

Exchange Rate Regimes and Institutional Arrangements in the Shadow of Capital Flows¹

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Richard Feynman, the irreverent physicist who won the Nobel Prize in 1965 for his work on quantum electrodynamics, relates an interesting story about his experience in Stockholm when he went to pick up his prize. Following the award ceremony and the dinner, he wanders into a room where a Scandinavian princess is holding court. The princess recognizes him as one of the awardees and asks him what field he did his work on. When Feynman replies that his field is physics, the princess says that this is too bad. Since no one at the table knows anything about physics, she says, they cannot talk about it. Feynman disagrees:

“On the contrary,” I answered. “It’s because somebody knows *something* about it that we can’t talk about physics. It’s the things that nobody knows anything about that we *can* discuss. We can talk about the weather; we can talk about social problems; we can talk about psychology; we can talk about international finance ... so it’s the subject that nobody knows anything about that we can all talk about!”²

Well, that was in 1965, and Bob Mundell’s presence among us is surely a reminder that it is no longer true—if it ever were—that no one knows anything about international finance. But equally surely, the Asian crisis has made it clear that our understanding of the operation of international finance markets leaves a lot to be desired. And that is why, following Feynman’s logic, we keep talking about it.

In the aftermath of the crisis, the view that globalized financial markets would allocate capital efficiently and boost economic growth and stability in countries partaking of them has

¹ This paper has been prepared for a conference on Central Banking and Sustainable Development, held in Kuala Lumpur, Malaysia, August, 28-30, 2000, in honor of Tun Ismail Mohamed Ali,

² Feynman (1985, 130).

taken a serious beating. The attitude towards capital controls has softened considerably as a result. Today's emerging consensus on capital flows can be summarized as follows:

1. persuasive evidence on the benefits of opening up to capital flows--especially of the portfolio and short-term kind--has yet to be provided; and
2. for many countries, open capital account policies are not appropriate.

These views have become surprisingly common, and they are now even expressed at the highest level of the IMF.³ So one thing that has come out of the Asian crisis is greater skepticism about the benefits of capital-account opening and better appreciation of the role that capital controls can play in developing economies.

While controls on capital inflows receive widespread support, controls on outflows remain controversial, especially when they are undertaken in the midst of financial difficulty as a crisis-resolution measure. In this connection, there has been much discussion of the temporary Malaysian controls on outflows introduced in September 1998. Whether the controls helped Malaysia recover sooner than it would have otherwise is the major issue under contention. The statistical evidence on this is inconclusive, as the appropriate counterfactual is not clear. It is true that South Korea and Thailand experienced a rapid recovery around the same time as Malaysia did, without resorting to controls. On the other hand, where Malaysia is concerned one can make a credible case that it looked in late 1998 as if the worst was yet to come. The

³ Here is Michael Mussa (Economic Counselor and Director of Research at the IMF): "Many empirical studies have confirmed the common-sense appraisal of the postwar experience with trade liberalization: open policies toward international trade are an important factor contributing to stronger economic growth. Similarly persuasive evidence is not available for liberal policies toward international capital flows, particularly for portfolio flows rather than direct investment flows. Indeed, the experience in recent financial crises could cause reasonable people to question whether liberal policies toward international capital flows are wise for all countries in all circumstances. The answer, I believe, is probably not. High openness to international capital flows, especially short-term credit flows, can be dangerous for countries with weak or inconsistent macro-economic policies or inadequately capitalized and regulated financial systems. For such countries, public policy has important challenges to meet in preparing for a world economy that is being driven toward higher degrees of capital market integration" (Mussa 2000).

financial-market pressures on Malaysia (in particular, the short-selling of the ringgit in the offshore markets) had, if anything, become stronger. By contrast, by September 1998 the Korean and Thai currencies had already appreciated significantly from their troughs (Figure 1). That suggests that Malaysia's timing in terms of the crisis may have been 8-12 months behind Korea's and Thailand's. This line of argument casts Malaysia's quick recovery after September 1998 in a light that makes the controls look considerably better.

Whatever the ultimate verdict on that issue, the Malaysian experience with capital controls (not just the 1998 controls, but also the earlier restrictions on inflows in 1994) demonstrate two things:

- (a) capital controls can be made effective (in the sense of driving a wedge between onshore and offshore interest rates) with minimal corruption and rent-seeking;
- (b) capital controls on short-term flows can be implemented with minimal disruption to direct foreign investment (i.e., without scaring away the investors that one really cares about).

This experience, I think, puts to rest several counter-arguments about controls: that markets can easily evade controls; that controls have to be so heavy-handed that they come with great costs to the real economy; that they are necessarily prone to corruption and rent-seeking; that it is impossible to segment short-term flows from direct foreign investment.

However, our knowledge about how one designs appropriate capital control regimes, as with everything else in international finance, remains highly incomplete. There has been too little effort by the international community in this area. There are no "code of best practices on capital-account controls" under discussion in the Financial Stability Forum. Policy efforts by the international community has instead focused on the following three strategies:

1. Increasing resilience of countries to capital-account shocks through means other than capital controls (“be liquid”)
2. Maintaining appropriate exchange rate regimes (“avoid soft pegs”)
3. Adopting financial codes and standards (“improve prudential regulation and corporate governance”)

I want to spend the bulk of the paper talking about these approaches. I will suggest that the discussion in these areas focuses too much on making the system safe for capital flows, and too little on the developmental needs of countries. The associated policy efforts are diverting attention from development, and distorting policy priorities.

Increasing liquidity

While there has been much discussion about a true international lender-of-last-resort, the political reality is that this idea is a non-starter. The IMF is clearly not up to the task, and will not be anytime soon. Recent institutional tinkering, and in particular the establishment of the Contingent Credit Line (CCL) at the IMF, has to be considered an improvement. However, the CCL has not been a stunning success so far. It has proved unpopular because of its pricing, the burden of pre-qualification it imposes, and the perception that pre-qualification would send to financial markets at best an ambiguous signal about creditworthiness.

Consequently, most of the work on liquidity has to be done at the national level. Governments in Latin America and Asia have embraced the task wholeheartedly, and have been building up unprecedented levels of foreign reserves to “armor-plate” their economies against reversals in capital flows. In a large number of cases, foreign reserves have gone considerably beyond the old rule of thumb of three months’ worth of imports.

This is costly in so far as foreign reserves, invested in U.S. Treasury securities, earn several percentage points less than the marginal cost of borrowed funds for developing country governments. Table 1 shows an illustrative calculation for two countries, Peru and South Korea. The calculation is based on two assumptions. First, we can treat the “excess” level of reserves, namely the amount of reserves held above the 3-months of imports benchmark, as the cost of maintaining openness to capital flows. This is in fact how policy makers think, even if they do not express it in these words. They are keenly aware that in a world where capital flows are unrestricted and volatile, the volume of trade is no longer the appropriate yardstick for the prudent level of reserves. Second, I assume that the spread between the yield on foreign reserves (the U.S. Treasury bill rate) and the marginal cost of funds is 6 percentage points. This is roughly the spread for emerging market bonds at present, and for a lot of countries is likely to be a conservative estimate of the true opportunity cost of holding reserves.

Under these assumptions, the annual cost of this particular insurance policy against financial market fickleness is of the order of 0.7 percentage points of GDP for both countries. This is a large number, in excess of the fiscal cost of, say, a decent sized social fund targeted at poverty alleviation. For all that we know about the benefits of capital mobility (see below), this single item on the other side of the balance sheet could exceed the likely economic gains from openness on the capital account. Note moreover that as far as the citizens of Peru and South Korea are concerned, this is a pure deadweight loss—it is not merely a fiscal transfer (as a social fund or other public programs would be).

I am not suggesting that building up reserves in this fashion is a bad idea. In view of the evidence that the short-term debt/reserves ratio is a robust predictor of financial crises (Rodrik and Velasco forthcoming), it is a sound policy in many instances. However, it is a sound policy

when governments are optimizing subject to the constraint of an open capital account, which is what the governments in Peru and South Korea are implicitly doing. It therefore represents a cost of maintaining openness to capital flows. Maintaining restrictions on capital inflows, and thereby alleviating the need for large amounts of foreign reserves, may often be the smarter policy.

What is equally striking is that Peru and South Korea are accumulating huge reserves even though they have adopted floating exchange-rate systems. In principle, countries with floating exchange rates do not need any foreign reserves at all: changes in the relative demands for domestic and foreign currency should be accommodated via changes in the exchange rate rather than the level of reserves. What actual behavior reveals, therefore, is lack of faith in the efficacy of a flexible exchange-rate system, a point that I will pick up in the next section.

Choice of exchange rate regimes

The conventional wisdom today is that countries need to choose between two corners: either floating exchange rates or irrevocably fixed rates. The reason is the potential of capital flows to wreak havoc with any intermediate regime (“soft pegs”). So much of the debate on exchange rate policy focuses on the pros and cons of currency boards/dollarization versus floats. The trouble with this debate is that the evidence shows clearly that neither corner works very well for developing countries for long periods of time. Countries that have done well in the postwar period in terms of economic performance have in almost all cases had intermediate exchange rate regimes.

Why floating is not a solution. As Calvo and Reinhart (2000) have recently emphasized, developing countries are structurally different from advanced countries in ways that make

floating exchange rates inappropriate. The reasons are easy to enumerate. Bandwagon effects are even more likely to operate in emerging markets, thereby rendering a purely market driven currency highly volatile. For example, self-fulfilling depreciations can result from the imperfect credibility of monetary authorities in LDCs. When markets expect depreciation, it will be less costly for central banks to deliver the depreciation than to let interest rates rise for protracted periods. Alternatively, there can be long periods of capital inflows with sustained appreciations. These financial market syndromes lead not only to short-term instability, but also to significant medium-term misalignments. Furthermore, the evidence indicates that exchange rate volatility is more damaging to trade and investment in the developing countries, so there would be a real economic cost. Finally, passthrough from exchange rates to prices is more serious, raising macroeconomic dilemmas for countries with a history of inflation. For all these reasons, it is unrealistic to expect that many developing countries will willingly adopt floating exchange rates. And those that do adopt floating are in practice likely to act in ways that are more consistent with the maintenance of an intermediate regime (as the examples of South Korea and Peru above indicate).

Why currency boards or dollarization are not a solution. Why then not go to the other corner and fix the exchange rate irrevocably? The reality is that this would be giving up an important policy tool that has served many developing countries exceedingly well in the past. Exchange rate flexibility, when used appropriately, remains a very valuable option. This is because the adjustments in the real exchange rate that are often required for economic stability and transformation are costly to bring about through changes in domestic wages and prices, especially in low inflation environments (where the required changes may amount to declines in domestic nominal wages and prices). This has both a short-run and a long-run aspect.

The short-run perspective is well known from traditional macroeconomics and the small-open economy model. In an economy suffering from combination of external deficits and domestic excess capacity, devaluations can work wonders (provided they are supported by complementary monetary and fiscal policies). If there is any doubt about the relevance of the traditional theory to contemporary practice, one only needs to look at the comparative experiences of Brazil and Argentina following the former's devaluation in 1999. Brazil has recovered nicely, while Argentina, hemmed in by its currency board and its worsened competitiveness, has been stuck in a recession.

But the long-run perspective on flexibility is perhaps more important. The boost to tradables that a sizable and persistent real depreciation generates has been an important contributor to growth spurts in a wide range of developing countries. In fact, most of the growth booms during the last two decades have been associated with significant real depreciations at the outset. These real depreciations have been the product in turn of nominal devaluations.

The role played by real depreciation in setting off economic transformation and longer-run growth has not received the attention it deserves, so it is worth spending a moment on it. Figures 2-6 illustrate some of the more significant cases of growth spurts during the last two decades: Chile (mid-1980s), Turkey (early 1980s), India (early 1980s and since 1994), Uganda (since 1986), and Mauritius (mid-1980s). For each country, I have plotted an index of the real exchange rate and a three-year moving average of the per-capita GDP growth rate around the time of take-off. The pictures tell a common story. A significant real exchange rate depreciation, of the order of 50 percent or more, presaged or accompanied each of these growth transitions. There is every reason to think that these real depreciations were an important boost to economic activity, particularly in tradables, and not simply something that went alongside

higher growth.⁴ They unleashed entrepreneurial energies and focused them on world markets, boosted exports, and set the stage for economic transformation. There can be little question that these countries would have been far worse off if they had given up on the exchange rate as a policy tool.

Financial codes and standards

The prevailing view in international financial institutions is that structural weaknesses in prudential regulation, corporate governance, and bankruptcy/insolvency procedures were at the heart of the Asian crisis. Consequently, a lot of effort has gone into developing international standards in these areas. Twelve of these standards have been designated by the Financial Stability Forum (FSF) as key for sound financial systems in developing countries, and are listed in Table 2. They range from codes on transparency in monetary and fiscal policies, to codes on accounting, corporate governance, and banking. Moreover, these are only the tip of the iceberg. The full FSF compendium includes an additional 52 standards "considered relevant for sound financial systems," bringing the total number of codes to 64.

I want to raise three concerns about the international harmonization efforts in these areas: appropriateness, effectiveness, and costliness.

Appropriateness. The codes and standards rely heavily on an Anglo-American style of corporate governance and an arms' length model of financial development. Many of today's rich countries have prospered following different paths, both in corporate governance (where insiders and stakeholders have played a much more significant role) and in finance (where close links among financial institutions, corporations, and governments have often been the rule rather than

⁴ In any case, higher growth as a causal factor is usually associated with real exchange rate *appreciations*, through the Balassa-Samuelson effect.

the exception). Among developing countries, many (such as Korea and Taiwan) have also done very well during their early stages of growth by following very different rules. Can we presume that the new codes and standards, closing off as they do these alternative paths, are necessarily development friendly? Is it appropriate for countries at very different levels of development to adopt standards that have been typically acquired by today's advanced countries only after a certain level of income had been reached? These questions need to be discussed, and yet they do not seem to be even on the agenda.

Effectiveness. Leaving aside appropriateness, we can also the question the likely effectiveness of imported legal standards as regards implementation. As Katharina Pistor (2000) has argued, historical evidence suggests that the supply of law from the outside has in most cases not produced effective legal systems. The incorporation of imported standards into a domestic legal system is per se not a guarantee of effectiveness. Often, the compatibility of the imported standards with pre-existing legal norms (as well as with pre-existing economic and political conditions) and the existence of constituencies with a demand for these rules, are more important than the contents of the imported rules.

The reasons, as Pistor explains, are threefold: (1) Only few rules are freestanding, i.e. can be fully understood and enforced without reference to other legal terms and concepts. Pre-existing legal systems, be they informal or formal, determine the interpretation of the newly interpreted rules and the receptivity of a country to imported rules and concepts. (2) Law is a cognitive institution. The application and enforcement of rules are determined by the perceptions of the imported codes. Even when the laws on the books are standardized, law enforcement leads to divergent outcomes in practice. (3) Effective law enforcement depends on high levels of

voluntary compliance. Voluntary compliance in turn depends on the acceptance of rules by domestic constituencies in the law receiving countries.

Pistor's cross-national empirical work confirms that the law on the books is a poor predictor for the effectiveness of legal institutions. (She measures effectiveness via perception surveys of domestic and foreign investors.) By contrast, the process by which law is developed has a determining influence on the effectiveness of legal institutions. Countries that have developed their formal legal order internally outperform countries that received their legal order by way of legal transplantation from abroad. Formal compliance with rules of external origin tends to be meaningless in practice.

Cost. To my knowledge, the cost (in terms of fiscal resources and human capital) of implementing and complying with international codes and standards in the financial arena has never been fully estimated. We know from other areas that legal harmonization can be extremely costly. Consider for example WTO codes. Mike Finger (1999) has calculated that it costs a typical developing country \$150 million to implement only three of the WTO agreements (those on customs valuation, sanitary and phytosanitary measures (SPS), and intellectual property rights (TRIPs)). This is a sum equal to a year's development budget for many of the least-developed countries. The financial standards will require, if anything, larger investments. Because of the large number of auditors, accountants, and other specialists that will be needed, they will also imply, unlike trade agreements, a large diversion of human capital into the financial arena. Will this be money that is well spent? Should the government train more bank auditors and accountants, even if it means fewer secondary-school teachers? Should the government focus its legal reform efforts on "importing" legal codes and standards in the

financial arena, even when this diverts attention from reforms in other areas (such as reform of the criminal justice system)?

Where resources--in the broad sense of the word, including political capital, administrative capacity, and fiscal funds--are scarce, priorities matter. Costing out the adoption and implementation of international codes and standards would at least give developing country governments a better sense of the magnitude of the task, so that they can undertake the required trade-offs in an informed manner. In particular, this would allow them to more fully internalize the costs of capital mobility.

Is It All Worthwhile?

All these costs and constraints would perhaps be worthwhile, if what developing countries are getting in exchange is a substantial return. In reality, as I mentioned at the outset, there are serious doubts as to whether the gains to free capital mobility are demonstrably large.

On paper, the appeal of capital mobility is obvious.⁵ In the absence of market imperfections, freedom to trade enhances efficiency, and that is as true of trade in paper assets as it is of trade in widgets. But financial markets suffer from various syndromes--informational asymmetries, agency problems, self-fulfilling expectations, bubbles (rational and otherwise), and myopia--to an extent that makes their economic analysis inherently a second-best one. No amount of institutional tinkering is likely to make a significant difference to that basic fact of life.

The question of whether developing nations should be pushed to open their capital accounts (in an "orderly and progressive" manner as it is now recommended by the IMF) can

⁵ The rest of this section draws heavily from Rodrik (2000).

ultimately be resolved only on the basis of empirical evidence. While there is plenty of evidence that financial crash often follows financial liberalization (see Williamson and Mahar 1998 for a survey), we have very little evidence that suggests higher rates of economic growth follow capital-account liberalization. Quinn (1997) reports a positive association between capital account liberalization and long-run growth, while Grilli and Milesi-Ferretti (1995), Rodrik (1998), and Kraay (1998)--the last author using Quinn's (1997) own indicator of capital-account restrictions--find no relationship. Klein and Olivei (1999) report a positive relationship, but one largely driven by the experience of the developed countries in their sample. This is a field of inquiry that remains in its infancy, and there is clearly much more to be learned. The least that can be said at present is that convincing evidence on the benefits of capital-account liberalization has yet to be produced.

Among all the arguments in favor of international capital mobility perhaps the most appealing one is that such mobility serves a useful disciplining function on government policy. Governments that have to be responsive to investors cannot squander their society's resources as easily. The idea is attractive, but once again one has to question its empirical relevance. When foreign creditors suffer from the syndromes noted above, a government intent on irresponsible spending finds it easier to finance its expenditures when it (or other domestic residents) can borrow from abroad. In addition, when investor behavior is driven by fundamentals that are not readily observable, the resulting equilibrium can have all kinds of undesirable features. In particular, governments may be forced to adopt undesirable policies so as to "conform" with investor priors/biases (Mukand 1998).

Is Globalization Synonymous with Development?

The bottom line is that developing countries are stuck with a very bad bargain: they are being asked to give up policy autonomy, spend a substantial amount of resources, and undertake large risks for a gain that is highly uncertain.

One might ask if there is any other choice. There is, if we shift our perspective on the relationship between globalization and development.

The prevailing perspective is one that says governments have got to do whatever is required to maximize the flow of trade and capital around the world. Adopting this perspective results in viewing everything from the standpoint of the needs of foreign investors. A good example of the type of thinking this engenders is the statement by a senior U.S. Treasury official recently, who, according to *The Wall Street Journal*, urged Mexico's government to work harder to reduce violent crime because otherwise the country's high crime rate could frighten away foreign investors (May 15, 2000, p. A25). This may have been an off-the-cuff remark, but it serves as a perfect illustration of how foreign trade and investment are increasingly used as the ultimate yardstick for evaluating government policies, and how development--and the institutional reforms needed to spark and sustain it--are being viewed almost exclusively from the perspective of integration into the world economy. Few economists and policy makers would argue, when pressed, that integration into the world economy is an effective substitute for a development strategy. But in practice development strategy is increasingly becoming synonymous with global integration.

The alternative perspective is one that views globalization as a means to an end, rather than an end in itself. It is a perspective that says governments should follow developmental priorities even when it conflicts with the requirements of capital mobility. It is a perspective that

recognizes that the institutional requirements of international economic integration, even when they are development-friendly, are so typically in a trickle-down sort of way. It is a perspective that accepts that strategic use of international trade and capital flows is part of a development strategy, but appreciates that it does not substitute for it.

I hope I have left no doubt as to which perspective I favor.

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Table 1. Social Cost of Reserves

	foreign reserves (mil \$, 2000:I)	reserves in months of imports	"excess" reserves (% of GDP)*	annual social cost of excess reserves (% of GDP)**
South Korea	83,581	7.0	11.7	0.70
Peru	9,041	12.2	11.9	0.72

* "Excess" refers to the level beyond the 3-month benchmark.

** Assuming a 6% spread between the yield on foreign reserves and the marginal cost of borrowing.

Source: Calculated from IMF, International Financial Statistics.

Table 2. Key Standards According to the Financial Stability Forum

Subject Area	Key Standard	Issuing Body
<i>Macroeconomic Policy and Data Transparency</i>		
Monetary and financial policy transparency	Code of Good Practices on Transparency in Monetary and Financial Policies	IMF
Fiscal policy transparency	Code of Good Practices in Fiscal Transparency	IMF
Data dissemination	Special Data Dissemination Standard/ General Data Dissemination System	IMF
<i>Institutional and Market Infrastructure</i>		
Insolvency		World Bank
Corporate governance	Principles of Corporate Governance	OECD
Accounting	International Accounting Standards (IAS)³	IASC
Auditing	International Standards on Auditing (ISA)	IFAC
Payment and settlement	Core Principles for Systemically Important Payment Systems	CPSS
Market integrity	The Forty Recommendations of the Financial Action Task Force	FATF
<i>Financial Regulation and Supervision</i>		
Banking supervision	Core Principles for Effective Banking Supervision	BCBS
Securities regulation	Objectives and Principles of Securities Regulation	IOSCO
Insurance supervision	Insurance Supervisory Principles	IAIS

Source: FSF

Figure 1: Exchange rates against US dollar (1997:6 = 100)

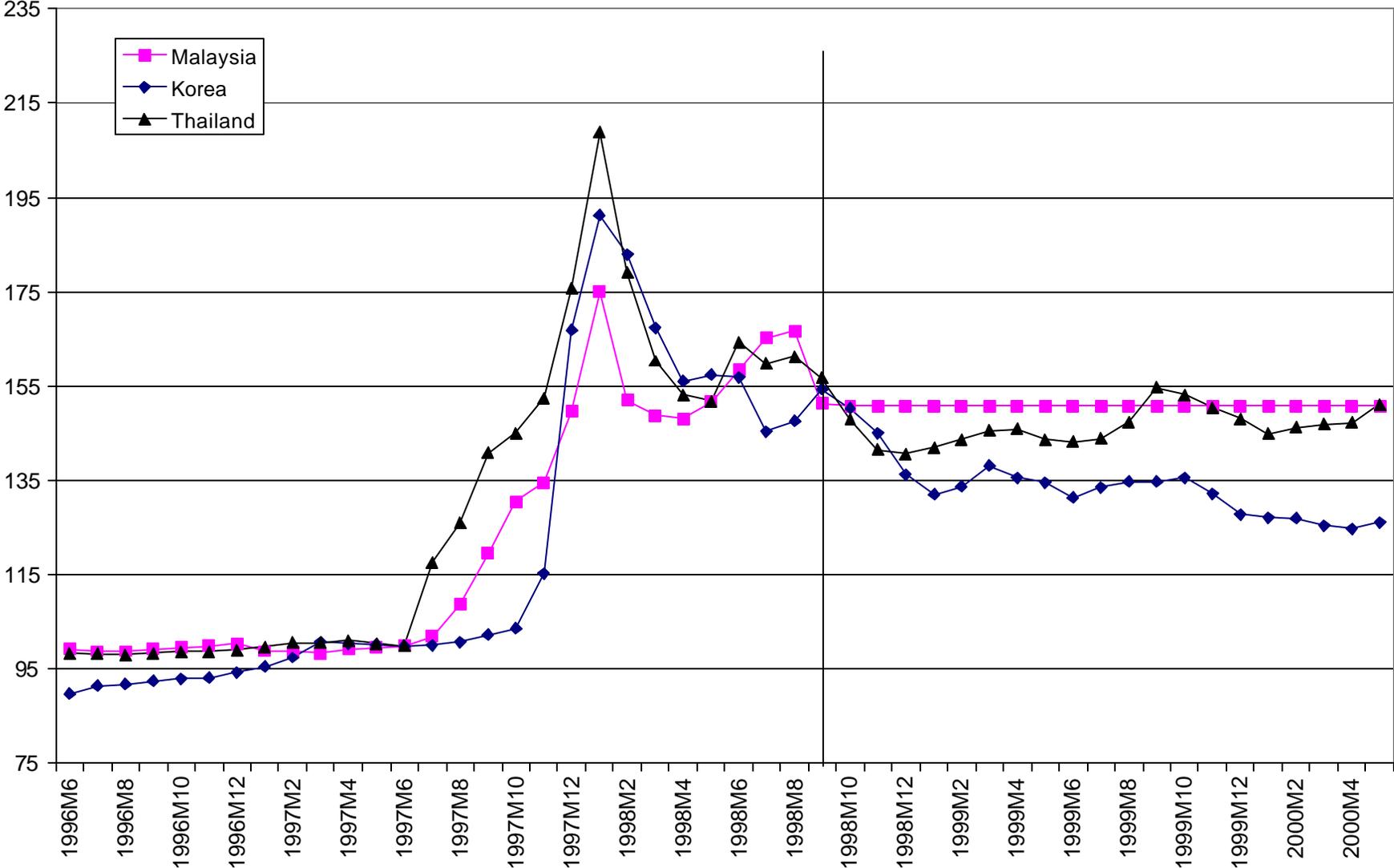


Figure 2: Chile
real exchange rate and per-capita GDP growth
(growth is shown as 3-year moving average)

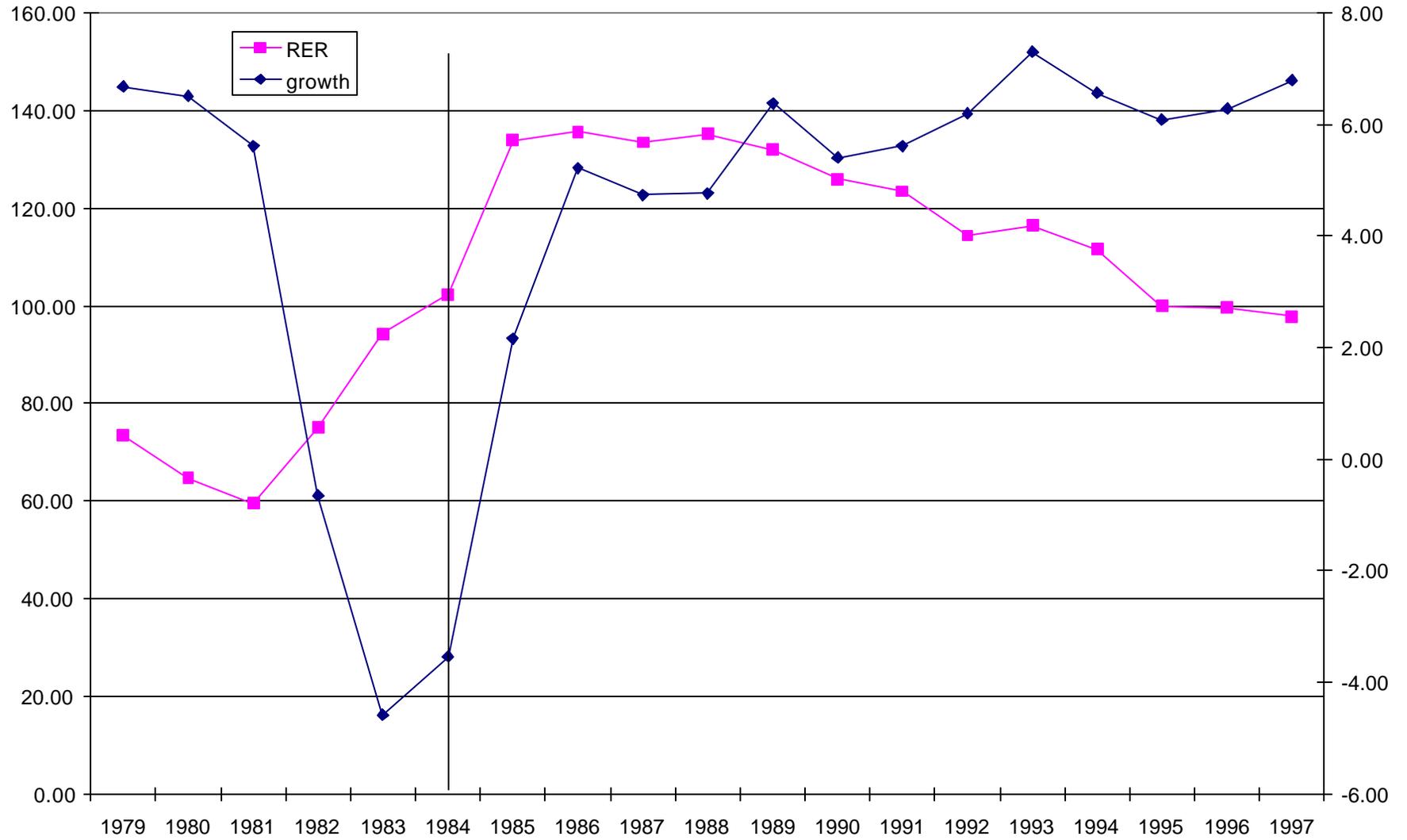


Figure 3: Turkey
real exchange rate and per-capita GDP growth
(growth is shown as 3-year moving average)



Figure 4: India
real exchange rate and per-capita GDP growth
(growth is shown as 3-year moving average)

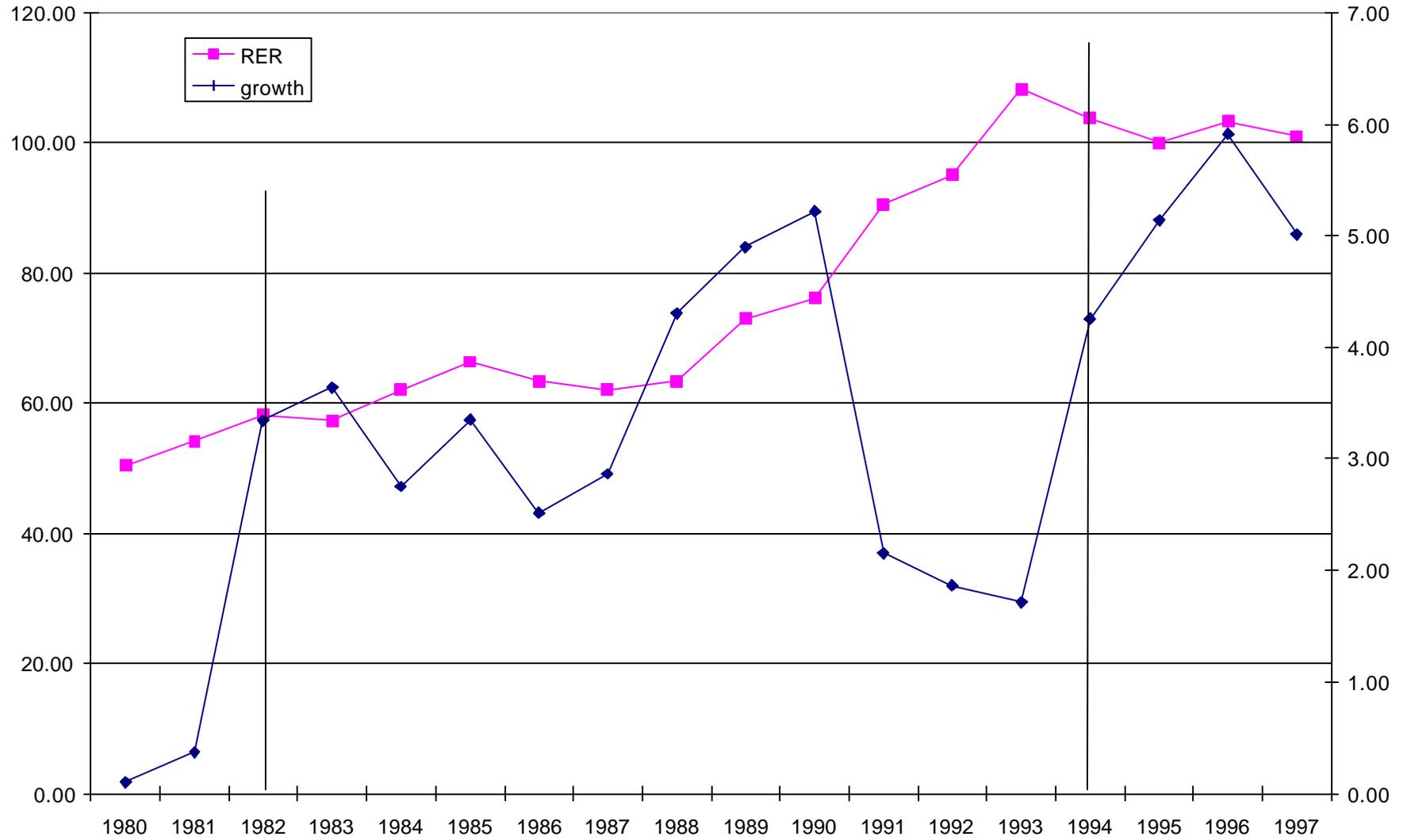


Figure 5: Uganda
real exchange rate and per-capita GDP growth
(growth is shown as 3-year moving average)

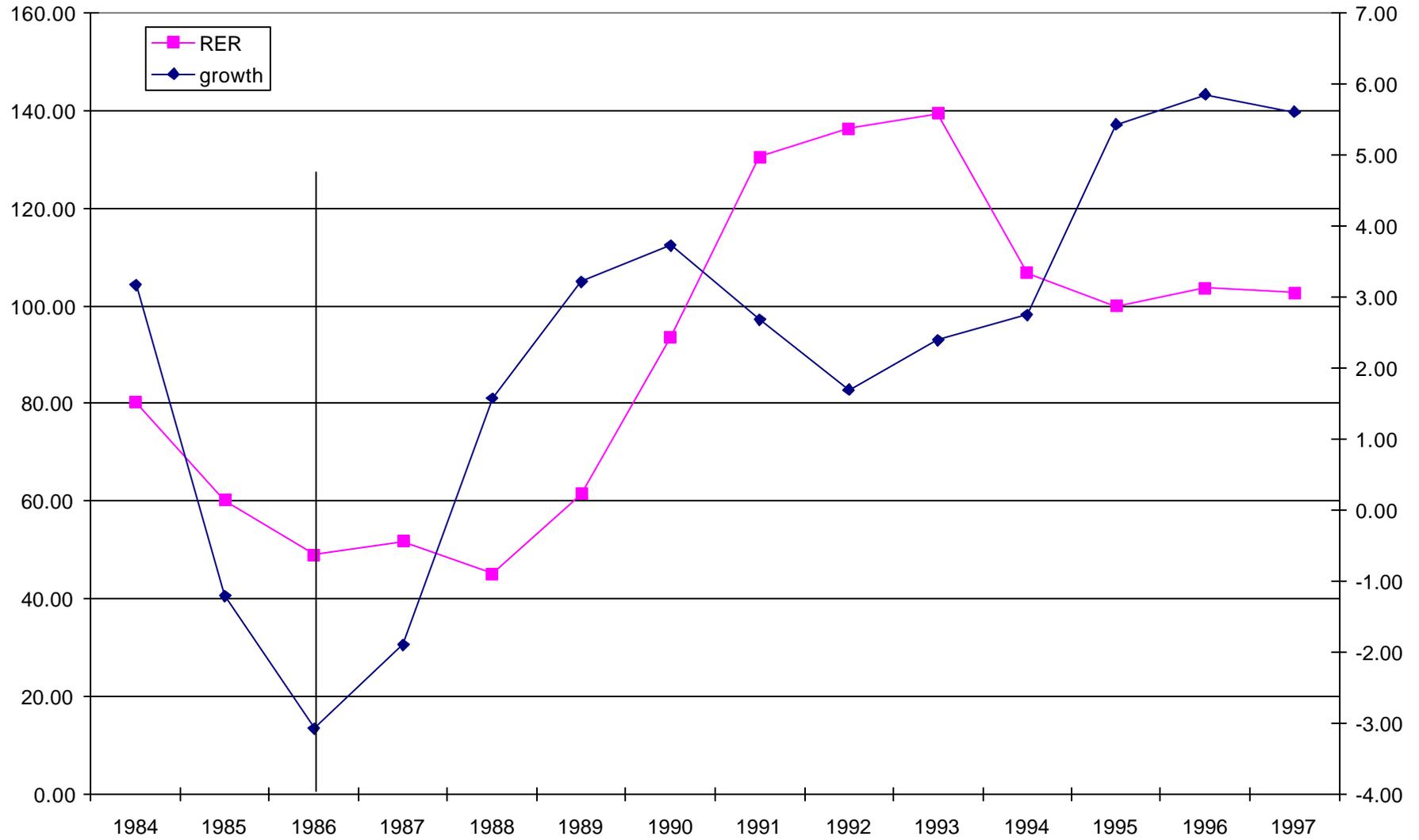


Figure 6: Mauritius
real exchange rate and per-capita GDP growth
(growth is shown as 3-year moving average)

