
**Current Account Deficits
in the ASEAN-3**

Is there cause for concern?

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**Economics Department
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IN THE ASEAN-3**

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BY

**EXTERNAL ECONOMIES DIVISION*
ECONOMICS DEPARTMENT
MONETARY AUTHORITY OF SINGAPORE**

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Executive Summary

1 Strong economic growth in the ASEAN-3 countries since the late 1980s has led to rising inflation and widening current account deficits as excess domestic demand spills over into imports. Malaysia, Thailand, and Indonesia experienced a worsening of their current accounts in the 1990s, culminating in a marked deterioration in 1995. Malaysia's and Thailand's current account deficits reached 8% of GDP, while Indonesia's was 4% of GDP. The deterioration in the current account deficits had raised concerns about overheating and the sustainability of the external positions particularly in light of the Mexican crisis in 1994.

2 This paper addresses the sustainability of current account deficits in these countries from the saving-investment and trade perspectives, and assesses the manner in which these deficits have been financed.

3 Our analysis is based on an intertemporal perspective that current account imbalances *per se* are not undesirable; on the contrary, it may be efficient for a country to run deficits at particular stages of its development. In assessing the sustainability of current account deficits, what matters is whether (i) external imbalances are underpinned by a declining saving rate or rising investment need, and whether these are incurred by the private or public sector; (ii) imports are derived from consumerism or productive investments; and (iii) current account deficits are funded by short-term capital inflows or long-term investments such as FDI. This is especially relevant in increasingly integrated financial markets, where a change in market sentiment can have severe destabilising consequences on financial markets and the real economy.

4 We also draw some lessons from Singapore's experience with current account deficits prior to the mid-80s. As was the case in Singapore, the recent deterioration in the current accounts of the ASEAN-3 was underpinned by worsening trade balances.

5 Singapore incurred current account deficits averaging 10% of GDP during 1965-85. These were associated with large imports of capital goods during its industrialisation process and did not pose a serious problem because they reflected investments in the economy's future earning capacity. The surge in imports was linked to a surge in domestic investment, rather than a fall in the saving rate, which trended upward throughout the period.

6 The shortfall in saving over investment was largely confined to the private sector, as the fiscal position was in surplus, suggesting that external imbalances reflected the optimising outcome of consumption and investment decisions of private agents. The openness of the Singapore economy also assured that there was little distortion in domestic prices, and that the resulting resource allocations and trade patterns (and hence current account deficits) were efficient outcomes.

7 Singapore's current account deficits prior to 1986 were sustainable as they were financed by long-term capital rather than volatile short-term funds - FDI amounted to 83% of the deficits during 1972-84. With the completion of major infrastructure projects and continued rise in the saving rate, Singapore has enjoyed current account surpluses since 1986. Singapore's experience highlights how a country's current account position changes over time depending on the particular stage in its economic development.

8 Current account deficits in the ASEAN-3 economies resulted from rapid growth in domestic investments, which exceeded increases in the saving rates. Fiscal positions were either in balance or surplus, unlike in the early 1980s when budget deficits in Malaysia and Thailand exacerbated the private sector imbalances. Like Singapore, the high degree of openness of the ASEAN economies provided confidence that the current account deficits were also efficient market outcomes. A brief comparison of the ASEAN-3 experiences with Mexico's during the period just prior to its crisis in 1994 shows little similarities. Economic fundamentals of the ASEAN-3 were much stronger than those of Mexico in terms of growth, exports, saving, investments, and the debt service ratio.

9 Developments in the current accounts of the ASEAN-3 were closely related to changes in their trade balances. In the early years, when commodity based products comprised the bulk of exports in the ASEAN-3, movements in the terms of trade were a major determinant of developments in the trade balance. This link weakened after the mid-80s, however, as the share of commodity exports declined sharply across all three countries, and manufacturing exports increased in prominence. The deterioration in the trade and current account balances since the mid-1980s has reflected strong import growth associated with the surge in FDI inflows into these countries. Most of these imports comprised capital goods to strengthen their productive capacity; the share of consumer goods has declined. Our econometric tests show that import growth leads to higher export growth.

10 Current account deficits of the ASEAN-3 since the mid-1980s have thus been financed through long-term equity capital and FDI. We argue that these current account deficits were efficient market outcomes, reflecting the flow of international capital to countries with the highest returns. The relatively low incremental capital-output ratios (ICORs) in the ASEAN-3 suggest higher

marginal products of capital (and hence higher rates of return) in these economies relative to the industrial countries. Indeed, US MNCs' investments in the ASEAN-3 have yielded higher rates of return than their investments in the European Community, Japan or the NIEs.

11 While the current account deficits of the ASEAN-3 are firmly rooted in their industrialisation drive, large external imbalances increase the ASEAN countries' vulnerability to exogenous shocks, including a sudden change in market sentiments. While Singapore's industrialisation drive took place in an era when capital mobility was more limited, countries today are faced with an additional risk arising from the volatility of short-term capital. This risk is especially relevant for Thailand, which has seen a surge in short-term capital in recent years. The resulting accumulation of short-term debt led Moody's Investors Services to downgrade Thailand's short-term sovereign debt rating from Prime-1 to Prime-2 in September 1996. In response to the widening in current account deficits, the governments of the ASEAN-3 have tightened financial policy since 1995. This has contributed to the recent slowdown in economic growth and some improvement in external imbalance.

1 INTRODUCTION AND FRAMEWORK FOR ANALYSIS

1.1 Strong growth in the ASEAN-3 since the late 1980s has fuelled rapid economic and social developments. However, signs of the downside risks of unbridled growth have emerged recently. In an open economy, demand pressures can either result in higher domestic inflation, or a deterioration of the current account as excess demand spills over to imports. This paper analyses the current account developments in the ASEAN-3 countries and assesses if there is a cause for concern over the recent widening in the current account deficits.

1.2 The “traditional” view, that the current account balance should be a target of macroeconomic policy, arose from the experiences of the post-war era. In that period of pegged exchange rates and imperfect capital mobility, a current account could not remain in deficit for very long without running down foreign reserves. Hence, a current account deficit was regarded as a signal of macroeconomic imbalance which calls for a devaluation and/or tighter macroeconomic policies.

1.3 More recently, a “new view” has emerged¹, which holds that with free capital mobility, current account imbalances in effect represent the natural outcome of the efficient flow of funds to its most productive use. Thus, countries with relatively more profitable domestic investment opportunities can be expected to run current account deficits as they exploit such opportunities by supplementing domestic sources of financing with foreign capital. In general, there are no good reasons for using macro policy to target the current account, although microeconomic reform may be instituted as necessary to ensure that individual saving and investment decisions - that result in the aggregate deficit outcome - take place in a non-distortionary environment.

1.4 The approach taken in the paper will be broadly consistent with the “new view”. We assess the current account from three different perspectives:

- current account as the difference between aggregate saving and investment;
- current account as a trade phenomenon; and
- the sustainability of the current account in terms of financing.

¹ See for example Max Corden, Economic Policy, Exchange Rates and the International System, Oxford University Press, 1995, and the references contained therein.

Three Perspectives of the Current Account

1.5 A useful starting point is the national income accounting identity:

$$Y = C + I + G + (X - M) \quad (1)$$

where,

Y national income

C consumption

I investment by the private sector

G government spending

X total exports of goods & services

M total imports of goods & services

Subtracting taxes (T) from both sides of (1) gives:

$$Y - T = C + I + (G - T) + (X - M) \quad (2)$$

Since savings (S) is disposable income (income remaining after taxes) less spending on consumer goods, that is,

$$S = (Y - T) - C \quad (3)$$

Equation (2) can be rewritten as:

$$(S - I) + (T - G) = (X - M)^2 \quad (4)$$

1.6 The left-hand side of equation (4) allows interpretation of the **current account from a saving-investment perspective**. The current account deficit is equal by definition to the sum of the excess of private investment over private savings - the so-called saving-investment gap - and the public sector deficit. Provided the public sector is in balance or the fiscal deficit is not excessive, current account deficits are the outcome of the optimising consumption and investment decisions of individual agents in the private sector.

1.7 The right-hand side of the equation emphasises the **current account as a trade phenomenon**. A current account deficit arises when there is an imbalance between a country's exports and imports (of goods and services). A country's export performance is an indicator of its capacity to generate hard-currency foreign exchange, and hence its ability to pay for imports.³ In general,

² The term [X-M] is strictly the resource balance of the country rather than the current account balance; the difference between the two is net factor income from abroad.

³ Terms of trade deterioration can weaken the ability of the economy to sustain current account deficits. In this regard, we need to look at the composition of the

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imports of capital goods (and intermediate goods) eventually come 'on-stream' in the form of enhanced export earning capacity.

1.8 Finally, we focus on transactions in the capital account. A current account deficit must be financed by a net capital inflow, as measured by the surplus in the capital account. Any shortage in the **capital inflows** will be made up by a change in net official foreign reserves (see equation 5).

$$\begin{aligned} &\text{Current Account Balance} + \text{Capital Account Balance} \\ &+ \text{Change in official reserves} \equiv 0 \end{aligned} \tag{5}$$

1.9 **The nature of the capital inflows which finance the current account deficit** can be categorised into debt and equity instruments. In principle, equity financing allows part of the burden of negative shocks to be borne by foreign investors. In contrast, foreign currency denominated debt are fixed and legally binding on domestic borrowers. With regard to equity, foreign direct investments are preferred, since portfolio investments are potentially more volatile. The sustainability of the current account deficit is also enhanced by longer-term maturities on debt instruments.

1.10 The plan of the rest of the paper is as follows. Chapter 2 focuses on Singapore's experiences with its current account balance. Singapore's ability to emerge from the current account deficits experienced between 1965-85 provides useful insights into managing the deficits of the ASEAN-3 countries. Chapter 3 provides a cross-country analysis of the current account experiences in the ASEAN-3 countries, while drawing similarities and differences with the Singapore experience. Chapter 4 offers some concluding remarks.⁴

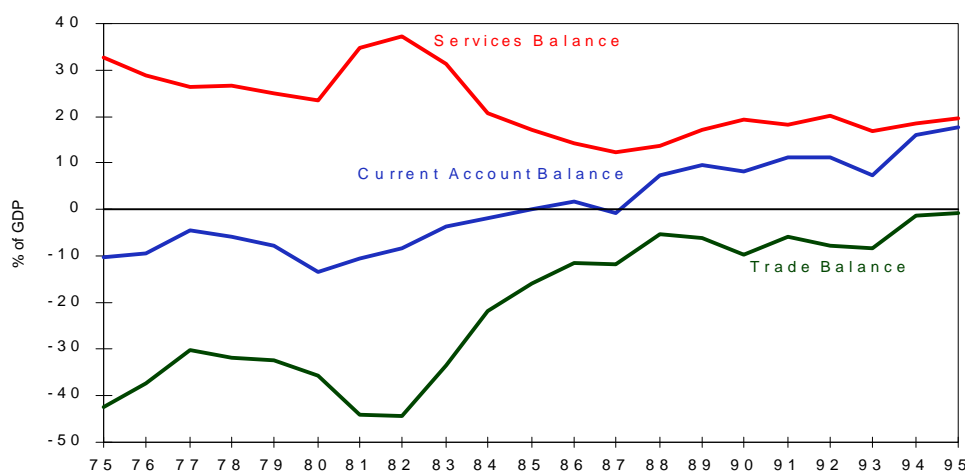
export base, and assess its vulnerability to given world market prices (e.g. commodity price changes).

⁴ An appendix lists the sources of the data used in this paper.

2 SINGAPORE'S CURRENT ACCOUNT EXPERIENCE

2.1 Singapore experienced large and persistent current account deficits averaging 10% of GDP from 1965 to 1985. However, these deficits did not present a problem for policy-makers, nor was there difficulty in financing the imbalances. The turnaround in the current account to a surplus position since 1986 was underpinned by significant improvements in both the services and trade balances. The current account surplus has averaged 9% of GDP since 1986. (Please see Chart 1.)

Chart 1
Singapore's External Balance

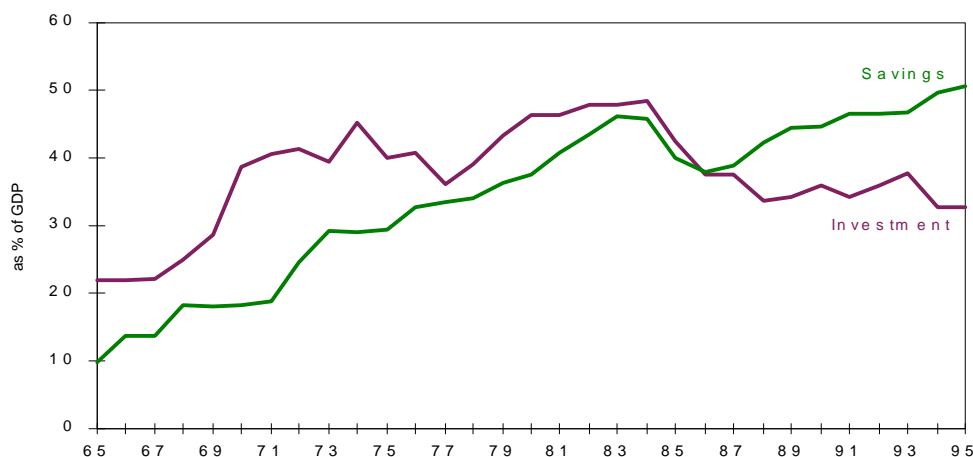


Saving-Investment Perspective

2.2 The deficits in Singapore's current account from 1965-85 can be explained by the changing needs of its industrialisation process. The economy shifted away from entrepot services to labour-intensive production in the early 1960s, and since the early 1970s to more capital-intensive manufacturing. The surge in investment activity during this period more than offset the rise in savings. Since 1986, however, the investment to GDP ratio has declined to a lower level, while the saving rate continued to increase (see Chart 2).

2.3 Construction investment figured significantly in gross fixed capital formation (GFCF) in Singapore, reflecting the needs of a highly urbanised city-state. The residential construction component was particularly dominant during the 1960s, with the take-off in public housing projects. Non-residential construction which was underpinned by rapid expansion in the manufacturing sector, picked-up in the 1970s.

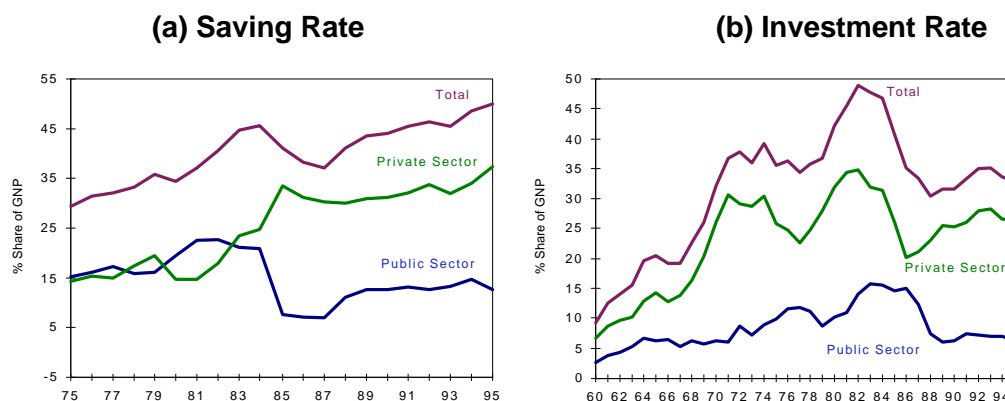
Chart 2
Saving and Investment Rates in Singapore



2.4 The ratio of gross domestic savings to GDP ratio increased from 10% in 1965 to 51% by the end of 1995. Demographic change - namely the steady decline in the population dependency ratio and the trend increase in labour force participation rate - explained nearly half of this increase.

2.5 Current account deficits prior to the mid-1980s were largely accounted for by the private sector, which suffered a net deficit position till 1984. The public sector, on the other hand, had fiscal surpluses with the exception of the recession years in the mid-80s. Chart 3 gives a breakdown of the public and private sector components of savings and investments.

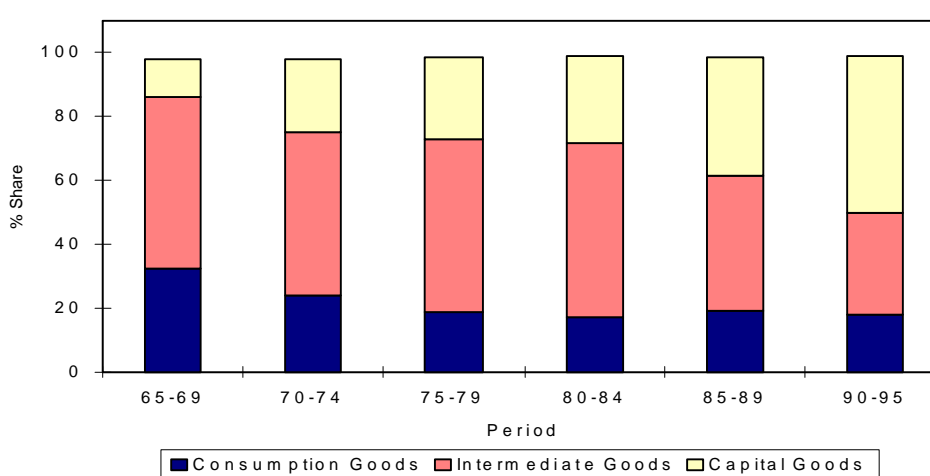
Chart 3
Decomposition into the Public and Private Sector Components of Saving and Investment



Trade Perspective

2.6 High investment activity during the country's industrialisation necessitated large imports of capital goods. Total merchandise imports increased from an average 120% of GDP in the late 1960s, to 200% in the early 1980s. The share of capital goods in total imports rose from 20% in 1970 to 28% in 1980, and to 49% by the 1990s. In contrast, the share of consumption goods fell from 35% in 1965 to stabilise at around 18% after the mid-70s (please see Chart 4).⁵

Chart 4
Composition of Imports



2.7 Singapore's services account has been positive over the past three decades, averaging 21.4% of GDP since 1965. The surplus in the services account declined in the first half of 1980s but has picked-up steadily since 1986. Income from transportation and other services accounted for the bulk of the services surplus, reflecting the growth of Singapore as an international trading and transport and communications hub in the region. Net investment income has registered a positive inflow since 1984, as income from foreign reserves and government investments abroad more than offset the repatriation of profits by foreign MNCs in Singapore. The renewed strength of the services account, coupled with the improvement in the trade balance, has propelled the turnaround of the current account to a surplus position since 1986.

⁵ Imports were classified according to SITC categories as follows: consumption - all of SITC 0,1,4,8, and selected items from SITC 5,6 and 7 at the 3-digit level; intermediate - all of SITC 2,3,5,6, and selected items from SITC 4 at the 3-digit level; capital-items - selected items from SITC 7 at the 3-digit level.

Sources of Financing

2.8 Singapore's current account deficits were financed by long-term capital. Foreign direct investments (FDI) provided financing for up to 83% of the current account imbalance between 1972-84. With the improvement in the current account balance, the capital account has shifted from a surplus to a deficit position in the 1990s.

2.9 The shift into capital account deficits has reflected the investment of some of Singapore's excess savings in potentially higher return projects abroad. In particular, the government has been investing public sector surpluses abroad, and has also encouraged the private sector to expand overseas and develop an "external wing". As a result, investment income has become an important source of earnings. Net investment income averaged 1.7% of GDP in 1991-95, compared to a negative of 1.3% of GDP in 1976-80.

2.10 Singapore's overall balance of payments has been positive every year since 1966 and its official foreign reserves rose from S\$1.1 billion (36% of GDP) in 1965 to S\$13.8 billion (55% of GDP) in 1980 and S\$97.3 billion (81% of GDP) in 1995 - equivalent to 7 months of merchandise imports.

Summing Up

2.11 In short, Singapore's persistent current account deficits between 1965 and 1985 were not a cause of concern for the following reasons:

- Singapore's trade deficits, far from reflecting unhealthy consumerism, were incurred to finance imports of capital and intermediate goods to build-up Singapore's productive capacity.
- Singapore's current account deficits reflected the burgeoning investment needs of an industrialising economy, rather than a declining saving rate. Singapore's saving rate rose rapidly during the period.
- The current account deficits reflected the shortfall of private sector savings over investments. The public sector has largely been in surplus.
- The current account deficits were financed by stable long-term capital inflows, notably export-oriented FDI. The overall balance of payments was in surplus throughout the period, allowing Singapore to build up its foreign reserves.

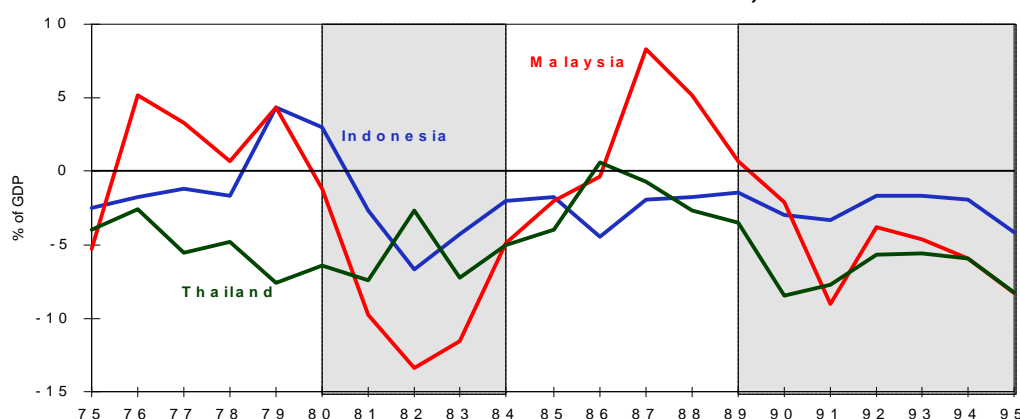
3 THE ASEAN-3'S EXPERIENCES WITH CURRENT ACCOUNT DEFICITS

3.1 Indonesia, Malaysia and Thailand have experienced a worsening of their current accounts since the late 1980s. In Malaysia and Thailand, the current account deficits widened to over 8% of GDP in 1995 from 6% in the previous year, while Indonesia's current account deficit rose to 4% of GDP.

3.2 These current account deficits are not new. Indonesia and Thailand in particular incurred deficits in their current accounts for most of the past two decades (see Chart 1). Indonesia's current account deficit averaged 2.0% of GDP during 1975-95, while Thailand's current account deficits averaged 2.5% of GDP. Malaysia's current account deficits alternated with years of surpluses, but it had, on balance, a larger current account deficit of 5% of GDP during the same period.

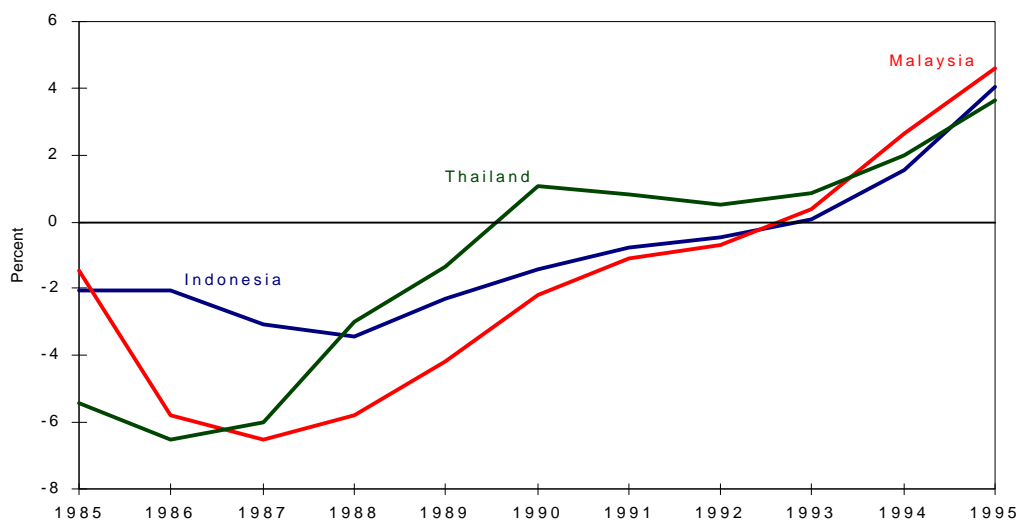
3.3 Chart 1 highlights two distinct periods when the current account balances of the ASEAN-3 countries worsened relative to their historical trends. Malaysia and Indonesia suffered large current account deficits in 1981-84 of up to 13.4% and 6.7% of GDP respectively. Thailand's current account balance deteriorated from about the mid-1970s to average 7.1% of GDP in 1979-81. These developments in the ASEAN-3 were associated with a deterioration in the terms of trade, and in the case of Malaysia and Thailand also with public sector imbalances. The region also faced an adverse external environment at this time - an increase in world interest rates, and the world recession in 1981-82.

Chart 1
Current Account Deficits of the ASEAN-3, 1975-95



3.4 The current account balances of the ASEAN-3 deteriorated again from the late 1980s onwards. This took place in the context of rapid economic growth amidst a surge in FDI inflows from Japan and Taiwan. The three economies grew by an average 8.3% p.a. in 1990-95, compared to 6% in the early 1980s.

Chart 2
Output Gap Estimates for the ASEAN-3, 1985-95



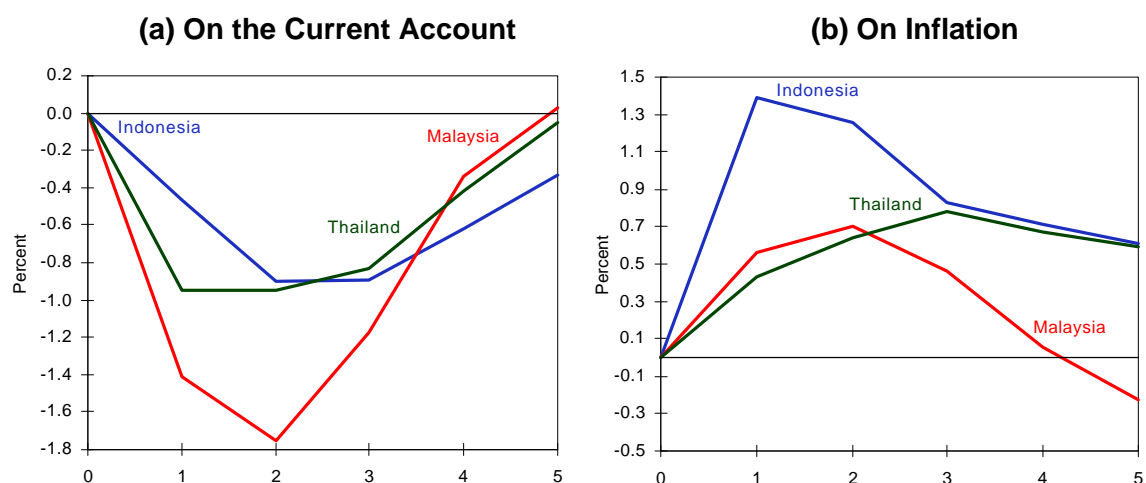
3.5 The GDP in the ASEAN-3 have been growing at above their potential for some years now (see Chart 2).⁶ In an open economy, a positive output gap may be reflected in some combination of a worsening in current account balances and higher domestic inflation. The relative importance of these two 'outlets' for the output gap in the three countries can be inferred from estimating impulse response functions.⁷ The impact of the output gap on the current account is highest for Malaysia, followed by Thailand and Indonesia (see Chart 3a). A 1% point increase the output gap leads to an increase in the current account deficit of 1.4% point of GDP for Malaysia within one year, 1% point of GDP for Thailand and 0.4% point of GDP for Indonesia. Conversely, Indonesia shows the greatest tendency for excess demand to manifest itself in higher domestic inflation, of the order of 1.4% point increase in the first year⁸ (see Chart 3b).

⁶ Estimates of potential output were obtained by applying the Hodrick-Prescott filter to actual real GDP.

⁷ The impulse response functions were calculated from a 3-variable VAR model, consisting of the current account deficit, output gap and CPI inflation as endogenous variables. The VAR was estimated separately for each country over the period 1975-95.

⁸ Chart 3b shows that the response of inflation to excess demand is more immediate for Malaysia, while Thailand exhibits a more sustained inflationary impact.

Chart 3
Impact of a 1% Point One-off Increase in the Output Gap



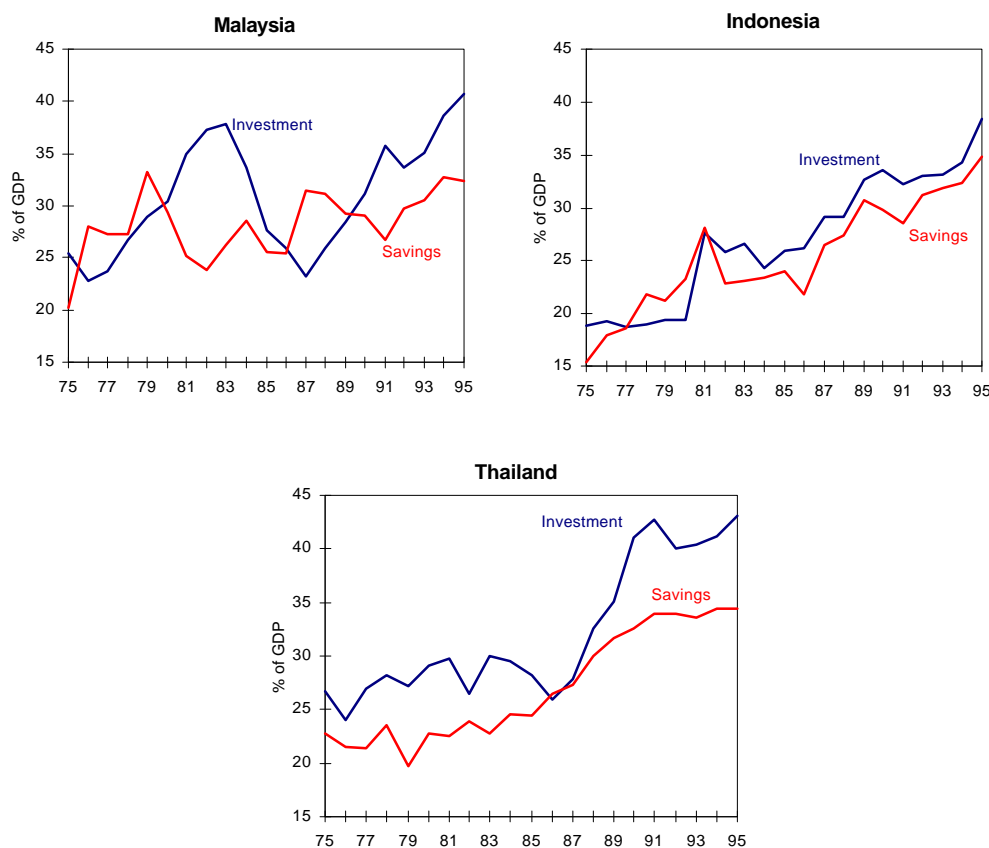
3.6 The results implied by the impulse response functions are not unexpected, given Indonesia's lower degree of trade openness compared to Malaysia and Thailand. The ratio of total trade to GDP during the 1990s averaged 45% in Indonesia, compared to 145% in Malaysia and 65% in Thailand. For Malaysia and Thailand, the higher leakage of excess demand to imports has enabled them to enjoy higher rates of economic growth while keeping their inflation rates low.

3.7 The following sections will analyse in greater detail the current account developments in the ASEAN-3 from the three perspectives identified in Chapter 1.

Saving-Investment Perspective

3.8 The current account deficits of the ASEAN-3 reflected high and rising investment needs which exceeded these countries' domestic savings. (Please see Chart 4.)

Chart 4
Investment and Saving Rates in the ASEAN-3

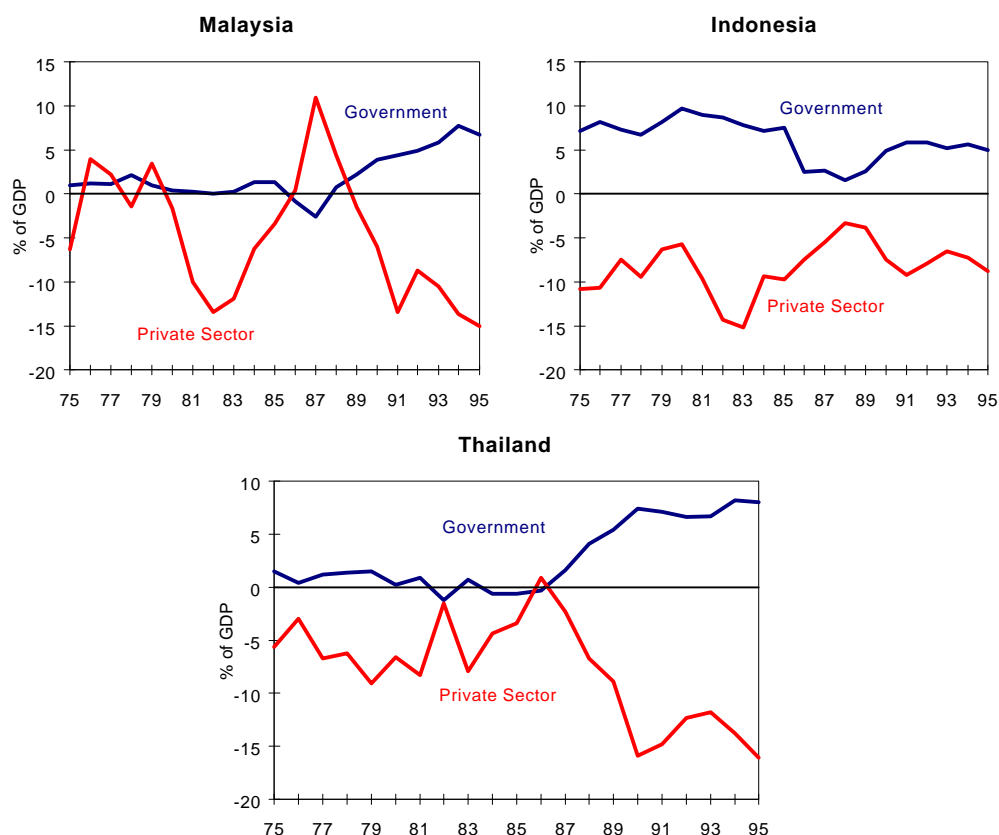


3.9 The ratios of gross domestic investment to GDP have increased by more than 15 percentage points since the mid-1980s to 35-40% in the 1990s, and are among the highest in the world.⁹ The more modest increase in the gross national saving (GNS) rates was principally associated with a rise in private sector saving rates, and was due to income growth and the favourable demographic profile of the population.

3.10 The current account deficits can be expressed as the sum of the private sector savings-investment imbalance, and the overall government budget position. (See Chart 5.) Budget deficits - which exceeded 10% of GDP in Malaysia - contributed to Malaysia's and Thailand's current account deficits during the early 1980s. Since the late 1980s, fiscal deficits have either narrowed or moved into surpluses and current account deficits have stemmed mainly from imbalances in the private sector across all three countries.

⁹ The investment boom in Malaysia in the early 1980s was associated with heavy public spending on infrastructure. The Federal government's national development expenditure averaged 17% of GDP then, compared to 5.7% in 1994-95.

Chart 5
Private Sector Savings-Investment Balances and Government Budget
Positions in the ASEAN-3



3.11 The private sector accounted for the bulk of the investments in the 1990s in all 3 countries (see Table 1).¹⁰ FDI inflows constituted a major source of such investments.

Table 1
Sectoral Shares of Investment Expenditures

Period	Country	Share in GDI (%)		Total
		Private	Public	
1991-93	Indonesia*	76.1	23.9	100
1990-94	Malaysia	66.2	33.8	100
1990-94	Thailand	80.6	19.4	100

* Indonesia's figures apply to shares in gross fixed capital formation.

¹⁰ This contrasts with the early 1980s when the public sector shares in investment were on average 10 percentage points higher than the private sector's in Malaysia and Thailand. Earlier data is not available for Indonesia.

3.12 The link between the surge in investment spending and the deterioration of the current account deficits in 1990s took place through the large import content of such expenditures. In Malaysia for example, the increase in the investment ratio from the late-80s to the 1990s of about 9% points was reflected in a 8.5% point of GDP deterioration in the current account deficit.

3.13 In an efficient global market, capital flows to the country which offers the highest rate of return. It pays for the ASEAN-3 to “borrow”¹¹ to finance an expansion of investment - and hence to run a current account deficit - if the rate of return on the marginal investment project exceeds the interest rate at which the country can borrow on world capital markets.

3.14 The relatively low incremental capital-output ratios (ICORs) in the ASEAN-3 suggest that the marginal products of capital (and hence the rates of return) are higher in these economies compared to the industrial countries. (See Table 2.) Over the period 1980-95, the ICORs for the ASEAN-3 were only about half of those in the industrialised countries.¹² The average ICOR for the ASEAN-3 of 4.9 is about the same as that recorded in Singapore during the 1970s when the current account deficits were about 15% of GDP.

Table 2
Incremental Capital-Output Ratios, Average: 1980-95

Country	ICOR
<u>ASEAN-3</u>	
Thailand	4.8
Malaysia	5.0
Indonesia	4.9
<hr/>	
US	7.7
UK	9.4
(West) Germany	10.1
Japan	9.9

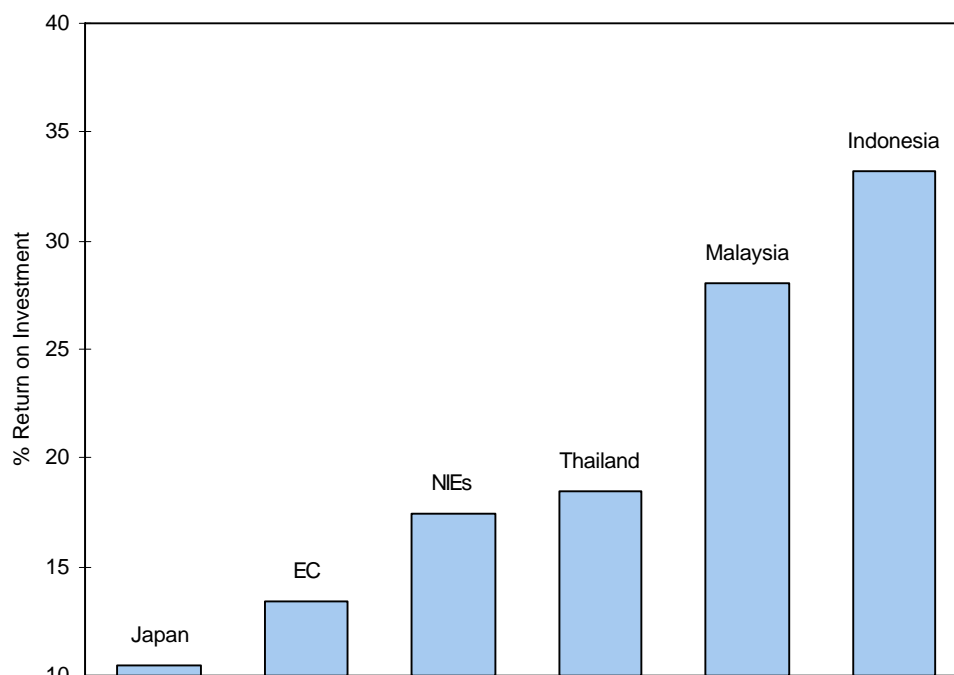
3.15 Indeed US MNCs' investments in the ASEAN-3 have yielded higher rates of return (in US\$ terms) than their investments in the European Community, Japan or the NIEs (which include Singapore). (See Chart 6.) Granted that the returns may reflect differential risks, the premiums for investing

¹¹ Used in a generic sense to include equity investment.

¹² Countries are also likely to exhibit high rates of return if they have a relatively low ratio of capital to labour. The Summers-Heston Penn World Tables only provide estimates of this ratio for Thailand. In 1992, its ratio was about 26% of that in the UK, 14% of those of (West) Germany and Japan, and 19% of Taiwan's.

in the ASEAN-3 are still substantial compared to the more developed economies.

Chart 6
Rates of Return on US MNC's Investment in Selected Countries
(Average, 1985-95)



Source: US Dept of Commerce - Survey of Current Business, various issues

3.16 The availability of foreign funds to finance the gap between domestic saving and investment in the ASEAN-3 should lead to a decoupling in the movements of the two variables in these countries. The Feldstein-Horioka model postulates a zero correlation between saving and investment rates when there is perfect capital mobility. We tested this hypothesis for the ASEAN-3 for the period 1970-95. (See Table 3.) The 0.3 estimated coefficient on the saving term, though statistically significant, is relatively small in absolute value. This saving coefficient falls to about 0.22 after 1985, when the surge in FDI flows to the ASEAN-3 took place. Our findings support the case that the current account deficits in the ASEAN-3 reflected the movements of funds in search of investment opportunities.

Table 3
Regression of the GDI Ratio (INV) Against the GNS Ratio (SAV)

$$\text{INV} = 39.5 + 0.3 \cdot \text{SAV} - 0.08 \cdot \text{SPLINE} \cdot \text{SAV}$$

t values : (1.8) (2.7) (-1.5)

$$R^2 = 0.89$$

$$\text{D.W.} = 2.0$$

Notes:

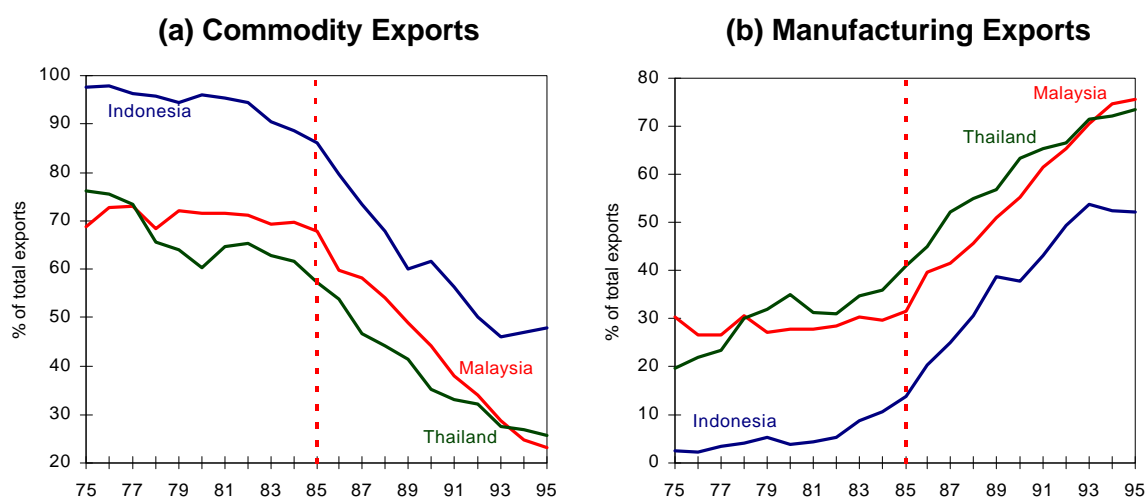
- (1) The equation was estimated using panel data drawn from the three countries over 1970-95, a total of 75 observation.
- (2) SPLINE is a binary multiplicative dummy that takes the value of zero in 1970-84, and a value of one in 1985-95.
- (3) Equation was corrected for an AR(1) error process.
- (4) Estimator applied was GLS using cross-sectional weights.

Trade Perspective

3.17 Developments in the current account balance may be viewed from the perspective of changes in the trade and services balances. Current account deficits were associated with the narrowing of trade surpluses in Malaysia and Indonesia, and a deterioration in the trade deficit in Thailand.

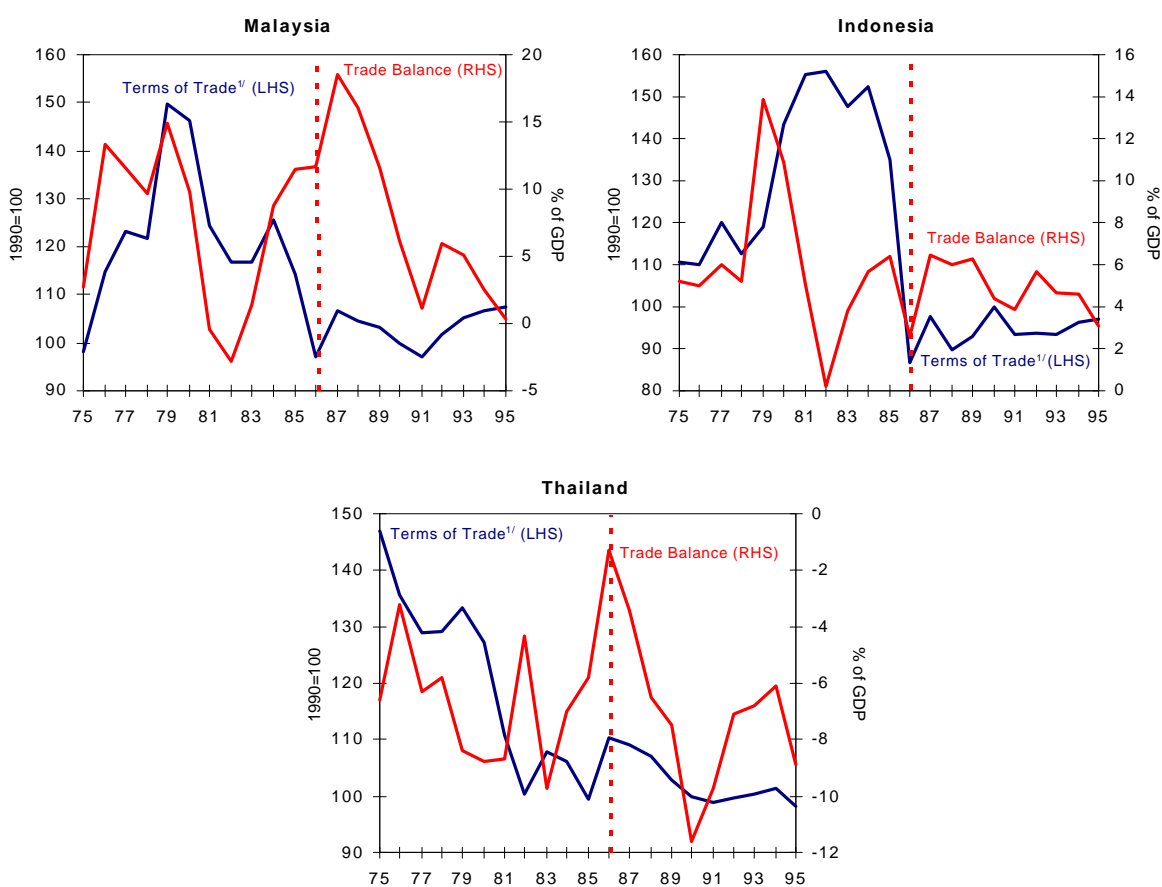
3.18 Up until about 1985, commodity based products constituted the bulk of total exports in all three countries. The proportion of such exports in 1975-85 ranged from an average 95% in Indonesia to 71% in Malaysia, and 67% in Thailand (see Chart 7a).

Chart 7
Composition of Exports



3.19 The heavy dependence on a narrow base of commodity exports resulted in a close association between the ASEAN-3's trade balances and movements in their terms of trade (see Chart 8), which were influenced by developments in world commodity markets.¹³ For example, the slump in oil prices in the early to mid-1980s resulted in a sharp deterioration of Indonesia's trade and current account balances. Malaysia's and Thailand's terms of trade also deteriorated in that period - due to falling world commodity prices - resulting in worsening trade balances.

Chart 8
Influence of Terms of Trade on Trade Balance



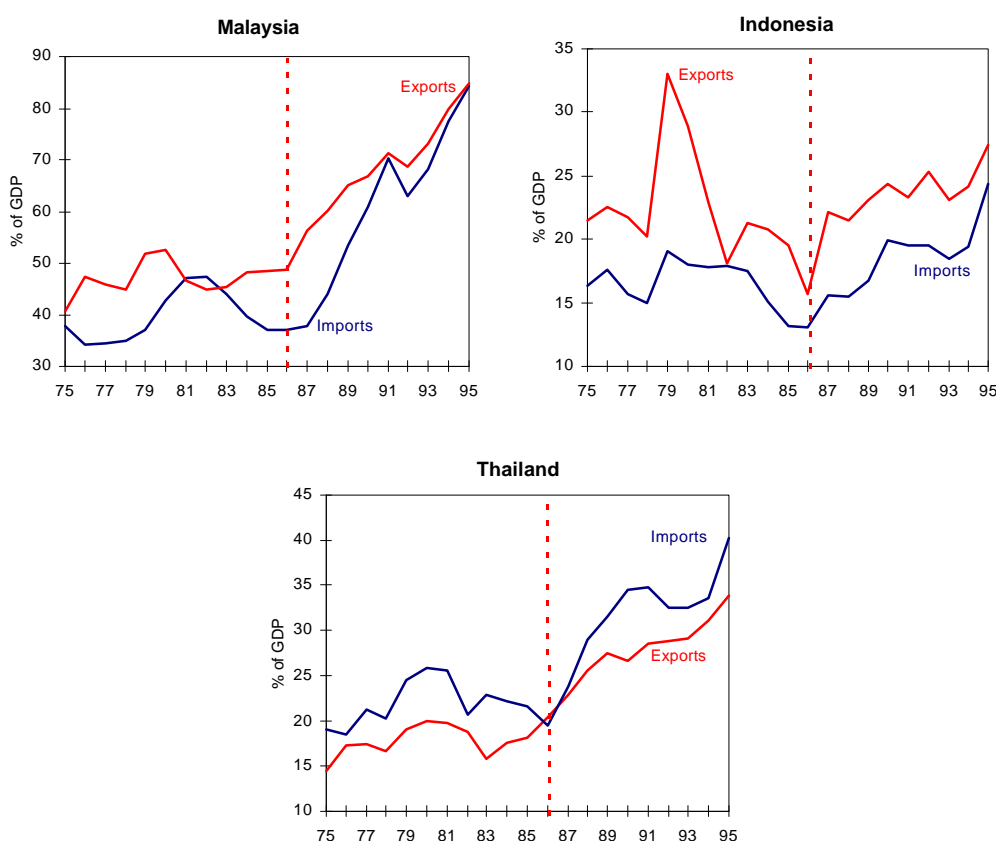
¹ An increase means an improvement.

¹³ The terms of trade data was extracted from the IFS and World Bank.

3.20 The link between the terms of trade and the trade balance weakened after about the mid-1980s, as the share of commodity exports declined sharply across all three countries.¹⁴ This marked the beginning of the second phase in the development of the ASEAN-3 away from commodity exports. Conversely, the share of manufacturing products in total exports increased sharply (see Chart 7b).

3.21 The deterioration in the trade and current account balances from the late 1980s till the present were largely driven by strong merchandise import growth. Over the period 1988-95, import growth in the ASEAN-3 countries averaged 23% p.a., at least 13 percentage points higher than in the early 1980s. Consequently, there was a sharp rise in the import to GDP ratio in all three countries after 1986 (see Chart 9). Exports also picked up during this period, but the increase in the export to GDP ratio was less steep.

Chart 9
Degree of Openness in the Economies of the ASEAN-3



¹⁴ Some support for the weakening of this link was obtained from running the panel regression across all three countries: Trade Balance = f (Terms of Trade, Terms of Trade*Dum85), where Dum85 takes the value one in 1985-95 and zero otherwise. The estimated coefficient on the second term was negative. Also, the terms of trade series displayed a lesser degree of volatility: the average standard deviation was 14 in 1979-84 compared to 7 in 1985-95.

3.22 The rise in imports were investment related and were incurred to enhance the productive capacity and export-earning potential of these countries. These imports accompanied the surge in FDI inflows into the ASEAN-3 - especially from Japan after the Plaza Accord, and Taiwan after the liberalisation of capital outflows in 1987. The share of capital goods in imports rose to just over 40% in Malaysia and Thailand, and 27% in Indonesia during the 1990s, while that of consumer goods declined (see Table 4). The high ratio of capital goods in imports was similar to that observed in Singapore in the late 1970s to early 1980s when it recorded deficits in its current account.

3.23 The import-induced deficits in the ASEAN-3 can thus be expected to fall as exports come on-stream in the near future. This is supported also by a (Granger) causality test using panel data for 1988-95 for all three countries¹⁵, which suggests that import growth was a precursor to a strengthening of future export supply. Stronger evidence of this causality was obtained when capital and intermediate imports - rather than all imports - were used.

Table 4
Imports by Commodity Type

(%)

Type	Malaysia		Thailand		Indonesia	
	1975-77	1990-94	1975-77	1990-94	1980-82 ¹	1990-94
Consumer	22.4	16.3	12.5	9.5	8.8	4.1
Intermediate	44.9	43.3	26.8	31.8	75.5	69.2
Capital	32.7	40.4	28.6	41.6	15.7	26.7
Others	-	-	32.1	17.1	-	-
Total	100.0	100.0	100.0	100.0	100.0	100.0

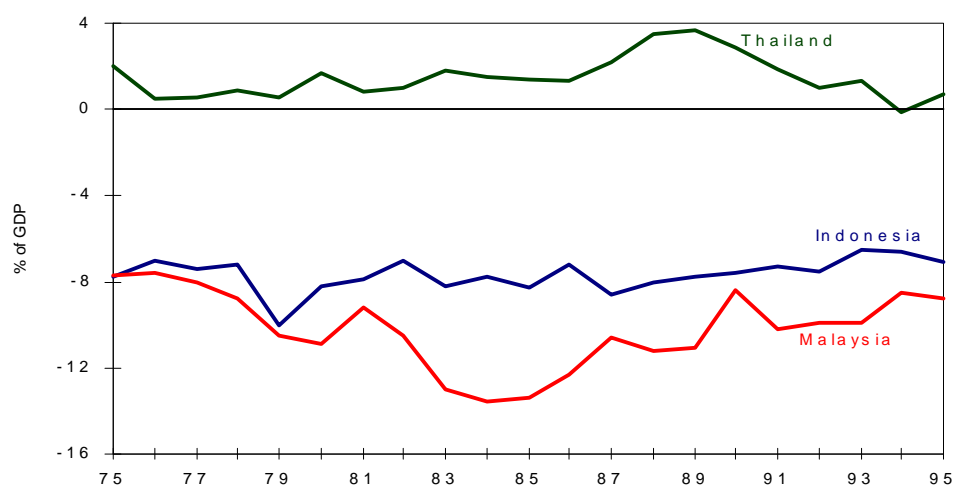
1. Data for an earlier time period is not available for Indonesia.

¹⁵ The tests determine if the import growth variable could provide additional predictive power for forecasting export growth, after taking into account the effects of foreign GDP growth and lagged export growth variables. The hypothesis that the predictive power was zero was rejected at the usual levels of significance. A number of different estimation methods, weighting schemes and lag structures were tried to establish the robustness of this result. When the test was carried out on only capital and intermediate imports, the same decision rule was obtained but at a lower probability value of 2.7%.

3.24 The same Granger causality test indicates the absence of any link between import and export growth when applied to observations over the earlier period during 1975-85. This provides support to the earlier discussion which emphasised the role of the terms of trade in explaining movements in the trade balance then.

3.25 Of the ASEAN-3 countries, only Thailand ran surpluses in its services account, averaging 1.5% of GDP since 1975.¹⁶ The current account deficits of Malaysia and Indonesia - in spite of their trade surpluses - reflected structural deficits in their services account of 7.7% and 10% of GDP respectively. (See Chart 10.) Malaysia and Indonesia ran large deficits in transport and shipping services.

Chart 10
Services Accounts of the ASEAN-3



3.26 All three countries also experienced significant deficits in their investment account balances since the late 1980s, representing the payment of profits and dividends to foreign investors. The share of this component in the services deficit increased from 47% in the 1980s to 55% in the 1990s for Malaysia, and from 50% to 59% in Indonesia.¹⁷

Financial Dimension

3.27 The current account deficits of Malaysia and Indonesia in the early to mid-1980s were financed mainly by foreign borrowing. The bulk of the debt was incurred by the public sector. Between 1981 to 1986, official long-term borrowing averaged more than 62% of total capital inflows into Malaysia.

¹⁶ To a large extent, this reflected healthy tourism receipts.

¹⁷ A decomposition of Thailand's services account is not available for the earlier period.

Official borrowing accounted for about three-quarters of total capital inflows into Indonesia during the mid-1980s.¹⁸

3.28 The shift of the fiscal position into surplus in the 1990s across all three countries meant that an increasing proportion of the debt was accounted for by the private sector. In Malaysia, 94% of outstanding debt in 1994 was accounted for by the private sector, compared to just 13% in 1985-89. In Indonesia, the share of private sector debt in total debt increased to one-third in 1994/95 from just one-fifth five years ago. In Thailand, the private sector increased its share of total debt from 42% in the late 1980s to 71% by end-1994.

3.29 Since the late 1980s, financing of the current account deficits in Malaysia and Indonesia has also shifted from debt to long-term equity capital.¹⁹ In Malaysia, corporate capital, most of which is FDI, accounted for 62% of net capital inflows during 1990-93, and about three-quarters in 1995. FDI comprised close to 40% of net capital inflows to Indonesia during FY1991-FY1994, exceeding official capital flows as the main source of financing for its external imbalance. The debt to GDP ratio in Malaysia fell to 32% in 1995 from a peak of 71% in 1986, while Indonesia's debt to GDP ratio moderated to 57% in FY1994/95 from nearly 73% in FY1987/88.

3.30 Unlike Malaysia and Indonesia, short-term capital has increased sharply in Thailand, accounting for more than half of net capital inflows in the 1990s. The share of FDI inflows fell from 32% in 1985-89 to 17% in 1990-94.²⁰ The ratio of short-term debt to GDP increased from 7.3% in the late 1980s to 16.7% in 1990-94.²¹ However, in terms of coverage of the current account net balance (deficit), medium and long-term capital (including FDI) accounted for up to 72% of the shortfall. This implies that medium and long-term capital were technically

¹⁸ Data for Thailand are available only after the late-1980s, because of the difficulties in obtaining a consistent classification of items in the capital account over a longer time span.

¹⁹ The basic balance (current account plus long-term capital inflows) of Malaysia and Indonesia were in surplus in most years. One exception is 1995, when Malaysia recorded a negative basic balance amounting to RM2.2 billion (or 2.1% of GDP).

²⁰ The drop in FDI may be somewhat overstated by corporate funding that takes place via the Bangkok International banking Facility (BIBF). For example, before the development of the BIBF, a foreign parent bank might have transferred funds abroad to a subsidiary in Thailand, whereas now the Thai subsidiary can borrow from a branch of the same bank in Bangkok. While the former transaction is classified as FDI, the latter is reported as a short-term inflow.

²¹ Much of the recent build-up in short-term debt represents liabilities of international banks, implying that the associated risks are relatively small because of the support readily available from their parent banks.

sufficient to finance the bulk of the current account deficit, and that a large proportion of short-term capital could have been associated with the build-up of foreign reserves.

3.31 The overall balance of payments position in all three countries was generally in surplus throughout the 1990s.²² The surpluses have led to a rapid accumulation of foreign reserves in the ASEAN-3 since the late-1980s (see Table 5). The levels of reserves, at between 3 to 6 months of imports, should be sufficient to cover any temporary shortfall in the current or capital accounts.

Table 5
International Reserve Positions of the ASEAN-3 (end 1995)

	Indonesia	Malaysia	Thailand
Reserves (US\$bil)	13.7	23.8	36.0
Months of Import Coverage	4.0	3.7	5.9

Comparison of Current Account Sustainability Indicators

3.32 As a summary of the preceding discussion on the sustainability of the current account deficits of the ASEAN-3 in the 1990s, we compare the economic factors underlying the current account deficits, with those in the early eighties. (Table 6 compares selected indicators pertaining to the three perspectives.)²³

- Current account deficits in the 1990s took place amidst rapid economic growth and strong export performance (non-oil exports in the case of Indonesia).
- Investment and saving rates in the 1990s were significantly higher than those in the early 1980s.

²² Malaysia enjoyed large surpluses in its overall balance averaging 9% of GDP during 1990-93. However, it had to draw down on its reserves in 1994-95 as a result of a reversal of short-term capital flows.

²³ In Appendix 1, we estimated the risk premium on the Ringgit and Baht using data on spot and forward rates of these currencies. Our results show that the risk premium has not risen significantly, given the recent deterioration in Malaysia's and Thailand's current account deficits.

- The fiscal positions were markedly stronger in the 1990s, for Malaysia and Thailand. The current account deficits resulted mainly from saving and investment imbalances of the private sector.
- The financing of the current account deficits in the 1990s consisted mainly of long-term FDI flows, whereas external borrowings were the major source of funding in the early 1980s.

3.33 It is also instructive to make comparison with Mexico just before financial crisis in 1994. Economic fundamentals were much stronger than those of Mexico. Current account deficits in all three ASEAN countries were associated with much higher saving and investment ratios. Debt service ratios were also lower. The underlying factors behind the current account deterioration of the ASEAN-3 in the 1990s - the strong imports of capital goods as part of an industrialisation drive - provide grounds for optimism that their external position will improve in the future. On the other hand, Mexico's deficits in the 1990s were associated with a fall in national saving rates from 19% of GDP in 1988, to 15.7% in 1994.

Table 6
Current Account Sustainability Indicators

(%)

	Indonesia		Malaysia		Thailand		Mexico
	1980-82	1990-95	1980-82	1990-95	1980-82	1990-95	1991-93
Current Account Balance/GDP	-3.9	-2.7	-8.9	-5.9	-5.1	-7.8	-7.1
TRADE PERSPECTIVE							
Real GDP Growth	6.7	7.1	6.7	8.9	5.4	8.9	2.6
Export Growth	15.8	12.7	3.4	19.8	9.9	18.8	13.3
Export/GDP	28.0	23.1	48.3	76.2	19.7	30.0	16.5
Real Exchange Rate Index (%) ¹	-	11.8	-	9.8	-	0.2	-28.5
SAVINGS-INVESTMENT PERSPECTIVE							
Savings/GDP	30.1	32.1	27.2	31.8	23.7	34.4	14.0
Investment/GDP	26.2	34.8	35.7	37.7	28.8	42.2	21.0
(Real) Investment Growth	14.3	15.8	16.8	17.8	1.1	14.1	-2.6
Government saving-investment balance/GDP	9.1	5.4	0.2	5.6	0.0	7.3	5.0
FINANCIAL PERSPECTIVE							
External Debt/GDP	25.9	57.1	42.1 ²	39.4	30.4	41.4	35.9
Debt Service Ratio	12.7 ³	33.4	7.7	7.2	19.1	10.9	37.5

Notes

- 1 The index measures the change in the real exchange rate between the average of 1986-89 and the average of 1990-94. A positive and/or high (absolute) value of the index signifies the real exchange rate is depreciated relative to the base period, while a low and/or negative value signifies an appreciation. These figures are from Sachs, Tornell & Velasco, "Financial Crises in Emerging Markets: The Lessons From 1995", NBER WP 5576.
- 2 Figures for 1982-83.
- 3 The debt service ratio increased through the early to mid-1980s, reaching a peak of 37.8% in 1986, before declining.

4 CONCLUSION

4.1 Current account deficits *per se* should not be viewed negatively. An intertemporal perspective to a country's external balance position suggests that it may be efficient for a country to run deficits at particular stages of its development. However, current account deficits can pose a problem if they result from consumerism, reflect unsustainable public sector deficits, and are financed by volatile short-term capital.

4.2 The current account deficits of the ASEAN-3 countries in the 1990s resemble in many ways those of Singapore during its industrialising phase in the 1960-70s. Like Singapore, the industrialising efforts in Indonesia, Malaysia and Thailand necessitated massive imports of capital goods to support their high investment needs. In all three countries, imports of capital goods, rather than consumption goods, have underpinned the deterioration in their current account balances. This contrasts with the imbalances of the early eighties which reflected terms of trade deterioration and, in the case of Malaysia and Thailand also fiscal deficits. The recent current account deficits should be seen as an investment in the productive capacity of these countries. As in the case of Singapore, it is likely that the external position will strengthen over time, as the exports come on stream while imports moderate.

4.3 Similar to Singapore, the current account deficits of the ASEAN-3 reflect their phenomenal appetite for investments, rather than declining saving rates, which are among the highest in the world. The deficits have been financed by inflows of foreign capital, an efficient outcome dictated by higher rates of return in these countries.

4.4 While the current account deficits of the ASEAN-3 are rooted in their industrialisation drive, the manner in which they are financed - whether through long- or short-term capital flows - is important in a world of increasingly integrated financial markets. While Singapore's industrialisation drive took place in an era when capital mobility was more limited, countries today are faced with an additional risk arising from the volatility of short-term capital. In particular, Thailand, which has large inflows of short-term capital is more vulnerable to shifts in market sentiments. The Mexican crisis in late 1994 provides a painful reminder of how destabilising major shifts in market sentiments can be. Nevertheless, we have seen that across a broad range of macroeconomic indicators, the ASEAN-3 are in a stronger position than Mexico.

4.5 The arguments above have highlighted the longer term and structural dimension of external developments in the ASEAN-3 countries. However, it is also important to appreciate that there is a short-term, cyclical component to the current account deficits. This component deteriorated significantly in the 1990s, and our earlier analysis suggested that the underlying cause was the rapid

growth since the late-1980s - all three countries are estimated to be operating above their potential GDP. As a consequence, the magnitude of the current account deficits in the last two years - particularly in Malaysia and Thailand - are larger than sustainable over the medium term.

4.6 Large external imbalances increase an economy's vulnerability to exogenous shocks and may require sharp and painful policy adjustments, should investors become wary of financing the large deficits. The governments of the ASEAN-3 countries have recognised this and responded decisively to the recent deterioration in the deficits by tightening monetary policy to dampen domestic demand. As a result, the pace of economic activity has slowed in these countries, which should lead to an easing of macroeconomic imbalance.

Appendix 1**ESTIMATION OF RISK PREMIUM**²⁴

1 Data on the spot and forward exchange rates of the ASEAN-3 currencies provide some indication of financial markets' willingness to continue financing the countries' current account deficits, and hence the sustainability of these deficits. To the extent that a widening current account deficit is viewed negatively by investors, a higher risk premium will be demanded when investing in domestic currency-denominated assets.

2 Our estimation technique is based on the approach in Domowitz and Hakkio.²⁵ The main estimating equation takes the following form:

$$\frac{S_{t+1} - S_t}{S_t} = RP_t + \beta \cdot \frac{F_t - S_t}{S_t} + \varepsilon_{t+1} \quad (1)$$

where S and F are the spot and forward exchange rates respectively. The risk premium, RP_t includes a constant term, plus an expression to take into account the volatility of the error term:

$$RP_t = \alpha + \theta h_{t+1} \quad (2)$$

3 In equation (2), h_t is modelled as a GARCH (generalised autoregressive conditional heteroscedasticity) error process and is essentially specified as a function of lagged (squared) values of ε_t .

4 Equations (1) and (2) allow for a number of tests as follows:

- (i) For the efficient market hypothesis to hold, we will expect $\beta=1$, and ε to be white noise. In this case, RP would be considered as a measure of risk premium.
- (ii) While maintaining the hypothesis of $\beta=1$, and ε to be white noise,
 - a) $\alpha=0$ and $\theta=0$, implies a zero risk premium
 - b) $\alpha \neq 0$ and $\theta=0$, implies a nonzero constant risk premium
 - c) $\alpha \neq 0$ and $\theta \neq 0$, implies a time-varying risk premium

²⁴ We acknowledge the help of J P Morgan (Singapore) in providing us data on forward exchange rates for the Baht. For the Ringgit, our contacts at ED-GIC proved helpful.

²⁵ Domowitz, I. and Hakkio, C. (1985), "Conditional Variance and Risk Premium in Foreign Exchange Market", *Journal of International Economics*, V19, P47-66.

Table A1
Tests of Hypothesis on Risk Premium

Null Hypothesis	F-statistics/(Prob Value)	
	Ringgit	Baht
Absence of a non-zero constant risk premium	2.43 (0.06)	21.93 (0.00)
Absence of a time-varying risk premium	17.76 (0.00)	4.25 (0.04)

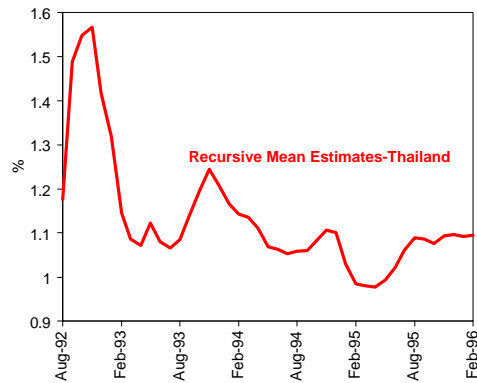
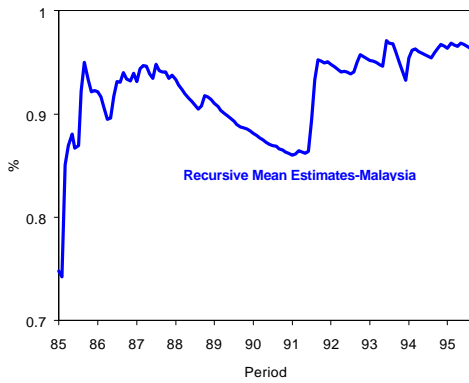
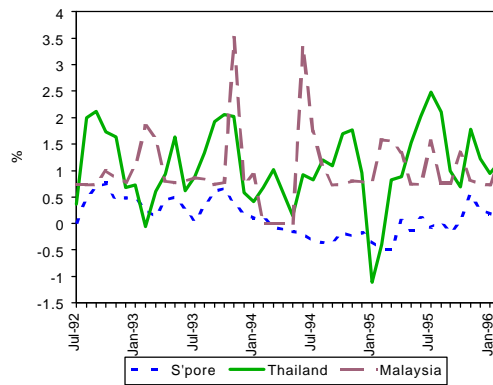
5 The presence of a risk premium for Thailand and Malaysia was tested using monthly observations on the exchange rates (see Table A1). The results confirm the presence of a risk premium attached to investing in the Ringgit and Baht;²⁶ Ringgit and Baht denominated assets are not perfect substitutes for US dollar assets.²⁷ Over the period July 92 to February 96, the estimated risk premiums were generally the highest for Thailand, followed by Malaysia. Chart A1 plots the values of the fitted conditional volatility term (i.e., h_t) in the GARCH model.

6 The hypothesis testing also indicates that the premiums are time-varying, suggesting that credit worthiness is reassessed as fundamentals change over time. The widening of the current account deficits in Malaysia and Thailand during the 1990s has not resulted in higher risk premiums on holdings of their currencies (see lower panel of Chart A1). The estimates in the lower panel of Chart A1 depict more clearly the time path of the estimated risk premium series. They were obtained by regressing the risk premium series on a constant term and estimating the OLS recursive coefficient.

²⁶ Forward data on the Rupiah was not available. The data were fitted to a GARCH-in-Mean specification.

²⁷ The presence of a risk-premium has implications for sterilised monetary policy action. In effect the non-substitutability of domestic assets implies that the central bank's effort at 'mopping-up' excess liquidity after intervention in the foreign exchange market - to dampen the value of the currency - would not be entirely successful as the exchange rate would end up at a level higher than if no risk premium were demanded.

**Chart A1
Time-Varying Risk Premium**



7 Malaysia’s risk premium in Feb 96 was 0.93%, similar to that recorded in the late 1980s. The risk premium on the Baht has actually declined slightly since the second half of 1993 through to February this year.²⁸

²⁸ We were unable to extend the analysis beyond Feb 96 because of difficulties in obtaining data.

DATA SOURCES

Unless otherwise stated in the text all data including those used in charts and tables have been extracted from National Sources:

Singapore Department of Statistics, Yearbook of Statistics
Trade Development Board, Singapore Trade Statistics

Malaysia Ministry of Finance, Economic Report
Bank Negara Malaysia, Annual Report
Bank Negara Malaysia, Quarterly Bulletin
Department of Statistics, External Trade Summary

Indonesia Bank Indonesia, Indonesia Financial Statistics
Bank Indonesia, Annual Report
Central Bureau of Statistics, Monthly Statistical Bulletin

Thailand Bank of Thailand, Quarterly Bulletin
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Key Economic Indicators

Others IMF, International Financial Statistics