

Financial Liberalization and Its Impact on Domestic Stabilization Policies

Singapore and Malaysia

Emil-Maria Claassen

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ASEAN Economic Research Unit
INSTITUTE OF SOUTHEAST ASIAN STUDIES

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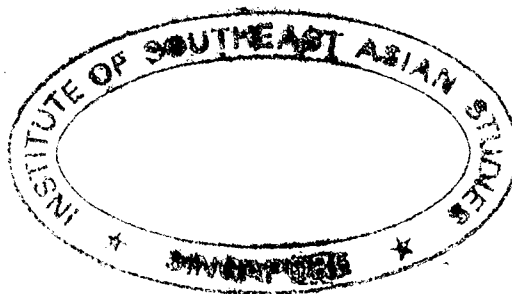
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University of Paris-Dauphine



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1

Introduction: Real Appreciation as an Outcome of Financial Liberalization

Financial liberalization means that domestic interest rates get aligned to international ones, that credit constraints become looser in the case of a deficit of expenditures over receipts and that the menu of portfolio allocation becomes richer. From the point of view of the international economy, financial liberalization profits from the international specialization of savings and investment. A “young” country, which is usually a deficit country with a higher investment than savings ratio, is able to borrow from “mature” countries which are in surplus.

Domestic stabilization policies become far less autonomous under an open capital account. A monetary–fiscal policy mix which is divergent from that of the outside world may have immediate repercussions on the balance of payments (for fixed exchange rates), on the foreign exchange rate (under floating exchange rates), or on both (managed float). These repercussions, however, may be unwarranted as they exercise external constraints on domestic stabilization policies.

Another unfavourable impact of financial liberalization concerns the possibility that it would cause a real appreciation of the domestic currency, with adverse effects on the domestic supply and demand of tradable goods and, consequently, on the trade balance. It is this issue on which the present study pays most attention. In particular, we ask the question whether real appreciation of the domestic currency could be avoided by a proper mix of domestic stabilization policies. Two case studies are dealt with here: Singapore and Malaysia. They are both fast-growing economies, which were monetarily linked until the early 1970s and which underwent different paths of financial liberalization later. Among the various differences between the two economies is the fact that Singapore is an international financial centre while Kuala Lumpur is not.

What policy measures should be implemented which could avoid real appreciation? Real appreciation is provoked by a real shock (higher absorption via net capital inflows). A restrictive fiscal policy, which is a policy-induced real shock, would be the adequate response and it should consist mainly of

a reduction in the demand for non-tradable goods.¹ Pure monetary policy would be absolutely ineffective, since it would affect only the nominal exchange rate over the longer-run.

However, the task of monetary policy is important with respect to inflation. With financial liberalization, huge capital inflows may increase considerably the volume of international reserves and, thus, the monetary base via their "automatic" monetization. The result would be inflationary pressures which could only be avoided by sterilized intervention policies, that is, by neutralizing the expansionary monetary effect of reserve increases via restrictive monetary policy with the aid of other domestic policy instruments.

Chapter 2 is concerned with a brief description of the common monetary history of the two countries and a comparison of their monetary and fiscal policies. In the following two chapters the Singaporean and Malaysian cases, respectively, will be examined. After a brief summary of the various measures taken by the two countries towards financial liberalization, two basic questions are asked. Firstly, did each country successfully shelter its monetary base from reserve increases which resulted from heavy capital inflows. Secondly, did each country successfully slow down an incipient real appreciation of its currency, which again could be the result of heavy capital inflows. The conclusion in Chapter 5 compares the similarities and differences of the Singapore and Malaysian experiments.

2

Comparative Country Analysis

The Malaysian-Singaporean Currency Area, 1957–73

Monetary history is a decisive force of a Central Bank's credibility. Malaysia and Singapore shared a common monetary history, with a common Currency Board which started in 1897 and ended in 1967. As we shall see, the excellent control over price stability during the 1970s and 1980s, not only of Singapore but also of Malaysia, may have been due to one common factor: the monetary discipline both countries experienced during that time as a result of the Currency Board tradition.

From the end of the nineteenth century, the Straits dollar issued by the Currency Board was circulated in the Straits Settlements (Singapore, Pulau Pinang, Melaka) and all the Malay States. The Straits dollar was renamed in 1938 as the Malayan dollar. By 1950 new members had joined the Malayan currency area: the Borneo territories of Sarawak, British North Borneo (now Sabah), and Brunei.

With the independence of the Federation of Malaya in 1957 and the self-government of Singapore in 1959, the Currency Board remained in place. Even with the establishment of the Central Bank of Malaya in 1959 (later called the Central Bank of Malaysia with the formation of Malaysia in 1963), the currency issuing powers remained vested in the common Currency Board until June 1967.

Singapore's membership in the Federation of Malaysia (1963) lasted only two years. The separation took place in 1965, but the common currency in the two territories remained in place. During the two years following Singapore's separation there was a lengthy discussion over the conditions governing the common currency arrangement (see Lee Sheng-Yi 1990, pp. 53–70). The main point of dissentment concerned the principles of currency issue. Singapore insisted on the maintenance of the strict rules of the Currency Board while Malaysia was in favour of the establishment of an independent central bank which issues currency without the necessary link of a one-hundred-per-cent coverage of foreign reserves.

Singapore's main interest as a small island economy with little domestic production and without any natural resources was to develop itself into a great international port for its *entrepôt* trade and the establishment of some manufacturing industries, coupled with rendering trading and banking services to the neighbouring countries. In order to achieve this end, a necessary condition for success was monetary stability so as to gain confidence among the business community. On the other hand, Malaysia with its dependence on traditional exports of rubber and tin wanted to develop its internal economy and thought that more scope for monetary expansion could stimulate domestic production.

On 12 June 1967, the currency split took place between Malaysia and Singapore. Malaysia replaced the Currency Board with Bank Negara Malaysia, while Singapore issued its own currency with the Currency Board of Singapore. The outcome was three new currencies, namely, the Malaysian dollar, the Singapore dollar, and the Brunei dollar. However, during the following six years these separate currencies circulated as parallel currencies in the other economies at a strict par value of 1:1, as declared by their governments. They were even legal tender. The monetary authorities returned to each other the respective currencies through a clearance system two or three times a week.

The currency interchangeability also included the transfer of funds among commercial banks. Transactions from one currency to another were settled without recourse to a third currency. Remittances through commercial banks for amounts exceeding \$20,000 were subject to a commission of only 0.0625 per cent, which was the same rate of commission as the "inland exchange" (Bank Negara Malaysia, 1989, pp. 356–67). In a strictly economic sense, one could argue that the "Malaysian" currency area continued to exist after the currency split of 1967 for the three countries.

The currency interchangeability arrangement between Singapore and Malaysia was officially terminated in May 1973 together with the split of their common stock exchange market. However, the interchangeability still exists for the Singapore and Brunei currencies.² One month later, in June 1973, Singapore decided to let its dollar float. The next day, Malaysia followed suit.

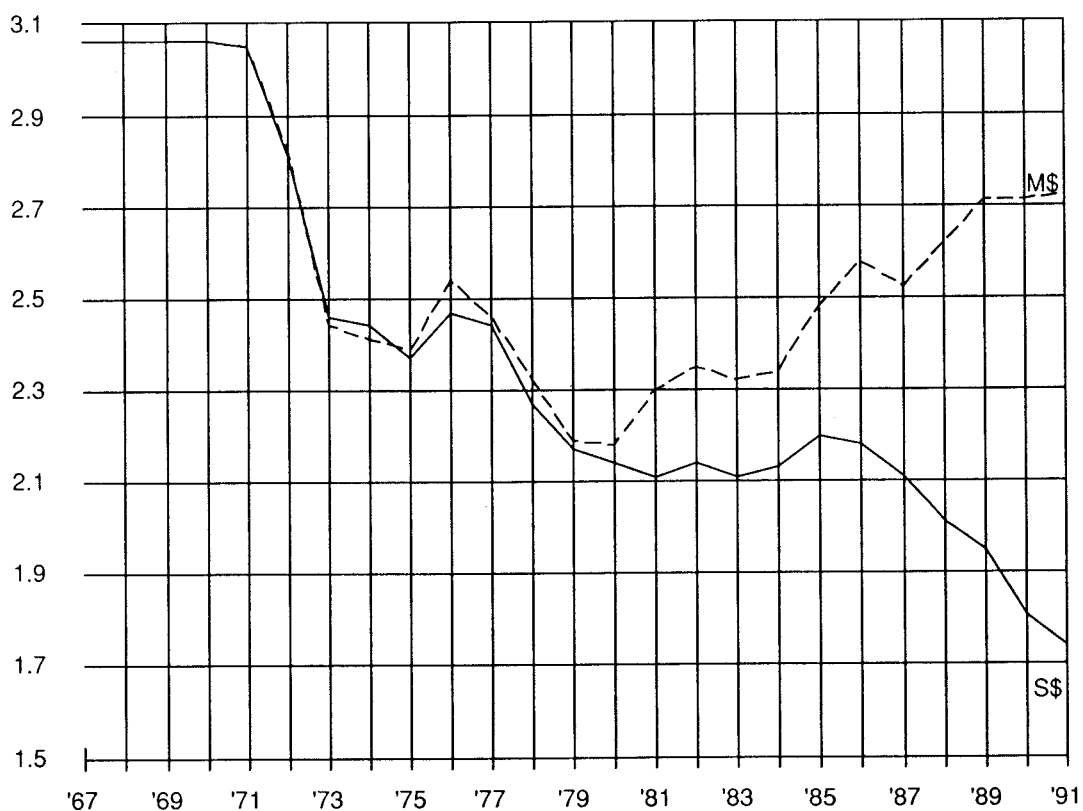
The initiative to terminate the currency interchangeability arrangement came from the Malaysian Government. According to Lee Sheng-Yi (1990, p. 59), Malaysia believed "that if the interchangeability arrangement was to be continued in the long-run, trading, banking and financial development would speed up more rapidly in Singapore than in Malaysia" (which happened at any rate). A Bank Negara Malaysia report on the occasion of its thirtieth anniversary argues (1989, p. 357) that "by making bank funds in the two currencies effectively interchangeable, in the same manner as currency notes and coin, it reinforced to the general public in both countries the habit of treating the two national currencies as identical in all but name ... Keeping the currencies identical in turn inhibited the development of any divergencies

in their external values, no matter what the underlying market forces had been”.

Even though the exchange rate of the Malaysian dollar with respect to the Singapore dollar was maintained roughly within the range of 1:1 throughout the 1970s (see Figure 1), Malaysia’s monetary “independence” or “sovereignty” became obvious in the 1980s when its external currency value depreciated progressively with respect to the Singapore dollar. During the first half of the 1980s, however, Bank Negara Malaysia followed a dogma of keeping the Malaysian dollar within a 10 per cent margin of the Singapore dollar. From 1985 onwards, the Singapore dollar was definitely removed as a nominal anchor.

The other and more serious motivation for eliminating the final relics of the former Malaysian currency area was the understandable desire to establish Kuala Lumpur as a *national* financial centre. During the time of the common Currency Board (which ended in 1967), its headquarters was in Singapore and, consequently, the banking system of Malaysia (in particular, “its” foreign banks) and the stock exchange market were concentrated in Singapore. This

FIGURE 1
Exchange Rates of the Singapore and Malaysian Dollars with Respect
to the U.S. Dollar, 1967–91
(Annual averages)



SOURCE: International Monetary Fund (IMF), *International Financial Statistics*, various years. A decrease in the exchange rate means an appreciation.

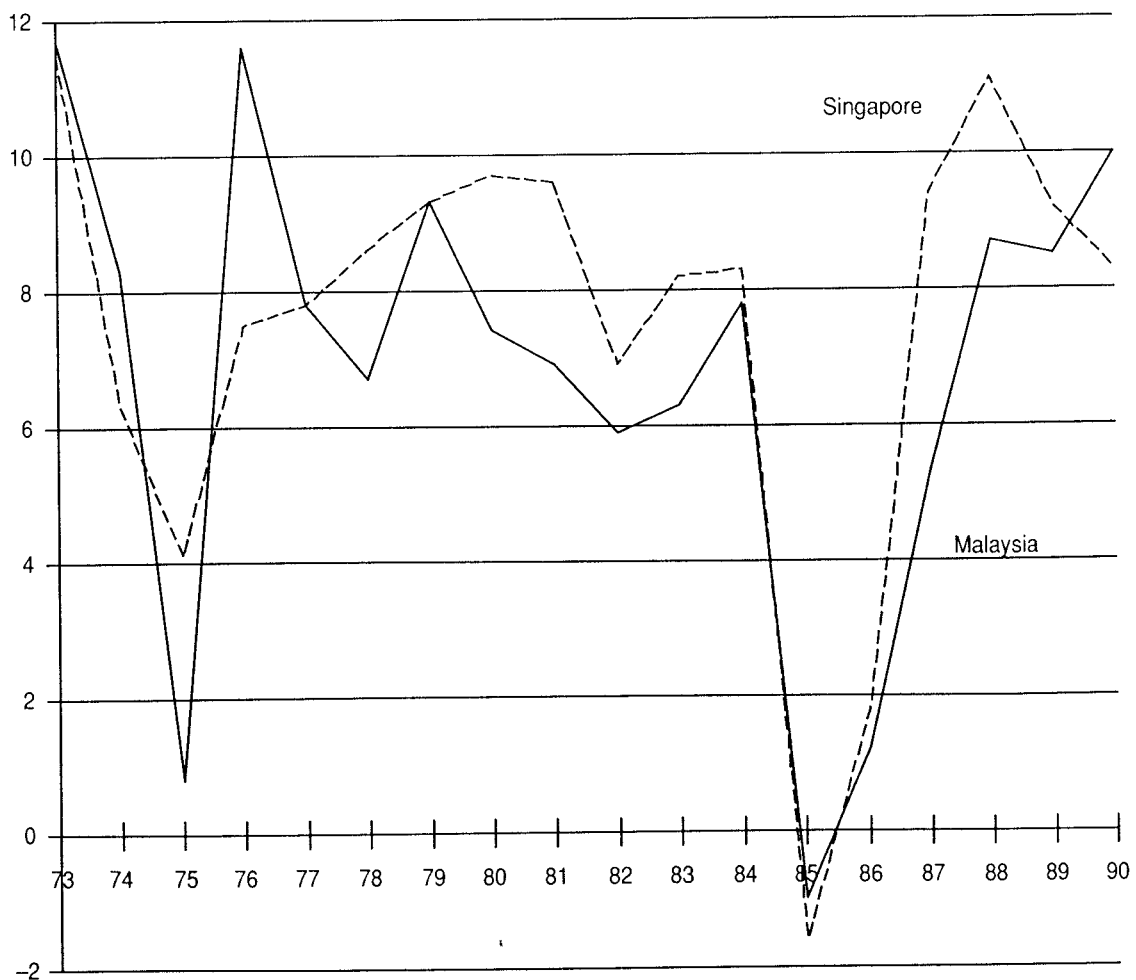
annoying fact was stopped by the termination of the interchangeability arrangements in 1973.

Economic Performance and the Monetary–Fiscal Policy Stance

If we look at the growth and inflation performance of both economies (Figure 2–3), we will notice a surprising synchronization of the “business cycle” with respect to output and prices. Furthermore, on the average, Singapore performed only “a bit better” on the growth and inflation fronts. The recession of 1985 was common to both economies.

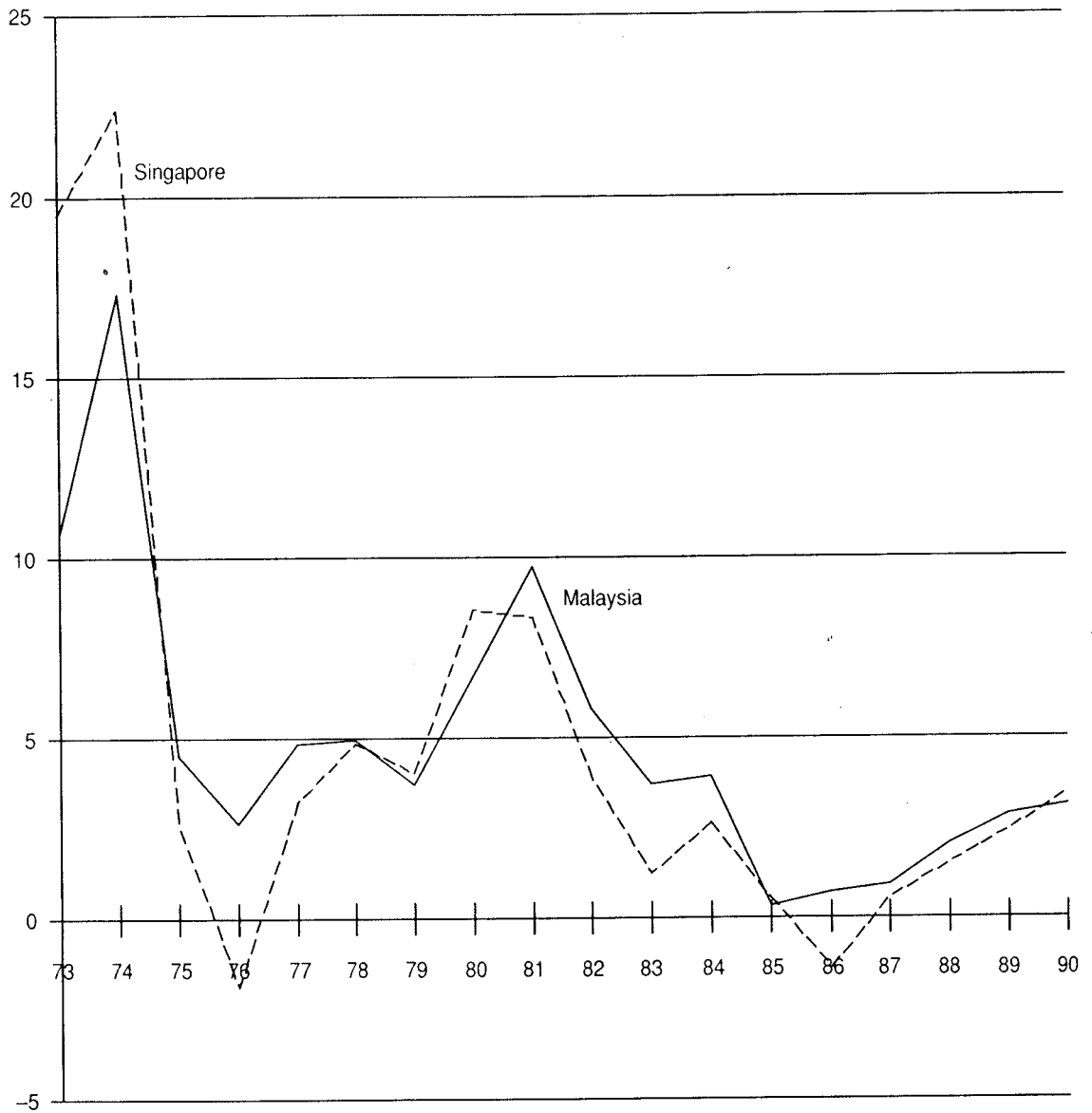
Since Malaysia’s economic performance is less known outside Southeast Asia, we shall briefly mention some main characteristics. Malaysia’s position as one of the fastest growing economies among the developing countries is due to a combination of factors, such as its abundant natural resources, a relatively small population with an industrious Chinese business segment

FIGURE 2
Singapore and Malaysia: Real Growth Rates, 1973–90



SOURCE: IMF, *International Financial Statistics*, 1989; Ministry of Trade and Industry, *Economic Survey of Singapore 1990*; and Bank Negara Malaysia, *Annual Report 1990*.

FIGURE 3
Singapore and Malaysia: Inflation Rates, 1973–90
(Consumer prices)



Sources: IMF, *International Financial Statistics*, 1989; Ministry of Trade and Industry, *Economic Survey of Singapore 1990*; and Bank Negara Malaysia, *Annual Report 1990*.

(one-third), and the country's dedication to a free market economy. In earlier times, the abundant natural resources was considered a net advantage in economic development. In more recent times, however, this view has changed with the phenomenal performance of the natural resource-poor Asian newly industrialized economies (NIEs) which have outperformed even the oil-exporting economies (see Riedel 1988).

Malaysia pursued a development strategy based on export promotion on two fronts, namely, on primary commodities and manufactured goods. The agriculture and mining sectors were developed as a result of diversification

from the traditional rubber and tin exports to include palm oil, timber, cocoa, petroleum and natural gas. Malaysia is the world's major exporter of rubber and palm oil (73 per cent). It is the world's largest producer of tin (even though the heyday of the tin industry within the world economy is over) and the world's third largest producer of cocoa.

However, exports of primary commodities made the Malaysian economy extremely responsive to commodity cycles so that the country also opted for export-oriented industrialization from the mid-1970s, following the success story of its neighbour. The World Bank (1986, p. 49) ranked Malaysia seventh among 43 developing countries for its performance in the share of manufactured exports (which included electrical equipment and electronic components, such as semiconductor devices, television sets, radios, and air-conditioners).³

In comparing economies, one has also to look at levels, as indicated in Table 1. In 1989, Singapore's real gross domestic product (GDP) per capita was four times that of Malaysia. In 1973, it was only three times higher. This fact did not result from a considerably higher growth potential of the Singaporean economy, but arose mainly because of Malaysian population growth while that of Singapore remained almost stagnant (2.2 million in 1973 and 2.7 million in 1989).⁴ As far as the comparison of the consumer price levels is concerned, both economies behaved quite identically.

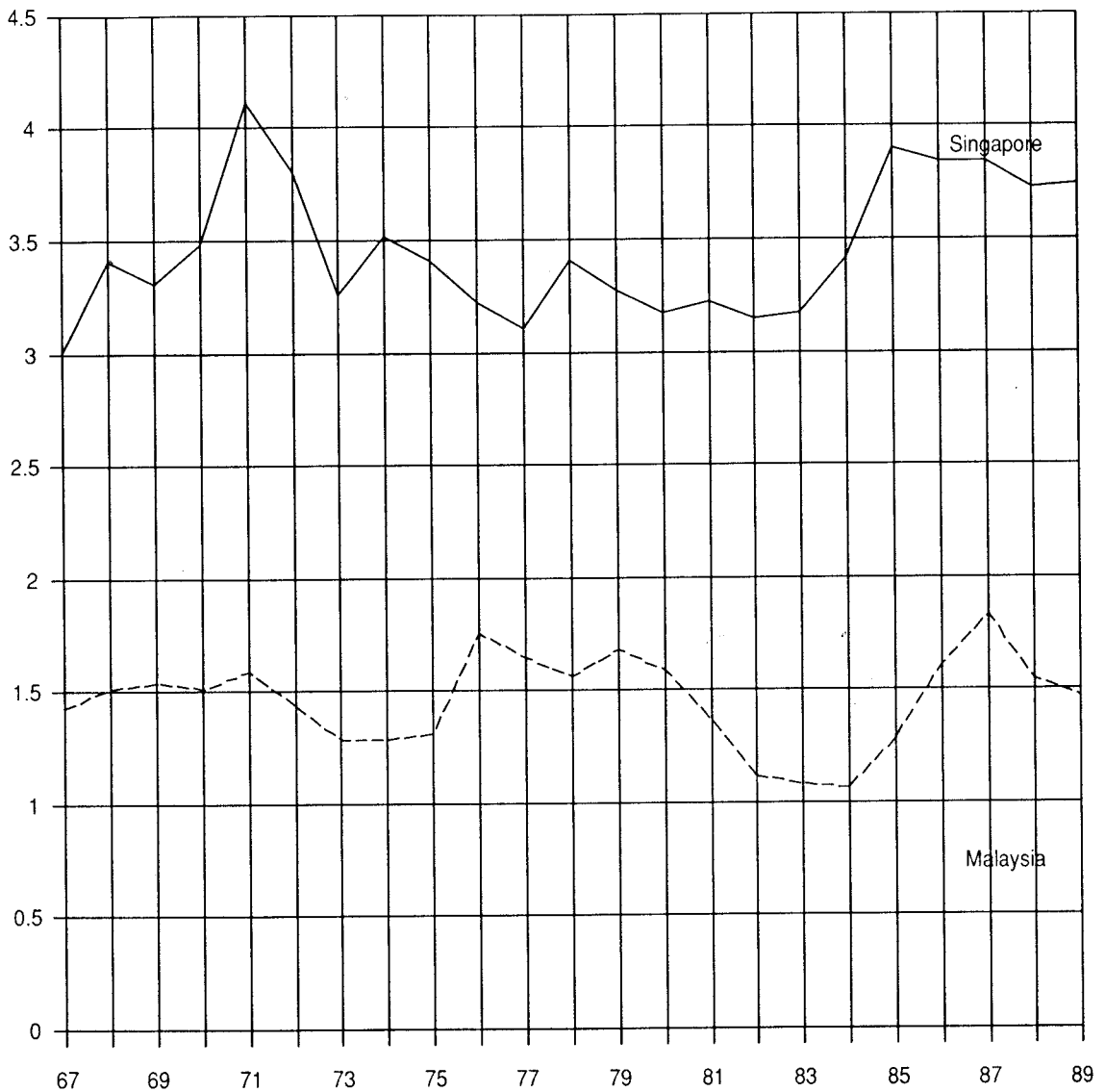
During the whole period of 1967 (date of the currency split) to 1989, Malaysia's monetary policy was conducted *as if* it remained within the former Currency Board framework. Its volume of international reserves always exceeded its monetary base (Figure 4). Since the inflation rate was rather moderate and similar to that of Singapore, Malaysia's monetary policy must also have been restrictive. The most important (if not single) policy divergence with Singapore concerns its fiscal stance. While Singapore's budget was principally in surplus, Malaysia always had a budget deficit, which was particularly aggravating in the 1980s compared to the 1970s (Figure 5).

TABLE 1
Real GDP and Consumer Price Index:
Malaysia and Singapore, 1973 and 1989
(In U.S. dollar and 1985 prices)

	Malaysia		Singapore	
	1973	1989	1973	1989
GDP	14,789 m	39,628 m	8,628 m	23,943 m
GDP per capita	1,308	2,268	3,940	8,934
Consumer Prices (1985 = 100)	52.1	106.5	56.7	103.0

SOURCE: International Monetary Fund (IMF), *International Financial Statistics*, various years.

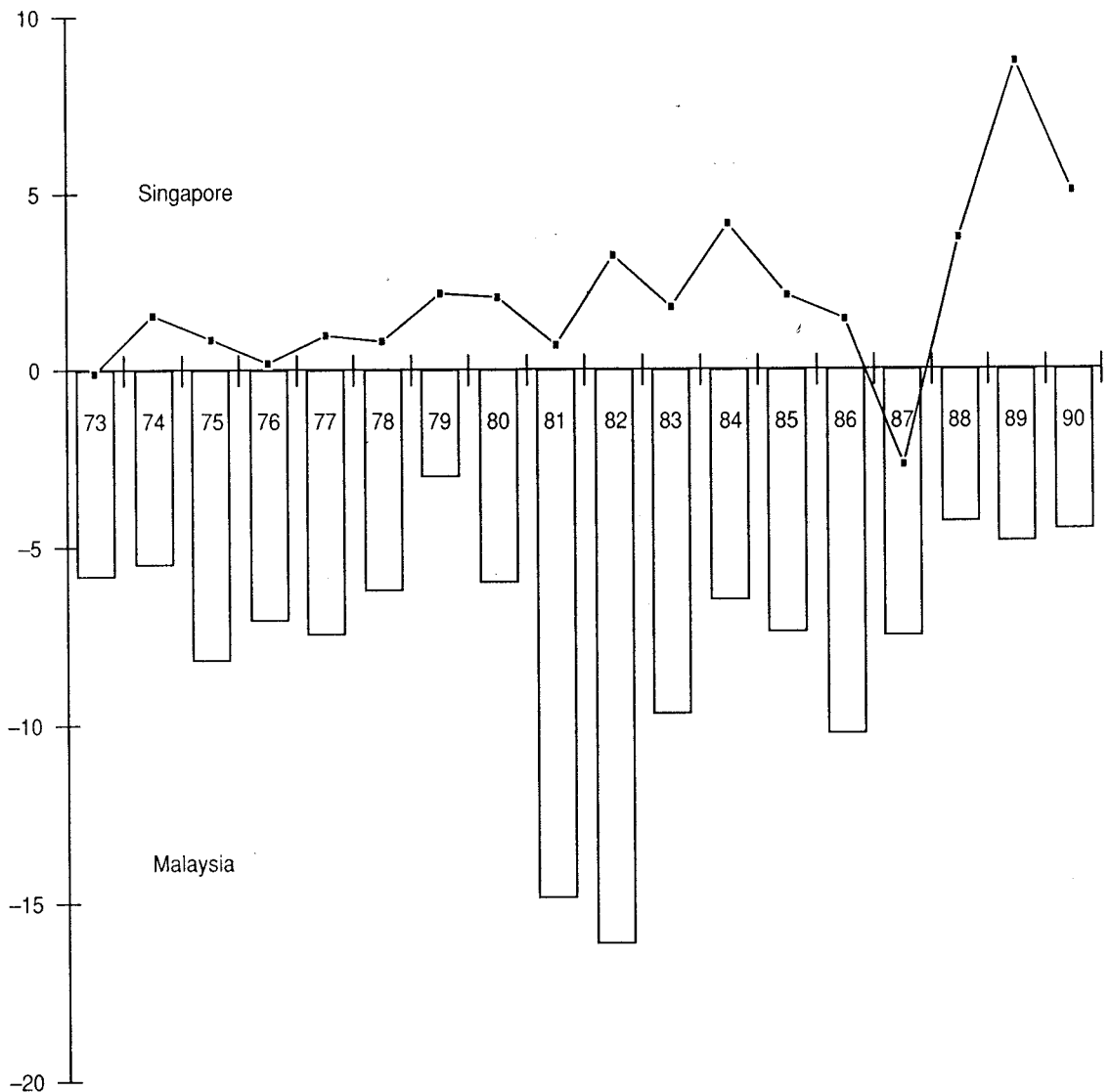
FIGURE 4
Singapore and Malaysia: Ratio of International Reserves
to Monetary Base, 1967–89



SOURCES: IMF, *International Financial Statistics*, 1989; Ministry of Trade and Industry, *Economic Survey of Singapore 1990*; and Bank Negara Malaysia, *Annual Report 1990*.

As far as the financial linkages between the two economies are concerned (Figure 6), the interest rate differentials were less pronounced after 1982 compared to the 1978–81 period when the main measures of financial liberalization were achieved. Under the bold hypothesis of interest rate parity and absence of any risk premium, the considerably higher Singaporean interest rate level of 1978–81 and, in particular, of 1980–81 was expected to cause the Singapore dollar to depreciate against the Malaysian dollar, and thus bring the latter back to the approximately 1:1 relationship with the Singapore dollar. However, as the interest rate differential was reversed between 1982 and 1986,

FIGURE 5
Malaysia's Budget Deficit and Singapore's Budget Surplus, 1973–90
 (As percentage of GDP)

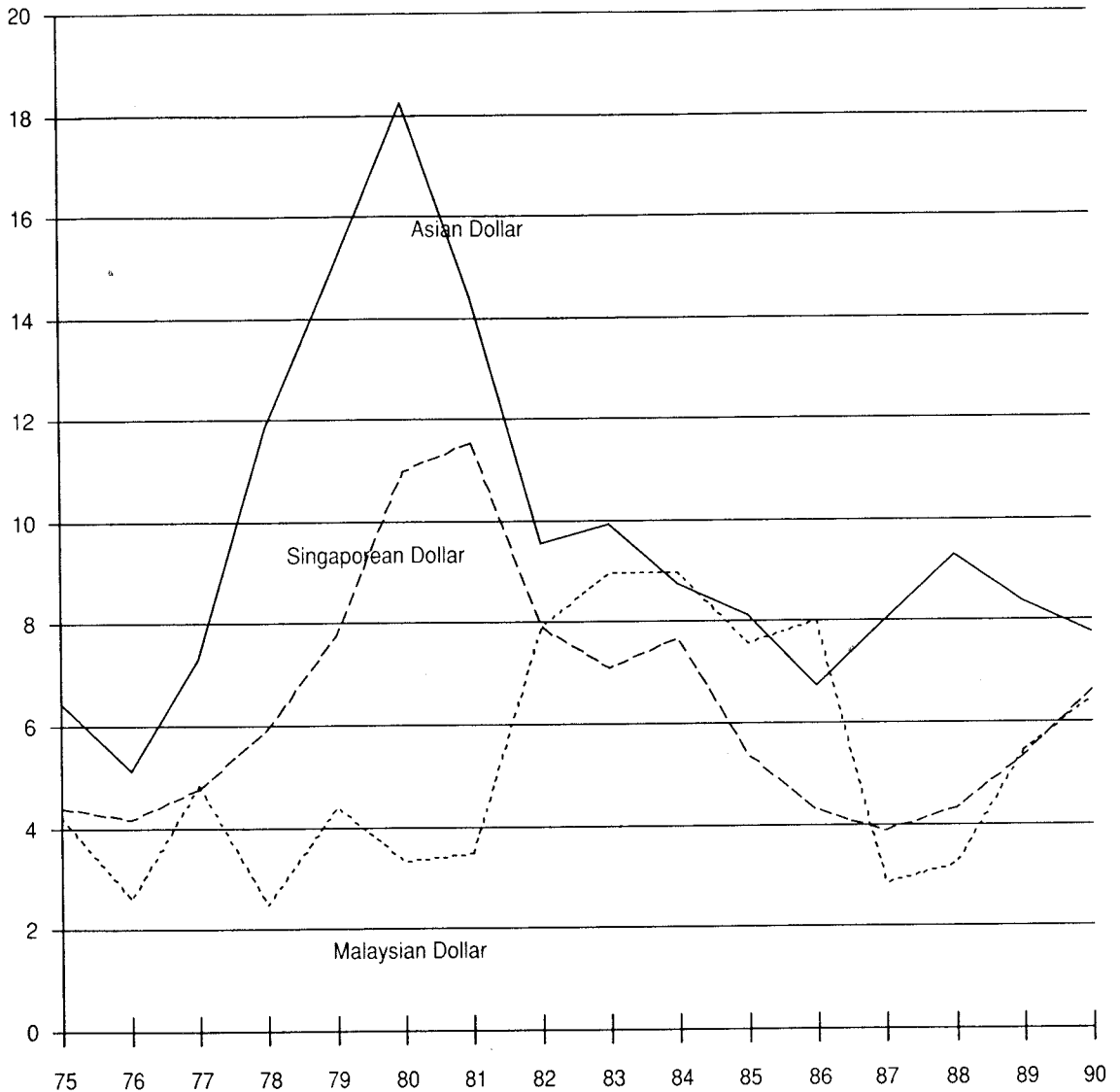


SOURCES: IMF, *International Financial Statistics*, 1989; Ministry of Trade and Industry, *Economic Survey of Singapore 1990*; and Bank Negara Malaysia, *Annual Report 1990*.

this expectation could not be maintained because the gap between the two currencies widened progressively (see Figure 1).

The pegging of both currencies to the U.S. dollar in 1981–84 narrowed considerably their interest rate differentials with respect to the Asian dollar. The Asian dollar is in Singapore or Hong Kong what the Eurodollar is in Brussels or London. Furthermore, during the whole period, Singaporean nominal interest rates were permanently below the equivalent U.S. rates in the Asian dollar money market. The underlying market expectations were such that the future value of the Singapore dollar had to appreciate constantly against the U.S. dollar, provided that interest rate parity prevailed. If the expected rate of appreciation corresponded exactly with the expected inflation differential

FIGURE 6
**Interbank Interest Rates on Asian,
 Singaporean and Malaysian Dollars, 1975–90**
 (3 months, annual percentage)



SOURCES: IMF, *International Financial Statistics*, 1989; Ministry of Trade and Industry, *Economic Survey of Singapore 1990*; and Bank Negara Malaysia, *Annual Report 1990*.

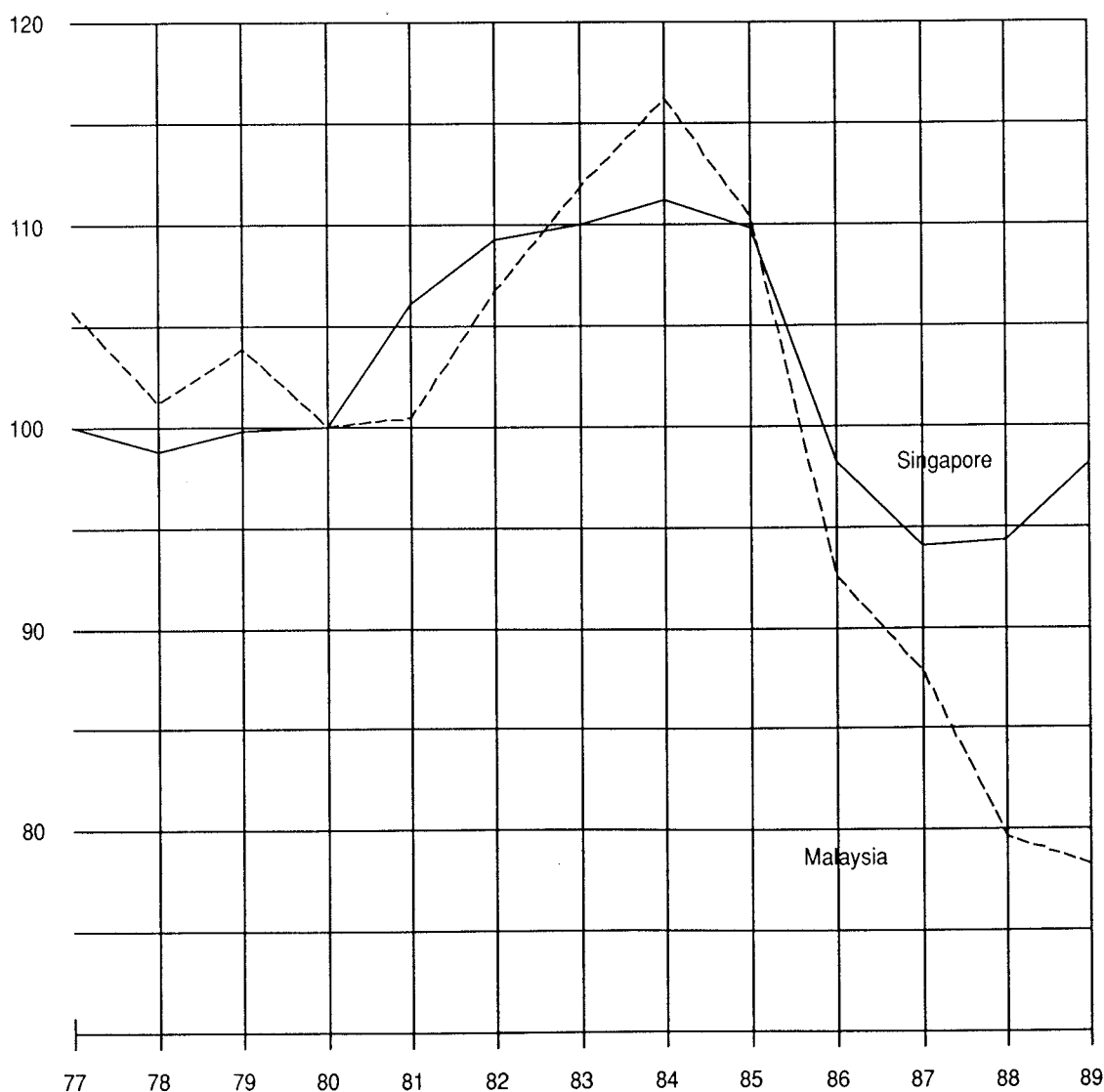
between the American and Singaporean economies, *ex ante* real interest rates had to be the same in both countries. A recent empirical study by Glick and Hutchison (1990) of Singapore's and Malaysia's *ex post* real interest rate linkages to the corresponding U.S. rates (and not to the Asian dollar rates) shows that there was an increased dependence of both rates on U.S. rates, in particular after financial liberalization. For the period 1979–85, the degree of linkage was estimated at 0.64 for Singapore and at 0.71 for Malaysia.

However, with these empirical investigations, a test on (uncovered) real interest rate parity is always confronted by two sets of problems. On the one hand, the test should refer to *ex ante* real interest rates, but even for a closed

economy, an evaluation of the *ex ante* real interest rate remains dubious to the extent that there are only proxies for measuring inflationary expectations. On the other hand, real interest rate parity cannot exclude expected changes in the *real* exchange rate whether they are due to real fundamentals or to “rational” bubbles.⁵

Not only did real growth rates, inflation rates and nominal interest rates of Singapore and Malaysia move progressively together, but the same observation can be made for their real effective exchange rates, at least during the period 1977-86 (Figure 7). The most remarkable synchronization of *real*

FIGURE 7
Singapore and Malaysia: Real Effective Exchange Rate, 1977-89
(1980=100)



SOURCES: IMF, *International Financial Statistics*, various issues. For Singapore's REER, see Lee Sheng-Yi (1990), pp. 142-44. Singapore's REER has been calculated on the basis of the consumer price index. An increase in REER is an appreciation.

appreciation took place during 1981–84. Since our study is concerned with real appreciation as a possible outcome of financial liberalization and its damaging effect on economic activity (for example, the common recession of 1985), we will question whether domestic stabilization policies had been able to react adequately. Was there a policy conflict (in the case of Singapore) or did domestic stabilization policies provoke it (in the case of Malaysia)? It should be emphasized that the real appreciation of their currencies constituted one common cause of the 1985 recession. Other common causes that aggravated it were the world-wide recession of the early 1980s, the nominal wage increases of 48.7 per cent in Singapore (1981–84) and 45 per cent in Malaysia (1980–84), and the cyclical interdependence of both economies via the foreign trade multiplier since each is the most important trading partner of the other.

3

Singapore's Dilemma of Financial Versus Commercial Priorities

Financial Liberalization and Internationalization

Domestic stabilization policies are defined as monetary, fiscal and exchange rate policies. Their degree of autonomy is determined by the commercial and financial openness of the concerned economy. The Singaporean economy is among the most open in the world.

In 1990, the ratio of exports of goods and non-factor services to GDP amounted to 206 per cent and the corresponding import ratio to 192 per cent (Figure 12). The failure of the political union and common market with Malaysia and the separation of Singapore in 1965 undermined the import substitution strategy and created the precondition for export promotion as an alternative development strategy. Since 1981, its import duties have generally been lowered to a maximum *ad valorem* rate of 5 per cent. Heavy import duties, for revenue and externality reasons, exist for items such as tobacco, liquor, cars, and petroleum.

As far as financial openness is concerned, any remaining exchange controls had been abolished by June 1978. The release of capital controls was linked with the export promotion of financial services. The financial export strategy to attract foreign banks was brought about by favourable banking regulations (as in the case of the Eurodollar market) and by fiscal incentives.⁶ Consequently, Singapore's financial liberalization policy consisted of measures not only to suppress any remaining "financial repression" (which was, in fact, only the interest rate cartel of Singapore banks), but also to install a second currency, the Asian Currency Unit, which is highly competitive to its domestic currency.

Financial liberalization of the orthodox type (free international capital movements) already imposes heavy constraints on the conduct of domestic stabilization policies. In that context, the general rule that a country should only have autonomy over a single nominal variable becomes the most obvious case. It can fix either the nominal exchange rate (with an endogenous money supply) or it can determine the growth rate of the money supply as the nominal anchor (with an endogenous nominal exchange rate).

If, in addition, the small open economy chooses the Asian dollar as a vehicle for the development of an international financial centre, as it is the case with Singapore, the above option for the nominal anchor (pegging the exchange rate or pegging the quantity of money) must still be valid in principle, but the danger of currency substitution in favour of Asian dollars becomes greater. If, for example, Singapore had opted for a fixed exchange rate with respect to the U.S. dollar since the mid-1970s, it is highly questionable whether the Singapore dollar would still be in circulation today in the island economy. Both the nominal interest and the evolution of the price level of tradable goods would have been the same in the Goliath and David economies as prescriptions of the monetary approach to the balance of payments would have been strictly followed. However, since deregulation and fiscal incentives were granted to the offshore banks, domestic banks would not have been able to compete with them as the terms of trade on loans and deposits would have been less favourable for the domestic banks. If, on the contrary, Singapore chose the money growth target by floating its exchange rate, interest rate parity (to the extent that it holds) could produce the same competition disadvantages for loans and interest-bearing deposits of the domestic Singaporean banks as in the former case of interest rate identity (by ignoring the upper and lower margins of the fixed parity).

By trying to rationalize *ex post* which policy design may have guided Singapore's authorities since the mid-1970s (even though it was probably a cautious pragmatic approach of learning by doing), I shall argue that the above domestic policy dilemma enhanced by financial liberalization plus internationalization was solved by two concrete long-term policy actions, namely, to throw sand into the wheels of perfect capital mobility and to develop the Singaporean dollar as one of the strongest currencies in the world economy in terms of price stability.

The Singapore banking system is separated into a domestic sector operating in Singapore dollars (or DBUs, standing for Domestic Banking Units) and an offshore sector transacting in non-Singapore currencies, labelled as Asian Currency Units (ACUs). However, as a consequence of the gradual evolution of the Singaporean Asian dollar market, the demarcation line is not set such that "onshore" banks are only allowed to conduct their operations in domestic currency and offshore banks in foreign currencies. The reality is much more complex.

During 1968–73, three types of banks were established successively. Since 1968 "full licence" banks have been permitted to pursue the whole range of domestic banking activities and to establish separate departments dealing in ACUs. "Restricted licence" banks (since 1971) have limited access to domestic banking activities, as they are not allowed to operate savings accounts in Singapore dollars or to accept time deposits of less than S\$250,000. Finally, "offshore licence" banks (since 1973) are similarly restricted in DBU activities

with respect to retail banking business. Additionally, loans to non-bank Singapore residents in Singapore dollars are heavily limited (see Bryant 1985, 1985a, 1989; and OECD 1990).⁷

As a matter of fact, since the establishment of full convertibility in 1978, the separation fence has been eroded considerably. On the one hand, residents of Singapore have access to loans and deposits in ACUs in the Asian dollar market. The preferential tax and reserve requirement for banks operating in ACUs render their loans and deposits *a priori* more attractive than Singapore dollar liabilities and assets. In particular, a “roundtripping” of deposits from the domestic banking market to the Asian dollar market could emerge, giving rise to the destabilization of the domestic currency. As we shall see in the next section, Singapore’s domestic stabilization policies have successfully avoided such a scenario over the past decade. On the other hand, its domestic policy success could lead to the opposite case of an increasing shift of Asian dollars into Singapore dollars, with the consequence of an “internationalization” of the Singapore dollar, such as has happened to the deutschmark and the yen.

By characterizing the main feature of impediments to perfect capital mobility, one could conclude that all capital transactions are free with the exception of those by banks which are designated to act in the offshore market and which, in principle, cannot transact in Singapore dollars.

The Singapore Dollar in the World Economy

Since the generalized floating of 1973, two currency blocks have moved away from the U.S. dollar: the German mark and the Japanese yen. In the last two decades, these latter two currencies have appreciated considerably. Since, for the moment, we are concerned only with the nominal exchange rate, the tremendous nominal appreciation of the deutschmark and the yen was an outcome of disciplined monetary policy in the respective countries.

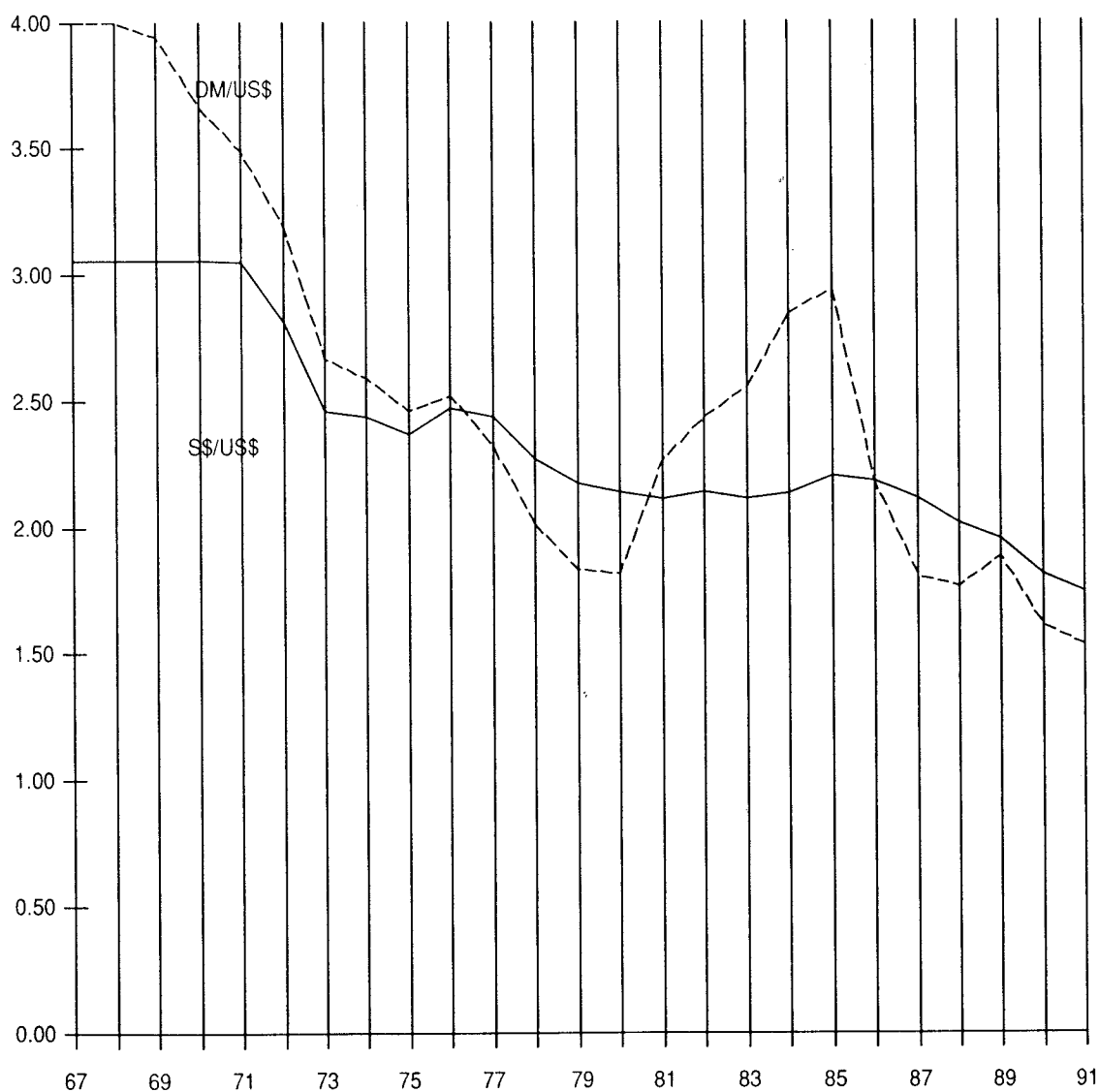
Within this triangle made up of the U.S. dollar, deutschmark and yen it is astonishing to find that the Singapore dollar has followed the same long-run tendencies as the two strongest currencies. Figure 8 illustrates the long-run movement of the deutschmark and the Singapore dollar with respect to the U.S. dollar. In 1976, one deutschmark was roughly equal to one Singapore dollar as it was in June 1991.

There is no doubt that the Monetary Authority of Singapore (MAS) has pursued price stability as the primary target. However, its motivation may have been quite different from those of the other two countries. For Japan and, in particular, for Germany, the pressure on their central banks arose from the electorate who wanted price stability. In the case of Singapore, with its financial liberalization-cum-internationalization as a financial centre since the mid-1970s, the strength of the local currency had to be excellent. Otherwise, the Singapore dollar would have been in danger of being crowded-out by

foreign currencies, for instance, by the U.S. dollar. As a consequence, and according to our interpretation, the price level target was and is mainly an outward-looking strategy to strengthen the local currency with respect to the rest of the world. In contrast to Singapore, the hard currency status of the deutschmark and the yen was "only a by-product" of inward-looking monetary policies. The emphasis was on price stability. Because all other countries were more inflation-prone, the outcome was a strong deutschmark and a strong yen.

Another striking phenomenon concerns the steady long-run appreciation of the Singapore dollar with respect to the U.S. dollar *without* any long-run

FIGURE 8
Exchange Rates of the Singapore Dollar and Deutschmark with
Respect to the U.S. Dollar, 1967-91
(annual averages)



SOURCE: IMF, *International Financial Statistics*, various issues. A decrease in the exchange means an appreciation.

“volatility” (or excessive fluctuations) as it has been the case with the deutschmark (Figure 8) and the yen. In this respect, it seems *a priori* that Singapore has managed its exchange rate regime better than Germany or Japan.

Officially, since 1975, Singapore has chosen a multi-currency peg or target zones for its effective exchange rate. During 1975–80, it succeeded in stabilizing the effective exchange rate by appreciating its currency heavily with respect to the U.S. dollar. From a trade policy viewpoint, this was a wise stand as wide exchange rate fluctuations were avoided with respect to the main trading partners who were, in the Singaporean case, not those of the U.S. currency block. Furthermore, this policy was fully compatible with its policy of capital liberalization and its status as a financial centre. The Singapore dollar had to be stronger than the Asian dollar, which was fulfilled by its appreciation. Figure 6 illustrates the tremendous interest rate differential between the Asian dollar and the Singapore dollar during this specific time period, 1975–80.

However, the whole scenario changed fundamentally when the U.S. dollar rose dramatically in 1981–85. From the financial point of view, there was probably no other alternative than to stabilize the Singapore dollar against the U.S. dollar, otherwise the Singapore dollar would have come under enormous pressure from the Asian dollar. The interest rate differential was also reduced considerably (Figure 6). The damage to the real sector of the Singapore economy came from the enormous real appreciation of its effective exchange rate (Figure 7) which was one of the factors for the recession of 1985. However, in order to maintain its priority as a financial centre, there was probably no choice in using this exchange rate policy as part of its domestic stabilization policy. In this respect, Singapore was not necessarily a show-case of financial liberalization for the sub-period 1981–85 for imitating countries wishing to establish a regional financial centre.

Instruments of Singapore’s Sterilization Policy

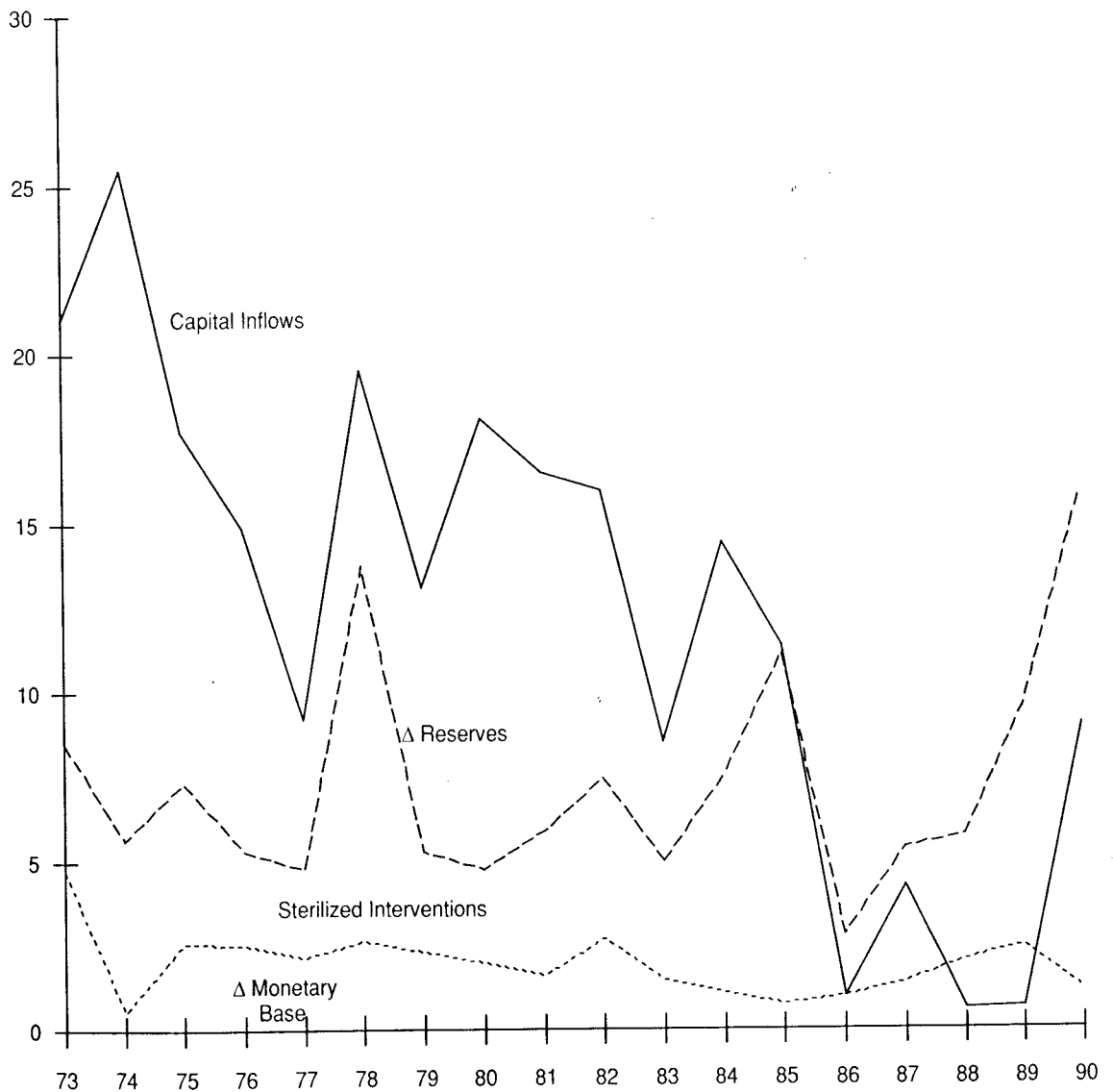
In Singapore, currency issues are guided by the currency board regulations, according to which the monetary base has to be fully backed by international reserves. In 1990, the volume of foreign exchange amounted to S\$48 billion while the monetary base was only one-fourth of this. Consequently, a huge amount of foreign exchange had to be sterilized. This monetary sterilization was pursued in order to achieve a stronger exchange rate against the U.S. dollar, or at least as strong as far as the exceptional period of 1981–85 was concerned.

The peculiar monetary constitution of Singapore is such that its monetary authorities do not utilize sufficient instruments in order to maintain a relatively low growth rate of the monetary base. The volume of refinancing via the discount window is limited. Government bonds for open-market operations

seem to be non-existent in the balance sheet of the MAS. The huge inflows of international reserves could be partially neutralized by a steadily increasing reserve ratio for commercial banks. But even if legal reserves were interest-bearing, the credit allocation by banks would be extremely constrained.

Figure 9 indicates the huge gap between inflows of international reserves and increases in the monetary base. This gap represents precisely the amount of sterilized interventions. Until 1985, the current account was in deficit and the increase in international reserves was provided by net (private) capital

FIGURE 9
Singapore: Net Capital Inflows, Increase in International Reserves and in the Monetary Base, 1973–90
(As percentage of GDP)



SOURCES: Calculated from IMF, *International Financial Statistics*, 1989; and Ministry of Trade and Industry, *Economic Survey of Singapore 1990*.

inflows. Since 1985, net capital inflows have been moderate and the increase in international reserves has been caused by capital inflows and the current account surplus.

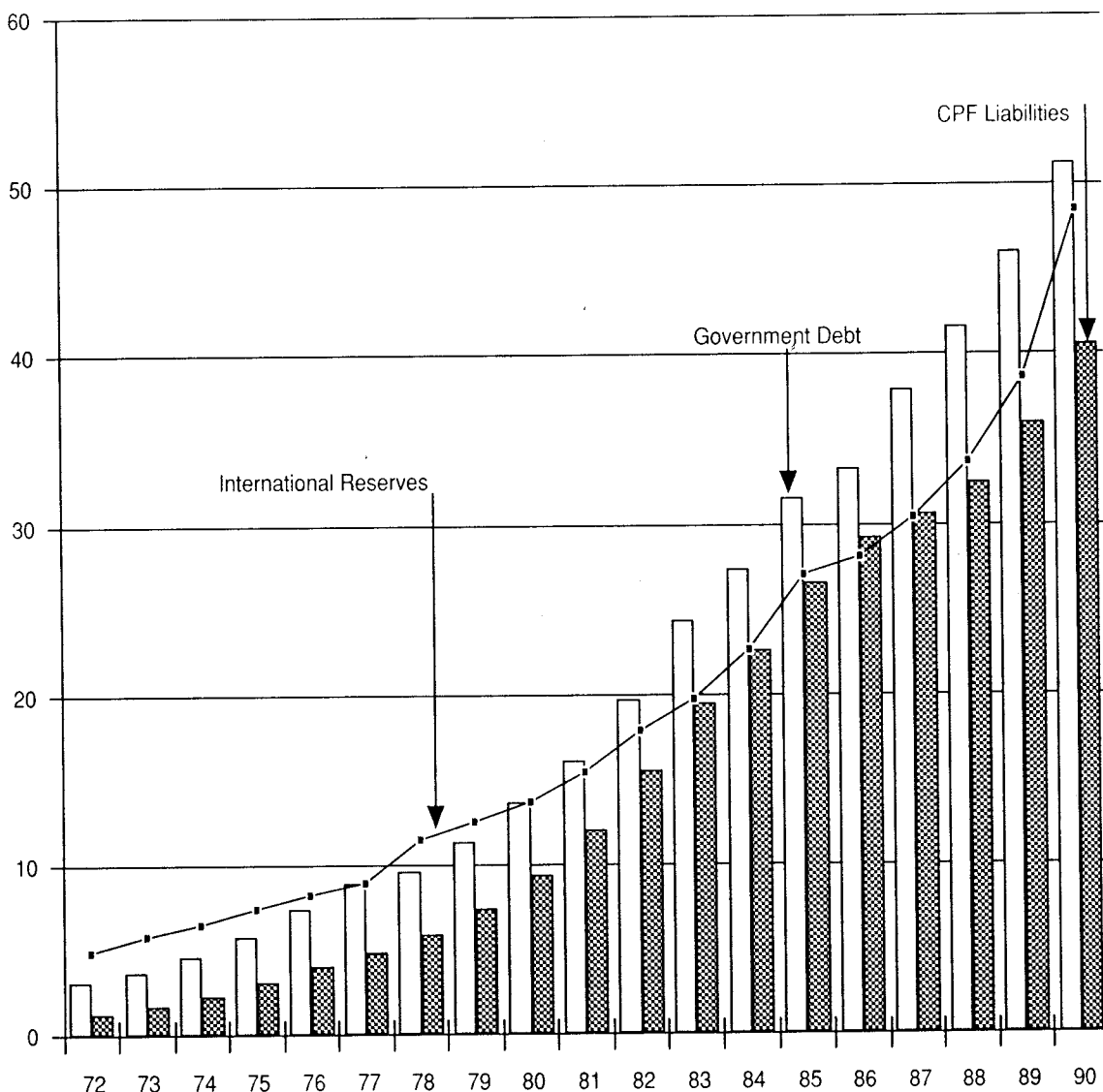
The particular mechanism of the low growth rate of Singapore's monetary base consists of a very specific monetary-fiscal policy mix. On the one hand, the Singapore Government has consistently maintained a policy of a budget surplus (Figure 5) which is not used to offset outstanding government debt, but is deposited at the MAS or at the commercial banks. On the other hand, government debt has risen steadily and considerably, which, at first sight, seems contradictory to the constant government budget surplus.⁸ However, the need for government debt stems mainly from two sources. Firstly, the implementation of a liquidity ratio for commercial banks includes government bonds. Secondly, the investment behaviour of the Central Provident Fund (CPF), a mighty social pension fund, is such that for prudential reasons it holds an over-whelming portfolio in government bonds. Large parts of these government money receipts are channelled to the MAS and to commercial banks in the form of government deposits through which the original growth rate of M1 (as the consequence of large inflows of international reserves) is reduced considerably.

Figure 10 illustrates the evolution of Singapore government debt and CPF liabilities with respect to its members. Compared to international standards, the ratio of government debt to GDP is rather high. In 1990, it amounted to 82 per cent. However, the major part of it is absorbed by the CPF. Since we have touched on the evolution of international reserves, one could argue that CPF liabilities are backed ultimately by international reserves. Since the latter are more or less equal to public debt, the interest income earned by the CPF from its portfolio of government bonds is financed by the government from the interest receipts of its holdings of international reserves (which are mainly invested in long-term assets by the Government of Singapore Investment Corporation).

A considerable part of the funds of the government received as a result of its debt policy has been used as hoardings in the form of government deposits at the MAS and the commercial banks (Figure 11). This tendency was more pronounced in the 1970s than in the 1980s. However, for nearly all years, government deposits were roughly equal to the outstanding quantity of M1 money. Consequently, this debt policy had two aims: to slow down the growth rate of the money supply, and also that of government expenditures.

Given this particular fiscal and debt-management background, the monetary authorities do not engage themselves directly in sterilized intervention policies since all interventions are of the non-sterilized type according to Currency Board directives. However, the MAS can anticipate more or less the volume of liquidity contraction provoked by government budget surpluses and public debt management. Despite these constraints imposed by government actions,

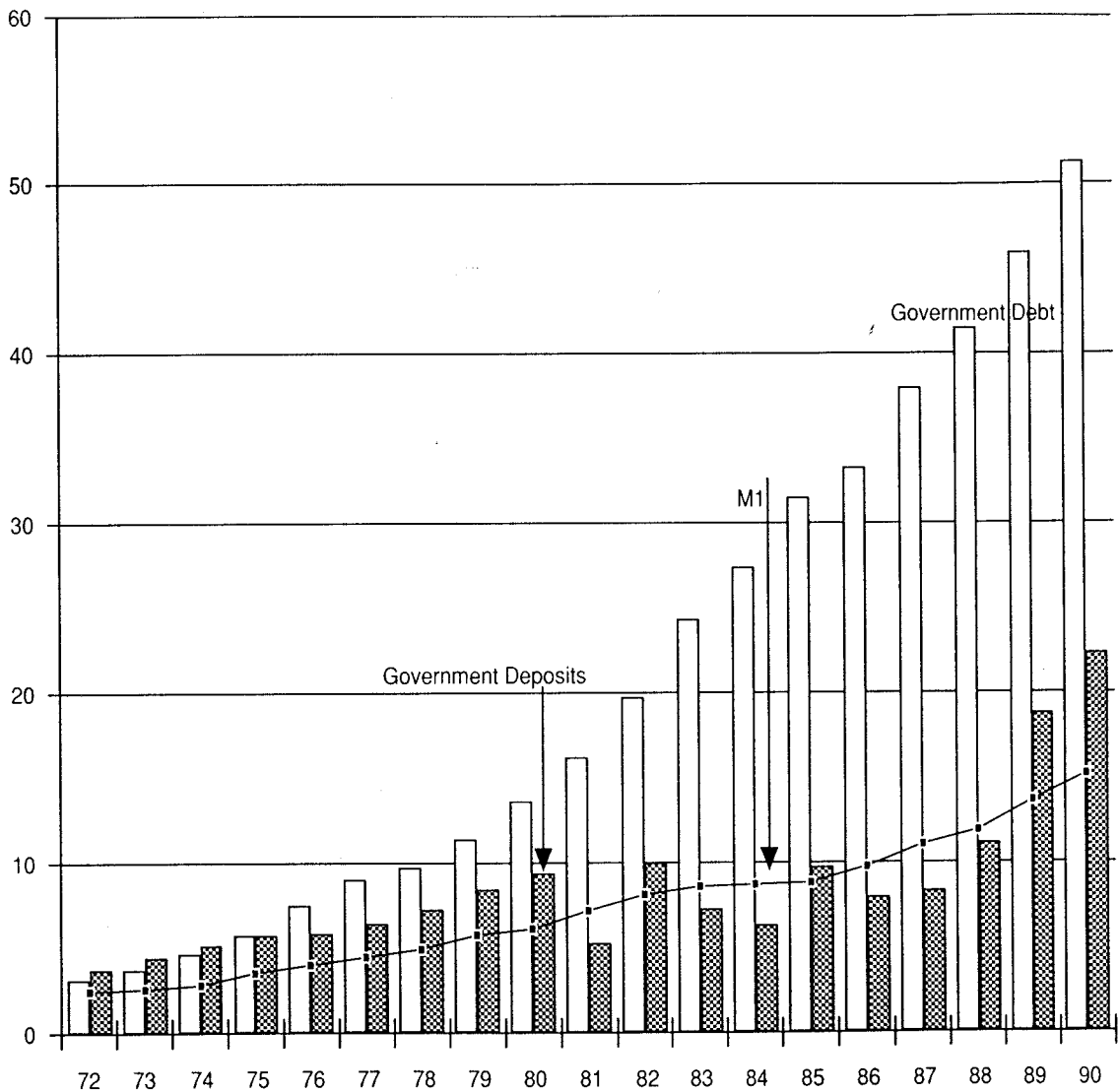
FIGURE 10
Singapore: Government Debt and CPF Liabilities, 1972-90
(In S\$ billions)



SOURCES: IMF, *International Financial Statistics*, 1985; and Ministry of Trade and Industry, *Economic Survey of Singapore 1990*.

the MAS can manipulate the amount of all (non-sterilized) interventions in the foreign exchange market and, by this, increase the net amount of the monetary base. It is finally the growth rate of the latter which determines the nominal appreciation rate of the Singapore dollar (for a given monetary policy of the United States). In this sense, the monetary growth target of the MAS decides the appreciation rate of the Singapore dollar. Whether this policy is called a monetary growth policy, or an exchange rate policy (as defined by the MAS), is a matter of semantics. In a fully or managed floating exchange rate system, the nominal anchor (or the exogenous variable) is the growth rate of the money supply. In a fixed exchange rate system, the nominal anchor is the exchange rate and the money supply the endogenous variable.

FIGURE 11
 Singapore: Government Debt and Government Deposits, 1972–90
 (In S\$ billions)



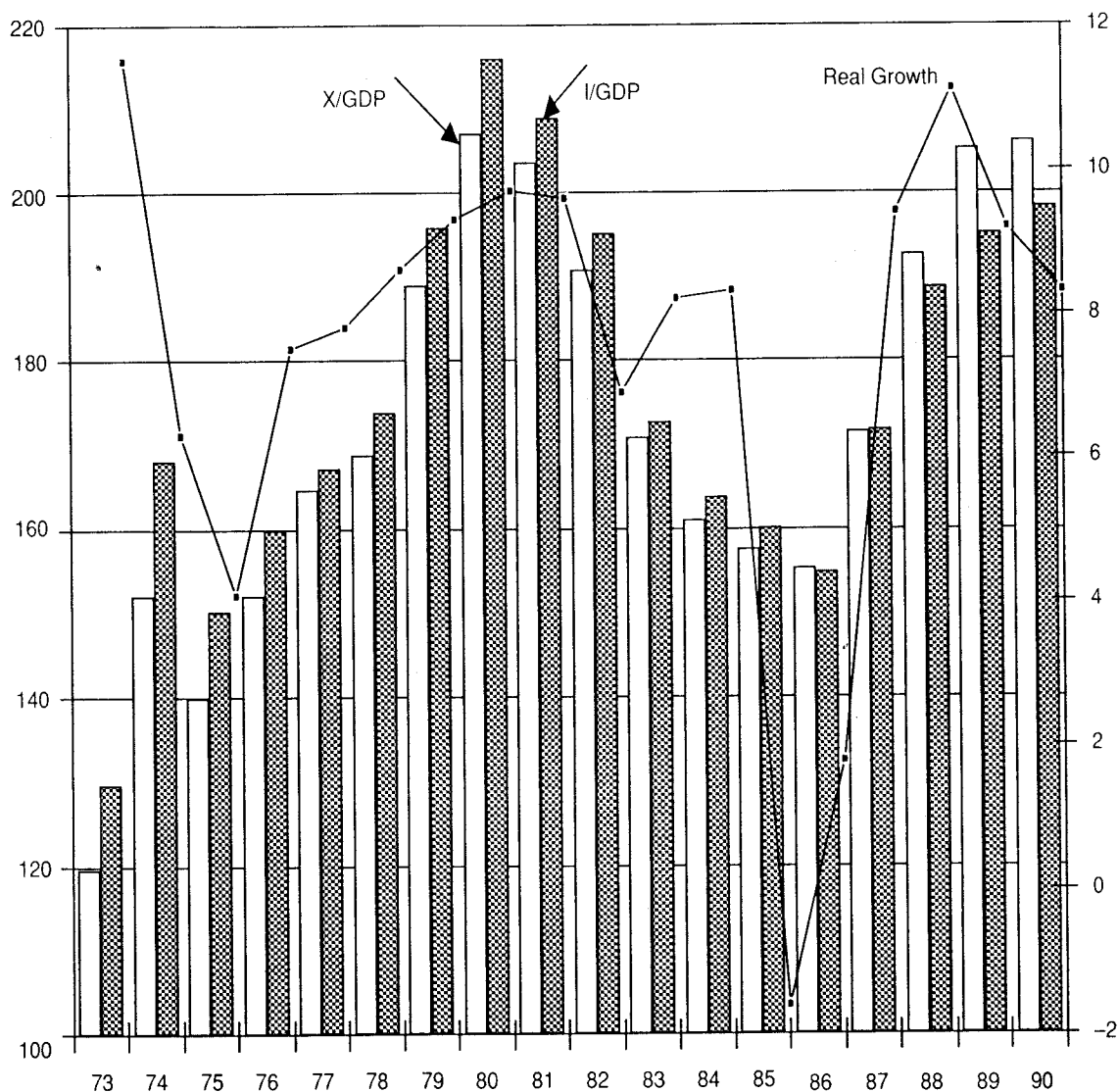
Sources: IMF, *International Financial Statistics*, 1985; and Ministry of Trade and Industry, *Economic Survey of Singapore 1990*.

The Period of Real Appreciation, 1981–85

If one looks at the export and growth performance of the Singapore economy over the long-run, as illustrated by Figure 12, the only gloomy events seem to have occurred in the early to mid-1980s. The export ratio shrank continuously (and, as a corollary, the import ratio as well) and for the first time the GDP growth rate slackened and even became negative in 1985. Singapore's stabilization policies are partly responsible for this.

The 1981–85 period was heavily linked with the stabilization of the Singapore dollar to the U.S. dollar and, by this, with the enormous rise of the U.S. dollar. By looking simply at the figures, the multi-currency peg seems

FIGURE 12
 Singapore: Export Ratio (X/GDP), Import Ratio (I/GDP), and
 GDP Growth, 1973–90
 (Annual averages)



SOURCES: IMF, *International Financial Statistics*, 1989; and Ministry of Trade and Industry, *Economic Survey of Singapore 1990*.

to have been abandoned and replaced by the “peg” (although not officially) to the U.S. dollar. The result was a real appreciation of the Singapore dollar in terms of its effective exchange rate (Figure 7). Whether the U.S. dollar was “misaligned” (overvalued) during that time is still a heavily debated issue in the literature. Some authors describe it as an equilibrium phenomenon by emphasizing the real exchange rate impact of the huge U.S. budget deficit (Claassen 1990), while others consider it as a “fundamental disequilibrium” because of the gigantic U.S. current account deficits (see, for example, Williamson 1990). Whatever the interpretation of the U.S. dollar rise in 1981–85, the Singapore dollar was definitely misaligned.

It has been mentioned that Singapore's policy choice of a U.S. dollar peg between 1981 and 1985 was mostly motivated by the desire to maintain a strong domestic currency *vis-à-vis* the U.S. dollar so that Singapore could be an international financial centre. Whether Singapore should have followed a multi-currency peg to avoid the deceleration of growth in the early 1980s is difficult to assess. On hindsight, the alternative would have been the maintenance of a multi-currency peg which could have avoided the appreciation of the real effective exchange rate, but which would have produced a nominal and real depreciation of the Singapore dollar *vis-à-vis* the U.S. dollar, thus endangering the attractiveness of the Singapore dollar compared to the U.S. dollar.

However, there was one definite policy failure which happened curiously at about the same time: that of the deliberate policy of wage increases. Since 1972, a wage guideline body, called the National Wages Council (NWC), had been set up, composed of employers, employees, and government officials. At the very beginning it was conceived to contain the upsurge of strike activity. During the late 1970s when growth rates were at peak levels (see Figure 12), real wage increases were kept below real productivity growth (see Lim Chong Yah 1988, pp. 203–8; and Grubel 1989, pp. 390–94). Public dissatisfaction with real-wage growth became widespread in the early 1980s during the economic boom. The NWC recommended considerable wage increases (amounting to 48.7 per cent) which were effectively granted in 1981–84. They exceeded by far productivity gains.

One argument in favour of “excessive” wage increases was that the economy was caught in a “low-wage trap” which would discourage entrepreneurs from introducing more labour-saving and productivity-raising capital and technology. However, according to Grubel (1989, p. 394), it was precisely the income policy of the NWC during the late 1970s which had created the low-wage gap. “After 1977 wages were kept too low by the NWC recommendation. In the absence of the NWC wage guide-lines, domestic workers’ wages would have risen more quickly, the substitution of capital for labour would have gone on continuously, labour productivity would have grown correspondingly, and the pressure to allow foreign workers into the country (as a consequence of an excess demand in the domestic labour market) would have been smaller. There would have been no low-wage gap and no subsequent experimentation with extremely high real-wage increases.”

From the mid-1980s the U.S. dollar peg for the Singapore currency was removed. The nominal and real effective exchange rate declined. By the late 1980s, the real effective exchange rate (see Figure 7) had returned to its pre-1980 level.

4

Malaysia's Semi-Dutch Disease

Steps to Financial Liberalization

While foreign banks dominated the Malaysian banking system at independence and even in 1973 when Malaysia withdrew from its currency interchangeability agreements with Singapore and Brunei, the situation changed after 1973, especially during the 1980s, towards the dominance of the domestic banks over foreign banks. Exchange controls for capital transactions were loosened in 1973 and 1978 and capital and profits could be freely repatriated abroad. No restrictions were imposed on the remittance of funds by residents provided that they served the purpose of direct or portfolio investment. Similarly, inflows of foreign funds for the purpose of direct or portfolio investment in Malaysia were freely allowed. However, borrowing by non-residents from domestic sources had to be approved by the Central Bank.

In the late 1970s, Singapore abolished fully the interest rate cartel by banks. Kuala Lumpur followed similar lines. Previously, the Central Bank had determined the interest rates on bank deposits and the (prime) lending rates for bank credit in consultation with the banks. After October 1978, free competition was allowed in the determination of interest rates for deposits and loans.⁹ In November 1983, a new system for lending rates became necessary because it became clear that rates were “sticky” when the cost of funds declined. Commercial banks were required to anchor their lending rates to the cost of funds. In October 1985, deposit rates of the commercial banks were pegged to the deposit rates of the two leading domestic banks.

The still existing exchange control measures have been dictated by two considerations, according to the report of Bank Negara Malaysia (1989, p. 362), namely, “to ensure that exports proceeds are received promptly in Malaysia, ... and to encourage the use of the nation’s financial resources for productive purposes”. Authority for approving foreign exchange transactions is delegated to the commercial banks. Exports proceeds must be repatriated within a maximum period of six months. Residents are permitted to transfer their funds abroad freely, but they cannot borrow funds for disbursing to non-

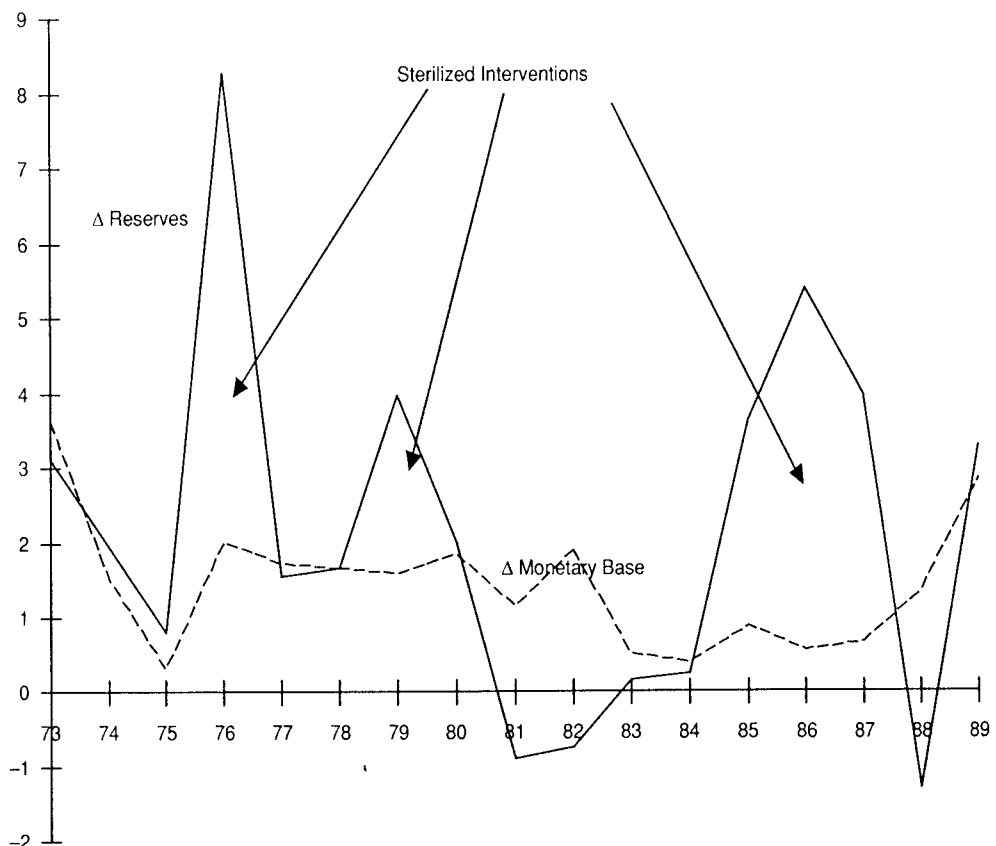
residents without prior permission. Borrowing from abroad in foreign currency also requires permission (when the amount exceeds M\$1 million). Borrowing from abroad in ringgit is generally excluded.

Instruments of Malaysia's Sterilization Policy

Malaysia was less successful than Singapore in sterilizing reserve inflows provoked by net capital inflows as a consequence of financial liberalization. The reason for this relative "mismanagement" lies in the lack of domestic monetary instruments and, compared to Singapore, in the lack of "complicity" with the fiscal authorities who did not have large government surpluses. It should be noted that insufficient sterilization operations have, in principle, "only" nominal effects on inflation rates compared to Singapore (which happened during the 1980s according to Figure 3) and on nominal depreciation (Figure 1).

Except for the years 1981–82 and 1988, the balance of payments was always in surplus (defined as an increase in international reserves held by the Central Bank), as indicated by Figure 13. During the 1970s, the most important

FIGURE 13
Malaysia: Sterilized Interventions, 1973–89
(As percentage of GDP)

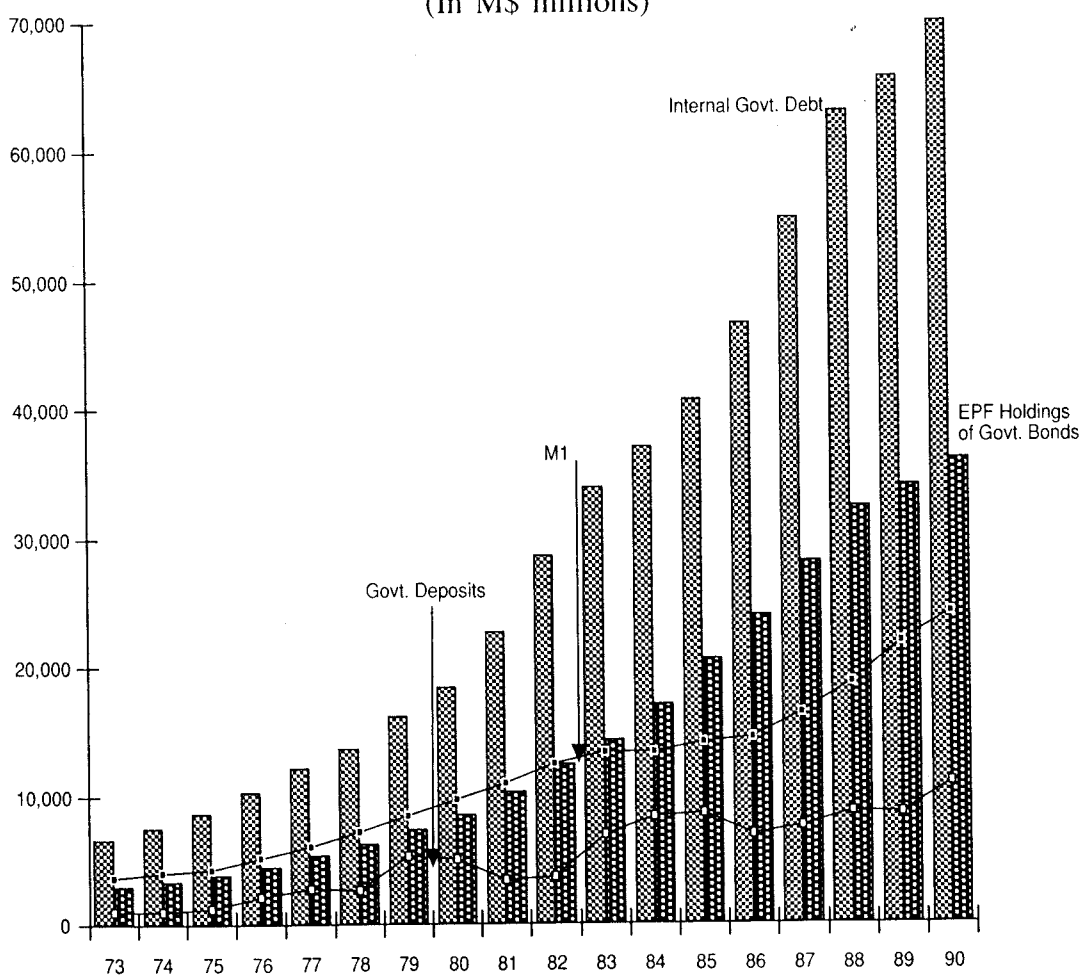


SOURCE: Calculated from IMF, *International Financial Statistics*, 1989.

reserve inflows took place in 1976 and 1979, but they were not dominated by capital inflows, but by a current account surplus. On the contrary, during the 1980s, peaks in reserve accumulation (1985–87 and 1989–90) were provided by net capital inflows. For all other years, capital flows were more of the accommodating type. Consequently, the openness of the capital account was only fully present in the 1980s and their disturbing influence on the conduct of disciplined monetary policy emerged around 1986 and 1989.

Malaysia managed more or less successfully to shelter its monetary base from the heavy reserve inflows in 1976, 1979 and 1985–87, but in 1989 it permitted fully the monetization of the balance of payments surplus, giving rise to an increase of 24 per cent in its monetary base (Figure 13). In the 1970s, the technique of sterilization consisted mainly of open-market operations in government bonds and of accumulating government deposits with the Central Bank (Figure 14).

FIGURE 14
Malaysia: Internal Government Debt, EPF Holdings of Government Bonds, and Government Deposits, 1973–90
 (In M\$ millions)



SOURCES: IMF, *International Financial Statistics, Annual Report 1989*; and Bank Negara Malaysia, *Annual Report*, various issues.

Since the mid-1980s, these instruments have been virtually exhausted. While the stock of government bonds held by the Central Bank was still M\$4.8 billion in 1984, it contracted to M\$1.5 billion in 1989. Because of permanent government budget deficits, the fiscal authorities had to limit liquidity with the monetary authorities. Other rescue measures had to be adopted. Thus, in 1987, Bank Negara Malaysia began to borrow from the market (Bank Negara Malaysia Certificates) to the amount of M\$0.8 billion. In 1989, the legal reserve ratio of the banking system was increased several times to 3.5 per cent in May 1989 and 6.5 per cent in January 1990. While the increase in the monetary base amounted to 24 per cent, the volume of currency outside the banking system rose only by 10 per cent.

Malaysia has a pension fund (Employees Provident Fund or EPF) similar to Singapore's Central Provident Fund (CPF). But in absolute figures it is less important, namely, M\$46.8 billion in 1990 compared to S\$40.6 billion for Singapore. As a matter of fact, in comparison to the accumulated compulsory savings per capita, it is roughly only one-tenth of the corresponding volume in Singapore. The investment principle of the EPF is the same as that of the CPF. At least 80 per cent of its assets are held in government bonds. While the overwhelming part of Singapore's government bonds are channelled to the CPF (see Figure 10), only half of Malaysia's (internal) public debt is held by the EPF (Figure 14). In both countries, part of the funds acquired by the government from the EPF or CPF are hoarded with their respective Central Bank and commercial banks. However, the manoeuvrability of hoarding is by far more limited in the Malaysian case, compared to the Singaporean case. In the late 1980s, Malaysian government deposits were about one-third of M1 (Figure 14) while they were above M1 in Singapore. This comparison shows the limited "complicity" that the Malaysian fiscal authorities can exercise with respect to their monetary authority.¹⁰

The Period of Real Appreciation, 1982–85

During this period, there were two similar factors in Malaysia and Singapore influencing the exchange rate evolution. The first is, as we have already emphasized, that Singapore pegged its currency to the U.S. dollar. Malaysia followed similar lines (Figure 1). Secondly, the Malaysian currency suffered by a stronger real appreciation than that of Singapore (Figure 7).

As already mentioned earlier, the reason for the U.S. dollar peg can be found in Malaysia's common monetary history with Singapore. After it abandoned the Singapore dollar as its nominal anchor on a 1:1 basis in 1973, it stuck to it in a less stringent way throughout the 1970s and followed a target zone of a maximum 10 per cent depreciation during the early 1980s. Since at that time Singapore had pegged its currency to the U.S. dollar, Malaysia indirectly followed the same policy. Because the U.S. dollar rose with respect

to all other currencies in the world economy (except those which had been pegged to the U.S. dollar), the Singapore and Malaysian dollars went through a four-year phase of real effective appreciation.¹¹

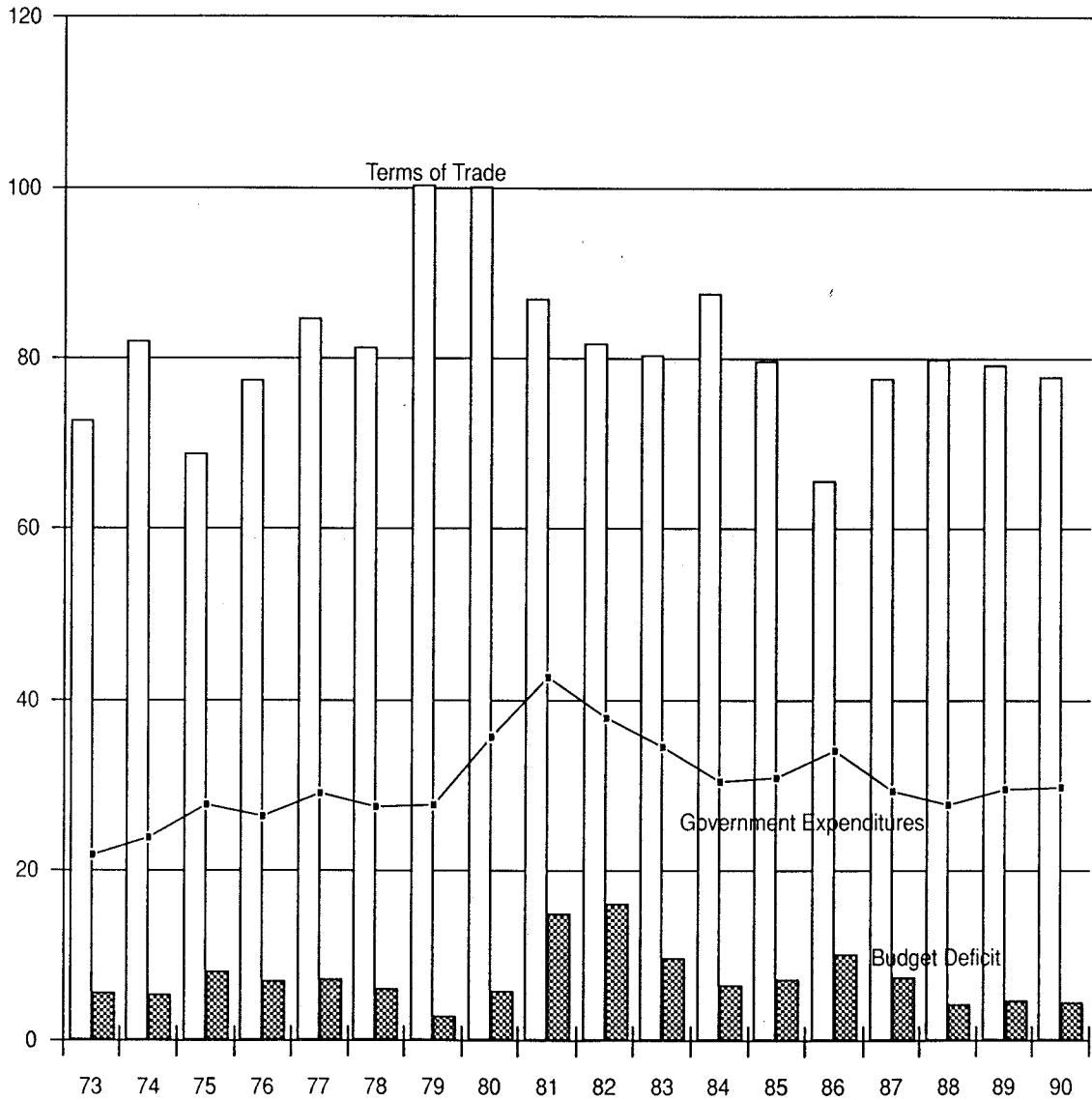
While our interpretation for the real appreciation of the Singaporean currency was that of misalignment, not from a financial but from a commercial point of view, for Malaysia we are inclined to a completely different explanation which tends to interpret the Malaysian exchange rate during 1982–85 rather (and maybe only partly) as an equilibrium phenomenon (contrary to that of Singapore). The argument is similar to that of the Dutch disease to which many other developing countries had succumbed, earlier or at the same time.

Generally, the Dutch disease phenomenon begins with a favourable external shock. In the case of Malaysia, it happened in 1979/80 in the form of an improvement in the terms of trade as a consequence of the boom in world prices of primary commodities (Figure 15). Export and government revenues therefore increased. As is usual, the government could hardly resist spending the increase in revenues. Government expenditures rose in 1979 from 28 per cent of GDP to 43 per cent in 1981 (Figure 15). Later, they declined gradually to 30 per cent from 1984 onwards. While in 1980 the fiscal expansion could still be financed by extra export revenues, in the following two years budget deficits rose to 15 per cent and 16 per cent of GDP, respectively. The years 1982 and 1983 were also record years in Malaysian history of current account deficits, amounting to 13 per cent and 12 per cent of GDP respectively. Despite the outbreak of the Mexican debt crisis in August 1982, they could still be financed by foreign capital inflows.

In various issues of the *Annual Report* of Bank Negara Malaysia, the fiscal expansion of the early 1980s is often described as a deliberate counter-cyclical fiscal policy for counterbalancing the slackness of the world economy at that time. However, we are inclined to think that it would have happened even in a more favourable scenario of the world economy. The rise in government expenditure from 28 per cent to 43 per cent of GDP within two years (Figure 15) was not a “cyclical” but a “structural” phenomenon. The extra public expenditures were mainly spent on public investment. Several billion dollars were used to establish the car (Proton Saga) project based on Japanese technology and to purchase heavy industries such as integrated steel mills, petrochemical complexes and other plants. As part of these expenditures were also used for non-tradable goods like construction and transport, their prices necessarily rose in relation to tradable goods so that the real appreciation of the Malaysian dollar during that time could be considered as an equilibrium phenomenon, at least to a certain extent.

The real appreciation implied a downward movement in Malaysia's international competitiveness. Add to this the rise in wage rates of 45 per cent between 1980 and 1984 (Fong Chan Onn 1989, p. 82), and we see the two main factors for the recession of 1985, as in the Singaporean case. However,

FIGURE 15
 Malaysia: Terms of Trade (1980), Government Expenditures,
 and Budget Deficit, 1973-90
 (As percentage of GDP)



SOURCES: IMF, *International Financial Statistics*, various issues; and Bank Negara Malaysia, *Annual Report*, various issues.

the reason for the real appreciation of the Malaysian currency and for the subsequent recession was not financial liberalization but the deliberate expansionary fiscal policy on non-tradables, which was financed mainly by accommodating capital inflows.

5

Conclusion: Similarities and Differences of the Singaporean and Malaysian Experiment

The choice of Singapore and Malaysia for the present country study on financial liberalization had three motivations. Firstly, Malaysia is a rather unknown case for financial liberalization while Singapore has the additional characteristic of financial internationalization. Secondly, both countries had a common political, economic *and* monetary history which influenced Malaysia's monetary and exchange rate policies in the late 1970s and the early 1980s. Thirdly, both countries were an "island of recession" in 1985 when the industrialized Asian and other developing countries passed through an economic boom.¹²

The year 1973 was one of monetary disintegration as the industrialized world opted for floating exchange rates as for the Malaysian-Singaporean currency area. During the first half of the 1980s, both countries more or less pegged their currencies to the U.S. dollar and thus shared real effective appreciation with the U.S. currency. Although in each country heavy capital inflows took place to which the real appreciation of their currencies could be ascribed, the ultimate causes must be found in their respective domestic stabilization policies.

Singapore, which was developing towards an international financial centre, had to assure the "quality" of its domestic currency in order to overcome the regulatory and fiscal advantages of Asian dollar deposits. Thus, a depreciation of the Singapore dollar with respect to the U.S. dollar was excluded. Consequently, it glided into a real appreciation despite its traditional restrictive fiscal policy stance. The Singapore dollar became "misaligned" since financial priorities overruled commercial considerations. Malaysia's real effective appreciation was, however, the outcome of its huge government expenditures when it fell into the trap of the Dutch disease after the price commodity boom of 1979/80.

Both economies "struggled" with their monetary policy to neutralize the impact of capital flows and of the subsequent increase in international reserves on their monetary base. Singapore handled it in a more favourable way because of its permanent public surpluses. Malaysia was less fortunate as it had permanent budget deficits. Both suffered as a result of the lack of sufficient

domestic financial assets for effective open-market operations to shelter from large increases in international reserves, but that is again a legacy from the Currency Board tradition.

Notes

1. Another policy instrument would be to allow labour migration from the outside world to be channelled to the production of non-tradables, as has been prudently practised by the Singaporean and Malaysian authorities.
2. The Brunei Currency Board terminated the interchangeability of the Bruneian and Malaysian currency notes and coins on 22 May 1973.
3. The manufacturing sector accounted for 27 per cent of GDP in 1990 while the agricultural sector was responsible for 19 per cent. It should be noted that a NIC is defined *inter alia* as an economy whose manufacturing sector accounts for at least one-third of GDP. See Fong Chan Onn (1989), p. 82.
4. Comparisons of real GDP levels between countries are dubious if one takes into account the divergent price levels for non-tradable goods of countries at different levels of development. One hundred U.S. dollars spent on non-tradables in Malaysia would have a higher purchasing power than the same amount spent on non-tradables in Singapore. In this particular aspect, Summers and Heston (1991, p. 353) calculated that real GDP per capita for Malaysia in 1988 was US\$4,272, and for Singapore it was US\$10,417 (in 1985 prices). Thus, the difference in real income between the two countries is more moderate according to the Summers-Heston approach.
5. Glick and Hutchison (1990, p. 40) chose as representative interest rates the ninety-day Treasury bill rate of the U.S. dollar, the ninety-day money market rate of Singapore, and the overnight interbank rate of Malaysia. "Commercial paper rates are preferable to other interest series in Malaysia. Treasury bills are held mainly to satisfy minimum liquidity requirements and other portfolio restrictions imposed on commercial banks and other financial institutions and are sold at below market yields. Similarly, interest rates on call loans to discount houses are influenced by their use in satisfying minimum liquidity regulations. Furthermore, the corporate bond market is extremely thin and a consistent interest rate series is not available for the negotiable CDs introduced in 1978."
6. As far as bank regulations are concerned, since 1972 there have neither been reserve requirements nor the maintenance of a liquidity ratio for ACUs (Asian currency units) in contrast to DBUs (domestic banking units).

As far as tax concessions are concerned, income from ACU and other offshore activities are taxed at a rate of 10 per cent while income from DBU activities are

- taxed at 40 per cent (and, more recently, at 31 per cent). Additionally, non-resident depositors in ACUs are not subject to the withholding tax on interest.
7. In August 1990, among the existing 135 banks, 35 had full licences, 14 had restricted licences, and 86 were offshore banks.
 8. The external government debt decreased from S\$1 billion in 1978 to S\$70 million in 1990. See Ministry of Trade and Industry, *Economic Survey of Singapore 1990*.
 9. However, credit selection at favoured lending rates had been introduced in October 1976 and are still maintained for special groups or priority sectors (namely, the *bumiputera* community, small borrowers, and for the purchase of houses by individuals).
 10. In 1990, Malaysia's external public debt was roughly equal to its international reserves. In the case of Singapore where external public debt was practically reduced to zero, the internal public debt was roughly equal to its international reserves.
 11. However, the motivation for the Malaysian–U.S. dollar peg could also be interpreted differently. While Singapore acted as an international financial centre in order to avoid a mistrust of its national currency with respect to the competitive U.S. currency, Malaysia's exchange rate policy stance could be understood from its *commercial* position as an exporter of primary commodities. Since primary commodities are priced on the world market in U.S. dollars, a stable exchange rate with respect to the U.S. dollar would have a stabilizing effect on the domestic price of primary commodities. However, one could put forward the counter-argument that it was in Malaysia's fiscal interest to allow the domestic price of primary commodities to rise by depreciating the Malaysian dollar, as it was the case with most other currencies.
 12. The exception was Fiji, but it passed through a permanent recession during the 1980s.

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Full convertibility on the capital account brings with it the danger of real appreciation of the domestic currency as a consequence of additional net capital imports. The real appreciation, in its turn, disfavours exports. At the end of the 1970s, Singapore and Malaysia had liberalized almost completely their international capital flows. Both countries experienced approximately the same growth and inflation rate. During the first half of the 1980s, both currencies went through a considerable appreciation of their real effective exchange rates, since at that particular period both pegged their currencies to the U.S. dollar. In 1985, both were an "island of recession" when industrialized Asian and other developing countries passed through an economic boom.

The recession was an outcome of their domestic stabilization policies. Singapore, which developed towards an international financial centre had to assure the "quality" of its domestic currency in order to overcome the regulatory and fiscal advantages of Asian dollar deposits. The Singapore dollar became misaligned since financial priorities overruled commercial considerations. In contrast, Malaysia's real effective appreciation was the outcome of its huge government expenditures since it fell into the trap of the Dutch disease after the commodity price boom of 1979/80.

