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### **The Macroeconomics of Capital Inflows: Some Recent Experiences.**

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**THE MACROECONOMICS OF  
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SOME RECENT EXPERIENCES \***

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## ABSTRACT

In recent years capital inflows to some developing countries have increased sharply. In fact the return of capital inflows so soon after the debt crisis has surprised many observers. This increase in capital inflows has provided much needed financing to increase the use of existing capacity and to increase investment levels. However, capital inflows can have their own problems. They can increase inflation and result in a real exchange rate appreciation. In this paper we review the macroeconomic repercussions of an increase in capital inflows. In general, it will result in a real exchange rate appreciation, a larger non-tradable sector, a smaller tradable sector, and a larger trade deficit. In a fixed exchange rate regime it will result also in an acceleration of inflation and in an accumulation of foreign reserves. We then discuss if there is a role for government intervention to minimize the effects and the size of the real exchange rate appreciation. The paper discusses the different mechanisms that can be used to limit the real exchange rate appreciation and the difference in this respect between portfolio investment and external debt. Finally, the paper reviews and compares the recent experiences of four Latin American countries and five ASEAN countries, and discusses how they have dealt with the macroeconomic side effects of capital inflows.

## 1. INTRODUCTION

The debt crisis of 1982 was precipitated by a sudden reduction in capital inflows at a time when the highly indebted developing countries were facing a slow down of the world economy, a large increase in international interest rates, and a sharp loss in terms of trade. Weak economic policies and institutions exacerbated the effects of these shocks. Under these circumstances, the sharp cut-off of capital inflows forced a quick and sharp increase in the size of the net external transfer. In the short run, the increase in the external transfer took the form of a sharp reduction of imports with negative effects on economic activity, investment rates and future growth.

After the initial shock, most highly indebted countries occupied the rest of the decade adjusting their policies and institutions to the new scenario of a much more restricted availability of external financing. This adjustment process was intended to restore a sustainable balance of payments situation, while creating the basis for sustainable growth. Some countries had even the expectation of an eventual return to international capital markets, but this time to reduce their exposure to external shocks they wanted to rely less on debt and more on direct foreign investment and portfolio investment.

In the initial years following the debt crisis, most of the lending to developing countries took the form of official lending from International Financial Institutions. This lending supported reforms of policies and institutions to create the appropriate conditions to reestablish the macroeconomic balances and to lay the foundations for sustainable growth. In recent years private capital inflows towards countries that have advanced in their adjustment efforts have increased sharply. These inflows have taken the form of a combination of commercial lending from banks and suppliers, direct foreign investment, and portfolio capital. In fact, total private capital flows to developing countries are estimated to have increased from an average value of 67 billion dollars in the period 1982-88 to 95.2 billion dollars for the period 1989-92. Within the latter period they reached 130.4 billion dollars in 1992<sup>1</sup>. The Portfolio Investment component increased from 6.2 billion dollars in 1987 to 37.2 billion dollars in 1992, and reached 26.9 billion dollars in the first half of 1993 alone<sup>2</sup>. The direct foreign investment (DFI) component of capital flows increased from an average of 13.3 billion dollars in the period 1982-88 to 39.3 billion dollars in 1992. There has been much interest in attracting DFI for its positive effect on access to new technologies and markets, as well as for the pro-cyclical character of dividend payments. For the case of portfolio investment the interest has arisen from the possibility of providing risk capital financing for the expansion of the private sector. The repatriation of the capital that had flown out of these countries in the early 1980s have financed part of these capital inflows.

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<sup>1</sup> *World Economic Outlook*, IMF, October 1993, Table 15.

<sup>2</sup> Sudarshan Gooptu (1993) and John Williamson (1993).

The increase in DFI has been encouraged through a combination of the removal of restrictions, credible tax rules, and macroeconomic stability. A host of structural reforms implemented by developing countries have encouraged DFI by improving the business environment and decreasing the risk associated to this type of investment.

The increase in capital inflows that comes only a few years after the debt crisis is beneficial for the host countries because it relaxes the severe financial constraint that they faced during much of the 1980s. Also this new spell of capital inflows is different from the capital inflows that occurred in the late 1970's and early 1980's, because now the resources are going to the private sector and they are not in the form of mostly debt instruments.

With the debt crisis so close in time, it appears paradoxical that in the early 1990s there could be a problem of receiving "too much" capital inflows. Nevertheless, the increase in capital inflows to developing countries is a matter of concern because of the macroeconomic and other related effects that capital inflows could have on the recipient countries. Indeed, capital inflows could potentially be a problem if they are of a short term nature and highly volatile. This type of inflows, also called *hot money*, is usually attracted by some imperfections or policy mistakes that create a large gap between domestic and expected devaluation augmented foreign interest rates. This type of inflows could create undue instability in inflation rates and in the nominal and real exchange rates. If there are imperfections in capital markets and hysteresis type of effects in the export and import competing sectors, or real bankruptcy and reallocation costs, then these fluctuations could have important economic costs.

Not surprisingly, in many countries the economic authorities have tried to discourage *hot money* by lifting the imperfections that encourage it in the first place, or by controlling the side effects of capital inflows through different types of government intervention. Capital inflows of a more cyclical variety could also create cyclical fluctuations in the real exchange rate. The latter could create difficulties to the tradable sectors and to the overall macroeconomic management. This type of flows creates troubles similar to the traditional Dutch disease problem of a mineral discovery.

In this paper we first review the macroeconomic and other related effects of capital inflows. Second, we try to clarify the paradox mentioned above and discuss the reasons why a country could be concerned about receiving "too much" capital inflows. Third, we analyze the different economic policies that countries can use to deal with the side effects of capital inflows. Fourth, we study the actual way in which nine different developing countries, four Latin American and five ASEAN, have dealt with capital inflows in recent years. Finally, by comparing the actual experiences of these countries, we draw some conclusions on how to manage capital inflows in order to minimize some of their side effects.

## 2. THE MACROECONOMIC AND OTHER RELATED EFFECTS OF CAPITAL INFLOWS

### 2.1 The Macroeconomics of Capital Inflows

Capital inflows, by permitting a relaxation of the liquidity constraint facing recipient countries, may reduce domestic interest rates, and result in an increase in the level of domestic expenditures. The increase in private and public expenditures put in motion an economic adjustment process. For the purpose of the analysis suppose that the country produces and consumes three goods: an exportable good, an importable good, and a non-tradable good. Assuming that the terms of trade between the importable and the exportable goods are fixed, these two goods can be grouped into just one good that will be called tradable. Following an expenditure increase (made possible by an inflow of capital) and given a pattern of demand for this two types of goods, part of the increase in expenditures will go into tradable goods and part into non-tradable goods. The increase in expenditures on tradable goods will increase the size of the trade deficit and in this way will help to accommodate directly the capital inflow. If this were all, the adjustment would be easy. The only concern about capital inflows would be on the sustainability of the inflow and on the solvency of the country.

However, this is not all. The increase in the demand for non-tradable goods creates, at the existing relative price between tradable and non-tradable goods, an excess demand for non-tradable. The excess demand for non-tradable goods will result --independently of the exchange rate regime-- in an increase in the relative price of non-tradable goods; that is, an appreciation of the real exchange rate. The real exchange rate appreciation will, in turn, create incentives for the reallocation of factors from the tradable to the non-tradable sector, and for a switching of expenditures from non-tradable towards tradable goods. The final result is a real appreciation, a larger non-tradable sector, a smaller tradable sector, and a larger trade balance deficit. The real appreciation will occur either through an appreciation of the nominal exchange rate (under a floating exchange rate system), or through an increase in the nominal price of the non-tradable good (in a fixed or preannounced exchange rate system)<sup>3</sup>.

The real appreciation is the price mechanism at work. The increase in domestic expenditures, resulting from the initial increase in capital inflows, put the whole process in motion, and together with the real appreciation and the demand and supply characteristics for both types of goods, determines the final size of the trade balance deficit. This is the standard macroeconomics of the transfer problem. The same sort of process will be set in motion by an increase in short term borrowing, an increase in official capital, or an increase in direct foreign investment. However, the latter two types of capital inflows are much less reversible and therefore

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<sup>3</sup> The dynamics of an economy with a floating exchange rate system is different from the one explained in this section, but the final result of a real exchange rate appreciation remains. See Dornbusch (1976) and Calvo and Rodriguez (1977).

the real appreciation will be much less volatile. But still the economic authorities may want to avoid a cyclical appreciation of the real exchange rate. Also a similar adjustment process would result from a mineral discovery or a permanent increase in terms of trade. The only difference is that in the latter case the export good that benefits from the increase in price will end up with an increase in production, while the rest of the tradable sector will lose resources to the expanding export good and to the non-tradable sector. This is the well known "Dutch disease problem" so well analyzed by Corden and Neary (1982) and Corden (1984).

## 2.2 Other Side Effects of Capital Inflows

There are two other effects related to an increase in capital inflows. First, the larger amount of capital brought into the country will increase the volume of funds being intermediated through the domestic capital markets, and will cause an expansion in the volume of domestic financial assets and liabilities. The size of the inflow may also depend on the credit expansion capacity of the financial system. If financial regulation and supervision is weak, this could be the source of a potential problem. Second, in a fixed or predetermined exchange rate system monetary policy will become less effective.

### 3. WHY SHOULD A GOVERNMENT BE CONCERNED ABOUT AN INCREASE IN CAPITAL INFLOWS?

#### 3.1 The General Case

There are several reasons why recipient countries could be concerned about a large increase in capital inflows.

First, for those countries with a weak supervision of their financial system the increase in capital inflows could unleash a large expansion in domestic lending, exacerbating moral hazard problems and ultimately resulting in a financial bubble that could eventually lead to a financial crisis.

Second, in countries that have recently reformed their trade policies increasing their integration to the world economy, the real exchange rate appreciation associated to the transfer would erode the profitability of the trade oriented sectors, putting in jeopardy the undergoing trade reform. Reforming the trade regime to reduce the discrimination against exports entails tariff reforms, and an initial real depreciation accompanied from there on by a fairly stable real exchange rate adjusted for fundamentals (Thomas et. al. 1990). For countries that have initiated a trade reform, the real appreciation that goes with the higher expenditures could work at cross purposes with the liberalization of trade, and could eventually result in a loss of credibility on the sustainability of the reforms. The main concern here is on cyclical capital inflows that would result on a real exchange rate misalignment with important real costs. These costs will persist even after the reversal of the initial misalignment.

Third, in countries that are pursuing a stabilization program with a fixed or preannounced nominal exchange rate as an anchor for domestic prices, the authorities could be concerned about the monetization effects of large capital inflows. The expansion in high powered money caused by the larger capital inflows will have inflationary effects through the price of the non-tradable goods.

Fourth, if capital inflows are volatile and/or of a temporary variety, the reversibility of flows can have real adjustment costs that occur because of resource reallocation costs, bankruptcies, hysteresis or other market imperfections. If the capital inflows are considered to have a large temporary component, the country would try to avoid to go through a whole adjustment process to be reversed later on. Reversing an initial adjustment could be quite costly if there are irreversible costs involved. Related to this, for those countries with a more flexible exchange rate system the capital inflows could be the source of excessive volatility in the nominal and real exchange rate. This is particularly relevant for the case of *hot money*.

Fifth, the intertemporal solvency constraint requires the current account deficit to GDP ratio to be sustainable in the long run. A sharp increase in this ratio could increase the country



risk premium as well as restrict the future access to international capital markets. To avoid this type of problems a country would be interested in having a current account deficit to GDP ratio below a certain level.

Sixth, there is a political economy argument. In many countries the government could be subject to strong political pressure from interest groups in the exportable and import competing sectors, in order to avoid or to limit the size of the real exchange rate appreciation that could result from the capital inflows. In this case a government could be forced to undertake "exchange rate protection" actions.

Finally, in those countries with a fixed or preannounced nominal exchange rate the authorities could be concerned about the monetization effects of large capital inflows and their lack of control on monetary policy. Thus, there could be macroeconomic reasons related to the capacity to conduct monetary policy in countries with limited capacity to conduct fiscal policy. In a fixed exchange rate system with an open capital account and with domestic assets that are close substitutes for foreign assets, the effectiveness of monetary policy is severely impaired (Mundell, 1968).

### 3.2 What is different about Portfolio Investment?

In the previous section we briefly discussed the potential macroeconomic problems created by capital inflows. However, the previous discussion applies to capital inflows in general as we did not make any distinction among the different types of capital inflows. In this section we look at the particular features of portfolio investment and the specific macro problems related to it.

#### 3.2.1 Volatility

The most outstanding feature of portfolio investment, as opposed to other forms of capital inflows --such as direct foreign investment, borrowing from international financial institutions, or long term bank loans-- is that they present a potential risk of a reversal of flows in a very short term; i.e., the possibility that foreign investors may suddenly decide to leave the country they are investing in. This potential risk of flow-reversal is only comparable to the case of short term bank loans (*hot money*) and may be very harmful in terms of either a greater exchange rate volatility or a greater interest rate volatility, or both. Furthermore, if the Central Bank lacks the necessary speed of reaction and the stock of international reserves is at a low level, it may cause a balance of payments crisis.

A negative shock --such as a disappointing political development, a sudden decrease in the price of the main exportable good or an increase in the price of the main importable good (i.e., a worsening in the terms of trade), or a change in taxes affecting the returns from these inflows-- may cause a sudden sale of domestic assets by foreign investors to take their money out of the country. Alternatively, they will be willing to keep their investment in place only if a

higher return is provided. If that is the case they will react by selling the domestic stocks they are holding and, with the proceeds, will buy foreign currency. This will (initially) cause a fall in the general stock price index and, depending on the exchange rate system, either an increase in domestic interest rates and a loss of international reserves or a depreciation of the exchange rate, or a combination of both.

Under a floating exchange rate system, and if domestic assets are perfect substitutes for foreign assets, a large increase (with overshooting) in the price of the foreign exchange will occur. This will be such that the future expected appreciation of the domestic currency will exactly compensate foreign investors for the difference between the domestic interest rates (that stay at the same initial level) and the higher interest rates they demand after the negative shock occurs<sup>4</sup>.

Under a fixed exchange rate system, and again assuming perfect substitution between foreign and domestic assets, domestic stock prices will fall, the level of international reserves at the Central Bank will fall, and domestic interest rates will increase as domestic liquidity decreases. The exchange rate will stay the same (as long as the fixed exchange rate policy is credible).

Alternatively, if a favorable shock occurs such that foreign investors want to invest more in the host country, stock prices will increase, and depending on the exchange rate regime either domestic interest rates will drop and the stock of money will increase (under a fixed exchange rate system), or the exchange rate will appreciate up to a point where the expected depreciation compensates foreign investors for the lower expected return they demand after the favorable shock occurs (under a floating exchange rate system).

If foreign and domestic assets (i.e., stocks) are not perfect substitutes, then domestic interest rates may differ from the expected depreciation augmented foreign interest rates. In such a case the adjustment in interest rates (under a fixed exchange rate system) or in the exchange rate (under a floating exchange rate system) will be less severe, although it will follow the same pattern. Thus, if a negative shock occurs in a floating exchange rate system, stock prices will fall and domestic interest rates will increase (under perfect substitution domestic interest rates remain constant). Therefore the exchange rate will overshoot less than in the perfect substitution case. Under a fixed exchange rate system the same negative shock will cause a lower increase in domestic interest rates in the case of imperfect asset substitution than in the case of perfect asset substitution<sup>5</sup>.

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<sup>4</sup> In the analysis we are assuming that domestic prices do not adjust immediately, i.e., that commodity markets adjust slower than asset markets. See Dornbusch (1976) and Calvo and Rodríguez (1977).

<sup>5</sup> It is important to notice that **only** in the case when substitution between foreign and domestic assets is less than perfect it is possible for the Central Bank to sterilize capital

All these price movements can be an important source of uncertainty that restrain investors (foreign and domestic) from investing in, and, at the same time, they can be very damaging for the economy as a whole if the fluctuations in interest rates or exchange rates are too wide. The loss for the economy as a whole occurs because of bankruptcies and hysteresis effects when interest rates increase and/or the exchange rate appreciates (the latter applies only for the exportable and import competing sectors).

In order to avoid all these adverse price movements the authority will have to intervene, either by selling or buying foreign currency in a floating exchange rate system, or through sterilization in the case of a fixed exchange rate. Either way the Central Bank will be, somehow, making the functioning of both exchange rate regimes very similar.

### 3.2.2 Portfolio Investment and Macroeconomic Fluctuations

Another important characteristic of portfolio investment, as opposed to other forms of capital flows such as bank loans, is its behavior during the different phases of the macroeconomic cycle. In fact it has been argued that bank borrowing exacerbates the cycle because of its procyclical pattern, i.e., banks are willing to lend more during the expansionary and recovery phases of the cycle than during recessions. However, because portfolio investment implies that private gains and losses occur whenever stock prices fluctuate, private investors will restrain from selling (or buying) every time stock prices are "too" low (or "too" high), i.e., they will try to avoid the realization of capital losses. This behavior will result in an endogenous smoothing mechanism of the cycle. Of course this reasoning applies only when domestic and foreign assets are not perfect substitutes.

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inflows. This will show to be important later on when we discuss the actual country cases.

#### 4. WHAT CAN BE DONE TO DEAL WITH THE SIDE EFFECTS OF CAPITAL INFLOWS?

Many countries have tried in recent years to gain access to international capital flows while, at the same time, protecting the macroeconomic situation from a large real appreciation and/or an acceleration of inflation. To deal with these potential problems caused by capital inflows countries can use either indirect methods, direct methods, or both. In this section we briefly discuss these methods.

##### 4.1 Direct Methods

If capital inflows, due to their size or composition, are considered to create macroeconomic problems of the type discussed above, and they are motivated by imperfections in the domestic financial markets, countries may try to eliminate the distortion that is causing the capital inflow. The type of distortion that encourage short term capital inflows are, for example, keeping a high domestic interest rate while at the same time offering free currency risk protection through a swap facility at the Central Bank. Also, offering free deposit insurance at domestic commercial banks, along with a high domestic interest rate and a fixed nominal exchange rate, may cause an increase in capital inflows.

Short term speculative capital inflows (*hot money*) could also result from a restrictive monetary policy that accompany an expansionary fiscal policy. In the latter case changing the policy mix towards a more restrictive fiscal policy and a less restrictive monetary policy, by reducing domestic interest rates to a level closer to the sum of international interest rates and the expected rate of devaluation, i.e., getting closer to the interest rate parity condition, reduces the incentives for capital inflows of the type that respond mainly to interest rate differentials and/or to the expectation of a future drop in domestic interest rates, that is, bank loans and portfolio investment.

If the ultimate cause of the increase in capital inflows could not be dealt with, and the country is concerned with the macroeconomic effects of capital inflows, it could try direct methods to control the size of them. Direct methods consist of imposing restrictions on capital inflows in order to reduce their amount. Measures of this sort include ceilings on foreign borrowing, minimum reserve requirements on foreign loans, ceilings on foreign direct investment, etc. The authorities could also try to reduce the size of the inflows through taxation of the flows through a Tobin's interest rate equalization tax. These measures work only in the short run as it is very difficult to have effective ways to control capital flows in the long run (Mathieson and Rojas, 1993).

## 4.2 Indirect Methods

Indirect methods comprise the following:

- Intervention, i.e., the purchase of foreign currency by the Central Bank in order to support the nominal exchange rate. This can be of two types: sterilized and non sterilized. In the case of sterilized intervention the Central Bank also carries out open market operations to mop up the liquidity created by the initial purchase of foreign exchange. The sterilization could also be done by imposing other restrictions that work through a reduction in the money multiplier -- such as an increase in commercial bank's required reserves or a ceiling in total commercial bank's credit-- that also helps to avoid the monetization effect of the purchase of foreign currency (i.e., limits the increase in the money supply). However, the room in this area is limited by the degree of substitution between foreign and domestic assets. In a fixed exchange rate or preannounced nominal exchange rate regime ("tablita"), the more open is the capital account and the higher is the degree of substitution between domestic and foreign assets, the less effective is this policy<sup>6</sup>. Also this policy usually increases the quasi fiscal deficit of the Central Bank. The increase in the quasi-fiscal deficit of the Central Bank, in turn, will result in an expansion of expenditures and if it is not accompanied by a restrictive macroeconomic policy would result in a real appreciation, working at cross purposes with the original objective of avoiding a real appreciation.

In countries with a level of output close to the potential output, non sterilized intervention is usually implemented with another policy aimed at restricting aggregate demand.

- Fiscal Adjustment. A restrictive fiscal policy is intended to have a macro effect and a composition effect. The first effect (*ceteris paribus*) attempts to counteract for the increase in aggregate demand that is created by the capital inflows. The second effect helps to keep a higher real exchange rate than otherwise, as government consumption is most likely more intensive in non-tradable goods than private expenditures.
- Current Account Liberalization. The liberalization of the Current Account helps to ease the pressure on the domestic economy by shifting consumption towards tradable (i.e., importable and exportable) goods. Like a restrictive fiscal policy it has a composition effect and helps to keep a higher real exchange rate than otherwise.

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<sup>6</sup> For a recent review of the basic economics of capital inflows in a IS-LM framework see Frankel (1993), for a recent review of Central Bank intervention see Edison (1993), and for a recent review of the policy issues associated to capital inflows see Calvo et. al (1993).

- Capital Outflow Liberalization. The liberalization of capital outflows may induce domestic investors, such as pension funds, to take their capital abroad. This may partially compensate for the effects of capital inflows<sup>7</sup>.
- Move towards a basket of currencies and/or a floating exchange rate system. By moving to pegging to a basket of currencies or closer to a floating exchange rate regime, such as widening the band in a target zone exchange rate system, the exchange rate risk faced by market participants increases. Therefore, there will be less interest in bringing short term capital inflows.

#### 4.3 Dealing with Volatility

The previous discussion refers to policies concerning the real exchange rate and inflation problems. In what follows we briefly discuss some potential policy measures to deal with the volatility associated to portfolio investment.

- Restricting capital outflows. The purpose of this policy is to reduce the risk of a flow reversal by limiting the amount of capital that foreign investors are allowed to take out of the country within a certain period of time. Although this policy can be quite effective in reducing the potential damage of a sudden capital outflow, it is also very likely to reduce the amount of portfolio investment in the first place, limiting the economic benefits of having access to foreign financing<sup>8</sup>.
- Lifting all restrictions on capital outflows. Given the previous result, one alternative policy is to allow domestic residents to invest in all kinds of foreign assets with no restrictions. This will have two different effects: first, as foreign investors will visualize the host country as less risky (in terms of a lower probability of getting stuck in it) it may increase the amount of capital inflows; second, as domestic assets will be better diversified internationally, the effects of a negative shock will be less severe in the first place. Overall, this policy may reduce the probability of a flow reversal.
- Opening the current account. A reasoning similar to the one in the previous paragraph implies that the opening of the current account may be useful in limiting the effects on the host country of a negative shock. The opening of the current account will usually mean that the host

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<sup>7</sup> This is an ambiguous result. In some models a liberalization of capital outflows cause a larger capital inflow. See Laban and Larrain (1993).

<sup>8</sup> See previous footnote.

country's real assets will be more diversified. Therefore, the economy as a whole will be less affected by a negative shock affecting an specific productive sector.

- Maintaining a long-term fiscal and monetary targets. It should be clear at this point that the final purpose of any potential policy measure to deal with capital inflows should be to build an economy more resilient to external shocks, such that foreign investors do not want to leave the country when a negative shock occurs. In this respect having some fiscal flexibility is a necessary requirement in order to provide assurance that unexpected inflation will not be a way of financing government deficits. In parallel, monetary policy should also be geared towards the objective of generating low inflation. Ultimately, keeping an appropriate level of international reserves will help to deal with short term fluctuations in capital flows. It is also important to notice that holding more reserves and maintaining fiscal and monetary discipline helps not only because of the better shock absorber capacity of the economy, but also because of the "signaling" or "reputation effect" on foreign investors.
- Having greater flexibility. One useful policy tool which helps to build a stronger shock resistant economy, is to have a greater discretion in terms of forcing the allocation of resources in some specific uses. For example, forcing the investment of private savings -such as pension funds- in Central Bank's bonds (or in foreign assets), may help to sterilize the expansion in high powered money caused by a sudden capital inflow. Alternatively, a sudden capital outflow that heavily reduces the amount of (domestic) money may be compensated by forcing domestic institutional investors to hold less Central Bank's bonds. The latter has to be traded off against the advantage of having a less regulated and more competitive financial system.

In sum, dealing with the risk of potential flow reversal of portfolio investment is not a matter of restricting capital outflows, but building shock absorber mechanisms such that the effect of a negative shock to the economy is minimized.

## 5. DEALING WITH CAPITAL INFLOWS: SOME RECENT COUNTRY EXPERIENCES

As capital inflows towards some developing countries resumed in the late 1980s and early 1990s, countries implemented different policies to deal with some of the potential macroeconomic problems created by these inflows and that we already discussed in the previous sections. In this section we review some specific country experiences. Tables 1 to 9 at the end of the paper present macroeconomic indicators and Balance of Payments statistics for each of the countries considered in this section.

### 5.1 Argentina

#### a) Background

Argentina, as the other countries analyzed in this paper, has received large amounts of capital inflows during the past two years. In fact it appears as the third largest recipient of portfolio investment flows among all Latin American countries during 1989-June 1993, after Mexico and Brazil. The cumulative portfolio investment flows to Argentina during this period have been larger than those to Venezuela and Chile<sup>9</sup>. However, the main difference between Argentina and the other two countries is the pattern shown by the portfolio investment flows. In the case of Argentina the flows have occurred only in the last two years as they were almost negligible before 1991, while in the cases of Venezuela and Chile the portfolio capital inflows have occurred since 1989.

One potential reason that explains the different pattern followed by portfolio capital inflows in the three countries is that until very recently Argentina was suffering from a chronic fiscal deficit, hyperinflation and very poor economic growth<sup>10</sup>. In fact Argentina has been suffering slow economic growth since the 1940's and the 1980's was the longest stagnation period for the country during this century.

Several reasons explain the economic developments in Argentina during the past decade. First, during several decades economic policy in Argentina was used to favor different private groups with access to power. Consequently, a very distortive tax system with tax exemptions and subsidies of all kinds was built over the years. It is estimated that different tax exemptions and subsidies accounted for as high as 6% of GDP in 1987 and reached 8% of GDP in 1989<sup>11</sup>. Second, the increase in foreign lending to developing countries during the 1970's allowed

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<sup>9</sup> See Gooptu (1993).

<sup>10</sup> Annual GDP growth has been +2.6%; -1.9%; -6.2%; +0.06%; +8.9% and +8.7% in 1987, 1988, 1989, 1990, 1991 and 1992, respectively..

<sup>11</sup> Source: "Argentina: From Insolvency to Growth". The World Bank, 1993.



Argentina to run a fiscal deficit and to accumulate a large stock of foreign debt. The external borrowing also financed the capital flight that took place in the early eighties. The abrupt end to voluntary lending and the increase in international interest rates in the early eighties was the source of a severe crisis and a financial collapse in Argentina, which forced the Central Bank to takeover the failing financial institutions and to assume all foreign debt. In the end this worsened even more the already deteriorated overall public sector deficit. Third, tax collection was very low because of a poor enforcement of the tax law and a poor management of the Tax Administration Agency. This problem aggravated as inflation increased because of the related Olivera-Tanzi effect<sup>12</sup>. Tax revenues were as low as 13.5 percent of GDP in 1989<sup>13</sup>. Fourth, the country got involved in the South Atlantic War against the U.K. in the early 1980's.

Overall, until very recently and for more than a decade inflation in Argentina has been persistently high (hyperinflation in 1989-90; see table 1). This was the result of a permanent fiscal deficit which had become entrenched in the system. Although a number of Ministers of Finance started their mandate with the stated purpose of reducing this deficit, political economy factors made the deficit reduction almost impossible. In fact the overall public sector deficit during 1983-89 was always higher than 5 percent of GDP. The failure of the Argentine government to achieve a balanced budget is the main reason why the first four stabilization programs implemented in Argentina after the country returned to a constitutional democratic regime in 1983 failed. As a consequence of the increasing inflation the stock of domestic financial assets held by the Argentine private sector became smaller as savings and financial investment were shifted abroad and into dollar denominated assets. By end-1990 the stocks of M1 and M2 in Argentina, measured in real terms, were 54% and 42% of their end-1985 levels, respectively. In terms of GDP M1 fell from 8.3% in end-1980 to less than 3% in end-1989. The demonetization of the Argentine economy increased the level of inflation for a given size of the public sector deficit, as it continuously eroded the base for the inflation tax.

b) The Menem Administration

The current administration that took office in July 1989 has led the country into a new period of economic growth and low inflation. This has been achieved after a profound transformation of the economy which comprises major structural reforms to the Federal Government, the Central Bank, Public Enterprises, the tax system and both, the foreign exchange and foreign trade regimes.

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<sup>12</sup> In an inflationary economy the real value of tax revenues decreases in proportion to the inflation rate because of the lag between the date taxes are due and the date they are effectively collected. This is known as the Olivera-Tanzi effect. In a highly inflationary economy tax payers will tend to delay paying their taxes in spite of penalties because of this effect.

<sup>13</sup> Source: Trends in Developing Economies, Volume 2. The World bank, 1993.

The Menem administration inherited a large public sector with weak institutions, poorly managed non-profitable public enterprises, a large foreign and domestic debt, and a Central Bank with a running deficit of almost 6% of GDP (in 1989). In other words, the overall public sector at the time the Menem administration took office was insolvent.

The economic reform implemented by the Menem administration has been extremely profound and has proceeded very fast. Among the most significant and structural reforms are the following:

- In January 1990 the Central Bank forced the conversion of its short term interest bearing obligations with the public, mostly seven days maturity bills, into long term bonds with ten years maturity denominated in dollars. This step alone reduced the quasi fiscal deficit of the Central Bank in almost 4 percentage points of GDP.
- A major restructuring of the tax system, with more reliance on the VAT and an improvement in tax administration. This reform, together with the Olivera-Tanzi effect associated to the reduction of inflation, has enabled the government to increase its tax revenues in almost 8 percentage points of GDP, from 16.3% of GDP in 1989 to 23.8% of GDP in 1992.
- An administrative reform to reduce the size and the scope of the federal government and to improve the control mechanisms of public expenditures. As a result of this reform total employment in the federal government has fallen by more than 50% between 1990 and 1992, net federal expenditure fell 4 percentage points of GDP between 1989 and 1992, and the primary surplus of the public sector became positive for the first time in many years in 1991 (0.4% of GDP)<sup>14</sup>. As part of this reform the subsidies for industrial promotion purposes have been severely cut.
- A major privatization program started in 1990 with the sale of the National Telecommunications Company in November of that year. Major privatizations have included the National Airline Company, TV stations, oil and oil related companies, electric companies, utilities and seaports. Since it began in 1990 the privatization program has allowed the government to receive almost six billion dollars in cash and to reduce its foreign debt by approximately 12 billion dollars<sup>15</sup>. The privatization of non profitable enterprises also improves the fiscal accounts because the government stop covering the losses of the privatized firms.
- In April 1991 the Government enacted the Law of Convertibility as an attempt to accelerate the stabilization process. Under this new exchange rate regime the nominal exchange rate is used as an anchor for the domestic price level. The law fully guarantees convertibility of

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<sup>14</sup> Total employment in the national administration fell from 671,479 in 1990 to 284,215 in 1992. Net federal expenditure fell from 28.7% of GDP in 1989 to 24.8% of GDP in 1992.

<sup>15</sup> Source: "Situacion Latinoamericana", N° 13, February 1993.

the local currency at a constant nominal rate of 1.00 A\$/US\$ and proscribes money creation except for the purchase of foreign assets. As a result the stock of high power money has to be fully covered by foreign assets.

- In September 1992 a new Central Bank law was enacted that makes it independent of the non financial public sector . The new Central Bank Charter prohibits lending to the non financial public sector and proscribes rediscounts (although in the latter case some special exceptions apply).
- In 1991 the government accelerated and completed a trade liberalization program that virtually eliminated all export taxes and all quantitative constraints to trade, except for automobiles. Also the maximum tariff on imports was reduced from 115% to 35%. Later on this was further reduced to a range between 0% and 20%.

c) The Results

The stabilization program implemented by the Menem administration has been very successful in reducing domestic inflation. In fact the average monthly inflation rate since the convertibility plan started in April 1991 has been 1.7%, while in 1989 it was 38% (again on a monthly basis). As a result of the lower inflation rate the stock of domestic financial assets has increased<sup>16</sup> and the stock of foreign reserves at the Central Bank is at a very high level that covers the monetary base. In terms of economic growth the stabilization program has also been a success as the country began growing again at very high rates. Also, the privatization program has been the main reason why the country has been receiving large amounts of capital inflows. It is estimated that two thirds of all foreign capital entering Argentina in 1992 was due to privatizations<sup>17</sup>.

In terms of the real exchange rate the result has been a real appreciation of approximately 16% since the convertibility plan began in April 1991. However, the real exchange rate has been appreciating systematically for the last three years as a result of using the nominal exchange rate as an anchor for domestic prices in the current and previous stabilization plans.

In spite of all the favorable results mentioned above, it is still too early to claim that the stabilization program has been a complete success. In fact the final fiscal package that allowed the country to achieve price stability is as recent as February 1991 and the convertibility plan was implemented only in July 1991. Also several structural reforms are still undergoing and some important problems remain unsolved. The government remains highly indebted both domestically

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<sup>16</sup> M1 and M2, both measured in real terms, grew by 100% and 75% between 1990 and 1992.

<sup>17</sup> Source: "Situacion Latinoamericana", N° 13, February 1993.

and abroad and these obligations will deteriorate the fiscal budget in the next years. In fact, as part of the stabilization plan the government has been issuing public debt to postpone payments on the pension system and to suppliers of goods and services already provided to the government. Also, major reforms in the social security system, defense, and the national health insurance system will require increases in government expenditures in the future.

Although a major effort has been made in terms of both, increasing tax revenues and cutting expenditures at the federal government level, overall public expenditures have not fallen mainly because of an increase in transfers to the provinces and in expenditures at the provincial level. Also the privatization of public enterprises, transitory by nature, has allowed the government to receive extraordinary cash flows that have helped to balance its budget in the past two years. In addition to the latter the increase in foreign savings has been partially compensated by a fall in domestic private savings. Overall, a significant effort in cutting public expenditures remains to be done, particularly at the provincial level.

Because some of the most important reforms have been enacted by law, there is a little chance of a major reversal in terms of the inflation rate. However, the fiscal situation remains fragile and any adverse shock such as a slowdown in economic growth, an increase in interest rates or the lack of a permanent source of external financing (a decreased interest of foreign investors to invest in Argentina) may force the Argentine economy into a crisis. This would occur because of the fixed exchange rate system and the remaining inflexibilities in the domestic labor market.

An important problem currently facing policy makers in Argentina is the highly appreciated real exchange rate. The latter has been recognized by the public and the government as one weakness of the current economic regime. In fact in October 1992 the government attempted to compensate the export and import competing sectors for the real exchange rate appreciation, by increasing in five percentage points the tax rebate allowed to exporters and in seven percentage points the flat tariff surcharge applied to imports. However this was interpreted by the public as a partial failure of the economic reforms and caused a run against the Argentine peso that forced the Central Bank to sell more than 300 million dollars in three days.

Overall, given the scope and the purpose of this paper it is extremely difficult to evaluate the outcome observed in Argentina, mainly because of the existing economic environment prior to the stabilization program. The existing conditions in Argentina during 1988-89 were completely different than those in Chile or Korea. In fact the appreciation of the real exchange rate in Argentina is more related to inflation inertia and the use of the nominal exchange rate as an anchor for domestic prices, than to the increase in aggregate domestic expenditures that is financed with the increased capital inflows, which is the case we are concerned with in this paper. Nevertheless it is still possible to argue that a more restrictive fiscal policy, specially at the provincial level, is required in Argentina. This is particularly true considering the increase in

private investment that is expected to occur in the future as the privatized firms will update their technologies.

From the review of this case study it is clear that Argentina decided not to use sterilized intervention, allowing the domestic interest rates to become aligned with the expected devaluation adjusted foreign interest rates. As the exchange rate has been kept fixed to the US dollar since the initiation of the convertibility program, the 'peso problem' has resulted in domestic interest rates above international levels without a mayor increase in short term capital inflows. However, the much improved prospects for the Argentina's economy has encouraged portfolio investment which through asset price revaluation has fueled an expenditure boom and a real appreciation. However, the real appreciation could also be due in part to the use of a fixed exchange rate as a nominal anchor for the price level in an economy that still had inflation inertia following 50 years of high inflation.

## 5.2 Chile

### a) Introduction

The Chilean economy is today the fastest growing economy in Latin America. A host of structural reforms were introduced in Chile in the period 1973-1992. The main purpose of these reforms has been to restore the basic macroeconomic balances, to increase the role of markets in the production and distribution of goods and services, to open the economy to foreign trade, and to give an increasing participation to the private sector in the economy <sup>18</sup>.

What makes the Chilean economic performance more remarkable is that in the early 1970s and in the early 1980s Chile experienced two mayor economic crises. However, in between these two crises it initiated a profound structural transformation that was continued after the second crisis. After some confusion in the early years following the second crisis, starting in 1984 the government designed and implemented a comprehensive adjustment program aimed at restoring macroeconomic balances in a situation of restricted access to foreign borrowing. An aggressive devaluation policy was combined with severe monetary and fiscal discipline to achieve a large real depreciation and an increase in the competitiveness of the trade oriented sectors. As a result the real exchange rate depreciated by 89.1% between 1981 and 1986. These policies were also accompanied by periodic decreases in the maximum import tariff level. All this changed incentives drastically in favor of export oriented activities, initiating a period of export-led growth. As the export-led growth process gained momentum, large increases in efficiency started to be achieved in the export oriented sectors through improvements in quality control, better marketing and the adaptation and production of new technologies.

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<sup>18</sup> For a review of the reforms introduced in Chile in the last twenty years, and the causes of the crises, see Corbo (1993), and Corbo and Fischer (1993).

Following this adjustment program, Chile entered into a period of export led growth that had lasted well into the 1990s. GDP growth reached 6.3% in 1984, 2.4% in 1985, and 5.7% in 1986. In the same years inflation reached 23.0%, 26.4%, and 17.4%, respectively<sup>19</sup>. In the meantime the unemployment rate that had reached close to 20% in 1982, without including the workers in the public work programs, was reduced to 10.8%.

In the post 1986 period growth continued. Furthermore, as the debt crisis was left behind, the positive results of the policy reforms of the previous 12 years started to emerge. With the model by now delivering growth above 5% per year and with the unemployment rate coming down rapidly, the public support for the economic policies started to increase. When the new coalition government came to power in March 1990, it kept the general market oriented open economy policies. Its main departure from the policies of the previous government has been on its concern for improving the access to education and health care for the poorest groups in the population. To accomplish this objective the new government early on negotiated a tax reform aimed at raising government revenues in around 2,8% of GDP, to finance a similar increase in expenditures in the social sectors.

As Chile entered a stage of sustainable growth, and as the new democratic government decided to maintain the main trust of the Chilean economic model, the time horizon for good policies was extended. The good prospects resulted in a sharp rise in foreign investment, and the combination of good policies and low interest rates in industrial countries set the stage for a sharp increase in net private debt. As in other countries, in this new setting the capacity to carry out an independent monetary policy was severely curtailed.

Since the mid 1980s the main instrument of monetary policy has been the 90-day real interest rate on Central Bank liabilities<sup>20</sup>. The real interest rate is adjusted when the level of aggregate demand is resulting in an acceleration of inflation, or in a size of the current account deficit that could lead to an excessive build up of foreign debt, or in a real appreciation that moves the real exchange rate away from its target level. Sometimes these three objectives come into conflict, and the Central Bank implicitly trade off between them<sup>21</sup>.

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<sup>19</sup> Year-end inflation.

<sup>20</sup> As most financial contracts are indexed to future inflation, Chile can pursue a real interest rate policy.

<sup>21</sup> See Corbo and Fischer(1993).

The newly independent Chilean Central Bank has also given a central stage to monetary policy. The bank is implicitly operating with target ranges (or upper limits) for both, the inflation rate and the current account deficit of the Balance of Payments (as a share of GDP), and with a lower limit for the real exchange rate. Of course, monetary policy alone cannot achieve so many objectives (i.e. the inflation rate, the real exchange rate, and the size of the current account deficit). Furthermore, with the increasing integration to world financial markets this type of monetary policy, in the context of a crawling exchange rate regime with a wide band, results in large one sided movements in the exchange rate market or, if the central bank intervenes to mitigate the movements in the exchange rate, in large movements in the level of foreign reserves with high costs in terms of the quasi-fiscal deficit.

These problems manifested very clearly in early 1990 when Chile was experiencing an investment boom, an export boom, a drop in international interest rates, and an acceleration of domestic inflation. To slow down the acceleration of inflation, the newly independent board of the Central Bank increased the 90 day real interest rate on Central Bank's papers in 230 basis points (from 6.9 to 9.2 percent per year) and a corresponding increase in papers of a longer maturity. As a result there was a large increase in capital inflows on top of the large increase on direct foreign investment that was already taking place. To avoid the excessive monetization of these inflows, or a sharp drop in the nominal exchange rate, the Central Bank practiced an aggressive policy of sterilized intervention. As a net result, in 1990 alone the Central Bank ended up accumulating 2.4 billion dollars in foreign reserves. Furthermore, the issuing of Central Bank debt to carry out the sterilization resulted in large losses for the Central Bank as it borrowed at high domestic interest rates to invest abroad at lower rates (adjusted for exchange rate changes)<sup>22</sup>.

As the level of foreign reserves increased sharply, the country risk decreased and as a consequence the ability to carry out an independent monetary policy geared to control aggregate demand was further reduced. In these circumstances short term macroeconomic management should have relied more on fiscal policy.

b) Policies to deal with the macroeconomic effects of capital inflows

The sharp increase in domestic interest rates, together with the increase in direct foreign investment and in long term capital inflows associated with the direct foreign investment, resulted in a large surplus in the capital account of the Balance of Payments. As the government was interested in avoiding a sharp real exchange rate appreciation, it opted for defending the exchange rate through massive sterilized intervention.

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<sup>22</sup> For an evaluation of macroeconomic policies in recent years see Corbo and Fischer (1993).

As the Central Bank debt carried an interest rate much above the devaluation adjusted interest rate earned on Central Bank's holdings of foreign reserves, this policy resulted in an increase in the quasi-fiscal deficit of the Central Bank.

Furthermore, as reserves were accumulating while the current account of the Balance of Payments was showing a surplus and the interest rates in the U.S. started to decrease, the peso value of the dollar (through arbitrage) descended towards the lower bound of the exchange rate band. As a result it became each time more difficult and costly to pursue an independent monetary policy. Not willing to give up its monetary policy, in June 1991 the Central Bank started to accommodate a real appreciation and to take a set of actions to reduce capital inflows.

In June 1991 the central value of the exchange rate band was appreciated by 2%, a stamp tax was imposed on capital inflows, and minimum reserve requirements were imposed on short term (less than one year) foreign credits. At the same time a reduction from 15% to 11% in the maximum import tariff was approved. Then in January 1992, as it became increasingly difficult and costly to affect the trajectory of the nominal exchange rate through sterilization, the peso was revalued 5% and the width of the exchange rate band was increased from  $\pm 5\%$  to  $\pm 10\%$ . The first part of the measure was meant to "accept" a minor revaluation, and the second to increase the exchange rate risk and in this way to reduce the profitability of domestic bonds for foreign investors. At the same time the reserve requirements on foreign credit was extended to foreign currency bank deposits.

As the central bank continued its policy of increasing the domestic interest rate to control aggregate demand and inflation, these measures were not enough to discourage capital inflows. Then, to increase the exchange rate risk, in March 1992 the Central Bank announced that beginning that date it was going to intervene in the foreign exchange market even if the price of the dollar was well within the exchange rate band.

In May 1992 the reserve requirements on foreign credit was increased to 30%. The only exception was made for capital inflows with a maturity period longer than one year that were registered with the Central Bank under article 14 of the foreign exchange regulation. For the latter type of inflows the reserve requirement was set at 20%. In July 1992 the Central Bank modified the exchange rate mechanism. The peg was changed from the US dollar to a basket of currencies, retaining the size of the band around the central rate. The purpose of this measure was again to increase the uncertainty with respect to the evolution of the exchange rate. In August 1992 the reserve requirements on capital inflows that entered under article 14 of the foreign exchange law was also raised to 30%.

Finally, starting in 1992 a selective deregulation of capital outflows was introduced to give some breathing space to the expensive policy of reserve accumulation.



c) The Results

The Chilean experience with intervention reveals two main lessons. First, in the presence of an increasing integration to international capital markets even with an exchange rate band it becomes very difficult to pursue a restrictive monetary policy. The sharp increase in short term capital inflows makes this policy difficult to sustain. Second, when there is a sharp increase in capital inflows of the DFI type some real appreciation has to develop, and this is just the mechanism to allow the transfer of resources to materialize. Thus, in spite of the many attempts to minimize the size of the real appreciation, the real exchange rate appreciated 13.3% between the last quarter of 1990 and the third quarter of 1993.

5.3 Colombia

a) Introduction

Colombia's economic developments for the last two decades have been much affected by the coffee cycle, world economic conditions, and changes in domestic policies.

From 1967 to 1975 Colombia pursued a policy of stable real exchange rate and fiscal discipline. During this period GDP growth averaged 6.3% per year, and inflation averaged 17.4% per year. At the same time export earnings grew at an annual average rate of 18.1%, dominated by a strong development of non-coffee exports. The coffee boom of the period 1975-1978 led to a large increase in expenditures, a real appreciation and an acceleration of inflation. However, Colombia avoided the sharp increase in foreign debt of many other developing countries, and even accumulated foreign reserves and reduced its foreign debt during the coffee boom<sup>23</sup>. As a result, when the coffee boom ended in 1978 Colombia was left with low foreign debt. However, in 1979 Colombia initiated a public investment program as an aggregate demand policy to compensate for the drop in demand that followed the drop in coffee price. This typical counter cyclical policy led to a surge in foreign borrowing.

When coffee prices collapsed in 1981, the intensity of the counter cyclical policies was accelerated through expansionary fiscal and monetary policies. As a result the current account deficit started to increase and inflation accelerated. The growth of non-coffee exports slowed further as a result of the real exchange rate appreciation and the slow down in the world economy. The deficit in the current account of the balance of payments went from a small deficit in 1980 to a deficit close to 11% of GDP in 1983. Inflation accelerated to 24.6% per annum. As in Mexico, the rising current account deficit was faced early on with a progressive tightening of import restrictions. The latter acted as an export tax further to the slow down of export earnings. In the

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<sup>23</sup> In general the administration of commodity booms in Colombia has been much more prudent than in other countries (Corden, 1990).

period 1980-1983 the dollar value of exports decreased at an annual rate of 3.6% per year. GDP growth in the period 1980-1983 averaged only 1.6% per annum.

When the international debt crisis emerged in the second half of 1982, Colombia's access to international capital markets was reduced and foreign reserves were down, but the counter cyclical policies were intensified to compensate now for the slow down of the world economy. With a growing public sector deficit and reduced access to international capital markets, the policy had to be corrected towards 1985 with a fairly orthodox stabilization program, involving a large fiscal adjustment and a substantial depreciation.

The program was quite successful and by 1986 the current account achieved a surplus. However, inflation accelerated in the period following the large devaluation, increasing continuously from 18.9% in 1986 to 23.3% in 1987, 25.8% in 1989, and 29.1% in 1990. GDP growth reached 4.6% for the period 1986-1990.

In early 1990 the government formulated a medium term strategy aimed at a more radical transformation of the Colombian economy. The major objective of this strategy was to open up the economy to external competition to improve its efficiency, specially in the import competing sectors, to promote the growth of non-traditional exports, and ultimately to achieve sustainable growth. In the new strategy the continuous reduction of inflation is a key intermediate objective to provide an environment conducive to growth. Reforms were introduced in trade, financial, and labor policies, and in public enterprise management and privatization.

Much has been already accomplished in the reforms of the trade regime. Most nontariff barriers were eliminated and the average import tariff was reduced from 43.7% in December 1989 to only 11.7% in March 1992. By most standards this is a profound and rapid trade reform<sup>24</sup>. Initially the reform was going to be gradual, but its pace was accelerated when the large surplus in the current account of the balance of payments was resulting in a large accumulation of foreign reserves (Ocampo, 1992). Restrictions on foreign exchange transactions were also liberalized in 1990, lifting the prohibition to have foreign accounts and allowing financial intermediaries to trade in foreign exchange.

The exchange rate system in Colombia is very special. The Central Bank fixes on a daily basis the value at which it buys and sells dollars, but to avoid excessive monetization it does an automatic sterilization by buying dollars and paying them with a one year dollar denominated bond. The price of settlements of these bonds in pesos is fixed by the central bank on a daily basis, but these are prices at the time of maturity of the bond. However, the bonds have a secondary market, and the discount in the market is determined mainly by the interest rate on certificates of deposits and the expected rate of devaluation. Through this discount for the

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<sup>24</sup> On trade reforms in developing countries see Thomas et. al (1990).

buying of dollars and no discount for the selling, the *de facto* exchange rate system is similar to the use of an exchange rate band (Cárdenas, 1993).

Reforms also included the liberalization of direct foreign investment regulations and the lifting of restrictions on profit remittances.

The opening up of the Colombian economy has been followed by a very robust current account performance. As shown in Table 3, the current account surplus reached 0.33% of GDP in 1990, and 3.12% in 1991. The improved policy environment, and the rapid improvement in the current account has most likely decreased Colombia's country risk just at a time of reduction in foreign interest rates. The Central Bank of Colombia has among its main objectives to gradually reduce inflation towards the one-digit annual level, and to avoid a real appreciation of the peso. As the main instruments to achieve these objectives the Central Bank keeps an upper bound on the growth of aggregate monetary indicators and has a preannounced exchange rate policy, where the value of the peso is depreciated on a continuous basis. As the Central Bank has been intervening through sterilized intervention, there has been a large build up of foreign reserves that has increased the quasi fiscal deficit of the Central Bank.

As the opening of the economy is fairly recent, and there has been much opposition to the opening from powerful groups associated to the previously heavily protected sectors, the Central Bank is especially interested at this time to avoid a real appreciation that could lead to a reversal of the opening up policy. Thus, the protection of the real exchange rate has been the main purpose of the macroeconomic policy in Colombia. However, at times the Central Bank has also shown a preoccupation with the excessive growth in monetary aggregates for their potential effect in an acceleration of inflation. We will analyze now the different policies that were followed to deal with the downward pressures on the real exchange rate, and the excessive monetization.

#### b) Macroeconomic Response to Balance of Payments surpluses

As shown in Table 3, the central problem of Colombia has been the side effects of the large current account surpluses. The liberalization of the economy together with a large boom in exports to Venezuela resulted in a large increase in output that was not matched by an increase in domestic expenditures. As a result there was a large increase in the current account surplus of the balance of payments in both 1990 and 1991. In both years the Central Bank intervened in the foreign exchange market with a large accumulation of foreign reserves.

To keep the growth of monetary aggregates within the targets, the Central Bank sterilized the monetary effects of the reserve accumulation with a very aggressive open market policy. This mopping up of liquidity resulted in a sharp increase in domestic interest rates, with the deposit rate increasing from 29.2% in March 1991 to 38.5% in December of the same year. Sterilization was also carried out by raising the reserve requirements on bank deposits. Initially the average reserve requirement rate was raised in 1990 and then, as foreign reserve accumulation

continued, the marginal reserve requirement rate was raised to 100% in January of 1991. As a result there was a sharp increase in lending rates resulting from the increase in deposit rates and the increase in reserve requirements. As the increase in interest rates was slowing down the economy, in September 1991 the marginal reserve requirement was eliminated and the basic rate was raised 5 percentage points. These sterilization measures were accompanied by measures aimed at reducing the amount of reserve accumulation in the central bank. Thus, in the second half of 1991 banks were required to hold a minimum of their net worth in foreign exchange. Also the minimum period to pay for imports bills was reduced continuously during the period.

As pressure continued to build up for a reduction of interest rates, and as the quasi-fiscal deficit of the central bank was pressuring the public finances, the Central Bank changed its policy at the time it became independent and its first board was inaugurated. At that time monetary policy was changed from the control of monetary aggregates to the control of the lending rates of financial intermediaries. The drop in interest rates contributed to an increase in domestic expenditures and a slow down of short term capital inflows. The resulting reduction in the current account surplus and the decrease in capital inflows resulted also in a slow down in the accumulation of reserves. Therefore the need to carry out open market operations with Central Bank certificates has been reduced<sup>25</sup>.

c) Results

The experience of Colombia illustrates again the difficulties of pursuing an exchange rate and an interest rate target in an economy increasingly integrated to the world capital market. It is also apparent that Colombia suffers from the Japanese problem. A very robust current account, that will become even more robust with the oil discovery of Cuisiana, is resulting in strong pressures for a real appreciation. The way to deal with these surpluses is with an expansion of domestic activity and the real exchange rate appreciation is the price mechanism at work that will allow that part of the increase in expenditures find its way into the balance of payments. To minimize the real appreciation will require a more restrictive fiscal policy. In the meantime direct foreign investment and portfolio investment is called to play an important role on improving the efficiency of the Colombian economy, the first for the importance in the access to technology and the second for the development of a market for risk capital financing.

5.4 Indonesia

a) Introduction

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<sup>25</sup> Many other minor actions were also used during this period to deal with the excessive foreign reserve accumulation. For details see Carrasquilla (1993), and Cárdenas y Barrera (1993).

As an oil exporting country, during the eighties Indonesia suffered a large adverse shock (a drop in its terms of trade) beginning in 1982. As expenditures were not reduced in pace with income, external borrowing increased. In addition to that, as Indonesia's external debt was mostly in the Yen area, the depreciation of the US dollar *vis-à-vis* other currencies during the second half of the eighties accounts for a significant increase in Indonesia's total external debt. As a result of these two adverse external shocks, Indonesia's total external debt increased tremendously from 28% of GNP in 1980 to more than 75% of GNP in 1991.

In spite of the large external debt and the constraints that it imposes on the Indonesian economy, the country has been able to keep growing while the annual inflation rate has remained fairly stable and at moderate levels during most part of the last decade.

Overall, Indonesia's economic authorities have been able to avoid major imbalances despite the small room they have to maneuver. In part this has been the result of pursuing sound exchange rate, fiscal and monetary policies. Also, they have shown their willingness to implement the required adjustment policies whenever it has been necessary.

Although capital controls in Indonesia began to be lifted in the early 1970's, the current account did not begin to be liberalized until a decade later and a major trade reform was not introduced until 1986. As a result of this liberalization process, the share of oil exports in GDP has decreased from about 24% in 1981-82 to about 18% in 1990-91.

Since the late 1960's and until 1988, the exchange rate was fixed and pegged to the US dollar, with sporadic discrete and large devaluations of the Rupiah. Major devaluations occurred in 1978, 1983 and 1986 in order to align the exchange rate to the domestic price increases. Since 1988 the exchange rate has been set by Bank Indonesia (BI) through a system of discrete and small devaluations that attempt to compensate for the difference between domestic and foreign inflation.

A major financial deregulation and liberalization package was implemented in 1983, which caused a great expansion of domestic banking activities. Before this liberalization program was launched and because of the open capital account, BI applied several quantitative restrictions on domestic banks in order to control the expansion of monetary aggregates. These restrictions mainly concerned ceilings on foreign borrowing and in the granting of credits to domestic residents<sup>26</sup>. As a consequence, part of the domestic demand for financial activities was shifted offshore. After the liberalization there was a reversal of financial flows towards Indonesia.

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<sup>26</sup> These restrictions were also used to minimize the inflation and related effects caused by the oil exports earning flows that sharply increased during the seventies.

In 1987 there was also a deregulation concerning the operation of the stock exchange. As a consequence there has been an increase in both, prices and the volume of transactions. Most important, the deregulation of the stock exchange has brought in many foreign investors who since then have increased the share of their holdings in the Jakarta stock exchange<sup>27</sup>.

The deregulation process has transformed Indonesia into a privately led economy where the predominance of the public sector has been systematically eroded over the past decade.

In addition to the latter, the deregulation of the financial system in 1983, and later again in 1988 along with the change in the exchange rate system, caused an increase in financial aggregates. This, along with the increase in the debt burden during the early eighties, forced the government to apply restrictive monetary and fiscal policies beginning in 1986.

Although the tight monetary and fiscal policies applied from 1986 on were quite effective in reducing the debt burden, which dropped 11 percentage points of GNP from 1987 to 1989, total indebtedness began increasing thereafter mainly because of private borrowing. The private over total debt ratio has increased from about 17% in 1987 to about 34% in 1991. This pattern has forced the government to keep applying restrictive policies in order to avoid major macroeconomic imbalances.

The increase in private borrowing is mainly due to an increase in private investment without a proportionate increase in private savings. Thus, while gross domestic investment has increased from 31.5% of GDP in 1988 to 35.1% in 1991, the national savings rate has remained in the range of 29%-31%. Although there is not conclusive evidence, there is some indication that the increase in private debt since 1988 has gone to finance private investment in the exportable sector. This result is fairly consistent with the trade reform and the real exchange rate policy being applied in Indonesia.

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<sup>27</sup> Indonesia appears as the second largest recipient of Private Portfolio Investment in Asia during 1989-92 after Korea, with a total inflow of US\$ 1.7 billion. (See Sudarshan Gooptha, 1993.)

b) Economic Policies to Deal with the Capital Inflows

Although Indonesia has implemented restrictive monetary and fiscal policies since 1986, during the first half of 1990 an expansionary monetary policy was followed by BI in order to push down domestic interest rates. Given the open capital account, the policy was not very effective as international reserves began to fall and the current account balance deteriorated. This outcome, in addition to the financial sector reforms of the previous years that led to a rapid growth of monetary aggregates during 1988-90, forced the government to reverse its policy as the economy was beginning to boom and overheat. (Inflation accelerated and the current account balance worsened during 1990-91)

Notwithstanding, during 1990/91 and 1991/92 the government has made a concerted effort to curb aggregate demand and slow the expansion in borrowing. This has been done through improved incentives for non oil exports, continued appropriate responsive exchange rate policy, responsible monetary policy which reduced the growth in domestic credit, restrained fiscal policy and cautious public and semi-public investment programs.

Several specific measures have been implemented by Indonesian monetary authorities since mid 1990 to limit monetary growth. Some of them are the following:

- They forced a large transfer (equivalent to 25% of base money) of public enterprise deposits in the banking system to papers issued by BI.
- They imposed limits to the use of BI swap facilities as a currency hedge to avoid excessive borrowing from abroad.
- They imposed limits on commercial bank's external borrowing and in their foreign currency exposure.
- They imposed limits (in the form of annual ceilings) on the external borrowing of public enterprises.
- They raised the interest rate on BI certificates by 4%.
- They raised banks' capital/asset ratio, which was scheduled to reach 8% by end 1993.
- They have also tried the sterilization of capital inflows through open market operations.

In addition to using monetary policy, some measures have been taken to reduce aggregate demand by restraining public expenditure. In late 1991 a ministerial level team was established to supersede public and quasi public sector borrowing and investment. This

commission has deferred the implementation of several large public and public related investment projects. Also, in early 1993 the subsidies to most fuel products were eliminated.

c) The Results

The outcome of the reforms and policies mentioned above has been an improved current account balance and a lower inflation in 1992. Also, the overall public sector balance shows an improving trend since 1986, while interest rates have increased both, in nominal and real terms, since 1990.

Although the increased capital flows to Indonesia during the last four years presents almost the same problem they had to deal with during the seventies when oil export earnings increased<sup>28</sup>, because of the financial reforms and the open capital account, monetary policy at present is less effective than in the seventies. Therefore, a more important role is to be played by fiscal policy in order to avoid major macroeconomic imbalances.

5.5 Korea

a) Introduction

Korea, like many other developing countries, sharply increased its external debt during the late seventies and early eighties. Total foreign debt doubled during 1978-1981, going from US\$ 17.3 billion to US\$ 32.9 billion. In terms of GNP it increased from 28% in 1976 to 52% in 1982. In this period the Korean economy suffered the effects of the expansionary policies applied during the late seventies, as well as the economic slow down in the developed countries of the early eighties. As a result aggregate output (GNP) fell 4% in real terms in 1980. Nevertheless, the Korean economy quickly recovered as aggregate output began growing again in 1982 at a rate of almost 6%. The stabilization package consisted of a tight monetary and fiscal policy and a real depreciation of the domestic currency (the Won depreciated 18% in real terms between 1982 and 1985)<sup>29</sup>.

A distinguished feature of the Korean economy, as opposed to other developing countries that faced the same external shocks in the early eighties, is that Korea did not attempt to liberalize its economy at once as countries in Latin America did. Quite the opposite, Korea has used a gradual and very cautious approach in the opening and liberalization of its economy,

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<sup>28</sup> At that time ceilings on both, borrowing and credit granting, were imposed to limit the monetary effects of the increased oil export flows.

<sup>29</sup> For a review of macroeconomic policies in Korea during this period see Collins and Park (1989) and Corbo and Nam (1992).



particularly so in the case of the capital account. In fact, although a significant reduction in the effective mean import tariff in Korea occurred in the first half of the 1980's and the current account at present is considered to be fully open by any standard, however, the capital account and financial markets remain severely regulated. At present the country is in the middle of a liberalization and deregulation reform of its financial markets.

During most of this time period Korea has used a managed floating exchange rate system. In 1980 the exchange rate regime shifted from a fixed rate to a floating management system where the Won/US\$ rate is allowed to vary within some range. Although the capital account in Korea remains partially closed, it has been progressively liberalized since 1984 when Direct Foreign Investment was freed. In 1992 the direct purchase of Korean stocks by foreign investors (Direct Portfolio Investment, DPI) was liberalized.

Following the 1984 and 1992 reforms, capital flows into Korea have increased significantly, and particularly so in the last two years. The recent flows have come mostly in the form of DPI<sup>30</sup>. The potential problems caused by these capital inflows are not new to the Korean economy. Since 1986 and until 1988, due mainly to the economic recovery of the industrialized countries, Korea showed a significant current account surplus that created the same kind of problem that an increase in capital inflows does, namely excess liquidity, upsurge inflation and an appreciating real exchange rate.

In recent years inflation has accelerated, increasing from less than 3% on an annual basis in 1985 to almost 10% in 1991 (6.2% in 1992), and the real exchange rate has appreciated 40% (approximately) during the same period<sup>31</sup>. An explosion in nominal wages, following the transition to democracy, has been one of the causes of the acceleration of inflation. As a result the international competitiveness of the Korean manufacturing sector has fallen more than 50% in the same period, mainly because of a significant increase in wages<sup>32</sup>.

As a result of the surpluses in the current account first (1986-89) and in the capital account later (since 1990), the stock of international reserves jumped from US\$ 3.3 billion in 1986 to US\$ 16.6 billion in 1992. In terms of GDP this meant an increase from 3% to almost 6%. Not surprisingly, M2 as a percentage of GDP increased more than seven percentage points during the

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<sup>30</sup> The opening of the stock market for foreign investors in 1992 meant a capital inflow of nearly US\$800 millions during the first quarter of the year only.

<sup>31</sup> The RER is measured as the ratio between the nominal exchange rate and the CPI.

<sup>32</sup> Measured as the ratio between the following: the multiplication of the nominal exchange rate and the Industrial Production Index, and the multiplication of the Manufacturing Employment Index and the Wage Index. According to an estimate from the IMF the Manufacturing Unit Labor Cost in Korea increased 46% between 1985 and 1989.

same period. During 1986-1991 M3, which is a better indicator for liquidity given the large share of NBFIs in the Korean economy, increased 241% in nominal terms and in terms of GNP jumped from 0.79 to 1.18.

b) Mitigating the Effects of Capital Inflows

The outcome described above could have been much worse had not the government step in. Since 1986 the government and the Bank of Korea have attempted to minimize the effects of the increased liquidity in the economy by increasingly implementing sterilized interventions and by paying out foreign debt.

The stock of outstanding government securities, that includes T-bills, Foreign Exchange Stabilization Bonds, and Monetary Stabilization Bonds, increased almost 20 times in real terms from end-1985 to end-1987, and almost doubled also in real terms between end-1987 and end-1989. Since then it has remained stable<sup>33</sup>.

On the other hand, foreign debt as a percentage of GDP has fallen systematically during the second half of the 1980's and the beginning of the 1990's. This is particularly so for the case of long term public (or publicly guaranteed) foreign debt. Thus, as a percentage of GNP by the end of 1991 total foreign debt had fallen to one third of its 1985 level, while long term public and long term private foreign debt had fallen to one fourth and one half of their 1985 levels, respectively.

In sum, the Korean authorities have succeed, up to some extent, in avoiding the problems caused by capital inflows. Notwithstanding, the most serious problem currently facing the Korean economy is the appreciated real exchange rate. The latter has resulted in part from the increase in wages that has followed from a tight labor market and the increase in the power of labor unions. (Nominal Wages and the CPI increased 156% and 43% between 1985 and 1991, respectively.) In spite of having a quite open current account, the Korean authorities have failed to reduce the share of non-tradable goods in total expenditure as the investment in housing and other infrastructure projects has increased (construction has grown very fast during 1989-92).

Also, and despite of increasingly using open market operations to reduce the increase in liquidity that results from the balance of payments surpluses, the Korean authorities have not been very successful in keeping monetary aggregates from growing because of the lack of a large and deep market for government securities. Monetary aggregates keep growing also because of the continued subsidized credit allocation policy applied by the government. From 1986 to 1991, M1, M2 and M3, all measured as a percentage of GNP, have increased from 10%, 37% and 79%, to 11%, 41% and 118%, respectively.

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<sup>33</sup> Source: The World Bank.

c) Results

Overall, the Korean economy currently stands in a very good position as growth has been high by any standard and gross national savings is extremely high (36% of GNP during 1988-91). Also, the government almost balanced budget does not put the macroeconomic stability at any risk. However, the lack of a well developed market for government securities do not give the authorities enough room for sterilizing the monetary effects of capital inflows. Also the slow pace of financial liberalization has refrained the authorities from letting the interest rate to go down to a level consistent with the expected depreciation augmented international interest rates.

5.6 Malaysia

a) Introduction

In the early 1980s Malaysia followed a very expansionary fiscal policy, the public sector deficit reaching 17% of GDP in 1982. During these years there was also a large build up of foreign debt.

A drop in terms of trade in 1985 and 1986 made the previous policies clearly unsustainable and forced a large adjustment. After the recession of 1985-86, that saw a drop in GDP of 1.0% in 1985, followed by an increase of 1.2% in 1986, real GDP grew at 5.4% in 1987, 8.9% in 1988, 8.8% in 1989, 10% in 1990, 9% in 1991 and 8% in 1992.

Following the initiation of the adjustment Malaysia has received a large inflow of capital, mainly in the form of direct foreign investment. Most notorious, for the last two years the surplus in the capital account has been above 10% of Gross Domestic Product. This is surprising because of the large stock of foreign debt that Malaysia accumulated during the early eighties and that reached a peak in 1986. Nevertheless, sound economic policies introduced as a reaction to the crisis have been effective in attracting foreign investors to the country.

Also during this time period the country has maintained a managed float exchange rate system, where the Central Bank intervenes only to avoid excessive variability of the value of the Ringgit against a basket of foreign currencies. The trade regime as well as the capital account are quite open, particularly so in the latter case. In fact domestic residents and foreign residents, in general, face only minor restrictions when undertaking international transactions<sup>34</sup>.

Surprisingly, during the recovery and despite the capital inflow received from abroad, the authorities have been able to keep inflation at a low level (compared to international

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<sup>34</sup> The only exceptions to this general rule are transactions with Israel and South Africa. In these two cases and for political reasons both, trade and financial transactions, are heavily restricted.

standards), interest rates have remained fairly stable, and most notorious the real effective exchange rate has been depreciating, increasing the competitiveness of the tradable sector. The real depreciation of the Ringgit since 1985 reached a peak of 34% in 1991 and began appreciating thereafter.

b) Economic Policy

The good performance of the Malaysian economy since the 1985-86 recession has been the result of sound economic management. Among the policies that have contributed to this outcome we can single out the following:

First and most important, a large fiscal adjustment. In fact the Malaysian authorities have been able to reduce the overall public sector deficit from 5% of GDP in 1986, to a surplus of 0.4% of GDP in 1992<sup>35</sup>. Also, the increase in public sector saving has allowed the country to prepay its foreign debt at a rate of \$ 1-2 billion a year during 1987-90, and in this way it has been a major factor accounting for the successful sterilization of the monetary effects of the inflow of direct foreign investment<sup>36</sup>.

Second, although direct foreign investment has contributed to a sharp increase in the investment rate, absorbing the associated capital inflow mostly into tradable goods, therefore minimizing the pressure for a real exchange rate appreciation, by intervening in the foreign exchange market the authorities have been able to achieve (until 1991) a real depreciation. The Central Bank has been steadily increasing its holdings of international reserves at a rate of 4.3 percent of GDP a year on average since 1986. By the end of 1992 the stock of international reserves held by the central bank was larger than the country's total foreign debt.

Third, a tight monetary policy has contributed to the sterilization of the monetary effects of the reserve accumulation. This has been implemented by imposing restrictions on financial intermediaries, such as a 1% increase (from 5.5% to 6.5%) in the required reserves ratio of banks and other financial institutions in 1989, and the imposition of stricter conditions for the granting of certain type of consumption credits (such as credit cards and motor vehicles purchase loans) in 1992. In addition to this, the Central Bank has been increasingly involved in money market operations to sterilize the higher liquidity caused by the capital inflows. These policies all together have helped to avoid a surge in inflation that otherwise would occur.

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<sup>35</sup> The deficit-surplus figures account for all expenditures, including gross capital formation and public enterprises.

<sup>36</sup> Total public sector long-term and medium-term debt, as a percentage of GDP, fell to half between 1987 and 1990.

Finally, a further liberalization of the economy in both, the current account and the capital account, has been implemented. In fact during this time period the government eased the guidelines for foreign investment in the country (1986) and lifted some of the restrictions affecting domestic borrowing by non-residents (1987 and 1989). They also implemented selective import tariff reductions in 1989-90 and a substantial import duties reduction package has been announced for this current year (1993). These policies, although implemented in an already open economy, reinforced the authority's commitment to a free-market economy with the private sector being the main player. They also served to alleviate some of the pressure of the capital inflows in the domestic market by easing the increase in imports.

In sum, sound macroeconomic management with a low fiscal deficit and low inflation has shown to be a necessary condition for the recovery of the Malaysian economy. In this sense fiscal flexibility appears to be the most relevant aspect in the case of Malaysia as it showed to be crucial to attain the necessary macroeconomic balances within a reasonable period of time. During the private sector led recovery it has been important to restrain public sector expenditures to attract foreign investment to the country, as well as to make space in aggregate expenditures for the increase in investment without the need to squeeze exports. It appears then that foreign capital in the case of Malaysia acts as a complement for public sector savings and private savings in the financing of the sharp increase in investment.

c) Lessons

The outcome of the Malaysian economy suggests that it is possible to manage a large inflow of capital without having the main problems that we discussed in the previous sections, namely a strong appreciation of the real exchange rate, a low interest rate and a booming economy with a surge in inflation, or both. The most important difference with the other countries is that the real appreciation has been avoided. Two reasons are behind this result. First, like in Chile a substantial part of the capital inflows have taken the form of DFI, which has a large tradable component than other expenditures. Second, through a restrictive credit policy Malaysia avoided a large credit expansion.

It is worth mentioning that, in spite of the sound macroeconomic policies implemented in Malaysia during the past years, the economy seemed to show some symptoms of overheating in 1992 as it was becoming increasingly difficult to continue with sterilization. Some of the problems that other countries have faced are appearing now.

5.7 Mexico

a) Introduction

In the period 1970-1982, Mexico followed a policy of Government led growth, where the engine of growth was the expansion in public expenditures. Although measured growth was

high, major macroeconomic imbalances built up leading to the 1982 crisis. Inflation, that in the long period of a fixed exchange rate had been closer to US levels, increased to two digit annual levels in the second half of the 1970s. As the exchange rate was kept fixed an appreciation started to build up, the external accounts began to suffer the consequences of the expansion of expenditures and the real appreciation. When falling international oil prices and rising international interest rates set in during the early 1980s, the balance of payments situation became unsustainable. Pressures on the peso intensified as capital flight became massive. Finally on February 18, 1982, the peso was devalued by 57%. Although initially the devaluation was accompanied by a fiscal adjustment and a more flexible interest rate policy, a large increase in nominal wages derailed the program and inflation accelerated. As short term debt could not be renewed, Mexico had to announce on August 1982 that it could not serve the principal on its external debt. The forced increase in the size of external transfer out of Mexico that resulted from the sudden cut in external financing was faced with severe import restrictions and control on capital outflows. Finally, on August 13, dollar-denominated accounts in Mexican banks were made payable only in pesos, and on September 1982 the banking system was nationalized. Inflation reached almost 100 percent in 1982.

The De la Madrid administration, that was inaugurated in December 1982, decided early on an strategy for stabilizing the economy and initiating its structural transformation. The structural transformation included a deep reexamination of the role of the state. Given the importance that the public sector had in Mexico, the public sector adjustment was an integral component of the stabilization effort. Starting in 1985 the opening up of the economy became the second priority area of reform.

In the initial years of the De la Madrid administration the main preoccupation was the external crisis and the reduction of inflation. The reduction of the public sector deficit was a key reform aimed at restoring macroeconomic balances and controlling inflation. The adjustment of the public sector has been impressive. The primary deficit of the public sector was reduced from 7.3 percent of GDP in 1982, to a surplus of 4.8 percent of GDP in 1984<sup>37</sup>. Exchange rate policy and commercial policy have also been reformed with the objective of increasing the integration of Mexico to world markets. The progress on privatization has also been very impressive. The 1222 public enterprises that existed in 1982 have been reduced to 452 through sales, mergers, liquidation or closing down. Currently, another 167 public enterprises are in the process of divestiture. After the sharp drop in oil prices in 1986 the fiscal situation deteriorated, and both the devaluation and the inflation rate increased.

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<sup>37</sup> The primary balance exclude all interest payments. The adjustment in the operational balance was not as impressive but still very large, going from a deficit of 5.5 percent of GDP in 1982 to a surplus of 1.8 percent of GDP in 1987, before a temporary increase in domestic real interest rates in 1988 --resulting from the December 1987 stabilization program-- brought it back to a deficit of 3.5 percent of GDP.

A second fiscal adjustment and comprehensive heterodox stabilization program, called Economic Solidarity Pact, ESP, was put in place in December 1987. As part of the ESP the primary surplus was raised at over 8 percent of GDP. The exchange rate was fixed initially and then, as part of the negotiation for the renewal of the Pact, a rate of crawl at a decreasing nominal rate has been established<sup>38</sup>. The final objective is to converge to a fixed exchange rate and in this way to move to an inflation rate closer to the one in the US.

Trade reforms were initiated only in 1985. Even then there were conflicting signals coming from different economic authorities. However, the integration to the world economy made much progress in the period that followed. By 1983, 100 percent of imports (value) were subject to import permits, and there were 16 different tariff levels with a mean tariff of 27 percent. Nontariff restrictions were also an important impediment to trade. However, by 1990 only 13.7 percent of the value of imports were subject to import permits, the average tariff had been reduced to 13.1 percent, and only five tariff levels were in existence (0, 5, 10, 15, and 20 percent). Furthermore in November of 1985 Mexico initiated discussions with GATT on future membership and on July 1986 it achieved full membership. The current administration has also made further progress in domestic regulation and in the transformation of the public sector, including the privatization of a large number of enterprises producing private goods and services.

Up to 1987 exchange rate policy was geared to supplement fiscal and monetary policy to achieve a real depreciation to go with the increase in the size of the external transfer required by the precarious foreign debt situation. Starting in 1988, the exchange rate policy has been used as the central anchor for the price level. This role has been assisted by the use of monetary targets by the Central Bank. However, in the early stage inflation inertia and the building up of credibility in the stabilization policy resulted in a slow decrease in the rate of domestic inflation and in an appreciation of the real exchange rate. Later on, when credibility increased, a partially sterilized surge in capital inflows exerted upward pressure on the price of the non-tradable goods and the real exchange rate continued appreciating.

The administration of Salinas de Gortari, that was inaugurated in December 1988, deepened the transformation of the economy, advancing further in the control of public finances, privatization, trade liberalization --including the negotiations on a free trade agreement with the US and Canada-- liberalization of foreign investment, financial reform --including recently privatization of banks-- and improvement in social services. The further advance in the transformation of the economy, and the consolidation of the stabilization, was accompanied by a policy to achieve a reduction in the size of the foreign transfer required to serve the external debt.

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<sup>38</sup> This rate has been adjusted downwards three times. Initially it was one peso a day, then it was reduced to 0.80 of a peso a day, then 0.40 of a peso a day and lately (November 1991) it was reduced to 0.20 of a peso a day.

As Mexico advances in the stabilization and continues its transformation into a more open and less regulated economy, with the public sector getting out of the production of private goods, the prospects of the Mexican economy have improved substantially. The improvements in economic prospects, together with the drastic reduction in US interest rates, encouraged a substantial increase in the level of capital inflows. Portfolio investment increased from around 400 million dollars in 1989 to 14 billion dollars in 1992. (See Table 7 below.)

The large capital inflows of the post 1989 period have created some difficulties in the overall macroeconomic management that have forced the Mexican economic authorities to intervene.

b) Measures to deal with the macroeconomic effects of capital inflows

To reduce the inflationary and real exchange rate appreciation consequences of capital inflows, the Mexican authorities decided early on in 1990 to sterilize their monetary effects. By increasing public savings, and therefore allowing the central bank to reduce the net domestic credit to the government, at the same time they created a space in aggregate demand for the expansion of the private sector expenditures that was emerging from the increased capital inflows.

These policies were also supplemented by open market operations to reduce both the volatility and the level of the expansion in liquidity. The sterilization was carried out through a contraction in the net domestic credit of the central bank.

Furthermore, since November 1991 the exchange rate policy has been modified by widening the band between the buying and selling intervention points. By depreciating on a daily basis the ceiling of the exchange rate band, that is the selling rate, while holding fixed the buying rate, the size of the band has been increasing<sup>39</sup>. With the current policy, by the end of 1993 the ceiling rate would be 9.1% above the floor rate. The widening of the exchange rate band increases the effectiveness of monetary policy and introduces more uncertainty on the return from capital inflows. Therefore, in the margin it discourages short-term capital inflows. As the maturity of capital inflows lengthens this factor becomes much less important.

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<sup>39</sup> At the present time the ceiling of the band depreciates at a daily pace of 0.0004 new pesos equivalent to a rate of 4.5% per year.



c) Results

In spite of all the actions discussed above, capital inflows continued at a pace considered "too high" by the authorities. As an answer, restrictions to capital inflows were introduced in early 1992. In April 1992 the Banco de México restricted the foreign currency liabilities of commercial banks to 10% of their total liabilities (in pesos and foreign currency). Then in November of the same year this restriction was weakened by allowing commercial banks to raise foreign currency deposits for specific uses for up to 10% of their total liabilities.

5.8 The Philippines

a) Introduction

During the entire post-war period economic growth in the Philippines has followed a cyclical pattern, with periods of high economic growth interrupted by a balance of payments crisis and a slowdown in economic activity. These cycles have been the direct result of stop go policies. The exchange rate system has basically been (until recently) an adjustable peg, with periods of a fixed nominal exchange rate interrupted by large and once and for all devaluations of the currency, usually after a balance of payments crisis. Major devaluations have occurred in 1962, 1970, 1975, 1983, 1986 and 1990<sup>40</sup>. The Balance of Payments crises usually resulted from inconsistencies between aggregate demand policies and the exchange rate policy, that ended with a highly appreciated real exchange rate and the loss of international reserves at the Central Bank.

Like in the case of many other developing countries, the availability of easy external financing during the seventies and early eighties allowed the government to run a permanent fiscal deficit and accumulate a large stock of foreign debt. Foreign borrowing allowed the government to postpone the implementation of necessary adjustment policies, such as the passing on to domestic oil prices the increases in international prices that resulted from the two oil-crisis of the seventies. Also from end-1970 to end-1980 the number of publicly owned corporations increased from 75 to over 200. As a result the transfers and subsidies from the Central Government to some productive sectors (specially oil and energy products) increased substantially. Overall, during 1970-80 economic growth in the Philippines was stable at about 6% per year, but this situation was clearly unsustainable. In particular, the real exchange rate appreciated by more than 40%, and the current account of the balance of payments was permanently in deficit. As a result, during this decade long term foreign debt increased from US\$

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<sup>40</sup> In late 1983 the exchange rate was devalued by 55% while in late 1990 it was devalued by 25%.

1.5 billion to US\$ 8.8 billion, while short term debt increased from about US\$ 0.7 billion to US\$ 7.6 billion<sup>41</sup>.

In 1980 the financial sector began to be liberalized with the introduction in the Philippines of the "universal" banking model (like the German banking model), while domestic interest rates, which were controlled by the Central Bank of Philippines (CBP), began to be liberalized. Also in 1980 reforms in trade policies were introduced which included a substantial reduction in import tariffs, specially for those sectors facing the highest tariff levels.

During 1980-81 the Philippine government followed an expansionary policy which further appreciated the real exchange rate<sup>42</sup> and caused the economy to overheat. The neglect to apply the necessary adjustment measures, the overvalued exchange rate,<sup>43</sup> and the lack of confidence, induced capital flight. The latter, in addition to the persistent current account deficit that in 1983 reached about 8% of GDP, caused that during 1979-83 the stock of reserves at the CB was drastically reduced.

The developments described above came to an end with the international debt crisis when external resources completely dried up. As a result, in October 1983 the Philippines announced a moratorium on the amortization payments on its foreign debt. In that year the consolidated public sector deficit reached 9% of GDP while output growth was only about 1%. During 1984-85 aggregate output kept falling as GDP showed a cumulative decrease of about 14% (more than 7% a year).

## b) Economic Policy

### The Aquino Administration

The Aquino administration took office in February 1986 after the economy had been in a recession for two and a half years. At the time there were about 300 government corporations engaged in a whole set of activities. However, most of them relied on government subsidies or rents to survive as they were losing money. Inflation was about 50% a year.

Since the Aquino administration took office several reforms have been implemented in the Philippines, both at the macro and micro levels. The reforms comprise the following: (1) a

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<sup>41</sup> External debt had accumulated to 53% of GDP by 1980.

<sup>42</sup> The average real effective exchange rate appreciated by 10% annually during 1979-82.

<sup>43</sup> The nominal exchange rate was kept fixed vis-à-vis the US dollar since 1970 and until end-1983.

restructuring and partial privatization of government owned banks; (2) a push forward of the trade liberalization that was initiated in the early eighties (and partially reversed during the crisis) by eliminating most quantitative restrictions; (3) the privatization of public corporations; (4) the liberalization of interest rates and deregulation of financial markets; (5) the disbandment of domestic monopolies; (6) a tax reform; and (7) the deregulation of previously controlled domestic prices. Taken together these policies have opened the economy to competition and have corrected many policy induced internal distortions.

As a result economic growth during 1987-89 averaged almost 6% per year, while inflation was brought under control to about 10% per year. The consolidated public sector deficit was also reduced from 9% of GDP in 1983 to 5.5% of GDP in 1990, and further to 2.4% of GDP in 1991. However, in opposition to other countries like Argentina, the improvement in the fiscal accounts has been carried out to a large extent by reducing public expenditures (specially investment) rather than by increasing public revenues. In fact since 1983 public investment has been severely slashed.

The economic recovery in the Philippines was not very permanent. GDP grew only by 2% in 1990, fell by 1% in 1991 and stagnated in 1992. This resulted from several exogenous shocks<sup>44</sup> and from the permanent deficit of the public sector that (although decreasing) kept domestic interest rates at a high level. Also, some infrastructural bottlenecks developed during the recovery period as a result of the lower levels of public investment.

Given the high level of indebtedness of the Central Bank of Philippines and the high level of domestic interest rates --the CBP accounted for about 55% of the consolidated public sector deficit during 1986-90<sup>45</sup>-- it has become increasingly difficult for the CBP to implement monetary policy. However, since 1990 the CBP has been issuing substantial amounts of its own domestic securities to counteract for the increase in liquidity. In addition the CBP has also increased the reserve requirements (RRs) of banks. In 1990 RRs were increased by 4 percentage points to 25%. Finally, the government has also helped to sterilize some of the increase in liquidity by issuing T-bills and using the proceeds to make a deposit with the CBP. Thus, given the small room of maneuver for the CBP, since 1989 monetary policy has also been managed by the National Government by means of transfers to the CBP in the form of deposits.

Other policies implemented by the Aquino Administration are the following:

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<sup>44</sup> The exogenous shocks are the following: (1) a failed attempt to overthrow the government in December 1989; (2) an earthquake in July 1990; (3) the Gulf crisis in August 1990 that increased the oil importing bill and the expenditures in subsidies to domestic oil prices; (4) a typhoon in November 1990; and (5) the eruption of Mt. Pinatubo in June 1991.

<sup>45</sup> Since 1986 the losses of the CBP have been about 2% of GDP.

(1) In 1991 the Foreign Investment Act liberalized the environment for foreign investment in the Philippines.

(2) In 1988 the government completed a previous program requiring the elimination of all quantitative restrictions on imports of capital and intermediate goods. In July 1991 another program was issued establishing the gradual reduction of tariffs through June 1986 and simplifying and rationalizing the tariff code<sup>46</sup>.

#### The Ramos Administration

In June 1992 the Fidel Ramos Administration took office. In the year since the government has continued the stabilization and structural reforms conducive to maintain a stable macroeconomic framework and achieve greater integration into the world economy. In fact the consolidated public sector deficit in 1992 was reduced further to a 1.7% of GDP. The steps taken to achieve a more stable macroeconomic environment comprise the reduction of subsidies (specially to government corporations), the privatization of important public assets and corporations, and the establishment of a greater control over public expenditures.

In addition to the latter the government achieved a significant external debt reduction. In fact in December 1992 the government completed a comprehensive agreement to restructure its medium and long term external debt with commercial banks. This agreement relaxed significantly the constraint faced by the Philippine government and, most important, it allowed the government and private sector to regain access to private capital inflows. The reduction of debt and debt restructuring also changed the direct effect of devaluations of the currency on the consolidated public sector deficit, allowing the CBP to implement a higher real exchange rate policy in the future<sup>47</sup>.

In September 1992 the government also took several extraordinary steps to deregulate the foreign exchange market by allowing exporters to retain up to 100% of their revenues and eliminating all the restrictions on the use of foreign currency for both current and capital account transactions. With the liberalization of exchange rate management and the renewed confidence in the Philippines there has been a substantial return of flight capital. Thus, the CBP has been able to purchase a net amount of over US\$ 3 billion since January 1991. The government has sterilized

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<sup>46</sup> However, a temporary import surcharge of 9% was introduced in 1991 as a way to balance the fiscal deficit due to the poor response of tax revenues to the tax reform.

<sup>47</sup> Before the debt restructuring and mainly because of the negative net foreign asset position of the CB, a devaluation of the currency deteriorated the CB's budget.

some of this inflows at a cost of increasing domestic interest rates and worsening the CBP balance.

Finally, a tariff code was introduced in 1992 and is under implementation in different stages. This new code is supposed to reach a 14 percent weighted import tariff in 1995. At the same time almost all remaining quantitative restrictions were eliminated.

c) The results

The Philippines is a typical case where the availability of easy foreign financing allowed the government to keep an unsustainable aggregate demand policy.

The large capital inflows of the post 1987 period came too early in the much required adjustment of the public sector. As a result, a large real appreciation has followed to the expansion in expenditures made possible by the larger capital inflows. Indeed, the size of the current account deficit clearly shows that the external trade balance has been the most affected by the resurgence of capital flows to the Philippines, with a worsening of the deficit of eight percentage points of GDP during 1988-1992.

Overall, in spite of the very little room for both monetary and fiscal policy (specially the former), the ongoing stabilization program reduced inflation in 1992 and built up international reserves. As the reduction in the consolidated fiscal deficit has not been fully accomplished yet, a basic source of instability remains and the economy still faces structural as well as macroeconomic impediments to growth (a major impediment is the deficit of the CBP). The restructuring of foreign debt in late 1992 significantly reduced the burden of foreign debt payments on the external balance and on the fiscal accounts. This will allow the central government to start playing a more significant role in implementing a more restricted fiscal policy so that less weight is put on monetary policy in the future (the burden of stabilization has fallen disproportionately on monetary policy in recent years).

5.9 Thailand

a) Introduction

Over the ensuing forty years after World War II, Thailand has achieved an impressive record of growth and development (real GDP growth averaged nearly 7% during 1953-90). This has been possible because of a permanent privately led growth strategy and an outward looking oriented economy. In fact, although some public enterprises were established in the early 1950's,

the public enterprise sector in Thailand has historically been relatively small and efficient. The strategy followed by other developing countries in the post war period, of promoting industrialization by having a large public enterprise sector, was quickly abandoned in Thailand after its beginning in the early 1950's because it proved not to be very successful.

Other key factors explaining Thailand's economic success have been its constant disciplined financial policies, its continuing structural reforms and its pragmatic and prompt policy responses whenever a macroeconomic adjustment has been needed. Also prices have been mainly market determined and the capital and current account of the balance of payments have historically been very open.

In general, Thailand's macroeconomic policies have been very cautious and its financial policies have been conservative. Thailand has followed the same economic policies than other East Asian countries in terms of pursuing an outward oriented growth strategy supported by cautious domestic financial policies, a high domestic savings and investment rates and the maintenance of a stable macroeconomic environment.

The role of the public sector has been mainly concentrated in providing the basic infrastructure and, whenever there has been a special interest in promoting some particular industry, the public sector has provided the necessary incentives for the private sector to get involved in that specific activity or industry. In this way the public sector has avoided to get directly involved in the production of goods and services. The Board of Investment is the agency that administers the package of investment incentives provided by the government to the private sector, but it does not promote public enterprises. In the early 1970's the incentives administered by the Board of Investment were shifted from import substitution (that applied during the sixties) towards export promotion.

From 1963 onward the exchange rate has been linked to the US dollar. During the 1963-1984 period the exchange rate remained fixed, albeit some sporadic changes in the Thai Baht-US Dollar parity. In 1984 the Thai Baht became pegged to a basket of currencies where the Baht-US Dollar parity is allowed to change on a daily basis.

As an oil importing country, during the seventies Thailand was severely affected by the two oil shocks and suffered a significant reduction in its terms of trade (36% drop during 1973-85). Partially because of a delay in implementing the required macroeconomic adjustment policies after the first oil shock<sup>48</sup>, during the early eighties the country increased its foreign debt as a result of a permanent fiscal and current account deficits. During 1979-83 the average current account deficit was about 7 percent of GDP and long term external debt rose sharply from US\$ 2.7

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<sup>48</sup> After the first oil shock the authorities did not let the oil price increase to be reflected in domestic prices for oil derivatives.

billion in 1978 to US\$ 13.2 billion in 1985. Nevertheless, Thailand's economic authorities, as opposed to other developing countries' experiences, adopted the necessary macroeconomic adjustment policies promptly after the second oil shock when it was clear that the situation was unsustainable.

Thus, in 1980 the Thai economic authorities embarked in a comprehensive macroeconomic adjustment program which included a reduction in both the current account and the fiscal deficit, the elimination of distortions in domestic relative prices and a reversal of protectionism. As part of the adjustment program a 15% devaluation of the Baht *vis à vis* the US dollar took place in November 1984. At that time the exchange rate system was changed by pegging the Baht to a basket of currencies rather than to the US dollar. Also most export taxes were eliminated in early 1985.

The implementation of the required adjustment policies early in the decade allowed Thailand to recover faster than other developing countries and to benefit more from the worldwide economic recovery during the second half of the eighties than otherwise.

Beginning in 1986 Thailand economic growth has been very impressive compared with almost any country worldwide, averaging 11% on an annual basis during 1986-90. The growth in 1991 and 1992 has been slightly lower than in the previous years, reaching 8% and 7.5% respectively, which in part can be explained because of the tight fiscal and monetary policies being pursued in Thailand and their effects on private domestic demand.

The main reasons explaining Thailand's economic growth are the increase in private investment and the increase in manufacturing exports. Gross investment as a percentage of GDP rose by 17 percentage points between 1986 and 1991. In particular, Thailand has benefited from a surge in foreign direct investment from Japan and other Asian NIEs and from an increase in foreign trade in the region. The flow of foreign capital to Thailand for the last five years has been on average higher than 10% of GDP and has been originated by private demand. The surge in exports is explained by both, the abolition of export taxes in 1985 and the depreciation of the Baht in 1984.

#### b) Economic Policy

The success of Thailand's recent economic performance (since 1986) has not been troubleless as it has led to increasing strains on the economy, manifested in the emergence of infrastructural bottlenecks, a sharp increase in the current account deficit and a pickup in inflation. Also as a result of the rapid growth of previous years the labor market is increasingly tight. Unemployment has been around 3% for the past two years and the unit labor cost has increased as a result of significant increases in nominal wages.

Nevertheless, the sustainability of Thailand's economic recovery after the international economic recession of the early eighties has been greatly enhanced by a sharp improvement in its fiscal position over a short period of time. In fact, after registering large fiscal deficits during the seventies and early eighties, the public sector recorded a surplus in 1987 and has remained in surplus since then. The fiscal balance moved from a deficit of 5% of GDP in 1984-85 to a surplus of 5% of GDP in 1989-90. The turnaround in the fiscal accounts resulted from both, an increase in tax revenues and a reduction in expenditures, although the latter has been more important than the former. From the beginning of the eighties to the end of the decade total revenue increased by about 4% of GDP and total expenditures fell by about 5% of GDP.

In addition to the substantial tightening of fiscal policy, Thailand's economic authorities implemented a series of other measures to reduce domestic aggregate demand and to counteract the increase in money growth and the excess liquidity that was being caused by the capital inflows. The policies implemented comprise the following:

- Further liberalization of capital outflows. In April 1991 the capital account was further liberalized by allowing domestic residents to take abroad up to US\$ 5 millions for investment purposes and to open foreign currency accounts with commercial banks in Thailand.
- Sterilization of monetary impulses. Because of the large capital inflows to Thailand -- which in 1989 exceeded in value the stock of reserve money at the start of the year-- the Central Bank has implemented open market operations to absorb liquidity. This has been implemented by the Bank of Thailand issuing its own bonds, in addition to the deposits by the Treasury with the Central Bank implied by the fiscal surpluses of recent years. The fiscal surpluses have reduced the supply of government paper and on average have offset 60% of the contribution to reserve money growth from net foreign assets during 1988-91. However, because the capital account in Thailand is quite open, there is little room for monetary policy at least in the long run (monetary policy effectiveness is limited to the short run only).
- Reduction of trade barriers. A significant progress in furthering import tariff reform has been made for the past years. In October 1990 tariffs on capital goods used in manufacturing were reduced from 20% to 5% and all existing exemptions or reductions of tariffs were abolished. As a result the average import duty rate has fallen from 14% in 1986 to 9% in 1991.
- Imposition of taxes in foreign borrowing. In March 1990 a 10 percent withholding tax on interest paid on foreign loans was restored after two years of being suspended.
- Tightening of monetary policy. The authorities imposed "voluntary" limits on commercial bank's lending to "non productive" activities such as consumer loans, mortgages and the construction of luxury condominiums, etc. Also, in 1989 the Central Bank's refinancing facility, that promotes priority sectors development by lending at preferential interest rates, began to reduce the total amount of refinancing and to increase its rediscount interest rate.



c) The Results

In spite of receiving large amounts of capital inflows Thailand has achieved low inflation and a fairly stable real exchange rate. The real exchange rate remained almost constant from 1986 to 1990 and began appreciating thereafter. Nonetheless the accumulated appreciation during 1990-92 has been less than 9%.

It is worth noticing that the results observed in Thailand could have been different had not the economic authorities decided to easy monetary policy and to expand public expenditures in the last two years. In fact, as a response to the slowdown in external demand that resulted from the slowdown in economic activity in the developed countries in recent years, and to counteract for the lower capital inflows that resulted from the Middle East crisis in 1990-91 and the political problems in Thailand during 1991-92, public expenditures in Thailand have been higher in 1991 and 1992 than they were during 1986-90. The recent increase in public expenditures also resulted from the need to solve the bottlenecks in infrastructure that developed during the fast growing period (1987-90). Also monetary policy was eased in September 1991 when the Bank of Thailand lowered its discount rate by 1 percentage point.

In sum, the experience of Thailand during the eighties and nineties is similar to the experience of Malaysia, i.e., an increase in foreign debt during the early eighties as a result of the international recession, a fiscal deficit, and the appreciation of the US dollar *vis à vis* other currencies. This was followed by an impressive improvement in the fiscal accounts during the second half of the decade while, at the same time, a booming investment was being financed by capital inflows. The latter caused a deterioration of the current account and a surge in domestic inflation. The main policy responses were a substantial tightening of fiscal policy, sterilization of the monetary impulses resulting from the rising balance of payments surpluses, liberalization of capital outflows and reduction of trade barriers. As a result the external competitiveness has remained more or less stable since 1987.

6. Concluding Remarks

During the last five years there has been an increasing interest in investors from industrial countries in investing in developing countries, particularly in those countries that have stabilized their economies and that have carried out major reforms of their policies and institutions, opening up their economies to international competition, increasing the reliance on markets, and decreasing the role of the state in the production of private goods. The better prospects in the recipient countries and the lower level of interest rates in the industrial countries have contributed to this change.

The increase in capital inflows to developing countries has relieved the balance of payments constraint of the recipient countries, but at the same time has created some new

problems. These new problems are of three types: an increase in monetization and inflation, a real exchange rate appreciation, and a decrease in the effectiveness of monetary policy.

Facing these problems, some developing countries have implemented different policies trying to compensate for the monetary and real effects of the capital inflows. The outcome has been different for each country and the degree of success varies among them. Table 10 below shows the different policy mix used by each of the countries included in our sample. On the other hand, Tables 11 and 12 below summarize the outcome in some key macroeconomic variables for all the countries in the sample.

Concerning the outcome in each of the countries there are some important facts that are worth noticing:

- First, it can be argued that all the countries have been successful in avoiding a permanent and significant increase in inflation. In fact in Argentina and Mexico inflation has been decreasing over the past three to four years, while in the other seven countries inflation has remained fairly stable. Although in the case of Malaysia inflation seems to be increasing during the last two years, it is also true that Malaysia shows the lowest inflation rate among all the countries in the sample.
- Second, in terms of the pattern shown by the real exchange rate, we can split our sample into two different groups. In the first group we include Chile, Indonesia, and Malaysia, which have avoided a significant real exchange rate appreciation (Malaysia shows a real depreciation). In the second group we include Argentina, Korea, Mexico, and The Philippines which have had a strong real exchange rate appreciation. Thailand lies in between these two groups.
- Third, the countries that have received the largest capital inflows (as a percentage of GDP) on average during 1989-92, are not those that have experienced the largest real exchange rate appreciation. In fact the largest recipients of capital inflows (Thailand, Malaysia and Chile), have experience either a depreciation or a minor appreciation of their currencies. It is important to notice that Thailand has experienced a lower appreciation than Korea in spite of receiving a much larger capital inflow. Also, during 1986-90 the real exchange rate of Thailand appreciated only 4.8%.
- Fourth, those countries that show a decreasing pattern of government consumption – as a percentage of GDP– are also those that show a lower real exchange rate appreciation (Malaysia, Chile and Indonesia). It is again important to notice that during 1986-90, the period when Thailand reduced its government consumption by 3.4% of GDP, the RER appreciated only 4.8% in spite of receiving (on average) capital inflows of the order of 7 percentage points of GDP.

- Those countries that show a minor decrease (or an increase) in the share of government consumption in GDP (Argentina, Mexico, Korea and The Philippines), are the same that show the highest real exchange rate appreciation, in spite of not being the largest recipients of capital inflows. (Notice that Argentina has not decreased its government consumption for the last three years when significant capital inflows have occurred).
- Argentina and Mexico were at the same time pursuing an exchange rate based stabilization effort. Thus, the real exchange rate appreciation could be due to inflation inertia rather than to the expenditure effect of the capital inflows.

Overall, the review of the experience of the eight countries considered in this paper does not provide strong evidence to suggest that there is a clear regional difference in the way countries have responded to the surge of capital inflows in recent years. However it could be argued that, with the exception of Chile in Latin America, and Korea and The Philippines among the ASEAN countries, the latter group has tended to rely more on a restrictive fiscal policy than the former. In addition, several conclusions in terms of economic policy to deal with some of the side effects of capital inflows can be drawn from the case studies included in this paper .

First, there is a role for the Central Bank to play in order to avoid some of the side effects of capital inflows.

Second, to get the benefits of capital inflows while at the same time ameliorating some of their side effects, a tight fiscal policy seems to be the most effective way to avoid a large appreciation of the real exchange rate. Those countries that increased their public savings were able to leave more space for the increase in private sector investment that was being financed by the capital inflow.

Third, the increase in public sector savings seems to be the only sustainable policy to protect the real exchange rate in the long run and seems to be perceived more favorably by the international investors community.

Fourth, a mixed policy seems to be more appropriate in the short run than pure fiscal policy. This occurs because fiscal policy usually lacks the required flexibility to deal with volatile capital flows in the short run. However, the high volatility of portfolio investment flows imposes a medium and long term constraint in terms of keeping fiscal policy aligned with fundamentals.

Fifth, the use of sterilized intervention has shown not to be very effective as a mechanism to protect the real exchange rate from appreciating, specially in the medium and long run. Although this policy may work in the very short run, the increase in domestic interest rates that goes along with it provides additional incentives for capital inflows. Also, because of the increasing worldwide integration of financial markets, the period of time during which this policy may work is shortening very fast. Finally, this policy is not sustainable in the long run because it worsens the quasi public deficit of the Central Bank. The latter may be the source of speculative attacks on the exchange rate.

Sixth, letting domestic interest rates fall to levels consistent with the expected depreciation augmented international interest rates, seems to be necessary to reduce the inflows of capital. As the experience of Colombia and Indonesia show, letting the domestic interest rate to adjust reduces the incentives for capital inflows and eliminates the quasi-fiscal losses of the Central Bank. The aggregate demand effects of the lower interest rate needs to be dealt with through a fiscal adjustment.

Seventh, the impediments to capital inflows by imposing quantitative constraints or ceilings on foreign borrowing by banks or other large borrowers (large enterprises), or the sterilization through the purchase of Central Bank's liabilities by large investors (pension funds or public enterprises), proves to be very effective in the short run as long as it does not cause an increase in domestic interest rates and additional capital inflows. However, given the worldwide integration and globalization of financial markets and the sophistication of financial intermediaries, this sort of policy does not seem to be effective in the long run. Also, this type of constraints may be very damaging to the economy as a whole because of its related pervasive effects on resource allocation and efficiency. Also, most probably it will have negative effects on the total amount of capital inflows to the country as it may be perceived negatively by international investors.

In sum, capital inflows not only allow the benefit of a relaxation of a balance of payments constraint, but also could create some macroeconomic adjustment problems. In this sense capital flows to developing countries, if properly handled, can be both the result and the cause of a good macroeconomic performance. However, a poor economic policy management in the recipient country may cause a reversal of flows rather than enhancing their continuance. The use of the appropriate policy tool may be crucial to attain a sustainable and higher rate of growth and investment. The only reasonable and sustainable policy to use seems to be fiscal policy, not only because of the highly integrated financial markets around the world, but also because monetary policy becomes less effective whenever there is a nominal exchange rate target. This is particularly true for those flows that are highly volatile such as private portfolio investment.

For capital inflows of a more long term characteristic, the authorities should be ready to allow the adjustment mechanism to work through a real appreciation. In this case a fiscal

adjustment could accompany the capital inflow to reduce the size of the required appreciation and or to distribute the real appreciation through time.

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**TABLE 1****A : MACROECONOMIC INDICATORS**

<b>ARGENTINA</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
AVERAGE INFLATION (%)	90,10	131,33	342,95	3079,42	2313,97	171,67	24,90
REAL EFFECTIVE EXCH. RATE ('85=100) (1)	124,94	123,79	128,78	80,77	163,29	226,83	270,32
RESERVE MONEY (L.c. \$ MILLIONS)	0,69	1,35	7,00	528,17	3617,00	7823,00	11010,00
- NET DOMESTIC CREDIT	0,97	3,38	11,75	n.a.	5360,00	8916,00	2523,00
- NET FOREIGN ASSETS	-0,27	-2,03	-4,75	n.a.	-1743,00	-1093,00	8487,00
INVESTMENT (%GDP) (2)	14,29%	11,76%	12,20%	8,99%	8,44%	12,50%	14,50%
NATIONAL SAVINGS (% GDP) (2)	n.a.	5,88%	9,76%	5,20%	10,03%	10,39%	9,31%
- PRIVATE CONSUMPTION (% GDP) (2)	85,71%	82,35%	78,05%	77,33%	79,99%	80,63%	83,50%
- GOVERN'T CONSUMPTION (% GDP) (2)	14,29%	5,88%	6,10%	5,71%	4,20%	4,65%	4,41%
CURRENT ACCOUNT DEFICIT (% GDP) (2)	n.a.	5,88%	2,44%	3,79%	-1,60%	2,11%	5,19%

**B: BALANCE OF PAYMENTS SELECTED DATA**  
**(in millions of dollars)**

<b>ARGENTINA</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
RESERVES: NET CHNG IN HLDGS (3)	984	2213	-1922	1322	-3092	-1977	-4250
SHORT TERM CAPITAL	-609	-29	2367	-4541	-445	1878	9471
LONG TERM CAPITAL	2066	2574	737	1101	679	1136	22
PORTFOLIO INVESTMENT	-365	-96	-656	2618	-1309	322	-898
NET DIRECT INVESTMENT	574	-19	1147	1028	1836	2439	4179
CAPITAL ACCOUNT BALANCE	1666	2430	3595	206	761	5775	12774
NET ERRORS AND OMISSIONS	302	-112	-165	-249	715	-341	137

Sources: IMF, International Financial Statistics  
IMF, Balance of Payments Statistics  
World Bank  
Situacion Latinoamericana

Notes: (1) An increase in the index is an appreciation of the RER  
(2) Computed at current prices.  
(3) A negative number means an increase in reserves.

**TABLE 2****A : MACROECONOMIC INDICATORS**

<b>CHILE</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
AVERAGE INFLATION (%)	19,48	19,87	14,69	17,03	26,04	21,78	15,43
REAL EFFECTIVE EXCH. RATE ('85=100) (1)	84,52	78,43	73,35	75,01	72,84	75,15	79,5
RESERVE MONEY (L.c. \$ MILLIONS)	2317443	2492480	2400394	2321690	3675395	4507409	5238266
- NET DOMESTIC CREDIT	2846763	3198490	2737820	2206783	2539786	2750800	2271891
- NET FOREIGN ASSETS	-529320	-706010	-337426	114907	1135609	1756609	2966375
INVESTMENT (%GDP) (2)	18,88%	22,24%	22,77%	25,53%	24,73%	22,15%	23,74%
NATIONAL SAVINGS (% GDP) (2)	11,54%	17,25%	22,27%	23,68%	22,41%	22,32%	22,01%
- PRIVATE CONSUMPTION (% GDP) (2)	65,48%	64,00%	59,91%	60,41%	62,47%	63,53%	64,56%
- GOVERN'T CONSUMPTION (% GDP) (2)	12,58%	10,88%	10,36%	9,60%	9,60%	9,69%	9,73%
CURRENT ACCOUNT DEFICIT (% GDP) (2)	7,34%	4,99%	0,50%	1,85%	2,32%	-0,17%	1,73%

**B: BALANCE OF PAYMENTS SELECTED DATA**  
**(in millions of dollars)**

<b>CHILE</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
RESERVES: NET CHNG IN HLDGS (3)	255	-79,2	-867	-581	-2320	-1340	-1950
SHORT TERM CAPITAL	377	172	-208	742	1143	-212	1712
LONG TERM CAPITAL	26	-74	299	-916	1094	378	506
PORTFOLIO INVESTMENT	197	693	870	1400	766	93	-14
NET DIRECT INVESTMENT	116	230	141	184	249	563	737
CAPITAL ACCOUNT BALANCE	716	1020	1100	1410	3250	822	2940
NET ERRORS AND OMISSIONS	224	-77,7	-109	-71,3	-326	283	187

Sources: IMF, International Financial Statistics  
IMF, Balance of Payments Statistics  
Central Bank of Chile

Notes: (1) An increase in the index is an appreciation of the RER  
(2) Computed at current prices.  
(3) A negative number means an increase in reserves.

**TABLE 3****A : MACROECONOMIC INDICATORS**

<b>COLOMBIA</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
AVERAGE INFLATION (%)	18,88	23,30	28,11	25,84	29,14	30,39	27,03
REAL EFFECTIVE EXCH. RATE ('85=100) (1)	74,51	66,44	64,08	61,73	54,46	56,27	61,46
RESERVE MONEY (L.c. \$ MILLIONS)	581500	848900	1017600	1694400	2077300	2647700	3619300
- NET DOMESTIC CREDIT	-236430	-150883	-543	307450	-113860	-1088270	-1732270
- NET FOREIGN ASSETS	817930	999783	1018143	1386950	2191160	3735970	5351570
INVESTMENT (%GDP) (2)	18,00%	20,00%	21,99%	19,98%	18,23%	15,26%	17,91%
NATIONAL SAVINGS (% GDP) (2)	20,40%	19,16%	20,29%	19,09%	18,56%	18,38%	15,96%
- PRIVATE CONSUMPTION (% GDP) (2)	65,35%	66,13%	65,50%	65,29%	65,39%	66,05%	64,83%
- GOVERN'T CONSUMPTION (% GDP) (2)	9,81%	9,84%	10,08%	10,55%	10,73%	10,63%	10,39%
CURRENT ACCOUNT DEFICIT (% GDP) (2)	-2,40%	0,83%	1,70%	0,88%	-0,33%	-3,12%	1,95%

**B: BALANCE OF PAYMENTS SELECTED DATA**  
**(in millions of dollars)**

<b>COLOMBIA</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
RESERVES: NET CHNG IN HLDGS (3)	-1350	106	-348	-220	-667	-1890	n.a.
SHORT TERM CAPITAL	-1307	-192	105	-175	-198	-926	n.a.
LONG TERM CAPITAL	1793	-150	675	-73	-284	-371	n.a.
PORTFOLIO INVESTMENT	30	48	0	179	-4	81	n.a.
NET DIRECT INVESTMENT	642	293	159	547	484	433	743
CAPITAL ACCOUNT BALANCE	1160	-1	939	478	-2	-783	n.a.
NET ERRORS AND OMISSIONS	-417	67	-530	37	-56	139	n.a.

Sources: IMF, International Financial Statistics  
IMF, Balance of Payments Statistics  
Latin American Consensus Forecasts  
The World Bank  
Banco de la Republica

Notes: (1) An increase in the index is an appreciation of the RER  
(2) Computed at current prices.  
(3) A negative number means an increase in reserves.

**TABLE 4****A : MACROECONOMIC INDICATORS**

<b>INDONESIA</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
AVERAGE INFLATION (%)	5,94	9,16	8,04	6,42	7,45	9,25	7,51
REAL EFFECTIVE EXCH. RATE ('85=100) (1)	74,79	79,08	78,31	76,51	75,02	78,08	80,59
RESERVE MONEY (L.c. \$ MILLIONS)	8170000	9032000	8381000	10788000	12549000	12961000	15509000
- NET DOMESTIC CREDIT	-70096	-118530	1868380	5757160	925740	-5181137	-15673500
- NET FOREIGN ASSETS	8240096	9150530	6512620	5030840	11623260	18142137	31182500
INVESTMENT (%GDP) (2)	28,27%	31,36%	31,53%	35,19%	36,58%	35,07%	36,31%
NATIONAL SAVINGS (% GDP) (2)	23,18%	28,08%	29,12%	32,69%	32,21%	30,99%	35,83%
- PRIVATE CONSUMPTION (% GDP) (2)	61,70%	57,68%	57,03%	53,09%	53,99%	55,09%	50,78%
- GOVERN'T CONSUMPTION (% GDP) (2)	11,03%	9,42%	8,98%	9,39%	8,92%	9,18%	8,90%
CURRENT ACCOUNT DEFICIT (% GDP) (2)	5,08%	3,29%	2,41%	2,49%	4,37%	4,07%	0,49%

**B: BALANCE OF PAYMENTS SELECTED DATA**  
**(in millions of dollars)**

<b>INDONESIA</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
RESERVES: NET CHNG IN HLDGS (3)	928	-876	451	-466	-2100	-2060	-1340
SHORT TERM CAPITAL	1300	970	408	-98	-229	214	137
LONG TERM CAPITAL	2358	2213	1333	2510	3724	4440	4044
PORTFOLIO INVESTMENT	268	-88	-98	-173	-93	-12	-88
NET DIRECT INVESTMENT	258	385	576	682	1090	1480	1770
CAPITAL ACCOUNT BALANCE	4180	3480	2220	2920	4500	6130	5860
NET ERRORS AND OMISSIONS	-1270	-753	-933	-1320	744	-517	-115

Sources: IMF, International Financial Statistics  
IMF, Balance of Payments Statistics  
The World Bank

Notes: (1) An increase in the index is an appreciation of the RER  
(2) Computed at current prices.  
(3) A negative number means an increase in reserves.

**TABLE 5****A : MACROECONOMIC INDICATORS**

<b>KOREA</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
AVERAGE INFLATION (%)	2,75	3,05	7,15	5,70	8,58	9,65	6,24
REAL EFFECTIVE EXCH. RATE ('85=100) (1)	104,45	112,33	130,12	142,81	142,02	150,03	148,81
RESERVE MONEY (L.c. \$ MILLIONS)	5017000	7469000	9728000	12819000	13811000	16322000	18107000
- NET DOMESTIC CREDIT	3540010	5089820	1298590	2493580	3053200	5684600	4496400
- NET FOREIGN ASSETS	1476990	2379180	8429410	10325420	10757800	10637400	13610600
INVESTMENT (%GDP) (2)	28,35%	29,46%	30,64%	33,35%	36,95%	39,03%	35,87%
NATIONAL SAVINGS (% GDP) (2)	30,95%	34,42%	36,95%	34,76%	35,48%	35,93%	34,48%
- PRIVATE CONSUMPTION (% GDP) (2)	55,97%	53,48%	51,94%	53,86%	53,20%	52,67%	53,40%
- GOVERN'T CONSUMPTION (% GDP) (2)	10,06%	9,88%	9,76%	10,53%	10,61%	10,67%	11,35%
CURRENT ACCOUNT DEFICIT (% GDP) (2)	-2,60%	-4,96%	-6,30%	-1,41%	1,47%	3,09%	1,40%

**B: BALANCE OF PAYMENTS SELECTED DATA**  
**(in millions of dollars)**

<b>KOREA</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
RESERVES: NET CHNG IN HLDGS (3)	-165	-2260	-3680	-2870	421	1090	-3420
SHORT TERM CAPITAL	-1419	-462	-840	1280	3625	756	-371
LONG TERM CAPITAL	-3202	-8785	-3642	-4332	-1370	3186	2278
PORTFOLIO INVESTMENT	301	-113	-482	-29	811	3120	5740
NET DIRECT INVESTMENT	325	418	720	453	-105	-240	-500
CAPITAL ACCOUNT BALANCE	-3990	-8930	-4250	-2630	2970	6830	7150
NET ERRORS AND OMISSIONS	-547	1180	-591	690	-2010	753	1100

Sources: IMF, International Financial Statistics  
IMF, Balance of Payments Statistics

Notes: (1) An increase in the index is an appreciation of the RER  
(2) Computed at current prices.  
(3) A negative number means an increase in reserves.

**TABLE 6****A : MACROECONOMIC INDICATORS**

<b>MALAYSIA</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
AVERAGE INFLATION (%)	0,74	0,29	2,56	2,81	2,62	4,36	4,77
REAL EFFECTIVE EXCH. RATE ('85=100) (1)	83,94	79,58	72,16	70,87	68,01	66,09	70,26
RESERVE MONEY (L.c. \$ MILLIONS)	10134	10664	11894	14783	18145	20771	22150
- NET DOMESTIC CREDIT	-6191	-8769	-6435	-6866	-8875	-9677	-32593
- NET FOREIGN ASSETS	16325	19433	18330	21650	27020	30447	54743
INVESTMENT (%GDP) (2)	25,99%	23,18%	25,96%	29,09%	32,08%	36,33%	33,83%
NATIONAL SAVINGS (% GDP) (2)	25,40%	31,09%	30,73%	28,74%	28,19%	28,01%	30,90%
- PRIVATE CONSUMPTION (% GDP) (2)	50,98%	47,33%	49,37%	51,09%	53,42%	54,69%	51,57%
- GOVERN'T CONSUMPTION (% GDP) (2)	16,94%	15,37%	14,30%	14,40%	14,01%	14,20%	13,51%
CURRENT ACCOUNT DEFICIT (% GDP) (2)	0,58%	-7,91%	-4,78%	0,35%	3,89%	8,31%	2,93%

**B: BALANCE OF PAYMENTS SELECTED DATA**  
**(in millions of dollars)**

<b>MALAYSIA</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
RESERVES: NET CHNG IN HLDGS (3)	-1140	-1470	1070	-1260	-1990	-1170	-6890
SHORT TERM CAPITAL	-10,8	-969,1	-1140,9	556,8	230,52	610,55	3078,75
LONG TERM CAPITAL	600,75	-1107,22	-1496	-569,5	-58	642	243
PORTFOLIO INVESTMENT	29,8	140	-448	-107	-255	170	-1110
NET DIRECT INVESTMENT	489	423	719	1670	2330	4070	4120
CAPITAL ACCOUNT BALANCE	1110	-1520	-2360	1550	2250	5500	6330
NET ERRORS AND OMISSIONS	476	20	96,7	-101	1330	270	2010

Sources: IMF, International Financial Statistics  
IMF, Balance of Payments Statistics  
The World Bank

Notes: (1) An increase in the index is an appreciation of the RER  
(2) Computed at current prices.  
(3) A negative number means an increase in reserves.

**TABLE 7****A : MACROECONOMIC INDICATORS**

<b>MEXICO</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
AVERAGE INFLATION (%)	86,23	131,83	114,16	20,01	26,65	22,66	15,51
REAL EFFECTIVE EXCH. RATE ('85=100) (1)	80,53	80,71	100,76	106,43	113,89	129,94	145,48
RESERVE MONEY (L.c. \$ MILLIONS)	8444	14402	20874	23012	31135	39797	45536
- NET DOMESTIC CREDIT	5946	-4493	16813	19011	20182	5246	4370
- NET FOREIGN ASSETS	2498	18895	4061	4001	10953	34551	41166
INVESTMENT (%GDP) (2)	18,54%	19,26%	20,41%	21,41%	21,89%	22,36%	24,83%
NATIONAL SAVINGS (% GDP) (2)	17,07%	20,79%	18,22%	17,79%	17,76%	16,99%	18,00%
- PRIVATE CONSUMPTION (% GDP) (2)	68,45%	65,84%	69,41%	70,31%	70,86%	71,69%	73,98%
- GOVERN'T CONSUMPTION (% GDP) (2)	9,10%	8,79%	8,64%	8,45%	8,42%	9,01%	8,97%
CURRENT ACCOUNT DEFICIT (% GDP) (2)	1,47%	-1,53%	2,20%	3,63%	4,14%	5,37%	6,83%

**B: BALANCE OF PAYMENTS SELECTED DATA**  
**(in millions of dollars)**

<b>MEXICO</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
RESERVES: NET CHNG IN HLDGS (3)	232	-5680	6790	-121	-2020	-7620	-1930
SHORT TERM CAPITAL	694	-5049	-678	-936	2845	3413	6235
LONG TERM CAPITAL	-272	1193	-4950	-1194	8410	6917	730
PORTFOLIO INVESTMENT	-816	-397	1680	438	-5360	9270	14100
NET DIRECT INVESTMENT	1520	3250	2590	3040	2630	4760	5370
CAPITAL ACCOUNT BALANCE	1130	-1000	-1360	1350	8530	24400	26400
NET ERRORS AND OMISSIONS	458	2610	-2840	2790	890	-2580	-1860

Sources: IMF, International Financial Statistics  
IMF, Balance of Payments Statistics  
Latin American Consensus Forecasts  
The World Bank

Notes: (1) An increase in the index is an appreciation of the RER  
(2) Computed at current prices.  
(3) A negative number means an increase in reserves.

**TABLE 8****A : MACROECONOMIC INDICATORS**

<b>PHILIPPINES</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
AVERAGE INFLATION (%)	0,75	3,79	8,76	12,21	14,14	18,71	8,92
REAL EFFECTIVE EXCH. RATE ('85=100) (1)	78,03	71,8	69,83	74,93	72,9	71,98	79,87
RESERVE MONEY (L.c. \$ MILLIONS)	52130	59420	69100	96000	112980	135680	144840
- NET DOMESTIC CREDIT	185416	191671	190681	204236	253526	204229	152610
- NET FOREIGN ASSETS	-133286	-132251	-121581	-108236	-140546	-68549	-7770
INVESTMENT (%GDP) (2)	15,99%	17,96%	18,37%	21,85%	24,86%	20,93%	22,62%
NATIONAL SAVINGS (% GDP) (2)	17,02%	19,58%	20,51%	19,37%	18,62%	17,34%	16,61%
- PRIVATE CONSUMPTION (% GDP) (2)	72,96%	70,32%	69,58%	70,18%	71,70%	73,84%	76,08%
- GOVERN'T CONSUMPTION (% GDP) (2)	7,95%	8,36%	8,99%	9,23%	10,17%	10,24%	9,70%
CURRENT ACCOUNT DEFICIT (% GDP) (2)	-1,02%	-1,62%	-2,14%	2,48%	6,24%	3,59%	6,00%

**B: BALANCE OF PAYMENTS SELECTED DATA**  
**(in millions of dollars)**

<b>PHILIPPINES</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
RESERVES: NET CHNG IN HLDGS (3)	-1340	-144	-1010	-462	-167	-2080	-1640
SHORT TERM CAPITAL	-1069	-246	-34	-70	350	1039	1487
LONG TERM CAPITAL	1073	238	-381	581	1227	1238	1360
PORTFOLIO INVESTMENT	13	19	50	280	-50	110	40
NET DIRECT INVESTMENT	127	307	936	563	530	544	228
CAPITAL ACCOUNT BALANCE	146	318	571	1350	2060	2930	3120
NET ERRORS AND OMISSIONS	33,7	67,9	493	402	593	-138	-510

Sources: IMF, International Financial Statistics  
IMF, Balance of Payments Statistics

Notes: (1) An increase in the index is an appreciation of the RER  
(2) Computed at current prices.  
(3) A negative number means an increase in reserves.



**TABLE 9****A : MACROECONOMIC INDICATORS**

<b>THAILAND</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
AVERAGE INFLATION (%)	1,84	2,47	3,86	5,36	5,93	5,70	4,14
REAL EFFECTIVE EXCH. RATE ('85=100) (1)	108,48	110,14	111,50	110,52	113,67	120,56	124,75
RESERVE MONEY (L.c. \$ MILLIONS)	95328	116653	133994	156670	185790	210451	248044
- NET DOMESTIC CREDIT	24684	10529	-28613	-105918	-174717	-254562	-290889
- NET FOREIGN ASSETS	70644	106124	162607	262588	360507	465013	538933
INVESTMENT (%GDP) (2)	21,79%	23,92%	28,84%	31,51%	36,76%	38,86%	37,94%
NATIONAL SAVINGS (% GDP) (2)	20,33%	23,04%	28,19%	29,77%	29,99%	30,18%	32,62%
- PRIVATE CONSUMPTION (% GDP) (2)	64,42%	63,41%	59,77%	59,07%	59,20%	57,40%	57,66%
- GOVERN'T CONSUMPTION (% GDP) (2)	13,20%	11,76%	10,40%	9,85%	9,78%	9,85%	9,70%
CURRENT ACCOUNT DEFICIT (% GDP) (2)	1,46%	0,88%	0,64%	1,75%	6,77%	8,68%	5,32%

**B: BALANCE OF PAYMENTS SELECTED DATA**  
**(in millions of dollars)**

<b>THAILAND</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
RESERVES: NET CHNG IN HLDGS (3)	-952	-1280	-2520	-4870	-3560	-4700	-2740
SHORT TERM CAPITAL	-219	461,3	2499	2328,1	5495,9	6661	5385
LONG TERM CAPITAL	-144	72	-268,45	1059	1330	3327	1515
PORTFOLIO INVESTMENT	-29,5	346	530	1490	-38,1	-81,1	750
NET DIRECT INVESTMENT	261,94	182	1085,9	1730,3	2300	1843	1984
CAPITAL ACCOUNT BALANCE	-131	1060	3840	6600	9100	11800	9630
NET ERRORS AND OMISSIONS	598	248	411	928	1420	425	-23,2

Sources: IMF, International Financial Statistics  
IMF, Balance of Payments Statistics  
The World Bank

Notes: (1) An increase in the index is an appreciation of the RER  
(2) Computed at current prices.  
(3) A negative number means an increase in reserves.

**TABLE 10**  
**MAJOR ECONOMIC MEASURES USED BY THE COUNTRIES IN THE SAMPLE**

	MOVE TOWARDS A MORE FLOATING EXCH RATE (widening of the band, limiting the use of swap facilities, pegging to a basket of currencies, etc.)	FISCAL RESTRAINT (inclusive of paying public foreign debt)	STERILIZATION THROUGH OPEN MARKET OPERATIONS	STERILIZATION THROUGH OTHER MECHANISMS (increase in banks' reserves, increase in banks' capitalization rate, etc.)	RESTRICTIONS ON CAPITAL INFLOWS (taxes to capital inflows, minimum reserve requirements on foreign loans, ceilings on foreign borrowing, etc.)	LIBERALIZATION OF THE CURRENT ACCOUNT (tariff reduction, etc.)	CAPITAL OUTFLOW LIBERALIZATION
<b>ARGENTINA</b>		YES				YES	
<b>CHILE</b>	YES		YES		YES	YES	YES
<b>COLOMBIA</b>			YES	YES*		YES	YES
<b>INDONESIA</b>	YES	YES		YES	YES	YES	
<b>KOREA</b>		YES	YES		YES		
<b>MALAYSIA</b>		YES	YES	YES		YES	
<b>MEXICO</b>	YES	YES	YES		YES	YES	
<b>PHILIPPINES</b>		YES	YES	YES		YES	YES
<b>THAILAND</b>	YES	YES	YES	YES	YES	YES	YES

\* Only Temporary

TABLE 11: MACROECONOMIC OUTCOMES

ARGENTINA	1986	1987	1988	1989	1990	1991	1992
OVERALL CAPITAL ACCOUNT BALANCE							
- In Millions of US Dollars	1968	2318	3430	-43	1476	5434	12911
- % of GDP	2,50%	2,88%	3,65%	-0,07%	1,40%	4,01%	8,43%
GOVERN'T CONSUMPTION (% GDP)	14,29%	5,88%	6,10%	5,71%	4,20%	4,65%	4,41%
AVERAGE INFLATION (%)	90,10	131,33	342,95	3079,42	2313,97	171,67	24,90
REAL EFFECTIVE EXCH. RATE ('85=100)	124,94	123,79	128,78	80,77	163,29	226,83	270,32
CURRENT ACCOUNT DEFICIT (% GDP)	n.a.	5,88%	2,44%	3,79%	-1,60%	2,11%	5,19%
CHILE	1986	1987	1988	1989	1990	1991	1992
OVERALL CAPITAL ACCOUNT BALANCE							
- In Millions of US Dollars	940	942,3	991	1338,7	2924	1105	3127
- % of GDP	5,93%	5,39%	4,52%	5,86%	11,62%	3,80%	8,72%
GOVERN'T CONSUMPTION (% GDP)	12,58%	10,88%	10,36%	9,60%	9,60%	9,69%	9,73%
AVERAGE INFLATION (%)	19,48	19,87	14,69	17,03	26,04	21,78	15,43
REAL EFFECTIVE EXCH. RATE ('85=100)	84,52	78,43	73,35	75,01	72,84	75,15	79,5
CURRENT ACCOUNT DEFICIT (% GDP)	7,34%	4,99%	0,50%	1,85%	2,32%	-0,17%	1,73%
COLOMBIA	1986	1987	1988	1989	1990	1991	1992
OVERALL CAPITAL ACCOUNT BALANCE							
- In Millions of US Dollars	743	66	409	515	-58	-644	n.a.
- % of GDP	2,13%	0,18%	1,05%	1,30%	-0,14%	-1,54%	n.a.
GOVERN'T CONSUMPTION (% GDP)	9,81%	9,84%	10,08%	10,55%	10,73%	10,63%	10,39%
AVERAGE INFLATION (%)	18,88	23,3	28,11	25,84	29,14	30,39	27,03
REAL EFFECTIVE EXCH. RATE ('85=100)	74,51	66,44	64,08	61,73	54,46	56,27	61,46
CURRENT ACCOUNT DEFICIT (% GDP)	-2,40%	0,83%	1,70%	0,88%	-0,33%	-3,12%	1,95%
INDONESIA	1986	1987	1988	1989	1990	1991	1992
OVERALL CAPITAL ACCOUNT BALANCE							
- In Millions of US Dollars	2910	2727	1287	1600	5244	5613	5745
- % of GDP	4,64%	3,60%	1,57%	1,72%	5,06%	4,93%	4,57%
GOVERN'T CONSUMPTION (% GDP)	11,03%	9,42%	8,98%	9,39%	8,92%	9,18%	8,90%
AVERAGE INFLATION (%)	5,94	9,16	8,04	6,42	7,45	9,25	7,51
REAL EFFECTIVE EXCH. RATE ('85=100)	74,79	79,08	78,31	76,51	75,02	78,08	80,59
CURRENT ACCOUNT DEFICIT (% GDP)	5,08%	3,29%	2,41%	2,49%	4,37%	4,07%	0,49%
KOREA	1986	1987	1988	1989	1990	1991	1992
OVERALL CAPITAL ACCOUNT BALANCE							
- In Millions of US Dollars	-4537	-7750	-4841	-1940	960	7583	8250
- % of GDP	-4,28%	-5,91%	-2,76%	-0,91%	0,39%	2,67%	2,78%
GOVERN'T CONSUMPTION (% GDP)	10,06%	9,88%	9,76%	10,53%	10,61%	10,67%	11,35%
AVERAGE INFLATION (%)	2,75	3,05	7,15	5,7	8,58	9,65	6,24
REAL EFFECTIVE EXCH. RATE ('85=100)	104,45	112,33	130,12	142,81	142,02	150,03	148,81
CURRENT ACCOUNT DEFICIT (% GDP)	-2,60%	-4,96%	-6,30%	-1,41%	1,47%	3,09%	1,40%
MALAYSIA	1986	1987	1988	1989	1990	1991	1992
OVERALL CAPITAL ACCOUNT BALANCE							
- In Millions of US Dollars	1586	-1500	-2263,3	1449	3580	5770	8340
- % of GDP	5,71%	-4,75%	-6,52%	3,81%	8,36%	12,21%	14,47%
GOVERN'T CONSUMPTION (% GDP)	16,94%	15,37%	14,30%	14,40%	14,01%	14,20%	13,51%
AVERAGE INFLATION (%)	0,74	0,29	2,56	2,81	2,62	4,36	4,77
REAL EFFECTIVE EXCH. RATE ('85=100)	83,94	79,58	72,16	70,87	68,01	66,09	70,26
CURRENT ACCOUNT DEFICIT (% GDP)	0,58%	-7,91%	-4,78%	0,35%	3,89%	8,31%	2,93%
MEXICO	1986	1987	1988	1989	1990	1991	1992
OVERALL CAPITAL ACCOUNT BALANCE							
- In Millions of US Dollars	1588	1610	-4200	4140	9420	21820	24540
- % of GDP	1,23%	1,15%	-2,44%	2,00%	3,86%	7,62%	7,36%
GOVERN'T CONSUMPTION (% GDP)	9,10%	8,79%	8,64%	8,45%	8,42%	9,01%	8,97%
AVERAGE INFLATION (%)	86,23	131,83	114,16	20,01	26,65	22,66	15,51
REAL EFFECTIVE EXCH. RATE ('85=100)	80,53	80,71	100,76	106,43	113,89	129,94	145,48
CURRENT ACCOUNT DEFICIT (% GDP)	1,47%	-1,53%	2,20%	3,63%	4,14%	5,37%	6,83%
PHILIPPINES	1986	1987	1988	1989	1990	1991	1992
OVERALL CAPITAL ACCOUNT BALANCE							
- In Millions of US Dollars	180	386	1064	1752	2653	2792	2610
- % of GDP	0,60%	1,16%	2,80%	4,12%	6,03%	6,19%	4,97%
GOVERN'T CONSUMPTION (% GDP)	7,95%	8,36%	8,99%	9,23%	10,17%	10,24%	9,70%
AVERAGE INFLATION (%)	0,75	3,79	8,76	12,21	14,14	18,71	8,92
REAL EFFECTIVE EXCH. RATE ('85=100)	78,03	71,80	69,83	74,93	72,90	71,98	79,87
CURRENT ACCOUNT DEFICIT (% GDP)	-1,02%	-1,62%	-2,14%	2,48%	6,24%	3,59%	6,00%
THAILAND	1986	1987	1988	1989	1990	1991	1992
OVERALL CAPITAL ACCOUNT BALANCE							
- In Millions of US Dollars	467	1308	4251	7528	10520	12225	9607
- % of GDP	1,12%	2,69%	7,12%	10,87%	13,13%	13,10%	9,15%
GOVERN'T CONSUMPTION (% GDP)	13,20%	11,76%	10,40%	9,85%	9,78%	9,85%	9,70%
AVERAGE INFLATION (%)	1,84	2,47	3,86	5,36	5,93	5,70	4,14
REAL EFFECTIVE EXCH. RATE ('85=100)	108,48	110,14	111,50	110,52	113,67	120,56	124,75
CURRENT ACCOUNT DEFICIT (% GDP)	1,46%	0,88%	0,64%	1,75%	6,77%	8,68%	5,32%

TABLE 12

Average Capital Inflows 1989-1992 (% of GDP)		Trend in Government Consumption (change in percentage points of GDP 1986-92)		Change in the Real Exchange Rate (in % 1989-92) (1)	
Thailand	11.6%	Decreasing	-3.5	+	13%
Malaysia	9.7%	Decreasing	-3.4	-	1%
Chile	7.5%	Decreasing	-2.9	+	6%
Philippines	5.3%	Increasing	+1.8	+	14% (5)
Mexico	5.2%	Stable	-0.13	+	37%
Indonesia	4.1%	Decreasing	-2.1	+	5%
Argentina	3.4%	Decreasing	-1.5 (2)	+	65% (3)
Korea	1.2%	Increasing	+1.3	+	14% (4)

(1) A positive number means an appreciating RER.

(2) 1987-92

(3) 1990-92

(4),(5) 1988-92