market by buying the USD and selling the RM on each rollover date, then its USD exposure is transformed into a RM exposure, and the interest rate it will be paying for each rollover period will approximate to the RM interbank rate for the equivalent period plus the margin of 0.25% (and not the 2.5% they may end up paying currently on their bank loans in Malaysia).

It is, therefore, clear that so long as Tenaga is allowed to hedge freely, it can transform any foreign currency borrowing into a synthetic RM borrowing. Therefore, I see no problem in foreign currency borrowing even by an entity without the required foreign currency earnings if there are no restrictions on hedging. I submit that the EC Regime is an obstacle to the continued progress of the Malaysian economy, and it is opportune for BNM to modernise and liberalise a Regime that we have inherited from our colonial masters.

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paper from a domestic source as a raw material (which may have been imported otherwise) and producing exclusively for the local market (which could have been exported otherwise). As BNM allows the likes of TNB and STM with domestic ringgit cashflows to raise foreign currency loans, it has less reason not to permit a paper manufacturer (which is producing a tradeable good and whose price is given by the world market but which only has RM cashflows) not to resort to foreign currency borrowing (when the RM cashflows would depend almost on a one-to-one basis on the world market price and the RM exchange rate). By requiring an entity such as this to borrow in RM and not in the relevant foreign currency would amount to forcing it to take on an exchange risk which it may be unwilling or unable to assume. Given these considerations, it is not clear if BNM should really concern itself with such matters as the currency in which a corporate borrows. Such decisions should rightfully be made by the lender and the borrower based on their best interest as perceived by them. As they have to pay the price for any miscalculations, it is best to let them make the decisions and face the consequences of their actions.

**Schedule I**  
**An Analysis Of Capital Controls**

		Control Inflow/ Outflow	Period in Force	Exchange Rate Effect	Interest Rate Effect
I	Restriction on foreign currency borrowing				
	(i) By Locals	Inflow	Long standing	-	-
	(ii) By NRCCs	Inflow	Long standing	-	-
II	Restriction on ringgit borrowing				
	(i) By offshore parties	Outflow	Long standing	+	-
	(ii) By NRCCs	Outflow	Long standing	+	-
III	Restriction on foreign investment				
	(i) By locals with domestic borrowing	Outflow	Long standing	+	-
	(ii) By local investment funds	Outflow	Long standing	+	-
IV	Restriction on domestic investment by foreigners				
	1. By Markets				
	(i) Equity	No control			
	(ii) Money	Inflow	1994	-	+
	(iii) Bond	Inflow	1994	-	+
	2. By Industry	Inflow	Long standing	-	+

Notes: The nature and periods of capital controls or the details of foreign exchange transactions with superscripts are as follows:-

- 1 Where the capital control has been in place for a long time and is current, this is indicated as long standing (L.S.). Otherwise, the years in which the control was in force is indicated.
- 2 Non-resident controlled companies (NRCCs).
- 3 There was no exchange control but there was a restriction on foreign investment into certain sectors dictated by merit-based considerations. To that extent it was an inflow control with the expected effects on exchange and interest rates.

**Schedule II**  
**Forex Markets: An Analysis Of Controls On Trading**

		Nature of Control	Period in Force	Exchange Rate Effect	Interest Rate Effect
I	Restriction on hedging in forex markets				
	1. Capital transactions				
	(i) By locals	Inflow control	Long standing	-	+
	(ii) By non-resident <sup>2</sup> a) On offer side <sup>3</sup>	Outflow control	1985, 1989-94	+	-
	b) On bid side <sup>3</sup>	Inflow control	1992-94	-	+
II	2. Trade transactions				
	(i) Import <sup>4</sup>	Sale banned	Long standing		
	(ii) Currency options <sup>5</sup>		Long standing		
	Restriction on position-taking in forex markets				
	(i) Spot	No control	Long standing		
	(ii) Forward	Prohibited	Long standing		
	(iii) Options	Prohibited	Long standing		

Notes: The details of the foreign exchange transactions with superscripts are as follows:-

- 1 with foreign investments or foreign currency borrowings.
- 2 with domestic investments
- 3 of a non-trade related swap or forward transaction
- 4 with delivery schedules exceeding 12 months
- 5 option writing by corporates is banned.

Note that a foreign currency borrowing which has been hedged, especially one through a cross-currency swap, means that there is no change in the net currency exposure of the borrower or the host country.

The current EC Regime is also discriminating against the rights of investors to hedge their underlying currency exposures in investment flows. The prosperity of a nation depends just as much on the free flow of investments as it does on free trade. Free Trade amongst nations makes for greater specialisation, superior efficiency and higher living standards. If a country does not permit its traders to hedge their currency exposure, the risk will be higher and there will be less specialisation and trade. Or otherwise such hedging activity will be driven to offshore countries. The same applies to investments. More investments makes for higher growth. Such investments can come from abroad or go abroad depending on where the opportunities are better. To the extent that the investors are interested only in equity returns these cross-boarder flows will be discouraged if the authorities do not permit them to focus only on equity risk and hedge away their currency risk. Or where there are loopholes, as there are likely to be, the business of currency hedging may be driven abroad to those shores which are not hostile to such activities. This is what is presently happening and the prime beneficiary is Singapore. Therefore, a rethink of the EC Regime is also in order on hedging of investment flows by BNM.

The above proposals do not call for a dismantling of the existing Malaysian exchange control regime. It is only calling for investors and borrowers to be given the right to hedge their foreign exchange exposures. Presently only exporters and importers are given this right. I do not think there is anything wrong with speculation but nonetheless the reforms I am calling for will not enable anyone to put in a speculative position against the ringgit.

## **V. AVOIDING FINANCIAL REPRESSION BY REDUCING HIGH RESERVE & LIQUIDITY REQUIREMENT**

The statutory reserves (SRs) as a percentage of the eligible liability (EL) base was 5% from 1980 to 1984, when the country was pursuing a tight monetary policy. This ratio declined to 3.5% in 1986 and remained at that level until 1988. Thereafter, the ratio has been increased and today stands at 13.5% which is very high indeed although the stance of monetary policy is not as tight as in early or mid 80s.

Furthermore, the EL base is now more broadly defined to capture all types of funding. This includes Repos and the net inflow of funds from abroad which constituted 10% of the EL base in 1995. This means that the current SR requirement of 13.5% is equivalent, on a conservative basis, to a requirement of 15% on the more narrowly defined EL base which was in use until 1989.

Under the current interest rate environment, the reserve and liquidity cost is around 2%. The high regulatory cost has encouraged many Malaysian corporates including the top ones, such as Petronas, Telecoms and Tenaga (and with or without foreign

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If direct foreign investment (DFI) is viewed favourably in relation to a country's foreign exchange exposures, long-term foreign currency borrowing by the private sector should not be viewed less favourably. This is especially so if the borrower is also the investor.

If currency exposures are deemed as a problem, then a resident should be permitted to borrow in ringgit from a non-resident if the non-resident is prepared to run the currency exposure. The desire not to internationalise the RM cannot be used as an excuse as a huge offshore market has already developed in RM. By giving the necessary approvals BNM will be in a better position to monitor and control this offshore market.

exchange earnings), to seek foreign currency borrowings from the global financial market place. This is invariably at the expense of the local banks. The high regulatory cost combined with the high tax rate has also been driving domestic RM business to off-shore centres such as Singapore as the RM business in these centres is not subject to SR and liquid asset (LA) requirements or taxation. These factors have also induced more issues of private debt securities (PDS) and hence disintermediation of the banking system as PDS issues are not subject to these regulatory costs and hence the interest rate facing issuers and investors are more attractive. These high regulatory costs have also severely curtailed the holding of inventory and trading in bonds by licensed depository institutions (LDIs) which are the key market makers and traders in such bonds.

BNM has come to place a greater reliance on SR as a tool of monetary policy in the mid 90s partly as a result of its balance sheet considerations. BNM has been running a deficiency account of RM5.7 billion from 1993 because of forex trading losses it sustained in 1992 and 1993. So far the government has not taken any steps to recapitalise BNM and it appears that it wants the central bank to make good this deficiency account through its future profits. The deficiency account stood at RM4.6 billion as at the end of 1995.

The need to make profits is, in all likelihood, discouraging BNM from relying too much on inter-bank borrowings to drain liquidity and tighten monetary policy. Borrowings will incur interest expense and hence losses. If BNM had been recapitalised and if losses sustained in its money market operations are accepted, as it should be, as a legitimate cost associated with the conduct of a nation's monetary policy, then BNM can rely much less on SR requirement as a tool of monetary policy.

The imposition of a high liquid asset ratio is not necessary to ensure the liquidity of a banking system. In an environment of growth the liquid assets held to maintain the required liquidity ratio are, for all intents and purposes, locked up. It is the assets which are held in excess of this ratio that can be used to meet a bank's genuine liquidity requirements. In the 90s, the ratio of eligible liquid assets held by the commercial banks in excess of the minimum ratio has been within 1% of the required ratio. Despite the excess liquidity ratio being so narrow the banking system has never been threatened by a liquidity crisis. This is either because the assets which serve as liquid assets are very different from those which qualify as eligible liquid assets or otherwise because the current minimum ratio of 17% is exceedingly high. This line of argument suggest that there is considerable scope for slashing the current liquid asset requirement of the Malaysian banking system. In this context it is interesting to note that when Australia liberalised its financial sector in the early 80s, it slashed its liquid asset requirements from 20% to 5% without adversely affecting the solvency or liquidity of the Australian banking system. The solvency of a bank depends on the adequacy of its capital funds and its liquidity depends on the availability of interbank lines and its holdings of all types of liquid assets and not just those assets which are gazetted as liquid assets. The need for greatly lowering and liberalising the liquid asset requirement should therefore be obvious.

The much higher SR and LA requirements for CBs as compared to MBs and FCs until the mid-80s had disadvantaged the CBs. From the late 80s the SR requirements have been fully harmonised and the differential in LA requirements have been significantly narrowed as between the three types of LDIs. This more level playing field has made for more competition and greater efficiency in financial intermediation. It is now opportune not only for greatly reducing the SR and LA requirements but also for relying much less on SR as a tool of monetary policy and for liberalising the class of assets which qualify as liquid assets.

The disadvantages arising from the use of statutory reserves as a tool of monetary policy are not associated with the alternative tools that are available for the conduct of monetary policy.

A high regulatory cost reduces returns to investors and discriminates against the use of debt. With reserve and liquidity cost at 2% currently, the return on investment is reduced by 10% to 40% depending on whether the debt to equity ratio is 1:1 or 2:1 and whether the expected return on equity is 10% or 20%. Capital intensive ventures with more reliance on debt are likely to suffer the most.

The securitisation revolution, which has been gathering momentum in Malaysia in recent years, will mean that institutional investors and fund managers will be competing with banks for the funds of savers and for the loan business of borrowers. For banks to play an effective role as arrangers and underwriters of securities and to ensure that they are not completely disintermediated, they must develop skills in trading and market making. Unfortunately, high regulatory cost is not enabling banks to adapt to the changing market environment.

It will be instructive to end this discussion with an analysis of who are the losers and gainers from high reserve requirements.

- Borrowers and depositors are the primary losers. Their losses are reduced to the extent that they can participate as issuers or investors in the PDS market or in the offshore market. Only the large borrowers and depositors are able to do this.
- BNM is the primary gainer
- Onshore banks are the secondary losers
- Offshore banks are the secondary gainers
- BNM's gain offsets the loss by borrowers and depositors but the transfer is inequitable. The gain of offshore banks cannot be offset by the loss of onshore banks. This is a deadweight loss to Malaysia.

## VI. CONCLUSIONS

Malaysia can maintain its position as a high-growth country in the coming decades only if its service sector becomes the new engine of growth for the economy. I have discussed at length the potential of the service sector to play this role in my other papers (See for instance [5]). In this paper, I review some key issues and policies on financial sector and financial market reforms that have to be addressed if the service sector is to be opened up and become the new engine of growth.

A case has been made in the text for the deregulation of the financial sector in Malaysia in two critical areas, namely, with respect to the exchange control regime and to the reserve and liquidity requirements of banks. Therefore, no attempt is made to restate the case here.

A financial revolution has been sweeping the developed world from the seventies. However, Malaysia and much of Asia has been cut-off from this revolution, which has been characterised by the emergence of the fund management industry and which has quickly displaced the banking industry as the biggest mobiliser of savings as well as the biggest investor and lender.

The liberalisation and deregulation of the fund management industry is necessary if it is to grow and play its rightful role in Malaysia. The promotion of the fund management industry, given its specialisation in the financial intermediation service without an involvement in facilitating payments, has the added advantage that the exposure of the economy to systemic risk is thereby minimised.

If there is no over-reliance on banks to provide financial intermediation service, then the systemic risk they pose from their involvement in the payment function can be controlled by requiring them to engage in less risky lending and investment activities. For instance, by limiting their exposure to property and share financing as well as to lendings which are based mostly on collaterals and not on cashflows, then the exposure of these banks to the boom-bust cycles of the property and share markets can be reduced.

This also means that providers of payment services should not engage in underwriting, trading and market making activities, as they will be exposed both to credit as well as market risk. In Malaysia, this means that the increasing role of banking groups in underwriting and brokerage business, which is in any case a new phenomena, must be reversed or controlled by prescribing very safe limits on the risk capital required for carrying out such businesses.<sup>4</sup>

The case for certain banks to provide the payment service on a specialised basis with a restriction on the type of activities these banks can engage in is also dictated by the constraint there are in Malaysia with respect to the supply of manpower and on hiring. Universal banking is more complex to manage and supervise. Given the manpower and hiring constraints faced by the regulated and the regulator, to minimise systemic risk and costly mistakes, a policy of requiring certain banks to specialise in the payment function may represent the least cost and low-risk approach.

If the banking sector can be opened up to competition by the best players in the world, then a case can certainly be made for the continued promotion of the universal banking model, especially given the emerging body of literature which point to the dominance of economies of scale and economies of scope in the financial services industry. This approach is in fact the first-best solution. Reliance on the best and on markets to discipline the shareholders and depositors, as well as a firm commitment to transparency through the pursuit of international best practices in accounting, audit and financial reporting, will ensure efficiency as well as minimise the problem of systemic risk.

A policy of not favouring local banks vis-a-vis foreign banks will not affect the growth prospects and the wellbeing of Malaysians as amply demonstrated by the experience of Hong Kong whose banking industry is dominated by foreign players.

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<sup>4</sup> In this connection, it is interesting to point out here the peculiar position of discount houses (DHs) in Malaysia currently. Traditionally, DHs act as providers of liquidity to the banking system by discounting riskless or near riskless papers (so long as the banks had such papers in their inventory). To support them in this role the DHs were allowed to take call money from banks which qualified as liquid assets and to ensure their undoubted credit standing they were in turn allowed only to invest in riskless or near riskless papers. However, in Malaysia for reasons too numerous to enumerate here, (including the blurring of distinction between primary and secondary liquid assets), the DHs have been allowed from the early 90s to underwrite, invest, trade and make a market in private debt securities. To facilitate this they are the only FIs which are exempted from holding statutory reserves with BNM at zero interest against their deposit liabilities. In spite of the dramatic increase in their risk profile, the capital adequacy requirement of DHs is geared only to deal with credit risk and not market risk. To complicate matters further, their financial reporting is lean on disclosures unlike the requirements for other licensed financial institutions in Malaysia.



And the opening up of the financial services industry to competition do not signal the demise of local banks as demonstrated by the Australian experience where the local banks are now more competitive, global and have continued to dominate the domestic banking industry in spite of the entry of the world's top banks into the Australian market after the liberalisation of the financial sector in the early 80s.

The current arrangement in Malaysia represent the worst of all worlds as the over-protection and over-regulation of the banking industry imposes a higher cost on the more dynamic goods sector. The indiscriminate policy of rescuing all financial institutions in trouble to avoid systemic risk increases the burden on tax payers and the goods sector further.

The balanced development of the financial services industry, including that of fund management, will require the liberalisation and deregulation of financial markets so that traders will be able to hedge, take position or make markets without restrictions (except for rules which are generally accepted) and without incurring high transaction costs. A reference has been made in the text to what is required in respect of the debt market.<sup>10</sup>

The whole approach to investment management must also change, as in the West, from one based on the practice of holding-to-maturity one's investments to one based on marking-to-market (with the associated requirement for changes in accounting rules and financial reporting). This change in approach to investment management will require more liquid markets and more risk management products to minimise transaction costs and to hedge against contingencies. The decline in family ownership and control as well as the simultaneous increase in the spread of share ownership, combined with the rapid growth of the fund management industry, has dictated the need for transparency and the practice of marking-to-market.

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For a further discussion of what ails the Malaysian bond market see [4].

## References

- 1 Carl-Johan Lindgren et al. *Bank Soundness and Macroeconomic Policy*, International Monetary Fund, 1996
- 2 Dimitri Vuitas (ed), *Financial Regulation: Changing the Rules of the Games*, EDI Development Studies, The World Bank, 1992
- 3 R. Thillainathan, *The Asean Financial Sector: A Drag or a Leader?* ASEAN Economic Bulletin, July 1995
- 4 R. Thillainathan, "Malaysia's Bond Market: The Further Reforms Required to Escalate Underdevelopment", ASEAN Economic Bulletin, July 1995
- 5 R. Thillainathan, *The Service Sector as Malaysia's New Engine of Growth*, a paper delivered at the University of Malaya Faculty of Economics & Administrative Science International Conference "Globalisation and Development: Lessons for the Malaysian Economy", August 12-13, 1996
- 6 R. Thillainathan, *Financial Sector Reforms - The Unfinished Agenda*, Monograph for private circulation only dated October 7, 1996
- 7 The World Bank, *Financial Systems and Development*, The World Bank, 1990

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**SAVINGS IN MALAYSIA AND ITS  
IMPACT ON ECONOMIC GROWTH**

by

Azmi Setapa  
Soleha Hamid  
Nesathurai Arunagiri



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

# SAVINGS IN MALAYSIA AND ITS IMPACT ON ECONOMIC GROWTH

## 1.0 Introduction

Similar to other growth determinants such as monetary aggregates, interest rates, investment, etc., the savings-growth relationship suffers from unclear causality direction. The direction of causation between savings and growth has been widely discussed in the literature of development economics. Clear direction of causation between savings and growth is crucial since it has "some implications on policy formulation. The direction of causality from savings to growth inclusive of indirect causality, that is through investment implies that macro and micro policies should emphasise on savings enhancement to achieve high growth. On the contrary, growth to savings causality implies that policy-makers should focus on other factors such as infrastructure, human resource, technology, etc. which influence growth.

The aims of this paper is to make a descriptive as well as econometric analysis on the direction of savings-growth relationship for the Malaysian economy. This study is important since the direction of savings-growth causality tends to change over time. Economic globalisation increases capital mobility across countries and induces the outflow of domestic savings for overseas financing. This in turn, causes more instability in the savings-growth causality. Therefore, frequent review in the savings-growth relationship is needed to come up with the right policy action.

## 2.0 Research Background

There are contradictory evidences as to the direction of causality between savings and growth. Studies conducted by the International Monetary Fund (IMF) show that over the past ten years, 14 of the 20 fastest growing economies had high savings rates, more than 25 per cent of their GNPs. Although this result justifies the influence of savings on economic growth, it cannot rule out that high growth rates itself may cause savings to rise. Empirical clarification of the savings-investment growth link in Malaysia would assist in the design of growth-enhancing policies.

The Korean experience is a good example of growth-led savings. In the 1960's, Korea's savings rate was one of the lowest in the world. However, after going through a period of high economic growth, its savings rate improved and now it has one of the highest savings rate in the world. Malaysia's overall savings rate is also relatively high. The ratio of Gross National Savings (GNS) to Gross National Product (GNP) has increased steadily from 18.4 per cent during the period 1966-70 to 38.6 per cent for the year 1996-97. Unfortunately, the domestic savings rate

is still insufficient to finance domestic investments over the years, in particular during the 1990s. Foreign savings were needed to supplement the gap between domestic savings and investment. In fact, the existing high rate of savings is contributed mainly by high private savings, averaging 18.5 per cent of GNP during the period 1961-1996 while public savings averaged 9.5 per cent of GNP as shown in Table 1. This pattern of composition reflects the importance of private sector savings in financing investments and reducing excessive dependence on foreign savings which are susceptible to external fluctuations.

Nonetheless, to what extent, savings contributes to growth, is still debatable since the relationship is not clear enough as reflected in figure 1. Savings is not the only determinant of economic growth and likewise, growth itself, proxied by either income per capita or GNP or GDP growth is not the only factor influencing savings. In fact, the average propensity to consume, defined as the saving rate here, seems to decline even though income per capita continues to rise as shown in figure 2.

Table 1  
Malaysia: Savings-Investment Gap (% of GNP) 1961-1995

	1961- 1965	1966- 1970 (1MP)	1971- 1975 (2MP)	1976- 1980 (3MP)	1981- 1985 (4MP)	1986- 1990 (5MP)	1991- 1995 (6MP)	1996- 2000 (7MP)
Public saving	3.1	3.4	2.4	7.3	11.7	10.3	17.4	10.9
Public investment	8.4	6.7	7.8	10.3	17.3	11.0	14.1	10.7
S-I Gap	-5.3	-3.3	-5.4	-3.0	-5.6	-0.7	3.3	0.2
Private saving	14.7	14.9	18.4	22.7	15.7	20.7	16.6	24.0
Private investment	10.5	10.0	16.5	17.1	18.9	17.5	26.7	27.2
S-I Gap	4.2	4.9	1.9	5.6	-3.2	3.2	-10.1	-3.2
National savings	17.8	18.3	20.8	30.0	27.4	30.1	34.0	34.9
National investment	19.0	16.7	24.4	27.4	36.2	28.6	40.8	37.9
S-I Gap	-1.2	1.6	-3.6	2.6	-8.8	2.5	-6.8	-3.0

Source: Bank Negara Malaysia, Annual Report 1996

Figure 1  
Savings and Growth

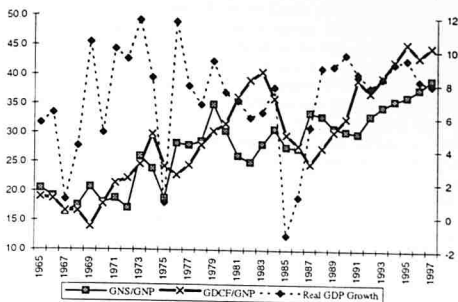
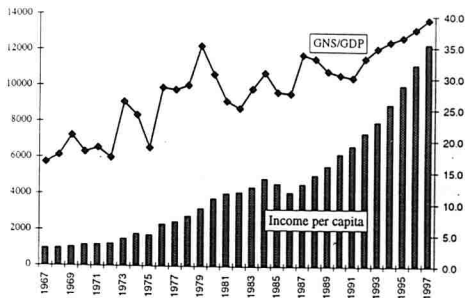


Figure 2  
Savings & Per Capita Income



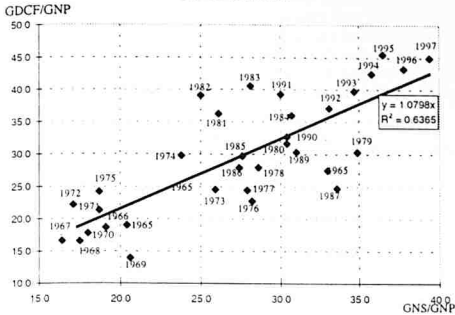
Other factors, such as population growth, life expectancy, socio-cultural factors namely political stability, value system and literacy rates, rate of returns on savings and export earnings (Sinha, 1996) and ethics (Tai, 1989) such be considered in the analysis of savings-growth link. However, the traditional factors could change over time as industrialisation proceeds.

There is a substantial literature explaining the behavior of savings, including its responsiveness to economic growth. Work by Carroll and Weil (1994) provides empirical evidence saying that growth promotes savings. This finding is agreed by Modigliani in his earlier findings (1970) and those by Masson et al (1995) and Edwards (1995). They also concluded that growth has a positive and highly significant positive impact on savings rates. Modigliani (1970) further emphasised the implications of changing weights of different age groups on the level of savings. Schmitt-Hebbel, Serven and Solimano (1996) explained how such causation of growth-savings link could happen. National savings is normally reflected in domestic physical investment and hence promotes growth. Theoretically, the link could be weak in a more liberalised economy due to capital flight depending on market factors. But the findings by Feldstein and Horioka (1980) and by Feldstein and Bacchetta (1991) indicate that the national savings and domestic investment ratios could move together even in an open economy. Feldstein and Horioka (1980) used cross-country regressions of the following type:

$$(I/Y)_t = a + b(S/Y)_t$$

If the interest rate differential is close to zero, and hence capital mobility is negligible, the association between investment and savings should be very strong. Thus,  $b$  reflect the degree of capital mobility. This result justifies the existence of a certain degree of limitation in capital mobility. A closer look at savings and investment rates (as a percentage of GNP) in Malaysia indicate some form of close relationship between the two variables, except in a certain period such as in the 1980s as reflected in Figure 3. These variables also tend to diverge in the 1990s. A number of factors have been identified in various countries that might influence such relationship such as restrictions on current account balances (Summers, 1988); relative price and demographic variables (Taylor, 1994); long-run budget constraint (Coakley et al, 1995) and consumption habit (Carroll and Weil, 1994). Due to the importance of savings habit, the Malaysian government launched a nationwide promotion campaign on December 16, 1996. The main objective was to inculcate savings habits, encourage Malaysians to change their consumption habits and prevent a trend towards consumerism and wastage. In addition, income per capita, real return to savings, increased availability of savings products, wide network of financial institutions, favourable government incentives, and increased savings awareness among the population were among the contributing factors which could reduce the diverging trend, mentioned earlier. Obviously, savings and growth have their own sets of determinants of which some might be common to both and hence could make the direction of relationship more blur and uncertain. The application of an econometric approach to confirm the causality direction would be helpful for the policymakers in giving greater emphasis on the more important variable, either savings or growth.

Figure 3  
Pairwise Correlation



### 3.0 Research Methodology

Literature review and analysis on savings (S) and growth (G) behavior in Malaysia indicate some correlation. However, this correlation cannot confirm the direction of causality between savings and growth. They might affect each other, in the form:

$$S \implies G \text{ or } \dots (1)$$

$$G \implies S \text{ or } \dots (2)$$

$$S \implies G \implies S \dots (3)$$

In other words, there might be a lead-lag relationship between the two variables. In order to justify the form of relationship between these two variables, the Granger Causality test will be used, assuming that the information relevant to their predictions is contained solely in their own time series data as explained below:

$$S_t = \sum_{i=1}^m \alpha_i G_{t-i} + \sum_{j=1}^m \beta_j S_{t-j} + u_{1t} \dots (4)$$

$$G_t = \sum_{i=1}^n \lambda_i S_{t-i} + \sum_{j=1}^n \delta_i G_{t-j} + u_{2t} \dots (5)$$

where

$S_t$	=	savings in period t
$G_t$	=	growth in period t
$u_{1t}, u_{2t}$	=	white noise residuals.

Savings itself is categorised into three types, Gross National Savings (GNS), private savings (PRIS) and public savings. Although conceptually, private savings itself could be broken down further into household and corporate savings, the data



are not publicly available in the country. In order to minimise the possibility of the existence of structural break in the regression equations, this study will only focus on data from 1970 to 1996. These data were obtained from various published reports, namely Bank Negara Report, Economic Report and International Financial Statistics of various years. All types of savings and Gross National Product (GNP) are deflated by GDP deflator in order to get the real gross national saving (RGNS), real public saving (RPUBS) and real private saving (RPRIS) which will be used for estimation.

Referring to equations (4) and (5), there are four possible outcomes from this econometric analysis as clarified below:

*Outcome 1:*

- $G \Rightarrow S$ , or  $S = f(G)$ , if the estimated coefficients of the lagged  $G$  are statistically significant from zero or  $\sum \alpha_i s \neq 0$  and the set of estimated coefficients on the lagged  $S$  is zero or  $\sum^a \beta_j = 0$ ;

*Outcome 2:*

- and  $S \Rightarrow G$ , or  $G = f(S)$ , if the estimated coefficients of  $S$  are statistically different from zero ( $\sum \lambda_i = 0$ ) or the estimated coefficients of lagged  $G$  are zero ( $\sum \delta_i = 0$ );

*Outcome 3:*

- and  $S \Rightarrow G \Rightarrow S$  if the sets of  $S$  and  $G$  coefficients are statistically different from zero in both equations (4) and (5);

*Outcome 4:*

- $S$  and  $G$  are independent of each other if the sets of  $S$  and  $G$  coefficients are statistically insignificant in both regressions.

In order to apply the Granger-Causality test on equation (4) and (5), the disturbance terms ( $u_{1t}$  and  $u_{2t}$ ) in the regression must be close to the "white noise", i.e. there must be no significant serial correlations in both equations. Hence, choosing the most suitable values for lags  $m$  and  $n$  is very important since the omission of relevant lagged values of the dependent variables could inflate the coefficients of the lagged independent variables. Regressing each independent variable,  $y_t$  (either  $S_t$  or  $G_t$ ) against its own lagged values, i.e.  $y_{t-1}, t-2, \dots, t-m$ ; and against  $n$  lagged values of  $x$  and  $p$  lagged values of  $x$  (either  $G_{t-\mu}$  or  $T_{t-\eta}$  where  $\mu = \eta = 1, 2, 3, \dots, n$  and  $p$ , respectively) could be performed to ensure that they form residuals (Geweke, 1982).

The issue of stationary is also examined here by using the augmented Dicky-Fuller (ADF) test (Dickey and Fuller (1979) and (1981)). A variable is said to be stationary or integrated in the order of zero (i.e.  $I(0)$ ) if it does not have a unit root. In many cases, it may be non-stationary in its level form but can be reflected in its first difference form. Therefore both tests incorporating the absolute and the first difference forms will be used in the ADF test. Several definitions of savings and growth are used to analyse the direction of relationship between the two variables.

#### 4.0 Estimation Result

The stationary of the data has been examined using the autocorrelation function. The autocorrelation and partial autocorrelation function are presented in appendix 1 to 6. It is clear that all of the series are not stationary in their level form but are stationary after first differencing. However, the real GNP series, RGNP, only achieve the stationary form after differencing them two times.

We estimate the unit root test based on the Augmented Dickey Fuller Test (ADF) by regressing a particular series in its differencing form on its lags and one year lags of its level form. To avoid losing large degree of freedom from a already small sample of yearly data, only one year lags was used in the estimation. Other lags were also tested but they turned out to be insignificant. The result of the ADF test is presented in table 2. These results are similar to the stationary test where, except for RGNP we found that there is no unit root in the series after first differencing.

Table 2:  
ADF Test

VARIABLE	t-stat*
D(RGNP)	-1.59
D(RGNS)	-2.48
D(RPRIS)	-3.15
D(RPUBS)	-3.30

\* these t values have found to be insignificant compared to the corresponding critical values

Because the stationary and unit root test for the real GNP was not satisfactory, we estimate our regression by including the moving average term,  $MA(1)$ , to deal with any possible serial correlation which may arise because of the less stationary of the real GNP series. The estimation result is presented in the Table 3. The estimation results in table 3 suggest that except for the private savings, the direction of causality runs from growth to savings. The normal indicators such as  $R^2$ ,  $F$ -

Statistics and Durbin Watson statistics indicates that the model fit very well. In addition to that, the "white noise" of every residual in estimation was examined and excepted after examining their autocorrelation function (see appendix 7 to 9). Furthermore, a diagnostic checking was carried out by plotting the actual and predicted values for each model (see appendix 10 to 14). We found that the predicted value moves closely with the actual value, suggesting a good fit of the regression.

Table 3:  
T-Statistics for Causality Test

Dependent variable	Independent variable	t-stat
RGNP	RGNS <sub>t-1</sub>	1.01
RGNP	RPRIS <sub>t-1</sub>	2.50
RGNP	RPUBS <sub>t-1</sub>	-1.82
RGNS	RGNP <sub>t-1</sub>	3.20
RPUBS	RGNP <sub>t-1</sub>	2.28
RPRIS	RGNP <sub>t-1</sub>	2.35

The insignificant influence of public savings on economic growth, as postulated earlier in Outcome 2, is in line with the welfare obligation of the government and its declining part in business activities. This development was started in the mid-the 1980's as a structural measure to move the economy away from recession. Public dissavings itself could lead to greater growth which means negative relationship between the two variables. The t-stat for public savings and GNP is negative even though it is not significant means to a certain extent supports the argument that equality is important in sustaining economic growth. The insignificance could also be due to diminishing government's role or increasing private sector's role, as an engine of growth of the economy, particularly as a result of the Privatisation Master Plan, as initiated in 1983. This deliberate policy of structural adjustments had reduced the share of public sector investment to 11 per cent of GNP for the period 1986-1990 (Table 1).

As expected, the private savings was found to have a significant influence on economic growth. It is also interesting to note that there is a two-way causality between economic growth and private savings. This means the relationship between private savings and growth is more likely to be in the form of outcome 3.

## 5.0 Policy Implication and Conclusion

The findings of this paper cast doubt on the usefulness of using fiscal instruments such as manipulating tax rates to raise savings. Since there is no evidence to support the "public savings-growth" causality, it is more appropriate for the government to focus its fiscal policy on strengthening the financial sector such as through liberalisation. Furthermore, raising public savings through taxation, in particular personal income tax, may lead to the decline in private savings. This crowding out effect could happen if the take home pay is affected while other fixed obligations remain especially in an inflationary period. In addition, apart from controlling fiscal balance, price stability is obviously important for growth sustainability.

This study sheds light on the private savings' ability to foster economic growth. Since there is a two-way causality between private savings and economic growth, policies should be directed to focus on fostering its virtuous circle. As suggested by (Muhleisen, M. 1997), efforts to raise private saving should focus on financial liberalisation, particularly on the development of both short term and long-terms instruments, such as life insurance and mutual funds. Financial market information should be improved to increase consumers' awareness about the financial products and to guide them in better decision makings in savings and investments. While providing an attractive investment vehicle for individual savers, their main role would be to improve the allocation of savings, ensuring that funds would flow to the most productive investment projects, thus generating the highest rate of growth for a given amount of investment. As a result, the virtuous growth-saving circle would become more dynamic, and savings could accumulated faster.



















































In addition, there is a clear need to identify the linkage in which private savings and economic growth affect each other. Growth strategies in the real sector should be formulated in such a way to contribute to the development and efficiency of the financial system. At the same time there should be a sufficient channel to allow the influence from the financial sector to flow into the real sector. This policy formulation will lead to greater integration between the two sectors which is important for high economic growth.

## REFERENCES



















































- Carroll, C. (1991): "*Buffer-stock Saving and the Permanent Income Hypothesis.*" Manuscript.
- Coakley, J., F. Kulasi and R. Smith: Current Account Solvency and the Feldstein-Horioka Puzzle." Discussion Paper 8/95, Bribeck College.
- Dipendra Sinha. (1997): "*Savings and Economic Growth in India.*" Asian Economic Review, pp365-375.
- Dickey, David A. And Wayne A. Fuller (1979) "*Distribution of the Estimators for Autoregressive Time Series with a Unit Root.*" Journal of the American Statistical Association, 74, 427-31.
- (1981) "*Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Root.*" Econometrica, 49, 1057-72.
- Edwards, S. (1995): "*Why are Saving Rates so Different Across Countries ? An International Comparative Analysis.*" NBER Working Paper No. 5097.
- Frank Harrigan. (1996) : "*Saving Transitions in Southeast Asia*". EDRC Report Series 64.
- Geweke, J. (1982). : "*Measurement of Linear Dependence and Feedback Between Multiple Time Series*", Journal of the American Statistical Association, 77 (378), 304-13.
- Lin, See Yan (1991): "*Malaysia: The Savings-Investment Gap, Financing Needs and Capital Market Development 1960-1995*" presented at Persatuan Ekonomi Malaysia's (PEM) Eleventh Economic Convention at Shari-La Hotel, Kuala Lumpur, September 24-26, 1991.
- Modigliani, F. And R. Brumberg (1954): "*Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data,*" in K.K. Kurihara (ed): Post-Keynesian Economics, New Brunswick, N.J.: Rutgers University Press.
- Modigliani, F. (1970): "*The Life-Cycle Hypothesis of Saving and Intercountry Differences in the Saving Ratio.*". Oxford: Clarendon Press.
- Masson, P., T. Bayoumi, and H. Samiei (1995): "*Saving Behavior in Industrial and Developing Countries.*" manuscript, IMF.

- Muhleisen, M., (1997), Improving India's Saving Performance. Finance and Development, June, 1997.
- Shmidt-Hebbel, K., S. B. Webb and G. Corsetti. 1992. "Household Saving in Developing Countries: First Cross-Country Evidence." The World Bank Economic Review 6(3): 529-47.
- Weil, P. (1989): "Equity Premium and Risk Free Rate Puzzles." Journal of Monetary Economics, 24, pp401-421.

Correlogram of Real GNP

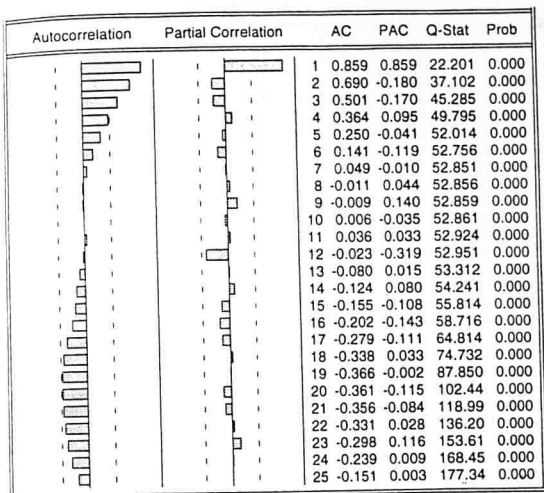
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		1 0.855	0.855	21.993	0.000
		2 0.717	-0.051	38.078	0.000
		3 0.589	-0.040	49.409	0.000
		4 0.474	-0.034	57.056	0.000
		5 0.369	-0.038	61.894	0.000
		6 0.268	-0.056	64.581	0.000
		7 0.177	-0.045	65.801	0.000
		8 0.100	-0.018	66.216	0.000
		9 0.035	-0.029	66.268	0.000
		10 -0.016	-0.012	66.281	0.000
		11 -0.061	-0.030	66.460	0.000
		12 -0.103	-0.049	67.016	0.000
		13 -0.153	-0.084	68.327	0.000
		14 -0.198	-0.048	70.683	0.000
		15 -0.239	-0.058	74.425	0.000
		16 -0.284	-0.082	80.158	0.000
		17 -0.324	-0.061	88.357	0.000
		18 -0.355	-0.047	99.291	0.000
		19 -0.372	-0.029	112.83	0.000
		20 -0.379	-0.035	128.89	0.000
		21 -0.370	-0.008	146.81	0.000
		22 -0.347	0.003	165.62	0.000
		23 -0.314	-0.007	184.90	0.000
		24 -0.265	0.034	203.25	0.000
		25 -0.196	0.071	218.29	0.000

Correlogram of D(Real GNP)

















































Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
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		2 0.596	-0.009	29.188	0.000
		3 0.450	-0.023	35.783	0.000
		4 0.324	-0.036	39.361	0.000
		5 0.223	-0.022	41.136	0.000
		6 0.180	0.073	42.346	0.000
		7 0.053	-0.231	42.458	0.000
		8 -0.053	-0.068	42.571	0.000
		9 -0.171	-0.150	43.843	0.000
		10 -0.163	0.201	45.064	0.000
		11 -0.132	0.049	45.916	0.000
		12 -0.081	0.035	46.256	0.000
		13 -0.113	-0.180	46.974	0.000
		14 -0.086	0.107	47.423	0.000
		15 -0.126	-0.113	48.457	0.000
		16 -0.181	-0.178	50.791	0.000
		17 -0.237	-0.152	55.175	0.000
		18 -0.285	-0.164	62.246	0.000
		19 -0.269	0.266	69.309	0.000
		20 -0.255	-0.091	76.573	0.000
		21 -0.262	0.016	85.500	0.000
		22 -0.209	-0.000	92.360	0.000
		23 -0.188	0.046	99.304	0.000
		24 -0.165	-0.015	106.39	0.000
		25 -0.098	-0.053	110.12	0.000





















































## Correlogram of Real Public Savings



















































Correlogram of D(Real Public Savings)

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.089	0.089	0.2323	0.630
		2 -0.044	-0.052	0.2905	0.865
		3 -0.188	-0.181	1.4049	0.704
		4 0.104	0.141	1.7629	0.779
		5 0.102	0.068	2.1257	0.831
		6 -0.064	-0.116	2.2733	0.893
		7 -0.299	-0.251	5.6984	0.575
		8 -0.366	-0.344	11.105	0.196
		9 0.199	0.231	12.802	0.172
		10 0.115	0.013	13.400	0.202
		11 0.137	0.104	14.315	0.216
		12 -0.096	0.062	14.790	0.253
		13 0.007	-0.027	14.793	0.320
		14 0.116	0.007	15.611	0.338
		15 0.095	-0.147	16.206	0.368
		16 -0.056	-0.095	16.432	0.423
		17 -0.127	0.121	17.727	0.406
		18 -0.057	-0.018	18.021	0.454
		19 -0.060	-0.023	18.393	0.496
		20 -0.021	-0.089	18.445	0.558
		21 -0.041	-0.017	18.695	0.605
		22 -0.073	-0.077	19.656	0.605
		23 -0.020	-0.125	19.756	0.657
		24 0.031	-0.001	20.102	0.691

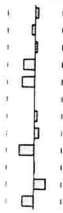
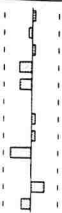
## Correlogram of Real Private Savings

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.776	0.776	18.120	0.000
		2 0.605	0.009	29.597	0.000
		3 0.490	0.046	37.446	0.000
		4 0.403	0.017	42.976	0.000
		5 0.290	-0.100	45.964	0.000
		6 0.246	0.096	48.213	0.000
		7 0.205	-0.013	49.851	0.000
		8 0.185	0.045	51.253	0.000
		9 0.095	-0.166	51.646	0.000
		10 -0.019	-0.163	51.663	0.000
		11 -0.097	-0.027	52.122	0.000
		12 -0.120	0.032	52.877	0.000
		13 -0.185	-0.104	54.785	0.000
		14 -0.210	0.001	57.453	0.000
		15 -0.226	-0.056	60.778	0.000
		16 -0.252	-0.086	65.307	0.000
		17 -0.281	-0.014	71.481	0.000
		18 -0.274	0.034	78.023	0.000
		19 -0.268	-0.006	85.038	0.000
		20 -0.299	-0.165	95.035	0.000
		21 -0.328	-0.080	109.07	0.000
		22 -0.319	0.009	124.98	0.000
		23 -0.292	0.011	141.63	0.000
		24 -0.276	-0.031	161.58	0.000
		25 -0.220	0.084	180.47	0.000


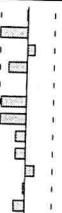
Correlogram of D(Real Private Savings)

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.001	-0.001	1.E-05	0.997
		2 -0.093	-0.093	0.2633	0.877
		3 -0.036	-0.036	0.3041	0.959
		4 0.101	0.094	0.6450	0.958
		5 -0.172	-0.182	1.6732	0.892
		6 -0.019	0.000	1.6857	0.946
		7 -0.225	-0.262	3.6272	0.822
		8 0.240	0.250	5.9558	0.652
		9 0.103	0.073	6.4142	0.698
		10 0.203	0.251	8.2924	0.600
		11 -0.038	0.011	8.3608	0.681
		12 -0.091	-0.205	8.7880	0.721
		13 -0.088	-0.028	9.2233	0.756
		14 -0.043	-0.195	9.3356	0.809
		15 -0.161	0.067	11.052	0.749
		16 -0.016	-0.036	11.071	0.805
		17 -0.080	-0.070	11.586	0.825
		18 -0.043	-0.210	11.757	0.860
		19 0.094	-0.070	12.685	0.854
		20 0.003	-0.055	12.686	0.890
		21 -0.092	-0.060	13.926	0.873
		22 0.001	0.129	13.926	0.904
		23 0.021	0.018	14.035	0.926
		24 -0.041	0.003	14.659	0.930

Correlogram of Residuals of Regression Equation of D(Real GNP) on D(Lagged Real GNS) and D(Lagged Real GNP)

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.049	0.049	0.0662	
		2 -0.042	-0.044	0.1175	0.732
		3 0.039	0.044	0.1653	0.921
		4 -0.168	-0.175	1.0699	0.784
		5 -0.187	-0.170	2.2454	0.691
		6 0.003	0.000	2.2457	0.814
		7 0.048	0.050	2.3328	0.887
		8 0.069	0.057	2.5200	0.926
		9 -0.217	-0.297	4.5140	0.808
		10 0.010	-0.003	4.5185	0.874
		11 0.170	0.196	5.9148	0.822
		12 -0.166	-0.139	7.3505	0.770

Correlogram of Residuals of Regression Equation of D(Real GNS) on D(Lagged Real GNP) and D(Lagged Real GNS)

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.013	-0.013	0.0046	
		2 -0.404	-0.404	4.7938	0.029
		3 0.104	0.110	5.1268	0.077
		4 -0.062	-0.273	5.2510	0.154
		5 -0.101	-0.001	5.5971	0.231
		6 -0.138	-0.375	6.2733	0.281
		7 -0.259	-0.383	8.7854	0.186
		8 0.175	-0.149	10.006	0.188
		9 0.247	-0.149	12.575	0.127
		10 0.080	0.134	12.861	0.169
		11 0.050	-0.029	12.983	0.225
		12 -0.136	-0.171	13.949	0.236


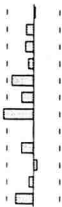
Correlogram of Residuals of Regression Equation of  $D(\text{Real Public Savings})$  on  $D(\text{Lagged Real GNP})$  and  $D(\text{Lagged Public Savings})$

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.192	-0.192	1.0327	
		2 -0.071	-0.112	1.1814	0.277
		3 -0.313	-0.367	4.1783	0.124
		4 0.061	-0.124	4.2986	0.231
		5 0.274	0.214	6.8303	0.145
		6 -0.194	-0.239	8.1644	0.147
		7 -0.091	-0.180	8.4742	0.205
		8 -0.452	-0.539	16.587	0.020
		9 0.422	0.009	24.083	0.002
		10 0.055	-0.165	24.217	0.004
		11 0.136	-0.078	25.110	0.005
		12 -0.142	-0.040	26.153	0.006


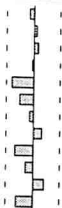
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Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.181	-0.181	0.9245	0.336
		2 0.018	-0.016	0.9338	0.627
		3 0.033	0.034	0.9669	0.809
		4 -0.012	0.001	0.9715	0.914
		5 -0.114	-0.120	1.4076	0.923
		6 0.120	0.080	1.9189	0.927
		7 0.075	0.120	2.1306	0.952
		8 0.080	0.129	2.3876	0.967
		9 -0.191	-0.182	3.9266	0.916
		10 0.053	-0.038	4.0515	0.945
		11 0.039	0.082	4.1265	0.966
		12 -0.169	-0.129	5.6138	0.934

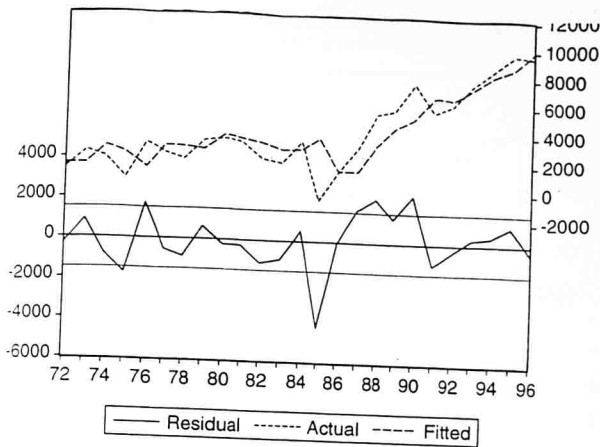
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Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.023	0.023	0.0149	
		2 -0.107	-0.107	0.3483	0.555
		3 -0.126	-0.122	0.8322	0.660
		4 -0.073	-0.081	1.0015	0.801
		5 -0.289	-0.325	3.8221	0.431
		6 -0.117	-0.180	4.3074	0.506
		7 -0.259	-0.448	6.8191	0.338
		8 0.224	-0.001	8.8033	0.267
		9 0.112	-0.178	9.3358	0.315
		10 0.239	0.056	11.907	0.219
		11 0.065	-0.059	12.112	0.278
		12 -0.059	-0.265	12.294	0.342

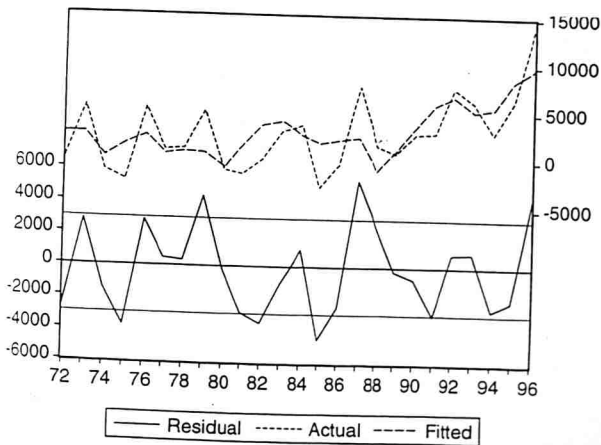
Correlogram of Residuals of Regression Equation of  $D(\text{Real GNP})$  on  $D(\text{Lagged Real Private Savings})$  and  $D(\text{Lagged Real GNP})$

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.065	-0.065	0.1195	
		2 0.050	0.046	0.1928	0.661
		3 0.063	0.070	0.3146	0.854
		4 -0.030	-0.024	0.3428	0.952
		5 -0.300	-0.314	3.3804	0.496
		6 -0.139	-0.204	4.0685	0.540
		7 -0.052	-0.051	4.1693	0.654
		8 0.052	0.127	4.2763	0.747
		9 -0.260	-0.265	7.1300	0.523
		10 0.086	-0.109	7.4638	0.589
		11 0.219	0.168	9.7859	0.459
		12 -0.223	-0.239	12.364	0.337

Residuals, Actual and Fitted Values of Regression Equation of  $D(\text{Real GNP})$  on  $D(\text{Lagged Real GNS})$  and  $D(\text{Lagged Real GNP})$

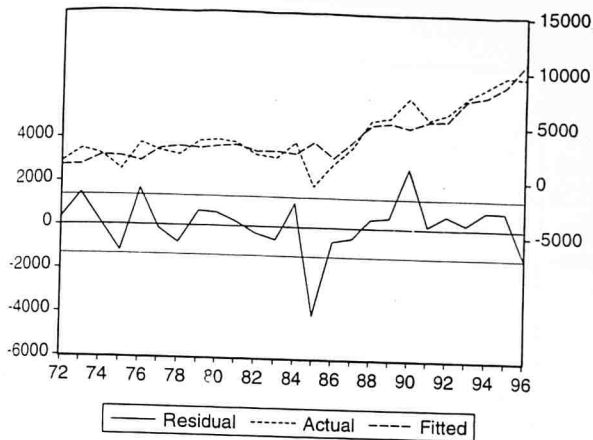


Residuals, Actual and Fitted Values of Regression Equation of  $D(\text{Real GNS})$  on  $D(\text{Lagged Real GNP})$  and  $D(\text{Lagged Real GNS})$

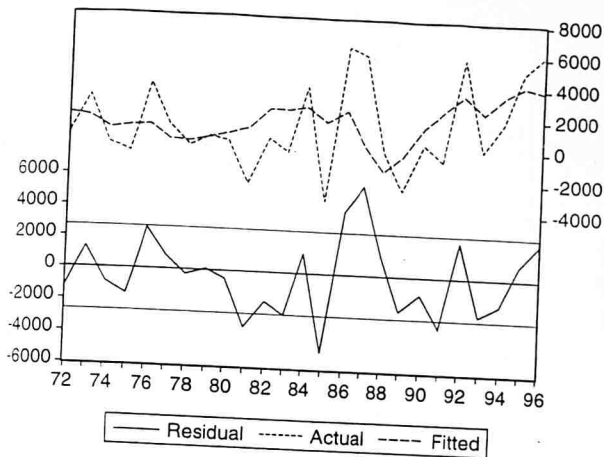




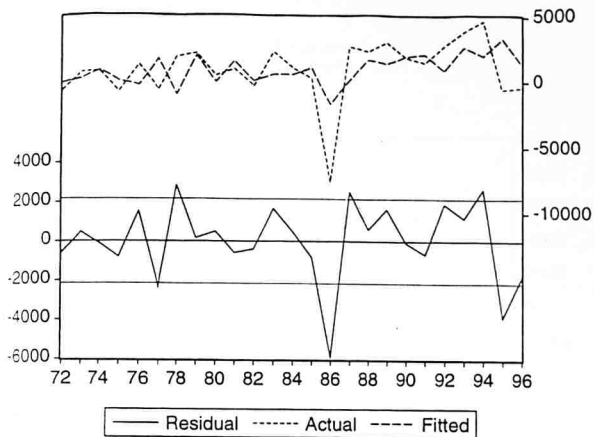
Residuals, Actual and Fitted Values of Regression Equation of  $D(\text{Real GNP})$  on  $D(\text{Lagged Real Private Savings})$  and  $D(\text{Lagged Real GNP})$



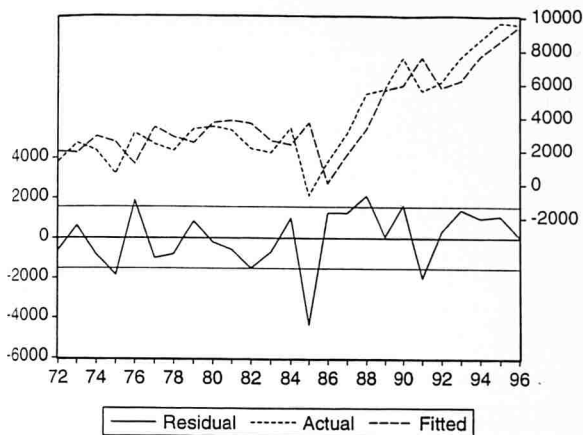
Residuals, Actual and Fitted Values of Regression Equation of  $D(\text{Real Private Savings})$  on  $D(\text{Lagged Real GNP})$  and  $D(\text{Lagged Real Private Savings})$



Residuals, Actual and Fitted Values of Regression Equation of  $D(\text{Real Public Savings})$  on  $D(\text{Lagged Real GNP})$  and  $D(\text{Lagged Public Savings})$



Residuals, Actual and Fitted Values of Regression Equation of  $D(\text{Real GNP})$  on  $D(\text{Lagged Real Public Savings})$  and  $D(\text{Lagged Real GNP})$



**MIER**  
**1997 NATIONAL OUTLOOK CONFERENCE**

Shangri-La Hotel, Kuala Lumpur  
2-3 December 1997

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**Loans and Industrialisation in Malaysia**

by

Rajah Rasiah



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

# LOANS AND INDUSTRIALIZATION IN MALAYSIA

## 1. INTRODUCTION

Malaysia is arguably one of the best resource rich Asian examples of late industrialization efforts. With Thailand and Indonesia, until the financial crisis struck in mid-1997, it was hailed as having better replicative attributes than the Northeast Asian economies by the World Bank (1993). The rapid growth that lasted since 1987 has been explained by liberalization. Manufacturing output, employment and exports grew sharply in the period. The sector which had initially overtaken agriculture to become the leading value added generator in GDP in 1984, expanded its share in GDP to 34 percent in 1996 making it one of the most industrialized economies in the world. Manufacturing exports in overall exports grew to almost 80 percent in 1996.

This paper attempts to examine the structure of loans in the growth of manufacturing. The analysis looks at both inter-sectoral and intra-sectoral flow of loans. It does not, however, undertake to establish an exhaustive relationship between loans and industrial structural change. Such an assessment would require an analysis of the relationship between the regulatory framework on loans, controlling for other effects, on the performance of manufacturing firms, which is not possible due to data constraints.

## 2. ANALYTICAL FRAMEWORK

Finance is an important topic in industrialization. Much of the earlier work by macroeconomists have focused on the generation of adequate amounts of investment. The direction of capital flows has long been regarded as a necessary pre-condition to engender growth in the developing economies. The successful growth of the export-oriented high performing economies of East Asia has largely destroyed the delinking school which advocated self-reliant inward-oriented policies as the key to achieve rapid growth. The concerns raised by such economists have, however, continued to influence export-oriented policy making. The demise of trade and foreign capital pessimists, have turned the debate effectively into a two school race between the neoclassicals and Keynesians. The influence wielded by the powerful neoliberal international institutions such as the World Bank and the International Monetary Fund and the decline of the Keynesian doctrine especially from the early 1970s following rampant stagflation, however, maintained greater support for the former.

To neoclassical economists a rise in savings and a positive savings-investment balance along with a liberal allocative environment will stimulate economic growth. It has been argued that policy neutrality (Bhagwati, 1979; Balassa, 1982; Krueger, 1983) and the generation of high savings from high interest rates formed the basis of South Korean industrialization (McKinnon-Shaw, 1980). Later works by Leudde-Neurath (1986), Deyo (1987), Amsden (1989) and Chang (1994) showed convincingly that neither features dominated South Korea's movement up the

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The collapse of the Philips curve, which posits an inverse relationship between inflation and unemployment, from the 1970s undermine the Keynesian doctrine. The rise in inflation and unemployment especially after the first oil shock of 1973 saw the replacement of Keynesian policies with monetarist ones in many of the developed economies. Japan and Germany were the only exceptions. The latter under the centre right Christian Democrats has, however, joined the fray. With the exception of the United States and United Kingdom which pay relatively low wages by developed standards, unemployment has continued to rise in most of the developed economies despite low interest rates.

industrial trajectory. Indeed preferential credit with minimal real interest rates facilitated by state subsidization of loans borrowed from abroad assisted the development of South Korean industry. Industrial policy – through extensive foreign borrowing and a highly distortionary credit control mechanism – formed the pillar upon which much of the sources and direction of finance was determined. While foreign loans were less important in Taiwan, financial governance was still important which helped ensure the flow of scarce capital to the productive sectors (Wade, 1990). In both economies discipline mechanisms prevented large scale dissipation of rents. Like any strategy and plan, improperly designed industrial policy can fail as evidenced by the examples of India, Turkey and Egypt. Given the structural variances between economies, no two economies can possibly develop adequately with an identical industrial policy. However, Little's (1984) and Sach's (1995) crusade to throw up failures to discredit industrial policy misses an important message. There exists no example of a structurally typical economy that has managed to industrialize without at least some elements of industrial policy. Instead, the recognition of industrial policy failures should compel policy makers to formulate more rigorously strategies than before.

Keynesians approach the economic puzzle differently, taking the opposite view that demand has to be stimulated to achieve full employment. While emphasizing savings and the need to minimize the savings-investment gap, Keynesians regarded investment as the dynamic variable in economic growth. Keynesian macroeconomics received some support from the experience of fast developing economies as they show a trend rise in gross fixed capital formation (GFCF) in Gross Domestic Product (GDP) (see Figure 1). Recognizing that economies can achieve a state of equilibrium without full employment, Keynes (1960) prescribed initiatives to avert demand constraints.<sup>2</sup> Since additional investment cannot come from necessary consumption (see Kalecki, 1976), it will have to come from three broad sources, *viz.*, trade balances, foreign direct investment and loans. For developing economies, the first is often insufficient to meet the broad needs of promoting growth in developing economies at least initially. The second draws implications of control and intersectoral linkages with the domestic economy. Loans inevitably become an important source of finance. Firms in early developers, especially those engaged in scale intensive and innovative ventures, are often faced with substantial risks and lumpiness. Measures of credit worthiness if left to private banks will generally address current collateral which will inevitably disqualify entrepreneurs potentially capable of developing successfully lucrative industries. Inherent imperfections in credit mechanisms often make prioritization necessary (Stiglitz and Weiss, 1981; Singh, 1997). Market failures will be even more serious in developing economies due to serious information asymmetries. Interventions, however, will inevitably raise the incidence of government failure as bureaucratic legislation is often not the result of a careful scrutiny of markets. Japan, South Korea and Taiwan demonstrate examples of effective coordination between markets and governments so that their generally complementary role reduced failures.

This paper attempts to examine the regulatory framework of credit flows in the country to assess the relationship between the two. It, thus, attempts to depart from typical macroeconomic assessments which appraise the efficiency of regulatory frameworks against a supposedly efficient framework generated from a stylized neoliberal framework. It, however, does not attempt an assessment of performance typical of industrial organization analyses as too many variables influence the latter.

<sup>2</sup> Interestingly the developing economies are undergoing a different kind of demand constraint now as unemployment rates continue to soar (see Eatwell, 1996).

### 3. REGULATORY FRAMEWORK OF BANK LOANS

Given imperfections associated with markets, and the differential returns that characterize different sectors, credit allocation activities in Japan and the Asian NIEs have often involved prioritization. Where activities involved increasing returns and complementary roles, subsidization of interests or mechanisms that offered discounts rates higher than interest rates were instrumental in the promotion of structural change. In the absence of rents,<sup>1</sup> private capital will be unlikely venture into risky and lumpy activities. The role of productive rents become even more necessary in early industrializers where private firms generally lack adequate collateral and as the risks of failure are higher than firms in developed economies. The case of intervention is economically justifiable when social returns exceed private returns (Arrow, 1962). The regulatory framework in Japan, South Korea and Taiwan exercised substantial interest rate variations to direct adequate levels of loans to productive investment. Collateral was redefined to assist small and medium size and innovative firms. Did Malaysia imitate a similar regulatory framework? The question becomes particularly pertinent as the Look East Policy launched in 1981 specifically targeted Northeast Asian economies for replication.

Loans have been vital in mobilizing development finance, though its share has fallen slightly since 1990 following expansion of capital markets (Bank Negara, 1996: 148).<sup>2</sup> Loans and advances as a share of GNP at purchasers value rose from 133.2 percent in 1992 to 184.8 percent in 1995. The increased pace of investment which rose faster than savings reproduced another savings-investment deficit in the period 1990-95 as in the early 1980s. The savings investment gap widened from 4.0 percent in 1990 to 9.0 percent of GNP in 1995 (Bank Negara, 1996: Table A6).

Regulation through Bank Negara has generally assumed strong policy directives since the launching of the New Economic Policy in 1971. Ethnic restructuring considerations had an important influence on regulation since, but state sponsorship was initially targeted primarily to agricultural and mining activities. Manufacturing support was mainly taken up by small and medium businesses. Bumiputera interests entered strongly into large scale state-sponsored manufacturing financing from 1981. Credit allocation in the country was certainly characterized by substantial distortions. State sponsored heavy industries under HICOM accessed loans from Bank Bumiputera Malaysia Berhad and Bank Simpanan Nasional with government guarantees. Small and medium scale firms, and those dominated by Bumiputera equity also accessed preferential loans and interest rates.

Export promotion, especially after some ethnic deregulation following amendments to the Industrial Coordination Act in 1986 which raised the registration requirement to RM2.5 million, spread interest subsidies to non-Bumiputera and foreign interests. The export credit refinancing (ECR) scheme which came into existence since 1979 and later made more lucrative following the enactment of the Promotion of Investment Act (PIA), offered discounts over prevailing market interest rates to stimulate exports. Policy directives ensured that these instruments absorbed substantial loans.

The preferential ECR rates offers exporters finance cheaper than market rates (see Table 1). The actual lending rates of commercial banks and finance companies will

<sup>1</sup> Rents (or abnormal profits) are defined as returns that arise when transaction prices exceed (to sellers) or fall below (to purchasers) opportunity costs which is the market clearing rate (Marshall, 1920). The market clearing rate is the equilibrium rate when perfect competition conditions exist. Since perfect competition is only a hypothetical situation, the concept of rents in economics has generally remained an abstract one.

<sup>2</sup> Loans and advances as a proportion of finance in Malaysia only fell fractionally from 42.2 percent in 1992 to 42.0 percent in 1996 (Bank Negara, 1996: Table A.37).



be higher than those shown. Exporters obviously have particularly since 1997 when the scheme was introduced enjoyed positive supports as they could access refinancing credit at lower than market rates. The Malaysia Export Credit Insurance Berhad (MECIB), which was established in 1988 and owned by Bank Industri, offered 85 percent of gross value insured against non-payment risk by foreign importers, as well as, guaranteed commercial and other financial firms against export-related working capital loans granted to direct and indirect exporters through the Banker's Export Finance Insurance Policy (BEFIP) (Bank Negara, 1992: 144). In 1992 alone the MECIB issued 107 new policies valued at RM823 million. Policies still operational in 1992 was 353 valued at RSM2820 million.

Table 1  
Interest Rate Differentials, Malaysia, 1990-94

	Export Credit Refinancing	Commercial Bank (Average Base lending rate)*	Finance Company (Average Base lending rate)*
1990	5.0-6.0	7.5	9.0
1991	7.0	9.0	10.0
1992	7.0	9.3	10.6
1993	7.0	8.2	10.0
1994	5.0-6.5	6.8	8.4

Note: \* - The actual lending rate will be higher.

Source: Bank Negara, *Quarterly Economic Bulletin*, Various issues; Income Tax Department (Unpublished data).

The Credit Guarantee Corporation (CGC), started in 1972, offers institutional credit to small and medium scale firms. The CGC guarantee acts as a collateral for commercial bank loans. *Bumiputeras* enjoy special access to such loans. Of its RM3.58 billion loans approved in 1996, 77.2 percent went to businesses in the commerce and trade sector (Bank Negara, 1996: 207). Manufacturing accounted for 21.4 percent of the CGC guaranteed loans. Overall, 25 percent of the loans went to *Bumiputeras*. The risks associated with manufacturing and the lack of past experience were the prime reasons as to why the uptake of loans by manufacturing firms has been much smaller than business services.

Industrial finance firms also increased their support for manufacturing firms. The Industrial Adjustment Fund of RM500 million was launched in 1991 through three financial institution. The Malaysian Industrial Development Finance, for example charged an interest rate of 6.5 percent per annum to SMIs for finance drawn from the Overseas Economic Cooperation Fund (OECF) of Japan. Bank Industri and Bank Pembangunan charged interest rates at 6.5-9 percent and 6-9 percent per annum respectively in 1992 (Bank Negara, 1992: 146-7). The uptake has, however, been relatively low, even though, interest rates charged were lower than commercial market rates, which can be explained by cumbersome processing and the incapacity of SMIs to submit concrete proposals.

The regulatory mechanism did not however, limit prioritization to export-oriented manufacturing and state sponsored and private *Bumiputera* manufacturing ventures. Preferential interest rates were also extended to first house purchasers in the small and medium categories, agricultural processing and exports and services. Increased emphasis along with expansion in export-oriented industries drew a substantial share of overall loans and advances to the manufacturing sector. Rising prices primarily caused by heavy growth concentration in major industrial belts raised loans to the property sector as well. The regulatory framework on loans framework did not discourage, and in that way did not create disincentives on manufacturing. The justification used varied with the industrial structure, e.g. SMIs, scale effects and innovative activities.

The regulatory framework in Malaysia, however, lacked effective screening and discipline mechanisms. Where competition offered the gales of destruction in open economies (Schumpeter, 1987), its initial rarity was complemented by disciplinary mechanisms in Japan and South Korea. Export targets, liquidation and increased investments on human resource development requirements were imposed on South Korea firms enjoying privileged access to tariff, quota and subsidized interest charges on loans. Inefficient firms, thus, quickly lost the rents whenever they failed to meet the stringent targets. In the late 1990s, however, similar rent access has failed as liberalization from the late 1980s reduced similar rent access opportunities and discipline measures. A number who enjoyed latecomer rents have either failed to improve efficiency or have been charged with "unfair business" practices. Thus, a number of politically connected South Korean firms have gone bankrupt.

Priority loans in Malaysia were, *inter alia*, targeted to both state-sponsored and other industries, a number of which were directed to capitalize potentially successful manufacturing firms. Where firms lacked collateral of their own, the government either directly or through complementary legislation lowered the market requirements for approval and allowed lower interest rates. Failing firms, however, have either been revamped or maintained. For example, Perwaja still made a loss of RM2.9 billion in 1994 even after its debts were written off in 1988. Yet the firm remains without any clear direction now. While Proton has made substantial profits, anecdotal evidence suggests that much of it could have come from consumer transfers (Rasiah, 1997). Its export share in sales has begun to fall from 1993 after a rise in limited subsidized exports. Continued exports may face serious problems after 2003 as the Anti dumping regulations contained in the World Trade Organization stipulates alternative measures that considers prices in overseas markets to equal domestic prices minus transport costs (Rasiah *et al*, forthcoming).

#### 4. STRUCTURE OF BANK LOANS

The interest on manufacturing can be partly viewed from the share of loans advanced to the sector in the period 1976-95 (see Table 2). It is of course not sufficient to draw conclusions on whether the government stimulated the flow of capital to manufacturing. The discussion in the preceding section does, nevertheless, offer anecdotal evidence to suggest some influence from the government. It can also be seen that lax controls on capital flows has increased the flow of loans to speculative and the public good oriented property sector. Government regulation and the peculiar form of privatization that has generated alliances between powerful politicians and big capitalists has limited the distribution public good rents among a handful, thereby raising suggesting market concentration and its consequent high prices and lower quality.

Loans to manufacturing amounted to 17.1 percent of overall loans in 1976 (see Figure 2), which placed it as the second highest. Commerce enjoyed the highest share of loans in the period 1976-80. Manufacturing loans became the highest following the launching of heavy industries in 1981. Its share fell from then on gradually so that commerce overtook it in the years 1985-86. Building and construction which enjoys a lagged demand function of GDP, grew until 1988 cutting into the shares of manufacturing and commerce. Loans to manufacturing picked up strongly from 1988 to reach 24.2 percent of overall loans in 1995. (Put real growth rates using deflators).

The growth patterns again do not show an obvious correlation between government intervention and loans to manufacturing. The second half of the 1970s was characterized by government regulation of equity shares ethnically following the Industrial Coordination Act of 1975. Inward-oriented foreign firms, i.e. firms that

largely sold in the domestic market were also subjected ICA regulations which required 30 percent equity outlay to *Bumiputera* interests. Exporting firms, primarily those located in Free Trade Zones (FTZs) and Licensed Manufacturing Warehouses (LMWs) were generally exempted from ownership regulations. Intel, Advanced Micro Devices, National Semiconductor, Motorola, Penfabric and Kanebo were some of the many firms exempted from ownership regulations. The ICA regulation, however, did have a bearing on the capital structure of inward-oriented firms, many of which expanded their liabilities through loans instead of holding bigger equity. Thus, loans to manufacturing grew in the period 1975-80, though overall fixed assets fell in the period (Rasiah, 1995: chapter 5).

The period between 1980-85 saw strong government encroachment into manufacturing, which magnified the inflow of loans into the sector. Heavy industries accounted for the lions share of new investment in this period. Although export-oriented industries such as electric/electronics experienced a 2-3 year boom in the early 1980s, the main thrust of the growth in manufacturing loans in this period came from direct government intervention. Clearly the country's factor endowments did not support heavy industrialization. Even automobile assembly was started with a management and workforce which did not have past experience in the field (Rasiah, 1997).

Burgeoning imports, rising external debt service problems and a cyclical downturn in key export-oriented industries such as electric/electronics arrested manufacturing and GDP growth in the mid-1980s. The savings-investment gap had worsened in the first half of the 1980s as import-driven investment growth began to sap the economy. Foreign share of fixed assets hit its trough of 18 percent in 1985 (see Rasiah, 1997: chapter 5). Manufacturing loans in overall loans showed a trend fall between 1982-85 (see Figure 2). Loans to manufacturing, however, continued to rise (see Table 2). Overall loans rose sharply until 1985 before slowing down until 1988 before increasing sharply again from 1989-95. The initial experience of state sponsored heavy industries that relied heavily on loans was dismal as everyone of them faced operation losses by the mid-1980s (see Khor, 1985). The poorly performing loans guaranteed by the government aggravated the fiscal deficit.

The mid-1980s recession, nevertheless, was quickly overcome through a combination of external developments, as well as, fiscal and monetary reforms. Massive flows of especially foreign capital from Japan and the Asian NIEs following the Plaza Accord of 1985 which forced an appreciation of their currencies and the withdrawal of the GSP from the latter in February 1988 revived growth. The share of foreign capital in fixed capital formation rose from 10.8 and 10.5 percent in 1976-80 and 1985-90 respectively to 24.6 percent of gross fixed capital formation in 1991-93 (UNCTAD, 1996). The share of foreign ownership of fixed assets rose from 18.0 percent in 1985 to 50.0 percent in 1990 (Rasiah, 1995: chapter 5). Generous reforms that increased incentives in the form of tax holidays and subsidized credit following the Promotion of Investment Act (PIA) of 1986 stimulated manufacturing growth further (see also Table 1). The share of loans to manufacturing rose strongly in the late 1980s (see Figure 2). The registration floor was raised to RM2.5 million in 1986 which stimulated equity expansions in non-Bumiputera firms.

The demand for loans began to rise strongly as rapid growth set in since 1988. Construction and real estate, and manufacturing enjoyed the fastest growth. From the early 1990s, construction and real estate began to record the highest growth in loans. A large portion of manufacturing loans went to state controlled heavy industries. Loans to export-oriented subcontract firms in particular began to rise since the late 1980s. State sponsored heavy industries achieved mixed results. Rent sapping Proton and cement manufacturing began to enjoy profits especially after 1989. Perwata, however, posted a massive loss of RM2.9 billion in 1994 even after

the government had written off its earlier debt in 1988.

The 1990s continued to experience a massive flow of loans to manufacturing. This period also saw construction and real estate recording the fastest growth in loans. Policy targeted loans under the CGC and ITAF schemes recorded strong growth. Local private firms too accessed loans for purposes of expansion and diversification. For example Sapura Holdings and Unisem began to diversify and expand into state of the art assembly activities respectively. Relatively low interest rates, both subsidized and those governed via the BLR of Bank Negara encouraged borrowing in this period. Buoyant growth in Southeast Asia also attracted foreign funds, including speculative funds.

Growth in the 1990s, however, was driven strongly by processing and assembly of imported inputs so that the balance of payments began to worsen strongly. Massive imports by the construction sector aggravated the problem. The savings-investment gap which was overcome quickly in the second half of the 1980s, began to widen again in the 1980s. Serious labor shortages and infrastructural shortfalls clearly demonstrated that the economy was overheating in the 1990s. The slow shift to industrial deepening in the face of rising production costs and high labor turnovers began to slow down the rate of growth of manufacturing in 1997. The subsequently falling business confidence was followed by a speculative attack on the ringgit which followed the bhat crash. The fall in the ringgit and stocks generated fiscal and monetary responses that, *inter alia* increased the already rising interest rates. A clear slowdown in manufacturing appears imminent now. The falling ringgit has helped exports little as much of export assembly and processing relies on imported inputs.

## 5. IMPLICATIONS FOR STRUCTURAL CHANGE

It is difficult to establish the extent to which loans played a critical role in the relative speeds of growth and structural change in the manufacturing sector. The share of loans in the biggest industry, i.e., electronics has generally been low (see Table 3). More importantly loans role should examine alongside the performance of firms using them strongly vis-a-vis those using them mildly. Since loans were instrumental in stimulating some expansion in manufacturing, either directly to principal firms or to their suppliers, some link between the two can be made. Given the dominance of foreign direct investment in manufactured export growth in Malaysia, it can be intuitively argued that loans especially in foreign owned firms are generally a function of firms growth. The converse should be the case with state supported heavy industries. Nevertheless, at most this section only attempts to examine whether there exists a correlation rather than causation between the variables, i.e. structure of loans and structural change. Given the lack of sufficient information to control for other effects, the exercise has avoided econometric assessments

Table 4  
Fixed Capital, Employment and Output Structure of Manufacturing, Malaysia, 1968-90

Industry	Fixed assets				Employment				Output			
	1968*	1973	1979	1990	1968*	1973	1979	1990	1968*	1973	1979	1990
Food	14.3	18.7	20.7	9.9	11.1	14.7	13.6	10.4	18.9	16.6	27.7	16.7
Beverages and tobacco	6.8	4.0	4.3	1.7	6.7	4.6	3.1	1.4	7.7	5.1	3.7	2.0
Textile and garment	3.6	10.0	11.7	4.4	5.4	13.1	14.1	14.3	2.7	8.5	6.1	5.5
Wood	6.4	12.0	9.4	5.0	19.1	15.8	13.4	12.6	6.8	10.5	7.9	5.5
Chemicals	12.1	7.6	5.6	13.5	4.0	3.8	3.7	3.1	5.7	5.2	4.7	6.9
Rubber	1.2	6.3	6.4	6.6	19.1	9.6	8.0	8.2	18.4	14.6	9.6	5.5
Non-metal minerals	10.5	8.2	8.4	9.3	14.0	10.0	9.7	5.1	3.2	3.1	3.0	3.3
Iron and steel	0.9	5.2	2.5	6.7	2.9	2.4	2.1	1.9	1.0	3.1	2.0	4.1
Metals	9.7	4.9	4.2	4.7	7.4	7.3	5.3	5.3	25.3	19.7	10.8	3.1
Machinery	1.9	3.4	2.1	3.5	4.3	5.2	3.7	3.8	1.7	2.6	2.4	4.7
Electric/electronics	2.5	4.7	8.4	16.8	2.0	9.9	19.3	30.2	1.6	5.2	12.6	25.4
Transport equipment	4.7	2.5	5.2	3.1	3.5	3.4	4.0	3.6	2.2	2.6	2.7	4.8

Note: \* - Peninsular Malaysia only.  
Source: Rasiah (1995a: Table 5.3)

Table 5  
Structure of Manufactured Exports, 1973-95 (%)

	1973	1980	1985	1990	1995
Food	19.6	5.7	6.2	3.8	1.8
Beverages and tobacco	2.9	0.3	0.2	0.2	0.3
Textiles, clothing and footwear	6.1	10.5	11.9	8.8	4.6
Wood	9.7	5.7	3.2	3.4	4.4
Chemicals	5.2	2.0	3.8	2.9	4.0
Rubber	1.7	1.0	1.0	3.0	2.3
Non-metallic mineral	1.1	0.7	1.1	1.7	1.2
Iron and steel	1.9	0.4	1.2	1.4	0.9
Other metals	43.3	31.5	2.0	2.2	2.5
Machinery	3.8	2.6	5.8	8.1	13.2
Electrical machinery	2.1	32.8	51.4	50.5	67.5
Transport equipment	2.7	2.6	5.0	4.3	3.7
Other manufactures					
Total	100.0	100.0	100.0	100.0	100.0

Source: Rasiah (1995: Table 5.7; Malaysia (1996: Table 1).

## 6. Conclusion

References (to be completed later)

**Figure 2: Loans to Manufacturing,  
Malaysia 1976-95 (%)**

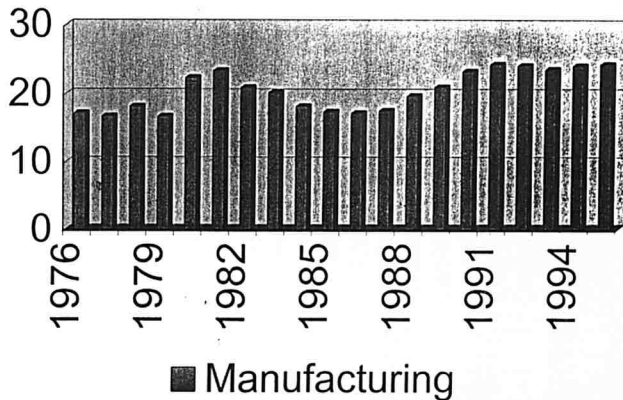


Table 2. Sectoral Distribution of Loans and Advances, 1976-95

Sector	1976	1979	1982	1985	1988	1990	1993	1995
Agriculture	535.8	1,013.0	2,134.4	3,936.3	3,092.60	4,238.3	4,479.8	3,870.20
Mining and Quarrying	105.7	122.6	494.5	na	791.6	833.4	702.2	885.5
Manufacturing	1,382.0	2,564.7	6,190.0	8,583.9	11,174.1	18,743.7	26,158.8	42,410.10
Electricity	na	na	143.7	126.9	102.3	202.4	682.4	3,580.60
General commerce	2,172.3	4,395.9	6,137.9	8,752.0	9,577.00	11,642.6	13,143.8	19,075.40
Building and construction	503.1	1,074.0	1,859.7	3,697.0	4,225.3	5,515.30	9,259.7	14,086.80
Real estate	303.2	769.3	3,660.0	6,992.2	8,033.70	9,101.8	11,502.1	15,874.70
Housing	668.1	1,648.8	3,497.8	6,306.3	7,713.3	9,588.6	13,168.3	16,401.80
Transport, storage and communications	119.8	337.3	715.2	773.2	834.10	1342.4	1792.3	2,992.00
Financing, insurance and business services <sup>3</sup>	559.2	652.4	2739.9	5,809.2	5,806.90	9,115.3	15,690.3	23,766.20
Miscellaneous	1,712.2	2,806.6	2,092.5	4,512.3	5,486.7	10,434.2	14,731.8	32,064.20
Total	8061.4	15384.6	29665.6	49489.3	56837.6	80758	111311.5	175007.5

Source: Bank Negara, Quarterly Economic Bulletin, various issues.

Table 3: Loans and Advances to Manufacturing, 1976-95 (%)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Rubber processing and rubber products	6.2	4.7	4.9	5.2	5.4	5.1	5.4	5.5	4.7	4.6
tin	0.1	0.5	0.6	0.2	0.3	0.7	1.2	0.5	0.4	0.7
Palm oil processing	5.6	5.7	5.8	7.2	8.2	7.9	8.3	8.8	7.8	7.9
Food, beverages and tobacco	9.1	7.8	10.5	9.6	10.4	10.4	10.9	10.8	11.1	9.9
Textiles and wearing apparel	14.4	12.8	11.8	10.4	11.8	10.3	10.3	9.5	9.2	7.9
Wood and wood products	5.0	5.9	5.7	5.6	9.2	9.3	10.2	10.5	11.9	11.2
Paper and paper products	na	na	na	na	0.7	1.1	1.2	1.3	1.8	1.9
Printing and publishing, etc	4.0	4.4	5.9	5.7	4.2	4.0	4.1	4.4	4.8	4.9
Industrial chemicals	na	na	na	na	2.6	3.1	2.9	2.7	3.2	3.0
Soaps, cosmetics and toiletpreparations	na	na	na	na	0.9	0.7	0.8	0.5	0.4	0.4
Petroleum products	na	na	na	na	3.1	7.9	3.1	5.0	0.6	0.5
Plastic products	na	na	na	na	1.9	2.0	2.4	2.8	2.7	2.8
Building materials	8.4	8.0	8.5	9.8	5.2	4.6	4.8	5.0	6.6	7.6
Iron and steel products	na	na	na	na	4.6	5.4	6.3	6.2	5.3	5.9
Metal products	na	na	na	na	6.0	5.0	5.3	4.5	5.5	5.4
Machinery (non-electrical)	na	na	na	na	2.0	2.3	1.5	2.2	1.8	1.4
Electrical machinery and appliances	na	na	na	na	5.0	6.3	5.1	4.6	5.2	5.6
Transport equipment	na	na	na	na	5.4	6.4	5.7	5.6	6.5	7.0
Other	47.3	50.1	46.3	46.3	13.1	7.4	10.8	9.7	10.4	11.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



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**FOREIGN PORTFOLIO INVESTMENT AND  
MARKET STABILITY**

by

Yeah Kim Leng  
Wong Chee Seng



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

## FOREIGN PORTFOLIO INVESTMENT AND MARKET STABILITY

### 1. INTRODUCTION

Until recently, many Asian countries including Malaysia have attracted impressively large inflows of foreign financial capital. Though inevitable as a country liberalises its capital markets and financial sector, the cost and benefits and more importantly, the ability to buffer against the potentially destabilising effects of volatile portfolio flows, have received widespread international attention following the contagion effects of the July 2 Thai baht devaluation and the spillover of Hong Kong stock market crash to the world's major markets in October this year. The 1997 East Asian financial crisis, currently being played out, is yet another episode in the history of international capital flows which show strong tendency to oscillate between boom and crisis, amplified by changes in investors' perceptions that are not fully justified by the underlying fundamentals.

There is little doubt that sustained portfolio investment inflows increase the recipient country's financing capacity. However, the vagaries of the portfolio flows need not much an introduction as the Asean and East Asian economies are presently experiencing the economic consequences of a reversal.<sup>1</sup> Countries that have large stocks of foreign portfolio investment are therefore highly vulnerable to the "portfolio switching" activities of international investors moving from one market to another in search of higher gains. Evidence of the inverse relationship between total portfolio flows to Asian emerging stock markets and those in Latin America lends support to the adverse side-effects of increased integration of global capital markets.<sup>2</sup> Several econometric studies have also suggested that cyclical external factors account for some 30-50% of the variation in private capital flows to developing countries.<sup>3</sup>

One of the frequently cited episodes of the destabilising effects of short term capital flows is the devaluation and float of the Mexican peso in December 1994 and its contagion effects on the other Latin American countries. Closer to home is the 'domino' impact of the forced devaluation of Thai baht following a financial crisis that has its roots in unsustainable short term capital inflows. The other Asean currencies were eventually forced to devalue sharply following short-lived government interventions that included interest rates hikes. The economic impact of the Thai economic and financial crisis is still being felt throughout the region.

Capital inflows to Malaysia and to other Asian economies have been large and persistent especially since 1989. Prior to 1985, short term capital inflows to Malaysia were relatively insignificant. In 1992, the influx of foreign capital rose from 7.5% of GNP in 1992 to 14.8% of GNP in 1995. By contrast, in the last ten years preceding the recent surge, an average of less than 4% of GNP was recorded annually. Among middle income countries, Malaysia was characterised as the largest recipient in relation to the size of the economy. For example, in 1995, Indonesia received a total private capital inflow of 6.2% of GNP, Mexico 4.3% and Argentina 3.6% compared to 14.8% in Malaysia.<sup>4</sup> This reflects in part the growing

<sup>1</sup> Capital inflows create problems similar to the traditional "Dutch disease" associated with mineral/oil discoveries and commodity booms.

<sup>2</sup> Sudarshan, 1994

<sup>3</sup> IMF 1994

<sup>4</sup> The World Bank, Debtor Reporting System, 1996

diversification from domestic to foreign assets and the huge expansion in institutional assets by major financial institutions such as pension funds, insurance companies and investment funds in the industrial countries.

The increasing integration of international capital markets and its accompanying market volatility has presented new and important challenges for policy makers and the private sector. As underscored by the financial crises in Latin American in 1994 and in Southeast Asia and East Asia currently, the effects of unbridled short term foreign capital inflows in increasing financial risks lend new urgency to ongoing regulatory efforts to strengthen the supervision of banks and other financial institutions.

Concerns over the structure of capital flows to developing countries is a familiar issue. In this paper, we first review the trend and structure of foreign portfolio flows to Malaysia. We then investigate the impact of these flows on the stability and efficiency of the Malaysian financial markets. We use GARCH<sup>3</sup> to estimate the conditional volatility of selected key macroeconomic parameters and VAR<sup>4</sup> techniques to provide some indicative impacts on the financial system. Finally, we draw some conclusions on how to deal with the inflows and to minimise some of their adverse effects.

## 2. TRENDS AND STRUCTURE OF FOREIGN PORTFOLIO FLOWS

### *Overall Capital Inflows*

Syndicated bank loans had been the principal source of foreign capital inflows in the 1970s and early 1980s. In the 1990s, foreign direct investment and portfolio capital flows accounted for most of the inflows in the 1990s. One noteworthy aspect was the prominence of private sector borrowings which accounted for some 60% of all new loans in both 1995 and 1996. Although disaggregated data on the capital account are quite deficient particularly in the area of the geographic origins and destination of international capital transaction, it is clear that long term flows, particularly direct investment remained an important factor in explaining foreign capital inflows into Malaysia.

Recently there has been a marked shift in composition of net private capital flows (see Chart 1). Foreign direct investment declined in both nominal and real terms in the first half of this year while borrowings through commercial bank loans showed a modest rise. Roughly half of the new lending is project financing, of which the major part goes to support infrastructure development.

In fact, the capital account surplus (including net errors and omissions) increased from RM4.71 billion in 1986 to RM6.48 billion in 1990 and further to RM8.02 billion in 1996. On average, we accepted around a quarter of the transfer accomplished by a current account deficit in balance of payment while the other half or slightly more went into the build-up of foreign exchange reserves. Over the same period, Bank Negara Malaysia's international reserves increased from RM4.08 billion to RM5.36 billion in 1990 and to RM6.25 billion in 1996. The sharp increase in official reserves indicates that the central bank intervened quite heavily in

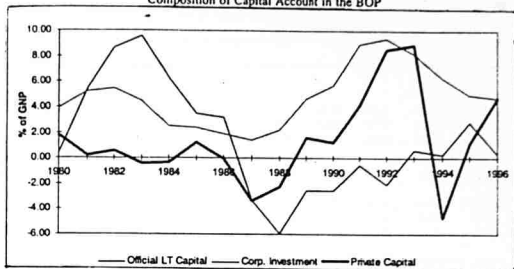
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<sup>3</sup> Generalised Autoregressive Conditional Heteroscedasticity. Under the classical assumptions, the disturbances ( $\mu_t$ ) in the regression model have a constant variance both unconditionally and conditionally. For a useful survey of the literature of ARCH and GARCH modelling, see Bollerslev et. al (1992).

<sup>4</sup> Vector Autoregressive Model

the foreign exchange market to keep nominal exchange rates from appreciating significantly.

Chart I  
Composition of Capital Account in the BOP



Portfolio flows accounted for 30% of net resource flows in 1995-96, up from a mere 10% in 1990 and from negligible levels during the 1980s. Net inflows into Malaysia increased very sharply until early 1994. They however were reversed as a consequence of measures undertaken to discourage short term capital inflow. Another reason for the decline was the increase in U.S. interest rates beginning in February 1994. The portfolio inflows peaked at USD9.2 billion in 1993 before subsiding to USD4.3 billion in 1996. In 1993, short term inflows in fact exceeded for the first time long term private sector inflows. The new spell of these portfolio inflows shows a substantial concentration in equity investment. About two-thirds of the portfolio investments during the 1993-1995 period were made in equities, suggesting a high level of foreign interest in providing risk-sharing capital financing for the expansion of the private capital.

#### *Equities: Composition and Distribution*

Equity placements have been a major avenue for portfolio flows to Malaysia with rather large flows registered especially in early 1990s. Besides the positive economic outlook, the strong interest by international equity investors can be attributed to improved foreign access to the local financial markets especially to the stock market. This is in line with the overall trend in East Asia and Pacific countries where the share of global portfolio equity flows rose from 32% during 1989-94 to 46% in 1995. In 1996, funds flowing into the region are estimated to have increased to about USD10 billion.<sup>7</sup> About one-fifth of such investments are estimated to have been intra-regional in 1995.<sup>8</sup> The substantial net inflows of foreign equity portfolio funds suggest a rising trend in foreign portfolio equity financing in Malaysia.

Although there is no clear statistical evidence to indicate significant foreign holdings in equity either by largest equity owners, by number of holders or by value, this probably can be explained by the dominance of short term and speculative foreign

<sup>7</sup> World Bank, 1997

<sup>8</sup> Reported by ING Barings

equity investment holdings (see Table 1). Based on available statistics, the majority of the foreign players in the Malaysian capital market are mainly from Singapore and Hong Kong. They represent just over 90% of the total foreign participation.

Table 1  
Foreign Equity Holdings in the KLSE

	1990	1991	1992	1993	1994	1995	1996
<b>Equity by Portfolio Size (RM Billion)</b>							
Largest Equity Owners (10,001 shares and above)							
Malaysians	22,416	27,391	35.12	41,642	48,727	60,321	68,127
Foreigners	7.92	8.06	9.248	10,713	12,006	13,438	18,276
% of total	26.1%	22.7%	20.9%	20.5%	19.8%	18.2%	21.2%
<b>Equity by Type of Investors</b>							
Largest Equity Owners (Institutions)							
Malaysians	12,608	14,616	20,396	22,826	25,667	31,013	38,35
Foreigners	2,092	2,471	2,731	2.92	3,413	3,776	8,258
% of total	14.2%	14.5%	11.8%	11.3%	11.7%	10.9%	17.7%
<b>No of Holders (million)</b>							
Malaysians	1,294	1,508	1,903	1,875	2,527	2,908	3,701
Foreigners	0,268	0,29	0,298	0,317	0,375	0,405	0,198
% of total	17.2%	16.1%	13.5%	14.5%	12.9%	12.2%	5.1%
<b>Total Equity (RM Billion)</b>							
Malaysians	25,218	30,785	39,684	46,643	54,872	68,145	78,783
Foreigners	8.48	8,685	9,891	11,412	12,865	14,359	18,686
% of total	25.2%	22.0%	20.0%	19.7%	19.0%	17.4%	19.2%

Source: Kuala Lumpur Stock Exchange. (Based on registered shareholdings as at 31st December of each

An estimated RM40.9 billion in external flows went directly to the domestic stock market (KLSE) through pension funds, mutual funds, hedge funds and other investment vehicles over the period 1991-96. In 1993 alone, net portfolio investment in Malaysia rose to an unprecedented high of RM24.3 billion. The bulk (RM23 billion<sup>10</sup>) was for the purchase of corporate securities. Concomitantly, the Kuala Lumpur Composite Index (KLCI) surged by almost 100% to close at 1,275 points in end 1993.

The KLSE accounts for a disproportionately large share of the boom in the region's stock exchanges. KLSE's market capitalisation rose from RM43 billion in 1980 to RM807 billion in 1996. The 1992-94 period contributed almost 75% to this 19-fold jump in value. Meanwhile, the value of shares traded climbed from less than 3% of the world total in 1985 to 18% in 1995. Its market capitalisation as percentage of GDP rose from 84.8% to 336% over the same period. However, by the end of the third week of November this year, KLSE's market capitalisation has fallen by about 53% to RM383.3 billion, demonstrating once again the volatile nature of the equity market.

While the paucity of data makes analysis difficult, a glimpse of foreign participation in the local equity market is indicated by the increasing number of emerging market equity funds designated for Malaysia. Based on the number compiled by IMF, there

<sup>10</sup> BNM Annual Report, 1994

<sup>11</sup> BNM's estimate

were 3 funds with total net assets of USD0.1 billion in 1988. This increased to 21 funds with net assets totalling USD1.0 billion in 1993.

Malaysia's exposure to the emerging market equity funds however is relatively low compared to other countries. Thailand, for example, recorded an increase of 15 funds to 26 funds and an increase of net assets from USD2.1 billion to USD26 billion over the corresponding period. As a percentage of total net funds designated for APEC developing countries, Malaysia accounted for a marginal share of 5.9% compared to 18.9% for China, 17.2% for Thailand, and 11.2% for Mexico in 1993. But in terms of growth in net assets, Malaysia ranked a notch higher in the selected sample.

Portfolio equity flows by foreigners however declined during the first half of 1995 as a result of the contagion effects of the Mexican peso crisis which temporarily caused a re-evaluation of emerging market risks. The volume of direct acquisition of stocks however rebounded in 1996. Despite lower volatility in the Composite Index (KLCI) in early 1996 compared to 1995, the Malaysian equity market attracted substantial amount of foreign money. Net portfolio inflows in 1996 was RM10.6 billion compared to RM2.9 billion in the preceding year.

Table 2  
Foreign Investment in Local Equity Markets of Developing Countries  
(million USD)

	1995	1996 trend
Latin America and the Caribbean	6345	upward
Europe and Central Asia	1912	upward
East Asia and the Pacific	8398	upward
Indonesia	2749	upward
China	2141	downward
Thailand	1519	downward
Malaysia	1049	upward
Philippines	770	upward
East Asia and the Pacific (USD Billion)	14.7	12.9
International issues	6.3	-
Direct Investment	8.4	-

Source: Central Banks, national stock and securities exchange  
International Financing Review and various market

Simple correlation analysis indicates that there is an increasingly strong positive relationships between net portfolio flows and Kuala Lumpur Composite Index (KLCI), especially in 1996 and 1997. The relationship of rolling correlation coefficients of both variables can be seen in Chart 2 and Table 3.

Chart 2  
Rolling Correlation Coefficient of Net Portfolio Flows and the KLCI

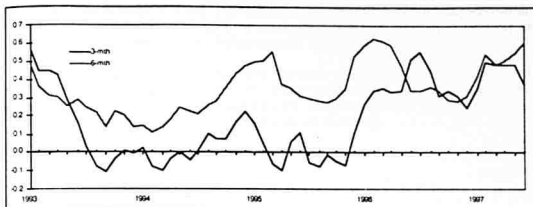


Table 3  
Rolling Correlation Structure between Net Portfolio Flows and  
Selected Stock Market Indices

Correlation Structure	Composite Index		Industrial Index		Finance Index		Construction Index	
	Average Correlation	Correlation Volatility	Average Correlation	Correlation Volatility	Average Correlation	Correlation Volatility	Average Correlation	Correlation Volatility
3-month	0.3	2.60%	0.2	4.40%	0.1	13.10%	0.1	5.40%
6-month	0.4	9.00%	0.3	1.10%	0.3	1.30%	0.3	1.20%

Source: Own estimates

The results indicate that for investment period of 3 months or less, foreign funds tend to invest in volatile stocks like those in finance and construction sectors. Those with longer investment horizons however are likely to select stocks which are components of the Composite Index, which reflects a greater focus on stock market fundamentals.

The inflows of foreign money have raised the Malaysian profile in the international arena and facilitated some Malaysian companies in raising funds from the international markets. In 1996, Malaysia raised USD600 million in international equity investments compared with USD1.3 billion in 1995 and none in 1994.

#### *Debts and Bonds: Composition and Distribution*

International bonds issued by Malaysian companies accounted for more than 75% of the total foreign portfolio flows into Malaysia in 1995-1996 period. Total portfolio debt flows amounted to about USD4.3 billion in 1996. This figure is insignificant compared with the volume of portfolio funds invested in Latin America and in East Asia and the Pacific countries where total debt stock surged 12% to about USD452 billion in 1996. The East Asian region accounted for about 21% of the total debts of developing countries.

An estimated 9.6% increase in Malaysian debt stocks in 1996 raised the ratio of private debt to exports to 16.3% from 15.2% in 1995. This is lower than the 16% average recorded by low and middle income countries. Net short term debt inflows increased significantly in 1995 and 1996. They accounted for about 30.4% of Malaysia's total external debts, up from about 19.7% in 1991. The rise however is even higher in the case of China, Indonesia and Thailand.

We also observed a strong relationship between growth in bond issuance and movements in local equity market. The "super bull run" in 1993 explained quite significantly the growth in bond placements. Many companies preferred to use equity convertible options during the boom period (Table 4).

Table 4  
Equity-linked International Bond Issues by Malaysian Companies

Launch Date	Issuer	Amount (US M\$)	Type of issue	Coupon	Bookrunner
25/1/94	United Engineers (Msi) Berhad	230	Convertible	2.00%	Morgan Stanley
2/6/94	Aokam Perdana	135	Convertible	3.50%	Flemings
7/7/94	Land & General Berhad	100	Convertible	4.50%	Dresdner-KB, Nomura
5/9/94	Commerce Asset Holdings	120	Convertible	1.75%	ING Barings
9/9/94	Telekom Malaysia Berhad	360	Convertible	4.00%	CSFB
20/10/94	Technology Resources Berhad	200	Convertible	0.00%	Merill Lynch
21/10/94	Renong Berhad	225	Convertible	2.50%	Morgan Stanley
18/11/94	Technology Resources Berhad	175	Convertible	2.75%	Merill Lynch
<b>Total: 1994</b>		<b>1,545</b>			
22/5/95	Renong Berhad	150	Convertible	2.00%	Morgan Stanley
28/7/95	YTL Corporation Berhad	50	Convertible	0.00%	Morgan Stanley
<b>Total: 1995</b>		<b>200.0</b>			
3/1/96	Hume Industries (Msi) Berhad	114.38	Convertible	3.00%	Schroders
25/11/96	Sungei Way Holdings Berhad	100	Convertible	1.25%	Flemings, Merill Lynch
<b>Total: 1996</b>		<b>214.38</b>			
22/4/97	Leader Universal Holdings Berhad	95	Convertible	2.75%	Bankers Trust

Source: IFR Securities Data

1996 was a spectacular year given the combination of a much more favourable sovereign risk rating, low point in the interest rate cycles, especially in Japan and Europe, and the vogue among international investors for credit diversification. International bond issues by Malaysian companies peaked in 1996 with an estimated USD2.6 billion issued compared to USD1.0 billion in 1993. The popular types of international bonds issued by Malaysian corporations are Eurobonds<sup>11</sup>, Yankee<sup>12</sup> (144a) and Samurai bonds (see Table 5).

Malaysian companies are becoming more active users of international bond market driven by those expanding their businesses abroad. Much of the borrowings through bonds so far have represented net capital inflows. Amortisation payments on bond issued are expected to rise over the next 5-10 years.

<sup>11</sup> Eurobonds are "straight bonds" denominated in currencies other than ringgit and purchased by investors outside the country via a foreign stock exchange. Euroconvertibles have all the features of a Eurobond except that they are convertible into the equity of the issuing company within a specified time-frame.

<sup>12</sup> Malaysia's Tenaga Nasional Bhd issued a USD150 million, 100 year bond, the first century bond to be issued by an Asian borrower and only the second by a non-US borrower in the US market.



Table 5  
International Bond Issues by Malaysian Companies

Company	Type	Amount (USD Million)	Tenure (years)	Leads
Aokam Perdana		135	10	
Commerce Asset		120	10	
Land & General		100	10	
Renong		225	10	
Telekom		360	10	
TRI		200	10	
United Engineers (Malaysia)		230	10	
Tenaga Nasional Bhd	Yankee Bond	600	10	Lehman Brothers
<b>Total: 1994</b>		<b>1970</b>		
Telekom: Tranche 1	Yankee Bond	200	10	
Telekom Tranche 2	Yankee Bond	300	10	
Malayan Banking	Yankee Bond	250	10	
Renong	Eurobond	175	10	
YTL Corporation	Eurobond	50	7	
Tenaga Nasional	Yankee Bond	350	30	Lehman Brothers
<b>Total: 1995</b>		<b>1325</b>		
Petronas	Global bond	1900	5,10,30	CSFB, Salomon Brothers
	Samurai	19 bil. (Yen)	5,10	Nomura
Tenaga Nasional	Yankee Bond	150	100	Lehman Brothers
Hong Leong Industries Bhd		73.5		
Angkasa Marketing Bhd		105		
Pantai Health Care		65		
Sq. Way Holdings		110		
<b>Total: 1996</b>				
Petronas	Samurai	38 bil (Yen)	6,10,16.5	Daiwa Securities
	Samurai	40 bil (Yen)	5,7,10	IBJ Securities
Malaysian Airline System	Euroyen	40 bil (Yen)	5	Daiwa Securities
	FRN	10 bil (Yen)	5	Sanwa Int'l Daiwa Securities
Tenaga Nasional Berhad	Yankee Bond	800	10	UBS
<b>Total: 1997</b>				

Source: IFR Asia

Over the period 1990-1996, the Malaysian domestic bond market increased in size from RM73 billion to RM121 billion in 1996, an rise of 66 per cent. A large part of the funds raised can be attributed to the increase in the financing of infrastructure projects undertaken by the private sector.

### 3. EFFECTS ON THE MALAYSIAN FINANCIAL SECTOR

In the wake of the current regional financial turmoil, the destabilising effects of portfolio outflows have given rise to much concern. The impact of this outflow on the balance of payments however is hard to measure. Portfolio investment is a mixed bag with respect to its stability. The "in and out" movements not only exacerbate market fluctuations but also could result in the well-publicised "contagion effects" that reflect swings in investors' perceptions rather than changes in the underlying fundamentals.

Fluctuations in short term capital inflows not only makes liquidity in the money market more volatile but also increase the risk of exacerbating exchange rate and

interest rate movements or both, the combined effects of which can lead to balance of payment problems, corporate insolvencies and banking crisis.

### *Market Volatility*

For the purpose of this analysis, we opt for the GARCH method which gives a better volatility estimate compared to conventional standard deviation estimates. Conditional volatility picked up substantially across the board in late 1993 and early 1994, reflecting the movements in KLSE (see Chart 3). The retreat of foreign money from the local stock market resulted in marked fluctuations in the banking system, money market, followed by money supply, in order of severity.

This can be explained as follows. Changes in interest rate differentials in the early 1990s led many local banks to opt for cheaper sources of funding overseas. Adding to the inflows was the increased recourse to external borrowings by the private sector. In 1992, opting for foreign financing will save on average 150 to 300 basis points compared to local borrowings. Consequently, commercial banks' external liabilities which amounted to about RM8.0 billion in 1992 rose to about RM27.2 billion in the following year. By contrast, net external asset position in 1989 amounted to RM0.43 billion.<sup>13</sup>

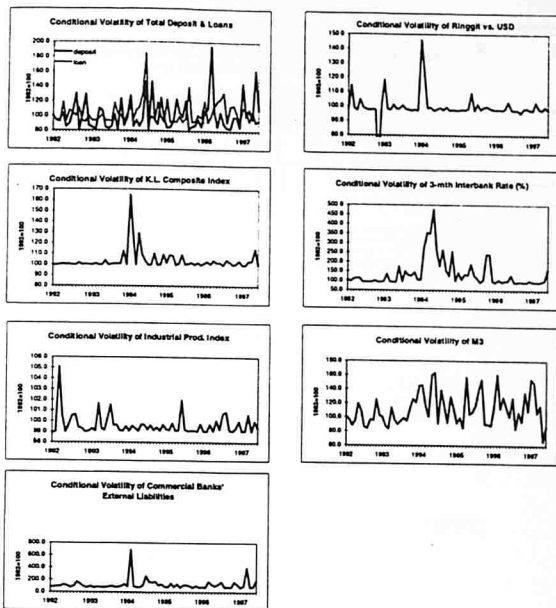
The reversal of these "foot-loose", unstable and unpredictable money caused the banks to scramble for funds to match their long term commitment as a result of their aggressive lending activities. In the process, to retain the outflow of the hot money, the tight liquidity situation was fully captured in the movement of conditional volatility of 3-month interbank rate. The index surged from an average of 180 points prior to the event to an average of 380 points in 1Q94. This surge to a large extent impinged on the ability of the authorities to conduct monetary policy as reflected in the conditional volatility of M3 despite a series of measures introduced to restore macroeconomic stability. During this period, there was a sharp increase in monetary aggregates (M3: +30% yoy).<sup>14</sup>

The foreign exchange market also experienced a similar situation albeit at a smaller scale, thanks to an interventionist policy. An interesting note is that the turmoil then did not have much impact on the real economy, as proxied by the relative stability of the Industrial Production Index (IPI). This was perhaps due essentially to greater reliance on internal sources on financing which to a large extent helped to shield the local corporations during the crisis. Should more local corporates opt for external financing, we can expect the conditional volatility of IPI to increase over time accordingly.

<sup>13</sup> There are some econometric evidence that BNM didn't fully sterilised the inflows of foreign money. Certain amount of foreign money slipped through into banking system.

<sup>14</sup> The monetary multiplier generally ranged from 6.0-7.0 up to 6.8-7.8 during the turmoil.

Chart 3  
Conditional Volatilities of Selected Financial Market Variables

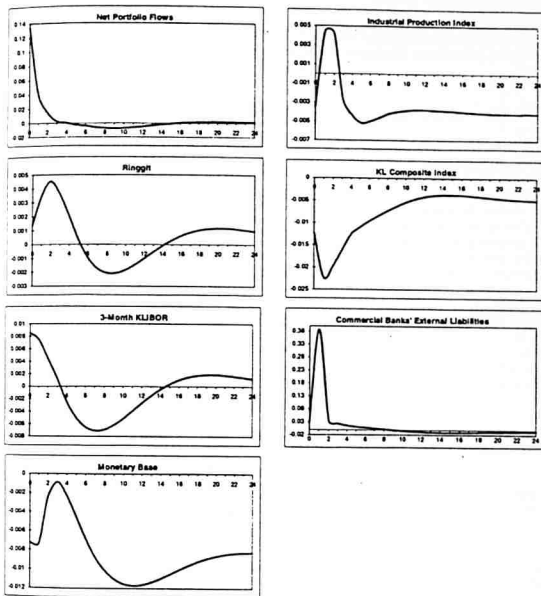


The impact of the recent speculative attacks on the ringgit and the ensuing depreciation are captured in the estimation. Since July 2, the rise in conditional volatility is most visible in the case of interbank rates, KL Composite Index and total loans, followed by FX market and commercial banks' external liabilities. In general, a negative shock to floating foreign exchange rates will cause stock prices to fall and domestic interest rates to rise. All these price movements can be an important source of uncertainty that restrain investors, both foreign and domestic, from investing. At the same time, they can be very damaging for the economy as a whole if the fluctuations in both money and foreign exchange markets are too wide, causing bankruptcies and hysteresis effects.

## Shocks to the Financial System

To examine the contagion effects of such shocks to the financial system, we use VAR techniques to estimate the impacts (see Chart 4).

Chart 4  
Orthogonalised Impulse Responses of a One Standard Deviation Shock  
to the Equation for Net Portfolio Inflows



The impulse response function of a 1% standard deviation shock to net portfolio flows on KLCI, monetary aggregates and interbank rates showed the longest effect, lasting approximately 24 months, before tapering off. This is followed by commercial banks' external liabilities and the currency. The results are consistent with the composition of foreign portfolio stock in Malaysia which is skewed toward equity, money market and private debts respectively. Foreign exchange responses on the other hand are rather limited unless speculative activities are centered on the

FX market as seen in recent months. The muted response could also be attributed to the Malaysian authorities' success in curbing a substantial appreciation in the real exchange rate.

On average, a shock will have at least more than 6 months' permanent impact on the Malaysian financial system compared to an average of 3 months in the case of real economy. Although the results show that the impact on the real economy is rather contained, large swings in real exchange rates as a result of temporary portfolio flows have been found to significantly depress machinery and equipment and thus long run growth performance.<sup>15</sup>

In a nutshell, in the wake of volatile and unstable large portfolio movements, policy makers have to make difficult decisions on the magnitude, sequencing and timing of policy actions.

#### 4. POLICY IMPLICATIONS AND CONCLUSIONS

From the experience and lessons of countries that have suffered the consequences of portfolio flow reversals and whatever external shocks, a key emerging consensus in the aftermath of such shocks is that economic and market liberalisation remains a valid strategy for maintaining a country's long term growth and macroeconomic stability. More often than not, the recovery from such shocks as shown by the Mexican experience, though painful, can lead to a renewal of capital inflows as economic prospects improve following the needed structural adjustments or the passing of the "contagion" which in the process would have the effect of highlighting individual country differences in economic structure and responses.

Capital flows are important to economic growth. However, in an era of increasing global capital market integration characterised by volatile capital flows which are caused in large part by factors external to the recipient country, appropriate policy responses are needed. In an analysis of the Latin American experience with the destabilising effects of capital flows in 1994, Gavin, Hausman and Leiderman (1996) cited five reasons why the adjustment to sharp fluctuations in capital flows is a policy issue:

- incomplete financial markets which do not provide insurance against the risks associated with changes in the magnitude of the flows
- existence of fads, bubbles and contagion effects which caused international investors to revise prospects for an economy suddenly that are unwarranted by underlying fundamentals
- information or policy-generated imperfections in the domestic financial markets that result in sub-optimal intermediation of capital inflows thereby increasing the economy's vulnerability to subsequent reversals
- interference with the effectiveness of other government policies such as the maintenance of stability in prices and aggregate demand
- externalities in labour and product markets that may distort the process of adjustment to changes in capital flows

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<sup>15</sup> Agosin, 1994

These negative externalities suggest that we need to better understand and manage the volatility of capital flows. Besides the need to maintain prudent fiscal and monetary policies in response to market instability caused by volatile portfolio flows, we highlight below several issues and proposals.

### ***Regulation of Capital Inflows***

Although there is no consensus on the regulation of international capital flows, the happening of the Southeast and East Asian financial markets crisis this year so close on the heels of the Latin American crisis in 1994, has lent respectability to proposals such as the Tobin tax to regulate international capital flows. Such measures are seen less a panacea for the problem than as one of several policy instruments needed to reduce the volatility of capital flows and to ameliorate their macroeconomic consequences.

A key concern over restrictions on financial flows is that they could be costly or that their effectiveness could decline over time as market participants find ways to circumvent them. Though neither plausible nor sensible for an economy to completely shield against the fluctuations in international capital flows, the key challenge facing policy makers is to alter the magnitude and types of inflows particularly those of a short term, speculative nature. As shown by Bank Negara Malaysia's actions during the 1993 surge in capital inflows, there is scope for such actions particularly in regulating short term debts that may eventually become destabilising as in the case of Thailand. Different types of capital inflows expose the economy differently to the risk of sudden withdrawals of capital, an issue we turn to next.

### ***Managing the Composition of Capital Inflows***

Both the Mexican and Thai crises showed that their currency devaluation were badly aggravated by over-reliance upon short term debt. Financial and credit risks are greatly accentuated as these countries require continual access to international capital markets to roll over the outstanding stock of debt. In this regard, Malaysia's exposure to roll-over risk is mitigated by the relatively low government and private sector short term external debt. Among the measures than can possibly change the capital composition include:

***Lengthening debt maturity:*** Since foreign debt particularly short term debt can aggravate economic instability, a key thrust for government and the corporate sector is to finance themselves with medium and long term debt as far as possible. Countries with a longer term debt maturity profile need not access the international financial markets during turbulent times. They also can delay returning to the financial markets after improving their creditworthiness through making the required structural adjustments.

***Attracting long term funds:*** The contagion phenomenon arises as a result of international fund managers engaging in speculative activities or reallocating their assets due to changes in perceived risks and returns. Foreign funds however vary in size, investment objective, holding period, and asset mix. Hence, the impact of foreign funds on the domestic financial and capital markets will depend on their size, composition and country of origin since currency risk is a major factor in the evaluation of country attractiveness. The hedge funds speculating in currencies have been identified as the trigger for large currency movements. Equity investment funds on the other hand have a short to medium focus ranging from a few months to 1 or 2 years.

Depending on their investment objectives, these funds will have a different mix of equities, cash and fixed income securities. Institutional investors such as pension

funds usually have a longer term focus and they commonly have a high concentration of fixed income securities in their portfolio. This class of investors takes a longer term view of the economy. Besides their longer holding period, such institutional funds are also not exposed to unanticipated large scale redemption by unit holders as in the case of open end investment funds. Thus, one of the ways to enhance financial market stability is to channel local and foreign institutional funds into the bond market.

**Widening portfolio asset classes:** Portfolio shift is another source of market instability. For example, a rise in interest rates may cause investors to liquidate their equity holdings and invest in fixed deposits. For this reason, a balanced capital market structure with a broad range of asset classes of equities, fixed income securities and derivatives results in a more resilient financial system. It enables individual and institutional investors to manage their investments more efficiently and to match expected returns with their risk profile.

Under the current environment where there is a limited range of financial assets, there is a tendency for over-investment in equities, causing unsustainable price run-ups. A wider range of asset classes, particularly fixed income securities such as corporate bonds, will help to channel personal and corporate savings into long term financial assets. Fixed income securities market are generally more stable especially in low inflation economy like Malaysia. Hence, a deepening of the bond market could contribute to greater market stability compared to a capital market system which is predominantly equity-based.

#### ***Strengthening the Institutional and Regulatory Framework for Banks and Capital Markets***

As shown by the Thai experience, maintaining a robust banking and capital market system is a cornerstone of market stability in the face of volatile capital flows. Controlling liquidity growth of banks and improving supervisory tools for controlling financial risk at the level of individual institution are key elements of the strength of financial institutions which will determine the ability of individual institutions to withstand market instability caused by fluctuations in short term capital flows. Improving the capital markets regulatory and supervisory structure is also crucial to avoid speculative bubbles that are accentuated by capital inflows and outflows. The bursting of such bubbles, often triggered by foreign capital flight, may test the resilience of the banking sector and have real effects on consumption, investment and employment.

Other measures such as improving corporate governance, market transparency, and financial reporting standards and disclosure should also be part and parcel of the long term drive to enhance market efficiency and competitiveness. More generally, an efficient and competitive market not only reduces its vulnerability to external shocks but shortens the adjustment period as well.

Finally, from a macroeconomic perspective, the need to promote greater efficiency in national savings should be given greater emphasis as a means to reduce dependency on foreign capital inflows - the equivalent of foreign savings, and to shield from capital account shocks. Ultimately, foreign portfolio flows can only be sustained by ensuring strong corporate earnings and sound economic prospects and such expectations can only be met if the domestic and foreign savings are channelled efficiently into capacity-generating or growth-sustaining investments.

## References

- Agosin, M.R. (1994). *"Savings and Investment in Latin America"*, UNCTAD Discussion Papers No.90, UNCTAD, Geneva.
- Bank Negara Malaysia. *"Annual Report"*, several issues.
- Bercuson K. and L.Koenig (1993). *"The Recent Surge in Capital Inflows to Three ASEAN Countries: Cause and Macroeconomic Impact"*, Paper presented at the SEACEN and IMF Conference, Seoul, Korea.
- Corden, W.M. (1984). *"Booming Sector and Dutch Disease Economics: Survey and Consolidation"*, Oxford Economics Papers, 36, November.
- Dooley, J. Franke and D. Mathieson (1987). *"International Capital Mobility: What do Savings-Investment Correlations Tell Us?"*, IMF Staff Papers Vol. 34.
- Gavin, M., Hausmann, R., and Leiderman, L. (1996). *"The Macroeconomics of Capital Flows to Latin America: Experience and Policy Issues"*, in Volatile Capital Flows: Taming their Impact on Latin America, Ricardo Hausmann and Liliana Rojas-Suarez (eds). Inter-American Development Bank, Washington, D.C.
- Helmut R., (1996). *"Managing Volatile Capital Inflows: The Experience of the 1990s"*, Asian Development Review Vol. 14 No. 1.
- IMF, 1994. World Economic Outlook 1994. Washington D.C. International Monetary Fund.
- Khan, Mohsin and Carmen M.R., eds (1995). *"Capital Flows in the APEC Region"*, IMF Occasional Paper No. 122, IMF 1995.
- Kouri, Pentti and Michael Porter (1974). *"International Capital Flows and Portfolio Equilibrium"*, Journal of Political Economy, Vol. 82 (May/June 1974).
- Leonardo H., and Heinz R., (1995). *"Sustainability of Private Capital Flows to Developing Countries: Is a Generalised Reversal Likely?"* Policy Research Working Paper No 1518, World Bank.
- Linda M. Koenig (1996). *"Capital Inflows and Policy Responses in the ASEAN Region"*, IMF Working Paper WP/96/25.
- Nadeem U.H., and Peter M., (1990). *"Capital Mobility in Developing Countries - Some Empirical Tests"*, IMF Working Paper WP/90/117.
- Niehans J. (1994). *"Elusive Capital Flows: Recent Literature in Perspective"*, Journal of International and Comparative Economics 3:21-43.
- Ross Levine (1996). *"Stock Markets: A Spur to Economic Growth"*, Finance & Development, World Bank.
- Stephen S. Golub (1990). *"International Capital Mobility: Net versus Gross Stocks and Flows"*, Journal of International Money and Finance 9, p. 424-439.



Sudarshan Gooptu (1994). "*Are Portfolio Flows to Emerging Markets Complementary or Competitive?*". Policy Research Working Paper No. 1360, World Bank.

Vittorio C., Leonardo H., (1994). "*Macroeconomic Adjustment to Capital Inflows: Latin American Style versus East Asian Style*", Policy Research Working Paper No. 1377, World Bank.

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2-3 December 1997

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**Long- and Short-Term Dynamic Interactions Between Major International  
Stock Markets and the Malaysian Stock Market**

by

Abul M M Masih  
Rumi Masih



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

## ABSTRACT

This paper considers an investigation of the dynamic causal linkages amongst 8 international stock price indexes using a daily data set. We consider 4 major established markets and 4 Asian emerging stock markets in the same system. Causal transmission patterns are examined using recent methods of (i) vector error-correction modeling and (ii) level VAR modeling with possibly integrated and cointegrated processes, advocated by (i) Toda and Phillips (1993a) and (ii) Toda and Yamamoto (1995). The paper illustrates how such methods may be appropriately augmented in a compatible fashion to unearth previously unfounded linkage properties inherent amongst a system of stock price indexes. In particular, we demonstrate that previous research, by using ordinary difference VARs, ignored an important component of linkages displayed purely over the long run. This essentially untapped evidence provides robust and very useful information to international financial analysts and investors. At a substantive level, results of this study tend to support the contention offered by several studies in the literature of significant short and long term relationships between established OECD and Asian markets and also the leadership of the US over both short and long-run. The levels VAR confirms the US market's influential leadership over the long run. At the regional level in Southeast Asia, the results tend to confirm, as expected, the leading role of Hongkong. And consistent with the recent financial crisis in this region, the results tend to lend strong support to the view that stock price fluctuations in all these Asian markets are explained mostly by their regional markets (rather than the advanced markets). At a methodological level, this analysis also provides a primer for the wealth of applied financial econometric research focusing on dynamic causal inference which involve systems containing possibly integrated and cointegrated processes.

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Correspondence to: Abul M.M. Masih, School of Finance and Business Economics, Edith Cowan University, Joondalup Campus, Joondalup Drive, Perth WA 6027, Australia. Phone: +(618) 9400 5604; Fax: +(618) 9400 5894; E-Mail: a.masih@cowan.edu.au

**Key Words/Phrases:** stock price/market, linkages, integration, Granger causality, unit roots, integrated processes, cointegration, vector error-correction modeling, vector autoregression.

**JEL Classification Codes:** G15, C22, C51, C52

**Acknowledgements:** We are grateful to Jonathan Karpoff and two anonymous referees for helpful comments on the analytical aspects of the analysis. Naturally, only the authors are responsible for any remaining errors, omissions and/or misinterpretations. The views expressed in this paper are not necessarily attributable to Goldman, Sachs & Co. or any of its affiliated agencies. We are deeply thankful to the Malaysian Institute of Economic Research (MIER) for inviting the first author to present the paper and to the Securities Commission of Malaysia (SCM) for inviting him to participate in a roundtable discussion. The financing of all related expenses by MIER (in collaboration with the SCM) is gratefully acknowledged.

"I have understood that the world is a vast emptiness built upon emptiness...And so they call me the master of wisdom. Alas! Does anyone know what wisdom is?"

Song of the Owl: The Thousand and One Nights

## 1. INTRODUCTION

In recent times foreign investors have expressed an increasing amount of interest in the emerging financial markets of the ASEAN and Asian NICs due to their enormous potential and favourable experiences so far [see for example Bhoocha-oom and Stansell (1990); Cheung and Mak (1992)]. This interest has resulted in various international fund management centres that have concentrated only in this region thereby advertising to international compatriots that not only is their growth here to be exploited but these markets present alternatives for agents to diversify their risks. Interest in this area has also been displayed by various studies that have concentrated on: (i) the linkages between the developed and Asian markets [see Cheung and Ho (1991) who discover instability between the co-movements of developed and Asian-Pacific markets; Bhoocha-oom and Stansell (1990) who find there is a great degree of market integration between the US and two Asian NIC markets]; (ii) the intra-day and week trading activities in emerging Asian markets [see Wong et al (1992), Ho and Cheung (1991) and Ho et al (1992) who concentrate on the small sized markets, in particular Hong Kong, and assess the behaviour of mean returns]; (iii) the correlation between risk and return and its stability for Hong Kong [see Cheung and Wong (1992)], and Singapore [see Wong and Tan (1991)].

This paper makes a contribution on the first of these areas for a daily system of 8 national stock price indexes. The choice of the indices used in the system is guided by a consideration of both major price indices and Asian emerging markets including Hong Kong, Singapore, Thailand and Malaysia. We use cointegration techniques to identify a certain stochastic structure of individual time series and VAR models to discern the linkages amongst the indexes.

In the financial literature it has been widely recognised that inter-relationships exist among major national financial stock markets of developed countries [see, *inter alia*, Grubel (1968), Agmon (1972), Lessard (1973), Ripley (1973), Hilliard (1979)]. More recently, while theoretical underpinnings which emphasise efficient international portfolio management and risk minimisation underlying the linkages are still acknowledged, the nature of research in international finance has increasingly engendered studies which promote investigations into market dynamics and the transmission/propagation mechanism driving these stock market linkages [Eun and Shim (1989), Koch and Koch (1991), Arshanapalli and Doukas (1993), Brocato (1994), Masih and Masih (1997c, 1997d)].<sup>1</sup> These issues, apart from providing insight into the theoretical matters of interest, such as market efficiency and adjustment processes, have become even more important particularly in light of recent financial market developments such as the overwhelming pace of global financial integration [or 'globalisation' phenomenon, see Blackman et al (1994)] of the recent decade, and innovations such as the worldwide stock market crash of October 1987 [Arshanapalli and Doukas (1993), Malliaris and Urrutia (1992)]. While earlier studies used simple regression or correlation techniques using national stock market indices, recent developments in the time series econometric literature have permitted more rigorous analysis which emphasises both the short- and long-run comovement among a number of time series, to be conducted compatibly. Moreover, given the pace with which these techniques are being currently developed

<sup>1</sup> There are two strands of related and recently emerging branches of the finance literature: (i) one strand studies the evolution and interdependence of price volatility across national stock markets - these include studies by Goodhart (1988), Hamao, Masulus and Ng (1990), King and Wadhwani (1990), Lin, Engle and Ito (1994); (ii) the other investigates the degree of integration amongst national stock markets - these include studies by Wheatly (1988), King, Sentana, and Wadhwani (1994), Bekaert and Harvey (1995). The focus of this study is confined to the issue of stock price linkages amongst national markets, based on applications of vector time series procedures

and continuously refined, there always remains room for practitioners to demonstrate their applicability without losing reference to the intuition and policy relevance the methodological rigour contributes from its findings.

In the econometrics literature, there now exists a menu of alternative estimation methods which permit valid testing of causal inferences in theoretically postulated models/systems that are known to be cointegrated. To the practitioner, while this wealth of available options is certainly encouraging, at the same time it can prove to be quite daunting, especially when it comes to deciding which specific method is optimal and should be employed in applied econometric research. If we take results at face value, as most applied econometric research does, there is an urgent need to undertake a comparative analysis of a number of estimators prior to determining which set of results we should finally adopt for purposes of inference. While this issue has been re-iterated in the theoretical literature (see Phillips (1991)), unfortunately, there are only a very limited number of studies which have brought this issue to attention in applied research [Gonzalo (1994), Moore and Copeland (1995)].

The purpose of this study is two-fold. Our primary aim is to examine the dynamic causal linkages that exist among a set of international stock market indexes with a particular focus on emerging Southeast Asian markets. Results from this analysis itself will provide not only an indication of the direction of interaction but an assessment of the degree of interdependence among specific markets. Specifically, given the recent currency and stock market turmoils in Southeast Asia, we consider an investigation of the dynamic linkages amongst eight stock market indices consisting of four developed and four Southeast Asian emerging stock markets, using end of day national stock price indexes from 14-February-1992 to 19-June-1997 (inclusive).

The second aim of this analysis is to illustrate the potential of two very recent methodological procedures which allow causal inference to be conducted in systems including time series processes that may be integrated as well as cointegrated. Specifically we refer to the vector error-correction modelling [King, Plosser, Stock and Watson (1991), Toda and Phillips (1993a)] and 'level' VAR modelling with integrated and cointegrated processes, advocated by Toda and Yamamoto (1995). The novelty of these two innovative procedures is that they allow tests of Granger temporal causality accounting for the long-run information often ignored in systems which require first differencing for pre-whitening prior to inference. In particular, we indicate the practical usefulness of these techniques and illustrate their potential in related areas of economic and financial research.

The methodological innovations conducted in this paper provides us with a framework to test for the temporal causal dynamics (in the Granger sense) among the stock prices. This is done through both short-run and error-correction channels of causation [see Granger (1986), (1988)] via the dynamic VECM representation and a long-run form of causation via a VAR estimated in levels. In this respect this analysis extends on previous research which places important emphasis on the need to test for the number of common stochastic trends [Kasa (1992), Chung and Liu (1994)]. In addition careful attention is paid to the univariate properties of the data as well as quantifying the causal interactions amongst markets. Finally, implications for the propagation or transmission mechanism of the causal responses are addressed in addition to discussing in what way this formulation may be used in understanding the interdependent and dynamic linkages underlying international share markets

The paper is organised in the following manner: Section 2 contains a brief descriptive but critical overview of the work already conducted in this ever-expanding area of financial research, paying particular attention to the

methodological deficiencies in each of the studies. The methodology to be adopted is then presented in Section 3 with special reference to how these procedures may be used in a complementary fashion. Section 4 contains a discussion of the data, the application, and empirical findings. Finally, a summary, conclusions and what the findings of the study have to offer financial analysts in terms of policy implications, and methodological pursuit are provided in Section 5.

## 2. THEORETICAL UNDERPINNINGS AND OVERVIEW OF LITERATURE

### 2.1 Theoretical Underpinnings

In the context of market integration and interdependencies, there have been numerous studies that have focused on this issue. One important implication of integrated markets is that assets associated with similar levels of risk in different countries should also lead to a similar level of return. This issue has been empirically addressed in several studies [see Errunza and Losq (1985), Jorion and Schwartz (1986) and Hietala (1989)], as well as placed under critical scrutiny due to inconsistent results. This for example is taken up by, *inter alia*, Wheatly (1988) who argues that even without market integration, assets that are diversified internationally could be 'mean-variance efficient'.

The integration and interdependence of stock markets underlies a major cornerstone of modern portfolio theory which addresses the issue of diversifying assets. In essence, this theme advocates investors to diversify their assets across national borders, as long as returns to stock in these other markets are less than perfectly correlated with the domestic market. The advantages of asset diversification have already been widely discussed in the literature in which much effort was devoted to attempts that quantify risk-reduction and its associated benefits available to the internationally diversified portfolio [see Grubel (1968), Lessard (1973), Agmon and Lessard (1977), Solnik (1991) and references there in]. Closely tied with this issue is that stock prices tend to move closely together and trend upward over time. Kasa's (1992) finding of a unique common stochastic trend in a system of five stock markets held implications that these markets were perfectly correlated over the long-run (although there could be significant deviations over the short-term). In this respect, the analytical tool of cointegration lends itself quite conveniently to investigating the long-run relationships of stock market movements.

### 2.2 Literature Overview

A large proportion of the now extensive empirical body of literature surrounding these and related issues of stock market dynamics employing times series techniques can be broadly classified under two groups. One group follows the prescription provided by Kasa (1992) involving multivariate cointegration techniques, to examine the number of common stochastic trends in a system of national stock market prices. This provides insights into how integrated markets have become and the popular intuitive notion of whether or not stock markets share long-run relationships over time. Indeed, such interest has provoked a number of studies: Chung and Lui (1994) and Corhay et al (1995) on Pacific-Rim country stock markets, Blackman et al (1994) on 17 OECD markets, Jeon and von Furstenberg (1990) and Kwan et al (1995) on major world equity markets. The second group has attempted to investigate lead-lag relationships among prices of national stock markets [Eun and Shim (1989), Cheung and Mak (1992), Malliaris and Urrutia (1992), Arshanapalli and Doukas (1993), Smith et al (1993), Chowdhury (1994), Brocato (1994)] but employed, due to data limitations or methodological drawbacks, simple bivariate lead-lag relationships among two markets, or standard Granger *F*-tests in a VAR framework which are only useful in capturing *short-run*

temporal causality [Granger (1986), Masih and Masih (1997a)]. While examinations of bivariate relationships may provide additional insight, they are not entirely useful for purposes of policy and serve at best as a pre-requisite for a more thorough analysis of relationships amongst stock market indices in a multivariate setting.

Infact, even those studies that have employed a multivariate framework [for example, Mathur and Subrahmanyam (1990) on linkages between Nordic and US stock markets] have done so using ordinary first-difference VARs, not taking into account any presence of long-run relationships inherent in the multivariate system. Recent important methodological studies by King et al (1990) and Toda and Phillips (1993a) have shown that in the presence of cointegration, VARs must be augmented by constraints via error-correction mechanisms which account for any long-term information essentially lost through differencing.

### 3. ECONOMETRIC CONCEPTS AND METHODOLOGY

Like all other models that utilise time series data, it is important to recognise that unless the analytical tools used account for the dynamics of the relationship within a temporal causal framework, the complexity of the inter-relationships involved may not be fully captured. Hence, there is a requirement for employing the latest advances in dynamic time-series modelling within a temporal causal framework that allows for the co-existence of both short and long run forces that drive the often ignored deviating and cyclical influences so inherently interactive with these aggregate variables over such a time horizon<sup>2</sup>. The following recently advocated procedures will be adopted as part of our methodology:<sup>3</sup>

#### 3.1 Causal Inference in Vector Error-Correction Models

Engle and Granger (1987) show that in the presence of cointegration, there always exists a corresponding error-correction representation which implies that changes in the dependent variable are a function of the level of disequilibrium in the cointegrating relationship (captured by the error-correction term) as well as changes in other explanatory variable(s). If we exploit the idea that there may exist co-movements among a set of time series and possibilities that they will trend together in finding a long-run stable equilibrium, by the Granger representation theorem we may posit the following testing relationships which constitute a VECM. Consider a set of variables that are  $I(0)$  after applying the differencing filter once. Provided that the variables in  $X_t$  are also cointegrated of order  $r$ , we may impose this constraint upon our unrestricted VAR to enable a VECM formulation as:

$$\Delta X_t = \sum_{i=1}^p A_i \Delta X_{t-i} + \sum_{i=1}^r \xi_i \Theta_{i-1} + v_t \quad (1)$$

where  $X_t$  is an  $n \times 1$  vector of variables, the  $A$ 's are estimable parameters including the constant term,  $\Delta$  is a difference operator,  $\xi_t$  is a vector of impulses which represent the unanticipated movements in  $X_t$  where  $\Theta$  contains the  $r$  individual error-correction terms derived from the  $r$  long-run cointegrating vectors via the Johansen MLE procedure; and  $E(v_t, v_t') = \Omega$  which is diagonal. Of course given

<sup>2</sup>See R. Masih and A. Masih (1996) for an investigation of the dynamics of economic activity within a multivariate cointegrated system.

<sup>3</sup>See Toda and Phillips (1993b) for an overview of the theoretical properties including a simulation exercise.

that there are  $r$  cointegrating vectors, we may reformulate this assuming  $(n - r)$  common trends. In expanding out (1) and separating out the vector of constants we can express the VECM of variables as (equation 2):

$$\Delta V_t = \begin{pmatrix} \Delta x_{1t} \\ M \\ \Delta x_{nt} \end{pmatrix} = \begin{pmatrix} A_{11}(L) & A_{12}(L) & L & A_{1n}(L) \\ A_{21}(L) & O & L & A_{2n}(L) \\ M & L & O & M \\ A_{n1}(L) & A_{n2}(L) & L & A_{nn}(L) \end{pmatrix} \begin{pmatrix} \Delta x_{1t} \\ \Delta x_{2t} \\ \Delta x_{nt} \end{pmatrix} + \begin{pmatrix} \xi_{1t} & L & \xi_{1t} \\ M & O & M \\ \xi_{nt} & L & \xi_{nt} \end{pmatrix} \begin{pmatrix} \Theta_{1,t-1} \\ \Theta_{n,t-1} \end{pmatrix} + \begin{pmatrix} c_1 \\ c_2 \\ M \\ c_n \end{pmatrix} + \begin{pmatrix} \phi(L) & 0 & 0 \\ 0 & O & 0 \\ 0 & 0 & \phi(L) \end{pmatrix} \begin{pmatrix} \zeta_{1t} \\ M \\ \zeta_{nt} \end{pmatrix} \quad (2)$$

where the term  $\phi(L)$  is a finite polynomial in the lag operator  $L$ , such that  $(L^m)\zeta_t = \zeta_{t-m}$  and the order  $\phi(L)$  is the same for the  $n$  equations in (2). The terms  $[\zeta_{1t}, \dots, \zeta_{nt}]$  are joint white-noise processes and the  $c$ 's represent a vector of constants.

A consequence of relationships described by equations in (2) is that either  $\Delta x_{1t}, \dots, \Delta x_{nt}$ , or a combination of any of them must be caused by  $\Theta_{t-1}$  which is itself a function of  $[x_{1t-1}, \dots, x_{nt-1}]$ . Intuitively, if  $[x_{1t-1}, \dots, x_{nt-1}]$  shares a common trend, then the current change in  $x_{1t}$  (say, the dependent variable) is partly the result of  $x_{1t}$  moving into alignment with the trend value of  $x_{2t}, \dots, x_{nt}$  (say, the independent variables). Through the ECT, the ECM opens up an additional channel for Granger-causality to emerge which is completely ignored by the standard Granger and Sims tests.<sup>4</sup> The Granger-causality can be exposed either through the statistical significance of: (i) the lagged ECTs ( $\xi$ 's) by separate  $t$ -test; (ii) a joint test applied to the significance of the sum of the lags of each explanatory variables ( $A$ 's) in turn, by a joint  $F$  or Wald  $\chi^2$  test; or (iii) a joint test of all the set of terms just described in (i) and (ii) by a joint  $F$  or Wald  $\chi^2$  test, ie. taking each of the parenthesised terms separately: the ( $A$ 's,  $\xi$ 's). The non-significance of both the  $t$  and  $F$  or Wald  $\chi^2$  tests in the VECM indicates econometric exogeneity of the dependent variable<sup>5</sup>.

<sup>4</sup>Causality is a subject of great controversy among economists. See, for example, Zellner (1988). Interested readers could refer to a supplementary issue of the *Journal of Econometrics*, September-October, 1988, that includes studies discussing this issue. Without going into a debate, we would like to state that the concept used here is in the stochastic or "probabilistic" sense, rather than in the philosophical or "deterministic" sense. Also the concept used here is in the Granger "temporal" sense, rather than in the "structural" sense.

<sup>5</sup>The VAR being a system of unrestricted reduced form equations, have been criticised by Cooley and Le Roy (1985). Runkle (1987) is a good example of the controversy surrounding this methodology. Backus (1986) and Ambler (1987) are examples defending the use of VAR. It is debatable whether the method of identification employed by the simultaneous equation structural model which often relies on many simplifying assumptions and arbitrary exclusion restrictions together with the related exogenous-endogenous variables classification (which are often untested) is superior to the identification procedure used in the VAR model. The critics of VAR, however, all agree that there are important uses of the VAR models. For example, McMillin (1988) points out that VAR models are particularly useful in the case of



Cointegration and error-correction models hold several intuitive implications. When the variables are cointegrated, then in the short-term, deviations from this long-run equilibrium will feed back on the changes in the dependent variable in order to force the movement towards the long-run equilibrium. If the dependent variable is driven directly by this long-run equilibrium  $I(0)$  error, then it is responding to this feedback. If not, it is responding only to short-term shocks to the stochastic environment. The  $F$ -tests of the differenced explanatory variables give us an indication of the short-term causal effects, whereas the long run relationship is implied through the significance or otherwise of the 't' test(s) of the lagged error-correction term(s) which contains the long term information since it is derived from the long run cointegrating relationship(s).

The coefficient of the lagged error-correction term, however, is a short-term adjustment coefficient and represents the proportion by which the long-run disequilibrium (or imbalance) in the dependent variable is being corrected in each short period. Non-significance or elimination of any of the lagged error-correction terms affects the implied long-run relationship and may be a violation of theory. The non-significance of any of the 'differenced' variables which reflects only short-run relationship, however, does not involve such violations because, theory typically has little to say about short-term relationships [Thomas (1993)]. In particular, the novelty of this technique can be illustrated in testing various economic and financial issues which are elusive with respect to the causal direction. By example, this technique and a multivariate formulation of vector error-correction modelling involving several variables have also been used in mainstream macroeconomic analysis in order to test for the causal chains implied by the major paradigms in macroeconomic theory.<sup>6</sup>

### 3.2 Causal Inference Using Levels VAR with Cointegrated Processes

Sims, Stock and Watson (1990) show that Granger  $F$ -tests are valid (asymptotically) in levels VARs so long as the variables appearing in the VAR are cointegrated. This procedure is dependent upon a pre-test of cointegration ranks and can be viewed as a procedure in long-run Granger causal inference since the model is in levels only. Also, no allowance is made to mixed  $I(0)$ ,  $I(1)$  and  $I(2)$  processes.

### 3.3 Causal Inference in Level VARs Including Integrated and Cointegrated Processes of Arbitrary Orders

The VECM discussed in the previous section permits inference on both short-run and, to a certain extent, long-run linkages. While this has been proposed in the recent literature [see King, Plosser, Stock and Watson (1991), Mosconi and Giannini (1992), Toda and Phillips (1993a)] and exhibits highly desirable properties both from a theoretical and empirical point of view, this formulation does have its drawbacks in that it is implicitly dependent upon pre-tests of integration and cointegration. Furthermore, there is also a covert, yet heavy reliance on such tests providing an accurate report of the cointegration ranks and, as we have already noted, even in the case where the error-correction term is appropriately derived, there is an additional step to augment this term in the original VAR formulation. In addition, the VECM formulation involves implicit non-linear restrictions on parameter vectors, which may be problematical as tests for Granger non-causality may involve size distortions due to rank deficiency. The basic necessity of this

"forecasting, analysing the cyclical behaviour of the economy, the generation of stylised facts about the behaviour of the elements of the system which can be compared with existing theories or can be used in formulating new theories, and testing of theories that generate Granger-causality implications".

<sup>6</sup> Some examples in the context of aggregate models of causality in macroeconomics for developing countries are R. Masih and A. Masih (1996), and A. Masih and R. Masih (1997b).

additional step of embedding an error-correction term arises from the need to recapture the long-run information lost through differencing the variables entering the VAR. One way to circumvent this problem is to posit a VAR in which variables appear purely in their level form. However, while Sims, Stock and Watson (1990) do propose the asymptotic theory to validate appropriate Granger causality tests in level VARs, here there is also a pre-requisite that the system be cointegrated. Such tests, in particular the most popular being due to Johansen (1991), do tend to be sensitive to nuisance parameters [see Toda (1995)] and suffer from finite-sample biases.

Only recently, Toda and Yamamoto (1995) proposed a complementary procedure which allows causal inference to be conducted in level VARs that may contain integrated processes but does not involve rigorous attention and strict reliance upon integration and cointegration properties of any or all variables in the system. In essence, this procedure circumvents some of the pre-test biases that practitioners may be confronted with in VECM and other modelling formulations involving unit root and cointegration pre-testing. Furthermore, the Toda-Yamamoto procedure is simple and convenient to apply and permit linear as well as non-linear tests of restrictions. These restrictions themselves would then imply long-run causal inference since, unlike ordinary difference VARs, this formulation involves only variables appearing in their levels.

Toda and Yamamoto (1995) propose estimation of a levels' VAR of the form:

$$y_t = \gamma_0 + \gamma_1 t + \dots + \gamma_q t^q + \theta_1 y_{t-1} + \dots + \theta_k y_{t-k} + \dots + \theta_p y_{t-p} + \zeta_t \quad (3)$$

by OLS, where  $t = 1, \dots, T$ , and  $p \geq (k+d)$  consisting of  $y_t$ 's that are  $I(d)$  which may be  $CI(d,b)$ . The  $\theta$ 's are coefficient matrices but hypothesis testing of restrictions will preclude the terms  $\theta_{k+1}, \dots, \theta_p$  which are assumed to be zero. In matrix notation, this may be written as:

$$Y' = \Gamma\Lambda + \Phi X' + \Psi Z' + E' \quad (4)$$

where  $\Gamma = [\gamma_0, \dots, \gamma_q]$ ,  $\Lambda = [\tau_1, \dots, \tau_r]$  with  $\tau_i = (1, t, \dots, t^{r'})'$ ,  $\Phi = [\theta_1, \dots, \theta_k]$ ,  $X_i = [x_1, \dots, x_T]$  with  $x_i = (y'_{t-1}, \dots, y'_{t-k})'$ ,  $\Psi = [\theta_{k+1}, \dots, \theta_p]$  and  $Z = [z_1, \dots, z_T]$  with  $z_i = (y'_{t-k-1}, \dots, y'_{t-p})'$ . Toda and Yamamoto (1995) then show that the test of hypothesis  $H_0: f(\phi)$  where  $\phi = \text{vec}(\Phi)$  is a parameter vector, may be tested by a Wald statistic which is asymptotically chi-square with  $m$  degrees of freedom, subject to  $p \geq k+d$ . The statistic is given by:

$$w = f(\phi)' [F(\phi) \{T^{-1} E' E \otimes (X' Q X)^{-1}\} F(\phi)]^{-1} f(\phi), \quad (5)$$

where  $Q = Q_t - Q_t Z(Z' Q_t Z)^{-1} Z' Q_t$ , and  $Q_t = I_T - \Lambda(\Lambda' \Lambda)^{-1} \Lambda'$ , where  $I_t$  is a  $T \times T$  identity matrix.

Effectively, this implies that all one needs to do is to determine the maximal order of integration  $[d(\max)]$  that we may believe the model to incorporate and ascertain the lag structure, and then to construct a VAR with variables appearing in their levels with a total of  $p=k+d(\max)$  lags. However, at the inference stage, linear or non-linear restrictions should only be tested on the first  $k$  lags since the  $p-k$  lags are assumed zero and ignored. The over-parametrization of the model is done intentionally, and the procedure will be valid as long as the order of integration does

not exceed the true lag-length ( $k$ ) of the model.<sup>7</sup> According to Toda and Yamamoto (1995), the Wald statistic is shown to be valid in a wide variety of cases, regardless of any component in  $Y$  being stationary (around a linear trend),  $I(1)$ ,  $I(2)$ , non-cointegrated or cointegrated of an arbitrary order.<sup>8</sup>

While this method does circumvent some of the problems associated with pre-test bias from tests required for the VECM or Sims, Stock and Watson (1990) procedure, the issue of over-fitting the model does itself entail a loss of power. Since the procedure is valid asymptotically, efficiency will also be affected in particular cases where the true lag-length may be as small as one, and augmenting additional lags in a small-sample VAR may prove to be costly in terms of parsimony. This, though, will not occur frequently in applied work using data with frequency greater than annual and orders of integration not exceeding two.

It is with these caveats in mind that in this study the procedure outlined will be applied as a complement to the VECM already proposed. In adopting the methodology as a complementary tool, the model employing a VAR in levels will add an extra dimension to the analysis in addition to providing us with another facet

<sup>7</sup> Note, however, that this is most unlikely to be the case in most empirical works. If  $d=1$ , then the procedure will always be valid since  $k \geq 1$ . The one exception is in the very special case where  $d=2$  and the true lag-length  $k=1$ .

<sup>8</sup> The Toda-Yamamoto procedure is similar to one proposed by Dolado and Lutkepohl, *Humoldt Univ Mimeo* (1994), which is also applicable to systems regardless of whether or not they are cointegrated. The approach is to basically augment a VAR( $p$ ) model with a single additional lag making it VAR( $p+1$ ) but at the inference stage, to test restrictions only the up to the  $p$ -th term.

Consider the model:

$$Y_t = \sum_{i=1}^p \alpha_i Y_{t-i} + \alpha_{p+1} Y_{t-p-1} + \sum_{i=1}^p \beta_i X_{t-i} + \beta_{p+1} X_{t-p-1} + u_t \quad (1)$$

Granger  $F$ -tests [asymptotically, the  $F$ -statistic will have a  $\chi^2(p)$  distribution] of non-causality from  $X$  to  $Y$  can now be performed using the null:

$$H_0: \beta_1 = \beta_2 = \dots = \beta_p = 0 \quad (2)$$

The idea behind this is provided in Stock and West (1988). Noting that Granger tests of non-causality only require variables in the vector that are mean-zero stationary, re-writing equation (1) in terms of mean-zero stationary processes gives:

$$Y_t = \eta + \sum_{i=1}^p \varphi_i \Delta Y_{t-i} + \varphi_{p+1} Y_{t-p-1} + \sum_{i=1}^p \gamma_i \Delta X_{t-i} + \gamma_{p+1} X_{t-p-1} + \vartheta_t \quad (3)$$

where:  $\varphi_i = \alpha_i + \alpha_2 + \dots + \alpha_{p+1}$ ;  $\varphi_{p+1} = \alpha_1 + \alpha_2 + \dots + \alpha_{p+1}$ ;  $\gamma_i = \beta_1 + \beta_2 + \dots + \beta_i$  and  $\gamma_{p+1} = \beta_1 + \beta_2 + \dots + \beta_{p+1}$ . The properties of the OLS estimates  $\hat{\varphi}$ 's and  $\hat{\gamma}$ 's are that they have normal limiting distributions and converge to their true values at the rate of the rate of  $\sqrt{T}$  where  $T$  is the sample size. In (3) a test for Granger non-causality from  $X$  to  $Y$  would involve testing the null that all the  $\gamma$  terms are jointly equivalent to zero. While this test deals with purely the short-term elements a test may be devised for Granger long-run non-causality if we test in (1) that the sum of the coefficients on the lags of  $X$  up to the  $p$ -th lag is equivalent to zero. However this sum is simply  $\gamma_p$  in (3) thereby providing a test of long-run Granger non-causality by using the null that  $\gamma_p = 0$ .

to assess the general robustness of the results generated from the VECM. Moreover, as Toda and Yamamoto (1995, p. 246) remark "...we are *not* suggesting that our method should totally replace the conventional hypothesis testing that are conditional on the estimation of unit roots and cointegrating ranks. It should rather be regarded as complementing the pre-testing method that may suffer serious biases in some cases.". In this analysis, we are employing the Toda-Yamamoto methodology sharing a similar motivation.

### 3.4 Generalized Forecast Error Variance Decomposition Analysis

Inference from using vector autoregressions, in the way of  $F$ - and  $t$ -tests may be interpreted as within-sample causality tests. They can indicate only the Granger causality of the dependent variable within the sample period, but do not provide an indication of the dynamic properties of the system, nor do they allow us to gauge the relative strength of the Granger-causal chain or strength of causality amongst the variables beyond the sample period.

Variance decompositions (VDCs), which may be termed as out-of-sample causality tests, by partitioning the variance of the forecast error of a certain variable into proportions attributable to shocks in each variable in the system including its own, can provide an indication of these relativities. Placed under an alternative context, VDCs provide a literal breakdown of the change in the value of the variable in a given period arising from changes in the same variable in addition to other variables in previous periods. A variable that is optimally forecast from its own lagged values will have all its forecast error variance accounted for by its own disturbances [Sims (1982)].

The results based on VDCs are generally found to be sensitive to the lag length used and the ordering of the variables. By construction, the errors in any equation in a VAR are usually serially uncorrelated. However, there could be contemporaneous correlations across errors of different equations. In the case where there are more than one common trend, alternative orderings of the trends may affect the results of VDCs if the common trends are themselves not absolutely uncorrelated. In standard applications of VDCs, these errors are orthogonalised through Choleski decomposition, which is not unique, since the number of MA representations for any given VAR is not finite.

In order to circumvent this problem, in this study we apply the generalised variance decomposition analysis provided and applied in Lee, Pesaran and Pierse (1992), Pesaran Pierse and Lee (1993) and Lee and Pesaran (1993). Unlike standard VDCs, generalised VDCs are not subject to any arbitrary orthogonalisations of innovations in the system.

## 4. APPLICATION AND ESTIMATION RESULTS

In order to obtain a consistent sample range for all eight countries we had to restrict the sample size. The data-set consists of end of day stock-price indexes ranging from 14-February-1992 to 19-June-1997 (inclusive), obtained from *Extel Financial Data Services*.<sup>9</sup> In order to examine the univariate properties of the stock price indices, we perform both unit root tests and mean stationary tests as part of a battery of tests for the degree of integration for each variable.

<sup>9</sup> Consistent with others in the literature [Kasa (1992), King, Sentana and Wadhvani (1994)], the raw indexes have been transformed to reflect real US dollars in order to adopt the perspective of the US investor. This type of transformation also assists in dampening out the noise from exchange market fluctuations upon stock price without distorting the exchange rate influences upon stock markets.

#### 4.1 Unit Root Tests

The semi-parametric Phillips-Perron (PP) type tests developed by Phillips (1987), Phillips and Perron (1988), and Perron (1988) are convenient testing procedures, both based on the null hypothesis that a unit root exists in the autoregressive representation of the time series. Dickey-Fuller tests [see Dickey and Fuller (1981)], attempt to account for temporally dependent and heterogeneously distributed errors by including lagged sequences of first differences of the variable in its set of regressors. The PP tests try to account for dependent and IID processes through adopting a non-parametric adjustment, hence eliminating any nuisance parameters.<sup>10</sup> Recently these tests have been shown, by Schwert (1987) and DeJong et al (1992), to suffer from lack of power as they often tend to accept the null of a unit root too frequently against a stationary alternative. Therefore, the failure to reject a unit root may be simply due to the standard unit root tests having low power against stable autoregressive alternatives with roots near unity. Furthermore, Stock (1995) stresses that nuisance parameters such as the largest autoregressive root are quite typical of economic as well as financial time series. In particular, this knife-edge assumption of an exact unit root could lead to substantial biases which is clearly conditional upon this property to hold, even in large samples.

##### 4.1.1 GPH Tests for Fractional Integration

Moreover, recently, the strict distinction of  $I(d)$ ,  $d=0, 1, 2, \dots$ , has been questioned and criticised as being arbitrary, since  $d$  can be non-integer. In such cases, a time series may still be mean-reverting, although reverting at a much slower rate and showing much more persistence, than that for a typical  $I(1)$  series<sup>11</sup>. A common indication of this is a slowly decaying autocorrelation function. In order to test this formally, in this analysis, we make use of a semi-nonparametric procedure due to Geweke and Porter-Hudak (GPH) (1983). The primary equation of interest behind the GPH estimation procedure relies on an OLS regression on:

$$\ln[I(\omega_j)] = c - d \ln[4 \sin^2(\omega_j/2)] + \eta_j, \quad \forall j = 1, \dots, n \quad (6)$$

<sup>10</sup> A treatment of the sequential steps involved in applying the PP tests appear in Taylor (1993). Basically, Perron (1988) shows that if a time series is trend-stationary and if no account is made of this in implementing the testing procedure, this may lead to high probabilities of making a type II error. While the precise form of the assumptions (with regard to distributional properties of error terms, etc) are contained in Perron (1988), the following sequence is suggested.

(i) apply  $Z(t_{\alpha^*})$ ,  $Z(\Phi_2)$  and  $Z(\Phi_3)$  respectively and if the unit root hypothesis is rejected we should halt the procedure here;

(ii) if the unit root hypothesis cannot be rejected then the greatest power may be obtained by estimating equations associated with the Phillips-Perron transformations of the relevant  $t$ - and  $F$ -statistics,  $Z(t_{\alpha^*})$  and  $Z(\Phi_1)$ . Due to the fact that these two tests are not invariant to the constant term, this is only valid if the drift term ( $\mu^*$ ) used in test equations applied in (i) was zero. In this respect these two tests should only be used if  $Z(\Phi_2)$  cannot be rejected.

<sup>11</sup> Note that while  $d < 1$  implies mean-reversion,  $0.5 \leq d < 1$  implies covariance non-stationarity, since the variance of the process will not be finite. However, even in this latter case, the process will exhibit mean-reversion as it is a subset of covariance-non-stationary processes, implying that a shock will have no permanent effect on  $z_t$ . When  $d = 1$  though, the process is classified as both non-mean reverting and covariance non-stationary since the effect of a shock is not transitory, but permanent.

for  $\omega = 2\pi j/T$  ( $j = 1, \dots, T-1$ ),  $n = g(T) < T$ , where  $I(\omega_j)$  is the periodogram of  $X$  at frequency  $\omega_j$  defined by

$$I(\omega) = \frac{1}{2\pi T} \left| \sum_{t=1}^n e^{i\omega t} (X_t - \bar{X}) \right|^2 \quad (7)$$

The GPH test can also be used as a test of the unit root hypothesis with  $I(1)$  processes imposing a test on  $d(\text{GPH})$  from the first-differenced form of the series being significantly different from zero. In this respect, the GPH procedure poses an alternative viewpoint from which to scrutinise the unit root hypothesis.

#### 4.1.2 KPSS Tests for Mean Stationarity

These studies have also implied that it would be worthwhile to conduct tests of the null hypothesis of mean stationarity in order to determine whether variables are stationary or integrated. Mean stationarity tests are performed with a tests recently proposed by Kwiatkowski et al (1992). This test [abbreviated as KPSS] is based on the statistic:

$$\eta(u) = (1/T^2) \sum_{t=1}^T S_t^2 / \sigma_e^2 \text{ where } S_t = \sum_{s=1}^t v_s, t = 1, \dots, T \quad (8)$$

with  $v_t$  being the residual term from a regression of  $y_t$  on a intercept, and  $\sigma_e^2$  is a consistent long-run variance estimate of  $y_t$ , and  $T$  represents the sample size. Kwiatkowski et al (1992) show that the statistic  $\eta(u)$  has a non-standard distribution and critical values have been provided therein. If the calculated value of  $\eta(u)$  is large then the null of stationarity for the KPSS test is rejected. Since we entertain both the Dickey-Fuller test and the KPSS test in this exercise, we consider a variable to contain a unit root or be unit-root non-stationary if the null hypothesis of non-stationarity is not rejected by the DF tests but the null hypothesis that the variable is mean stationary is rejected by the KPSS test.<sup>12</sup>

#### 4.1.3 Modified DF-GLS Tests

In this paper, instead of the standard ADF test we use the modified Dickey-Fuller test (DF-GLS) due to Elliot, Rothenberg and Stock (1995). This test is conducted using the following regression:

$$(1-L)y_{t-1}^* = a_0 y_{t-1}^* + \sum_{j=1}^p a_j (1-L)y_{t-1}^* + u_t \quad (9)$$

where  $u_t$  is a white noise error term; and  $y_{t-1}^*$  is the locally detrended data process under the local alternative of  $\bar{\alpha}$  as given by:

$$y_t^* = y_t - \bar{\beta} z_t \quad (10)$$

where  $z_t = (1, t)$  and  $\bar{\beta}$  is the regression coefficient of  $\bar{y}_t$  on  $\bar{z}_t$  for which:

$$(\bar{y}_1, \bar{y}_2, \dots, \bar{y}_T) = [\bar{y}_1, (1 - \bar{\alpha}L)y_2, \dots, (1 - \bar{\alpha}L)y_T] \quad (11)$$

<sup>12</sup> This guideline in considering the stochastic properties of univariate time series is also used in an empirical analysis containing error-correction modelling by Mehra (1994).

$$(\tilde{z}_1, \tilde{z}_2, \dots, \tilde{z}_T) = [z_1, (1 - \bar{\alpha}L)z_2, \dots, (1 - \bar{\alpha}L)z_T] \quad (12)$$

The t-test testing the hypothesis of  $H_0: a_0=0$ , against  $H_1: a_0<0$  gives the DF-GLS<sup>13</sup> test statistic. Elliot et al (1992) recommend that the parameter  $\bar{\alpha}$ , which defines the local alternative by  $\bar{\alpha} = 1 + (\bar{\alpha}/T)$  be set equal to -13.5. This test can attain a significance gain in power over the traditional unit root tests. The critical values are computed by Elliot et al (1995, Table 1) using Monte Carlo simulations. For finite sample corrections, Cheung and Lai (1995) provide approximate critical values. In the non-deterministic case, the use of  $\bar{\alpha}=-7$  is recommended where the test DF-GLS<sup>14</sup> basically involves the same procedure as computing the DF-GLS<sup>15</sup> test, apart from the exception that the locally detrended process  $y_t^*$  is replaced by the locally demeaned series  $y_t^*$  and  $z_t=1$ . The asymptotic distribution of the DF-GLS<sup>16</sup> test is the same as that of the conventional DF test.

Results for all these appear in Table 1. Given the results from all of these test procedures, we can evaluate the robustness of the integrational properties of all the stock market prices. Results seem to suggest that they are all stationary after applying the difference filter only once. Given the consistency and unambiguity of results from all these testing approaches, we conclude that these daily stock price indices are integrated at most of order one. This provides a requisite for the forthcoming multiple cointegration analysis.<sup>13</sup>

#### 4.2 Multivariate Cointegration Analysis

In this analysis we employ the Johansen and Juselius (JJ) procedure of testing for the presence of multiple cointegrating vectors. Unlike its predecessor, the JJ procedure poses several advantages over the popular residual-based Engle-Granger two-step approach in testing for cointegration.<sup>14</sup> Specifically, they may be summarised as follows: (i) the JJ procedure does not, a priori, assume the existence of at most a single cointegrating vector, rather it explicitly tests for the number of cointegrating relationships; (ii) unlike the Engle-Granger procedure which is sensitive to the choice of the dependent variable in the cointegrating regression, the JJ procedure assumes all variables to be endogenous; (iii) related to (ii), when it comes to extracting the residual from the cointegrating vector, the JJ procedure avoids the arbitrary choice of the dependent variable as in the Engle-Granger approach, and is insensitive to the variable being normalised; (iv) the JJ procedure is established on a unified framework for estimating and testing cointegrating relations within the VECM formulation; (v) JJ provide the appropriate statistics and the point distributions to test hypothesis for the number of cointegrating vectors and tests of restrictions upon the coefficients of the vectors.<sup>15</sup> Moreover, as reported by Campbell and Perron (1991), OLS estimates of cointegrating vectors, particularly in

<sup>13</sup> It is worth noting that the Johansen procedure requires variables not to be  $I(2)$ , but can admit both  $I(1)$  only and a mixture of  $I(1)$  and  $I(0)$  processes, in systems used for testing for the order of cointegration rank.

<sup>14</sup> With respect to both the Engle-Granger and JJ approach, it is important to acknowledge that should non-cointegration not be rejected at conventional significance levels, it is possible that the residual term may display fractional behaviour and still be mean-reverting implying fractional cointegration. For such an approach see R. Masih and A. Masih (1995).

<sup>15</sup> While applications of the JJ procedure have been quite popular in a multivariate context, results arrived from JJ statistics in bivariate studies have also been shown to be more robust than those arrived adopting the Engle-Granger approach [see, by example, A. Masih and R. Masih (1994, 1997a)]. A recent study by Gonzalo (1994) provides empirical evidence to support the Johansen procedure's relatively superior performance over other methods for testing the order of cointegration rank.

small samples, may be severely biased. In addition, hypotheses testing in cointegrated vectors estimated by OLS can also be problematical [Campbell and Perron (1991), p. 56].

It is demonstrated in Johansen (1991) that the procedure involves the identification of rank of the  $m$  by  $m$  matrix  $\Pi$  in the specification given by:

$$\Delta X_t = \delta + \sum_{i=1}^{k-1} \Gamma_i \Delta X_{t-i} + \Pi X_{t-1} + \varepsilon_t \quad (13)$$

where,  $X_t$  is a column vector of the  $m$  variables,  $\Gamma$  and  $\Pi$  represent coefficient matrices,  $D$  is a difference operator,  $k$  denotes the lag length, and  $\delta$  is a constant. If  $\Pi$  has zero rank, no stationary linear combination can be identified. In other words, the variables in  $X_t$  are non-cointegrated. If the rank  $r$  of  $\Pi$  is greater than zero, however, there will exist  $r$  possible stationary linear combinations and  $\Pi$  may be decomposed into two matrices  $a$  and  $b$ , (each  $m \times r$ ) such that  $\Pi = ab'$ . In this representation  $b$  contains the coefficients of the  $r$  distinct cointegrating vectors that render  $b'X_t$  stationary, even though  $X_t$  is itself non-stationary, and  $a$  contains the speed-of-adjustment coefficients for the equation.

Results of cointegration rank by the JJ procedure appear in Panel A of Table 2. Evidence from both trace and maximal eigenvalue tests suggests that there is at most a single cointegrating vector or analogously seven independent common stochastic trends within this eight-variable system.<sup>16</sup> This finding is consistent with studies by Corhay et al (1993), Leachman and Francis (1995) and Jeon and Chiang (1991) who, among others, find that equity markets of countries belonging to the G-7 countries possess at least one cointegrating vector. It is worth noting that an implicit assumption underlying these tests are that news and particular events did not significantly affect the stability of this system in terms of altering the number of common stochastic trends. This issue may now be tested using procedures advocated by in the literature by Hansen and Johansen (1993), and Quintos and Phillips (1993). However, based on evidence using similar techniques on a system of five OECD equity markets, Masih and Masih (1997d) find evidence that the crash did not affect the number of common stochastic trends within this particular system.

In order to assess the relative strength of the long run relationship, Johansen and Juselius (1993) point out that larger eigenvalues are associated with the cointegrating vector being more correlated with the stationary component of the process. To gain some insight into the robustness of results for all eight indices, we also conducted cointegration tests revealing  $r = 1$  for a system including only OECD countries. Eigenvalues, presented in Panel B of Table 2, in descending order, indicate the cointegration relationship to be much stronger for the eight-market

<sup>16</sup> Due to one of the biases of the JJ procedure being the sensitivity of cointegration rank to the order of the lag length used in the VAR, we chose the lag subject to the Akaike's FPE criterion. In addition, results of a unique cointegrating vector was insensitive to slight modifications to lag length. Furthermore, there has been much recent work documenting the potential for severe small sample bias in Johansen tests [see Cheung and Lai (1993)]. The scaling-up factor on the asymptotic critical values suggested by Cheung and Lai's study does not alter our conclusion of cointegration rank. Furthermore, their study favours the trace test in that "it shows little bias in the presence of either skewness or excess kurtosis, and... is found to be more robust to both skewness and kurtosis than the maximal eigenvalue test" [Cheung and Lai (1993, p. 324)]. In the light of this statement, the trace statistic of 187.820 further confirms our initial conclusion of  $r$  equal to at most 1.



system than for a system including only the markets of the OECD along with Hong Kong and Singapore<sup>17</sup>. This observation is based on the associated eigenvalue in the eight-market system being of a much larger magnitude than for the system with only equity indexes from the OECD countries.

Finally in order to test that each of the equity markets enter the cointegrating vector significantly, we test for zero restrictions upon each of the coefficients derived by the Johansen procedure. Having established the presence of a single cointegrating vector, the Johansen procedure allows us to test several hypotheses on the coefficients by way of imposing restrictions and likelihood ratio tests which are, asymptotically, chi-square distributed with one degree of freedom.

Scrutinising the cointegration vector in each model, presents us with a measure of the most important component, in terms of its relative weight, in comparison to the remaining components. Coefficient estimates and significance levels associated with the tests of zero-loading restrictions appear in Panel B of Table 2. Normalising on *us*, significance levels provide evidence of each of these restrictions being rejected, for most at least at the 1 per cent level apart from Thailand for which the restriction is rejected at the 5%. This implies that most of the markets enter into the cointegrating vector at a statistically significant level. In general, these results indicate that almost all markets adjust in a significant fashion to clear any short-run disequilibrium. In addition the largest coefficient is on the UK index followed closely by the coefficient for Japan, and the smallest coefficient is on the Thai index. The size and share of the world capitalization may be a factor behind the magnitude of the influence of these stock markets..<sup>18</sup>

<sup>17</sup> This set of eigenvalues were derived for a separate system of 6 stock prices of in the vector: {*uk*, *jp*, *uk*, *ge*, *sn*, *hk*} for which results are available upon request from the corresponding author.

<sup>18</sup> In order to derive estimates of the long-run coefficients of the cointegrating vectors, we employ two recently prescribed estimation methods developed by Stock and Watson (1993), in addition to the JJ MLE method. The Johansen procedure allows us to test several hypotheses on the coefficients by way of imposing restrictions and likelihood ratio tests which are, asymptotically, chi-square distributed. However, a question of sensitivity does arise in reporting coefficients of the Johansen procedure in the case where we have more than one cointegrating vector. Also, apart from other reasons on preferring a single-equation method, there may be a need to gauge the robustness of results from one or more methods of obtaining the same parameters. As an alternative, the dynamic OLS (DOLS) procedure due to Stock and Watson (1993) is essentially equivalent, asymptotically, to the Phillips-Loretan non-linear least-squares method, and have been shown to be superior, at least on the basis of Monte Carlo experiments [see Stock and Watson (1993)], to the Johansen and several other previously recommended methods to estimate parameters of cointegrating vectors. The way this procedure differs is the particular manner by which serial correlation is corrected and what specific operational mechanism is used for accounting for possible endogeneity amongst the regressors. The Stock-Watson DOLS procedure is similar to the Phillips-Loretan approach in that leads and lags of the differences of the *I*(1) variables are included as regressors in a single-equation regression which regresses one of the *I*(1) variables on the *I*(1) and *I*(0) variables all in levels. The DOLS procedure is preferred here due to its favourable performance, as well, in small samples. These estimates will facilitate long-run econometric inference. Robust standard errors are derived via the procedure prescribed by Newey and West (1987). In an attempt to obtain a feeling for the robustness of these long-run Johansen coefficients, we also estimate the cointegrating relationship (normalising on the US) by the Dynamic OLS procedure based on the following equation and up to *K*=5 leads and lags:

Given the presence of a unique cointegrating vector in the eight-dimensional VAR used in the JJ cointegration tests, this then provides us with one error-correction term for constructing models specified by (2). Analogously, we may also extract ( $n-r$ ) or 7 common trends, [for such an approach see Kasa (1992), Chung and Lui (1994)]<sup>19</sup>.

Summary results based on the VECM formulation described in Section 3, are presented in Table 3 and provides some interesting results. Without risk of ambiguity, in terms of econometric exogeneity, only the US market deserve attention. In making this claim, note that for each of the other markets, at least one channel of Granger causality is active: either the short-run through joint tests of lagged-differences or a statistically significant ECT. This latter channel is a novelty of the VECM formulation but it is noteworthy of significance only in the equations for Singapore and Hong Kong in the Asian belt and UK for the major markets.. The economic intuition arising from this finding implies that when there is a deviation from the equilibrium cointegrating relationships as measured by the ECTs, it is mainly changes in these 3 markets that adjusts to clear the disequilibrium i.e. bears the brunt of short-run adjustment to long-run equilibrium. This leaves changes in the US market, which appear to be statistically exogenous and thus represents the initial receptor of any exogenous shocks to their long-term equilibrium relationships. In other words, US leads in picking up the information first and then pass them on to other markets.

$$uS_t = B'X_t + \sum_{k=-K}^{k=K} \lambda_{1,k} \Delta j p_{t-k} + \sum_{k=-K}^{k=K} \lambda_{2,k} \Delta u k_{t-k} + \sum_{k=-K}^{k=K} \lambda_{3,k} \Delta g e_{t-k} + \sum_{k=-K}^{k=K} \lambda_{4,k} \Delta s n_{t-k} + \sum_{k=-K}^{k=K} \lambda_{5,k} \Delta m l_{t-k} + \sum_{k=-K}^{k=K} \lambda_{6,k} \Delta h k_{t-k} + \sum_{k=-K}^{k=K} \lambda_{7,k} \Delta t h_{t-k} + \zeta_t$$

where  $B = [c, \delta_1, \delta_2, \delta_3, \delta_4, \delta_5, \delta_6, \delta_7, \delta_8]'$ ,  $X = [j p_t, u k_t, g e_t, s n_t, m l_t, h k_t, t h_t]$  and find estimates to be, in general, very similar to the ones derived by the Johansen procedure (results are available upon request). This may be due to the fact that, while DOLS may be useful to apply in systems including higher orders of integration, DOLS and Johansen (1991) ML estimator are asymptotically equivalent in the standard case with all variables  $I(1)$ .

<sup>19</sup> To extract the common stochastic trends one need to appreciate the alternatives available. These methods allow us to shed light on a closely related issue of stock market integration: equivalently, one may represent the number of cointegrating vectors as common stochastic trends [see Stock and Watson (1988)]. The basic procedure here is to decompose each element of the vector of stock price indexes into (1) a stochastic trend component arising from the unit root properties of  $X$  ( $X$  say contains all SPIs); and (2) a stationary component arising from the cointegrating relationship of the series. In other words, by filtering out the stationary component and focusing on the trend component, the importance of these common unit roots to the long-run co-movement of these series may be examined. Stock and Watson for example derive from the estimated error-correction VAR equations the "Common Trends Representation"; while Aoki (1988) and Cerchi and Havenner (1988), adopt a state space framework. An alternative is to adopt a procedure developed by Kasa, (1992). His approach is based on a projection theorem that decomposes  $X$  into the direct sum of its orthogonal projections onto two subspaces which are orthogonal complements of each other. This approach will allow us to view the relative importance to all SPIs of that part of the common trend contributed by the  $i$ th unit root. Furthermore, the overall stochastic trend for each variable will be determined jointly by the number of common unit roots. Although this would be more applicable if we were purely looking at the hypothesis that international stock markets were integrated, a more pragmatic approach may be to adopt an approach advocated by Hansen and Jaganathan (1991) who derive a lower bound on the correlation between any pair of asset returns under the hypothesis of complete markets. Nevertheless, perhaps this should be acknowledged.

Although the ECT is statistically significant in 3 equations, one cannot assume that all other markets are non-causal since the short-run channels are still active. For example, fluctuations in the US market seem to explain movements in all markets apart from the Japanese and Thai markets. At the regional level, the short-run dependencies between Malaysia, Singapore, and Thailand are clearly brought to light.

#### 4.4 *Toda-Yamamoto Levels VAR*

The results of tests of restrictions from a VAR estimated by the procedure prescribed by Toda and Yamamoto (1995) are summarised in Table 4. Here the lag selection was 3, but a  $(k+1 = 4)$  order VAR was estimated with restrictions performed on lagged terms up to the  $k$ th lag. There are no short-run causality flows in this case since all variables appear in levels. Results from this analysis indicate only the US market seems to be weakly exogenous. The dominance of the US and UK markets in the longterm is clearly apparent, with Japan only active in influencing Thailand. Also, the German market is causal in both the UK and Malaysian markets. Once more, the dominance of both the US and UK in influencing fluctuations of other stock markets over the long run deserves some attention. Interestingly, in the longterm none of the Asian markets of Singapore, Malaysia, Hong Kong or Thailand appear to be significant in influencing any other market. It is also interesting to observe the similarity of results between the modelling approaches.

#### 4.5 *Generalised Variance Decomposition Analysis*

Finally, we conduct generalised variance response (GVDC) analysis in an attempt to gauge to what extent shocks to certain markets are explained by other markets considered in the system. Information from application of these tools should provide some further evidence on the patterns of linkages amongst stock markets, as well as contribute to enhancing our insights upon how markets react to system wide shocks and how these responses propagate over time. It is important to note, however, that although derivation of GVDCs does not suffer from the arbitrary orthogonalisation of innovations, GVDCs should not be strictly used to isolate responses of a particular shock, assuming that all other shocks are not present, or not also running in conjunction with the particular shock in question. In this respect, one should not attribute the shock, as in traditional VDC analysis, to sole variables in the system, and thereby practice caution when interpreting such results.

Generalised VDCs from one-standard deviation shocks to each markets over 1 to 150 days are listed in Table 5. The US market seems to be the most exogenous as most of its shock is explained by its own innovations. For example, at the end of say, 5 days, 84% of US variance is explained by its own shocks (unlike other countries). Of the advanced countries, it is the U.K. that has relatively greater impact on other countries.

In the Asian belt, as expected, Hongkong appears to be the most exogenous. After a 5-day horizon, 58% of its variance is explained by its own shocks (unlike the rest). What is worth noting however, is the striking interdependency among the Asian markets. For example, around 40 percent or more of the variance of most of the Asian markets is explained by their regional markets (compared to no more than 10 percent of their variance explained by all the four advanced countries together).

## 5. DISCUSSION OF COMPARATIVE RESULTS AND IMPLICATIONS

Our results hold several implications in the area of financial research concentrating on linkages amongst a set of equity markets, on both methodological and more substantial levels. In this section, We briefly discuss the methodological implications of this analysis and also the implications the derived results hold for issues associated with (i) global stock market integration, (ii) implications for the propagation or transmission mechanism of stock market linkages, (iii) implications of results for the market efficiency hypothesis.

At a methodological level, procedures which do not rely upon the knife-edge distinctive requisites of exact unit roots and cointegration, do seem to be a welcome relief for practitioners concerned with performing causal inference in systems containing possibly integrated processes. Pre-testing for the explicit number of unit roots in the system and information on the rank of certain submatrices in the cointegrating space is also required, and is also problematical for those attempting to determine the appropriate limit theory. Causal inference with vector ECMs may also be shown to depend on the size of certain nuisance parameters which, in several instances, lead to limit theory which is non-standard in nature.<sup>20</sup> To this extent, the procedure endorsed by Toda and Yamamoto (1995), which has been briefly prescribed and applied in the context of stock market linkages, provides an additional tool to the host of procedures already available. The complementarity of this procedure may be alluded to in that the costly (both in terms of a loss of degrees of freedom and long-run information) transformation by differences of variables need not be implemented even in the presence of significant unit root components in the variables. In this respect, levels of variables, whether they may be cointegrated of any specific order or not, can be used to infer long-run causal relations within a multivariate system. While traditional SECMS (single-equation ECMs) and VARs augmented with well defined error-correction terms, still provide a sound basis with which to conduct Granger causality tests, the potential of application of the Toda-Yamamoto procedure, especially to data sets of greater than an annual frequency, seems to be quite promising.

More substantially, the results of cointegration and causal linkages amongst markets provide some interesting evidence to compare with current and previous research. At foremost interest in much of the empirical international financial literature is the extent to which markets have become internationally integrated. This paper contributes to this attention in the research in a modest manner.<sup>21</sup> The evidence of cointegration among these eight markets implies that since each national stock price series contains information on the common stochastic trends (which bind all these markets together), the predictability of one country's stock prices can be enhanced significantly by utilising information on other countries' stock prices. The presence of stochastic trends common to all these series implies that once new information on a country's price is available prior to others, other prices will deviate from that trend

<sup>20</sup> Toda and Phillips (1994) provide a very thorough theoretical overview along with a simulation study of the sampling properties of sequential Granger causality tests in vector ECMs compared with standard causality tests in levels and first-difference VARs.

<sup>21</sup> Often, the number of cointegrating relationships existing in a system of stock prices have been used as evidence of market integration. The use of cointegration lends itself to this issue at an intuitive level. However, as proposed by Bekaert and Harvey (1995) who construct a measure for capital market integration, if markets are completely integrated, assets with the same risk being traded in different markets should have identical expected returns. Alternatively, if a market is segmented, its strength of covariance with a global factor could contribute very little to explain its expected return. These factors do need to be admitted in a more formal approach to testing the level of equity market integration.

only by a transitory component. Individual prices cannot wander too far away from each other over time.

One can postulate several reasons towards explaining this increased interrelationship and integration amongst stock markets. These range from the deregulation of financial markets including increased efforts to implement liberalisation measures, the expanding influence of multinational corporations, increase in macroeconomic policy coordination, to innovations in financial products. This contention is quite plausible given that: (i) since globalisation started, there has been a stronger cross-exchange of market index covariation; (ii) rather than making the heroic assertion that market fundamentals have altered as a results of increased globalisation, it has been documented that there appears to be greater 'psychological contagion' between markets, and a bursting of a strong rational speculative bubble over this period (see Hardouvelis (1988) on this issue); and (iii) due to the technology explosion, the escalation of computerised trading systems has greatly facilitated the transfer of information flows being transmitted from one market to another. In tune with related research, this paper has also served to highlight a major hypothesis of great import to financial analysts, which underlies "that existing financial linkages connecting stock markets have become much more robust and can magnify cross-market adjustments to exogenous disturbances" [Brocato (1994), p. 645].

The evidence of cointegration has implications for portfolio diversification by international investors. Its presence implies that there is a common force (such as arbitrage activity) which brings these stock markets together in the longterm. A test of cointegration, therefore, can also be said to be a test of the extent of the level of arbitrage activity in the longterm. Since these markets are interdependent and highly integrated, they will act as if they are constituents of one integrated market. Hence the possibility of gaining abnormal profits in these markets through diversifying investment portfolios, is very limited indeed because in theory it is likely to be arbitrated away in the longterm. However, two qualifications should be added here. First, cointegration does not rule out the possibility of arbitrage profits through diversifying portfolios across these countries in the short term which may last for quite a while. Secondly, because of varying degrees of business and financial risks of different securities and also because of various security cash flows co-varying less than perfectly across different countries (and even within the same country), the diversification benefits in cointegrated markets in the longterm may be reduced but are not likely to be fully eliminated in practice.

As regards efficient market hypothesis (EMH), it is worth noting that there may not necessarily be a real association between market efficiency and cointegration. Granger (1986) argues that cointegration between two prices implied an inefficient market because the error correction model would indicate that at least one of the prices is predictable. Predictability, though, does not necessarily say anything about risk-adjusted excess rates of return i.e. inefficient markets. Taking spot and forward or futures prices as an example, the spot price may diverge from the futures for a number of reasons. One would be a non-stationary risk premium, or in the case of storable commodities, a convenience yield, and/or another relevant omitted variable. If the premium or yield were zero and/or stationary and there were no third variable, cointegration may hold. It is important to notice though, that even in the case of cointegration, we could not conclude for certain whether the market is efficient or inefficient. That is, if the prices are cointegrated and the errors from the cointegrating equation are not serially correlated, one may conclude that the market is efficient. However, stationary lagged variables or lagged errors from another related market might be used to predict the variables or lagged errors under consideration. If this were the case one might be able to earn risk-adjusted returns and thus the market may not be efficient. On the other hand, if they are cointegrated and the error term serially correlated, i.e. the premium or yield have predictable components, the market may or may not be efficient. It could be inefficient only if

by using the predictability one could earn risk adjusted excess returns. If returns could be generated, are they just compensation for risk or are they truly excess and risk-adjusted? So, at the very least, one must practice caution in concluding cointegration or the lack thereof, implies anything about efficiency. This issue is further elaborated in Dwyer and Wallace (1992).

Our evidence of the extent of cointegration or interdependencies among these markets will also have important implications for the macro stabilisation policies in each of these countries and also for the financial policies of multinational corporations. The extent of the effectiveness of the monetary, fiscal, wages and exchange rate policies of each of these countries in dealing with that country's imbalances such as trade and fiscal, will depend crucially on the extent of each country's financial integration with the rest. Similarly, the extent of integration of each of these countries will have important bearing on the formulation of the financial policies of multinational corporations.

A consistent feature across application of all methods is the price leadership of the US market. This confirms the findings of Schollhammer and Sand (1987). Eun and Shim (1989), and Lin et al (1994), who arrive at similar conclusions using higher frequency data sets and may be attributable to two factors: (i) the US market, with its dominance in the world market place, is also the most influential producer of information. This lends support to a view that reactions to U.S. news will contribute significantly to form a 'international correlation structure' which dominates other markets or the public reaction hypothesis [see Becker et al (1995)]; and (ii) international investors often overreact to news from the US market and place less weight on information from other markets.

Theoretically, the greater the liquidity of a market (in terms of the trading volumes transacted), the greater the capitalization (in terms of the share of global equity capital), the lower the transaction costs (which depend partly on the extent of openness and deregulations of an economy), the more leading that market is expected to be in the information context. Moreover, there is the differential information hypothesis which states that the available information set is an increasing function of firm size and is developed from the theory of transaction costs and different incentives for information search. If the costs of information search are fixed and constant across markets of different sizes, then the incentive to undertake research for mispricing will be greater for the larger market (or firm) than the smaller market (or firm). Hence it is no wonder that the U.S. is the global leader and Hongkong is the leader in the Southeast Asian region.

## 6. SUMMARY, CONCLUSIONS AND LIMITATIONS

This paper focuses on an empirically elusive issue in the finance/financial economics literature concerning patterns of linkages amongst national stock markets. In dealing with such an issue, a comparative analysis was made of two approaches in conducting causal inferences in systems containing possibly integrated as well as cointegrated processes. The paper illustrates how such methods may be appropriately augmented in a compatible fashion to unearth previously unfounded linkage properties inherent amongst a system of stock price indexes. In particular, we demonstrate that previous research, by using ordinary difference VARs, ignored an important component of linkages displayed purely over the long run. The analysis demonstrates an approach by which competing methodologies in VAR modelling may be employed to unearth intuitive and meaningful findings, as well as being aware of limitations. Special attention was given to conducting long-run causal inference and we also addressed the potential problems associated with pre-test biases which may cost the researcher in terms of statistical relevance and loss of valuable information. In an application to discerning the causal chain amongst

international stock markets. we illustrated how this, essentially untapped evidence, provides robust and very useful information to international financial analysts and investors.

Apart from the methodological implications offered, at a more substantive level, this study provides some further evidence not only of significant interdependencies between the established OECD and the emerging Asian markets, but also of the strength of the US and UK both in the short and long-term in leading major OECD and up and coming emerging Asian markets. Apart from these contributions, further ramifications of these results for international stock markets linkages, global market integration, portfolio diversification, international market efficiency, domestic stabilisation policies, and financial policies of multinationals have also been addressed. The evidence presented however, should be assessed bearing in mind that finance theory does not unequivocally offer any clear directions or predictions upon the nature of movements in stock prices in response to fluctuations of other asset prices of other markets [see von Furstenberg and Jeon (1989) and discussions].

The analysis tends to indicate that both the US and UK have significant relationship (both in the short and long-term) with most of the Asian markets. However, from the point of view of quantitative impact, with the sole exception of UK, the other advanced countries do not appear to have any pronounced effect on the Asian regional markets (compared to the inter-regional impact of the Asian markets). This is a significant finding and is consistent with the recent fluctuations in stock prices in this region.

This inter-regional stock market dependency is perhaps due partly to the growing share of inter-regional trade and investment in this Asian belt in recent years. Moreover, greater linkages among these Asian markets are also partly accounted for by the more common monetary policy followed by them, particularly since the October crash of 1987. All these countries have US as one of the major trading partners and most of their currencies are tied to the US dollar. In fact, the exchange rate pegging became much more strong after the crash. The standard deviation of the exchange rate between US dollar and each of these countries' currency fell (after the crash) by a substantial amount.

In theory, stock prices move for either expected movements in dividends (or GNP) or expected movements in the discount rate. Empirical evidence suggesting co-movement in dividends or GNP is relatively weak. Therefore the alternative explanation is that markets are getting increasingly integrated so that countries share a common discount rate and hence movements towards this common discount rate account for most of the variation in stock prices. Southeast Asia is no exception to this growing financial integration trend. Markets are segmented when assets are priced mainly in line with factors specific to that market. Studies on market segmentation generally find national factors play the decisive role. When markets are integrated, as is the prevailing trend now, assets are priced in line with international factors. Recent Southeast Asian financial crisis supported by our statistical results, bears testimony to this new phenomenon in financial markets.

Limitations of this analysis, however, should not be ignored. These include issues related to temporal aggregation even at a daily level. As several studies have already heeded to the time series property artefacts generated from temporal aggregation - this could involve disaggregation by industry, or a classification of stocks that are traded multi-laterally across international stock markets, those non-traded but operated multinationally, and those which trade but operate locally. This could unveil to what extent international stock price linkages are a figment of the links that exist amongst goods markets. Other deficiencies of this analysis include the lack of

any explicit account of news and impact of global events and a lack of any formal sensitivity analysis apart from a sub-sample analysis of results; and what impacts this event could have had upon the results. A more detailed study focusing on these events using data observed at intra-day, and focusing upon the evolution of the relative endogeneity and stability of the particular markets over time, could provide a positive and practical step in this direction for future research in international finance.



## REFERENCES

- Agmon, T. and D. Lessard (1977), Investor Recognition of Corporate International Diversification, *Journal of Finance*, **32**, 1049-1055.
- Ambler, S. (1989) Does Money Matter in Canada? Evidence from a Vector Error Correction Model, *Review of Economics and Statistics*, **69**, 651-658.
- Arshanapalli, B. and J. Doukas (1993), International Stock Market Linkages: Evidence from the Pre- and Post-October 1987 Period, *Journal of Banking and Finance*, **17**, 193-208.
- Bekuert, G. and C.R. Harvey (1995), Time-Varying World Market Integration, *Journal of Finance*, **50**, 403-444.
- Backus, D. (1986) The Canadian-U.S. Exchange Rate: Evidence from a Vector Autoregression, *Review of Economics and Statistics*, **68**, 628-37.
- Banerjee, A., R.L. Lumsdaine and J.H. Stock (1992), Recursive and Sequential Tests of the Unit-Root and Trend-Break Hypotheses: Theory and International Evidence, *Journal of Business and Economics Statistics*, **10**, 271-287.
- Becker, K.G., J.E. Finnerty and J. Friedman (1995), Economic News and Equity Market Linkages between the U.S. and U.K., *Journal of Banking and Finance*, **19**, 1191-1210.
- Bhoocha-oom.A. and S. R. Stansell (1990), A Study of International Financial Market Integration: An Examination of the U.S., HongKong and Singapore Markets, *Journal of Business Finance and Accounting*, **17**, 193-212.
- Blackman, S.C., K. Holden and W.A. Thomas (1994), Long-Term Relationships Between International Share Prices, *Applied Financial Economics*, **4**, 297-304.
- Brocato, J. (1994), Evidence on Adjustments in Major National Stock Market Linkages Over the 1980s, *Journal of Business Finance and Accounting*, **21**, 643-667.
- Campbell, J.Y. and P. Perron (1991), Pitfalls and Opportunities: What Macroeconomists Should Know About Unit Roots, in: O.J. Blanchard and S. Fischer (eds.), *NBER Macroeconomics Annual 1991*, MIT Press, Cambridge, Mass.
- Cerchi, M. and A. Havenner (1988), Cointegration and Stock Prices: The Random Walk on wall Street Revisited, *Journal of Economic Dynamics and Control*, **12**, 333-346.
- Cheung, Y-L. and S. Mak (1992), The International Transmission of Stock Market Fluctuations Between the Developed Markets and the Asian-Pacific Markets, *Applied Financial Economics*, **2**, 43-47.
- Cheung, Y.L. and K.T. Wong (1992), An Assessment of Risk and Return: Some Empirical Findings From the Hong Kong Stock Exchange, *Applied Financial Economics*, **2**, 105-114.

- Cheung, Y-W and K.S. Lai (1993), Finite-Sample Sizes of Johansen's Likelihood ratio Tests for Cointegration, *Oxford Bulletin of Economics and Statistics*, **55**, 313-328.
- Cheung, Y-W and K.S. Lai (1995), Lag Order and Critical Values of a Modified Dickey-Fuller Test, *Oxford Bulletin of Economics and Statistics*, **57**, 411-419.
- Chowdhury, A.R. (1994), Stock Market Interdependencies: Evidence from the Asian NIEs, *Journal of Macroeconomics*, **16**, 629-651.
- Chung, P.J. and D.J. Liu (1994), Common Stochastic Trends in Pacific Rim Stock Markets, *Quarterly Review of Economics and Finance*, **34**(3), 241-259.
- Cooley, T. F. and S. F. Leroy (1985) Atheoretical Macroeconometrics: A Critique, *Journal of Monetary Economics*, **16**, 283-308.
- Corhay, A., A. Tourani Rad and J.-P. Urbain (1993), Common Stochastic Trends in European Stock Markets, *Economic Letters*, **42**, 385-390.
- Corhay, A., A. Tourani Rad and J.-P. Urbain, (1995), Long Run Behaviour of Pacific-Basin Stock Prices, *Applied Financial Economics*, **5**, 11-18.
- DeJong, D.N., J.C. Nankervis, N.E. Savin and C.H. Whiteman (1992), Integration Versus Trend Stationarity in Time Series, *Econometrica*, **60**(2), 423-433.
- Dickey, D.A. and W.A. Fuller, (1981), Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Root, *Econometrica*, **49**, 1057-1072.
- Dickey, D.A. and S.G. Pantula (1987), Determining the Order of Differencing in Autoregressive Processes, *Journal of Business and Economics Statistics*, **5**, 455-461.
- Dolado, J. and H. Lutkepohl (1994), Making Wald Tests Work for Cointegrated VAR Systems, Humboldt Univ., Mimeo.
- Dwyer, G.J. Jr. and M.S. Wallace (1992), Cointegration and Market Efficiency, *Journal of International Money and Finance*, **11**, 318-327.
- Elliot, G., T. J. Rothenberg and J.H. Stock (1996), Efficient Tests for an Autoregressive Unit Root, *Econometrica*, **64**, 813-26.
- Engle, R.F. and C.W.J. Granger (1987), Cointegration and Error Correction: Representation, Estimation, and Testing, *Econometrica*, **55**, 251-276.
- Errunza, V. and E. Losq (1985), International Asset Pricing Under Mild Segmentation: Theory and Tests, *Journal of Finance*, **40**, 105-124.
- Eun, C. and S. Shim (1989), International Transmission of Stock Market Movements, *Journal of Financial and Quantitative Analysis*, **24**, 241-256.
- Geweke, J. and S. Porter-Hudak (1983), The Estimation and Application of Long Memory Time Series Models, *Journal of Time Series Analysis*, **4**, 221-238.
- Gonzalo, J. (1994), Five Alternative Methods of Estimating Long Run Equilibrium Relationships, *Journal of Econometrics*, **60**, 203-233.

- Goodhart, C. (1988), The International Transmission of Asset Price Volatility, in: *Financial Market Volatility: A Symposium*, Jackson Hole, Wyoming, Federal Reserve Bank of Kansas City, 79-119.
- Granger, C.W.J., (1986), Developments in the Study of Cointegrated Economic Variables, *Oxford Bulletin of Economics and Statistics*, **48**, 213-228.
- Granger, C.W.J. (1988), Some Recent Developments in a Concept of Causality, *Journal of Econometrics*, **39**, 199-211.
- Granger, C.W.J. and J-L Lin (1995), Causality in the Long-Run, *Econometric Theory*, **11**, 530-536.
- Grubel, H. (1968), Internationally Diversified Portfolio: Welfare Gains and Capital Flows, *American Economic Review*, **58**, 89-94.
- Hamao, Y., R. Masulis and V. Ng (1990), Correlation in Price Changes and Volatility Across International Stock Markets, *Review of Financial Studies*, **3**, 281-307.
- Hansen, H. and S. Johansen (1993), Recursive Estimation in Cointegrated Models, Inst. of Mathematical Statistics Preprint No. 1, Jan., Univ. of Copenhagen.
- Hansen, L.P. and R. Jagannathan (1991), Implications of Security Market Data for Models of Dynamic Economies, *Journal of Political Economy*, **99**, 225-262.
- Hardouvelis, G. (1988), Evidence on Stock Market Speculative Bubbles: Japan, the United States, and Great Britain, *Federal Reserve Bank of New York Quarterly Review*, **13**(2), 4-16.
- Hietala, P.T. (1989), Asset Pricing in Partially Segmented Markets: Evidence From the Finnish Markets, *Journal of Finance*, **44**, 697-718.
- Hendry, D., (1986): Econometric Modelling with Cointegrated Variables: An Overview, *Oxford Bulletin of Economics and Statistics*, **48**, 201-212.
- Hilliard, J. (1979), The Relationship Between Equity Indices on World Exchanges, *Journal of Finance*, **34**, 103-114.
- Ho, Y.K. and Y.L. Cheung (1991), Behaviour of Intra-Daily Stock Return on an Asian Emerging Market - Hong Kong, *Applied Economics*, **23**, 957-966.
- Ho, Y.L., P. Draper and P. Pope (1992), Return Volatilities and Trading Activities on an Emerging Asian Market, *Economic Letters*, **39**, 91-94.
- Jeon, B.N. and von Furstenberg (1990), Growing International Co-Movement in Stock Price Indexes, *Quarterly Review of Economics and Business*, **30**, 15-31.
- Jeon, B.N. and T.C. Chiang (1991), A System of Stock Prices in World Exchanges: Common Stochastic Trends for 1975-1990?, *Journal of Economics and Business*, **43**, 329-338.
- Johansen, S. (1991), Estimation and Hypothesis Testing of Cointegration Vectors in Gaussian Vector Autoregression Models, *Econometrica*, **59**, 1551-1580.

- Johansen, J. and K. Juselius (1993), Testing Structural Hypotheses in a Multivariate Cointegration Analysis of the PPP and the UIP for UK, *Journal of Econometrics*, 53, 211-244.
- Jorion, P. and E. Schwartz (1986), Integration versus Segmentation in the Canadian Stock Market, *Journal of Finance*, 41, 603-616.
- Kasa, K. (1992), Common Stochastic Trends in International Stock Markets, *Journal of Monetary Economics*, 29, 95-124.
- King, M.A., E. Sentana and S. Wadhvani (1994), Volatility and Links Between National Stock Markets, *Econometrica*, 62, 901-933.
- King, M.A., and S. Wadhvani (1990), Transmission of Volatility Between Stock Markets, *Review of Financial Studies*, 3, 5-33.
- King, R.G., C.I. Plosser, J.H. Stock and M.W. Watson (1991), Stochastic Trends and Economic Fluctuations, *American Economic Review*, 81(Sept.) 819-840.
- Koch, P.D. and T.W. Koch (1991), Evolution in Dynamic Linkages Across Daily National Stock Indexes, *Journal of International Money and Finance*, 10, 231-251.
- Kwan, A.C.C., A-B Sim and J.A. Cotsomitis (1995), The Causal Relationships Between Equity Indices on World Exchanges, *Applied Economics*, 27, 33-37.
- Kwiatkowski, D., P.C.B. Phillips, P. Schmidt and Y. Shin (1992), Testing the Null Hypothesis of Stationarity Against the Alternative of a Unit Root: How Sure Are We That Economic Time Series Have a Unit Root?, *Journal of Econometrics*, 54(Oct/Dec), 159-178.
- Lee, K.C. and M.H. Pesaran, (1993), Persistence Profiles and Business Cycle Fluctuations in a Disaggregate Model of U.K. Output Growth, *Ricerche Economiche*, 47, 293-322.
- Lee, K.C., M.H. Pesaran and R.G. Pierse (1992), Persistence of Shocks and its Sources in a Multisectoral model of UK output Growth, *Economic Journal*, 102, 342-356.
- Lin, W.-L., R.F. Engle and T. Ito (1994), Do Bulls and Bears Move Across International Borders? International Transmission of Stock Returns and Volatility, *Review of Financial Studies*, 3, 507-538.
- Leachman, L.L. and B. Francis (1995), Long-Run Relations Among the G-5 and G-7 Equity Markets: Evidence on the Plaza and Louvre Accords, *Journal of Macroeconomics*, 17, 551-577.
- Lessard, D. (1973), International Portfolio Diversification: A Multivariate Analysis for a Group of Latin American Countries, *Journal of Finance*, 28, 619-633.
- Malliaris, A.G. and J. L. Urrutia (1992), The International Crash of October 1987: Causality Tests, *Journal of Financial and Quantitative Analysis*, 27(3), 353-364.

- Masih A.M.M. and R. Masih (1994), On the Robustness of Cointegration Tests of the Market Efficiency Hypothesis: Evidence From Six European Foreign Exchange Markets, *Economia Internazionale*, 47(2/3) May-Aug, 160-180.
- Masih A.M.M. and R. Masih (1995), Investigating the Robustness of Tests of the Market Efficiency Hypothesis: Contributions From Cointegration Techniques on the Canadian Floating Dollar, *Applied Financial Economics*, 5, 139-150.
- Masih A.M.M. and R. Masih (1997a), Does Money Cause Prices or the Other Way Around? Some Multi-Country Econometric Evidence Including Error-Correction Modelling From Southeast Asia, *Journal of Economic Studies*, (forthcoming).
- Masih A.M.M. and R. Masih (1997b), Empirical Tests to Discern the Dynamic Causal Chain in Macroeconomic Activity: New Evidence from Thailand and Malaysia Based on a Multivariate Cointegration/Vector Error-Correction Modelling Approach, *Journal of Policy Modeling*, 19(4), (Aug) 441-468.
- Masih, A.M.M. and R. Masih (1997c), A Comparative Analysis of the Propagation of Stock Market Fluctuations in Alternative Models of Dynamic Causal Linkages, *Applied Financial Economics*, 7(1), (Feb), 59-74.
- Masih, A.M.M. and R. Masih (1997d), Dynamic Linkages and the Propagation Mechanism Driving Major International Stock Markets: An Analysis of the Pre- and Post-Crash Eras, *Quarterly Review of Economics and Finance*, 37(4), Fall, 859-885.
- Masih, R. and A.M.M. Masih (1995), A Fractional Cointegration Approach to Empirical Tests of PPP: New Evidence and Methodological Implications From the Taiwan/US Dollar Relationship, *Weltwirtschaftliches Archiv (Review of World Economics)*, 131(4), 673-694.
- Masih, R. and A.M.M. Masih (1996), Macroeconomic Activity Dynamics and Granger Causality: New Evidence from a Small Developing Economy Based on a Vector Error-Correction Modelling Analysis, *Economic Modelling*, 13(1), 407-426.
- Mathur, I. and V. Subrahmanyam (1990), Interdependencies Among the Nordic and U.S. Stock Markets, *Scandinavian Journal of Economics*, 92(4), 587-597.
- McMillin, W. (1988), Money Growth Volatility and the Macroeconomy, *Journal of Money, Credit and Banking*, 20, 319-335.
- Moore, M.J. and L.S. Copeland (1995), A Comparison of Johansen and Phillips-Hansen Cointegration Tests of Forward Market Efficiency: Baillie and Bollerslev Revisited, *Economics Letters*, 47, 131-135.
- Mosconi, R. and C. Giannini (1992), Non-Causality in Cointegrated Systems: Representation, Estimation and Testing, *Oxford Bulletin of Economics and Statistics*, 54, 399-417.
- Newey, W.K. and K. West (1987), A Simple, Positive Semi-Definite, Heteroskedasticity and Autocorrelation Consistent Covariance Matrix, *Econometrica*, 55, 703-708.

- Osterwald-Lenum, M. (1992), A Note with Quantiles of the Asymptotic Distribution of the Maximum Likelihood of Cointegration Rank Statistics, *Oxford Bulletin of Economics and Statistics*, 54, 461-471.
- Perron, P. (1988), Trends and Random Walks in Macroeconomic Time Series, *Journal of Economic Dynamics and Control*, 12, 297-332.
- Pesaran, M.H., R.G. Pierse and K.C. Lee (1993), Persistence, Cointegration, and Aggregation: A Disaggregate Analysis of Output Fluctuations in the US Economy, *Journal of Econometrics*, 56, 57-88.
- Phillips, P.C.B. (1987), Time Series Regressions with a Unit Root, *Econometrica*, 55, 277-301.
- Phillips, P.C.B. (1991), Optimal Inference in Cointegrated Systems, *Econometrica*, 59, 283-306.
- Phillips, P.C.B. and P. Perron (1988), Testing for a Unit Root in Time Series Regression, *Biometrika*, 75, 335-346.
- Poterba, J.M. (1990), Discussion (of King and Wadhvani paper), *Review of Financial Studies*, 3, 34-35.
- Quintos, C.E. and P.C.B. Phillips (1993), Parameter Constancy in Cointegrating Regressions, *Empirical Economics*, 18, 675-706.
- Ripley, D. (1973), Systematic Elements in the Linkage of National Stock Market Indices, *Review of Economics and Statistics*, 55, 356-361.
- Runkle, D.E. (1987), Vector Autoregression and Reality, *Journal of Business and Economic Statistics*, 5, 437-54.
- Schollhammer, H. and O. Sand (1985), The Interdependence Among the Stock Markets of Major European Countries and the United States: An Empirical Investigation of Interrelationships Among National Stock Price Movements, *Management International Review*, 25, 17-26.
- Schwert, G.W. (1987), Effects of Model Specification on Tests for Unit Roots in Macroeconomic Data, *Journal of Monetary Economics*, 20, 73-103.
- Sims, C. (1982), Policy Analysis with Econometric Models, *Brookings Papers on Economic Activity*, 1, 107-152.
- Sims, C. (1988), Bayesian Scepticism on Unit Root Econometrics, *Journal of Economic Dynamics and Control*, 12, 463-474.
- Sims, C.A., J.H. Stock, M.W. Watson (1990), Inference in Linear Time Series Models with Some Unit Roots, *Econometrica*, 58, 113-144.
- Smith, K.L., J. Brocato and J.E. Rogers (1993), Regularities in the Data Between Major Equity Markets: Evidence From Granger Causality Tests, *Applied Financial Economics*, 3, 55-60.
- Solnik, B. (1991), *International Investments* (Addison Wesley, New York).
- Stock, J.H. (1991), Confidence Intervals for the Largest Autoregressive Root, *Journal of Monetary Economics*, 28, 435-459.

- Stock, J.H. (1995), Cointegration, Long-Run Comovements, and Long-Horizon Forecasting, *Paper Presented to the Winter Econometrics Workshop*, Univ. of New South Wales, Australia.
- Stock, J.H. and M. Watson (1988), Testing for Common Trends, *Journal of the American Statistical Association*, **83**, 1097-1107.
- Stock, J.H. and M. Watson (1993), A Simple Estimator of Cointegrating Vectors in Higher Order Integrated Systems, *Econometrica*, **61**(4), 783-820.
- Stock, J.H. and K. West (1988), Integrated Regressors and Tests of the Permanent Income Hypothesis, *Journal of Monetary Economics*, **21**, 85-95.
- Taylor, M.P. (1993), Modeling the Demand for U.K. Broad Money, 1871-1913, *Review of Economics and Statistics*, **75**(1), 112-117.
- Tegene, A. and F. Kuchler (1994), Evaluating Forecasting Models of Farmland Prices, *International Journal of Forecasting*, **10**, 65-80.
- Thomas, R.L. (1993), *Introductory Econometrics: Theory and Applications* (Longman, London).
- Toda, H.Y. (1995), Finite Sample Performance of Likelihood Ratio Tests for Cointegrating Ranks in Vector Autoregressions, *Econometric Theory*, **11**.
- Toda, H.Y. and P.C.B. Phillips (1993a), Vector Autoregressions and Causality, *Econometrica*, **61**(6), 1367-93.
- Toda, H.Y. and P.C.B. Phillips (1993b), The Spurious Effect of Unit Roots on Vector Autoregressions, *Journal of Econometrics*, **59**, 229-255.
- Toda, H.Y. and P.C.B. Phillips (1994), Vector Autoregressions and Causality: A Theoretical Overview and Simulation Study, *Econometric Reviews*, **13**(2), 259-285.
- Toda, H.Y. and T. Yamamoto (1995), Statistical Inference in Vector Autoregressions with Possibly Integrated Processes, *Journal of Econometrics*, **66**, 225-250.
- von Furstenberg, G. M. and B.N. Jeon (1989), International Stock Price Movements: Links and Messages, *Brookings Papers on Economic Activity*, **1**, 125-179.
- Wheatly, S.M. (1988), A Critique of Latent Variable Tests of Asset Pricing Models, *Journal of Financial Economics*, **23**, 325-338.
- Wong, K.A. and M.L. Tan (1991), An Assessment of Risk and Return in the Singapore Stock Market, *Applied Financial Economics*, **1**, 11-20.
- Wong, K.A., T.K. Hui and C.Y. Chan (1992), Day-of-the-week Effects: Evidence From Developing Stock Markets, *Applied Financial Economics*, **2**, 49-56.
- Zellner, A. (1988), Causality and Causal Laws in Economics, *Journal of Econometrics*, **39**, 7-21.

**Table 1**  
**GPH Tests for Fractional Integration, KPSS Tests for Mean Stationarity and**  
**Modified Dickey-Fuller**

	Geweke-Porter Hudak [GPH (1983)] Fractional Integration ( $d$ )	KPSS Mean Stationarity	Modified Dickey-Fuller [DF-GLS] DFGLS( $\mu$ )    DGLS( $\tau$ )	
<i>us</i>	1.026 (0.214)	0.884	-1.656	-1.043
<i>jp</i>	1.162 (0.315)	1.115	-0.404	-0.315
<i>uk</i>	0.937 (0.209)	0.973	-0.871	-0.117
<i>se</i>	0.910 (0.199)	1.210	-0.214	-0.909
<i>au</i>	0.929 (0.388)	1.129	-0.437	-0.012
<i>nzl</i>	1.063 (0.375)	1.063	-1.139	-0.539
<i>frk</i>	1.015 (0.394)	1.015	-1.315	-0.605
<i>th</i>	1.036 (0.301)	1.036	-0.295	-0.229

*Notes:* Data consists of end-of-day national SPI for each country [Sample: 14-February-1992 to 19-June-1997 (inclusive)]. The modified Dickey-Fuller [DF-GLS] test is performed on each logged stock price index. The test is associated with a null hypothesis of a unit root against the alternative of no unit root. The finite sample critical values were used in accordance to the response surface equations due to Cheung and Lai (1995). In deciding upon the appropriate augmentation lag length and adjustments to raw price data, see text. Estimated  $d$ (GPH) value is based on regression reported in text, with figures presented in parentheses indicating approximate standard errors.



**Table 2**  
**Johansen MLE Tests for Multiple Cointegrating Vectors**

<i>Panel A: Tests of Cointegration Rank</i>				
Vector	Hypotheses		Test Statistics	
	$H_0$	$H_1$	Max Eigenvalue	Trace
[us, jp, uk, ge, sn, ml, hk, th]	$r = 0$	$r > 0$	62.881**	187.820*
	$r \leq 1$	$r > 1$	37.718	124.920
	$r \leq 2$	$r > 2$	25.224	87.207
	$r \leq 3$	$r > 3$	21.230	61.983
	$r \leq 4$	$r > 4$	15.049	40.754
	$r \leq 5$	$r > 5$	13.260	25.705
	$r \leq 6$	$r > 6$	9.095	12.445
	$r \leq 7$	$r = 8$	3.350	3.350
<i>Panel B: Eigenvalues, and Eigenvectors</i>				
Eigenvalues		Eigenvectors		
0.0373		us	-1.000	
0.0329		jp	1.187**	
0.0221		uk	1.397**	
0.0187		ge	-0.224**	
0.0133		sn	-0.366**	
0.0117		ml	0.401**	
0.0080		hk	-0.899**	
0.0030		th	-0.108*	

*Notes:* The optimal lag structure for each of the VAR models was selected by minimising the Akaike's Information criteria. In the final analysis we use a lag of 7. Results based on slight alterations of lag-depth was absolutely insensitive to the conclusion of a single cointegrating vector. JJ coefficients are normalised on US and \*\* and \* represent significance levels associated with a chi-square test (asymptotically distributed with one degree of freedom) with a null hypothesis that each coefficient is equivalent to zero. Critical values used are sourced from Osterwald-Lenum (1992) and a comparison is made to that reported by Cheung and Lai (1993) for small sample bias (see text for details). \*\* indicates rejection at the least at the 95% critical values for cointegration tests; and \*\* and \* indicate significance at the 5 and 10 per cent levels respectively for chi-square tests.

**Table 3**  
**Summary of Temporal Causality Results Based on Vector Error-Correction Model**

Dep Var	Short-Run Lagged Differences							Lagged ECT
	$\Delta us$	$\Delta jp$	$\Delta uk$	$\Delta ge$	$\Delta sn$	$\Delta ml$	$\Delta lk$	$\Delta th$
	F-statistics							$\xi_{it-1}$
$\Delta us$	-	0.656	0.491	0.946	0.807	0.965	0.926	0.472
$\Delta jp$	0.882	-	0.035**	0.416	0.249	0.402	0.032**	0.604
$\Delta uk$	0.008***	0.149	-	0.005**	0.562	0.910	0.469	0.535
$\Delta ge$	0.001**	0.198	0.001***	-	0.185	0.285	0.226	0.798
$\Delta sn$	0.033*	0.229	0.006***	0.635	-	0.031**	0.182	0.119
$\Delta ml$	0.030**	0.764	0.005***	0.094*	0.013***	-	0.606	0.017**
$\Delta lk$	0.003***	0.347	0.009***	0.814	0.813	0.940	-	0.576
$\Delta th$	0.147	0.012**	0.159	0.854	0.173	0.114	0.335	-

Notes: The ECT [ $\xi_{it-1}$ ] was derived by normalising the cointegrating vector on  $us$ , with the residual checked for stationarity by way of unit root tests and inspection of its ACF. Figures presented in the final column are p-values associated with estimated t-statistics testing the null that the lagged ECT is statistically insignificant for each equation. All other estimates are significance levels associated with asymptotic Granger F-statistics. The VECM was estimated including an optimally determined [Akaike's FPE] lag structure of 6 for all lagged-difference terms and a constant. \*\*\*, \*\*, and \* indicates significance at the 1%, 5% and 10% levels.

**Table 4**  
**Summary of Long-Run Causality Results Based on Toda-Yamamoto**  
**[k+d(max)]th-Order Level VAR Procedure**

Dep Var	$us$	$jp$	$uk$	$ge$	$sn$	$ml$	$lk$	$th$
$us$	-	0.547	0.533	0.201	0.215	0.759	0.474	0.565
$jp$	0.932	-	0.002***	0.430	0.188	0.789	0.435	0.312
$uk$	0.001***	0.112	-	0.037**	0.740	0.613	0.552	0.957
$ge$	0.001***	0.145	0.001***	-	0.238	0.185	0.800	0.243
$sn$	0.026**	0.407	0.008***	0.420	-	0.125	0.946	0.492
$ml$	0.134	0.655	0.034**	0.029**	0.623	-	0.693	0.501
$lk$	0.002***	0.729	0.003***	0.582	0.195	0.773	-	0.832
$th$	0.179	0.029**	0.275	0.573	0.588	0.153	0.515	-

Notes: The VAR was estimated in levels with  $d(\max)=1$  as evidence indicated the maximum order of integration was unambiguously equivalent to one. The selection of the lag-length ( $k=3$ ) was determined via a Wald statistic as prescribed by Toda and Yamamoto [(1995), pp. 243-245]. Reported above are significance levels associated with asymptotic Wald statistic  $\omega$  [see text] for testing exclusion restrictions. \*\*\*, \*\*, and \* indicates significance at the 1%, 5% and 10% levels.

**Table 5**  
**Generalized Variance Decompositions**

Percentage of Forecast Variance Explained by Innovations in:									
	$\Delta us$	$\Delta jp$	$\Delta uk$	$\Delta ge$	$\Delta sn$	$\Delta ml$	$\Delta hk$	$\Delta th$	
Days	Relative Variance in:								
1	$\Delta us$	84.828	0.190	9.360	3.417	0.980	0.913	0.257	0.055
5		84.395	0.246	10.414	3.072	0.621	0.529	0.188	0.536
20		83.843	0.090	11.711	2.689	0.668	0.226	0.083	0.692
60		83.813	0.033	12.046	2.583	0.654	0.123	0.048	0.701
150		83.805	0.015	12.156	2.546	0.649	0.088	0.036	0.704
Days	Relative Variance in:								
1	$\Delta jp$	0.671	89.546	3.479	2.610	1.905	1.286	0.438	0.063
5		1.825	83.330	6.210	1.747	4.108	2.347	0.332	0.100
20		1.880	81.503	7.914	1.267	5.051	1.396	0.439	0.544
60		1.902	80.996	8.297	1.267	5.322	1.192	0.461	0.657
150		1.909	80.838	8.417	1.142	5.402	1.131	0.468	0.692
Days	Relative Variance in:								
1	$\Delta uk$	7.272	1.104	76.256	12.034	1.206	0.976	1.097	0.144
5		11.993	0.164	73.254	9.863	1.982	0.821	1.873	0.050
20		10.244	0.069	72.411	10.786	3.294	0.467	2.668	0.062
60		10.258	0.072	69.358	10.682	4.106	0.527	4.731	0.267
150		10.589	0.109	65.172	10.276	4.846	0.702	7.642	0.662
Days	Relative Variance in:								
1	$\Delta ge$	7.953	1.136	17.515	67.527	1.920	0.577	2.287	1.083
5		8.013	0.635	18.357	64.802	2.634	0.664	3.691	1.204
20		5.695	0.971	20.601	64.134	3.317	0.485	3.483	1.313
60		5.025	1.125	28.152	60.567	2.815	0.255	1.466	0.595
150		4.651	1.180	34.982	56.124	2.222	0.111	0.521	0.208
Days	Relative Variance in:								
1	$\Delta sn$	2.573	1.076	2.922	1.709	54.414	21.367	21.367	9.689
5		2.573	1.083	4.544	1.757	50.900	19.875	11.889	6.876
20		2.443	0.512	10.880	2.508	48.842	16.518	10.769	7.528
60		2.584	0.473	19.658	3.869	46.210	14.306	6.090	5.810
150		2.801	0.542	28.829	5.223	42.486	12.242	3.940	3.938
Days	Relative Variance in:								
1	$\Delta ml$	2.179	0.591	2.109	0.761	21.266	55.826	9.624	7.645
5		3.465	0.244	2.998	2.226	20.586	49.424	12.083	8.973
20		3.155	0.068	6.488	3.460	22.100	41.125	13.553	10.081
60		3.080	0.031	7.771	3.851	22.456	39.167	13.445	10.199
150		3.098	0.020	8.654	4.092	22.544	38.487	13.056	10.048
Days	Relative Variance in:								
1	$\Delta hk$	3.577	0.364	4.335	2.917	10.999	11.354	59.272	7.182
5		4.790	0.124	6.267	2.560	9.556	10.503	58.320	7.877
20		3.846	0.061	12.809	3.014	9.488	8.306	53.725	8.750
60		4.240	0.024	26.501	5.032	8.963	6.827	41.915	6.497
150		4.656	0.029	41.775	7.228	7.934	5.348	29.062	3.964
Days	Relative Variance in:								
1	$\Delta th$	0.089	0.045	2.979	3.627	18.172	13.774	8.585	51.921
5		2.440	0.223	4.548	5.079	18.119	12.725	9.463	47.403
20		1.810	0.268	5.869	6.186	19.344	11.194	10.278	45.171
60		1.580	0.285	5.461	6.117	19.590	10.903	11.078	44.985
150		1.458	0.302	4.865	5.877	19.616	11.850	11.801	44.231

Notes: GVDCs were scaled to form percentage relativities.

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**ECONOMIC FUNDAMENTALS AND STOCK MARKET BEHAVIOUR:  
An Empirical Study**

by

Mansor Md. Isa  
Leong Kai Hin



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

## ABSTRACT

Changes in economic fundamentals as represented by some macroeconomic variables such as GDP growth rate, industrial production, inflation and others will affect stock prices as these changes will affect the expected future cash flows of the firms. Most of the previous studies used models that did not capture the long-run relationships between the stock prices and the macroeconomic variables. In this study, we use Engle-Granger Cointegration approach to investigate bivariate cointegration between KLSE composite index and macroeconomic variable to explore their long-run relationship. Pairs of composite index and macroeconomic variable that are found to be cointegrated are then tested for Granger causality. It is found that consumer price index, M3 and industrial production index can predict composite index. However, industrial production index can also be predicted by the composite index.

# **ECONOMIC FUNDAMENTALS AND STOCK MARKET BEHAVIOUR: An Empirical Study**

## **1. INTRODUCTION**

Economic fundamentals represented by GDP growth rate, inflation rate and trade deficits reflect the states of the economy. Changes in these economic fundamentals have pervasive or systematic influence and will affect the future cash flows of the firms in the market. As the stock price of a firm is determined by the present value of the expected future cash flows of the firm, changes in the economic fundamentals will definitely affect the stock price of the firm. This is true also even though most practitioners prefer to value the stock price by using the price-earning ratio method. The stock index, which is compiled to represent the stock market, is composed of many stocks. By the diversification argument that is explicit in capital market theory, only general economic state variables will influence this large stock aggregate. Furthermore, the present values of the future cash flows are determined by the size of the discount rate. Thus it makes intuitive sense to say that interest rate and inflation rate which determine the discount rate will also influence the stock prices.

In this paper, we attempt to explore the relationship between the economic fundamentals represented by the macroeconomic variables and the Kuala Lumpur Stock Exchange Index. Some research have been done in studying these relationship in other countries.

Roll and Ross (1980) employed factor analysis to test the arbitrage pricing theory and found that at least 3 and probably 4 factors influenced the stock prices. However, the analysis can not tell us what the factors are. They could be some of the economic state variables.

Chen, Roll & Ross (1986) found that some macroeconomic variables systematically affect stock market returns in the US market. These macroeconomic variables are (1) industrial production; (2) expected and unexpected inflation; (3) the spread between long and short interest rates; and (4) the spread between high and low grade bonds.

Bong-Soo Lee (1992) reported that stock returns appeared Granger-causally prior and helped to explain changes in industrial production.

The relationship between money supply and stock price is controversial. While Reilly and Lewis (1971), Hamburger and Kochin (1972) and Meigs (1972) concluded that changes in monetary variables resulted in stock price changes, Rozeff (1974) found no meaningful lag in the effect of monetary policy on the stock market and that no profitable security trading rules using past values of the money supply existed. More recently, Mookerjee (1987) found that M2 is a leading indicator for stock price in Canada but not in the case of M1. Thornton (1993) provided the same conclusion that the stock market was sensitive to different measures of money supply.

Bodie (1976), Nelson (1976), Fama and Schwert (1977) and Gultekin (1983) showed that stock markets tended to perform poorly during inflationary time periods. This relationship between the stock market and inflation has been derived from regressions of real ex-post stock returns on expected and/or unexpected inflation over various time periods. Thus, these models are not structured to detect any long-run relationships between the level of stock prices and the level of goods prices that might be present.

Ely & Robinson (1994) used recent advances in the theory of cointegration to investigate the existence of this long-run relationships and found that stock prices and goods prices were cointegrated for only a minority of countries. However, even in these cases, stocks do not appear to provide a perfect hedge against inflation.

## 2. DATA AND METHODOLOGY

Series of data of macroeconomic variables are collected from the PACAP databases of the University of Rhode Island, from annual, quarterly and monthly reports of Bank Negara Malaysia, from Economic Reports of various years and monthly reports of the Statistic Department of Malaysia. Weekly, monthly, quarterly and yearly data of various variables of various periods of time are collected solely depending on their availability. As the Kuala Lumpur Stock Exchange Composite Index (KLSE CI) is a proxy for the stock market and its data begins from January of 1977, all other series of data will be truncated to begin from January of 1977 until December of 1996 if the data are available. If these other series of data are only available for a shorter period of time, the KLSE CI data will be truncated accordingly to conform.

Annual macroeconomic data for period from 1977 to 1996 are collected for gross national product, investment, consumption, trade balance, current balance, basic balance and consumer price index. Quarterly data for period from 1988:Q2 to 1996:Q4 are available for growth rate of real gross domestic product. Monthly data for period from 1977:01 to 1996:12 are available for consumer price index, industrial production index, import, export and trade balance. This monthly data set is further divided into two periods using the month of October 1987, when stock market crashed, as the dividing month. Another set of data of M1, M2, M3, 3-month treasury bill rate and base lending rate is also collected for period from 1987:10 to 1996:12. Several weekly interbank interest rates, overnight, 7-day, 30-day and 90-day, are collected from 1987 Nov:1 to 1996 Dec:4. Please see Appendix D & E for graphs of annual series (1977-1996) and monthly series (1977:01-1996:12) respectively.

As series of macroeconomic data are mostly non-stationary, regression analysis might produce spurious relationship, usually indicated by  $R^2 > dw$  (Durbin-Watson Statistic). Augmented Dickey-Fuller test is used to test for unit root to determine the order of integration of each series.

The Augmented Dickey-Fuller test is to test if  $\delta=0$  in the following regression:

$$\Delta Y_t = \beta_1 + \delta Y_{t-1} + \alpha_1 \sum_{i=1}^m \Delta Y_{t-i} + \epsilon_t$$

If  $\delta$  is not significantly different from 0, there is a unit root and the series is non-stationary. Most of these macroeconomic series are found to be first-difference stationary. Some previous studies have performed regression using the first-difference series. This has resulted in loss of valuable long-run relationship between the level series and thus has arrived at insignificant relationship between the two series. In this study, the long-run relationships between the stock price and each economic fundamental variable will be analysed in the context of cointegration approach proposed by Engle and Granger (1987). Engle-Granger cointegration testing procedure will be used to determine the long-run relationship between the KLSE CI series and each macroeconomic series. The two series are cointegrated if both the series are integrated of the same order and has a cointegrating equation. The Engle-Granger procedure is to conduct a bivariate

regression of KLSE CI on each macroeconomic variable. Then the residue from the regression  $\epsilon_i = y_i - \beta_0 - \beta_1 x_i$  will be tested for stationarity using the Augmented Unit Root Test for Unit Root. As pointed out by Engle & Granger (1987), due to the increased downward bias in the OLS estimate of the coefficients, critical value from Mackinnon (1991) will be used. If the null hypothesis of existence of unit root can be rejected, the two series are cointegrated.

Thus what we do is to conduct a two-step test. Before the test, all series, except series that have negative values, are transformed to natural log value. This has the advantage of giving meaning to the first difference of the series as the continuously compounded growth rate. In the first step, all the series are determined their order of integration by using the Augmented Dickey-Fuller Test. Secondly, those series with the same order of integration as the KLSE CI series will be tested for cointegration with the KLSE CI series.

If the pair of series is cointegrated, the KLSE CI series has a long-run relationship with the macroeconomic series. Then Granger Causality test is conducted to determine if the macroeconomic variable influences the stock market.

In the study, some macroeconomic series are found to be stationary,  $I(0)$ . As the market return as represented by the return of the composite index (1<sup>st</sup> difference of the log series of the composite index) is also stationary,  $I(0)$ , Granger Causality test is also conducted on pairs of each of these macroeconomic series with the market return.

The Granger Causality test is to test the  $H_0: \Sigma \beta_j = 0$  for the following equation:

$$y_t = \sum_{i=1}^n \alpha_i y_{t-i} + \sum_{j=1}^n \beta_j x_{t-j} + \epsilon_t$$

The null hypothesis is tested using F-test. If the null can not be rejected,  $x$  does not Granger cause  $y$ . However, it is important to note that the statement " $x$  Granger causes  $y$ " does not imply that  $y$  is the effect or the result of  $x$ . It merely means that  $x$  has predictive power for  $y$ .

### 3. TESTING RESULTS AND INTERPRETATION

#### a. Unit Root Tests

Unit root test results are shown in Appendix A. The purpose of the test is to find series having the same order of integration as the composite index series. For the Annual data, as shown in Table A-1, only the composite index and the trade balance series are integrated of order one  $I(1)$  at 5% level of significance. For the quarterly data, as shown in Table A-2, the growth rate of real GDP and the growth rate of deflated composite index are both stationary, i.e.  $I(0)$ .

For the monthly data, for period from 1977:01 to 1996:12 as shown in Part 1 of Table A-3, consumer price index, industrial production index, export and 30-day interbank real interest rate have the same order of integration as the composite index, i.e.  $I(1)$ , at 5% level of significance. Trade balance, 30-day interbank interest rate, inflation and return of composite index are stationary series, i.e.  $I(0)$ . For period from 1977:01 to 1987:09 as shown in Part 2 of Table A-3, only industrial production index has the same integration of order one as the composite index. The 30-day interbank nominal and real interest rates and the return of composite index are stationary, i.e.  $I(0)$ . For period from 1987:10 to 1996:12 as



shown in Part 3 of Table A-3, consumer price index, industrial production index, trade balance, 30-day interbank real interest rate, inflation rate and composite index are integrated of order one. Only the 30-day interbank interest rate and the return of composite index are stationary, i.e.  $I(0)$ .

In Table A-4, for the monthly data from 1987:10 to 1996:12, M2, M3, 3-month treasury bill rate and base lending rate have the same integration of order one, i.e.  $I(1)$ , as the composite index.

For the weekly data from 1987 Nov:1 to 1996 Dec:4, as shown in Table A-5, both the overnight and the 7-day interbank interest rate are similarly integrated of order one as the composite index. The 90-day interbank interest rate, the interest spread and the return of composite index are stationary, i.e.  $I(0)$ .

## **B. BIVARIATE COINTEGRATION TESTS**

Bivariate cointegration test is conducted on pair of series of composite index with each series that is also integrated of order one. As shown in Appendix B, only three series are found to be cointegrated with the composite index. In Part 2 of Table B-2, consumer price index and industrial production index are found to be cointegrated with the composite index. In Table B-3, M3 is also cointegrated with the composite index.

## **C. Granger Causality Test**

Granger Causality test is conducted on pair of series that are found to be cointegrated to determine if the macroeconomic variable Granger causes the composite index. As shown in Appendix C, consumer price index and M3 Granger cause composite index. Both the monthly series of consumer price index and M3 have predictive power for composite index. The past values of consumer price index and M3 can predict present value of composite index. It is found bilateral causality between composite index and industrial production index, i.e. industrial production index Granger causes composite index and composite index also Granger causes industrial production. However, the above Granger Causality is true only for the period of 1987:10 to 1996:12. The same Granger Causality is not found between the pair of consumer price index and composite index and the pair of industrial production index series and composite index for the periods of 1977:01 to 1996:12 and 1977:01 to 1987:09.

For the  $I(0)$  stationary series, Granger Causality test finds that all the series, except the growth rate of real GDP series, do not Granger cause the composite index. It is indecisive to determine if the growth rate of real GDP Granger causes the composite index.

The results found are consistently with what were found in studies in other countries. Similar to what Mookerjee (1987) and Thornton (1993) have found, the KLSE CI is also sensitive to different measures of money supply. KLSE CI is Granger caused by M3 but not the other measures of M1 and M3. Similar to the result of Ely & Robinson (1994), KLSE CI and consumer price index are cointegrated and they are positively correlated. Chen, Roll & Ross (1986) found that industrial production explained stock market returns in the US market while Bong-Soo Lee (1992) found that stock returns Granger caused changes in industrial production. In this study, bilateral causality is detected between KLSE CI and industrial production index.

#### 4. CONCLUSION

The empirical study finds that only consumer price index and M3 predicts stock market price. Industrial production and stock market price mutually predict each other.

The rationale for these variables to influence stock price can be easily reasoned out. Higher goods price will lead to higher stock price as higher price leads to higher cash flows which will increase the stock price of the firm. M3 includes deposits in the non-bank financial institutions which provide most of the consumer loans. Increase in M3 indicates cheaper and more easily available consumer loans which will increase the sales of the firm and thus the cash flows of the firm. Industrial production represents the real activity of the economy. Increasing industrial production indicates also increasing cash flows to the firm. If we can predict stock market price using these past information of consumer price index, M3 and industrial production, the stock market is not efficient. Investor can make abnormal profit based on these information. This is contradictory to the Efficient Market Hypothesis.

On the other hand, we cannot detect cointegration and Granger Causality between stock market price and other macroeconomic variables, such as trade balance, interest rates and investment, which we know there should be. This could be explained by market efficiency. Their effect could not be detected because the shortest data we have are the weekly data. Most of them are monthly data. Market efficiency does not take days to adjust to the information. Furthermore, multi-information might flow into the market in the week or month. Their effect can not be isolated. Furthermore, there are also other non-economical factors, such as political factor and investor sentiment, that can affect the market.

Then, why is the market inefficient with respect to consumer price index, M3 and industrial product? Further research should be conducted to find out the reason for such discrepancy. To determine the effect of changes in these macroeconomic variables, event study is more appropriate to find out the abnormal return of the stock market immediately after the announcement of these changes.

# APPENDIX A: UNIT ROOT TESTS

Note: \*\*\* denotes significance at the 1% level

\*\* denotes significance at the 5% level

\* denotes significance at the 10% level

Table A-1 Augmented Dickey-Fuller Unit-Root Tests: Annual data

From 1977 to 1996

Variable	# Obs.	Level Test		1 <sup>st</sup> Difference	
		# Lags	t stat	# Lags	t stat
1. KLSE Composite (ci)	20	1	0.04	1	-4.09***
2. Gross National Product (gnp)	20	1	2.19	1	-0.25
3. Investment (inv)	20	1	0.87	1	-1.30
4. Consumption (cons)	20	1	1.22	1	-1.73
5. Trade Balance (tbal)	20	1	-2.49	1	-3.70**
6. Current Balance (cbal)	20	1	-1.69	1	-2.80*
7. Basic Balance (bbal)	20	1	-4.42***	1	
8. Consumer Price Index (cpi)	20	1	-0.13	1	-2.09

Table A-2 Augmented Dickey-Fuller Unit-Root Tests: Quarterly data

From 1988:02 to 1996:04

Variable	# Obs.	Level Test		1 <sup>st</sup> Difference	
		# Lags	t stat	# Lags	t stat
1. Growth Rate of Deflated KLSE CI (gdpci)	34	1	-4.54***		
2. Growth Rate of Real Gross Domestic Product (grgdp)	34	1	-3.83***		

Table A-3 Augmented Dickey-Fuller Unit-Root Tests: Monthly data

Part 1: From 1977:01 to 1996:12

Variable	# Obs.	Level Test		1 <sup>st</sup> Difference	
		# Lags	t stat	# Lags	t stat
1. Ln KLSE Composite Index (lci)	240	1	-1.53	1	-9.15***
2. Return of KLSE CI (rci) <sup>a</sup>	240	1	-9.15***		
3. Ln Consumer Price Index (lcpi)	240	6	-1.78	6	-9.99***
4. Ln Industrial Production Index (lind)	240	24	1.8	24	-3.21**
5. Ln Import (limp)	240	24	-0.39	24	-2.73*
6. Ln Export (lexp)	240	12	-0.53	12	-2.94**
7. Ln Trade Balance (ltbal)	240	24	-3.47***		
8. Ln 30 day interbank interest rate (lint30)	240	2	-3.82***		
9. Ln 30 day interbank real interest rate (lrint30) <sup>b</sup>	240	12	-2.46	12	-4.38***
10. Inflation Rate <sup>c</sup> (inflat)	240	6	-3.78***		

Note: a: rci = difference of lci

b: lrint30 = ln (int30 - inflat)

c: Inflat = difference of lcpi

Part 2: From 1977:01 to 1987:09

Variable	# Obs.	Level Test		1 <sup>st</sup> Difference	
		# Lags	t stat	# Lags	t stat
1. Ln KLSE Composite Index (lci)	129	1	-2.12	1	-6.45***
2. Return of KLSE CI (rci)	129	1	-6.45***		
3. Ln Consumer Price Index (lcpi)	129	6	-2.42	6	-2.36
4. Ln Industrial Production Index (lind)	129	20	-0.54	20	-3.06**
5. Ln Import (limp)	129	12	-2.29	12	-2.26
6. Ln Export (lexp)	129	12	-1.69	12	-1.96
7. Ln Trade Balance (ltbal)	129	15	-1.23	15	-2.51
8. Ln 30 day interbank interest rate (lint30)	129	1	-4.25***		
9. Ln 30 day interbank real interest rate (lrint30)	129	1	-4.39***		
10. Inflation Rate (inflat)	129	6	-2.76	6	-7.02***

Part 3: From 1987:10 to 1996:12

Variable	# Obs.	Level Test		1 <sup>st</sup> Difference	
		# Lags	t stat	# Lags	t stat
1. Ln KLSE Composite Index (lci)	111	10	-0.16	10	-3.79***
2. Return of KLSE CI (rci)	111	10	-3.79***		
3. Ln Consumer Price Index (lcpi)	111	12	0.47	12	-3.47**
4. Ln Industrial Production Index (lind)	111	12	-0.29	12	-4.63***
5. Ln Import (limp)	111	12	-1.92	12	-1.63
6. Ln Export (lexp)	111	12	-2.36	12	-2.04
7. Ln Trade Balance (ltbal)	111	10	-1.69	10	-3.92***
8. Ln 30 day interbank interest rate (lint30)	111	1	-2.98**		
9. Ln 30 day interbank real interest rate (lrint30)	111	1	-2.75*	1	-11.22***
10. Inflation Rate (inflat)	111	12	-3.47	12	-5.96***

Table A-4 Augmented Dickey-Fuller Unit-Root Tests

Monthly data from 1987:10 to 1996:12

Variable	# Obs.	Level Test		1 <sup>st</sup> Difference	
		# Lags	t stat	# Lags	t stat
1. Ln KLSE Composite Index (lci)	111	1	-1.80	1	-6.49***
3. Ln Money Supply 1 (lm1)	111	12	-0.33	12	-1.98
4. Ln Money Supply 2 (lm2)	111	9	1.65	9	-4.94***
5. Ln Money Supply 3 (lm3)	111	1	0.74	1	-6.83***
6. Ln 3-month Treasury Bill Rate (ltb3)	111	1	-2.11	1	-6.33***
7. Ln base lending rate (lblr)	111	5	-1.66	5	-3.03**

Table A-5 Augmented Dickey-Fuller Unit-Root Tests

Weekly data from 1987 Nov:1 to 1996 Dec:4

Variable	# Obs.	Level Test		1 <sup>st</sup> Difference	
		# Lags	t stat	# Lags	T stat
1. Ln KLSE Composite Index ( lci )	440	1	-1.47	1	-15.0***
2. Return of KLSE CI ( rci ) <sup>a</sup>	440	1	-15.0***		
3. Ln Overnight Interbank Interest Rate ( lint1 )	440	16	-2.15	16	-5.40***
4. Ln 7-day Interbank Interest Rate ( lint7 )	440	24	-2.46	24	-3.62***
5. Ln 90-day Interbank Interest Rate ( lint90 )	440	8	-3.07**		
6. Interest Spread <sup>b</sup> ( Intsprd )	440	4	-5.64***		

Note: a: Return of KLSE CI = Difference of lci

b:

Intsprd=

lint90-lint1

# APPENDIX B: BIVARIATE COINTEGRATION TESTS

Table B-1 Engle-Granger Cointegration Test: Annual data

From 1977 to 1996

Variables	Regression Residue	Test for Stationarity of Residue				Cointegration
		# Lag	t stat	Mackinnon Critical Value	Stationarity of Residue	
1. ci & tbal	$\epsilon_t = ci - 487.32 - 0.0026tbal$	1	0.07	-3.86	No	No

Table B-2 Engle-Granger Cointegration Test: Monthly data

Part 1: From 1977:01 to 1996:12

Variables	Regression Residue	Test for Stationarity of Residue				Cointegration
		# Lag	t stat	Mackinnon Critical Value	Stationarity of Residue	
1. lci & lcp	$\epsilon_t = lci + 10.53 - 3.04lcp$	2	-2.89	-3.46	No	No
2. lci & lind	$\epsilon_t = lci + 1.15 - 1.17lind$	24	-3.08	-3.46	No	No
3. lci & limp	$\epsilon_t = lci - 0.46 - 0.67limp$	24	-2.33	-3.46	No	No
4. lci & lexp	$\epsilon_t = lci - 0.38 - 0.68lexp$	12	-3.15	-3.46	No	No
5. lci & lrint30	$\epsilon_t = lci - 5.61 - 0.20lrint30$	1	-1.55	-3.46	No	No

Part 2: From 1977:01 to 1987:09

Variables	Regression Residue	Test for Stationarity of Residue				Cointegration
		# Lag	t stat	Mackinnon Critical Value	Stationarity of Residue	
1. lci & lind	$\epsilon_t = lci + 1.35 - 1.21lind$	12	-2.34	-3.49	No	No
2. lci & lnflat	$\epsilon_t = lci - 5.52 - 0.07lnflat$	1	-2.08	-3.48	No	No

Part 3: From 1987:10 to 1996:12

Variables	Regression Residue	Test for Stationarity of Residue				Cointegration
		# Lag	t stat	Mackinnon Critical Value	Stationarity of Residue	
1. lci & lapi	$\epsilon_t = \text{lci} + 17.23 - 4.25\epsilon_{pi}$	10	-3.75	-3.49	Yes	Yes
2. lci & lind	$\epsilon_t = \text{lci} + 3.34 - 1.50\text{lind}$	12	-3.63	-3.49	Yes	Yes
3. lci & ltbal	$\epsilon_t = \text{lci} - 6.54 + 2.88\text{ltbal}$	10	-0.76	-3.49	No	No
4. lci & lrint30	$\epsilon_t = \text{lci} - 5.30 - 0.68\text{lrint30}$	10	-1.40	-3.49	No	No
5. lci & inflat	$\epsilon_t = \text{lci} - 6.45 - 0.08\text{inflat}$	1	-1.93	-3.49	No	No

Table B-3 Engle-Granger Cointegration Test

Monthly data from 1987:10 to 1996:12

Variables	Regression Residue	# Lag	t stat	Mackinnon Critical Value	Stationarity of Residue	Cointegration
1. lci & lblr	$\epsilon_t = \text{lci} - 3.57 - 1.40\text{blr}$	1	-2.04	-3.49	No	No
2. lci & lm2	$\epsilon_t = \text{lci} + 4.48 - 0.95\text{lm2}$	10	-2.52	-3.50	No	No
3. lci & lm3	$\epsilon_t = \text{lci} + 4.10 - 0.89\text{lm3}$	2	-3.58	-3.49	Yes	Yes
4. lci & ltb3	$\epsilon_t = \text{lci} - 5.89 - 0.35\text{ltb3}$	2	-1.41	-3.49	No	No

## APPENDIX B: BIVARIATE COINTEGRATION TESTS

**Table B-1 Engle-Granger Cointegration Test: Annual data**

From 1977 to 1996

Variables	Regression Residue	Test for Stationarity of Residue				Cointegration
		# Lag	t stat	Mackinnon Critical Value	Stationarity of Residue	
1. $ci$ & $tbal$	$\epsilon_t = ci - 487.32 - 0.0026tbal$	1	0.07	-3.86	No	No

**Table B-2 Engle-Granger Cointegration Test: Monthly data**

Part 1: From 1977:01 to 1996:12

Variables	Regression Residue	# Lag	t stat	Test for Stationarity of Residue		Cointegration
				Mackinnon Critical Value	Stationarity of Residue	
1. $lci$ & $lcpi$	$\epsilon_t = lci + 10.53 - 3.04lcpi$	2	-2.89	-3.46	No	No
2. $lci$ & $lind$	$\epsilon_t = lci + 1.15 - 1.17lind$	24	-3.08	-3.46	No	No
3. $lci$ & $limp$	$\epsilon_t = lci - 0.46 - 0.67limp$	24	-2.33	-3.46	No	No
4. $lci$ & $lexp$	$\epsilon_t = lci - 0.38 - 0.68lexp$	12	-3.15	-3.46	No	No
5. $lci$ & $lrint30$	$\epsilon_t = lci - 5.61 - 0.20lrint30$	1	-1.55	-3.46	No	No

Part 2: From 1977:01 to 1987:09

Variables	Regression Residue	# Lag	t stat	Test for Stationarity of Residue		Cointegration
				Mackinnon Critical Value	Stationarity of Residue	
1. $lci$ & $lind$	$\epsilon_t = lci + 1.35 - 1.21lind$	12	-2.34	-3.49	No	No
2. $lci$ & $lnflat$	$\epsilon_t = lci - 5.52 - 0.07lnflat$	1	-2.08	-3.48	No	No



**Part 3: From 1987:10 to 1996:12**

Variables	Regression Residue	Test for Stationarity of Residue				Cointegration
		# Lag	t stat	Mackinnon Critical Value	Stationarity of Residue	
1. lci & lcp1	$\epsilon_t = lci + 17.23 - 4.25cpi$	10	-3.75	-3.49	<b>Yes</b>	<b>Yes</b>
2. lci & lind	$\epsilon_t = lci + 3.34 - 1.50lind$	12	-3.63	-3.49	<b>Yes</b>	<b>Yes</b>
3. lci & lbal	$\epsilon_t = lci - 6.54 + 2.88lbal$	10	-0.76	-3.49	No	No
4. lci & lrint30	$\epsilon_t = lci - 5.30 - 0.68lrint30$	10	-1.40	-3.49	No	No
5. lci & inflat	$\epsilon_t = lci - 6.45 - 0.08inflat$	1	-1.93	-3.49	No	No

**Table B-3 Engle-Granger Cointegration Test**

Monthly data from 1987:10 to 1996:12

Variables	Regression Residue	# Lag	t stat	Mackinnon Critical Value	Stationarity of Residue	Cointegration
1. lci & lblr	$\epsilon_t = lci - 3.57 - 1.40lblr$	1	-2.04	-3.49	No	No
2. lci & lm2	$\epsilon_t = lci + 4.48 - 0.95lm2$	10	-2.52	-3.50	No	No
3. lci & lm3	$\epsilon_t = lci + 4.10 - 0.89lm3$	2	-3.58	-3.49	<b>Yes</b>	<b>Yes</b>
4. lci & ltb3	$\epsilon_t = lci - 5.89 - 0.35ltb3$	2	-1.41	-3.49	No	No

**Table B-4 Engle-Granger Cointegration Test**

Monthly data from 1987:10 to 1996:12

Variables	Regression Residue	Test for Stationarity of Residue				Cointegration
		# Lag	t stat	Mackinnon Critical Value	Stationarity of Residue	
1. lci & lint1	$\epsilon_t = \text{lci} - 5.61 - 0.51 \text{lint1}$	12	-1.21	-3.45	No	No
2. lci & lint7	$\epsilon_t = \text{lci} - 5.42 - 0.61 \text{lint7}$	4	-1.43	-3.45	No	No

## APPENDIX C: GRANGER CAUSALITY TEST

Table C-1 Granger Causality Test: Cointegrated Series

Part 1: Cointegrated Series as found in Table B3: Part 3

Y	X	# obs.	Type	Period	# lag	Y does not Granger Cause X		X does not Granger Cause Y		Conclusion
						F-Statistic	Probability	F-Statistic	Probability	
lci	lcpi	111	Monthly	1987:10 - 1996:12	1 5	0.50 0.52	0.48 0.76	9.44 2.50	0.003 0.035	Unidirectional causality from lcpi to lci
lci	lind	111	Monthly	1987:10 - 1996:12	1 6	14.13 2.41	0.0003 0.03	5.96 2.53	0.02 0.03	Bilateral causality

Note: lci = ln(composite index)

lcpi = ln(consumer price index)

lind = ln(industrial production index)

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Part 2: Cointegrated Series as found in Table B4

Y	X	# obs.	Type	Period	# lag	Y does not Granger Cause X		X does not Granger Cause Y		Conclusion
						F-Statistic	Probability	F-Statistic	Probability	
lci	lm3	110	Monthly	1987:10 - 1996:12	1 3	0.45 0.32	0.51 0.81	6.04 3.47	0.02 0.19	Unidirectional causality from lm3 to lci

Note: lci = ln(consumer price index)

lm3 = ln(M3)

**Table C-2 Granger Causality Test: Stationary Series**

Stationary series as found in Table A-2

Y	X	# obs.	Type	Period	# lag	Y does not Granger Cause X		X does not Granger Cause Y		Conclusion
						F-Statistic	Probability	F-Statistic	Probability	
gdfci	grgdp	34	Quarterly	1988:02 - 1996:04	1	0.079	0.78	0.072	0.79	Verified: Correlation = -0.21 (insig) Cross-correlation: 3 <sup>rd</sup> lag of grgdp (sig.) - indecisive if x Granger causes Y - Y does not Granger cause x
					2	0.25	0.82	0.89	0.42	
					3	0.27	0.85	4.73	0.009	
					5	0.68	0.64	5.48	0.002	

Note: gdfci = growth rate of deflated composite index  
grgdp = growth rate of real gross domestic product

**Table C-3 Granger Causality Test: Stationary Series**

Part I: Stationary series as found in Table A-3, Part I

Y	X	# obs.	Type	Period	# lag	Y does not Granger Cause X		X does not Granger Cause Y		Conclusion
						F-Statistic	Probability	F-Statistic	Probability	
rci	lthal	238	Monthly	1977:01 - 1996:12	1	0.66	0.42	3.60	0.06	Independence
					4	0.82	0.51	1.91	0.11	
rci	lint30	238	Monthly	1977:01 - 1996:12	1	1.44	0.23	0.02	0.88	Independence
					4	1.23	0.30	0.32	0.87	
rci	inflat	238	Monthly	1977:01 - 1996:12	1	3.67	0.06	0.39	0.53	Independence
					4	1.65	0.16	0.24	0.91	

Note: rci = return of composite index  
lthal = ln(trade balance)  
lint30 = ln(30 day interbank interest rate)

inflat inflation rate

Part 2: Stationary series as found in Table A-3, Part 2.

Y	X	# obs.	Type	Period	# lag	Y does not Granger Cause X		X does not Granger Cause Y		Conclusion
						F-Statistic	Probability	F-Statistic	Probability	
rci	lint30	127	Monthly	1977:01 - 1987:09	1	2.81	0.10	2.07	0.15	Independence
					4	1.74	0.15	0.61	0.65	
rci	lrint30	127	Monthly	1977:01 - 1987:09	1	4.69	0.03	1.67	0.20	Correlation=-0.198(sig Cross-correlation: 1 <sup>st</sup> lag of rci (sig.) - x does not Granger cause y - indecisive if y Granger causes x
					2	2.43	0.09	0.78	0.46	
					3	2.07	0.11	0.91	0.44	
					4	2.63	0.04	0.69	0.60	
					5	2.25	0.054	0.72	0.61	
					6	1.83	0.10	0.68	0.66	

Note: rci = return of composite index

lint30 = ln(30 day interbank interest rate)

lrint30 = ln(30 day interbank real interest rate)

Part 3: Stationary series as found in Table A-3, Part 3

Y	X	# obs.	Type	Period	# lag	Y does not Granger Cause X		X does not Granger Cause Y		Conclusion
						F-Statistic	Probability	F-Statistic	Probability	
rci	lint30	111	Monthly	1987:10 - 1996:12	1	0.003	0.96	2.70	0.10	Independence
					4	0.40	0.81	0.97	0.43	

Note: rci = return of composite index

lint30 = ln(30 day interbank interest rate)

**Table C-4 Granger Causality Test: Stationary Series**

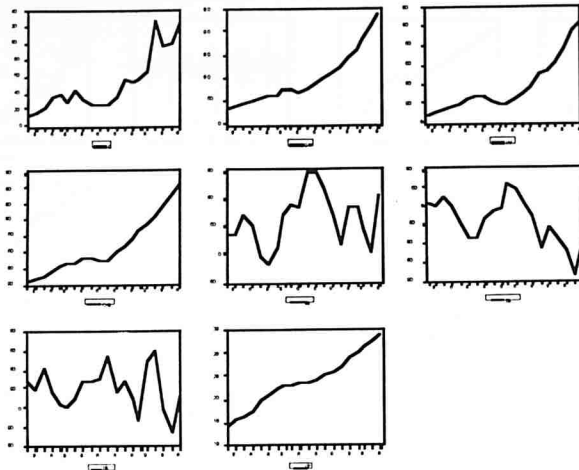
Stationary series as found in Table A-5

Y	X	# obs.	Type	Period	# lag	Y does not Granger Cause X		X does not Granger Cause Y		Conclusion
						F-Statistic	Probability	F-Statistic	Probability	
rci	lnt30	438	Weekly	1987 Nov:1 - 1996 Dec:4	1	0.03	0.85	0.01	0.92	Verified: No significant cross correlation Correlation=-0.0113 => Independence
					2	3.39	0.03	0.004	0.996	
					4	5.38	0.00	0.12	0.98	
rci	Intsprd	437	Weekly	1987 Nov:1 - 1996 Dec:4	1	0.17	0.68	0.63	0.43	Independence
					6	0.21	0.97	0.64	0.70	

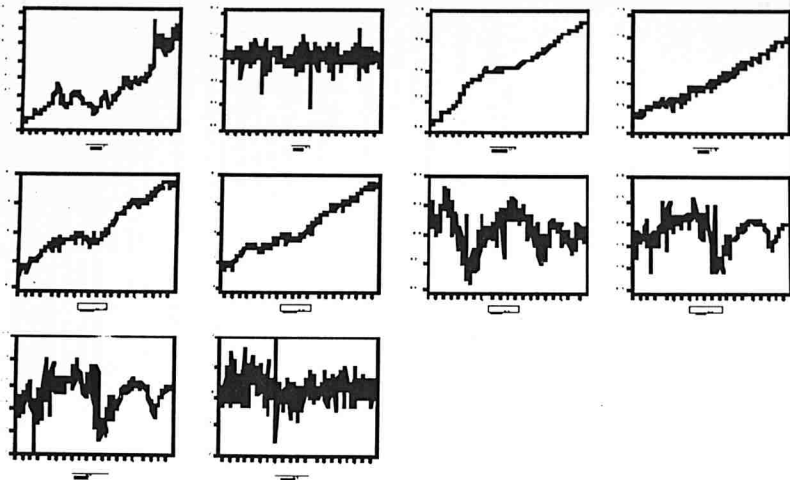
Note: rci = return of composite index

intsprd = interest spread

=  $\ln(90 \text{ day interest rate}) - \ln(\text{overnight interest rate})$



APPENDIX E GRAPHS OF MONTHLY SERIES, 1977:01 - 1996:12





## REFERENCE

- Bodie. 1976. Common Stock as a Hedge Against Inflation. *Journal of Finance*, 31:459-70.
- Chen, N.F., R. Roll & S.A. Ross. 1986. Economic Forces and the Stock Market. *Journal of Business*, 59, No.3.
- Ely, David P. & Robinson, Kenneth J. 1994. Are Stocks a Hedge Against Inflation? International Evidence Using Cointegration Analysis. Financial Industry Studies Working Paper, Federal Reserve Bank of Dallas.
- Enders, Walter. 1995. *Applied Econometric Time Series*, John Wiley, USA.
- Engle, R.F. & C.W.J. Granger. 1987. Cointegration and Error Correction: Representation, Estimation and Testing. *Econometrica* 55:251-276.
- Fama, Eugene F. and G.W. Schwert. 1977. Asset Returns and Inflation. *Journal of Financial Economics*, 5:115-46.
- Gultekin, N. Bulent. 1983. Stock Market Returns and Inflation: Evidence from Other Countries. *Journal of Finance*, 38:49-65.
- Hamburger, M.J. & L.A. Kochin. 1972. Money and Stock Prices: The Channels of Influence. *Journal of Finance*, May, 231-249.
- Lee, Bong-Soo. 1992. Causal Relations Among Stock Returns, Interest Rates, Real Activity, and Inflation. *The Journal of Finance* XLVII, No. 4.
- Meigs, J.A. 1972. *Money Matters*, Harper & Row, New York.
- Mills, Terence C. Mill. 1993. *The Econometric Modelling of Financial Time Series*, Cambridge University Press.
- Mookerjee, R. 1987. Monetary Policy and the Informational Efficiency of the Stock Market: The Evidence from Many Countries. *Applied Economics* 19:1521-1532.
- Nelson, Charles R. 1976. Inflation and Rates of Return on Common Stocks. *Journal of Finance*, 31:471-83.
- Reilly, F.K. & J.E. Lewis. 1971. Monetary Variables and Stock Prices, Working Paper no. 38, March, School of Business, University of Kansas, Lawrence.
- Roll, R. & Ross, S. 1980. An Empirical Investigation of the Arbitrage Pricing Theory. *Journal of Finance*, 35:1073-1103.
- Thomas, R.L. 1997. *Modern Econometrics, An Introduction*, Addison-Wesley, Harlow, England.
- Thornton, J. 1993. Money, Output and Stock Prices in the UK: Evidence on Some (Non)relationships. *Applied Financial Economics* 3:335-338.

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**1997 NATIONAL OUTLOOK CONFERENCE**

Shangri-La Hotel, Kuala Lumpur  
2-3 December 1997

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**UNIT TRUSTS AS MOBILISER AND DISPENSER OF FUNDS:  
Efficiency and Equity Considerations**

by

Mohd Hilmey Mohd. Taib



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia

## UNIT TRUST AS A MOBILISER & DISPENSER OF FUNDS : Efficiency & Equity Considerations

### 1. INTRODUCTION

The Malaysian economy has been able to sustain its growth of over 8 per cent for nine consecutive years since 1988. The standard of living has improved and the incidence of poverty has been reduced progressively. To a significant extent, this progress has been made possible by the high rate of capital accumulation which in turn depended on the rate of savings. The high rate of savings which has improved from time to time, has been an important element that has enabled Malaysia to achieve its present prosperity. Historically, Malaysia has sustained a high rate of savings from an average of 25.4 per cent of Gross National Product (GNP) in the 70s to 29.3 per cent in the 80s and to 34.6 per cent in the 90s. The low rate of inflation has ensured that the domestic value of ringgit is not eroded by significant price increases. With various types of investment instruments available in the financial market, unit trust has becoming more popular as a savings instrument. Furthermore, the relatively well-developed financial infrastructure of Malaysia, with its diversified savings products and a wide network of financial institutions, has created opportunity and convenience to earn a positive real rate of return on savings.

### 2. DEFINITION OF UNIT TRUST

Unit trust is a 'legal construction' which may be used in the administration of a simple financial operations, namely, the pooling of a large number or small unequal amount of money from many investors, who have the same financial objectives to earn a steady income or high capital appreciation, into a common fund to be managed by fund managers. 'Legal construction' means that unit trust operates partly under the Trustee Ordinance and partly under the division 5 part 4 of the Company Act 1965 in Malaysia. Unit trust is constituted by the vesting of property (usually in the form of cash or investment) in a trustee who is bound by a trust deed to deal with as directed by the managers.

### 3. TYPES OF FUND

Basically, there are 2 types of unit trust funds:

1. Open-ended funds (with unlimited fund size)  
The size will continue to increase as long as the investors are willing to buy the unit offered by the fund managers.
2. Close-ended funds (with size determined by the SC).  
In Malaysia, the size determined by the Securities Commission (SC) is limited to 500 million units. However, they can increase the size of their funds above the maximum limit with approval from the SC.

To ensure continued growth can be sustained without further recourse to external resources and a reduction of internal resources, the level of national savings has to be raised and mobilised to finance investment. The magnitude of this financing requirement underscores the need to mobilise savings in the most efficient manner and to rechannel these funds effectively for productive use.

A major effort that was initiated in 1996 to promote and mobilise savings was the launching of the ASW 2020 - the new unit trust of RM3 billion initiated by the government and aimed at promoting savings habit among the younger generation and pooling of resources for financing of economic development.

#### 4. BACKGROUND

The idea of pooling money in order to secure the advantage of spreading the risk over many securities or unit trust made its maiden appearance in London in the Foreign Government trust formed around the middle of 1868.

Since independence, the Malaysian capital market for longer-term funds had been dominated by the issue of government securities. All the funds raised had been channelled to development projects. However, the market for the issue and trading of company stocks and shares has been progressively expanding. The steady growth of the economy and the rapid expansion of the private sector have led to an increasing need for long-term investment funds.

The Government also realised that the rapid expansion of the economy had also involved the Bumiputras. Therefore, the New Economic Policy (NEP) has been formulated in 1970 which was seen as a vehicle to accelerate Bumiputra involvement in the corporate sector. By the end of 1980, Bumiputra ownership and control was valued at RM3.274 billion or 12.4 per cent of the corporate sector. Of this, Bumiputra individuals owned only 4.3 per cent (RM1.135 billion) while the remaining 8.2 per cent (RM2.139 billion) were held by trustee agencies.

Larger number of Bumiputras, who in the past were mere bystanders where stocks and shares trading were concerned, were able to participate with the establishment of the National Unit Trust Scheme or Skim Amanah Saham Nasional (ASN) in 1980. The scheme was mainly to transfer shares held by trustee agencies to individuals which amounted to 660 million shares in 21 trustee companies.

The other mechanism was through the Mara Unit Trusts or Amanah Saham Mara (ASM). By the end of 1980, ASM was managing 12 funds with a value of RM49.9 million from the investment of 42,071 Bumiputra individuals and institutional savers.

In 1978, Permodalan Nasional Berhad (PNB) was incorporated as a wholly-owned subsidiary of the Yayasan Pelaburan Bumiputra (YPB) or the Bumiputra Investment Foundation. The YPB is governed by a Board of Trustees whose members comprised of the Hon. Prime Minister of Malaysia, Dato' Seri Dr. Mahathir Mohamad as the chairman; the Hon Deputy Prime Minister, Dato' Seri Anwar Ibrahim; Dato' Seri Rafidah Abdul Aziz, the Minister of International Trade and Industry; Tun Ismail Mohamed Ali, Advisor and Former Chairman of PNB and Tan Sri Dato' Seri Ahmad Sarji Abdul Hamid, the Chairman of PNB. PNB was set up to increase the Bumiputra participation in the corporate sector in line with the objectives of the NEP. The main function of PNB is to evaluate, select and acquire a sound portfolio of shares in companies with good potential.

## **5. GUIDELINES IMPOSED BY THE SECURITIES COMMISSION (SC)**

Due to an increasing establishment of various unit trust, whether by the states government or private institutions, the SC had decided to imposed several guidelines with the primary objective of protecting the interest of the public investors at large. Among the guidelines includes:

### **a. Size of unit trust**

The maximum size of a unit trust shall not be more than 500 million units. In determining whether to allow any increase beyond the maximum limit, the SC would consider the expertise and resources of the fund managers in handling a larger fund.

### **b. Permitted investment of the unit trust funds**

A unit trust must invest in authorised Malaysian assets which are as follows:-

- ✓ Securities of companies listed on the Kuala Lumpur Stock Exchange (KLSE).
- ✓ Unit of unrelated property trust funds listed on KLSE.
- ✓ Subject to Clause 4.3.1, securities listed on a foreign stock exchange.
- ✓ Unlisted securities that have been approved by SC for listing and quotation on the KLSE, which are offered directly by the company approved for listing, by way of private placement or on a tender basis.
- ✓ Malaysian Government Securities, Treasury Bills, Bank Negara Certificate and Government Investment Certificate.
- ✓ Malaysian currency balance in hand, Malaysian currency deposits with commercial banks, finance companies, merchant banks and Bank Islam (M) Bhd., including Negotiable Certificate of Deposit and placement of money with discount houses.
- ✓ Cagamas bonds, banker's acceptance, unlisted loan stock and corporate bonds that are traded in the money market and either bank guaranteed or carrying at least BBB rating by Rating Agency of Malaysia (RAM) and private debt securities that have an equivalent rating.
- ✓ any other form of investment as may be approved by SC from time to time.

### **c. Investment Limits**

- ✓ A unit trust is permitted to invest up to 10 per cent of the net asset value of the fund in securities listed on foreign stock exchange and not more than 50 per cent of the net asset value of the fund in non-trustee securities.
- ✓ Investment by a unit trust fund in the securities of any company shall not exceed 10 per cent of the net asset value or 10 per cent of the issued capital of the company or whichever is lower.
- ✓ investment by unit trust fund in any group of companies shall not exceed 15 per cent of the net asset value of the fund. A group of

companies and associate companies. For this purpose, where a company holds at least 20 per cent but not exceeding 50 per cent of the shares of another company.

- d. **Restriction on borrowings and extension of loans**  
A unit trust fund is not to borrow to finance its activities. It is also not permitted to grant or guarantee any loans or enter into a contract to purchase investments when it does not have the necessary fund to pay for the purchase.
- e. **Liquid Assets**  
At least 10 per cent of the net asset value of the fund should be maintained in the form of liquid assets at a time. However, in the event that the level of liquid assets is below 10 per cent during the dividend distribution date, a grace period of 10 days shall be allowed for the fund to comply with the liquid assets requirement.

## **6. PERFORMANCE OF UNIT TRUST INDUSTRY**

Generally, the year 1996 was considered as a good year for the fund management industry. The number of participants in the unit trust have increased which led to an increase in the establishment of new trust funds. The growth of the unit trust was expanded further with the launching of the RM3 billion ASW2020 which was aimed for younger generation to instill the savings habit.

The performance of local unit trust industry can be measured at both the industry and company levels. The measurement used, among others, are growth of unit trust funds, size of unit trust funds & contribution to capital markets and return on investment. The number of units in circulation have increased significantly to a five-year average growth of 25.0 per cent for 1992 to as at June 1997 (table 1).

**Table 1**  
**Growth and development of unit trust funds**

	1992	1993	1994	1995	1996	1997*	Compounded annual growth (%)
<b>Including PNB</b>							
No. of Management Companies	13	16	20	27	30	31	19.00
No. of Approved Funds (bil. units)	39	44	52	67	77	80	15.50
Approved Fund Size (bil. units)	15.827	18.672	28.814	37.363	47.105	52.325	27.00
Units in circulation (bil. units)	14.356	17.029	25.121	31.937	38.983	43.261	24.70
Net Asset Value (RM bil.)	15.720	28.134	35.71	44.134	59.955	58.849	30.20
<b>Excluding PNB</b>							
No. of Management Companies	12	15	19	25	29	30	20.10
No. of Approved Funds (bil. units)	37	42	50	65	74	77	15.80
Approved Fund Size (bil. units)	2.243	3.588	10.194	15.393	17.745	19.495	54.10
Units in circulation (bil. units)	0.771	1.945	6.501	9.967	11.123	12.151	73.60
Net Asset Value (RM bil.)	0.750	2.622	6.546	9.293	11.105	10.941	70.90

Note : \* - as at June 1997

Source : PNB

In Malaysia, PNB has always been the leader in the unit trust industry with 26.4 billion units in circulation accounted for 80 per cent of the industry's net asset value (combination of its three funds). Besides PNB, there are 29 other unit trust operators of which nine are government sponsored while the rest are private operators.

In terms of investment returns, unit trust emerged more favourable since 1992. The average returns on investment for unit trust for 1997 is expected to be higher at 10 per cent, while, the average rates as at July 1997 for FD and savings are at 7.60 per cent and 4.75 per cent, respectively. In 1996, unit trust industry average dividend were at 9.50 per cent compared to 7.35 per cent for FD, 4.50 per cent for savings and 8.00 per cent for life insurance (table 2).

An efficiently managed unit trust should be able to give better returns than FDs, savings and life insurance because the money is pooled together and invested in a selection of high quality stocks as well as in money market instrument where the rates are attractive.

**Table 2**  
**Comparative return on investment with other saving institutions in M'sia**

Year	Banking systems				Annual return (%)				Life insurance	
	Commercial RM billion		Finance RM billion		Commercial		Finance		# of funds	Total assets RMbil.
	FD	Sav.	FD	Sav.	FD	Sav.	FD	Sav.		
1992	59.00	14.58	36.47	2.74	7.80	3.25	8.00	5.00	19	9.77
1993	71.60	18.20	42.85	4.07	6.30	3.25	6.40	5.00	19	13.09
1994	77.76	21.68	45.14	5.52	6.20	3.50	6.50	5.00	19	20.6
1995	103.21	23.48	54.41	4.90	7.00	3.25	7.00	5.00	19	24.68
1996	130.61	28.79	67.29	5.49	7.35	3.50	7.35	5.50	19	30.05
1997*	142.39	27.33	80.65	4.99	7.60	3.50	7.60	6.00	19	32.15**

Note : \* - as at July 1997

      \*\* - as at Mac 1997

Source : Bank Negara Malaysia Annual Report, various issues.

Excluding PNB, the government-backed funds managed RM4 billion while the privately-run firms have a total net asset value of RM6.1 billion.

In line with the campaign to increase national savings, the government planned to get the industry to expand its share of the KLSE's market capitalisation. Currently, the industry stood at a lowly 7.5 per cent of the local bourse. The target is to increase the unit trust industry's share of the KLSE to 15 per cent by 2005 and 40 per cent in 2020.

## 7. EFFICIENCY AND EQUITY

The unit trust industry in Malaysia has evolved to serve different purposes such as, to mobilise savings by providing investment alternatives for higher return for savers as well as to promote Bumiputra in equity participation during the NEP. Since the establishment of ASN and ASB schemes, the Bumiputras' equity have increased significantly and they also serve as an instrument to prepare the indigenous community to various risks-return investment, including the growing capital market. Through the schemes, the Bumiputras have also accelerated the ownership of corporate wealth.

Besides, there is a need for a wider alternatives for savings products for various reasons. One of the reasons is that the demographic structure in Malaysia has changed in line with the state of the economy. The experiences of the industrial countries have shown that as an economy matures and its population ages, the savings habit would tend to decline. Consequently, the country's rate of savings may moderate in the future unless greater efforts are directed to sustain it.



Another important reason is the consumption pattern of Malaysian has changed. With the country's per capita income increasing every year, the consumption style has changed overtime from basic needs to a more leisure related consumption such as sophisticated consumer durables, travel, recreation and entertainment. With a higher standard of living in Malaysia, the credit card usage has become widespread. Therefore, a balance between savings and consumption needs to be maintained proportionately.

The purpose of establishment of unit trust was mainly as a means to mobilise savings. Malaysia is one of the countries in the Asia Pacific that has the highest savings rate as percentage of GDP (table 3). However, these savings were not sufficient to finance investment which is growing at a faster rate consistent with a period of capital formation in the early stage of development. Consequently, Malaysia has been experiencing savings-investment gap for quite sometime and government is promoting through its campaign on increasing savings for all Malaysians.

Table 3  
Savings as % of GDP

Selected Country	1992	1993	1994	1995	1996e	1997f
Singapore	47.2	48.5	51.3	55.6	55.9	56.4
China	38.4	40.6	40.5	39.3	40.3	39.7
Indonesia	35.3	35.3	35.3	36.0	37.4	38.5
Thailand	35.2	34.5	35.6	35.0	35.5	36.3
Malaysia	36.5	37.7	38.8	39.5	41.9	43.1
Korea	35.2	35.2	34.9	35.2	34.1	34.5
Hong Kong	33.8	34.6	33.5	32.7	33.0	33.2
Japan	33.0	33.9	33.0	31.9	n.a	n.a
USA( per cent of GNP)	14.6	13.8	16.2	15.9	n.a	n.a

Note : e - estimates

f - forecasts

Source : BNM, various issues

The World Competitiveness Yearbook 1996

In Malaysia, private savings which include operating surpluses of companies and household savings is an important components of domestic savings as it is accounted for 56.7 per cent of national savings. In general, savings can be categorised into two groups as follows:

- Force or compulsory savings such as contribution to Employees Provident Fund (EPF) and other pension funds .
- Voluntary savings from excess of disposable income.

Prior to establishment of unit trusts, voluntary savings were deposited into financial and financial related institutions such as commercial banks, National Savings Bank, Pension Trust Fund and so forth. The collective investment industry has played an important role in the mobilisation of savings for financing capital formation. The funds have expanded rapidly due to the economic growth, a steady increase of disposable income and household savings as well as more diversified way of channelling savings into productive investment.

The unit trust industry has significantly increased the efficiency of mobilising savings in the country. It is now the second largest source of savings (table 4), and about 81.3 per cent are mobilised through PNB's unit trust funds.

**Table 4**  
**Collective Savings from various institutions (in RM mil)**

	1993	1994	1995	1996	1997 <sup>p</sup>
National Savings Bank	3,081	4,309	5,485	5,899	5,958
EPF	72,674	84,485	98,133	117,335	126,863
Socso	3,281	3,866	4,469	5,233	5,486
Pension Trust Fund	3,694	4,437	5,928	7,522	8,847
Life Insurance Funds	8,467	8,560	10,578	11,659	n.a
Unit Trust	28,134	35,716	44,134	59,955	58,489
PNB <sup>1</sup>	(25,512)	(29,170)	(34,842)	(48,850)	(47,548)

Note : p - preliminary as at June 1997

n.a - not available

<sup>1</sup> - figure in parenthesis denotes savings in ASN and ASB

Source : BNM, SC and EPF

The success of ASN and ASB schemes coupled with confidence showed by savers in unit trust investment have opened opportunity to many commercial banks and states government in establishment of private and state trust funds such as Abrar U/Trust Management, RHB U/Trust Mgt, Amanah Saham Selangor, Amanah Saham Kedah and so forth.

Moreover, the role of PNB to underwrite the risk and give sustainable dividends has increased the involvement of Bumiputra in all professions to save in ASN and ASB schemes. The opportunity to save under the PNB wing has widened when Amanah Saham Wawasan 2020 (ASW2020) was launched in which all races were able to participate. A total of RM3 billion was offered to Malaysians aged between 12 to 29 years beginning September 2, 1996.

The unit trust industry as an efficient savings mobiliser is supported by a significant increase in the proportion of savings per GDP for post-ASN period as compared to pre-ASN period. Furthermore, the unit trust industry has also provide an equitable distribution of savings in terms of attracting a wider categories of professionals and age groups.

**Table 5**  
**Professional Profile of Savers in ASN and ASB, 1997\***

Occupations	ASN			ASB		
	# of savers	Size of Savings (RM'000)	Savings per person (RM)	# of savers	Size of Savings (RM'000)	Savings per person (RM)
Admin. & Mgt	11,982	72,463	6,048	39,052	1,160,267	29,711
Executive	26,439	59,333	2,244	58,628	1,551,061	28,456
Clerical	119,982	77,715	648	419,492	4,693,505	11,189
Labourer	219,458	43,633	199	757,987	3,548,984	4,682
Army & Policemen	120,262	26,601	221	231,976	1,656,235	7,140
Teacher	50,616	47,022	929	146,707	2,184,030	14,887
Farmer	194,839	24,905	128	483,510	1,578,519	3,265
Fishermen	13,276	1,766	133	34,967	122,216	3,495
Businessmen & Entrepreneur	103,075	49,129	477	356,401	2,110,181	5,921
Pensioner	8,557	8,630	1,009	22,891	226,893	9,912
Housewife	194,939	69,927	359	648,962	3,652,776	5,629
Student	86,071	39,050	454	787,868	2,682,064	3,405
Unemployed	38,949	4,010	103	428,637	1,955,320	4,562
Others	137,339	33,778	246	223,867	974,273	4,352
	<b>1,325,784</b>	<b>557,962</b>	<b>421</b>	<b>4,640,743</b>	<b>28,096,320</b>	<b>6,054</b>

Note : \* - as at June 1997

Source : PNB

When ASN was transformed into a market-related unit trust scheme way back in 1981, it has successfully mobilised funds from Bumiputra which amounted to RM375 million. After 10 years, when ASB came into light in 1990, both schemes have mobilised a total of RM9.153 billion from Bumiputra community. Over the years, the ASN and ASB schemes have been able to attract funds from labourers, farmers, fishermen, housewives and even unemployed or odd job workers (table 5 and appendix 1).

Table 6 shows that the total of investment in ASN and ASB has increased across different age groups. When ASN was launched, the age group that permitted to participate was 18 years and above. The age level was then revised when ASB was introduced as seen in the table.

**Table 6**  
**ASN & ASB investors according to age group**

Age	ASN			ASB		
	1997*	1996	1995	1997*	1996	1995
12 - 17	n.app	n.app	n.app	405,089	399,784	370,766
18 - 20	8,766	8,582	8,582	256,473	244,299	213,523
21 - 35	517,530	597,298	596,924	1,680,217	1,642,285	1,564,538
36 - 55	603,819	516,410	515,750	1,666,064	1,627,592	1,519,181
> 56	195,669	195,476	195,205	632,900	602,608	553,021
<b>Total</b>	<b>1,325,784</b>	<b>1,317,766</b>	<b>1,316,461</b>	<b>4,640,743</b>	<b>4,516,568</b>	<b>4,221,029</b>

Note : \* - as at June 1997

n.app - not applicable

Source : PNB

## 8. FUTURE TREND OF SAVINGS IN MALAYSIA

In 1997, the private sector earnings is expected to increase only by 8.2 per cent compared to higher growth in the past as shown in table 7. Both the income and the savings were growing at a decreasing rate since 1996.

**Table 7**  
**Private Sector Resource Position**

Sector	Value (RM million)				Annual Change (%)			
	1994	1995	1996	1997e	1994	1995	1996	1997e
Income	127.2	148.5	168.2	182.0	12.3	16.7	13.3	8.2
Savings	35.2	43.8	53.3	59.2	16.2	24.4	21.7	11.0
Per capita income (RM)	8,993	10,058	11,239	12,102	10.8	11.8	11.7	7.7

Note : e - estimates

Source : Economic Report, various issues

Bank Negara Malaysia Annual Report

With the increased competitive environment in the financial market as well as various choice of savings products, there is an urgent need to educate savers on the knowledge of market products. People who save in unit trusts should be aware that returns are never guaranteed since they are determined by profits from investment by unit trust fund managers. But unit trusts help to reduce the risk due to sufficient diversification in investments.

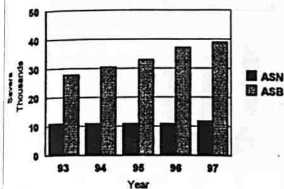
In December 1996, an encouragement for promotion the unit trust industry was extended. In the SC guidelines in 1996, the restriction on EPF withdrawals was relaxed. This is to allow eligible participants to withdraw up to a maximum of 20 per cent of balance exceeding RM50,000 from the retirement account to invest in funds managed by approved professional fund managers.

In the recent Budget announcement, the savings habit is again promoted by the government. In line with the government campaign, PNB has raised its investment ceiling for ASB to 200,000 units with immediate effect on November 1, 1997. In

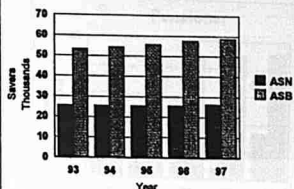
terms of curbing consumption spending which will promote savings, various measures on imported goods were imposed such as higher tax on luxury items, imported machinery, building materials and so forth.

As more savers are more alert of the stability of the unit trust investment, the industry is expected to continue to be one of the savings instrument chosen by Malaysians.

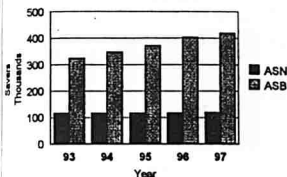
Admin &amp; Mgt



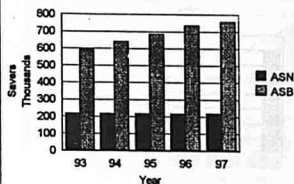
Executive



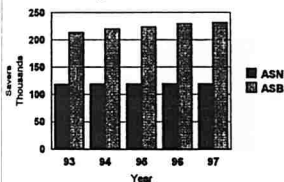
Clerical



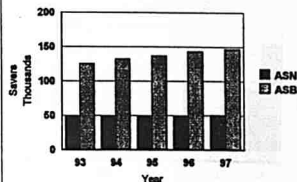
Labourer



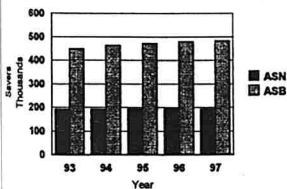
Army &amp; Policemen



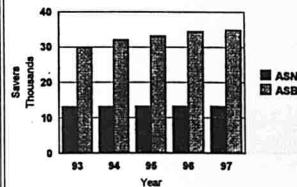
Teacher



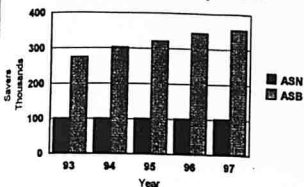
Farmer



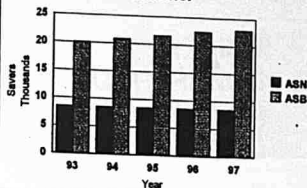
Fishermen



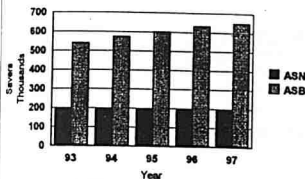
### Businessmen & Entrepreneur



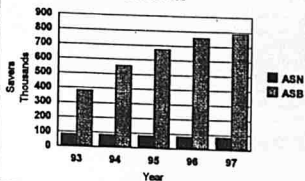
### Pensioner



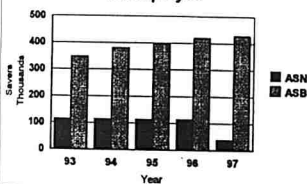
### Housewife



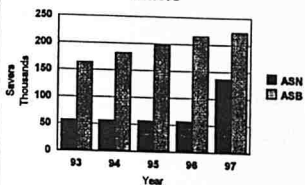
### Student



### Unemployed



### Others



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**COMPETITIVENESS OF MALAYSIAN EXPORTS**

by

Mohamed Ariff



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Malaysian Institute of Economic Research  
Institut Penyelidikan Ekonomi Malaysia



# COMPETITIVENESS OF MALAYSIAN EXPORTS

## 1. INTRODUCTION

The international economy is undergoing dramatic changes, as globalisation gathers momentum, with more and more countries opening their economies and adopting export-oriented growth strategies. Malaysia is by no means a newcomer. Malaysia has always been one of the most open economies of the world with relatively low levels of tariffs and high dependence on exports. As a matter of fact, the Malaysian economy has become increasingly open over the years, with the share of exports in GNP (gross national product) rising from 48.2 per cent in 1965 to 100.3 per cent in 1996.

The composition of Malaysian exports has undergone major changes with the share of manufactures growing from 29.2 per cent to 80.6 per cent during 1965-96. Noticeable changes have also taken place in the direction of Malaysia's exports, although developed country markets continue to dominate. Despite these changes, there still remains a heavy concentration of exports on a few main products and a few major destinations. Thus, in 1996, electronic and electrical (E&E) products accounted for 65.4 per cent of the country's manufactured exports, while top five countries absorbed 79.4 per cent of Malaysian exports.

Malaysia owes its rapid economic growth to the rapid expansion of its exports. The fortunes of the economy are closely tied to the performance of its exports in the international market. Thus, the prospects of the Malaysian economy are intimately related to the competitiveness of its exports. An attempt is made in this paper to assess the latter with the help of new computer softwares.

## 2. METHODOLOGY

The term "export competitiveness" concerns the extent to which a country's product can compete in the international market with the rivals on the basis of price and quality. To be functional, the term used must be measurable. At the firm level, the principal indicators of international competitiveness are price, productivity, profitability and market share. At the industry level, international competitiveness is influenced by a host of factors including technology, innovation, strategic alliances, infrastructure, industry dynamics and government policies. At the country level, measurement become more difficult, as it has a bearing on its comparative advantage based on resource and factor endowments, which is further complicated by the fact international comparisons are affected by exchange rates as well.

A rough measure of a country's export competitiveness is the real effective exchange rates. According to this measure, a country's trade-weighted exchange rate represents an index of the average of all its bilateral rates weighted by its trade pattern. This measure only provides the competitiveness of a national currency rather than that of exports as such.

Another measure, used by *The World Competitiveness Report* since 1994, is the scoreboard founded on eight factors of competitiveness, each of which incorporates a number of elements: domestic economic strength (48 elements) internationalisation (61), governance (55), finance (36), infrastructure (45), management (38), science and technology (42) and people (56). This measure's primary focus is on the environment within which firms in a country operate and which in turn determines their international competitiveness. The main drawback of this approach is that it lacks objectivity due to the inavailability and irrelevance of certain hard data, which in turn is attributed largely to the low level of response from the respondents.

ECLAC (Economic Commission for Latin America and the Caribbean) has recently developed a new software called CAN (Competitive Analysis of Nations) which consists of an extensive database of international trade statistics at 3 digits of the SITC (Standard International Trade Classification), international industry statistics at 3 digits of the ISIC (International Standard Industry Classification) and sophisticated computer programme which can provide detailed analyses of the competitiveness of some 89 countries across 230 sectors for periods beginning 1977. The drawbacks of this CAN software stem largely from its total concentration on the OECD (Organisation for Economic Cooperation and Development), markets, which equates the developed country group with the global market. The CAN package allows the OECD market to be disaggregated into three submarkets, viz: North America, Japan and Western Europe.

The analysis that follows for Malaysia is confined to the period 1990-94 on the assumption this period would sufficiently reflect the current composition of Malaysian manufactured exports. The database in the CAN software used in the present exercise does not go beyond 1994. International data usually lag behind by two years. The 1995 data are yet to be incorporated into the software.

Although the analysis below is admittedly dated, it can provide some valuable insights into the changing pattern of the competitive advantage of Malaysia vis-a-vis its main competitors for several key manufactured items.

### 3. THE RESULTS

Malaysia's export share of the OECD market has increased from 0.71 per cent in 1990 to 1.13 per cent in 1994 (Table 1). The increase in Malaysia's market share is particularly pronounced in North America where its share has risen from 0.95 per cent in 1990 to 1.71 per cent in 1994. The country's market share has increased from 2.48 per cent to 3.08 per cent in Japan and from 0.34 per cent to 0.53 per cent in Western Europe during this period. The growing market share in these markets suggests that Malaysian exports have become increasingly competitive.

Exports are classified into four categories: *Rising Stars* (where the country's market share is growing in a growing market for the concerned products); *Declining Stars* (where the country's market share is growing in a declining market for the products); *Missed Opportunities* (where the country's market share is falling in a growing market for the products); and *Retreats* (where the market share is declining in a declining market for the products concerned). It is noteworthy that the contribution of Malaysia to the change in the OECD market in the Rising Star category is large (49.4 per cent in 1990 and 67.5 per cent in 1994), as shown in Table 2. However, in the OECD market, it appears that Malaysia is missing some opportunities in some sectors, while not retreating fast enough in some others.

The picture is similar for Malaysia's exports to Japan (Table 3), North America (Table 4) and Western Europe (Table 5), although it appears that Malaysia's market share in North America and Western Europe is growing faster in the Falling Star category than in the Rising Star category, while the reverse holds in the Japanese market.

Exports can also be dichotomised into just two groups: *Growing Sectors* (products whose share of total trade is rising, i.e. a combination of Rising Stars and Missed Opportunities) and *Declining Sectors* (products whose share in total trade is falling, i.e. a combination of Falling Stars and Retreats). It is of interest to note that Malaysia's market share of the OECD market has been growing in both categories and that it is growing more rapidly in the Growing Sector (Table 6). It is also

noteworthy that Malaysia's adaptability to changing market conditions in the OECD in terms of both market share and contribution to change has improved significantly during the period under review, as indicated by improvements in the adaptability index (Table 6).

The picture is somewhat mixed when the OECD market is divided into Japan, North America and Western Europe. The situation in these submarkets is comparable to the OECD as a whole insofar as market share and contribution to change in the Growing and Declining Sectors are concerned (Tables 7, 8 and 9). However, in terms of adaptability to changing market conditions, the performance of Malaysian exports in Japan and North America pale in comparison with that in the OECD as a whole and Western Europe in particular.

The performance of Malaysian exports vary considerably among products in different markets. In the case of Radio Broadcasting Receiver (ISIC 762) in the OECD market, the major competitors for Malaysia are Japan, China, South Korea, Singapore, Mexico and Taiwan. Malaysia's market share for this product has increased from 10.9 per cent in 1990 to 18.3 per cent in 1994, while that of all other rivals, with the notable exception of China, has declined (Chart 1). The share of Malaysia-made sound equipments (ISIC 763) in OECD imports also increased fairly sharply from 3.8 per cent to 12.3 per cent during 1990-94 along with that of Germany, Singapore and China, while that of South Korea and Japan declined (Chart 2). In the case of Semiconductors (ISIC 776), the market share of Malaysia and that of many of its rivals increased significantly, with France and Germany experiencing sharp contractions (Chart 3).

In Western Europe, Malaysia's share of the semiconductors market increased from 4.8 per cent in 1990 to 5.4 per cent in 1994, while that of the United States (US) increased enormously from 15.7 per cent to 20.2 per cent. South Korea and Taiwan also registered marginal increases in their market share. However, all other rivals suffered some setbacks (Chart 4). For Dictating Machines (ISIC 776) in Western Europe, Malaysia's share increased from 1.7 per cent to 3.7 per cent between 1990 and 1994. Similar increases were also registered by China, Singapore, Austria, France and Germany. Japan, the biggest supplier, suffered a sharp decline in market share in Western Europe. The share of the US and South Korea in this category also fell during the period under review (Chart 5). Malaysia performed extremely well in the case of Radio Broadcast Receivers (ISIC 762) with its share of the West European market rising from 10.5 per cent to 13.9 per cent between 1990 and 1994, although it was outperformed by China whose share went up from 11.4 per cent to 17.2 per cent during this period. It is worth noting that the share of all other major rivals in this category, with the exception of France, has declined in Western Europe (Chart 6).

In the North American market, the Malaysian share of Automatic Data Processing Machines (ISIC 752) increased markedly from 0.9 per cent to 5.2 per cent during the period 1990-94 (Chart 7). Except for Singapore which maintained its share, all other competitors suffered market share losses. In the case of Telecommunications Equipment (ISIC 764), Malaysia's share of the North American market increased slightly from 3.2 per cent to 4.9 per cent during the above period. It is noteworthy that Japan's share declined very sharply in this market along with that of South Korea, Taiwan and Singapore (Chart 8). Malaysia, the third largest exporter of Semiconductors (ISIC 776) to North America after Japan and South Korea, increased its market share from 10.6 per cent to 11.4 per cent during 1990-94. Malaysia's rivals which lost market shares in this category in North America include Japan, Singapore and Canada, while South Korea, Philippines and Taiwan were among the gainers (Chart 9). Malaysia gained sizeable increase in its market share in North America for its textile exports (ISIC 848) from 5.5 per cent to 9.8 per cent during the same period, although this is attributed mainly to quota increases rather

than improved competitiveness per se. China's share of the North American textile market rose very sharply from 12.3 per cent to 25.8 per cent, while that of South Korea fell very steeply from 37.5 per cent to 8.8 per cent between 1990 and 1994 (Chart 10).

In Japan, Malaysia's market share of Office Machines (ISIC 751) rose markedly from 12.4 per cent in 1990 to 16.9 per cent in 1994, while that of the US fell sharply from 23.9 per cent to 10.9 per cent (Chart 11). In the case of Television Receivers (ISIC 761), Malaysia has been gaining market shares enormously (from 9.6 per cent in 1990 to 25.7 per cent in 1994) at the expense of Taiwan and South Korea which suffered huge market share losses (Chart 12). Malaysia was the largest exporter of Radio Broadcast Receivers (ISIC 762) to Japan in 1994 with a 28.3 per cent market share compared with 15.5 per cent in 1990, with China trailing closely behind. Taiwan, Singapore and South Korea suffered losses in their share of the Japanese market in this product category (Chart 13). The most impressive gain for Malaysia in terms of market share in Japan has been in ISIC 763 (Sound Equipment) where its share went up very steeply to 32.9 per cent in 1994 from 8.7 per cent in 1990 at the expense of Taiwan, South Korea, China and the US. For Telecommunications Equipment (ISIC 764), the US, the largest exporter to Japan, suffered market share losses during the period 1990-94, while Malaysia gained market share from 3.0 per cent to 8.6 per cent (Chart 15). Malaysian exports of Photographic Equipment (ISIC 881) have performed fairly well in the Japanese market with market share rising from 9.9 per cent to 12.1 per cent during the period under review, while United Kingdom, Germany, Taiwan and the US are among the losers, whereas China, Indonesia and Thailand figure prominently among the gainers (Chart 16).

As mentioned, export performance tends to vary from product to product and from market to market. Major products in the principal markets are identified and analysed, as shown in the Annexes.

#### 4. CONCLUSION

As mentioned, the preceding analysis is indisputably dated. Despite drawbacks, it does provide some useful insights into the competitiveness of Malaysia's exports in the major markets. It identifies the principal rivals competing with Malaysian products in these markets. It also shows that Malaysian manufactured exports are gaining grounds in developed country markets. The situation does not seem to have changed markedly between 1994 and 1996, as the direction and composition of the Malaysian exports show fairly similar patterns in both years with no more than marginal changes (Tables 10 and 11). This is not, of course, to deny that some significant changes could well have taken place in terms of market share gains and losses in the developed country markets since 1994.

Malaysia's comparative advantage structure is likely to change over time. Rising labour costs, for instance, are likely to erode the country's competitiveness in labour-intensive activities. The growing competition in the international market, with the entry of more and more developing countries, may dent Malaysia's market shares in some areas. To preserve, let alone increase, its market shares, Malaysia will have to cut costs in current production. Alternatively, it will have to find new niches. The decline trade-weighted real effective exchange rates over the years must have also contributed to the competitiveness of Malaysian exports. It is pertinent to note that the trade-weighted real exchange rate was declining until end 1994 (Chart 17). The rise in the real exchange rate during 1995-96 must have blunted the competitiveness of Malaysian exports somewhat. The recent sharp depreciation of the ringgit, as shown by the steep decline in the trade-weighted nominal exchange rate since mid-1997 in Chart 17, will sharpen the competitiveness

of Malaysian exports, although this advantage may be offset to some extent by the parallel depreciation of other currencies in the region. In the long run, Malaysia will have to compete with other countries not on the basis of weak exchange rates but on the basis of efficiency by using its capital and labour more productively.

Table 1  
Malaysia's Export Share in Major Markets

	1990 %	1994 %	Rate %
OECD	0.71	1.13	59.00
North America	0.95	1.71	79.88
Japan	2.48	3.08	23.89
Western Europe	0.34	0.53	52.94

Table 2  
Competitiveness of Malaysia Exports in OECD Market, 1990-94

		1990 %	1994 %	Rate %
Rising Stars	Market Share	0.73	1.41	93.80
	Contribution	49.37	67.56	36.84
	Sector Share	48.38	54.32	12.27
Falling Stars	Market Share	0.21	0.44	106.2
	Contribution	9.36	10.25	10.72
	Sector Share	31.12	26.58	-14.61
Missed Opportunities	Market Share	2.36	2.19	-7.40
	Contribution	19.15	12.31	-35.71
	Sector Share	5.77	6.37	10.39
Retreats	Market Share	1.07	0.88	-18.29
	Contribution	22.22	9.88	-55.55
	Sector Share	14.72	12.30	-13.50

Table 3  
Competitiveness of Malaysia Exports in Japanese Market, 1990-94

		1990 %	1994 %	Rate %
Rising Stars	Market Share	1.96	3.4	81.12
	Contribution	24.68	47.22	91.28
	Sector Share	33.0	44.28	30.85
Falling Stars	Market Share	2.20	3.07	39.38
	Contribution	29.3	24.2	-17.64
	Sector Share	33.0	24.18	-26.74
Missed Opportunities	Market Share	5.97	4.06	-32.0
	Contribution	30.24	19.36	-35.98
	Sector Share	12.58	14.67	16.62
Retreats	Market Share	1.83	1.59	-13.01
	Contribution	15.78	9.30	-41.08
	Sector Share	21.42	17.98	-16.08

Table 4  
Competitiveness of Malaysia Exports in North America, 1990-94

		1990 %	1994 %	Rate %
Rising Stars	Market Share	1.46	2.61	78.87
	Contribution	54.26	65.17	20.09
	Sector Share	35.28	42.61	20.77
Falling Stars	Market Share	0.49	1.34	176.08
	Contribution	18.92	24.39	28.90
	Sector Share	36.96	31.04	-10.02
Missed Opportunities	Market Share	1.18	0.93	-21.02
	Contribution	13.80	7.04	-48.96
	Sector Share	11.09	12.89	16.24
Retreats	Market Share	0.74	0.43	-41.75
	Contribution	13.02	3.4	-73.85
	Sector Share	16.67	13.46	-19.25

Table 5  
Competitiveness of Malaysia Exports in Western European Market, 1990-94

		1990 %	1994 %	Rate %
Rising Stars	Market Share	0.46	0.78	71.00
	Contribution	57.77	71.71	24.13
	Sector Share	43.58	48.39	11.02
Falling Stars	Market Share	0.08	0.19	173.75
	Contribution	7.82	10.20	30.38
	Sector Share	33.45	28.54	-14.69
Missed Opportunities	Market Share	0.46	0.35	-25.62
	Contribution	12.29	7.12	-42.09
	Sector Share	9.12	10.86	19.07
Retreats	Market Share	0.55	0.47	-13.97
	Contribution	22.12	10.98	-50.37
	Sector Share	13.85	12.22	-11.76

Table 6  
Malaysian Exports to OECD: Adaptability Index 1990-94

		1990 %	1994 %	Rate %
Growing Sectors	Market Share	0.90	1.49	65.38
	Contribution	68.53	79.87	16.56
	Sector Share	54.15	60.69	12.07
Declining Sectors	Market Share	0.48	0.58	18.55
	Contribution	31.47	20.13	-36.06
	Sector Share	45.85	39.31	-14.26
Adaptability Index	Market Share	1.84	2.57	39.46
	Contribution	2.18	3.97	82.29



Table 7  
Malaysia Exports to Japan: Adaptability 1990-94

		1990 %	1994 %	Rate %
Increasing Sectors	Market Share	2.99	3.54	18.32
	Contribution	54.93	66.58	21.21
	Sector Share	45.58	57.75	26.92
Declining Sectors	Market Share	2.06	2.44	18.61
	Contribution	45.07	37.42	-25.85
	Sector Share	54.42	42.15	-22.55
Adaptability Index	Market Share	1.46	1.45	-0.24
	Contribution	1.22	1.99	63.47

Table 8  
Malaysian Exports to North America: Adaptability Index 1990-94

		1990 %	1994 %	Rate %
Growing Sectors	Market Share	1.39	2.22	59.44
	Contribution	68.06	72.21	6.09
	Sector Share	46.37	55.5	19.69
Declining Sectors	Market Share	0.57	1.07	88.64
	Contribution	31.94	27.79	-12.98
	Sector Share	53.63	44.5	-17.02
Adaptability Index	Market Share	2.46	2.08	-15.47
	Contribution	2.13	2.60	21.92

Table 9  
 Malaysian Exports to Western Europe: Adaptability Index 1990-94

		1990 %	1994 %	Rate %
Growing Sectors	Market Share	0.46	0.70	53.07
	Contribution	70.06	78.83	12.51
	Sector Share	52.7	59.25	12.42
Declining Sectors	Market Share	0.22	0.27	25.53
	Contribution	29.94	21.17	-29.28
	Sector Share	47.3	40.75	-13.83
Adaptability Index	Market Share	2.1	2.56	21.94
	Contribution	2.34	3.75	59.09

Table 10  
Malaysia: Major Export Markets

Destination	1994 % Share	1996 % Share
1. United States	21.1	23.3
2. Singapore	20.7	26.2
3. Japan	12.1	17.1
4. Hong Kong	4.6	7.5
5. United Kingdom	3.8	4.4
6. Thailand	3.8	5.2
7. Germany	3.3	3.9
8. People's Republic of China	3.3	3.1
9. Taiwan	2.9	5.3
10. Republic of Korea	2.8	3.9
11. Rest of the world	21.6	0.9

Table 11  
Malaysia: Composition of Exports

Export Item	1994 % Share	1996 % Share
Rubber	1.94	1.91
Tin	0.34	0.29
Saw Logs and Sawn Timber	4.55	1.76
Palm Oil	5.54	5.05
Petroleum, crude and partly refined	4.34	3.93
<b>Manufactured Goods</b>		
Electrical machinery appliance & parts:		
Electrical components	16.47	19.19
Electrical appliances	4.21	4.86
Other electrical machinery	29.88	32.73
Transport equipment	3.86	2.47
Food	1.93	1.79
Beverages and tobacco	0.14	0.31
Textiles clothing and footwear	4.01	3.79
Wood products	3.16	3.32
Rubber Products	1.82	1.95
Paper and paper products	0.51	0.38
Petroleum products	2.07	1.79
Chemical and chemical products	4.14	3.67
Non-Metallic mineral products	1.11	0.89
Manufactures of metal	3.08	2.72
Optical and scientific equipment	1.92	1.71
Toys and sporting goods	1.44	1.36
Other manufactures	3.53	3.35
Total Gross Exports	100	100

Chart 1  
ISIC 762 Radio Broadcasting Receivers: Rival Market Shares in OECD

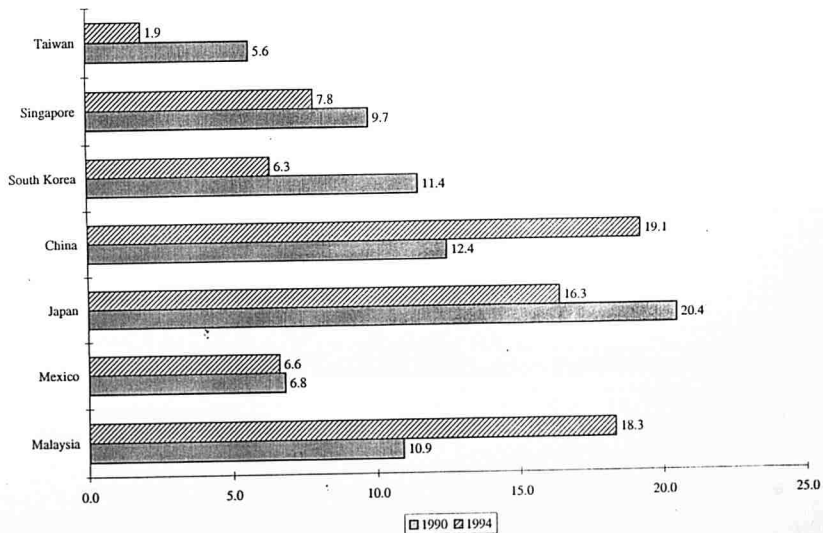


Chart 2  
ISIC 763 - Sound Equipment: Rival Market Shares in OECD

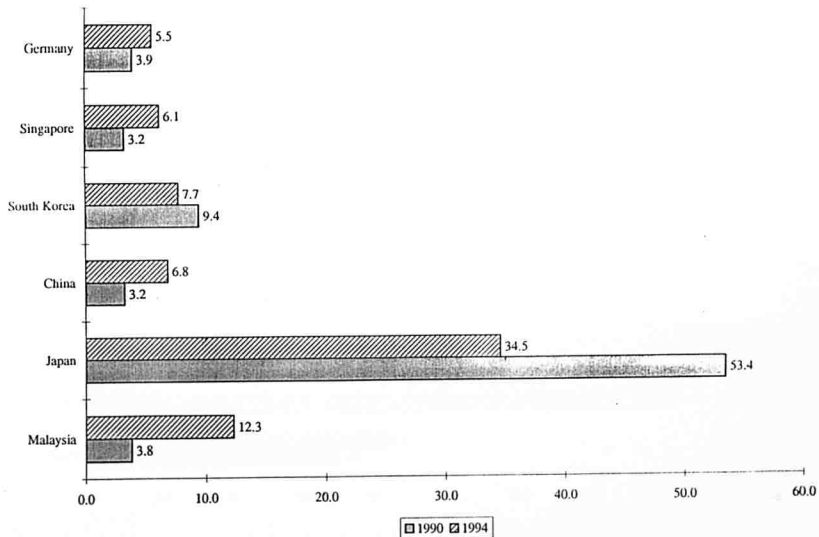


Chart 3  
ISIC 776 Semiconductors: Rival Market Shares in OECD

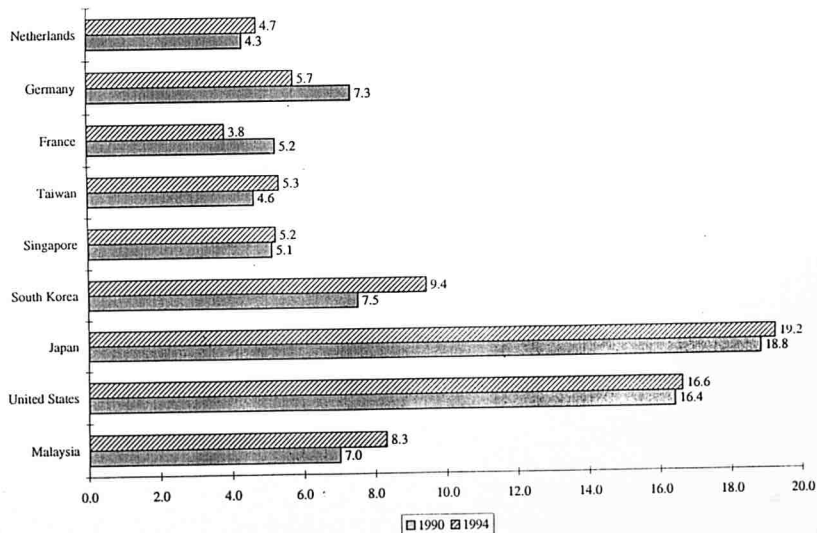


Chart 4  
ISIC 776 Semiconductors: Rival Market Shares in Western Europe

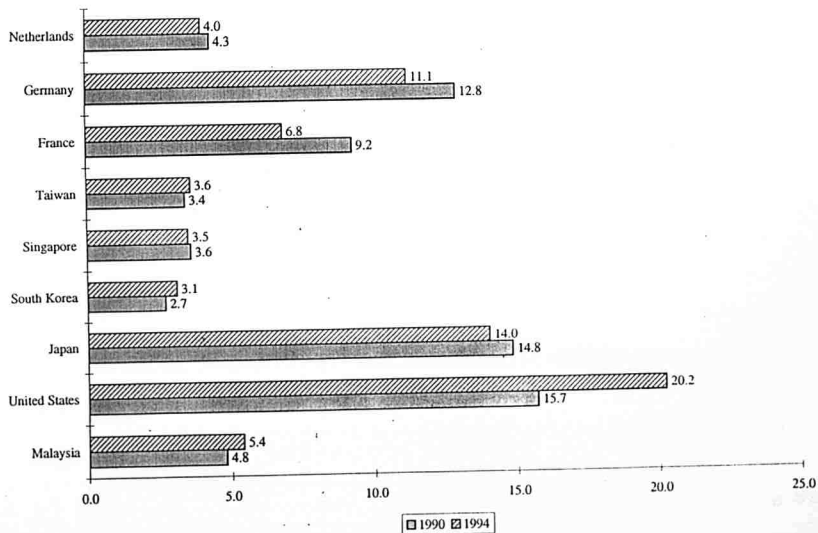


Chart 5  
ISIC 776 Dictating Machines: Rival Market Shares in Western Europe

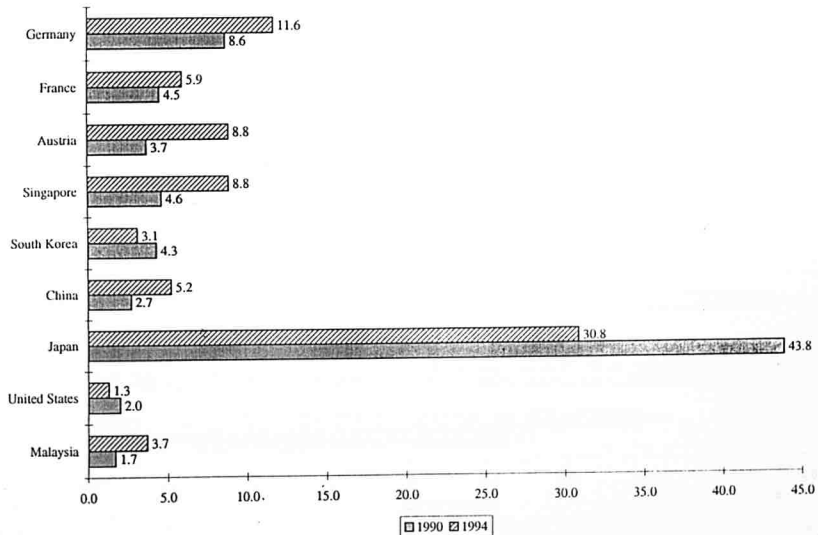




Chart 6  
ISIC 762 Radio Broadcast Receivers: Rival Market Shares in Western Europe

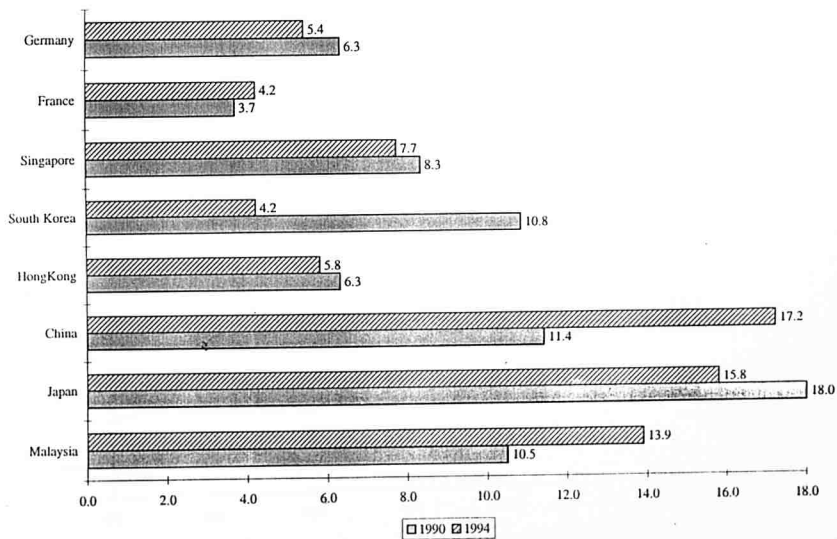
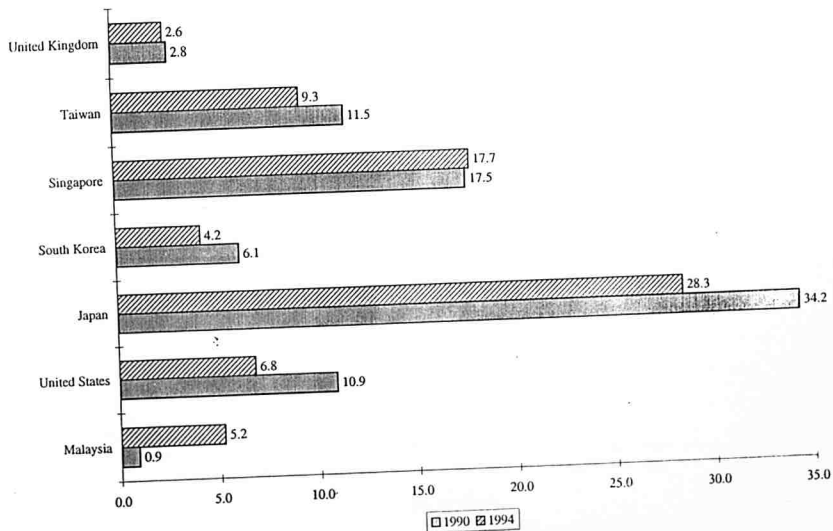


Chart 7  
ISIC 752 Automatic Data Processing Machines: Rival Market Shares in North America



ISIC 764 - Telecoms Equipment: Rival Market Shares in North America

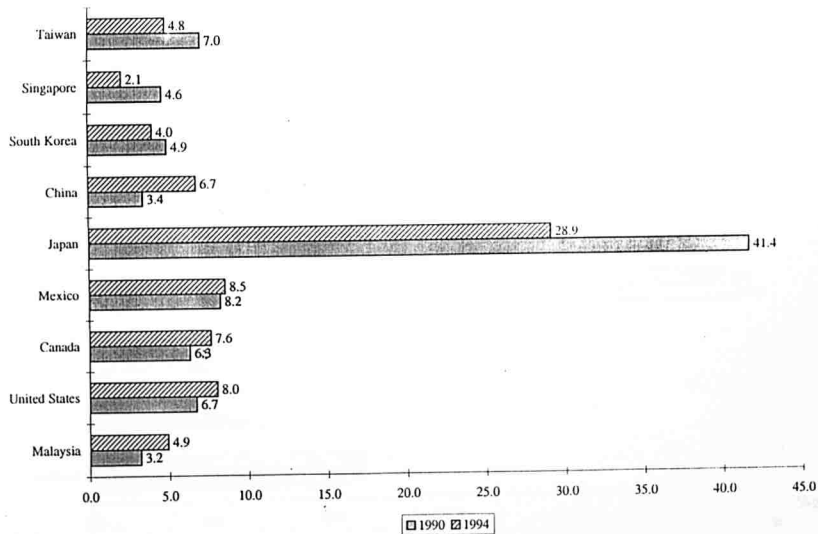


Chart 9  
ISIC 776 Semiconductors: Rival Market Shares in North America

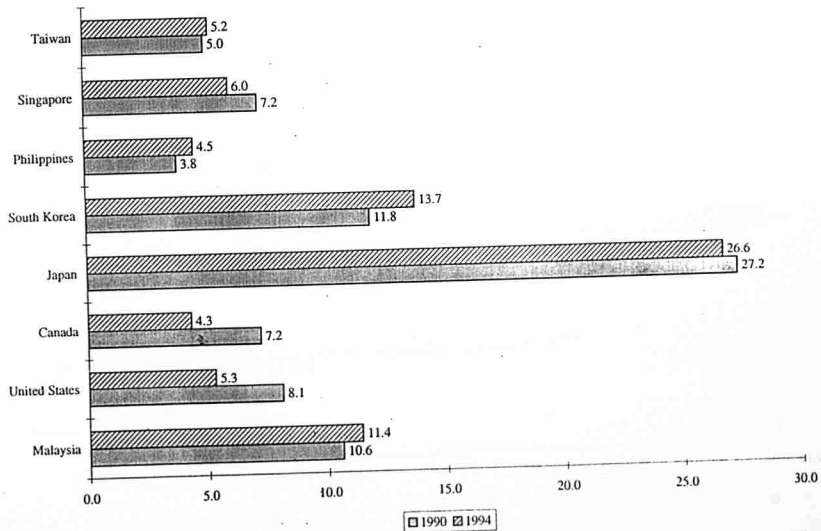


Chart 10  
ISIC 848 Articles of Apparel, Clothing Accessories: Rival Market Shares in North America

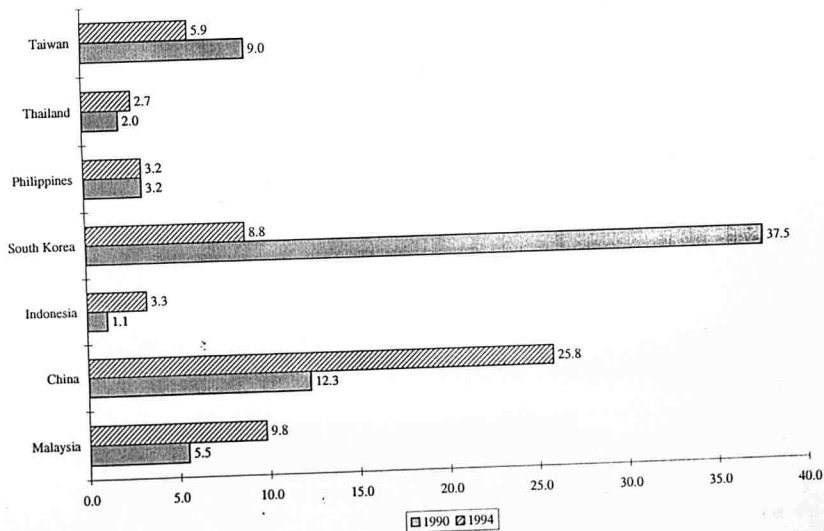


Chart 11  
ISIC 751 Office Machines: Rival Market Shares in Japan

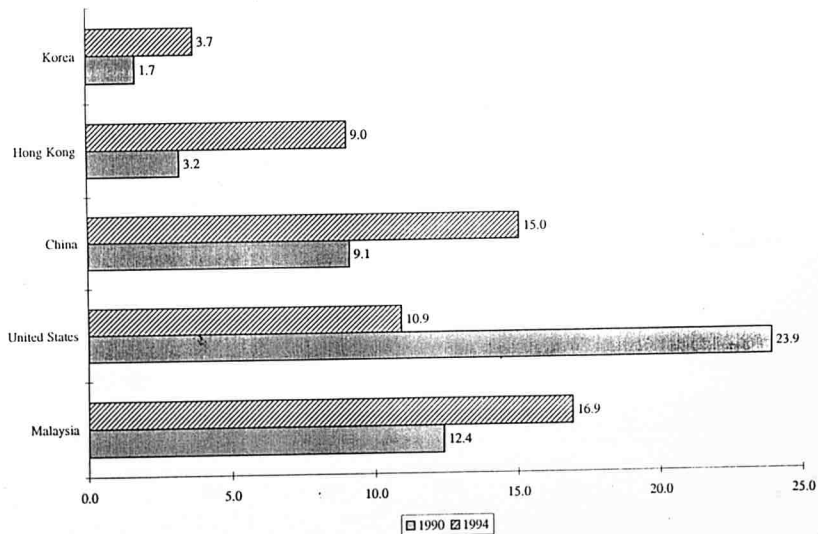


Chart 12  
ISIC 761 Television Receivers: Rival Market Shares in Japan

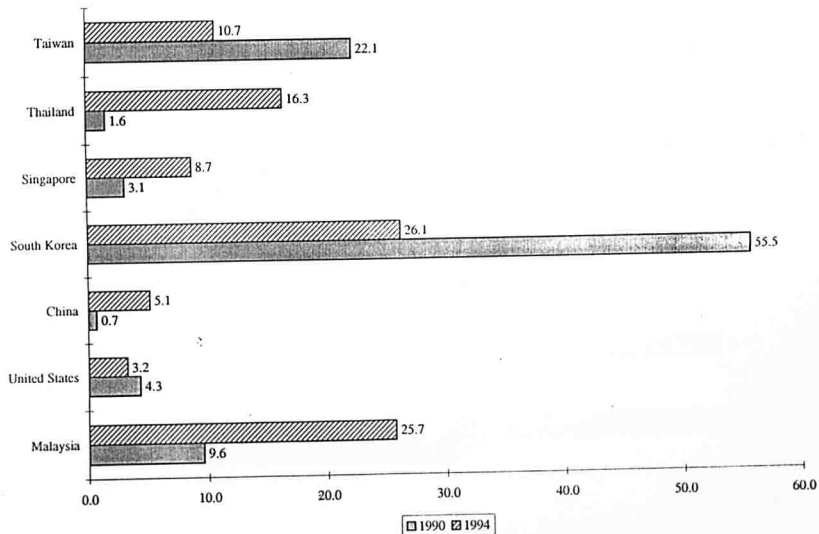


Chart 13  
ISIC 762 Radio Broadcast Receivers: Rival Market Shares in Japan

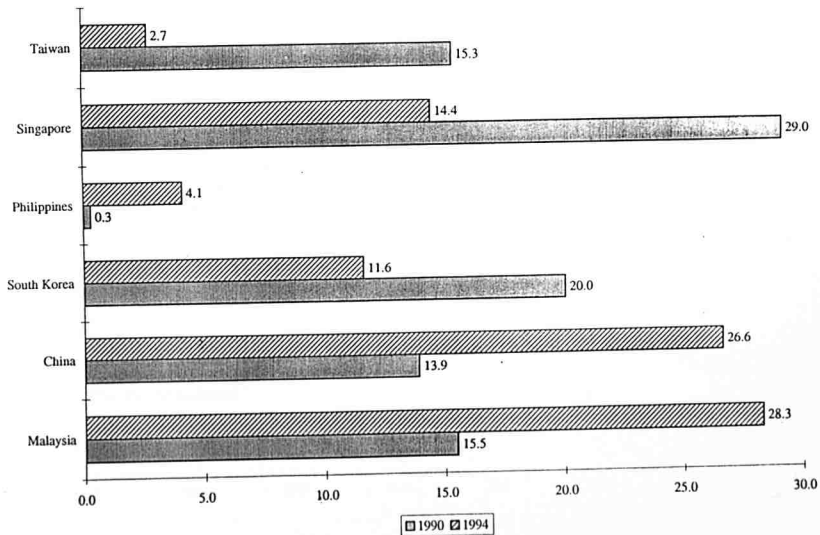




Chart 1-4  
ISIC 763 Sound Equipment: Rival Market Shares in Japan

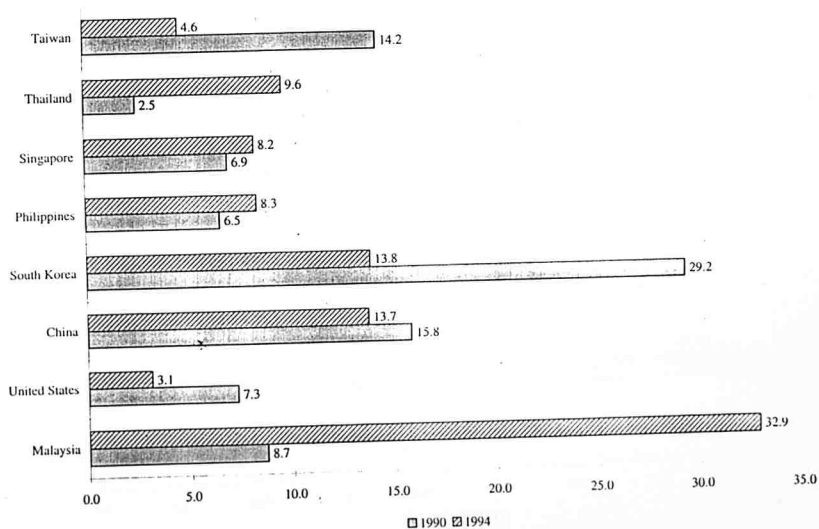


Chart 15  
ISIC 764 Telecoms Equipment: Rival Market Shares in Japan

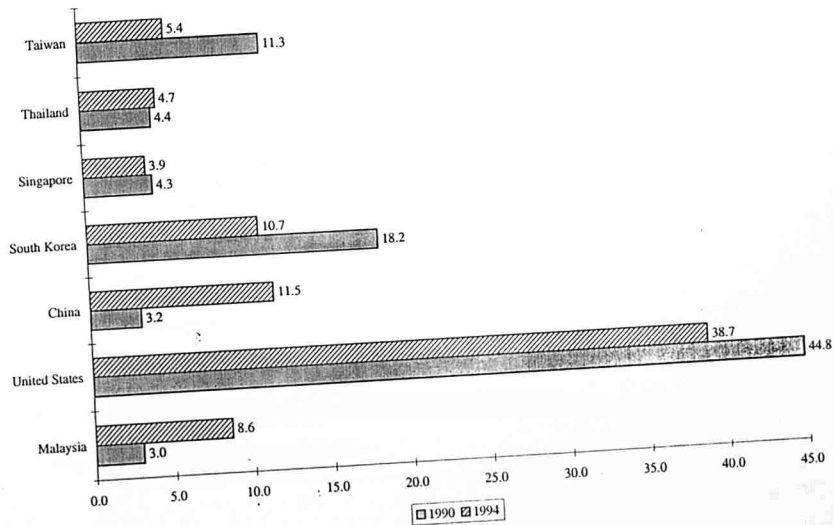


Chart 16  
ISIC 881 Photographic Apparatus/Equipment: Rival Market Shares in Japan

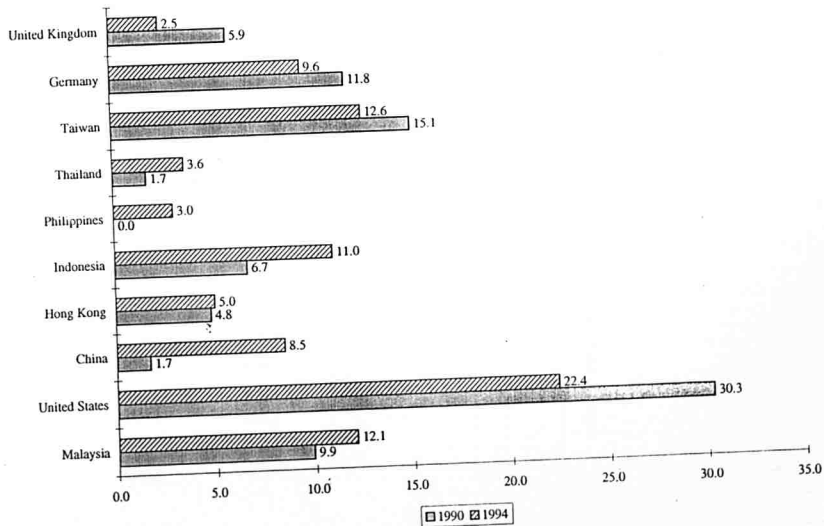
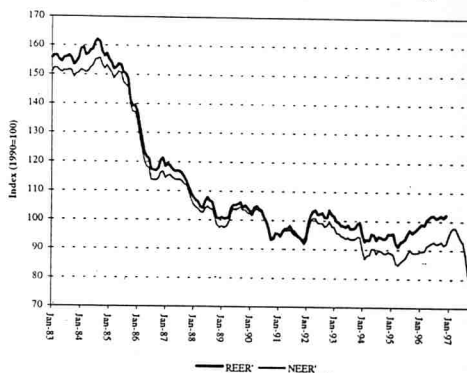


Chart 17  
Nominal and Real Trade-weighted Exchange Rate Index of Ringgit



Annex I  
Malaysia's Export Share in OECD Market by Commodity

		1990	1994	Rate
081	Animal feed	0.94	0.95	0.71
223	Oil seeds & oleaginous fruit	0.49	0.97	96.21
245	Fuel wood	2.10	3.26	54.94
431	Animal and vegetable oils and fats	6.43	9.88	53.59
512	Alcohols, phenols, etc	0.99	2.40	141.67
598	Miscellaneous chemical products, n.e.s..	0.89	1.22	31.84
621	Materials of rubber	2.14	2.55	19.20
625	Rubber tyres, tyre cases, tubes etc.	0.12	0.29	133.95
628	Articles of rubber, n.e.s.	0.85	1.13	33.00
634	Veneer, plywood, etc.	2.60	5.90	126.76
635	Wood manufactures, n.e.s.	1.53	2.49	62.82
694	Nails, screws, nuts, bolts etc.	0.42	1.02	143.10
716	Rotating electric plant & parts n.e.s.	0.28	0.94	132.57
752	Automatic data processing machines	0.36	2.84	689.54
759	Parts, n.e.s. of and accessories	0.34	1.09	222.01
762	Radio-broadcasting receivers	10.91	18.33	67.99
763	Sound equipment, dictating machines etc.	3.83	12.29	221.02
764	Telecommunications equipment, n.e.s.	1.57	3.37	114.34
771	Electric power machinery (excl. 716)	2.12	3.39	60.04
772	Electric apparatus for making/breaking circuit	0.50	0.93	84.14
773	Equipment for distributing electricity	0.31	0.57	87.93
776	Thermionic valves & tubes and other semiconductor n.e.s.	7.03	8.27	17.68
778	Elec. machinery and apparatus, n.e.s.	0.38	0.90	140.44
785	Motorcycles, motor scooters, etc.	0.09	0.61	600.06
821	Furniture and parts	0.40	1.53	281.50
842	Outer garments, man's/boys	0.79	0.84	6.29
844	Under garments, textiles fabrics	1.86	2.24	20.46
845	Outer garments, other articles	1.40	1.46	4.69
846	Undergarments, knitted/crocheted	0.88	0.97	8.82
847	Clothing accessories of textiles fabric, n.e.s.	0.86	1.16	34.41
871	Optical instruments and apparatus	0.29	0.50	73.20
872	Medical instruments and appliances, n.e.s.	0.87	1.02	16.17
881	Photographic apparatus & equipment n.e.s.	1.92	5.12	166.23
884	Optical goods, n.e.s.	0.25	0.61	150.02
885	Watches and clocks	0.49	0.72	47.48
894	Baby carriages, toys, games etc.	1.01	1.43	40.98
895	Office stationery	1.30	1.59	22.59

Annex 2  
Malaysia's Export Share in North American Market by Commodity

		1990	1994	Rate
048	Cereal/flour preparations	0.11	0.42	263.23
431	Animal and vegetable oils and fats	5.78	8.82	52.80
512	Alcohols, phenols, etc.	1.35	3.36	148.51
598	Misc. chemical prods, n.e.s.	2.55	2.77	8.94
628	Articles of rubber, n.e.s.	0.5	0.65	30.27
634	Veneer, plywood, etc.	2.73	4.63	69.47
635	Wood manufactures, . n.e.s.	1.67	3.07	84.16
651	Textile yarn	0.28	0.32	16.86
652	Cotton fabrics, woven	1.67	1.74	4.44
666	Pottery	1.71	1.99	16.74
697	Household equipment of base metal, n.e.s.	0.50	0.51	2.69
699	Manfs. of base metal, . n.e.s.	0.18	0.54	203.17
716	Rotating electric plant & parts	0.05	0.52	1023.45
752	Automatic data processing machines	0.92	5.15	459.04
759	Parts and accessories, n.e.s.	0.65	2.18	235.06
764	Telecoms equipment, n.e.s.	3.19	4.90	53.46
772	Elec. apparatus for making/breaking elec. circuits	0.62	1.04	68.10
773	Equip for distributing electricity	0.17	0.38	129.07
776	Thermonic valves & tubes and other semiconductors	10.57	11.41	8.04
778	Elec machinery and apparatus, n.e.s.	0.60	1.26	109.02
786	Trailers and other vehicles, not motorised, n.e.s.	0.77	0.93	21.17
812	Sanitary, plumbing, heating and lighting fixtures	0.36	0.71	99.61
821	Furniture and parts thereof	0.78	2.64	240.24
848	Articles of apparel, clothing access not textiles fab	5.45	9.76	79.30
872	Medical instrument and appliances, n.e.s.	0.57	0.63	10.40
885	Watches and clocks	0.41	0.65	56.62
894	Baby carriages, toys, games etc.	1.43	1.61	12.76

Annex 3  
Malaysia's Export Share in Japan by Commodity

		1990	1994	Rate
034	Fish, fresh	0.53	0.66	24.47
037	Fish, crustaceans and molluscs	0.53	2.62	397.20
091	Margarine and shortening	0.20	1.07	447.12
223	Synthetic rubber latex	0.96	1.49	55.92
245	Fuel wood and wood charcoal	7.67	13.10	70.72
248	Wood	8.55	9.42	10.24
554	Soap, cleansing and polishing preparations	1.42	4.53	219.90
621	Materials of rubber	10.56	12.85	21.71
628	Articles of rubber, n.e.s.	10.92	15.32	40.25
634	Veneers, plywood etc	6.02	15.53	158.03
635	Wood Manuf n.e.s.	1.54	1.90	23.40
641	Paper and paperboard	0.22	1.15	412.39
642	Paper & paperboard cut to size/shape	1.81	5.39	198.42
659	Floor coverings etc.	0.39	1.31	238.52
662	Clay construction materials	0.05	2.89	5542.44
666	Pottery	0.19	0.75	290.22
679	Iron & Steel castings	0.34	4.38	1200.83
693	Wire prods	0.58	0.91	56.75
694	Nails, screws, nuts, bolts etc.	1.78	3.21	80.63
697	Household equipment of base metal, n.e.s.	0.11	0.72	581.84
699	Manfs. of base metal, n.e.s.	0.45	1.18	165.01
716	Rotating electric plant & parts	2.75	7.91	188.28
741	Heating and cooking equipment/parts	10.22	12.48	22.17
743	Pumps, compressors, fans	1.62	2.59	59.23
751	Office machines	12.4	16.85	35.91
752	Automatic data processing machines	0.35	3.07	780.58
759	Parts and accessories, n.e.s.	1.67	3.85	130.79
761	TV receivers	9.61	25.74	167.80
762	Radio-broadcast receivers	15.51	28.33	82.62
763	Sound equipment, dictating machines etc.	8.66	32.9	279.80
764	Telecommunications equipment, n.e.s.	2.96	8.61	190.72
771	Electric power machinery (excl. 716)	7.24	12.61	74.05
772	Electric apparatus for making/breaking electrical circuit	3.10	5.05	63.25
773	Equipment for distributing electricity	3.77	4.09	8.37
775	Other household elec/non-elec equip	1.30	4.32	233.14
776	Thermionic valves & tubes and other semiconductor n.e.s.	3.52	4.33	22.95
778	Elec. machinery and apparatus, n.e.s.	0.64	1.75	171.65
785	Motorcycles, motor scooters, etc.	0.17	1.37	710.13
786	Trailers and other vehicles, not motorised, n.e.s.	0.61	4.62	66.43
812	Sanitary, plumbing, heating and lighting fixtures	1.35	1.79	32.22

Annex 3  
Malaysia's Export Share in Japan by Commodity

		1990	1994	Rate
821	Furniture and parts thereof	1.34	4.14	208.22
844	Under garments, textiles fabrics	0.43	1.18	176.29
846	Undergarments, knitted/croached	0.71	0.96	35.62
847	Clothing accessories of textiles fabric, n.e.s.	0.40	1.66	310.88
871	Optical instruments and apparatus	2.31	2.47	7.09
872	Medical instruments and appliances, n.e.s.	0.37	0.91	147.83
881	Photographic apparatus & equipment n.e.s.	9.85	12.06	22.45
884	Optical goods, n.e.s	3.28	8.09	146.55
885	Watches and clocks	0.35	0.78	120.19
894	Baby carriages, toys, games etc.	0.54	0.73	34.07
895	Office stationery	1.79	1.91	6.68
898	Musical instrument, parts	0.03	0.51	1402.82



Annex 4  
Malaysia's Export Market Share in Western Europe by Commodity

		1990	1994	Rate
081	Animal feed	1.14	1.24	8.56
634	Veneer, plywood, etc.	1.63	1.50	-8.50
223	Oil seeds & oleaginous fruit	0.68	1.28	87.70
248	Wood	6.23	5.50	-11.61
232	Natural rubber	42.56	31.43	-26.15
844	Undergarments, textiles, fabrics	0.93	0.84	-9.47
424	Other fixed veg. oils	19.76	17.57	-11.11
075	Spices	3.4	2.36	-30.53
072	Cocoa	6.16	3.60	-41.57
037	Fish, crustaceans and molluscs	1.16	0.73	-36.51
761	TV receivers	1.21	2.14	76.96
751	Office machines	0.15	0.83	463.55
741	Heating and cooking equipment	0.12	0.58	39.72
687	Tin	15.14	16.93	11.79
666	Pottery	0.40	1.08	166.50
653	Fabrics of woven, of man-made fibres	0.38	0.70	80.97
652	Cotton fabrics, woven	0.27	0.46	69.23
245	Fuel wood and wood charcoal	1.11	1.30	17.31
895	Office and stationery supplies, n.e.s.	0.68	0.98	45.27
894	Baby carriages, toys, games etc.	0.67	1.02	51.95
885	Watches and clocks	0.53	0.73	31.70
872	Medical instruments and appliances, n.e.s.	1.08	1.20	11.45
851	Footwear	0.13	0.45	255.21
848	Articles of apparel, clothing access not of text	3.47	5.62	61.93
847	Clothing accessories of textiles fabric, n.e.s.	1.03	1.12	9.26
846	Undergarments, knitted/crocheted	0.50	0.69	36.80
845	Outer garments, other articles	1.14	1.44	26.83
843	Outer garments, women's/girls	0.53	0.58	10.59
785	Motorcycles, motorscooters	0.11	0.73	559.04
778	Elec. machinery and apparatus, n.e.s.	0.26	0.71	168.60
776	Thermionic valves & tubes and other semiconductor n.e.s.	4.84	5.37	10.87
772	Electric apparatus for making/breaking electrical circuit	0.30	0.51	72.89
771	Electric power machinery (excl. 716)	0.70	1.21	73.50
764	Telecommunications equipment, n.e.s.	0.44	1.46	233.09
763	Sound equipment, dictating machines etc.	1.72	3.66	113.06
762	Radio-broadcasting receivers	10.53	13.88	31.84
752	Automatic data processing machines	0.1	1.24	1168.94
714	Engines and motors, non-elec parts n.e.s.	0.3	0.72	137.91
635	Wood manuf., n.e.s.	1.31	1.81	38.16
628	Articles of rubber n.e.s.	0.33	0.51	53.78
625	Rubber tyres, tyre cases, tubes, treads etc.	0.11	0.31	170.21
621	Materials of rubber	1.63	2.41	48.01
598	Misc. chemical products	0.30	0.66	119.07
431	Animal/veg. oil and fats	5.57	8.85	58.75

Production of Semiconductors & Other Components  
(% change year-on-year)

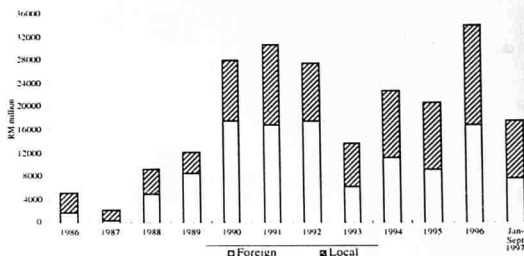


#### • Approvals and Application of Investment in Manufacturing Sector

The approval for investment projects granted by the Malaysian Industrial Development Authority (MIDA) declined sharply by 29.4 per cent for the first three quarters of 1997 compared to the corresponding period last year. The value of these projects were RM17.8 billion compared to a higher amount of RM25.2 billion a year ago. Both domestic and foreign approvals for investment dipped where the former registered a decline of 14.5 per cent while the latter posted a larger fall of 42.3 per cent. Foreign investment accounted for 43.5 per cent of the total approved.

The top three industries for approved investments were electrical and electronic products (RM5.4 billion or 30.3% share), chemicals and chemical products (RM2.6 billion or 14.7% share) and basic metal products (RM1.9 billion or 10.7% share). The electrical and electronic products industry registered a decline of 47.7 per cent in approvals, solely due to the fall in foreign participation by 71.5 per cent since domestic investment rose by 64.3 per cent. In fact, there was a significant increase in domestic investments for all the top three industries. Domestic investment soared by 233.4 per cent in the basic metal industry against foreign investments which rose by 14.3 per cent during the first three quarters this year. In the chemicals and chemical products industry, domestic participation rose by 81.1 per cent, slightly higher than its foreign counterpart which increased by 75.9 per cent. There was also an increase in domestic share for all the three industries this year compared to last year's corresponding period. The domestic share in the electrical and electronic products rose from 17.5 per cent to 55 per cent, chemicals and chemical products increased marginally from 47.5 per cent to 48.2 per cent and the basic metal products rose sharply from 57.8 per cent to 80 per cent.

Total Approved Capital Investment (MIDA)



The number of applications received by MIDA for manufacturing investment fell by 20 per cent in the first three quarters of 1997. Foreign applications showed a sharp decline of 35.7 per cent to RM9.4 billion against domestic applications which dropped by 8.7 per cent to RM18.4 billion. The top three investments applied for were basic metal products (RM6.8 billion or 24.4% share), petroleum refinery products (RM6.4 billion or 23.1% share) and electrical and electronic products (RM5.6 billion or 20.1% share).

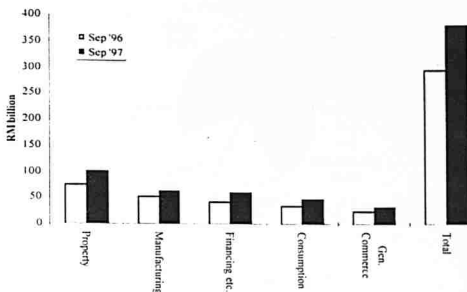
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### Banking System

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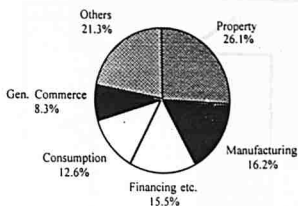
Loans and advances by the banking system continued to grow at a fast pace, with September figures showing a growth rate of 28.4 per cent (year-on-year). There is little change compared with a growth of 28.6 per cent a year ago but is marginally down from the middle of 1997. In value terms, total loans and advances amounted to RM384.8 billion as at end-September, an increase of RM8.8 billion from the previous month. For the month of August, the increase was RM6.5 billion.

Loans by Banking System

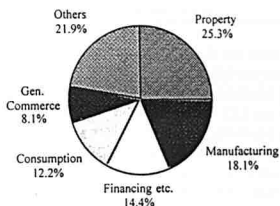


The broad property sector continued to be the main recipient of loans and advances, accounting for 26.1 per cent of total loans. Loans to this sector grew by 32.3 per cent (year-on-year) in September, compared to 26.6 per cent a year ago. The increase in loans to this sector amounted to RM3.1 billion in September, up from RM2.4 billion in the previous month. Loans to the manufacturing sector, on the other hand, increased by only RM819 million in September, less than half the amount of RM1.8 billion in August. Share of loans of this sector in September was 16.2 per cent. Growth in loans to the manufacturing sector was at 15.2 per cent (year-on-year) in September, noticeably down from 19.0 per cent in the corresponding month of 1996. Loans to financing, insurance and business services, which accounts for 15.5 per cent of loans, grew by 38.2 per cent (year-on-year) in September this year compared to 52.8 per cent in September 1996. In value terms, such loans amounted to RM1.1 billion in September, up from RM790 million the previous month. Loans for consumption credit, meanwhile, continued to expand at a rapid pace of 32.7 per cent (year-on-year) in September, compared to 30.7 per cent a year ago. The share of loans for this purpose is 12.6 per cent as at September 1997. Such loans rose by RM340 million in September 1997, compared to RM180 million in August. Loans to general commerce, accounting for 8.3 per cent of total loans, grew by 31.8 per cent (year-on-year) in September, significantly up from 21.8 per cent a year ago. The quantum of these loans increased by RM752 million in September, up from RM535 million in August.

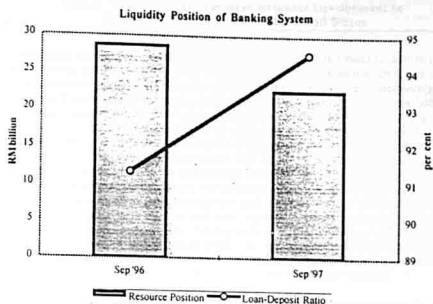
Share of Bank Loans, Sep '97



Share of Bank Loans, Sep '96



Total deposits raised by the banking system only increased by RM1.5 billion or 1.4 per cent in the month of September, compared to RM5.6 billion in August. Loans, on the other hand, went up by a hefty RM8.8 billion in September, compared to RM6.5 billion the previous month. This resulted in a contraction in the resource position of the banking system, from a surplus of RM29.8 billion to RM22.5 billion. Reflecting this, the loan-deposit ratio of the banking system went up from 92.7 per cent in August, to 94.5 per cent in September. The tightening liquidity situation in the banking system will see interest rates at least remaining firm for the rest of 1997 and into the first quarter of 1998.



### Monetary Developments

Broad money supply continued to expand at high levels in the third quarter of 1997. Private sector liquidity, or M2, grew by 21.3 per cent (year-on-year) in September 1997 compared to 19.9 per cent a year ago. Money broadly defined, M3, expanded at a rate of 20.1 per cent in September this year compared to 21.2 per cent in the same month of 1996. On the other hand, narrow money, or M1, grew at a moderate pace of 7.5 per cent in the month of September, down significantly from 19.4 per cent a year ago. Narrow money growth volatility experienced recently appears to be related to the uncertainty and hence higher volatility in the equity market. The main determinant of broad money growth continues to be the rise in claims on the private sector. Net international reserves of the central bank rose marginally in the month of September to RM61.9 billion which is sufficient to finance 3.7 months of retained imports.

**Box 2: The Challenge of Human Resource Development in  
Malaysia's Quest to reach Industrialised Status**

With globalisation taking place so rapidly, Malaysia is aware of the need to adjust its trade and investment policies to stay competitive by attracting the right kind of foreign direct investments. This will eventually propel Malaysia towards its ambition of reaching developed status by the year 2020. From the mid-80s onwards, Malaysia has moved away from its agriculture-based economy to a manufacturing environment emphasising the assembly and production process. Losing our competitive edge in the low-wage sectors, and with competition from other low-cost producing countries, Malaysia is shifting its focus towards high-technology, high value-added, and export-orientated manufacturing. Malaysia understands that its firms need to innovate and to achieve greater efficiency to prepare for a more competitive environment. The new approach in industrial policy is to re-orientate industries for the world market from the initial stage of implementation. Emphasis will be on research and development and product design, coupled with aggressive promotion and marketing in traditional and new markets. Raising productivity to improve the value-added per employee is also a goal. Furthermore, the government has embarked on a strategy to improve the capabilities of Malaysian SMEs to achieve economies-of-scale and strengthen linkages to allow for optimisation of resources and increase value-added activities. Underlying the success of this new approach in industrial policy is Malaysia's human resource.

Furthermore, as part of the overall plan to transform the Malaysian economy towards achieving an industrialised nation status in the longer term, the services sector has been identified as an important and integral part of Malaysia's progress into the next stage of economic development. The services sector is the largest sector in Malaysia in terms of its share of GDP, accounting for 45 per cent of the economy for 1996. Until recently, the services sector in Malaysia has been left to develop its own course. However, there is increased awareness of the important role of the services sector in economic development and its great potential as a leading engine of growth as well as a foreign exchange earner. Also, as the nation shifts strategically from input-driven growth to productivity-based growth, information technology (IT) is expected to play an important role to help improve productivity and efficiency in economic activities. Apart from its role in productivity enhancement, IT has also been earmarked as a potential growth industry itself, contributing directly to the expansion of the services sector.

Towards this end, the government has established the Multimedia Super Corridor (MSC) which will help Malaysia transform her economy from one of labour-intensive manufacturing to one that is high-tech and industrialised. This premise is at the heart of the objectives the government seeks to achieve through the MSC. The MSC is intended to quadruple per capita GDP and, in doing so, propel Malaysia into the Organisation for Economic Cooperation and Development (OECD) fold. This will be done by creating a strong services industry that will steer the country away from its labour-intensive, low value-added manufacturing base into the information age. The MSC, therefore, is a logical extension of the country's industrialisation drive as it provides the necessary focus on IT that will complement both the services and manufacturing sectors.

Human resource plays a crucial role in determining Malaysia's competitiveness in the manufacturing sector as well as in the services sector. Human resource development in Malaysia must be accelerated which means having workers with the right skills as Malaysia cannot afford to have continuing mismatch between supply and demand of human resource. The government has embarked on the challenge for human resource development by emphasising the increase in productivity and efficiency of labour as well as to expand domestic supply. The education and skill delivery system will be upgraded and expanded to produce an educated and trained manpower which the economy requires. In this regard, attention will be given to the production of skills that will keep pace with the technological developments.

Furthermore, the creation of MSC, forms the basis of producing skilled and technological-minded workers. The services sector which will eventually become the engine of growth has called for the production of knowledge workers and service workers. Forty years ago in the developed countries, knowledge and service workers formed still less than one third of the workforce. Today, such people account for three quarters, if not four-fifths of the workforce in all developed countries - their share is increasing. The rise in such workers translates into higher productivity in a developed economy. The production of work in the services sector will be different since both knowledge workers and service workers require new concepts and new approaches to increase productivity. The work process itself has first to be re-engineered before it can be more productive and it must

also be re-structured for maximum achievement. Most future business or work structures will require a lot more interactive relationship and in most instances it requires creative teamwork. In the process of growth, there will be increasing demand for skilled practitioners of IT, particularly in areas such as systems development and operations, data management, quality control, technical advisory and training services.

Compounding this situation is that increasing globalisation, competition and dynamic technological changes will have an impact on how Malaysia copes with her human resource development. The ability to adapt and respond to changing internal and external environments will constitute Malaysia's cutting edge in achieving her ambition of become an industrialised country. Access to information technology will also change the way production is organised and for that matter, the nature of work itself. The advent of information technology (IT) will require a pool of workers that are flexible and multi-skilled. It is envisaged that the workers of tomorrow will not only have to be knowledgeable in their area of expertise but must also be familiar with other disciplines to function in a technologically advanced economy. To coin an oxymoron phrase, a person has to be both a generalist and a specialist. IT will provide the cutting edge to leapfrog into a more developed stage. The rise of productivity-linked wage system will require Malaysia to link wages to productivity in order to ensure that such wages are affordable for Malaysia to remain competitive. IT is seen as a way to improve productivity in workers which entails that the workers be trained or can adapt easily in an environment where IT is commonly used.

The Malaysia government realises the momentous task it has ahead to ensure that the human resource is available to meet the challenge ahead. Malaysia still lacks the required personnel to propel her into achieving an industrialised status. Efforts are being made to address the inadequacies in our human resource development. Under the Human Resource Policy of the Seventh Malaysia Plan, certain strategic policies have been put in place namely those concerning the utilisation of local labour, enhancing productivity, improving education and skill delivery system, increasing the supply of R&D personnel, and increasing private sector participation.

However, the nagging problem is that there appears to be no holistic plan to integrate or coordinate existing government policies on labour policy, education and training and immigration policy under one main human resource development policy. Currently, what is available are reactive policies undertaken to respond to a particular need experienced by the industrial sector. Since industries are moving into sophisticated and higher technology-based manufacturing industries, the response has been to encourage the participation of the private sector in providing the necessary skills required by the industries. Industry associations are asked to initiate training programmes required by specific industries with the government providing financial assistance to the private sector for the establishment of such training institutes. Similarly, with the introduction of the MSC and the emphasis on IT, there is a realisation by the government of the need for IT promotion in schools to encourage its usage. In order to overcome the shortage of manpower, the government plans to introduce IT in the school curriculum and encourage the use of IT in all aspects of school activities. This includes the setting-up of computer clubs and laboratories, the implementation of the Computer Literacy Project, Integrated Computerisation Plan and Computer Integrated System as well as the smart school concept which is a network of schools and other educational facilities using multimedia technology to develop a thoughtful school culture and also to have world-wide linkages.

The real issue, however lies in our school system. In order to create a knowledge worker that is able to function efficiently and effectively in an IT environment, our schools should focus on the rudiments like numeracy, computer literacy, language and communication, to have flexibility in the future with regards to job employment. The basics must be there before any training provided by future employers can accrue benefits. The Malaysian Industrial Training and Productivity Study (MITP) revealed employers are more likely to train, and provide more training when the schooling attainment of its workforce is higher because educated employees are better learners and thus benefit from investments in training. To produce more technical and scientific-oriented students to cater to our manpower needs in the new industrial development plan that emphasise more value-added manufacturing, the stress is on tertiary education where the local universities are encouraged to churn out the 60:40 ratio of students in the science and arts stream. The goal will remain illusive if the schools in Malaysia are not churning out students who are inclined towards the sciences.

Human resource development is vital to Malaysia in her quest to attain industrialised status by the year 2020. It has started the process of re-looking at its human resource policy and its manpower needs. Nevertheless, more pro-active and integrated policies on human resource development are

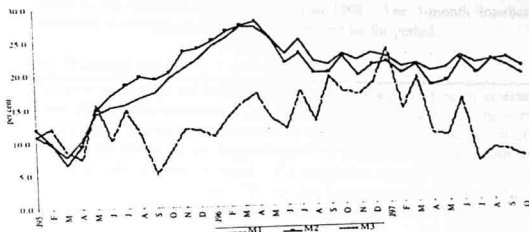


required. Reacting to a globalised world will not be desirable if Malaysia hopes to contribute creatively and positively with the creation of the MSC.

- contributed by Elaine Tan Lai-Imm & Elayne Yee Siew Lin

(Note: Views expressed in the box articles do not necessarily reflect that of MIER.)

Money Supply Growth  
(% change year-on-year)



## • Interest Rates

In the interbank money market, interest rates edged up from August to November 1997. The 3-month interbank rate increased from an average of 7.55 per cent in August to 7.61 per cent in September. In October, reflecting the tightening liquidity conditions, the 3-month rate went up further to an average of about 8.2 per cent. This trend escalated in November when the 3-month rate surged up to about 9.2-9.3 per cent. One-year interbank rate reached about 9.8 per cent in November. The upward movement in interbank rates reflected the drain on liquidity related to the selling down of stocks in the local bourse by foreign funds.

Following the tighter liquidity conditions in the interbank market, financial institutions raised their bid for funds by increasing deposit rates. The average rate offered by commercial banks for time deposits of one month and three months tenure increased to 7.59 per cent and 7.69 per cent respectively in September, from 7.46 per cent and 7.54 per cent respectively the previous month. For one-year deposits the average interest rate offered by the banks edged up to 7.79 per cent from 7.56 per cent a month ago. The mode base lending rate for banks in September remains unchanged from that in July, at 9.65 per cent. Average lending rate, though, moderated a little from 10.85 per cent in July, when interest rates shot up due to central bank intervention in defending the ringgit, to 10.68 per cent in September. Although data from Bank Negara is available only up to the month of September, lending rates by the banks will move further upward in the final quarter of 1997 due to the higher cost of funds. We see this as an additional factor that will act to slow down economic activities in the following year.

The monetary policy stance of the authorities is anticipated to remain tight, given the current weakness of the ringgit and the need to moderate growth. Although external

happenings and developments pertaining to the local stock market outlook may cause liquidity to be tight and put upward pressure on interest rates, we do not anticipate rates to rise sharply in the first quarter of 1998. The 3-month interbank rate is projected to average at about 9.30-9.50 per cent for the period.

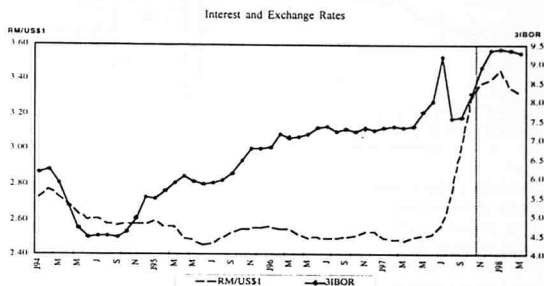
### • Exchange Rates

External happenings and a further sell-down, especially by foreign investors, in the local stock market continued to plague the ringgit's exchangerate. The exchangerate of the ringgit against the major currencies continued to slide in the month of October. Against the US dollar, the ringgit dropped by a hefty 8.3 per cent compared to its exchangerate the previous month. The ringgit also dropped by 9.9 per cent against the pound and Deutschemark. The yen and Singapore dollar also gained 8.0 per cent and 5.9 per cent respectively against the ringgit in the same period.

Data up to mid-November indicated a mixed performance of the local currency compared to its average exchange rate in the previous month. Against the greenback, Deutschemark and pound, its value declined by 0.7 per cent, 2.7 per cent and 4.1 per cent respectively. The ringgit gained marginally against the yen and Singapore dollar by 1.3 per cent and 0.2 per cent respectively in the same period. As at mid-November, the ringgit dipped further to about 3.50 against the US dollar amidst the Korean won crisis and following recent events on the Kuala Lumpur Stock Exchange (KLSE). Against a trade-weighted index of the ringgit's exchangerate with the above currencies, the local unit depreciated by about 18 per cent in mid-November compared to a year ago. Compared to March 1997, when the ringgit was at its strongest this year, it had lost 23 per cent of its value.



External developments in Asian economies appear to dominate sentiments on exchange rates in the region of late. We expect this to continue for some time and the ringgit's value will be determined to a significant extent by these developments. Strong upside potential, therefore, will be limited and uncertainty surrounding the ringgit's exchange rate is anticipated to persist at least in the next one to two quarters. Meanwhile, further disturbances emanating from volatility in the local bourse cannot be ruled out. Strong boost to the ringgit will only be provided in the longer term, for example, through an improvement in the trade balance and how the economy emerges from the present currency turmoil. For the first quarter of 1998, we anticipate continued weakness in the ringgit and it is projected to trade in the range of 3.20-3.45 to the US dollar.



### Price Developments

Inflation as measured by the Consumer Price Index (CPI) rose in the month of October 1997 compared to the previous month measured in year-on year growth rates. The CPI recorded an increase of 2.7 per cent in October as compared with 2.3 per cent in September. Inflation in the period January-October 1997 was 2.6 per cent compared to the same period in 1996. This was lower than the inflation rate of 3.5 per cent in the corresponding period of 1996.

The increase in the overall index was mainly attributed to the increase in prices of *food* (57.0%), followed by *gross rent, fuel and power* (25.4%) and *transport and communication* (4.7%). The *food* group, which has the highest weightage of 34.9 per cent in the CPI, registered inflation of 4.3 per cent in 1997 compared to a rate of 5.6 per cent in the same period of 1996. Inflation in the second major group of *gross rent fuel and power*, with a 21.1 per cent weightage, shed one percentage point lower to

3.1 per cent in January-October 1997 compared to the same period last year. Another major group, *transport and communication* (with a weightage of 17.9%), registered a lower inflation rate of 0.6 per cent for the first ten months in 1997 compared to a rate of 1.6 per cent in 1996.



The Producer Price Index (PPI), which measures the change in prices charged by domestic producers of commodities and those paid by Malaysian importers, showed an increase of one per cent for the first nine months in 1997 compared to the corresponding period in 1996. The local component of the PPI increased by 0.9 per cent in January-September 1997 compared to the same period of 1996 (Jan-Sep'96:2.2%). The import component of the PPI, meanwhile edged up by 1.7 per cent in the same period of analysis (Jan-Sep'96:-0.4%).

The sub-group of the local component with the largest weightage (21.7%), *crude materials, inedible except fuels* recorded a price decline of 6.3 per cent in the period. However, *mineral, fuels, lubricants and related materials* group with the second largest weightage (20.4%) saw an increase of 6.8 per cent. Also showing an increase was the 'Food' group (which accounts for 15.3% of the local-PPI) with a 2.1 per cent rise. *Machinery and transport equipment* producer prices (with a weightage of 12.2%) also recorded an increase of 1.3 per cent compared to a year ago. These sub-groups make up 69.6 per cent of the local-PPI.

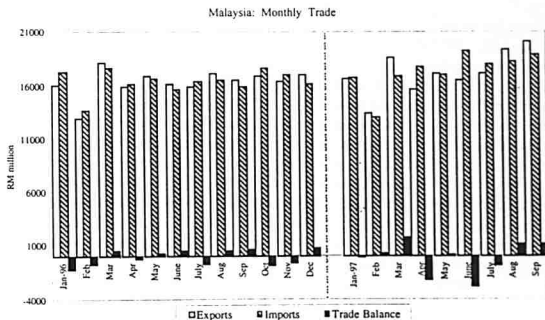
The *machinery and transport equipment* group of the import-PPI registered an increase of 3.6 per cent in the period January-September 1997. It has the largest weightage of 42.6 per cent of the import-PPI. Prices of *manufactured goods classified chiefly by materials* (with a weightage of 13.4%) declined by 1.3 per cent in the same period. This was followed by the decline in the price of the 'Food' group

(contributing 13.1% to the index) by 0.4 per cent. The price of *mineral, fuels, lubricants and related materials* (weightage of 12.5%), recorded an increase of 4.1 per cent as compared to the previous corresponding period. The sub-groups mentioned here contribute a total of 81.5 per cent to the import-PPI.

Consumer price inflation is projected to be at 3.0 per cent for the whole of 1997, following the ringgit's sharp depreciation against the major currencies. We expect the pass-through from the weaker exchange rate to be substantial, resulting in higher consumer prices in 1998. Thus, inflation is forecast at 5.3 per cent next year. However, we anticipate that this will be a one-time increase as firms adjust to the new import prices. Dampened aggregated demand resulting from slower economic growth will cap any further sharp increases in inflation. Some moderation in wages is also expected. Therefore, inflation in 1999 is forecast at a lower 4.0 per cent.

### External Trade and Balance of Payments

Trade data for the period January-September 1997 saw Malaysia recording a trade deficit of RM1.2 billion compared to a much smaller deficit of RM22.9 million for the same period a year ago. Exports rose by 6.1 per cent in the first nine months of 1997 compared to the same period the previous year (Jan-Sep'96:8.6%) while imports went up by 6.9 per cent (Jan-Sep'96:2.4%). In this period of analysis, export value totalled RM155.1 billion while imports amounted to RM156.4 billion.



Analysing exports by SITC one-digit level, *machinery and transport equipment* (SITC7) contributed 56.1 per cent to total exports. Exports from this group grew by

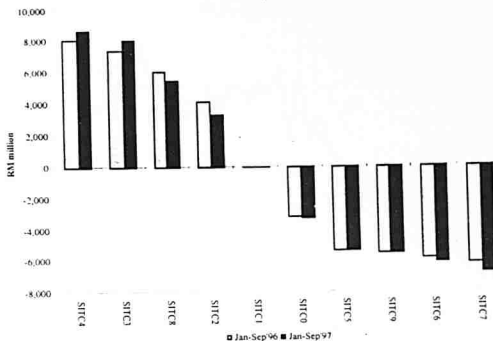
6.4 per cent in the period January-September 1997 compared to the previous year's corresponding period (Jan-Sep'96:11.8%). Within this group, SITC776 or *thermionic valves and tubes, photocells etc.*, which is Malaysia's top export earner with a share of 18.3 per cent in 1997, continues to display signs of a robust recovery. Export growth in the month of September (year-on-year) has reached about 40 per cent. For the first nine months of 1997, exports of this group expanded by 5.5 per cent compared to a year ago (Jan-Sep'96:15.8%).

Export of *manufactured goods* (SITC6), accounting for 9.1 per cent of the total value of exports, grew by 3.4 per cent in January-September 1997 compared to 13.4 per cent for the same period in 1996. Export of *miscellaneous manufactured articles* or SITC8, with a share of 8.7 per cent of total export value, went up by 2.8 per cent in January-September 1997 compared to a year ago (Jan-Sep'96:12.8%). SITC3 group or *minerals, fuels, lubricants etc.*, displayed export growth of 12.9 per cent in the same period of analysis this year compared to growth of 19.1 per cent in 1996. This group contributed 8.2 per cent to total export value. SITC4 group or *animal and vegetable oils and fats*, exported 7.2 per cent more up to the third quarter of 1997 compared to the same period in 1996. This reverses the decline of 12.1 per cent experienced in January-September 1996. SITC4 group contributed 5.8 per cent to export value thus far in 1997.

The groups highlighted above contributed a total of 87.9 per cent to total export value in the first nine months of 1997.

Imports of *machinery and transport equipment*, or SITC7 group, rose by 6.5 per cent in January-September 1997 compared to a year ago (Jan-Sep'96:2.7%). The group's imports make up 60 per cent of total import value. Import of *manufactured goods* (SITC6) increased by 3.4 per cent in 1997 thus far, reversing the decline of 1.9 per cent in the corresponding period of 1996. SITC6 group has a share of 12.9 per cent of import value. *Chemical imports* (SITC5), with a share of 6.9 per cent of total value, displayed a growth of 9 per cent this year. In the same period in 1996, such imports dropped by 4.3 per cent. Imports of *miscellaneous manufactured articles*, or SITC8 group, increased by 15.7 per cent in 1997 against a decline of 0.2 per cent in the corresponding period of 1996. The group has a 5.1 per cent share of total import value. The *food* group (SITC0), with an import value share of 4.4 per cent, saw imports expanding at just 2.8 per cent in the first nine months of the year, down significantly from a growth of 21.4 per cent the previous year. The above-mentioned groups account for 89.3 per cent of total import value in the said period.

Trade Balance by SITC Group

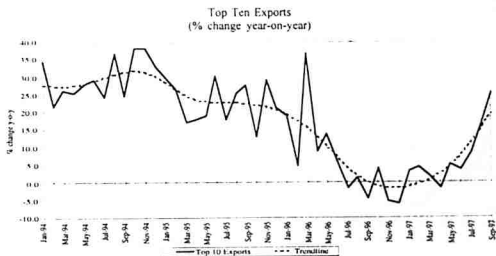


For the first three quarters of the year, trade deficits were recorded for the following SITC groups - SITC7, *machinery and transport equipment* (-RM6.8 billion); SITC6, *manufactured goods* (-RM6.1 billion); SITC9, *miscellaneous transactions and commodities* (-RM5.6 billion); SITC5, *chemicals* (-RM5.3 billion); and SITC0, *food* (-RM3.3 billion). The following groups registered trade surpluses - SITC4, *animal and vegetable oils and fats* (RM8.7 billion); SITC3, *mineral fuels, lubricants etc.* (RM8.2 billion); SITC8, *miscellaneous manufactured articles* (RM5.5 billion); SITC2, *crude materials, inedible* (RM3.4 billion); and SITC1, *beverages and tobacco* (RM53 million).

The export recovery that we anticipated to sustain earlier has gained further momentum. Both groups of the top five and top ten export earners (disaggregated by SITC 3-digit level) demonstrated strong growth rates coming into the third quarter of the year. The top five sectors account for 45.1 per cent of total value of exports, while the top ten export sectors account for a share of 65.6 per cent.<sup>1</sup> Spearheaded by the recovery in the electronics industry and with favourable commodity exports in general, we expect the recovery in exports to underpin economic growth in 1998.

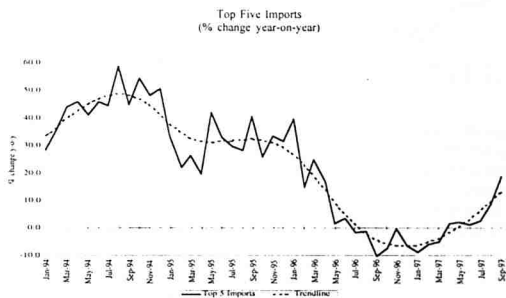
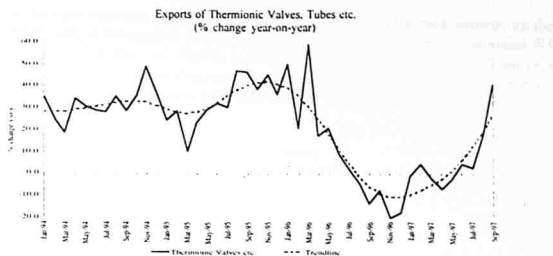
<sup>1</sup> Shares are based on cumulative trade data from January 1993 to September 1997.





However, in tandem with the recovery of exports, imports of intermediate input will also rise. This is reflected in the trend growth of the top five and ten import sectors up to the month of September, although growth rates are lower than those of the top export sectors. The top five and ten sectors for imports account for a share of 43.0 per cent and 58.4 per cent of total value respectively.<sup>2</sup>

<sup>2</sup> Shares are based on cumulative trade data from January 1993 to September 1997.

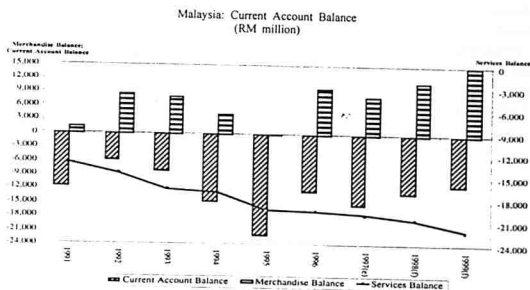


Data available up to the month of September show export growth lagging behind that of import. The trade balance thus far is also much less favourable compared to that of the same period in 1996. However, it is worthwhile noting that the export recovery that was predicted is gaining momentum. We anticipate this trend to continue into 1998. The weaker ringgit will also mean that export value in ringgit terms will be augmented. On the import side, we anticipate reasonably strong growth for 1998 in tandem with the recovery of the export sector, given the need to import intermediate inputs. Nevertheless, with the deferment of some infrastructure projects with high import content, domestic substitution of consumption goods imports following a weaker ringgit, and a lower overall economic growth, the rise in imports will be curtailed somewhat. Thus, we forecast a better merchandise trade surplus for 1998. Merchandise exports, projected to grow by 6.2 per cent in 1997, is forecast to expand

by 11.7 per cent next year and 12.1 per cent in 1999. Merchandise imports, on the other hand, is estimated to rise by 10.5 per cent in 1998 following an estimated 7.5 per cent growth this year. Growth in merchandise imports is forecast at 11.2 per cent for 1999. Resulting from this, the merchandise trade balance is forecast to register a surplus of RM11.6 billion in 1998 and RM14.9 billion in 1999. It is estimated at RM8.4 billion for this year.



The services balance will continue to see sizeable deficits in the year 1998 and 1999, forecast at RM20.6 billion and RM22.1 billion respectively. In 1997, the services deficit is estimated at RM20.0 billion. The balance on the current account, therefore, is forecast to register deficits of RM12.7 billion in 1998 and RM11.0 billion in 1999, down from an estimated RM15.3 billion this year. In terms of nominal Gross National Product or GNP, this amounts to 4.5 per cent and 3.6 per cent in 1998 and 1999 respectively.



## Downside Risks

The downside risks to the forecast above are as follows:

- Property-related investments will see a noticeable slowdown in 1998. Besides the construction sector, manufacturing activities related to it will also experience some moderation in growth. Industries that are heavily reliant on imported inputs but whose final product is targeted at the domestic sector will also be hard hit. Under this scenario, it is imperative for export growth to be sustained to provide the needed impetus to overall economic growth. Private investment related to export-oriented manufacturing as well as private consumption will be supported by the expected recovery in the export sector. If this recovery is not sustained then growth in the Malaysian economy will be lower than projected.
- The present state of the local stock exchange is a matter of serious concern. Being inter-related to the ringgit exchangerate considerably, much will depend on how confidence in the management of the economy is perceived. A continuing depressed stock market will not only have negative effect on private consumption but will also adversely impact on the financial position of corporations. Any serious repercussions in this regard affecting the financial well-being of the corporate sector will have damaging effects with regards to confidence and stability in the economy.
- The lower value of the ringgit should provide some boost to the trade balance once import and export prices adjust. Malaysian exports denominated in US dollars will mean that a higher value in terms of ringgit will be obtained for these exports. Imports, in turn, will cost more and this should dampen demand somewhat. Domestic substitution is also likely to take place, especially for imported consumption goods. There is a concern, however, that domestic-substitution of intermediate imports may prove more difficult. This is especially so in cases where these goods are not produced locally but are essential for export-oriented industries. Also, in the case of large infrastructure projects already committed to

earlier and cannot be deferred requiring heavy imported items, these will put further strain on the import bill. Higher value of imports will mean that the projected improvement in the trade balance may not materialise and the exchange rate is placed under greater pressure.

Malaysian Institute of Economic Research  
Kuala Lumpur, Malaysia  
2nd December 1997

(Note: The forecast contained in this report uses data from the respective sources up till 17th November 1997.)

Table 1. GROSS DOMESTIC PRODUCT (1978 Prices), RM Million

						ECON. REPORT '97/98		BNM REPORT '96		MIER December '97		
	1992	1993	1994	1995	1996	1997e	1998f	1996p	1997f	1997e	1998f	1999f
Private Consumption	44,804	46,866	51,455	56,288	59,675	61,915	65,787	n.a.	n.a.	62,766	64,586	67,557
(% change)	3.0	4.6	9.8	9.4	6.0	3.8	6.3	8.0	7.5	5.2	2.9	4.6
Public Consumption	13,464	14,903	16,372	17,568	17,818	19,306	19,542	n.a.	n.a.	18,531	18,883	19,261
(% change)	4.0	10.7	9.9	7.3	1.4	8.4	1.2	0.4	3.7	4.0	1.9	2.0
Private Investment	20,652	24,591	31,459	39,411	44,675	48,000	50,355	n.a.	n.a.	49,384	51,532	55,325
(% change)	0.5	19.1	27.9	25.3	13.4	7.4	4.9	7.2	13.4	10.5	4.4	7.4
Public Investment	13,922	15,098	15,004	16,304	16,485	18,056	17,263	n.a.	n.a.	18,101	18,535	19,147
(% change)	28.0	8.4	-0.6	8.7	1.1	9.5	-4.4	12.4	12.3	9.8	2.4	3.3
Change in stocks	-1,117	-785	338	679	-1,485	156	907	n.a.	n.a.	-303	226	-88
Exports of Goods and Non-factor Services	76,303	89,455	109,566	128,829	138,043	148,053	160,946	n.a.	n.a.	147,706	164,751	184,645
(% change)	6.2	17.2	22.5	17.6	7.2	7.3	8.7	n.a.	n.a.	7.0	11.5	12.1
Imports of Goods and Non-factor Services	75,162	89,511	114,279	138,770	144,583	154,347	163,733	n.a.	n.a.	155,427	169,648	187,970
(% change)	1.2	19.1	27.7	21.4	4.2	6.8	6.1	n.a.	n.a.	7.5	9.1	10.8
Gross Domestic Product	92,866	100,617	109,915	120,309	130,628	141,139	151,067	130,226	n.a.	140,757	148,865	157,876
(% change)	7.8	8.3	9.2	9.5	8.6	8.0	7.0	8.2	8.0	7.8	5.8	6.1
Net Factor Payments Abroad	-5,199	-5,326	-5,983	-6,714	-7,490	-7,551	-8,542	n.a.	n.a.	-7,482	-7,602	-7,787
Gross National Product	87,667	95,291	103,932	113,595	123,138	133,588	142,525	n.a.	n.a.	133,275	141,263	150,089
(% change)	7.6	8.7	9.1	9.3	8.4	8.5	6.7	8.4	8.4	8.2	6.0	6.2

p-preliminary; e-estimate; f-forecast; n.a.-not available

Source: MIER Forecast; Ministry of Finance, Economic Report 1997/98 (Oct. 1997); Bank Negara Malaysia, Annual Report 1996 (Mar. 1997)

Table 2. CURRENT ACCOUNT BALANCE & MACRO ECONOMIC INDICATORS (RM Million)

	1992	1993	1994	1995	1996	ECON. REPORT '97/98		BNM REPORT '96		MIER December '97		
						1997e	1998f	1996	1997f	1997e	1998f	1999f
Merchandise Balance	8,609	8,231	4,460	97	10,154	9,670	10,858	8,629	7,200	8,405	11,588	14,860
Exports (f.o.b.)	100,910	118,383	148,506	179,491	193,127	204,701	220,080	192,586	n.a.	205,101	229,016	256,727
(% change)	9.4	17.3	25.4	20.9	7.6	6.0	7.5	7.3	7.2	6.2	11.7	12.1
Imports (f.o.b.)	92,301	110,152	144,046	179,394	182,973	195,031	209,222	183,957	n.a.	196,696	217,428	241,867
(% change)	1.7	19.3	30.8	24.5	2.0	6.6	7.3	2.5	8.4	7.5	10.5	11.2
Services Balance	-14,568	-16,670	-17,005	-19,407	-19,470	-19,049	-18,351	-18,766	-19,000	-19,957	-20,615	-22,078
Current Account Balance	-5,622	-7,926	-14,770	-21,825	-12,252	-13,084	-11,291	-12,977	-14,800	-15,252	-12,717	-10,968
(% nominal GNP)	-4.0	-5.1	-8.2	-10.5	-5.1	-5.0	-4.0	-5.5	-5.5	-5.8	-4.5	-3.6
Unemployment rate (%)	3.7	3.0	2.9	2.8	2.5	2.5	n.a.	2.6	2.5	2.5	2.7	2.7
Inflation (% change in CPI)	4.7	3.6	3.7	3.4	3.5	3.0	n.a.	3.5	n.a.	3.0	5.3	4.0

p-preliminary; e-estimate; f-forecast; n.a.-not available

Source: MIER Forecast; Ministry of Finance, Economic Report 1997/98 (Oct. 1997); Bank Negara Malaysia, Annual Report 1996 (Mar. 1997)

Table 3. NOMINAL EXPORTS (RM million)

	1992	1993	1994	1995	1996	ECON REPORT '97/98		BNM REPORT '96		MIER December '97		
						1997e	1998f	1996p	1997f	1997e	1998f	1999f
<b>Rubber</b>												
Export Volume ('000 tonnes)	1,035	937	1,017	1,013	980	920	880	980		985	959	938
Export Value (RM mil.)	2,357	2,132	2,927	4,038	3,509	2,714	2,464	3,509		2,857	2,876	2,766
Unit Value (sen/kg)	228	227	288	398	358	295	280	358		290	300	295
<b>Tin</b>												
Export Volume ('000 tonnes)	45	36	37	35	34	32	30	34		33	32	31
Export Value (RM mil.)	721	489	507	545	533	470	420	533		501	499	443
Unit Value (RM/tonne)	15,987	13,769	13,777	15,485	15,539	14,969	14,000	15,512		15,000	15,400	14,300
<b>Palm Oil</b>												
Export Volume ('000 tonnes)	5,536	5,838	6,863	6,656	7,287	7,700	7,350			7,717	7,441	8,073
Export Value (RM mil.)	5,412	5,772	8,479	10,395	9,435	10,704	10,290	9,266		10,765	11,757	10,737
Unit Value (RM/tonne)	978	989	1,235	1,562	1,295	1,390	1,400			1,395	1,580	1,330
<b>Saw Logs</b>												
Export Volume ('000 cub.mtr.)	17,888	9,288	8,417	7,746	6,985	6,500	6,000	6,985		6,293	5,821	5,426
Export Value (RM mil.)	3,843	2,914	2,543	2,264	2,282	2,275	2,070	2,282		2,297	2,154	1,899
Unit Value (RM/cub. mtr.)	215	314	302	292	327	350	345	327		365	370	350
<b>Sawn Timber</b>												
Export Volume ('000 cub.mtr.)	5,392	5,477	4,753	4,364	3,655	3,110		3,655		3,078	2,708	2,424
Export Value (RM mil.)	3,488	4,545	4,331	3,839	3,039	2,691		3,039		2,708	2,397	2,109
Unit Value (RM/cub. mtr.)	647	830	911	879	831	865		831		880	885	870
<b>Petroleum</b>												
Export Volume ('000 tonnes)	22,526	21,032	19,061	19,165	17,494	16,540	17,160			16,500	17,200	17,300
Export ('000 b.p.d.)	469	438	397	399	364	344	357			344	358	360
Export Value (RM mil.)	9,122	7,996	6,548	6,701	7,212	7,090	7,062	7,212		7,069	7,316	7,018
Average Price (US\$)	20.7	18.8	17.1	18.3	21.8	20.5	19.0	22.0	20.0	20.5	19.3	19.2
<b>Liquefied Natural Gas (LNG)</b>												
Export Volume ('000 tonnes)	7,486	8,012	8,276	9,923	13,132	15,600	16,120	13,132		15,600	16,200	16,500
Export Value (RM mil.)	2,712	2,655	2,361	3,171	4,458	6,503	6,609	4,458		6,630	6,804	6,765
Unit Value (RM/tonne)	362	331	285	320	339	417	410	340		425	420	410
<b>Total Major Commodity Exports</b>	27,655	26,289	27,205	30,953	30,468	32,456		30,299		32,828	33,802	31,737
% change	-4.5	-4.9	3.5	13.8	-1.6	6.5		-2.1		7.7	3.0	-6.1
<b>Manufactures</b>	71,124	89,666	120,063	147,507	159,392	na	na	158,435	171,427	170,868	190,689	218,339
% change	15.8	26.1	33.9	22.9	8.1	6.0	9.5	7.4	8.2	7.2	11.6	14.5
<b>Total Gross Exports</b>	100,910	118,383	148,506	179,491	193,127	204,701	220,080	192,586		205,101	229,016	256,727
% change	9.4	17.3	25.4	20.9	7.6	6.0	7.5	7.3	7.2	6.2	11.7	12.1

Source: MIER Forecast; Ministry of Finance, Economic Report 1997/98 (Oct. 1997); Bank Negara Malaysia, Annual Report 1996 (Mar. 1997)