



**Discussion Paper
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**Real Estate Speculation as a Source of
Banking and Currency Instability: Lessons
from the Asian Crisis**

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July 2003

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CIES DISCUSSION PAPER 0318

**Real Estate Speculation as a Source of
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from the Asian Crisis**

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ABSTRACT

A central feature of the Asian currency crisis was the vast prior capital inflow into the region, and the later rapid reversal of that movement. In seeking to explain why this outflow of capital took place and was so devastating for the countries concerned, various writers have laid blame upon a combination of connected lending, poor bank supervision, moral hazard and “crony capitalism”.

Our emphasis is different. Much of the capital inflow financed a vast over-expansion of commercial real estate development. Plunging real estate values accompanied by severe difficulties in the banking and financial sector have been common occurrences across the region. The argument is that large international portfolio capital flows mediated by banks will usually lead to rapidly appreciating asset prices which will result in banking/currency crises.

1. Introduction

Table 1 shows the extent of capital inflows into Asian economies prior to the crash. In 1996, the inflow of capital into the IMF-3 (Thailand, Indonesia and Korea) averaged nearly 7 per cent of GDP. Associated with the inflow of capital was a trend to current account deficits (CAD's), and by 1996 Hong Kong SAR, Korea, Indonesia, Malaysia and Thailand were in this position (see Table 2). A third related feature was that much of the inflow financed a vast over-expansion of commercial real estate development. Rapid reversal of the movement of capital and plunging real estate values have been common across the region, as have severe difficulties in the banking and financial sector.

Other factors undoubtedly played a part in the Asian crisis.¹ Paul Krugman (1998a) takes the view that the currency instability was symptomatic of bad loans which result from the expectation that insolvent banks will be bailed out by the taxpayer. Later he gave a prominent role to “crony capitalism” under which “dubious investments were cheerfully funded by local banks, as long as the borrowers had the right government connections” (Krugman, 1998b). However, banking and currency crises are not new, and occurred long before there was any public support for the banking system. One such episode took place in Australia in the 1890s, when the ingredients were much the same as in Asia recently – heavy overseas borrowings, vast real estate speculation and a banking crash (54 out of 64 banks and 35 out of 36 finance houses were forced to close).²

Our argument is that, even without banking support arrangements and “crony capitalism”, large international portfolio capital flows intermediated by banks will usually lead to rapidly appreciating asset prices which will result in banking/currency crises. This is because portfolio investment will push the currency up to relatively high and unsustainable levels, and the boom in asset prices which is fuelled by bank lending must result in bad loans on the part of those “left last on the field”. This in turn will lead to a joint loss of confidence in both the currency and those financial institutions.

The paper falls into two parts. One considers various forms of foreign investment (FI) and their impact on the exchange rate. Our purpose is to identify those capital flows which impose either small or large adjustment costs on the host country, and those capital flows which lead to exchange rate changes which are either more or less rationally based. The second part focuses on the question of real estate speculation.

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2. When does FI create adjustment problems?

What patterns of foreign investment (FI) push the real exchange rate up to levels which makes the domestic economy vulnerable to adjustment costs and changes in investor sentiment? Second, what patterns of foreign investment (FI) are likely to trigger an abrupt reversal in that sentiment? These are the questions examined.

In the general case, capital inflow leads to a mixture of increased domestic spending and real exchange rate appreciation for the host country, which induces a corresponding increase in its CAD/trade deficit and resource transfer from abroad. In an economy producing traded and non traded goods, this real appreciation involves a rise in the relative price of non traded goods, leading to a fall in the production of traded goods and an increase in their consumption, both of these substitution effects increasing the CAD.

When this foreign capital flow ceases or reverses, these mechanisms are then thrown into reverse. In effect, the debtor country has traded present current account deficits for future surpluses, and such surpluses can be generated in one (or more) of three ways. The first is that in the course of the deficit/borrowing process sufficient new export or import-replacing capacity is created to facilitate the future flow of real transfers. The second way in which transfer may be effected is through adjustment in the exchange rate, and the debtor country pays a penalty in the form of a higher real cost of imports and lower real wages. The third way is to ‘squeeze’ the required surplus out of the economy by ‘disabsorption’; that is, by restricting domestic consumption of resources until a trade surplus of sufficient size is generated.

If the real exchange rate/real wages/relative price of non traded goods can be reduced to an appropriate level, a smooth adjustment can be made with GDP being maintained by a combination of increased competitiveness (which switches domestic spending toward home production) and reduced domestic spending (which avoids the demand inflation associated with this switching). However, if relative prices are “sticky”, the reduction in the trade deficit requires a decrease in domestic spending alone, and likely involves unemployment and business bankruptcies. Furthermore, unexpected nominal depreciation means that unhedged debtors or banks must also bear the additional burden of the increased cost of servicing loans denominated in foreign currency (a feature of the Asian currency crisis). For these reasons, there is some value in identifying those forms of FI which significantly push up the real exchange rate.

2.1 The traded good content of FI

An obvious starting point is the import/traded good content of FI expenditures. At one extreme, FI requires no real appreciation because the import/traded good content of the FI expenditures is unity. For example, a foreign owned car maker may increase the productivity of its existing local plant by installing imported machinery or by using foreign personnel to train local workers. In this case, the FI leads directly to a resource transfer – robots or skills – and no change in the real exchange rate is required to introduce it. It follows that when this FI is completed there is no need for an indirect reduction in domestic spending nor any need for a depreciation of the real exchange rate. The real exchange rate and the host country are not required to adjust

to either the capital inflow nor to its cessation. It is hard to imagine such a pattern of FI leading to a “currency/banking crisis”; it is rationally based, banks may not be involved, and the capital inflow has had no short run currency impact, even though it might have raised the ratio of CAD to GDP, the conventional “early warning” indicator of currency crisis.

At the other extreme, the import/traded good content of FI may be zero, as in the case of basic building construction. Then domestic labour is required to construct the non traded “bricks and mortar” which are financed by the FI. At full employment there has to be some real appreciation to increase the CAD commensurately with the capital inflow to induce labour to switch from producing traded goods to construction. Where the increased demand for labour by FI is met by immigration from rural areas (as in some developing countries) or from overseas (such as “guest workers”), houses and infrastructure may have to be constructed for those taking the jobs created by the FI, and any increase in the demand for and price of land can very easily initiate a surge of borrowing and lending to take advantage of anticipated further price appreciation.

We now have a potential transfer problem in adjusting to the reduction in capital inflow: the real exchange rate must fall to allow all of these construction workers to find jobs back in the traded goods sector (alternatively, there will be unemployment caused by lower spending). In this world we should expect investors to monitor the size of the CAD when framing their expectations of the future course of the exchange rate. The higher the levels of FI and the CAD at full employment, the greater must be the real devaluation to accommodate zero levels of FI and CAD.

Although it would not be surprising to see the currency fall with a reduction in the rate of capital inflow, it would be unusual for a significant capital outflow and “currency crisis” to develop. This is because the mechanism is well understood and quite transparent to informed investors. Likewise, an unforeseen decline in the terms of trade of any country always creates an “overvalued” exchange rate, but there seems no reason in theory or practice why this decline in itself should lead to a crisis.

On the other hand, these changes may provoke a currency crisis if the operations of the major financial institutions in the economy and the actions of foreign investors themselves have not been rationally based – being predicated, for example, on the assumption of perpetually constant or rising terms of trade or capital inflows. Assumptions of this kind are implied whenever investors describe any economy as “miraculous”. When they cease to believe in “the miracle”, there is every reason to repatriate capital on a grand scale, since the original motivation has evaporated.

2.2 The direct expenditure content of FI – portfolio vs direct investment.

The statistician’s definition of “foreign direct investment” (FDI) is that foreigners are buying a controlling interest in an existing or a new domestically based enterprise. However, this definition of FDI is not helpful to understanding the impact of FI on the exchange market. This is because the impact on the foreign exchange market of foreign purchases of existing domestic assets is not affected by whether or not a controlling interest in those assets is involved.

To avoid this confusion, we would prefer to distinguish portfolio foreign investment (PFI) – the sale of existing assets (equity, debt or cash securities) to foreigners, whether or not a controlling interest is involved – from “true” foreign direct

investment (TFDI) – the establishment by foreigners of a new enterprise or the extension of an existing enterprise which is engaged in producing goods or services with intrinsic value – that is, a value which is independent of capital inflow or the existence of any current investment “fad” such as a boom in the prices for equities and real estate.

By definition, PFI is a portfolio transaction, even though it may be on a grand or controlling scale. As such, it does not directly lead to any increase in domestic spending required to effect the resource transfer just described, at least until domestic spending rises. By contrast, TFDI immediately raises domestic spending and leads to a lesser real appreciation.

In judging whether or not asset prices and the exchange rate are sustainable at the levels to which they have been inflated by PFI, rational investors will not be looking at the CAD, which is not directly affected by the PFI and may in fact be zero or negative. Rather, those involved in buying host country assets will be looking at the prospective rate of return, in domestic currency, on the assets they have been buying. In the case of a FI driven “boom” in host country asset markets, this return will depend on the expected rate of future capital inflow. In turn, the inflow will be influenced by the stock of foreign claims resulting from earlier PFI relative to the ability of the economy to meet those claims from potential GDP. If PFI has failed to create net productive investment expenditures, and a net rise in potential GDP, it is creating an inevitable crisis of confidence in the currency and in the financial institutions which are mediating FI flows and domestic asset purchases.

In the case of PFI which debt-finances the domestic purchase of domestic assets, these claims will be growing at something like the rate of new PFI plus the rate of interest payable on existing debt. In the case of equity financed PFI, foreign claims will be growing at the rate of PFI plus the rate of appreciation in the prices of the assets to which PFI has been attracted: if domestic land prices are doubling each year, and foreigners own some domestic land, existing foreign claims on GDP will be doubling annually. In both cases, but more particularly the second, this growth will be even more rapid if there is a “feedback” mechanism operating between the rate of asset price appreciation and the rate of PFI itself.

A similar but less extreme outcome occurs with TFDI when it causes physical capital to be constructed in areas which are already “overdone” in the sense that the gross rate of return on capital, while positive, has been pushed down to levels which are low relative to interest rates and foreign rates of return³, so that the increase in potential GDP is relatively small. Presumably this “irrational” pattern of investment can persist for a time for a number of reasons such as investor inertia imposed by “follow the leader” practices, the prospect of continued rises in the prices of the real assets being constructed, and private and public investors gaining prestige from “building the world’s tallest” (albeit half empty), whether it be in Shanghai or Kuala Lumpur.

Where these privately unprofitable projects have been financed by foreign equity, the implications for exchange rate stability are relatively minor in that the flow of TFDI is unlikely to be sustained, so that the exchange rate/expenditure must simply fall to a level reflecting lower capital inflow. On the other hand, where these projects are debt financed, there must be a capital outflow equal to the previous inflow inflated by interest commitments, so that the exchange rate/expenditure must fall by

considerably more. In addition, the inevitable collapse of a debt financed boom in asset prices inevitably threatens the viability of all the financial intermediaries involved, because it is axiomatic that those borrowers who are last to purchase at inflated prices make losses and become bad loans.

In this account, the relevant indicator for an impending currency crisis is not the CAD (a flow) but rather the stock of foreign claims. As one commentator said: “What triggered my interest that all was not well in Asia was that the wall of funds coming from the West should have accelerated economic growth but this did not happen. When we noticed higher growth was not happening, we started to watch two things: [the utilisation rate of capital in manufacturing and commercial property].”⁴

It is also noteworthy that in the recent Asian experience, the CAD/GDP ratio had exceeded 5 per cent - Lawrence Summers’ “litmus test” (his fifth lesson from the Mexican crisis of 1994) – only in the case of Thailand and Malaysia (see Table 2). But Summers did add the rider that “particular scrutiny is needed if increases in capital inflows are not matched by increases in investment in traded goods sectors”. (Summers, 1995).

2.3 FI and domestic consumption.

FI may be indirectly stimulating domestic consumption. If so, foreign saving is being substituted for domestic saving. In extreme cases these consumption effects may be strong enough for potential GDP to be lower than it would be without the FI: the inflow of foreign saving leads to a rise in productive investment which is less than the decline in domestic saving. In this case, the stock of foreign claims is increasing in line with FI, while the ability of the economy to meet those claims from GDP may be constant.⁵

There are many mechanisms by which PFI can stimulate domestic consumption. These include increased domestic liquidity, asset prices, and perceptions of private wealth, and greater domestic private and public confidence or “euphoria”, all resulting from foreign purchases of existing financial and real assets. Especially significant in this context is that urban growth associated with TFDI may stimulate domestic consumption by inflating prices for urban land and property. These rising asset prices will normally attract domestic and foreign speculators both of which generate domestic credit creation: the demand for credit rises to take advantage of expected increase in asset prices, and the supply of credit rises because borrowers offer the perception of greater security over those assets. This rise in asset prices creates an illusion of greater private wealth which stimulates private consumption. Through these mechanisms the inflow of foreign saving indirectly replaces domestic saving.

Less obviously, confidence in the current exchange rate is also threatened when the flow of FI is heavily biased towards financing a profitable boom in residential construction or other facilities producing non traded goods and services. In this case, both the buildings and the residential services which they provide are non traded goods which cannot be used directly to service (through the transfer of real resources) the debt or equity provided by foreigners. Consequently, a real devaluation is required to shift resources into the production of traded goods with which to effect a resource transfer in favour of foreign claimants of interest and profit. When investors judge that such a resource shift is required, the exchange rate

will be perceived as over-valued. This process need not lead to a capital flight and currency crisis, only a downward adjustment, because the mechanism is transparent and the movement of funds is rationally based. However, the authorities may resist the adjustment and cling to fixed parities, presenting speculators with a “one-way bet”.

3. Why emphasise real estate speculation?

3.1 The special features of property investment

Why single out property investment for special treatment? In terms of providing the goods and services necessary for a country to service, and ultimately repay, its foreign debt, an office building does little, at least directly, to augment exports or import replacement capacity (although it may be part of a production process for a tradeable financial, engineering or management service). Also, unlike many other forms of real investment, a property investment is largely irreversible: an office building is highly location-specific and cannot be shifted should excess capacity for office space emerge locally, whereas “machinery” can be shifted from one place to another. However, over-investment in highly traded and transportable products such as automobiles and semi-conductors may be no more worthwhile than over-capacity in commercial real estate.

There are some other distinctive features of commercial real estate. One is its longevity, and a feature of property development is a long delay between order and completions. A typical project might take three years between planning and disposal stage. By the time the development comes into fruition, economic conditions generally and the specific factors which have prompted the project may have altered markedly, while the long term character of many property investments and their high gearing ratios make them sensitive to changes in interest rates and credit conditions brought by any change in the rate of capital inflow.

The long delay which elapses between planning and completion interacts with a stock of property which is specific to both location and use. This combination of fluctuations in demand for property with an inelastic short run, but elastic long run, supply creates the conditions for a classic “hog cycle” whereby the market alternates between famine and glut. The long delay before user-demands for space can be translated into additional stock sustains space shortages, leading to rising rentals and property values. These rising prices induce developers into new construction. But in the short run, the effects on demand and supply can even be perverse. Potential tenants may acquire properties ahead of time in anticipation of rising rents, while the increase in property prices enables property traders to increase their borrowings and purchase more property. Eventually, the supply of new property responds to changing user and investment demands, but perhaps in a very different economic climate, producing an excess supply of space and depressing property prices in a manner only too apparent in many Asian cities today.

There is thus a user and an investment market in property. Property can be acquired for investment purposes as well as for use, with expectations of rental growth driving up asset prices and lowering yields. The property market is thus one manifestation of “asset price inflation”, and certain property assets may bear more relation to movements in other “investor” assets such as equities than to other property types, and like the equity market may exhibit “bandwagon” effects and price “bubbles”.

Developers who “follow the lead” may misread a sharp rise in rents as a permanent increase. This is particularly so if there are distortions in pricing introduced by risky traders, perhaps along the lines of the “looting” model of Akerlof and Romer (1993).

Of course, many of the problems we have associated with capital inflow and real estate speculation – exchange rate appreciation, asset price bubbles, euphoria, consumption effects, excess space and failed investment projects relate also to speculation in equity markets. Nevertheless, there remain some important differences. Prices of shares can be measured and the changes in price compared through time, but this is more difficult to do in the case of property, because the product “property” is remarkably heterogeneous, reflecting both the unique features of each property and the diverse nature of property rights. Shares are bought and sold whenever markets are open but the markets for many properties are thin. The heterogeneity of property and the complexity of the legal rights to its use and re-sale make for illiquidity, especially in the market for secondary property.

If, as we have argued, property is difficult to value, sensitive to market conditions, strongly cyclical and prone to speculative bubbles, what accounts for its “fatal attraction” and link to external capital flows and currency instability? The answer is two-fold. Real estate speculation is to some degree inherent in the urban and economic growth process which usually accompanies and induces capital inflows. At the same time, real estate plays a special role in banks’ portfolios.

3.2 Property’s fatal attraction

The special role of property in bank assets results from the belief that real property offers sound collateral – a belief which leads banks to routinely lend 70 to 80 per cent (or more) of valuation, compared with only about 50 per cent for equities. This feature in turn has two effects. First, with a boom in PFI mediated by banks, it magnifies the increase in real estate asset prices relative to equity prices. Second, it increases the vulnerability of banks and the currency to a property crash.

This second effect is itself magnified by the interdependence between the banks’ expected value of real estate collateral and the anticipated property income (either rentals or capitalised rentals) which is being relied on for loan repayment. Should this expected income stream fail to materialise, as it must when there is global over-financing and over-construction, the collateral turns out to be illusory and banks may fail.

The attraction of commercial property to banks rests on a false analogy with other forms of secured lending. Use of bricks and mortar as collateral has an obvious appeal in that borrowers cannot give good title to property without banks giving consent. And it may be said that banks’ lending to property companies is much like a lot of other bank lending which is also secured against land and buildings. Yet there are important differences.

When a bank makes a housing loan, secured against residential property, the borrower’s ability to repay the loan is based on a cash flow from employment income which is often largely independent of the value of the collateral, which then serves an insurance function as a back up in case things go wrong. The same is true of most industrial and commercial lending, where conditions in the borrower’s industry market, triggering the loan default, may be quite different from those in the collateral markets governing the ultimate recovery rates on the loan. With

commercial real estate loans, by contrast, the borrower's ability to repay the loan is highly correlated with the value of the collateral either because the property is acquired for re-sale or because increased vacancy rates and reduced rentals are quickly reflected in the price of the property and hence the value of the collateral.

This interdependence between the value of collateral and the anticipated income stream which is earmarked for loan repayment is also present in the case of equities where profits from the resale of equities, as opposed to dividends, are being relied on for loan repayment. Yet when bankers make loans for the purchase of equities intended for resale at a profit, it is clear to them that they are engaged in high risk lending in anticipation of rising equity prices. On the other hand, lending to an individual property developer permits a high degree of self-deception about the level of risk involved. This perhaps explains why the banking system habitually over extends itself in lending for property development.

3.3 Banks and the Asian property cycle

A strong association between real estate cycles and bank instability is not new. This particular nexus was central to banking problems in a large number of countries in Western Europe and elsewhere in the early 1990s (Lewis, 1994). Capital flows add an extra dimension to the Asian case. However, capital flows, property and bank crashes have featured in Australian bank crashes and property crises, in both the 1890s and the 1990s. What remains distinctive about Asia is the number of countries involved and the conjunction of events within a short space of time.

Asian development has been synonymous with strong export-led growth. Exchange rate difficulties for the S.E. Asian countries began with the Chinese devaluation of January 1994 and was exacerbated after April 1995 when the US dollar (to which the countries' exchange rates were closely tied) began to appreciate in world markets. The result was an export slowdown which proved to be a catalyst for the subsequent crisis, as strong growth in the region became increasingly dependent on domestic demand rather than net exports. Countries became focused on rapid development of the infrastructure in terms of public sector projects (bridges, roads, airports), real estate developments (offices, shopping plazas, hotels, luxury apartments and houses), and expanding capacity in the industrial sector (cars, steel, chemicals and computer chips), fuelled by inflows of foreign capital.

In the property market, the result was a vast increase in office building, which has meant that Jakarta and Kuala Lumpur now have much more prime office space than either Hong Kong or Singapore (see Table 3). Inevitably, the expansion in supply and the 'hog cycle' had its effect. Figure 1 shows prime office capital values in Bangkok, Jakarta, Kuala Lumpur, Hong Kong and Singapore from 1983-1998. Figure 2 gives the movement of net prime office rentals in the same cities. Both figures show that rentals and office values were on a downward trend long before the crisis began in July 1997, with the floating and dramatic fall in value of the Thai baht. Shares of property companies in Thailand, Indonesia and Malaysia declined sharply after 1994 and continued to fall well before the stock market as a whole collapsed. Speculation against the Thai baht, which led to the currency problems, was itself precipitated by the crash of a finance company with a heavy involvement in the property market.

But not only finance houses were attracted to the property sector. Tables 4 and 5 show both that private capital inflows fuelled an expansion of bank credit in the Asian economies generally, and that a significant portion of the bank lending flowed to the property market. Some details on bank lending in Hong Kong, Thailand, Malaysia, Singapore, Indonesia, Korea and the Philippines are provided in Table 4. In most of these economies, bank assets account for over three-quarters of total financial sector assets, and over the years 1990-1997 (with the exception of Hong Kong) bank credit grew much faster than GDP (which averaged about 8 per cent per annum). In Thailand, Malaysia, Indonesia and Singapore, property lending represented between 25-40 per cent of total lending, and an even higher percentage of the total in Hong Kong. Most of this exposure was to the commercial property sector, and in four of the countries, the loan-to-valuation ratios applied on these loans ranged from 80-100 per cent. (In Hong Kong, the authorities reduced the acceptable loan-to-value ratio from 80-90 per cent in 1990 to 60-70 per cent by 1993.) Non-performing loans, already high in some countries before the crash, increased sharply.

At the same time, the dominance of commercial bank lending in mediating capital flows to Asia in the 1990s is illustrated by Table 5 which shows that, for five Asian countries, commercial bank lending accounted for between 57-60 per cent of total private capital inflow between 1994 and 1996. In one of these countries – Indonesia – by 1997, 77 per cent of private sector foreign debt was owed to foreign banks (predominantly Japanese), most of it short term. The overwhelming amount – also 77 per cent – was owed by non-bank entities. And as if to close the circle, roughly the same percentage (nearly 80 per cent) of this non-bank corporate debt was in foreign currencies and unhedged, leaving the entities severely exposed when the currencies fell.⁶

4. Policy Implications

Clearly, the bankruptcy, unemployment and general impoverishment associated with the dramatic reversal of foreign investor confidence in the currencies of South East Asia have been disastrous for the region. Some, for example Davidson (1997), blame foreign currency speculators for such events, and have renewed calls for measures to reduce the international mobility of finance through some form of ‘Tobin tax’ or controls on international capital movements. While other analysts agree that some policy management of capital inflows is appropriate, they tend to restrict the range of policy choice to monetary policy (sterilisation of capital inflows), fiscal policy, and exchange rate policy, for example Calvo, Leiderman and Reinhart (1996). These authors also view as appropriate bank regulation which “limit(s) the exposure of banks to volatility in equity and real estate markets, as well as (establishing) risk based capital requirements”. In short, the story has been: round up the usual suspects.

For reasons given above – and we believe them to be very strong ones – our focus has been on the interconnections linking capital flows and the real estate market. There are five parties to an asset price boom which is driven by FI: foreign investors; foreign banks; domestic banks; domestic investors; and the domestic authorities. In an ideal world, one would look to the domestic urban planning authorities and the Central Bank to regulate the domestic land market and the financing of speculative

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real estate transactions in order to prevent the excesses of a land and property boom. Although there will be inevitable distortions, such a boom is easily prevented by the threat of public intervention in the land market. More broadly, there could be controls on capital inflows into domestic land markets, with the foreign purchase of domestic land actively discouraged by taxation or prohibited for reasons given by Easton (1988) and Brander (1989). While such controls might in many cases be evaded, the costs of evasion would have a dampening effect.

But in a society of “crony capitalists” one would expect domestic politicians and domestic banks to encourage and to be personally and deeply involved in any real estate boom. So one would look to “non cronies” – such as international banks and finance companies – who ‘feed’ funds to domestic banks to limit their own involvement, both in their own interests and in the interests of domestic and global stability.

Unfortunately, there is ample evidence that, even in economies where transparency could be expected to prevail, this moderation is not always present. Earlier experience of the involvement of banks of many domiciles in the property cycle over the 70s and 80s shows that the collective mechanisms (syndication and the interbank market) on which bankers rely actually facilitates their risk-taking which causes them to succumb to the temptation to suspend customary prudential standards in an environment in which the endless growth psyche has taken hold.

The only way that this can be avoided is for banks continually to observe a set of standards against which to evaluate their risk taking behaviour. In the context of international capital flows this means:⁷ avoiding an undue concentration of loans to single activities like construction; likewise, avoiding undue exposure to a group of currencies, recognising that it is an illusion to diversify between countries and currencies for which the terms of trade and image in the eyes of foreign investors are highly correlated; ensuring that the collateral is not vulnerable to the same shocks that weaken the borrower; never following a herd instinct; and recognising that there is no such thing as eternal growth – or a “miraculous” set of economies.

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Notes:

1. There are now a large number of accounts of the crisis, particularly on the Internet. The IMF's authoritative version of events is in IMF (1998). A recent article which emphasises asset prices is Browne, Hellerstein, and Little (1998).
2. The episode is examined in Cannon (1966) and Butlin (1961).
3. An example is the rental yield on office buildings which in June 1997 prior to the onset of the crisis had fallen as low as 3.5 per cent in Hong Kong and 3.9 per cent in Singapore (J.P. Morgan, *Asian Financial Markets*, January 1998.)
4. Peter Brain, of a leading Australian research institute, reported in *The Australian*, February 6, 1998.
5. Again, there are historical precedents for this in Australia where there is evidence that Victorian saving reached negative levels at the peak of the 1880's boom (Bentick, 1969).
6. However, the position in Indonesia was symptomatic of the position elsewhere. In 1996, Malaysia had 85 per cent of debt in foreign currencies, Thailand had 80 per cent in foreign currencies (World Bank, 1998).
7. These echo the 'golden rules' which one of the authors outlined in an earlier paper (Lewis, 1998).

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TABLE 1
CAPITAL FLOWS TO ASIAN ECONOMIES
(per cent of GDP)

	1983-88 average	1989-95 average	1995	1996	1997
China	1.2	2.5	5.2	4.7	3.7
Indonesia	1.5	4.2	6.2	6.3	1.6
Korea	-1.1	2.1	3.9	4.9	2.8
Malaysia	3.1	8.8	8.8	9.6	4.7
Philippines	-2.0	2.7	4.6	9.8	0.5
Singapore	5.0	3.8	1.3	-10.1	-5.5
Taiwan Province of China	0.2	-4.0	-3.6	-3.2	-3.8
Thailand	3.1	10.2	12.7	9.3	-10.9

Source: IMF

TABLE 2
SELECTED ECONOMIES: CURRENT ACCOUNT POSITIONS
(AS PER CENT OF GDP)

	Average	1996	1997	1998	1999f
	1991-1995				
United States	-1.2	-1.8	-1.9	-2.8	-3.3
Japan	2.6	1.4	2.2	3.6	4.0
European Union	0.3	1.1	1.5	1.2	1.1
China	0.7	0.9	3.9	3.4	3.3
Hong Kong SAR	3.6	-1.1	-3.2	-0.4	1.2
Taiwan P.O.C.	3.6	4.0	2.7	2.0	2.2
Singapore	12.8	15.7	15.4	20.6	18.9
Korea	-1.5	-4.7	-1.8	12.9	7.9
Indonesia	-2.4	-3.3	-1.8	2.5	2.7
Malaysia	-7.0	-4.9	-4.8	6.3	4.6
Philippines	-3.7	-4.7	-5.2	-1.5	-0.7
Thailand	-6.4	-7.9	-2.0	10.7	9.9
Australia	-4.1	-4.0	-3.2	-5.0	-5.4
New Zealand	-2.4	-3.9	-7.7	-6.5	-6.0

Source: IMF, National Statistical Sources

TABLE 3**OFFICE VACANCY RATES AND AVAILABLE SPACE IN SELECTED ASIAN CITIES.**

	Vacancy Rates¹		Stock²	New Supply³
	<u>1997</u>	<u>1998</u>	<u>1998</u>	<u>1999-2001</u>
Bangkok	23.6	29.7	0.87	59.6%
Jakarta	8.9	22.1	2.84	4.7%
Kuala Lumpur	3.7	15.5	3.26	9.4%
Hong Kong	6.4	16.6	1.91	5.6%
Singapore	8.0	12.3	1.52	15.0%
Shanghai	37.4	44.5	1.03	112.5%

Notes:

- 1 Vacancy rate is the percentage of the total office floor space unoccupied at end of period.
- 2 Total office floor space in millions of square metres.
- 3 New supply is confirmed space for projects on which construction has commenced and projects which have been agreed contractually, expressed as per cent of the existing stock of office floor space.

Source: Jones Lang La Salle.

TABLE 4

BANK LENDING AND RISK EXPOSURES IN SELECTED ASIAN ECONOMIES.

	Bank share in total financial inter-mediation 1994	Bank credit to the private sector		Property loans		Non-performing loans	
		Annual growth 1990-1997	Relative to GDP 1997	Relative to assets 1997	Loan Valuation ratio 1997	Relative to assets	
						1997	1998f
		%	%	%	%	%	%
Hong Kong	n.a.	8	157	40-55 (9)	50- 70	1.5	3
Thailand	75	18	105	30-40 (8)	80-100	15.0	25.0
Malaysia	78	16	95	30-40 (14)	80-100	7.5	15.0
Singapore	71	12	97	30-40 (15)	70- 90	2.0	3.5
Indonesia	91	18	57	25-30 (4)	80-100	11.0	20.0
Korea	39	12	64	15-25 (13)	80-100	16.0	22.5
Philippines	n.a.	18	52	15-20 (n.a.)	70- 90	5.5	7.0

Source: J.P. Morgan, Asian Financial Markets, 1998.

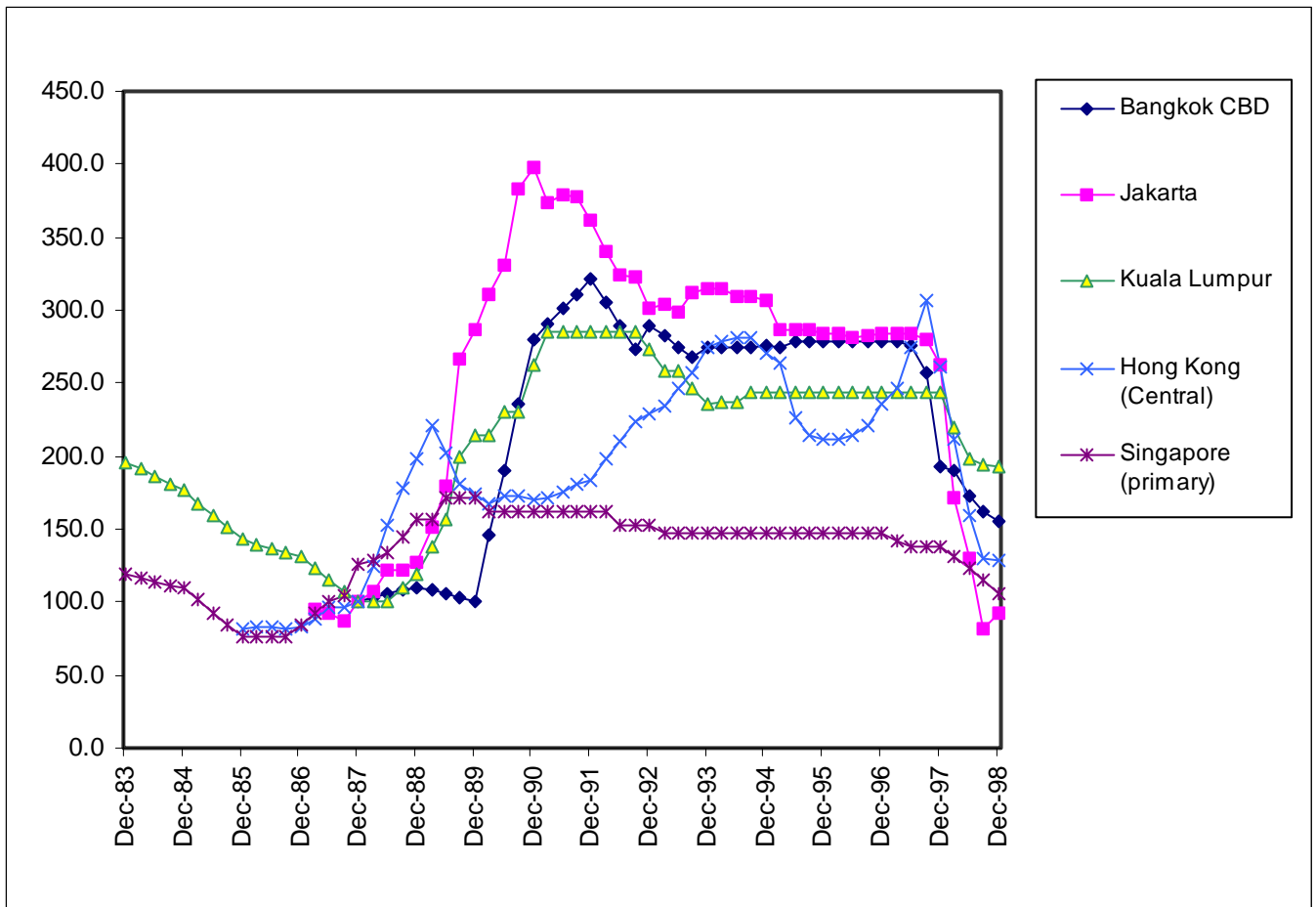
TABLE 5**Composition of private capital flows to five Asian economies,
1994-1999
(\$ billion)**

	1994	1995	1996	1997	1998f	1999f
Foreign direct investment	4.7	4.9	5.8	6.5	6.9	7.4
Portfolio equity investment	7.4	11.0	11.6	-6.8	1.1	-0.9
Commercial bank lending	23.4	58.0	58.3	-29.0	-30.5	-17.8
Bond financing	2.4	9.9	18.1	23.3	-2.1	-3.8
Total	37.9	83.8	93.8	-6.0	-24.6	-15.1

1 Korea, Indonesia, Malaysia, the Philippines and Thailand.

Source: Institute of International Finance.

FIGURE 1
Prime Office Capital Values in selected Asian cities, 1983-1998.

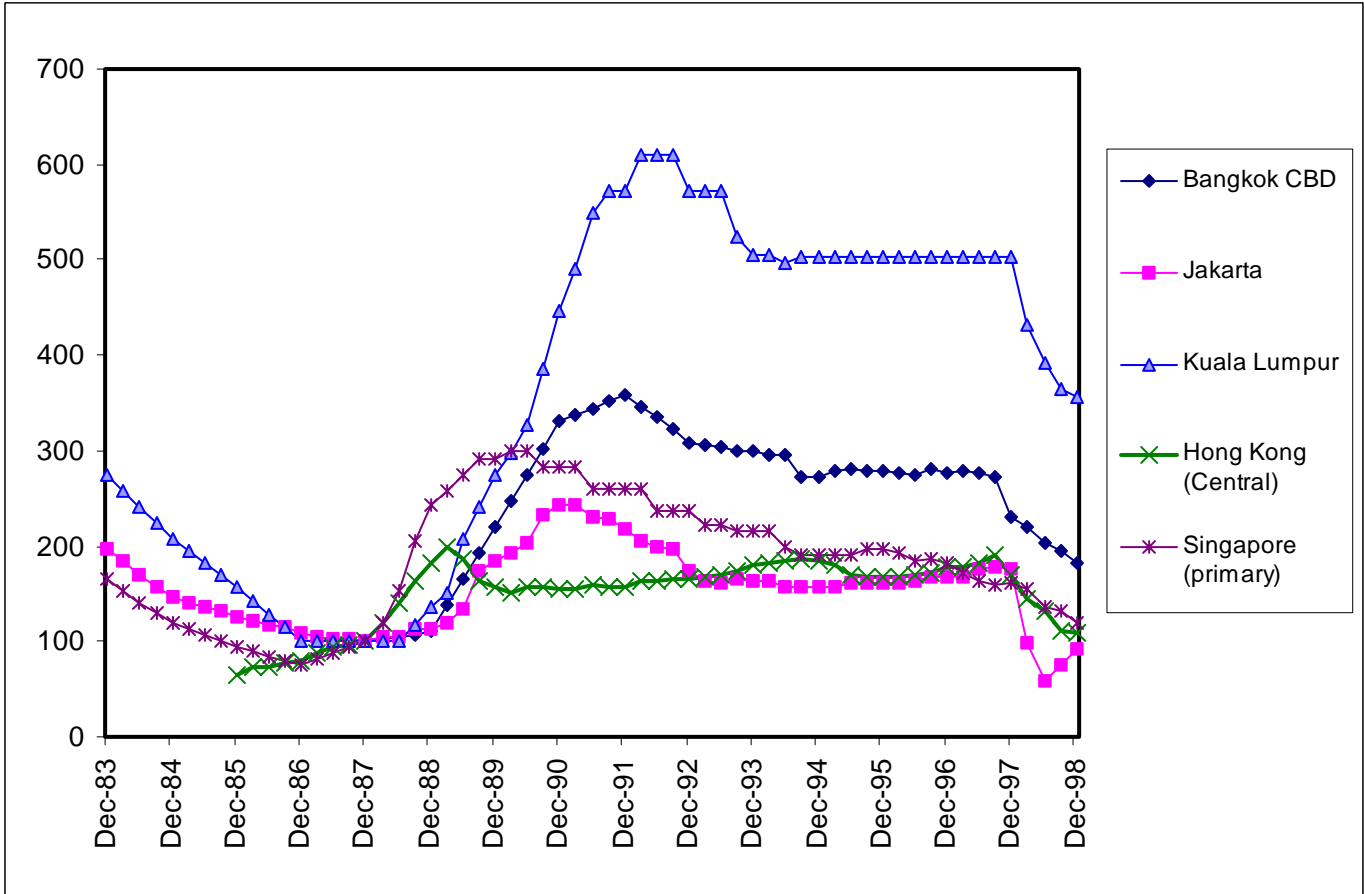


1987 = 100

Source: Jones Lang La Salle

FIGURE 2

Net Prime Office Rentals in selected Asian cities, 1983-1998.



1987 = 100

Source: Jones Lang La Salle.

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