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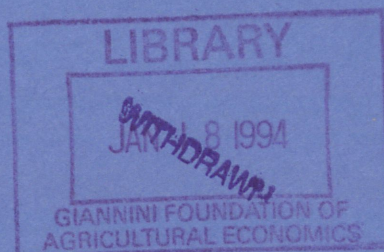
Recent Changes in the Financial Systems of Asian and Pacific Countries

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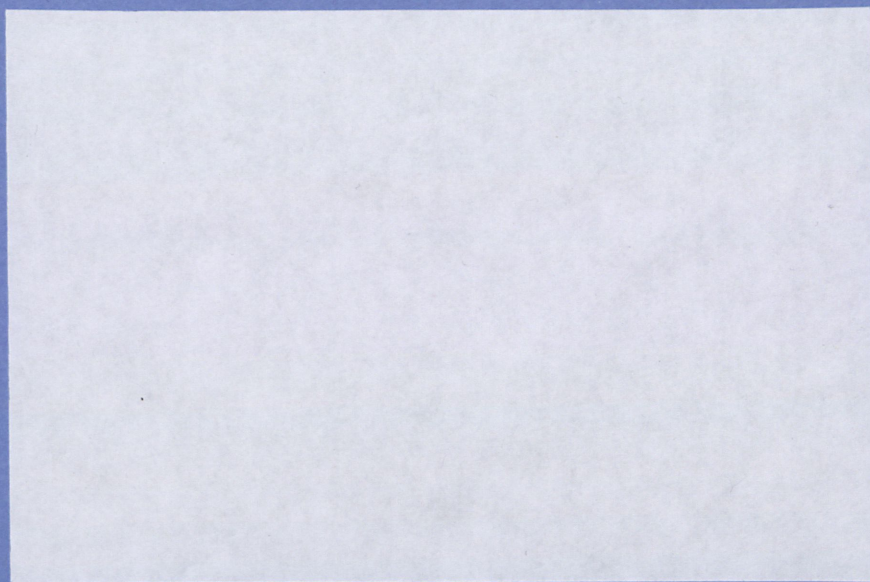
December 1993

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Key words: financial repression, financial liberalization, banking regulation, emerging markets, East Asia

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Abstract

The paper reviews the recent evolution of the financial structure of Pacific countries, particularly the rapidly developing countries of East Asia. It argues that there are three natural stages of development in a country's financial system, which emphasize respectively: (1) internal finance, (2) the intermediation of finance, and (3) securitization. It reviews the emergence of securities markets in East Asia, the particular case of financial liberalization in Korea, problems posed by recent capital inflows in these countries, and such issues for regulatory policy as prudential supervision of banks, reserve requirements, and compulsory finance.

Outline

I. THREE STAGES OF FINANCIAL DEVELOPMENT

- I.1 Internal Finance
- I.2 Intermediation
- I.3 Securitization

II. THE RECENT EMERGENCE OF SECURITIES MARKETS IN THE ASIAN PACIFIC

- II.1 Money Markets and Bond Markets
- II.2 Equity Markets
- II.3 Derivatives

III. THE CASE OF KOREAN FINANCIAL LIBERALIZATION

- III.1 Past Attempts at Financial Reform
- III.2 U.S. Pressure
- III.3 Korean Reluctance to Liberalize
- III.4 The Five-year Plan of 1993

IV. THE INTERNATIONAL DIMENSION: RECENT CAPITAL INFLOWS TO LDCs

- IV.1 Do Capital Inflows Pose Difficulties?
- IV.2 Does Financial Repression Make Sterilization Easier?
- IV.3 Are Foreign Investors More Bullish than Domestic Investors?
- IV.4 The Optimal Order of Financial Liberalization:
International vs. Domestic

V. SOME MORE ISSUES FOR REGULATORY POLICY

- V.1 Supervision of Banks and Other Financial Institutions
- V.2 Information Flows
- V.3 Central Bank Independence
- V.4 The "Bad Loan Problem"
- V.5 Reserve Requirements
- V.6 Compulsory Finance May Be the Most Repressive Kind of Seignorage
- V.7 Safeguarding the Payments Mechanism

Recent Changes in the Financial Systems of Asian and Pacific Countries

Japan and continental Europe have recently gone into recession, joining the English-speaking world which had entered a slow-growth period in 1990. This leaves only the developing countries of East Asia still on a strong growth trajectory. They are by now important enough to constitute in themselves a significant part of global economic growth. In response to the rapid growth, and to diminished returns to investment available in the United States and Japan, international capital has been flowing into the dynamic Asian economies.

Difficulties among financial institutions, including bank failures and burst bubbles, have figured prominently in the economic downturns in Japan, the Nordic countries, and the English-speaking world. The developing East Asian countries have as yet been less affected by such failures and burst bubbles. Financial structures in this part of the world are known to be much less liberalized and financial markets to be less developed than in the industrialized world. Is it possible that these countries know something that others do not? It would be surprising if their financial systems were judged admirable, as they have generally been considered "repressed,"¹ and attempts at liberalization in the 1980s are generally considered to have been inadequate. Perhaps these countries are simply at an earlier stage of development, where advanced market-oriented financial systems are not necessary to good economic performance? The challenge is how to achieve the more liberalized system that is appropriate to a country in the process of industrializing, without incurring as many of the difficulties that the industrialized countries have incurred.

I. THREE STAGES OF FINANCIAL DEVELOPMENT

One could argue that there are three natural stages of development in a country's financial system: (1) internal finance, (2) the intermediation of finance, and (3) securitization. The classification scheme is stylized. Internal finance, financial intermediaries, and securities markets in fact co-exist simultaneously in most countries. There may, however, be a natural historical progression, where the dominant emphasis in the financial system is allowed to shift over time, so that it can best serve the evolving real economy. The three-stage scheme is suggested as a hypothesis as to what might be the most natural, even the most efficient, pattern of evolution, not the one actually followed in every case.²

I.1 Internal Finance

An essential part of the "takeoff" process in economic development is an increase in the saving rate and the use of these funds for investment -- defined broadly, to include the accumulation of human as well as physical capital. It takes special circumstances for an individual saver to trust his money to an entrepreneur whom he does not know personally. In Stage 1, business investment is financed largely out of family savings or retained earnings. Much of the investment boom in South China is of this sort.

This mode of finance solves the problems of asymmetric information and moral hazard between saver and entrepreneur, but has obvious problems of its own. A small or innovative company at its start-up phase is likely to have few earnings to retain, despite a high expected return to capital. Furthermore it is very risky for a family to stake all its savings and wage income on a single enterprise. In some cases, like the Korean chaebol, a family-run group of companies becomes large enough to transfer successfully

funds from established profit-earning divisions to promising new divisions. But most countries have had trouble doing this sort of thing well.

An alternative, in a country where the government plays a more dirigiste role, is channeling of funds by the public authorities to sectors deemed worthy. Fry (1990) lists six major categories of selective credit instruments in use in East Asia: subsidized loan rates for priority sectors [from banks under government influence], preferential rediscount rates granted by the central bank, direct subsidies out of the government budget [important until recently, e.g., in Indonesia, where revenue has been available from the oil sector], administered floors on bank credit to preferred sectors, ceilings on other bank credit, and government-owned financial institutions established to specialize in lending to particular sectors, e.g., agriculture [sometimes with cheap funds extracted from nonspecialized depository institutions by means of high reserve requirements]. As Table 1 shows, these instruments are still widely used in Asia, despite a reduction during the 1980s. Government ownership of financial institutions is particularly widespread in Indonesia and Taiwan.

An active government role in finance can work out well or badly, depending on the capability and integrity of those making the decisions. Often, when political patronage or social goals such as alleviating unemployment come to dominate, the legacy is a portfolio of non-performing assets. Simple bad judgment or bad luck can give the same outcome.³

Stage 1, a combination of internal finance and government-directed credit, is where Korea, for example, has been. Even though Korean banks were privatized in the early 1980s, they are generally considered bureaucratic and disinclined to take initiative without instructions from the government.⁴ One should hesitate before condemning such a system as

"financial repression," given how successful the development process has been over the last thirty years.⁵ Nevertheless, it may be time for countries like Korea to move on to the next stage. Korean developments are considered at greater length in Section III below.

I.2 Intermediation

In Stage 2, financial intermediation by private banks and other financial intermediaries allows effective channeling of funds from savers to businesses who don't necessarily know each other, a much more efficient way to finance investment. The Japanese post-war main bank system probably illustrates this system at its best, with the banks efficiently monitoring the activities of the firm managers to make sure they are not diverting the funds from productive investment projects toward their own purposes.⁶ DeLong (1991) has argued that in the nineteenth century investment banks served this role in the United States as well. In the context of economic development, see Stiglitz (1991).

After the Great Depression in the United States, the Glass-Steagall Act weakened investment banks by requiring their separation from commercial banks, who are responsible for the payments system. Post-war Japan followed the United States in dividing banks by function, under Article 65. Japanese banks, however, remained stronger than U.S. banks (in part because the latter were also hobbled by rules discouraging large inter-state banks, enacted in response to traditional populist American suspicion of large East Coast banks). The universal banking system of Germany constitutes a third model of banking, one that some Eastern European transition economies and other countries are now choosing to emulate.

I.3 Securitization

In Stage 3, well-established corporations find that, though intermediation is more efficient than relying on personal savings, disintermediation is more attractive still. They switch from relying on bank loans to issuing securities directly in developed financial markets, where a corporation with a good reputation and credit-rating can obtain capital cheaply. (This switch has been modeled by Diamond (1984, 1989).)

We use the term "securitization" in a broad sense to denote increased reliance on bonds and equities, and decreased reliance on banks and other financial intermediaries. One aspect of this trend (but only one) is the practice of "securitization" in its more narrow definition: the conversion of a bank loan into a negotiable instrument, e.g., in the United States, mortgage-backed securities or the secondary market in bank loans to developing countries.

The United States and the United Kingdom have been at Stage 3 for some time,⁷ and Japan began to move there in the late 1980s. The question whether or not such a move constitutes an improvement from Japan's viewpoint is an open one. On the one hand, it seems that if Japanese corporations find it more attractive to switch from banks to securities markets, it must be because it is a more efficient way of financing investment.⁸ On the other hand, it is possible that securities markets can win out over long-established banking relationships in a Darwinian sense, without necessarily being more efficient from the viewpoint of aggregate economic welfare.⁹

We should note that to describe the Anglo-American financial system as based on securities markets is not to say that a high proportion of corporate investment numerically is financed by new issues of equity, or even bonds. Meyer (1989) finds that close to 100 per cent of net sources of

finance for non-financial corporations in the U.S. and U.K. are accounted for by retained profits, not by new equity issues (which are often negative). Taggart (1985) also finds, from flow of funds data, that U.S. stock issues have been a very low proportion of financing ever since 1940 (vs. somewhat higher levels from 1901-1939); internal funds constitute the majority of financing, although their share has been declining since the 1930s.¹⁰ The point, however, is that the price of a firm's stock, which is determined in active and competitive markets, is a key variable determining investment and other decisions by firm managers, in a way that is not true of Japan and Germany.¹¹

II. THE RECENT EMERGENCE OF SECURITIES MARKETS IN THE ASIAN PACIFIC

Within the area of market-determined finance, there again appear to be several successive stages of development. Early on ("Stage 3a"), the emphasis is on determining short-term interest rates in the marketplace for the first time, rather than administratively. As part of the liberalization process, the government removes restrictions on the interest rates paid to banks and by banks (who themselves, if previously government-owned, have been privatized at Stage 2), relieves banks of the obligation to absorb government debt at artificially-low interest rates, and generally allows or encourages the development of short-term money markets.

Next the emphasis is on developing long-term securities markets more fully ("Stage 3b"). Fry (1990, p.28) observes that: "Experience shows that learning-by-doing with market-determined interest rates in short-term financial markets [particularly interbank money markets] is the only viable way in which active and stable long-term securities markets can be

developed." Usually a market in government bonds is created first, followed by corporate bonds and equities.

Finally, markets in forward contracts and other derivative contracts are fully developed ("Stage 3c"). (Aspects of the development of securities markets in Asia are discussed by Fry, 1990, and Lynch and Norton, 1992.)

II.1 Money Markets and Bond Markets

A way to measure a country's movement from Stage 2 to Stage 3a is to look at turnover in the money market as a percent of GDP. Charts 1 and 2 (which, like those that follow, are from Lynch and Norton, 1992), show that money market turnover has been the highest in Australia and Japan, the two industrialized countries in this group. It has also reached similar levels, having risen rapidly, in Malaysia [particularly in the first half of the 1980s] and Taiwan [more recently]. Next, in terms of level, comes Korea, or in terms of increase, Indonesia and Thailand. Another way to measure the development of these markets is to look at bid-offer spreads. High spreads indicate either low efficiency, low liquidity, or cartel power. Table 2 (from Lynch, 1993, p.19) shows that money-market spreads are especially large in Indonesia, Thailand and the Philippines, and especially small in the industrialized countries.¹²

Fry (1990) and Fischer (1993, p.119) observe that the movement toward medium-term and long-term finance in Asia has been surprisingly slow. One might say "disappointingly slow," were it not for the very high rate of investment that most of these countries have produced despite this seeming handicap. Charts 3 and 4 measure the progression through Stage 3b by looking at turnover in government bond markets as a percent of GDP. Again, Australia leads the way, followed by Japan. Only Taiwan and Singapore among

the newly industrializing countries have had rapid increases in government bond market trading in recent years. According to Table 2, Thailand has by far the largest spread of any country where there exists a market in government bonds.

Table 3 reports statistics on corporate bonds. Japan, followed by Korea, makes the greatest use of corporate bonds if measured by amount outstanding, while Australia registers strongly if the yardstick is turnover. Active corporate bond markets are beginning to emerge in Hong Kong, Malaysia, and China.

II.2 Equity Markets

One can think of arguments both for and against the use of equity markets in developing countries. An argument in favor, particularly as a vehicle for bringing international capital into the country, is that they have more desirable risk characteristics than bonds or other fixed-income instruments. An argument against, particular in the context of the transitional economies of eastern Europe and the Former Soviet Union, is that the current passion for them resembles a case of the "cargo cult" disease. We briefly consider each argument.

Consider the historical difficulties attaching to capital flows from the industrialized world to developing countries. (The subject of international capital flows in East Asia is discussed at greater length in Section IV below.) The proximate cause of the LDC debt crisis that surfaced in 1982 was the unlucky combination of high world interest rates, a recession, and a fall in dollar commodity prices. The crisis had its precedents before World War II. In the 19th century and in the period between the wars, capital flowed from industrialized countries to colonies

and developing countries more via bonds, and less via bank loans. Defaults occurred periodically, culminating in the widespread defaults of the 1930s.¹³

Capital also reached LDCs through foreign direct investment. However, when poor countries gained their political independence, most did not want foreigners owning controlling shares of their natural resources, land, or plant and equipment. To this day, even when a government proclaims its eagerness to accept foreign direct investment, investors may be concerned that a future government will nationalize it.¹⁴

Thus there is interest in devising some new mode of capital flow to developing countries, other than bonds, direct investment, or bank lending. The obvious candidate is equity investment. Unlike bonds or bank loans, the cost of "servicing" equity does not stay fixed in dollar terms when the ability of the country to earn export revenue falls because of a world recession or a collapse in commodity prices. Unlike direct investment, the foreigner does not have a controlling decision-making interest in investment projects.

Another idea is the possibility of linking the repayment terms on bonds or loans to export prices, which would give them desirable risk characteristics like equities: The cost of the obligation automatically falls when the ability to pay falls. The idea makes particular sense for commodity-exporting countries like Colombia, Chile, Indonesia and Malaysia. But for some reason such commodity-indexed bonds have never caught on. There is a puzzling resistance to them, both on the supply side and the demand side.

Instead, equities are catching on in many countries.¹⁵ Charts 5 and 6 show the growth in emerging equity markets in Asia/Pacific countries,

according to turnover and capitalization, respectively. In the case of equities, the NICs, especially Hong Kong and Singapore, are ahead of Australia and Japan. Malaysia and Thailand have experienced very rapid growth. Recently Taiwan has begun to let foreigners into its stock market, and Thailand to offer American Depository Receipts to facilitate inward investment.¹⁶

Equity markets have also grown rapidly in other parts of the world. In the case of the transitional economies of Eastern Europe and the Former Soviet Union, there is currently a particular emphasis on equity markets that may be premature. As a means of privatizing state-owned industry, the distribution of equity shares -- e.g., under the voucher plan adopted in Czechoslovakia or the mutual funds discussed in Poland -- has definite attractions. But the fascination in some quarters with opening up stock exchanges, like the fascination with building steel mills in many LDCs forty years ago, looks like the "cargo cult" disease.

During World War II, natives of some Pacific islands witnessed the following sequence of events. U.S. marines come ashore, construction crews build simple air landing strips, and cargo planes land on the strips. The planes then disgorge jeeps, men, and materiel, and with them a spurt of Western-style material prosperity for the natives that lasts until the armed forces depart a few years later. Thereafter, cargo cults formed among the natives: they would build landing strips, in an effort to bring back the planes, consumer goods, and prosperity. The confusion of causality was repeated when developing countries in the 1950s and 1960s, observing the prosperity of industrialized countries, decided that steel mills were the key. Everyone ended up with tremendous overcapacity in steel. Now some

Eastern Europeans observe Wall Street and conclude that a New York Stock Exchange is what they need to bring prosperity.

The point is not that equity markets should be reserved for countries like the United States, United Kingdom and Japan. They clearly have an increasingly important role to play now in East Asia and Latin America. But it would be premature for Eastern European countries to rely heavily on them at this stage in their financial development.

II.3 Derivatives

The last stage may be the development of derivatives: forward contracts and options in the underlying securities already mentioned (bonds and equities), as well as in foreign exchange and commodities. Such markets opened in Australia in the early 1980s, followed in short order by Japan, New Zealand and Hong Kong (where they were still very small, as of 1991). Table 4 reports some statistics. Singapore opened the SIMEX (Singapore International Monetary Exchange, Ltd.), offering a variety of financial futures, in 1984.¹⁷ The aim of derivatives is to allow market participants to trade risk better, for example to hedge the exchange risk that comes when an importer or borrower is uncertain what his foreign currency obligations will be when translated into domestic currency at the uncertain future exchange rate.

Regulatory authorities in industrialized countries have expressed concern over the proliferation of derivatives in recent years. One concern is that risk created for banks or other financial institutions that deal in derivatives has in the past not appeared on their balance sheets, and thus not been covered by capital requirements (though swaps are covered by the Basle Accord). Another concern expressed is that derivatives might have

exacerbated, for example, the 1987 stock market crash, in their role as a link in arbitrage and dynamic hedging (so-called "portfolio insurance").

III THE CASE OF KOREAN FINANCIAL LIBERALIZATION

In the 1970s, Korea met the description of a financially repressed economy. The banking system was kept underdeveloped (although an informal "curb market" became very large), securities markets were largely non-existent, and interest rates were kept negative in real terms to stimulate investment in favored sectors (especially heavy industry). The course of the debate since that time on reforming the financial system illustrates the issues facing many industrializing countries in East Asia, including the natural sequence of financial development. Here we summarize the recent historical record on Korean financial liberalization.¹⁸

III.1 Past Attempts at Financial Reform

By the end of the 70s, the government recognized that financial repression was an obstacle to further growth. [An early aspect of a financial liberalization program was the establishment of two open-end trust funds.¹⁹] The road to banking de-regulation started in 1982 with the privatization of five national commercial banks.²⁰ Restrictions on bank management were reduced. The requirement that loans be made at preferential rates for policy purposes supposedly became less common in 1982. Steps toward liberalization of interest rates were taken in early 1984. But the most effective agents of liberalization were the rapidly-growing non-bank financial intermediaries.

There seems to be general agreement that the pace of liberalization slowed after 1984. "During [the 1984-87] period no important steps were taken to further liberalize the financial sector."²¹

In December 1988 more serious interest rate de-control was attempted by the outgoing Finance Minister, Il Sakong.²² This process was soon frozen, however, when interest rates -- rather predictably -- started to rise. At the same time, "citing unexpected economic changes, the Korean Government revised its original 1981 schedule to liberalize the securities industry."²³ A new timetable was announced for the removal of controls on capital inflow and outflow. The measures announced in December 1988 included a schedule under which substantial liberalization was to take place in 1992.

III.2 U.S. Pressure

In October 1988 the U.S. Department of the Treasury, in its "Report to the Congress on International Economic and Exchange Rate Policy" required by the Omnibus Trade and Competitiveness Act of 1988, concluded that Korea and Taiwan "manipulated" their exchange rates, within the meaning of the legislation. The Treasury launched negotiations with Korea to induce that country to liberalize its financial markets, with improved treatment for U.S. financial institutions specified as one major goal, and appreciation of the won presumed to be another. The Yen/Dollar talks of 1983-84 [and to some extent the Structural Impediments Initiative of 1989-90] with Japan were cited as precedents by U.S. authorities. The Korea-U.S. Financial Policy Talks took place in two rounds, in February and November 1990. Financial liberalization issues under contention fell into three areas:

domestic liberalization, removal of international capital controls, and treatment of foreign providers of financial services.

The U.S. Treasury evaluation of progress in the 1990 Financial Policy Talks regarding financial services was negative, even though exchange rate concerns had been satisfied. With respect to treatment of foreign banks, even though Korea had in 1984 declared national treatment for foreign-owned banks as part of a three-year deregulation plan, the report found: "progress in resolving problems has been very slow and no timetable for dealing with them has been produced."²⁴ With regard to treatment of foreign securities firms, even though Korea had [in 1988] declared that 24 foreign firms would be allowed to establish branches,²⁵ the report found (p.11): "U.S. financial firms do not receive national treatment in Korean securities markets."²⁶ With regard to overall financial liberalization, the report found: "Until the Korean Government allows domestic banks to compete in a market environment, fully liberalizes interest rates, and eliminates credit allocation and exchange controls, there is little likelihood of major advances in equality of competitive opportunity for foreign financial service providers in the Korean market."²⁷

In 1991, foreign securities companies were for the first time allowed directly into the country (as had been promised in the negotiations with the U.S.). The Ministry of Finance in March approved four out of nine applications for branch office securities licenses, two of them American.²⁸

In June 1991 restrictions were lifted on the establishment of multiple branches of foreign banks. It was also announced that application of national treatment for banks would be "stepped up," [Oum, p.8] and that the government of Korea was preparing a "master plan" to liberalize interest

rates and to "rectify distortions in its term structure."²⁹ (In its next report, the U.S. Treasury appeared unimpressed, however.³⁰)

Since the beginning of 1992, foreign investors have been officially free to invest in individual Korean stocks on the stock market.³¹ On December 17, 1991, the National Assembly approved revisions in a number of laws, including a revision to permit banks to engage in all foreign exchange business that is not specifically prohibited.³²

The American emphasis on securities in the negotiations that began in 1990 raises the question whether it is not premature for a country to jump to Stage 3, without first having passed through Stage 2. The Japanese post-war system of relationship banking may be a good model for Korea in this respect. Weisbrod and Lee (1993, p.33) conclude that Korea and Taiwan have been too quick to promote securities markets, at a time when banks still have an important role to play [while Japan in their view was too slow to move on to the market-oriented stage, with the result that the asset deflation of 1990-93 was more severe than it need have been]. On the other hand, to the extent a country wants to participate actively in world financial markets, a securities market is a useful component.

III.3 Korean Reluctance to Liberalize

Many Korean officials believe that further domestic liberalization "could further raise the market interest rates, pushing up the firms' financing costs..."³³ One would think that international liberalization is the answer, allowing the firms to borrow much more cheaply abroad. But the government position has been the reverse: "It is recognized that in order to minimize the negative effects on the economy as a whole, the deregulation of interest rates and domestic financial markets need[s] to

precede the liberalization of foreign exchange and capital transactions." It is not clear what are these negative effects. Perhaps the authorities wish to avoid overborrowing like that experienced by Chile in its 1970s liberalization, which caused writers on the Optimal Order of Liberalization to warn against beginning with the removal of capital controls. According to Nam (1989, p.157), "The fear of massive capital inflows attracted by relatively high domestic real interest rates and anticipated foreign exchange appreciation has prompted controls on capital inflows."

One possibility is that the authorities are worried that a large capital inflow would bring about a real appreciation of the won: if the authorities intervened to resist the pressure toward nominal appreciation (which would itself require visibly abandoning the free-float spirit of the Market Average Rate system adopted in 1990), then the inflow of reserves would be inflationary. Korean exporters would lose competitiveness. One solution is to resist the nominal appreciation, but to sterilize the increase in reserves so as to prevent inflationary growth in the money supply. Indeed, the Korean monetary authorities pursued this strategy in the 1980s.

Another possibility is that the authorities are worried that Korean "domestic financial institutions, especially banks, are not efficient and competitive enough compared to their foreign counterparts."³⁴ [We will consider these issues at greater length below.]

III.4 The Five-year Plan of 1993

A firm commitment to the final stages of a complete "blueprint" for financial reform³⁵ was delayed until after the presidential elections in

December 1992. At last, in May 1993, the Ministry of Finance announced the specifics of a five-year plan of financial reform.

The measures that were laid out fell into four areas. In the area of bank deregulation, the plan promised the deregulation of interest rates beginning with those on bank loans by the end of the year, stipulations that bank management would be autonomous of the government, a reduction of policy-based loans by the Bank of Korea (with responsibility for such financing transferred to specialized banks), and steps to encourage banks to write off non-performing loans. In the area of central bank policy, the plan called for a movement toward open market operations as the principal means of monetary policy (beginning with market-determination of interest rates on government bond issues since early 1993) and a strengthening of bank supervision (with a deposit insurance system to be introduced by 1997). In the area of remodeling the structure of the banking system, the plan announced the relaxation of regulations on new entrants, the adjustment of service domains (beginning with allowing banks to lead manage the underwriting of bonds), the restructuring of specialized banks, the tightening of credit from financial institutions to their major shareholders and affiliate subsidiaries, and the fostering of an information infrastructure (including the development of credit rating institutions, and tougher sanctions on dishonest bookkeeping and auditing). Finally, in the area of internationalization, the plan took additional steps toward liberalizing the regimes governing foreign exchange, international securities transactions, and foreign direct investment.

The new president, Kim Young-Sam, in August 1993 took a step that was as difficult and as important as the announcement of the 5-year plan itself, in that it signalled the seriousness of financial reform. This was the

banning of the practice of using false names for bank accounts and other financial transactions as a means of tax evasion and corruption. Banks will now have to compete by offering depositors attractive interest rates, rather than by helping them establish fake accounts.³⁶

IV. THE INTERNATIONAL DIMENSION: RECENT CAPITAL INFLOWS TO LDCs

A major function of international capital markets is to allow capital to flow into countries where the expected rate of return to investment is higher than in the country of the saver, at a cost that is lower than that in the country of the borrower. Traditionally, developing countries have been thought the natural destination for such capital. In the 1980s the traditional pattern was not upheld. High real interest rates in the United States, originating from fiscal expansion not accommodated by monetary policy, drew capital to North America. Besides the role in precipitating the already-noted 1982 debt crisis, which resulted in a reversal of the previous flow of bank loans to Latin America and other developing countries, high interest rates also attracted capital to the United States from Japan and Europe.

Since 1990, the pattern has again reversed. Investors in the United States and elsewhere have increased their demand for long-term assets in developing countries in East Asia, Latin America, and even parts of the Middle East. This increase in demand has taken many forms, in microeconomic terms: loans, bonds, equities, and foreign direct investment. In macroeconomic terms, it has shown up in various countries as renewed current account deficits, increases in central bank reserve holdings, and appreciation in values of local assets and in the foreign exchange value of

the local currency. The new capital flows of 1990-93 are well-documented by Calvo, Leiderman and Reinhart (1993a, 1993b), who attribute them to factors external to the host countries, in particular a fall in the rate of return in the United States, more than to such internal factors as monetary stabilization and economic reform in the host country. Financial liberalization in Latin America and East Asia is an important part of the story however. Less capital would be coming in if these countries had tried to retain extensive capital controls.

IV.1 Do Capital Inflows Pose Difficulties?

Open capital markets have many advantages, especially in theory. In addition to long-term financing of development, international financial markets allow shorter-term consumption smoothing, and a more efficient allocation of risk through diversification. But there is also the likelihood of market failures whereby the country becomes excessively indebted and vulnerable to a sudden reversal of confidence, as happened in 1982. The problems include the absence of an enforceable international bankruptcy court, the lack of credibility of government "no bail-out" declarations, and possible herd mentality and speculative bubbles. Such market failures could call for direct measures to discourage capital inflows.³⁷ If, on the other hand, the capital inflows are thought to be taking place for good reasons, e.g. in response to a commodity boom or a rapid increase in worker productivity, one should allow them to take place.

Concerns arise that monetary inflows will lead to unwanted effects of real appreciation on non-booming exports, either through nominal appreciation or inflation. They can often be addressed by the central bank intervening to prevent the currency from appreciating in nominal terms, at

least in the short run, and then sterilizing the effect of the reserve accumulations on the money supply. As is well-known, the higher the degree of international capital mobility, the more difficult will it be to sterilize.

IV.2 Does Financial Repression Make Sterilization Easier?

An underexplored question concerns the interaction between the extent of domestic financial liberalization (for a given degree of international financial openness) and the ease of sterilization. Reisen (1993a) has made the somewhat surprising claim that some Southeast Asian countries have succeeded in the theoretically impossible simultaneous achievement of exchange rate stability, open capital markets, and monetary independence. He points to the role, for example, of the Singapore Provident Fund, in absorbing government assets to offset a reserve inflow. The implication is that even when a fall in the U.S. interest rate is transmitted to a fall in the interest rates in these countries, the capital inflow is "sterilized" in the broad sense that it has little impact on the local money supply, aggregate demand, or inflation. Reisen apparently has in mind a domestic financial system that has so little market orientation that it is little affected by a fall in the interest rate. In classic IS-LM terms, money demand is unresponsive to the interest rate, so the LM curve is steep.³⁸

On the other hand, one expects that when financial markets are not well-developed, the central bank will have difficulty sterilizing inflows, in the sense that investors will not voluntarily choose to hold government securities unless they are paid a high interest rate, with attendant future quasi-fiscal costs for the central bank. Indeed, in Korea, Colombia and many other developing countries, the absence of a market in negotiable

government securities has meant that the central bank essentially must start one from scratch when it wishes to sterilize reserve inflows, selling its own "Monetary Stabilization Bonds" to the public.³⁹ The resolution is as follows: to sterilize with ease, one needs not only underdeveloped financial markets, but enough financial repression in the system to be able to force supposedly-private banks or other financial institutions to absorb government securities at artificially low interest rates. The cost of such a degree of financial repression, in terms of stunting financial development, may be too high to make it desirable, for a country on the path to industrialization.

Raising reserve requirements on banks, for example, might appear a useful way to neutralize monetary expansion. It can succeed in creating a wedge that raises interest rates on bank loans (desired to cool off the economy), without necessarily raising interest rates on bank deposits (which would prolong an undesired capital inflow). The problem is that high reserve requirements, because they undermine the competitiveness of domestic banks, are not easily reconciled with opening to competition from offshore banks and from domestic non-bank institutions.

IV.3 Are Foreign Investors More Bullish than Domestic Investors?

An interesting possible hypothesis regarding recent capital inflows is that foreign residents are more optimistic about domestic assets than are domestic residents. A widely-held interpretation of the massive capital flight from Latin America that took place in 1982 and the years immediately preceding it is that residents of these countries correctly perceived dangers ahead, at a time when foreign banks were foolish enough to be still lending eagerly. So far in the present episode, repatriation of past-flown

capital by domestic residents seems to be as important a part of the inflows as new investments by foreign residents. Nevertheless, anyone who is concerned about a possible replay of 1982 -- as are Calvo, Leiderman and Reinhart (1993a,b) -- wants to be vigilant to any future signs that the locals are again losing confidence. Unfortunately, capital flight can only be estimated with a lag of a quarter or two (and, even then, very imperfectly).

Another place where it might be useful to look are the prices of country-funds that invest in the stock markets of a number of Latin American and Asian countries. Over 40 of such funds have been opened on the New York Stock Exchange in recent years. They are closed-end funds, and their price in New York seldom equals the value of the constituent equities on the home-country markets. Fluctuations in the premium of the U.S. price of the fund over the net asset value could be a measure of fluctuations in the difference in expectations of U.S. versus local investors.

For most of these funds this premium has been higher (or the discount has been lower) during the period 1990-1992 than during the preceding three years, suggesting bullish sentiment on the part of foreign investors. Hardouvelis, La Porta and Wizman (1993) argue persuasively that the existence and behavior of these premiums and discounts are inconsistent with an Efficient Markets Hypothesis, and reflect "U.S. investor sentiment" in imperfectly integrated markets. They note a dramatic switch in 1990 across most of the country funds, an improvement in U.S. investor sentiment compared to the preceding three years, which they attribute to the fall of the Berlin Wall and German unification. From our viewpoint, however, the 1990 switch in the relative enthusiasm of American investors to invest in East Asia, Latin America and elsewhere, which is observable in the data on

long-term capital flows, could be due to the decline in expected U.S. returns identified by Calvo, Leiderman and Reinhart.

The Figures at the end of the paper show the weekly discount or premium of the country funds in recent years for eight countries, two in Latin America and six in East Asia. Unfortunately, only two of the country funds in each region have been in existence long enough to allow a pre-1990 and post-1990 comparison. [Also presented is the common component of the nine oldest funds, as estimated by Hardouvelis, La Porta and Wizman (1993).] Mexico and Brazil (Figure 1) show a clearly higher level of relative U.S. investor confidence in the three years from 1990, consistent with the trend for the Germany Fund and the common component of country funds [Figure 4]. Taiwan and Thailand [Figure 2] show a clearly lower level of U.S. investor confidence, again as compared to the end of the 1980s. If our interpretation of the data is correct, that they represent the confidence of U.S. investors relative to local investors, these four graphs suggest a possible replay of the period leading up to 1982: booms based relatively firmly on the ground in the case of East Asia, but based excessively on the enthusiasm of U.S. investors in the case of Latin America. An alternative interpretation, however, is that we may merely be witnessing a general tendency for the market inefficiency of large discounts (in the Latin American case) or premiums (in the East Asian case) to be arbitrated away over time.

IV.4 The Optimal Order of Financial Liberalization:

International vs. Domestic

The experience of Chile and other Southern Cone countries in South America with liberalization in the 1970s gave rise to a literature on the

optimal sequence with which various reform measures should be adopted. Although no definitive conclusions were reached about the desirable order among such measures as trade liberalization, monetary stabilization, and domestic financial liberalization, a rough consensus did emerge on two points. First, reduction of the budget deficit should precede monetary stabilization and other measures. The reason is that a country must finance a budget deficit either by borrowing or by the inflation tax. If the inflation is eliminated before the budget deficit is reduced, the result could be excessive borrowing.⁴⁰ Second, international financial liberalization, particularly the removal of controls on capital inflow, should come last. The reason is that otherwise capital flows will be free to respond to distorted relative price signals (e.g., an excessively high relative price of non-traded goods), and the result may again be overborrowing.

East Asian countries tend to have stronger fiscal positions than Latin American countries. But many have chosen to undertake international financial liberalization more rapidly than domestic financial liberalization, with apparent success, in contradiction to the conventional wisdom regarding the optimal sequence. Japan and Indonesia are two countries often cited in this connection.⁴¹ One possible justification for the reversed sequence concerns the already-noted problem of uncompetitive domestic financial institutions. Where domestic financial interests are able to oppose liberalization politically, or lack the know-how to compete, opening up to international financial markets may be a way to overcome this resistance, as the domestic institutions are given the example of foreign banks and securities traders to emulate, and are forced

to compete.⁴² The theme of providing competition for domestic banks is amplified in the following section.

V. SOME MORE ISSUES FOR REGULATORY POLICY

Even for countries where banks will continue to be the dominant form of finance for the foreseeable future, a government program of financial liberalization is important. As many authors emphasize, however, liberalization does not mean an end to bank regulation.

V.1 Supervision of banks and other financial institutions

Careful, professional prudential supervision of banks and other financial institutions is as important as ever. Indeed, in many countries, it needs to be strengthened as a prerequisite to full liberalization of interest rates.⁴³ Regulators must guard against overconcentration of loans to a single industrial group related to the bank itself.⁴⁴ (Such practices in Thailand, for example, led to large losses on the part of a particular finance company and thereby to a financial crisis in October 1983. Overconcentration of loans from banks to affiliated groups also contributed to the Chilean collapse of 1982.) It is especially important to monitor bank capital as measured by the marketplace (i.e., the value of bank shares), not just the accounting measure of capital. Given increasing market orientation, and feedbacks between bank credit and equity or land prices, supervision will require more careful attention to conditions in securities and other markets, to guard against speculative bubbles. Many countries will want to adopt the G-10's Basle capital adequacy standards for banks, as the Philippines is considering doing.⁴⁵

Capital adequacy is also an important issue for securities firms. Supervision of banks and securities companies might be easier if conducted within a single government agency, which strategy Korea, Singapore and Taiwan seem to be following, as opposed to the U.S. model.⁴⁶

V.2 Information flows

Many countries need also to improve the flow of information. This includes accounting standards, corporate disclosure, external auditing, the development of credit-rating institutions [as recently established in Malaysia], and restrictions on insider trading.⁴⁷ Those who fear that such scrutiny will inhibit the development of financial markets should consider how much tighter rules and practices are in the United States, with its well-developed financial markets, than in most Asian countries.

It should go without saying that a free and open press is also an essential part of the free flow of information. That this perhaps needs to be said is illustrated by Singapore's rocky relations with several foreign periodicals, which happen to be the ones that are the most important in the world to its development as an international financial center.

V.3 Central Bank Independence

Many countries around the world are in the process of granting increased independence to their central banks, including long terms for bank board members without easy removal by the executive branch, and a principle that professionalism should guide the bank's activities. This is a policy reform that, while helping credibly to establish non-inflationary monetary policy, can at the same time help promote financial development.⁴⁸ The

Philippines, for example, adopted a law to strengthen its central bank in June 1993.⁴⁹

V.4 The "Bad Loan Problem"

Addressing overhangs of nonperforming loans is one of the three essential areas in banking policy that Fischer (1993, p.127-128) lists as pre-requisites for opening up to international financial markets. (The first is enhancing competition among banks, addressed below, and the second is strengthening prudential regulation and supervision, addressed above.) He recommends starting by explicitly assessing the magnitude of the problem and then either liquidating or recapitalizing. To the extent that newly entering foreign banks can participate through mergers or license takeover, they could be let in simultaneously. But Fischer suggests that if capital controls are removed before the bad loan problem is fully addressed, domestic interest rates will as in Latin American countries fail to converge to the world level.

V.5 Reserve Requirements

Domestic banks will be put at a competitive disadvantage vis-a-vis foreign financial institutions if international liberalization takes place while domestic reserve requirements are still high, as already noted. Indeed, this is why Indonesia sharply reduced reserve requirements when undertaking international liberalization in the 1980s.⁵⁰

Required reserve ratios vary widely in East Asia, from high levels like 21 per cent in the Philippines, to low levels like 2 per cent in Indonesia after they were reduced. There is, however, a general move toward

simplifying policy by equalizing requirements on demand deposits and time deposits within each country.⁵¹

High reserve requirements are one means of financial repression, and as such are in themselves bad for financial development. On the other hand, they are good for monetary control, and are often used as a means of financing a budget deficit or a means of sterilizing reserve inflows, in the sense of preventing the inflows from increasing the money supply broadly defined. They are a way for the government to get seignorage to help finance a budget deficit, without directly leading to inflation.

V.6 Compulsory Finance May Be the Most Repressive Kind of Seignorage

In addition to raising reserve requirements on banks, there is another way that the authorities can obtain seignorage from the financial system, at the expense of repressing financial development. The first component is "compulsory finance": forcing captive banks and other financial institutions to absorb government bonds at artificially low interest rates. This undermines bank profitability, and must be viewed as incompatible with the strategy of developing competition for banks via greater market-orientation domestically or greater openness internationally. Thus the second component is to continue to repress the rest of the financial system, for example through taxes on securities transactions, in order to keep the banks viable.⁵²

The incompatibility comes to the fore when the budget deficit is large. Japanese banks in the 1970s absorbed every-increasing quantities of government bonds at below-market interest rates, until their growing complaints forced the government to shift to a policy of market-determined interest rates.⁵³

If the choice is between high reserve requirements on the one hand, and compulsory finance on the other, a consensus of authors seems to favor the former. The argument is that providing an environment in which banks are forced to compete is absolutely essential, and that establishing a competitive market in government bonds is the best way to begin this process. Fry (1990) and Lynch and Norton (1992) urge letting interest rates on government bonds be determined flexibly in the marketplace, as opposed to forcing captive banks to absorb them at artificially low interest rates.⁵⁴ Market-determined interest rates provide a useful indicator of the state of supply and demand of credit, which banks and corporations can use as a benchmark in their own activities, which has been a motivation for reforms in Singapore, Malaysia and Hong Kong.⁵⁵ More specifically, markets send signals to the rest of the financial system on some key magnitudes: the appropriate differential between the interest rate and inflation (positive, unlike many financially repressed countries the world over), the appropriate spread between lending rates and deposit rates (positive, unlike in some Development Finance Institutions, but just large enough to cover reasonable costs, unlike among inefficient banks), and the appropriate spread between long-term rates and short-term rates (positive most of the time).

Furthermore there are some advantages inherent in a monetary policy that is market-based, i.e., based on interest rates rather than credit ceilings. Changes in monetary policy can be transmitted rapidly and evenly throughout the economy.⁵⁶ A good summary of the position runs thus:

"Recent experience suggests that the best way of stimulating financial sector competition and efficient financial intermediation is to encourage direct financial markets. In particular, the development of auctions and secondary markets for treasury bills not only provides an efficient form of monetary control, it also ...provides salient competition to the financial institutions...." [Fry (1990, p.32).]

It has also been argued, by Cho (1986), that the development of an active equity market is a pre-requisite for liberalization of the banking system. This prescription as to the optimal sequence of liberalization seems to fly in the face of the three natural stages of financial development that were proclaimed at the beginning of this paper. Cho argues that unregulated cartelized banking systems in East Asian countries are in danger of excluding borrowers who are risky but have high expected returns, and that equity markets are needed to finance these productive firms, while the banks concentrate on the well-established safe borrowers. The logic is based on the Stiglitz and Weiss (1981) model of imperfect information, in which unregulated financial markets lead to credit rationing, and to the inefficient exclusion of risky borrowers.

Cho recommends retaining government intervention in the credit market, until equity markets can be introduced. It is far from clear, however, that equity markets are better able to solve the imperfect information problem than are banks. Indeed, the literature inspired by Japanese banking relationships argues the reverse, as noted in Section I.2 above. Much depends on whether a country believes that its government regulators or its deregulated bankers would better be able to duplicate successfully the monitoring function of Japanese banks. Most economists would bet on the deregulated bankers.

V.7 Safeguarding the Payments Mechanism

This still leaves the issue of whether financial liberalization might not put too much competitive pressure on banks. Nakajima and Taguchi (1993, p.3-4) blame such pressure in part for the 1987-89 speculative bubbles in Japanese land and equity markets, and its costly aftermath in 1990-93. The

argument is that competition from the expanding securities sector caused a sharp decline in banks' profit margins, and the banks went into risky investment projects like real estate in response.

One must say that other factors in addition to financial liberalization also played a large role in these speculative bubbles.⁵⁷ Nevertheless, there is a well-known and genuine conflict between the role of banks as players in the fast-moving world of securities markets and their role as the payments mechanism for the economy. The possibility of failure of banks where transactions accounts are kept is a sufficiently dangerous threat to the economy to justify some degree of government regulation and protection, which is politically impossible to deny anyway. This logic inclines me to support Regime II in the taxonomy of Nakajima and Taguchi (1993, p.24-25): public protection for the provision of payments services, but not for the service of intermediation per se. One possibility is for the protection to take the simple form of a regulation that banks taking liquid deposits must back them with holdings of Treasury bills, which renders the issue of government insurance almost moot.

My caveat is some skepticism as to whether "firewalls" separating these functions within a given bank are realistic, especially in Asia. One is tempted then to conclude that universal banking might be less appropriate than separation of financial institutions into securities companies (without public protection) versus transactions banks (with protection). Arguing in favor of Regime II without the separation, however, is evidence that there are cost-saving complementarities between the two bank functions of taking deposits from corporations and investing in them. The goal of regulators should be to allow complementarities between the two functions to the extent

possible, while making sure that only the transactions function is protected.

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Endnotes

1. The now-classic references on financial repression are McKinnon (1973) and Shaw (1973). The literature is reviewed by Fry (1993b).
2. There is some overlap between this hypothesized sequence and the patterns identified in two classic references on financial development: Gurley and Shaw (1960) and Goldsmith (1969). They described a process whereby financial interrelations, as reflected in the value of financial instruments outstanding, increase rapidly during early stages of development. Bryant (1987, p.10-14) gives a concise summary of the generalizations that emerged from this work.
3. Fry (1990, sections 5 and 9). [An example is the decision of the Korean government in the 1970s to channel bank funds to chemicals, steel, and other heavy industry.]
4. Studies of Taiwan, Indonesia, Thailand and the Philippines find banking sectors that are similarly inefficient, cartelized, or bureaucratized, despite privatization. Among the visible symptoms are infrequent changes in interest rates, high spreads between borrowing and lending rates, and a large number of bank branches. E.g., Cheng (1988) on Taiwan [and Cole and Slade (1990) on Indonesia and Hanson and Rocha (1986) on the Philippines.] See Fry for a good overview (1990, p.29-31).
5. See Yung Chul Park (1991) on this point.
6. Main banks and their monitoring function are explored by Aoki and Sheard (1992), Hamada and Horiuchi (1987), Hodder (1991), and Hoshi, Kashyap and

Sharfstein (1990) and Meerscham (1989, 1990), among others. For a survey of this and other aspects of corporate finance in Japan, see Frankel (1993a). One should note that the main bank system looks slightly tarnished now, compared the 1980s. In cases such as the 1993 Cosmo Securities scandal, main bank monitoring does not seem to have been very effective.

7. Zysman (1983) and Bisignano (1990) are two of many references on the Anglo-American "market-based" system, vs. the German-Japanese-French "credit-based" system.

8. For example, Hoshi, Kashyap and Sharfstein (1990) suggest that there may be hidden costs to the system of bank monitoring, and a cheaper way of overcoming the information and incentive obstacles to borrowing -- which is available only to older, well-established, successful firms -- may be to take advantage of the firm's reputation by issuing AAA-rated bonds. It is noteworthy that agencies that rate the creditworthiness of corporations (the analogues of Moody's or Standard and Poor's) did not develop in Japan until recently.

9. Frankel (1993a), a survey of the evolving Japanese system, suggests how this might be. In terms of game theory, the cooperative equilibrium that is based on banking relationships may not be sustainable, in a world where newcomers are playing by different rules.

10. In a similar vein, Singh and Hamid (1992) find that firms in developing countries tend to use internal finance to a smaller extent than do firms in advanced countries. However, much of their external finance is borrowing

from the government. Furthermore Singh and Hamid find it difficult to generalize across countries, with regard to such financial variables as gearing ratios, even within the subset of successful East Asian economies.

11. Meyer (1988) argues that, although equity markets are very well-developed in the U.K. and the U.S. in the sense of volume and competition [and the Efficient Markets Hypothesis], they are not as efficient at financing investment and growth as are the financial systems of Japan, Germany and other industrialized countries.

12. The case of Australian banking deregulation in the 1980s is considered in MacFarlane (1991).

13. The parallels between the 1980s debt crisis and the experience of the 1930s are striking (Eichengreen and Portes, 1989, and Fishlow, 1986).

14. This issue arose in July, to take one example, in Colombia's efforts to attract British investment [into its newly discovered oil fields].

15. Many of the economists investigating at equity investment in emerging markets were recently brought together by Claessens and Gooptu (1993).

16. Rhee (1992, 16-17).

17. Rhee (1992, p.48).

18. Frankel (1993b) and sources cited there give a more complete picture of the issues.

19. Kim (1991, p.22).
20. Oum (1991) and K. Kim (1990, p.11).
21. Kihwan Kim (1991). Others who note the slow pace of Korean financial liberalization include Fry (1990, 42-44) and Park.
22. E.g., Kihwan Kim (1991, 21).
23. U.S. Treasury (1990b, p.261) National Treatment Study.
24. U.S.Treasury (1990, p. 243).
25. Eight of them American. Oum (1991, p.7).
26. U.S. Treasury (1990, p.261).
27. U.S. Treasury (1990, p.258).
28. Oum (1991), and The Economist, "The Korea that can say no," 3/23/91.
29. Oum (1991, p.10-11). Evidently there is a need to encourage more saving in longer-term securities, instead of short-term (Fry, 1990).
30. Lindner (1991a, p.18).

31. Kihwan Kim (1991, p.22) and Oum (1991, p.9). But apparently there will be a 10 per cent limit on foreign ownership. (Economist. March 23, 1991.)

32. The Korea Times, Dec. 19, 1991.

33. Oum (1991, p.7).

34. Oum (1991, p.7).

35. Byrne (1992, p.17-20).

36. The Economist, November 6, 1993, p. 104.

37. Harberger (1989?, p. 165) proposes dealing with "congestion externalities" in borrowing by instituting an "international borrowing tax." For possible disadvantages of unrestricted borrowing, see also Diaz-Alejandro (1985) and the papers by Williamson and others in Reisen and Fischer (1993).

38. Frankel (1993d). Note Fry (1990, p.11): "Successful financial restriction is exemplified by...three effects on the demand for money: a rightward shift in the function, a higher income elasticity, and a lower interest-rate elasticity."

39. See, e.g., Kwack (1993) and Frankel (1993d).

40. E.g., McKinnon (1991), who believes that China has succeeded in limiting the fiscal deficit so as to avoid dependence on the inflation tax.

41. E.g., Frankel (1984), and Marshall (1991) or Cole and Slade (1992), respectively.

42. The Philippines, for example, is in the process this year of letting in foreign banks with the explicit goal of competing down domestic interest rate spreads (Manalac, 1993).

43. Asian Development Bank (1993, p.57), Diaz-Alejandro (1985), Fischer (1993, p.126), Fry (1990, p.36) and Lynch and Norton (1992, p.18).

44. Fischer (1993, p.126-27) and Robinson, et al (1991, p.22).

45. Manalac (1993, p.13-15).

46. Rhee (1992, p.55-60, p.52).

47. Fischer (1993, p.127), and Lynch and Norton (1992, p.7).

48. Fischer (1993, p.126) remarks on the need for banking supervisors to have a strong institutional position, e.g., to be free from political interference.

49. Manalac (1993, p.19).

50. Fry (1990, p.32).

51. Fry (1990, p.16, 32).

52. Fry (1990, p.11).

53. E.g., Frankel (1984, 1993a), and the other references cited therein.

54. Fischer (1993, p.125) concurs. But he wants reserve requirements on banks reduced as well, while the other authors see a role for keeping them up, so that the government gets needed seignorage. Clearly a liberalizing country is better off if it does not have a large budget deficit that needs to be financed to begin with. But that is easier said than done.

55. Lynch and Norton (1992, p.5). Also Asian Development Bank (1993, p.40).

56. Lynch and Norton (1992, p.18). Emery (1992) explains that the absence of an active government bond market in Korea hinders the ability to conduct open market operations. Similarly, it makes sterilization operations more difficult, as noted.

57. A major factor was expansionary monetary policy, in part motivated by a perceived need to support the dollar. One might also wonder whether major speculative bubbles have not historically been a "rite of passage" for a new world power (Frankel, 1993c, p.10).

Table 1 Selective Credit Instruments in Sample Asian Developing Countries, 1990.

| Country | Subsidized | Preferential | Direct | | Prolif- | |
|-------------|---------------------------------------|---------------------|------------------------|------------------|--------------------|---|
| | Loan Rates for Priority Sectors | Rediscount Rates | Budgetary Subsidies | Credit Floors | Credit Ceilings | eration of Specialized Institutions |
| Indonesia | Scope reduced | Scope reduced | | Yes | | Yes |
| Korea | Scope reduced | Scope reduced | | Yes | Yes | Yes |
| Malaysia | Yes | Yes | | | | |
| Philippines | Yes | Yes | Yes | Yes | Yes | Yes |
| Taiwan | Scope reduced | Scope reduced | | | | |
| Thailand | Yes | Scope reduced | | | | |

Source: International Monetary Fund, central bank, and government publications.
As compiled by Fry (1990, p. 15).

Table 2. Financial Market Spreads and Equity Commissions

| | Money market Spread basis pts | Government bond market Spread basis pts | Foreign exchange market Spread % | Equity market Commission % |
|-------------|----------------------------------|---|--|-------------------------------|
| Australia | 5 | 3 | 0.04 | <0.50 |
| China | na | na | 1.50 | >1.10 |
| Hong Kong | 25 | 10 | 0.08 | >0.25 |
| Indonesia | 150 | - | 1.60 | 1.00 |
| Japan | 5 | 2 | 0.03 | >0.08 |
| Korea | na | - | 0.04 | >0.40 |
| Malaysia | 30 | 2 | 0.08 | >1.00 |
| New Zealand | 15 | 4 | 0.06 | na |
| Philippines | 50 | - | na | 1.50 |
| Singapore | 12 | 5 | 0.08 | >0.50 |
| Taiwan | 25 | na | 0.12 | 0.14 |
| Thailand | 75 | 375 | 0.99 | 0.50 |

Note: Quotes are for mid-February 1993 and were provided by relevant central banks, except for Australia and Taiwan. "na" indicates no market quotes were available and a dash the absence of sizeable market. Foreign exchange spreads are based on US\$/yen quotes, except for China, Japan and Taiwan, where the US\$ Renminbi, US\$/DM and US\$NT\$ spreads are given. Equity market commissions, which cover large transactions are from *Euromoney* (April, 1993).

Source: Lynch (1993, p. 19).

Table 3.

Corporate Bond Markets

| | Turnover | | | | Amount Outstanding | | | |
|-----------|----------------|-------|------------------|------|--------------------|-------|------------------|------|
| | US\$ billion | | Ratio to GDP (%) | | US\$ billion | | Ratio to GDP (%) | |
| | 1980 | 1991 | 1980 | 1991 | 1980 | 1991 | 1980 | 1991 |
| Australia | 0 | 57.0 | 0 | 19.7 | 0 | 12.6 | 0 | 4.2 |
| China | - | 0.7 | - | 0.2 | - | 11.2 | - | 3.8 |
| Hong Kong | *1.5 (1981) | *2.5 | *5.1 (1981) | *3.8 | 0.6 | 3.7 | 2.2 | 4.5 |
| Indonesia | - | - | - | - | - | 1.1 | - | 1.0 |
| Japan | 133.0 | 349.5 | 11.2 | 10.6 | 181.5 | 734.4 | 15.3 | 22.4 |
| Korea | #1.1 | #1.0 | #1.7 | #0.3 | 3.4 | 55.0 | 6.0 | 20.2 |
| Malaysia | - | 0.4 | - | 0.8 | - | 2.6 | - | 3.3 |
| Taiwan | 0 | 0.1 | 0 | 0 | 0.8 | 6.2 | 1.9 | 3.3 |

Note: Data include both corporate and bank bonds and debentures.

* Data for NCDs only.

Data exclude debentures.

Source Lynch and Norton (1992)

Table 4.

Domestic Financial Futures Markets Turnover - 1991

| | | Traded since | US \$ billion | Ratio to GDP (%) | Ratio to Physical Market (%) |
|-------------|-------------------------|--------------|---------------|------------------|------------------------------|
| Australia | Bank bills | 1979 | 1,713 | 589 | 596 |
| | Government bonds | 1984 | 386 | 133 | 185 |
| | Equity (SPI) | 1983 | 43 | 15 | 101 |
| Hong Kong | Hibor | 1990 | 0 | 0 | - |
| | Equity (Hang Seng) | 1986 | 9 | 11 | 21 |
| Japan | Government bonds | 1985 | 11,271 | 383 | 148 |
| | Equity (Nikkei & TOPIX) | 1987/88 | 3,223 | 110 | 201 |
| New Zealand | Bank bill | 1986 | 108 | 273 | na |
| | Government bonds | 1986 | 14 | 37 | 74 |
| | Equity (NZSE-40) | 1987 | 0.2 | 0.4 | 6 |

Note: Turnover values are calculated as the face value of the underlying instruments multiplied by the number of contracts traded. Contracts on options are not included. Data for Japan cover 1990.-

Chart 1.

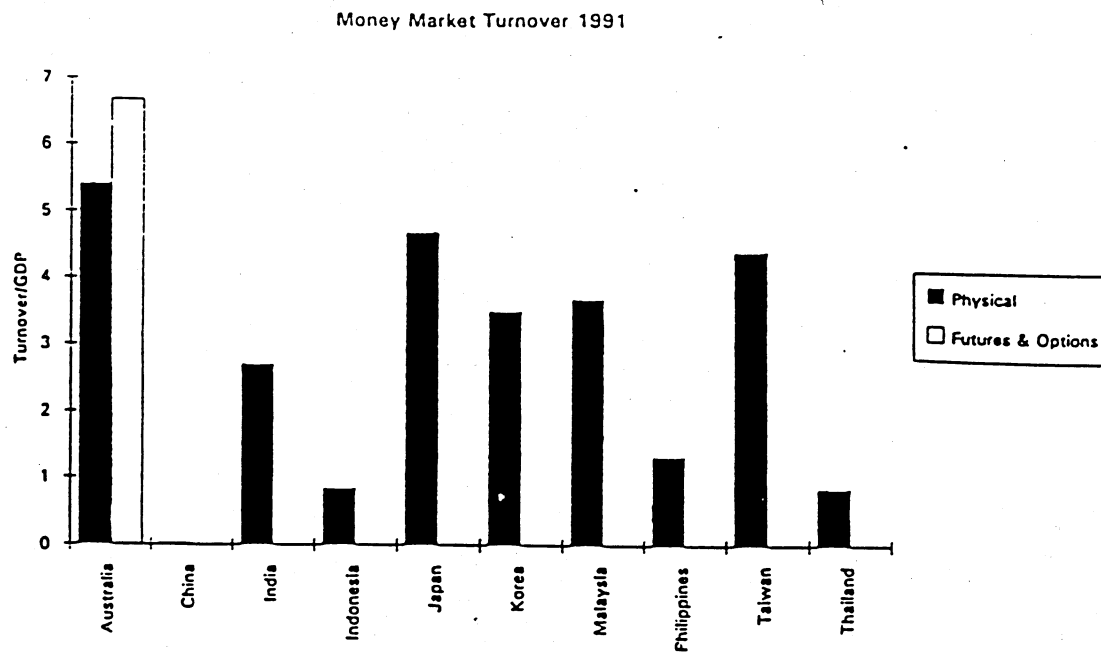
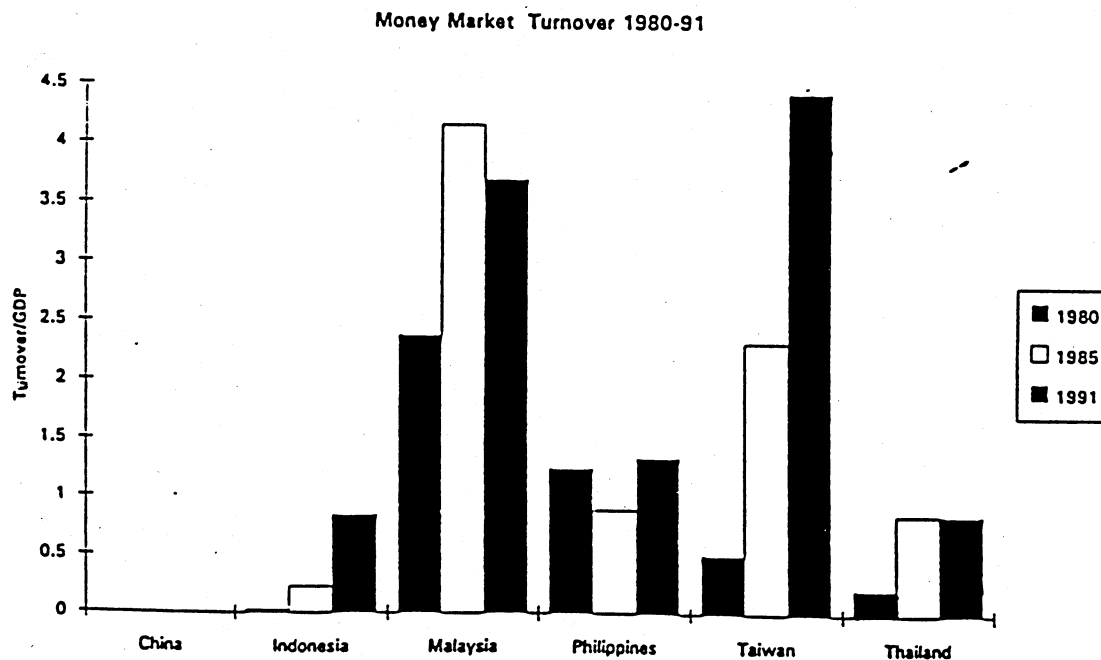


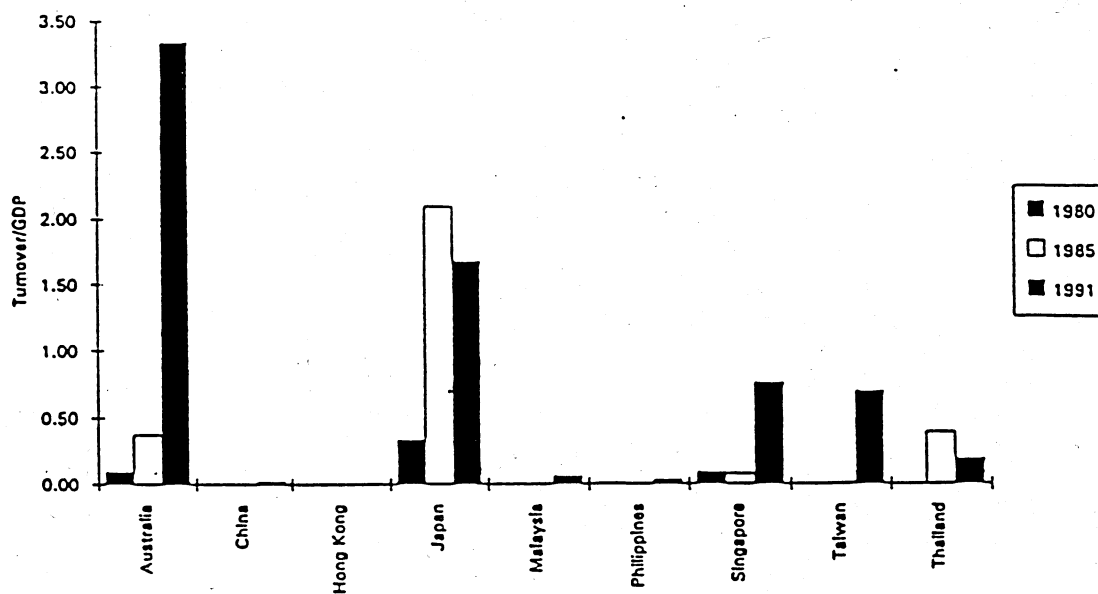
Chart 2.



Source Lynch and Norton, 1992

Chart 3.

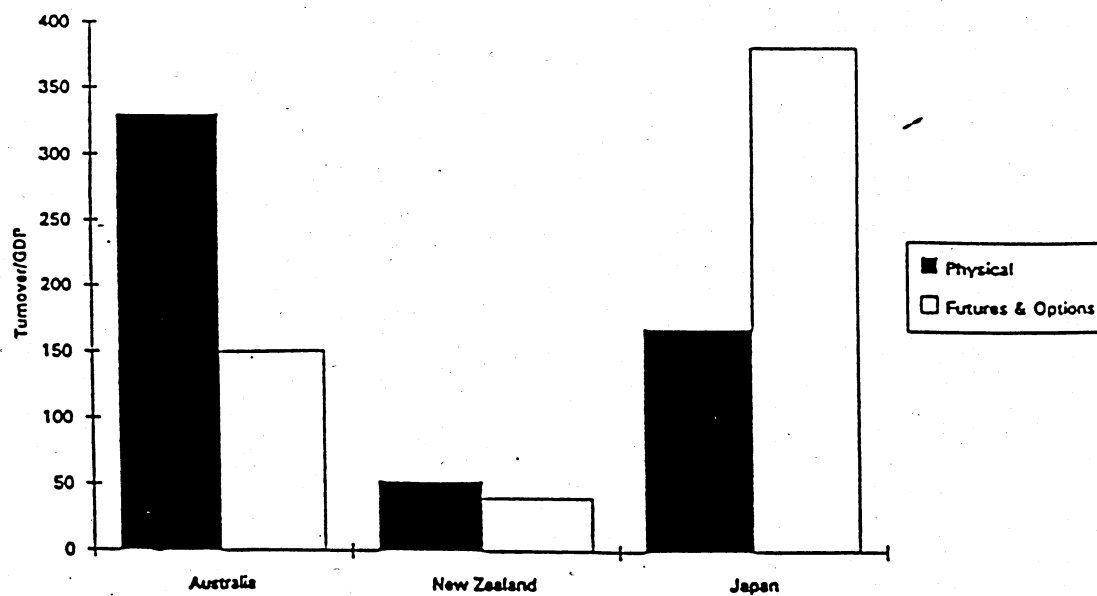
Government Bond Market Turnover.



Note: Data for Australia include semi-government bonds.

Chart 4

Government Bonds Turnover 1991



Note: Futures and Options data for Japan cover 1990. Australian data include semi government bonds.

Source Lynch and Norton (1992)

Chart 5.

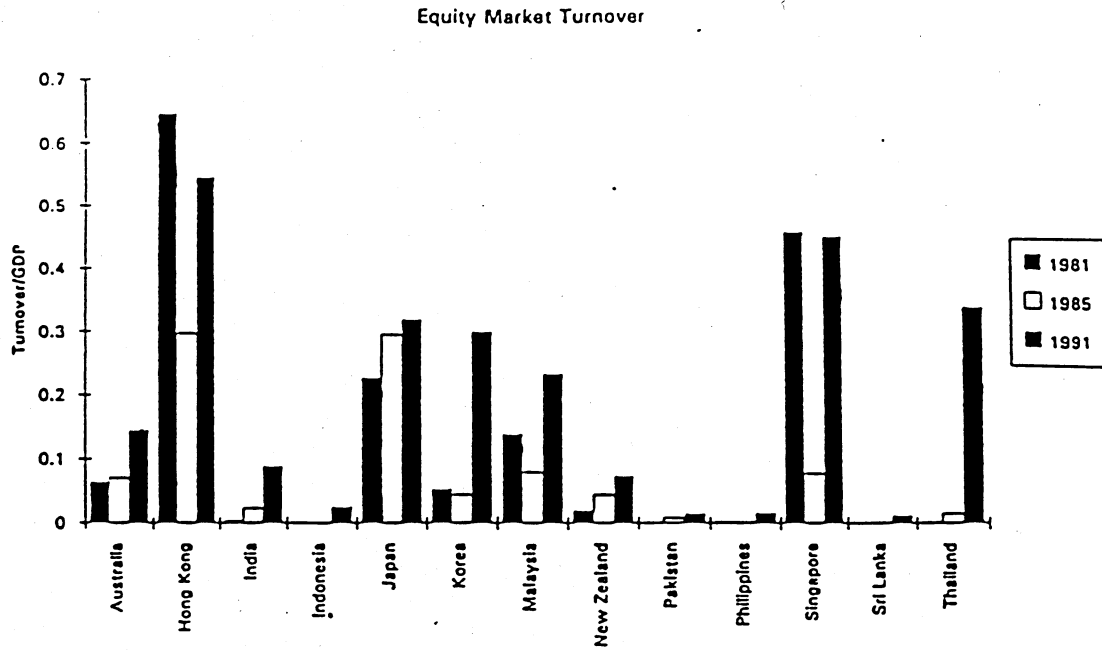
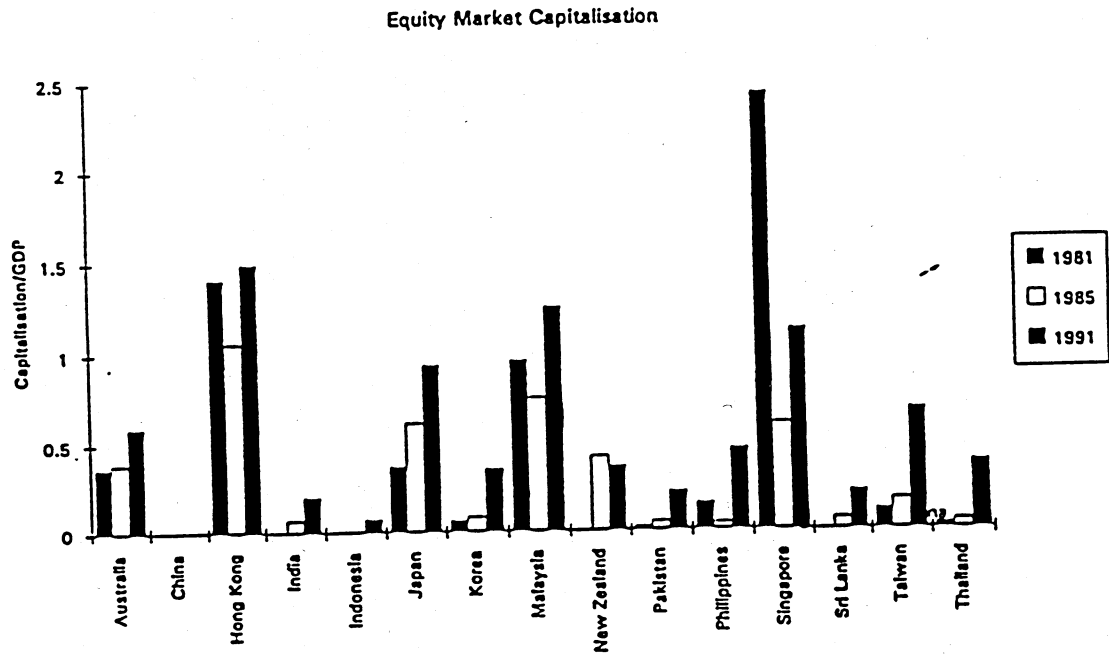


Chart 6.



Source: Lynch and Norton (1992)

Figure 1

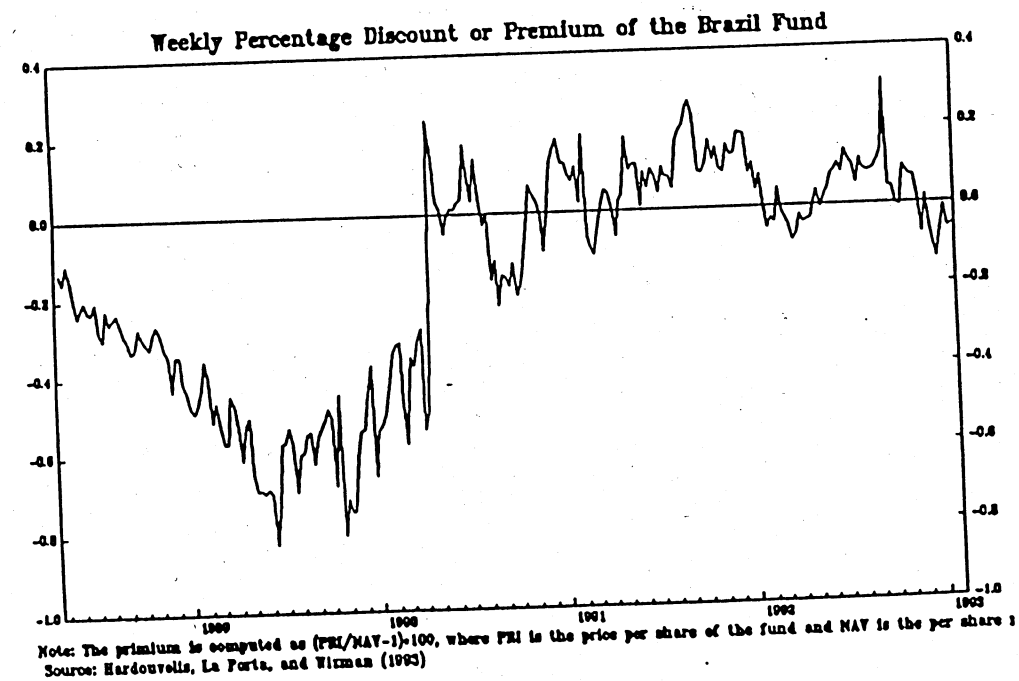
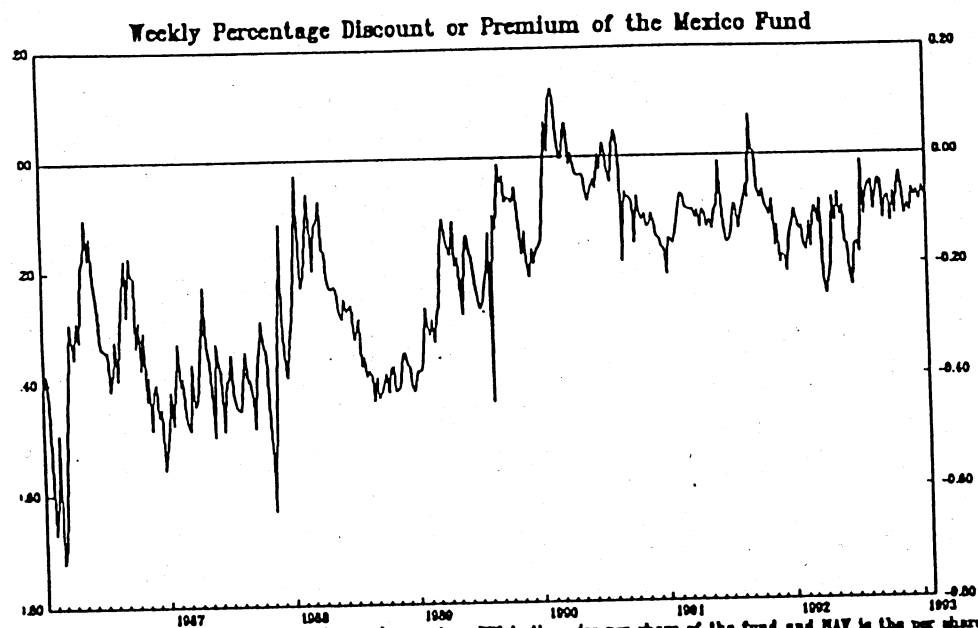


Figure 2

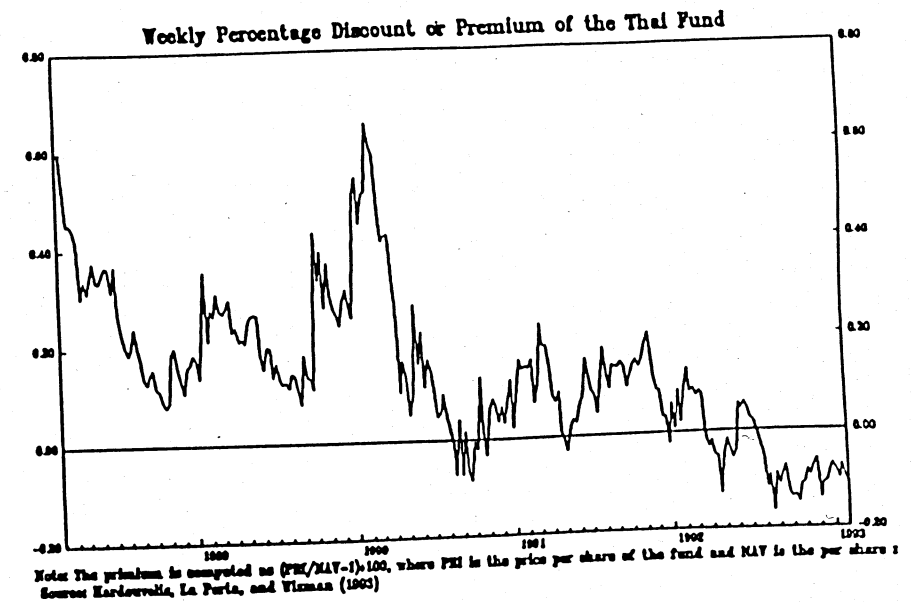
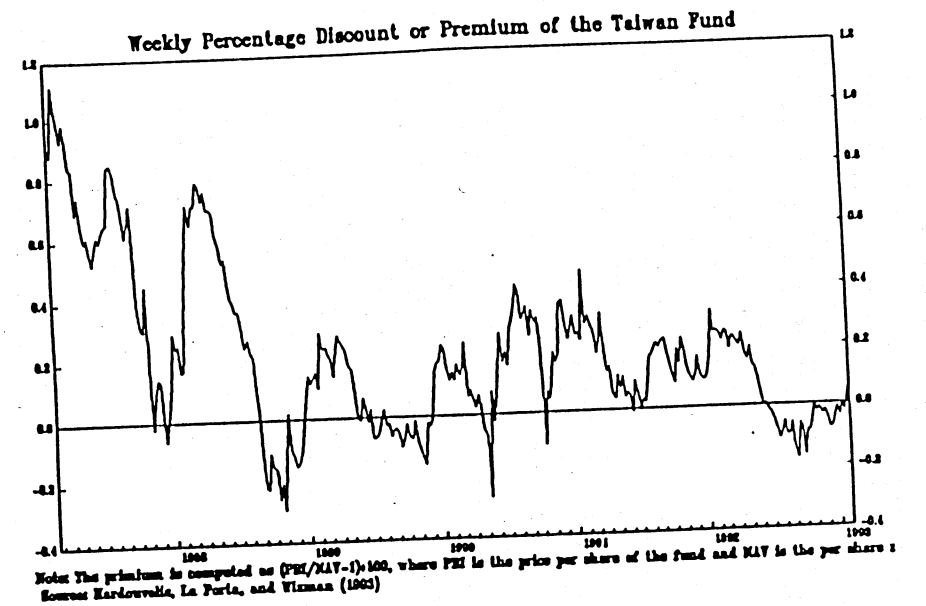
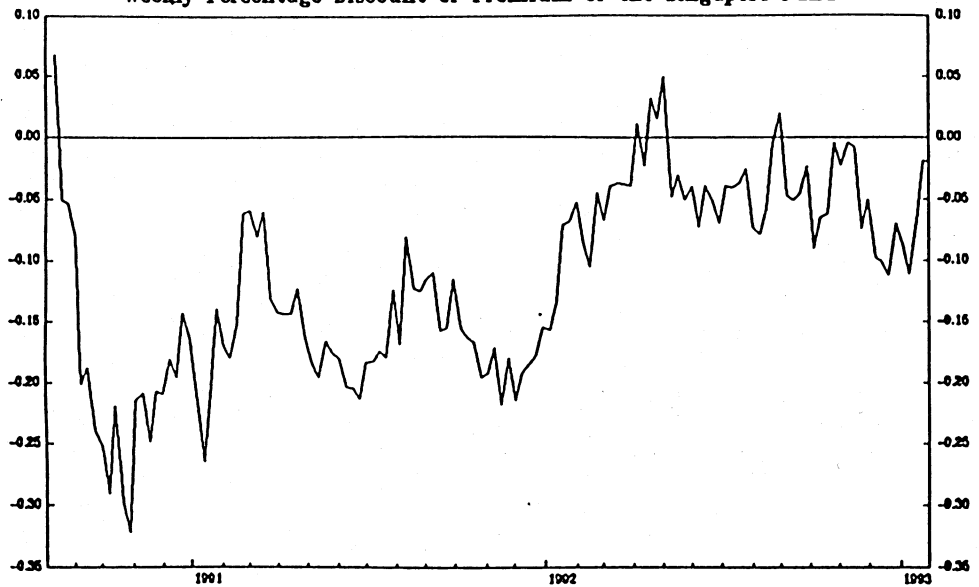


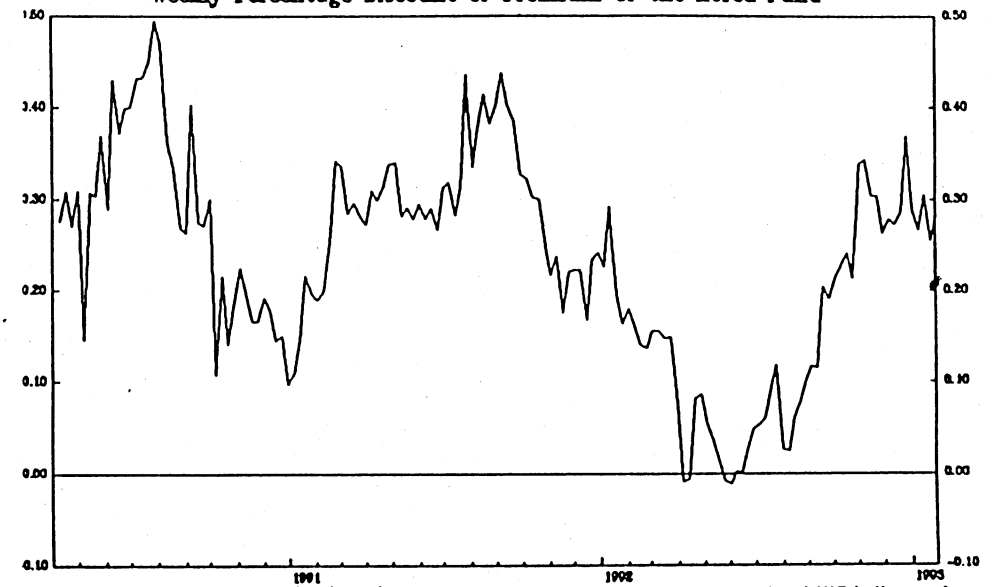
Figure 3

Weekly Percentage Discount or Premium of the Singapore Fund



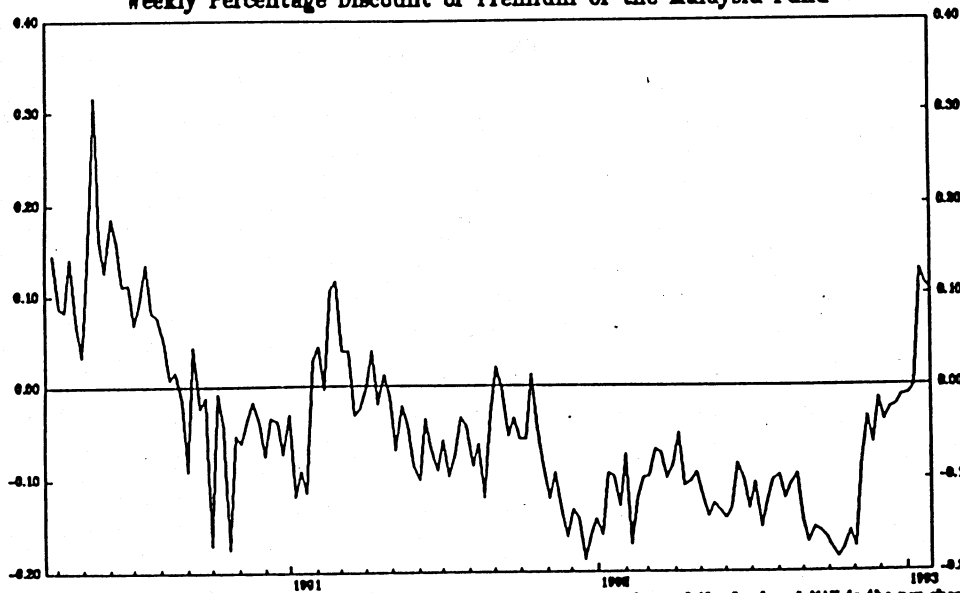
Note: The premium is computed as $(P/E/MAY-1) \times 100$, where P/E is the price per share of the fund and MAY is the per share :
Source: Hardouvelis, La Porta, and Wisman (1993)

Weekly Percentage Discount or Premium of the Korea Fund



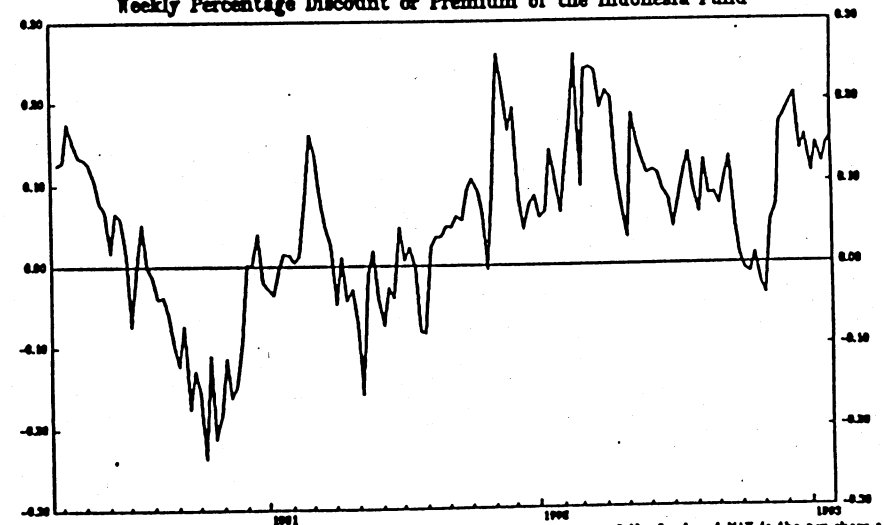
Note: The premium is computed as $(P/E/MAY-1) \times 100$, where P/E is the price per share of the fund and MAY is the per share :
Source: Hardouvelis, La Porta, and Wisman (1993)

Weekly Percentage Discount or Premium of the Malaysia Fund



Note: The premium is computed as $(P/E/MAY-1) \times 100$, where P/E is the price per share of the fund and MAY is the per share :
Source: Hardouvelis, La Porta, and Wisman (1993)

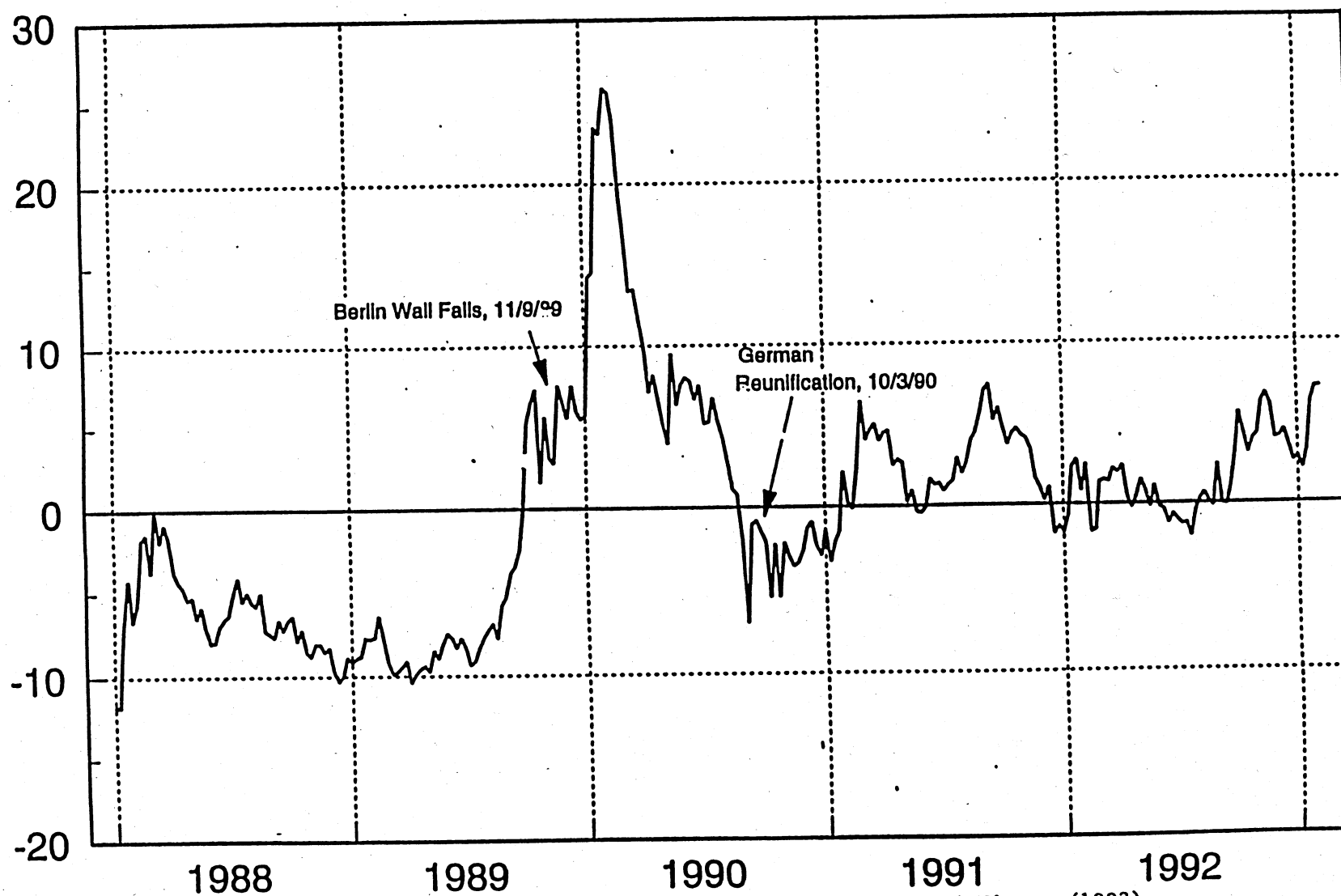
Weekly Percentage Discount or Premium of the Indonesia Fund



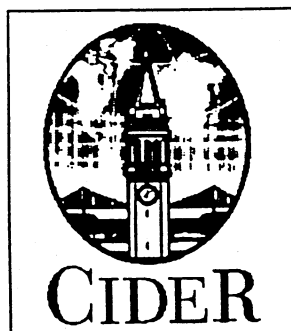
Note: The premium is computed as $(P/E/MAY-1) \times 100$, where P/E is the price per share of the fund and MAY is the per share :
Source: Hardouvelis, La Porta, and Wisman (1993)

Figure 4

Common Component in Country Fund Discounts



Source: Hardouvelis, LaPorta and Wizman (1993)



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