

BOOM AND BUST IN EAST ASIA

A Stylized Interpretation of the 1997-98 Asian Crises, based on Results of a Qualitative Questionnaire to Japanese City Banks¹

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1. INTRODUCTION: BOOM AND BUST IN EAST ASIA

This paper compares the current mainstream view of the Asian crises with a proposed non-conventional stylized story. Mainstream analysis is quite correct when it focuses on how large capital flows (i.e., the extraordinary expansion of international bank credit,

in particular from Japan to East Asia) contributed to excessive local credit expansion creating bubbles³ that eventually burst. But the current mainstream view of the East Asian crises explains the microeconomics of excessive bank lending primarily by the provision of guarantees (by local Governments) to foreign creditors. Many contributions to the growing recent literature use explicitly or are somehow related to a so-called “Moral

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3 We define “bubble” below in Section 2.1.

Hazard” hypothesis (MH)⁴ (e.g., guarantees that mitigate risks and hence multiply lending).

We propose hereby an alternative story to explain these flows. Our story is not incompatible with the conventional view but has a different emphasis. It is centered on the aggressive competitive “Herd Behavior” (HB) of commercial banks in East Asia (i.e., Japanese of course but also American and European) fighting for market shares in a world of rationed (high return) business opportunities. This interpretation fits better the institutional characteristics of the Japanese financial sector, of its development and internationalization as well as the international activities of Japanese firms.

Therefore, this paper suggests an alternative explanation of the built-up of financial vulnerabilities that led to the crises. In our view the supply of loans was not excessive because banks’ perception of risk (and hence the risk-adjusted return on investment) was attenuated by an “implicit” guarantee provided either by Governments or international agencies. Loans went up because rational bankers saw the returns in East Asia’s growing markets high, attractive, and exceeding the high risks that they were – indeed – observing since the early 1990s. Answers to a Qualitative Questionnaire sent to 9 Japanese City (commercial) banks support that view. In a world of rationed business opportunities, bankers bet to increase their market shares.

As we discuss below, the two interpretations are difficult to disentangle and to test empirically. Therefore, after suggesting some leads and recalling some empirical results, we illustrate our non-conventional story with the results of our Qualitative Questionnaire.

Nevertheless, despite their complementarity, there

are distinct policy implications that can be derived from either stylized story. The final conclusion, however, does not put the blame on any single participant for the making of “financial bubbles”. We call for a more careful analysis of the dynamics of credit booms and for additional policy coordination between emission and recipient countries.

2. TWO VIEWS OF THE BOOM: WHAT CAUSES OVER-LENDING? MORAL HAZARD AND HERD BEHAVIOR?

Explaining the Asian crises requires understanding the boom before the bust. The 1997-98 crises were preceded by a long period of economic and financial prosperity described as an economic and financial “boom”. It was a period of coexistence of high growth with sound macro fundamentals. However, at some point, the prosperity turned into a “financial bubble”⁵ that eventually collapsed. How and why?

One reason is the change in the volume, composition and speed of private capital mobility in the 1990s. There was a dramatic modification (see World Bank [1997]) in the composition of financing flows to emerging markets. In a context of global financial integration, private capital flows (in particular bank loans, direct foreign investment –FDI– and portfolio investment) dwarf public official flows to emerging markets. And private (short-term) debt flows grew rapidly in the context of certain macro and institutional frameworks. For example, despite improvements in the proper macro-policies⁶ to ensure the continuity and adequate maturity of flows,

⁴ See below in Section 2.3 for a definition.

⁵ We follow Blanchard [1983], and define the term “bubble” as a situation where asset prices deviate from their market fundamental (expected return) value. We will speak of a “financial bubble” when one can observe the occurrence of an asset price bubble (e.g., a stock Exchange price bubble, a real estate price bubble, etc.) together with the real growth of credit (bank loans) much above and beyond the real growth of economic variables (volume of domestic production, volume of exports, etc.). The assumption is that the credit bubble is financing activities related to the asset price bubble (e.g., The high growth and high debt model in emerging Asia). It is important to understand how these financial bubbles emerge, because once they are formed, macro-management of the economy usually becomes more difficult. In particular, for a (relatively) small emerging market, a soft-landing is almost impossible. An abrupt burst of the bubble is highly likely, perhaps inevitable, with important repercussions to the real economy and the local financial sector. Moreover, as we saw with the Asian crisis, the present characteristics of global financial markets and the way expectations are formed can make local crisis become regional and even global.

⁶ Countries receiving large inflows had to ensure macroeconomic stability in the technically complex context of open capital accounts, loss of monetary policy autonomy and sometimes an administered exchange rate regime.

volatility remains a problem. That is due to several factors: institutional changes in emission and recipient countries, badly sequenced financial liberalization and opening up⁷, the fragility of investors' sentiment; and the relatively large size of accumulated stocks of potential capital outflows (in short-term debt instruments, in equity and stock markets).

Most of the new 1990s crises (Mexico in 1994-95, Asia in 1997-98, Brazil in 1998-99) originate from changes in capital account items⁸. These changes are sudden albeit not entirely unpredictable. Contagion occurred more often: once a country is hit by in crisis, global investors' sentiment is immediately affected and there is a greater probability of "infection" (e.g., large, panic-driven capital outflows) in other emerging markets. Naturally, these new "capital account" crises build their destructive strength from the "balance-sheet" linkages between capital inflows and their local transmission mechanisms (the domestic banking system).

2.1 Reporting Capital Flows and "Excessive" International Bank Loans

There is obviously a relationship between massive capital flows to East Asia and the formation of local financial bubbles. They occur almost simultaneously. But simultaneity is not a proof of causality. Can we say for sure in which direction the causality runs? This section quickly reviews the data on international capital flows, focussing on the analysis of bank flows, particularly Japanese bank loans to East Asia. We explain why below. But first we review the following issues.

First, there is a (still on-going) debate to ascertain whether domestic or external factors are dominant in

explaining capital flows. Are capital flows simply the result of a buoyant domestic (recipient) market? Do they create or do they simply ride and exacerbate domestic credit cycles? For example, Calvo, Leiderman and Reinhart [1993] show a strong negative correlation between US interest rates and capital flows to Latin America. Our own observations regarding capital flows between Japan and East Asia confirm that a similar relationship exists there, thus suggesting an explanatory role for external factors (i.e. variables pertaining to the country that emits capital flows).

Second, there is no doubt also that "exogenous" factors, political and technological, contributed to the surge of capital flows. In that context, Feldstein [1999] emphasizes that the growth of private capital markets of debt finance, equity capital and direct foreign investment has outpaced that of public flows. Behind these changes are the considerable political transformation of the World after the end of the Cold War -opening up of several countries and change in attitude toward foreign investment-and the progress in capital mobility allowed by new technology. The combination of these demand and supply variables produced a tremendous increase in private flows. But paradoxically, the end of the Cold War also produced more capital flow volatility for some emerging markets. In particular, some investors might have felt that the winds of political change would call for more transparency and better governance in countries (e.g., Indonesia) that otherwise would have been too "strategic" or too important to be "de-stabilized".

Third, and finally, there is also no doubt that capital flows can bring both benefits and crises to recipient countries. On the one hand, they contribute to increase significantly the availability of savings and

7 In a global and open financial market, institutional investors can look anywhere for yields higher than the ones prevailing in their own mature markets. For example, portfolio investment flows into emerging Asia were most likely influenced by changes in tax legislation affecting US pension funds like 401(k) in the early 1990s. Named for the IRS code that defines it, a 401(k) is an employer-sponsored retirement savings plan that allows employees to contribute money from their salaries before it is taxed. Any earnings on investments are also tax deferred — that is, earnings are not taxed until they are withdrawn. These plans are also referred to as defined contribution plans, tax-deferred savings plans, or qualified plans. These changes in pension plan design free employers from an obligation of minimum yield. That increased competition to attract customers and may have pushed private pension fund managers into looking for more attractive yields (e.g., the US stock exchange, junk bonds and emerging markets) even if it implied incurring higher risks. A Japanese-equivalent of 401(k) is under way.

8 Some authors have labeled these crises "High-tech financial crises" or "21st Century crises" (see De Gregorio, Eichengreen, Ito and Wyplosz [1999]) or "Capital Account Crises" (see Yoshitomi and Ohno [1999]). Episodes of massive reversals of capital inflows occurred in Mexico (1993-95), Argentina (1993-94), Venezuela (1993-94), Chile (1990-91), but also Turkey (1993-94) and Brazil (1997-1998 and 1999).

hence of investment opportunity. On the other hand, capital inflows can also be a factor of risk, as demonstrated by the 1997-98 Asian crises, when they increase macroeconomic instability. In particular, what are the macroeconomic effects of capital flows in East Asia? Are they different from similar situations in other countries that were recipient of large doses of such inflows? Statistical observations show that Latin America made a very different usage of its flows of capital. Recipient countries in Latin America increased consumption and not investment (like Asians did) (Pereira da Silva [1999]). At first sight, that is “bad” because of its immediate effect on imports of consumer goods and hence the trade balance. But it could be a blessing in disguise. Latin America did not “over-invest” and thus, its banks did not have to carry in their balance sheets, the heavy burden of huge quantities of non-performing loans.

How, as requested by Feldstein, can the analysis of such risks proceed? For sure, one has to look at the linkages between the balance sheets of local and international banks. But this requires a more detailed breakdown of the data than the ones that are currently available. Let us explain why and justify our own approach here.

When the data on capital flows is presented in a consolidated recipient country perspective, it usually breaks down flows by type of flow (equity, portfolio or bank loans) and maturity but loses the country of origin of such flows, since the focus is on the recipient country’s vulnerability. Conversely, when the data is taken from the emission country’s perspective, the focus is usually on the emission’s country risk by exposure. Sometimes, there is data regarding overall “country exposure” because emission countries want to assess “political risk”. Sometimes by type of outflow. There is usually no double breakdown by country and type of financial flow. Moreover, there is almost never a triple breakdown of capital flows data by type of flow and country of origin and

destination of all flows⁹.

Why does it matter? It matters when one wants to analyze the determinants of capital flows and answer the questions raised above. It is sometimes the case that aggregate capital flow data at the recipient country level (say Thailand or Mexico) would not distinguish, for example between Japanese, US and European flows. However, there could be significant differences in the determinants of these flows, because the business cycles in these emission countries are not necessarily in perfect synchronism. Therefore, lumping say all international bank loans to a given country can hide very different behaviors and motivations. We will explain below why it is important to our approach. Another difference comes, for example, with the characteristics of corporate financing in the three major zones of origin of flows. As we know, financial intermediation (indirect financing) is a dominant form in Asia, whereas direct (equity) financing prevails in the Anglo-Saxon World. Therefore, lumping flows to a given country even by type can hide very distinctive investors’ behavior at the emission country level. An analysis based on aggregates might be misleading and mix very different motivations.

Hence, for the purpose of this paper, we restrict our analysis to a sub-set of the overall data on capital flows to East Asia. Japanese capital flows to each East Asian country are disaggregated by type of flow and by country of emission and destination. We focus on the sub-set of that data having the proper breakdown and sufficient time-series length, i.e. international bank lending by Japanese banks to each individual East Asian country.

2.2 Japanese Bank Loans to East Asia: Evidence of “Over-Lending”?

Naturally, the tales of how large capital inflows went into East Asia are numerous (see for example the World Bank [1996] “Managing Capital Flows in East

9 The consolidated IMF-World Bank-OECD-BIS database constitutes a significant improvement to the useful tools that existed previously (the BIS data on international bank loans). However, there are still limitations coming from the reporting obligations. Sometimes significant amounts of capital flows (e.g., bank credit) come from, or transit through, an off-shore banking center for accounting purposes (such as Singapore, Hong-Kong, the Caribbean, etc.). There, international loans between resident subsidiaries of foreign banks could be recorded through the local, “domestic” banking system which does not necessarily report to the BIS statisticians (because the operation might not considered an international activity).

Asia". Overall, foreign commercial bank lending became during the 1980s-1990s a major source of financing for East-Asian banks and corporations. Charts 1 and 3, drawn using the Bank for International Settlements or BIS data, shows the rapid acceleration in total foreign liabilities (debt and securities) from all sources of Thailand, Indonesia, Korea and Malaysia after 1993 either lumped together (Chart 1) or separated by individual borrowing country (Chart 3). During the 1990-96 period, total foreign loans to Thailand, Indonesia, Korea and Malaysia grew on annual averages by 34%, 16%, 21% and 24% respectively. There is, therefore, some suspicion that, generally speaking, "international lending" was excessive for these countries (see Table 2) as it was growing at rates well above those of industrial and service activities in these recipient countries. Over-lending, in turn, may be contributing to the creation of a local credit and asset price "bubble".

But whose loans were these? The timing of the expansion and the contraction of international lending to East Asia is important to understand our interpretation of the crisis. Japanese banks certainly compounded initially this global trend and accounted for large chunks of the overall flows of bank loans to East Asia. During the same 1990-96 period (see Table 2), Japanese loans to Thailand, Indonesia, Korea and Malaysia grew on annual averages by 32%, 9%, 11% and 19% respectively. The growth rates of Japanese loans are lower than the growth of total international bank loans to these countries. In fact, there are two different periods. First, there is a significant growth of the "international activities" of Japanese banks linked to Japan's own financial conditions during Japan's bubble period (during the 1980s until it burst at the end of 1989) as pictured by Chart 2¹⁰. As a percentage of total loans of City banks and Long-Term Credit Banks (LTCBs), total international lending (to all countries) reached almost 30% in 1990. But then,

there was a sharp decline of the overall international lending for all types of banks¹¹ until the end of 1994. Finally, a last boom started by 1994-95, which peaked with the beginning of the Asian crises in the middle of 1997. A major contraction of Japanese banks' international assets took place then. Overall (Chart 4), and contrary to the mass media perception, the share of Japanese loans in East Asia was declining before the beginning of the Asian crises.

Evidence that Japanese bank lending to East Asia was important but on the decline, can be seen in Table 1. First, as noticed earlier, total bank loans accounted for more than 50% (sometimes as much as 70% for example for Korea) of East-Asian countries external liabilities. On average, Japanese banks provided about half of all bank loans to East Asia in the early 1990s. However, and second, the share of Japanese bank loans declined to about 36-37% of total bank loans in 1997-1998. In other words, while the total bank loans (reported by the BIS) to East Asian countries was growing rapidly, the share of Japan remained flat or declined (see Chart 4).).

What can explain the movements of Japanese loans to East Asia? We suggest that these movements are related to the ups and downs linked to the Japanese financial bubble itself. For example, looking at Chart 6 (drawn using both the Bank of Japan –BoJ– and BIS data), the international activities of Japanese banks grew strongly during the Japanese boom. The YOY growth rates sometimes reached almost 40%, higher than domestic lending, which was itself growing fast during the boom period in Japan. Many Japanese banks diversified their activities and portfolio. There are accounting and book-keeping problems with the statistics used to draw Chart 6, but nevertheless, the trend toward internationalization was there¹².

After the burst of the Japanese bubble, there is a general slowdown in Japanese lending (both domestic

10 Chart 2 represents total international activities of Japanese banks and not only their lending to East Asia.

11 Part of this decline can be explained by book keeping practices that changes (Euro-loans of Japanese banks and usage of off-shore booking through Asian financial centers in Hong-Kong and Singapore).

12 There is an ambiguity also in the way some Japanese banks report their "international activities" that bear a country-risk. Some banks would not consider that loans to affiliates of Japanese companies located in East Asia are "cross-border" international loans, when these loans have a parent company "guarantee". These loans will be reported under a Japanese "corporate" risk only.

Table 1 Bank Financing (in particular Japanese banks) in East-Asian countries

USD Million (Stocks) Percent when indicated	1990-92	1993-96	1997	1998
Thailand				
Total Bank Loans (consolidated)	37,022	107,242	113,325	91,850
Percent of Total External Financing	57.8%	55.3%	51.6%	44.8%
Percent of Short-Term / Total Bank Loans	57.9%	50.1%	49.7%	46.5%
Japanese Bank Loans	11,681	34,446	33,180	22,437
Percent of Total Bank Loans	54.5%	57.5%	56.7%	54.5%
Indonesia				
Total Bank Loans (consolidated)	78,939	113,120	129,101	129,089
Percent of Total External Financing	35.6%	39.5%	45.0%	34.9%
Percent of Short-Term / Total Bank Loans	45.7%	55.6%	54.6%	45.3%
Japanese Bank Loans	16,616	20,719	22,018	16,402
Percent of Total Bank Loans	59.8%	46.7%	37.9%	36.4%
Malaysia				
Total Bank Loans (consolidated)	18,533	34,476	47,800	41,923
Percent of Total External Financing	50.6%	50.6%	57.2%	49.9%
Percent of Short-Term / Total Bank Loans	34.9%	43.6%	49.7%	39.7%
Japanese Bank Loans	4,458	7,128	8,551	6,623
Percent of Total Bank Loans	52.5%	41.2%	31.3%	31.7%
Korea				
Total Bank Loans (consolidated)	52,513	122,592	178,510	162,626
Percent of Total External Financing	69.2%	63.7%	52.5%	40.3%
Percent of Short-Term / Total Bank Loans	63.5%	64.3%	56.4%	40.4%
Japanese Bank Loans	10,727	21,368	20,278	16,925
Percent of Total Bank Loans	30.0%	27.5%	21.6%	25.8%
Asia-4 crisis hit countries				
Total Bank Loans (consolidated)	187,007	377,430	468,736	425,488
Percent of Total External Financing	53.3%	52.3%	51.6%	42.5%
Percent of Short-Term / Total Bank Loans	50.5%	53.4%	52.6%	43.0%
Japanese Bank Loans	43,481	83,660	84,027	62,387
Percent of Total Bank Loans	49.2%	43.2%	36.9%	37.1%

Sources: OECD-IMF-World Bank-BIS and BIS joint debt reporting- Consolidated Cross-Border Claims of Reporting Banks

Japan - Ministry of Finance and Bank of Japan

Table 2 Indicators of Credit Bubbles in East-Asia

	Thailand			Indonesia			Malaysia			Korea			Japan		
	1990-96	97	98	1990-96	97	98	1990-96	97	98	1990-96	97	98	1990-96	97	98
Nominal YOY Growth Rates (Percent)															
Exchange Rate (increase is depreciation)	-0.2%	39.5%	22.2%	4.1%	37.0%	213.3%	-1.0%	19.2%	31.3%	2.8%	25.5%	34.1%	-2.7%	10.6%	7.2%
Interest Rate (Lending Rate), basis points	14.9	54.0	-4.5	-30.7	325.5	1,122.5	28.6	66.0	54.0	-15.6	235.0	225.5	-39.1	-20.5	-12.5
Stock Exchange, index	10.5%	-56.5%	-26.9%	16.1%	-7.4%	-19.7%	16.0%	-28.6%	-29.5%	-0.8%	-25.5%	-5.3%	4.5%	-14.9%	-16.2%(*)
Total Foreign Loans	34.3%	-8.3%	-31.3%	15.6%	11.8%	-20.0%	21.2%	33.1%	-22.2%	24.0%	6.1%	-30.6%	-0.5%	-5.6%	-26.6%
Japanese Loans (**)	32.4%	-5.5%	-31.6%	8.9%	3.5%	-21.7%	11.2%	16.6%	-23.6%	18.9%	-5.6%	-18.4%			
Japanese DFI (**)	15.7%	16.9%	12.1%	6.4%	8.7%	4.5%	13.6%	8.6%	6.1%	5.0%	5.4%	3.9%			
Domestic GFCF (**)	32.7%	16.5%	12.3%	24.2%	12.5%	13.6%	21.6%	13.8%	13.3%	12.5%	10.7%	9.7%	2.9%	-4.2%	-10.5%
Domestic Credit (**)	26.8%	15.6%	-2.6%	24.8%	16.1%	27.5%	17.2%	18.7%	23.8%	19.4%	14.4%	19.9%	6.0%	-11.0%	-11.5%

Sources: IMF-IFS, BIS and author's calculation

(*) Total Japanese Loans reported under "International activity of Japanese Banks"

(**) Measured in USD terms

Chart 1

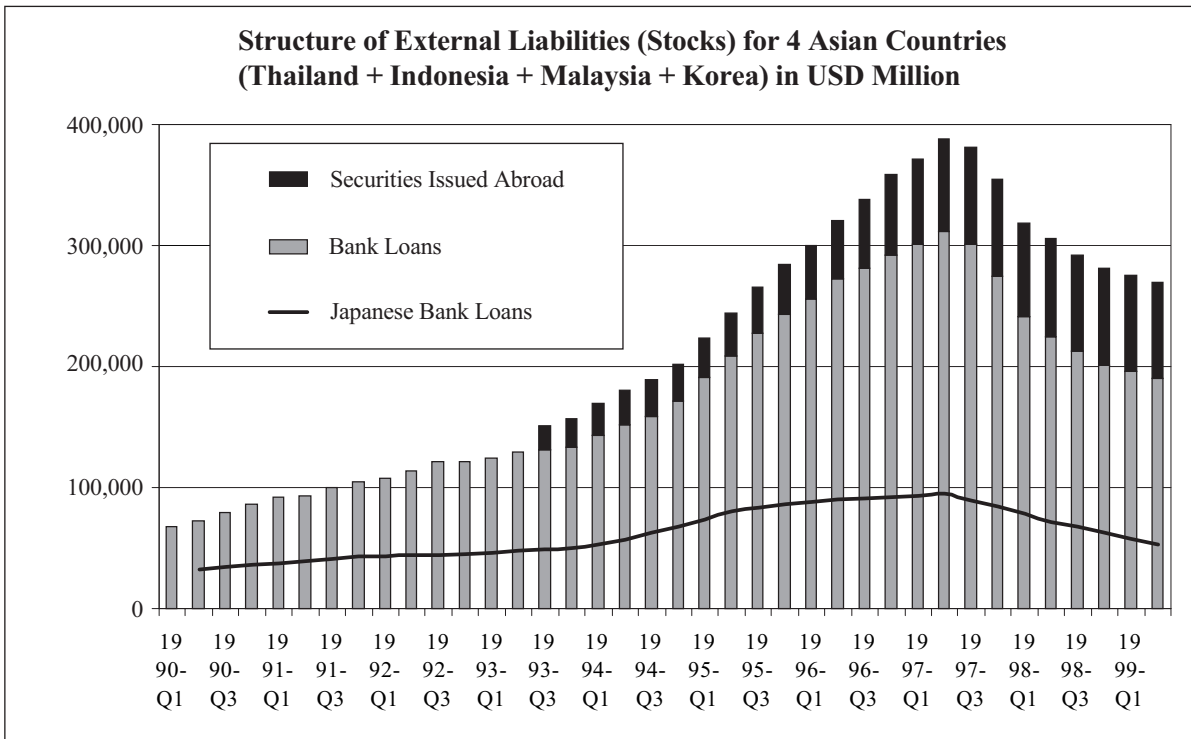


Chart 2

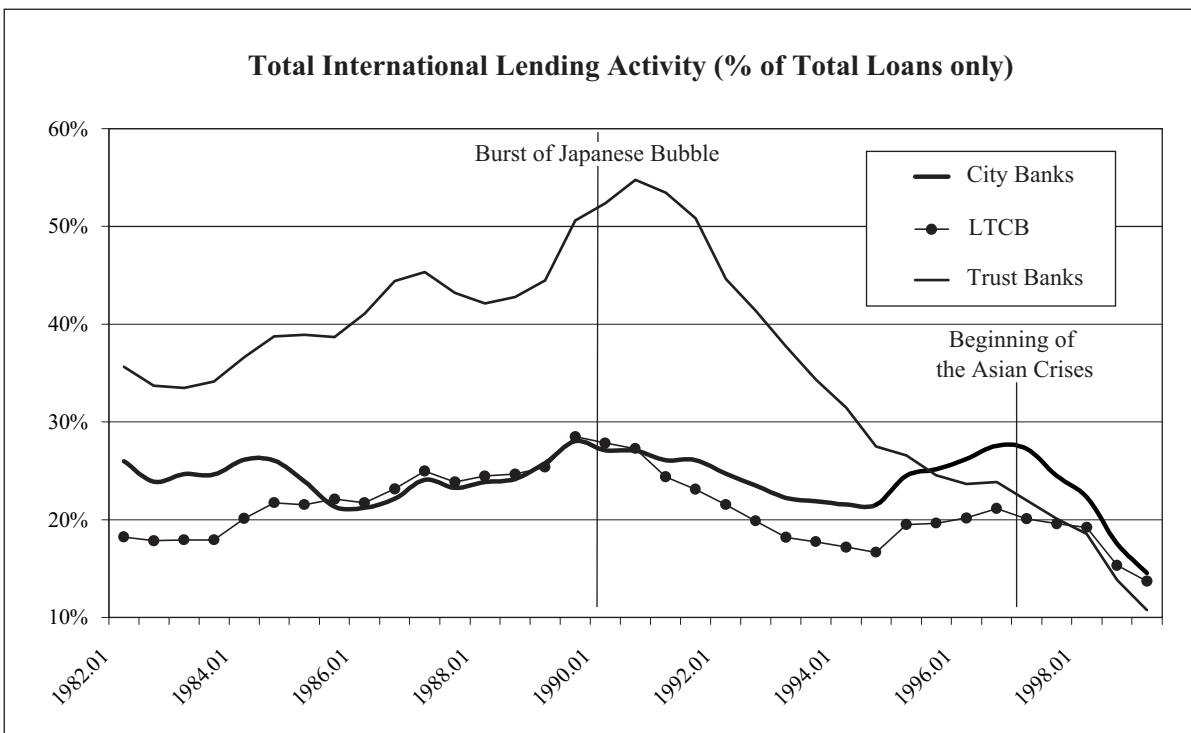


Chart 3

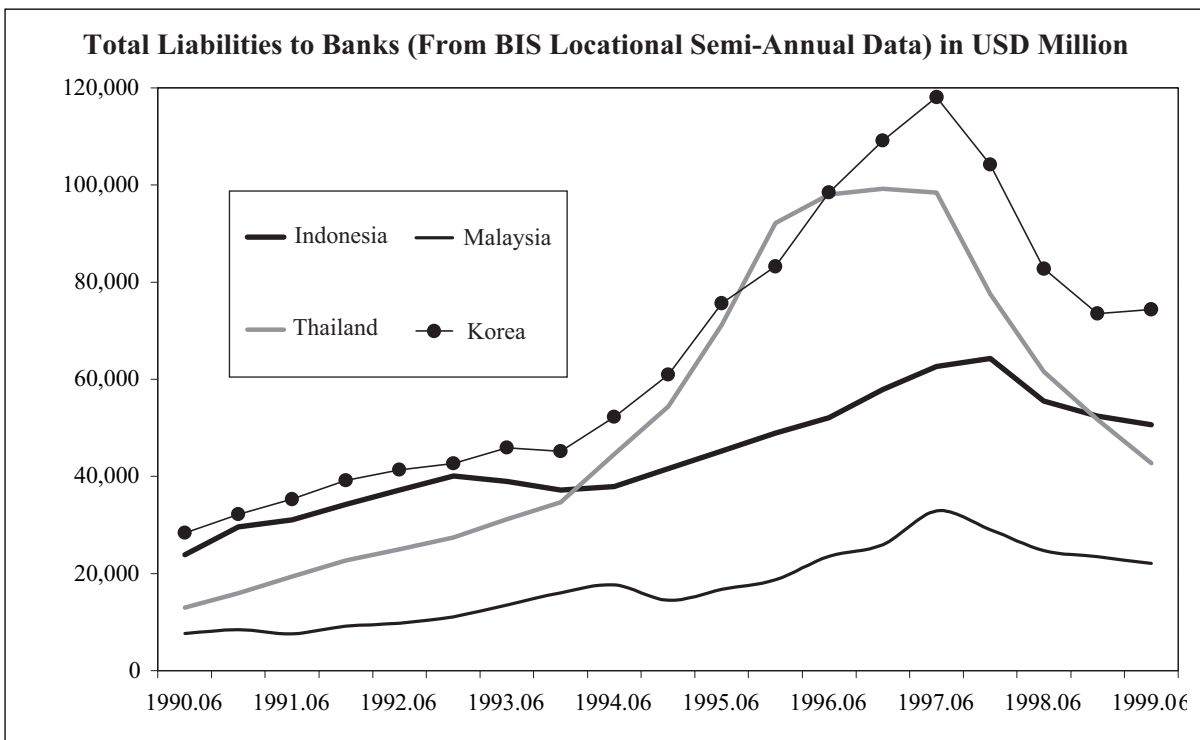


Chart 4

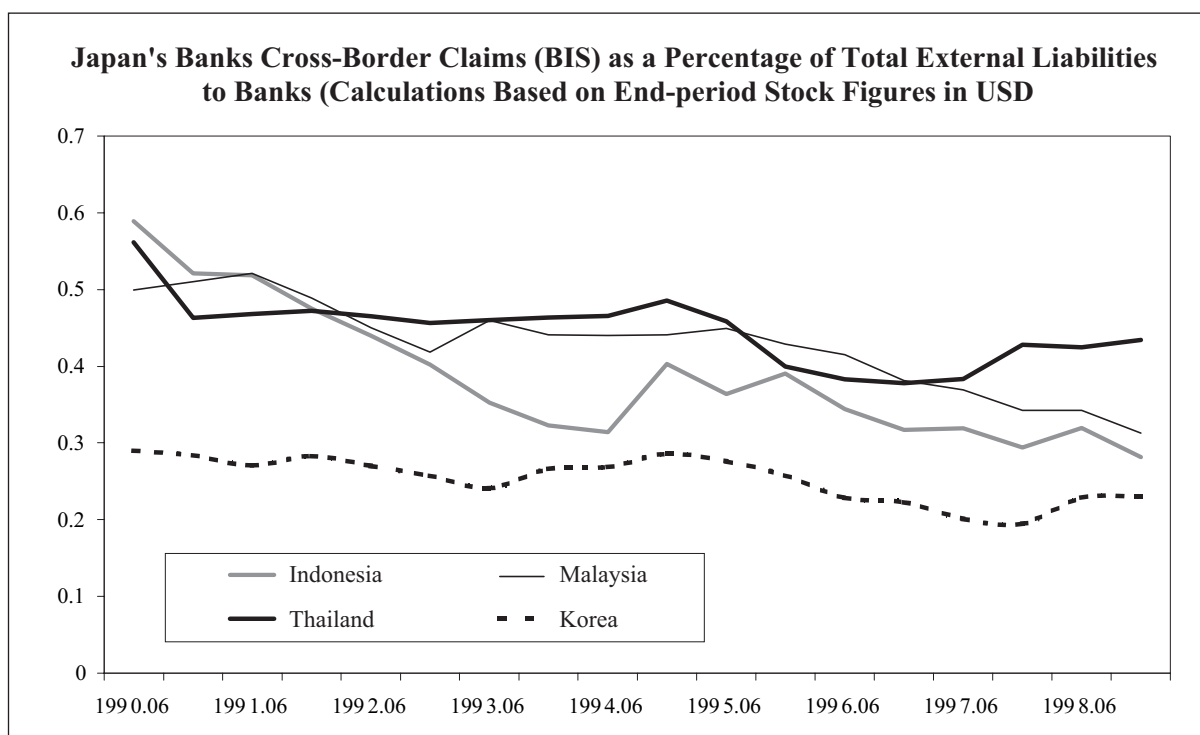
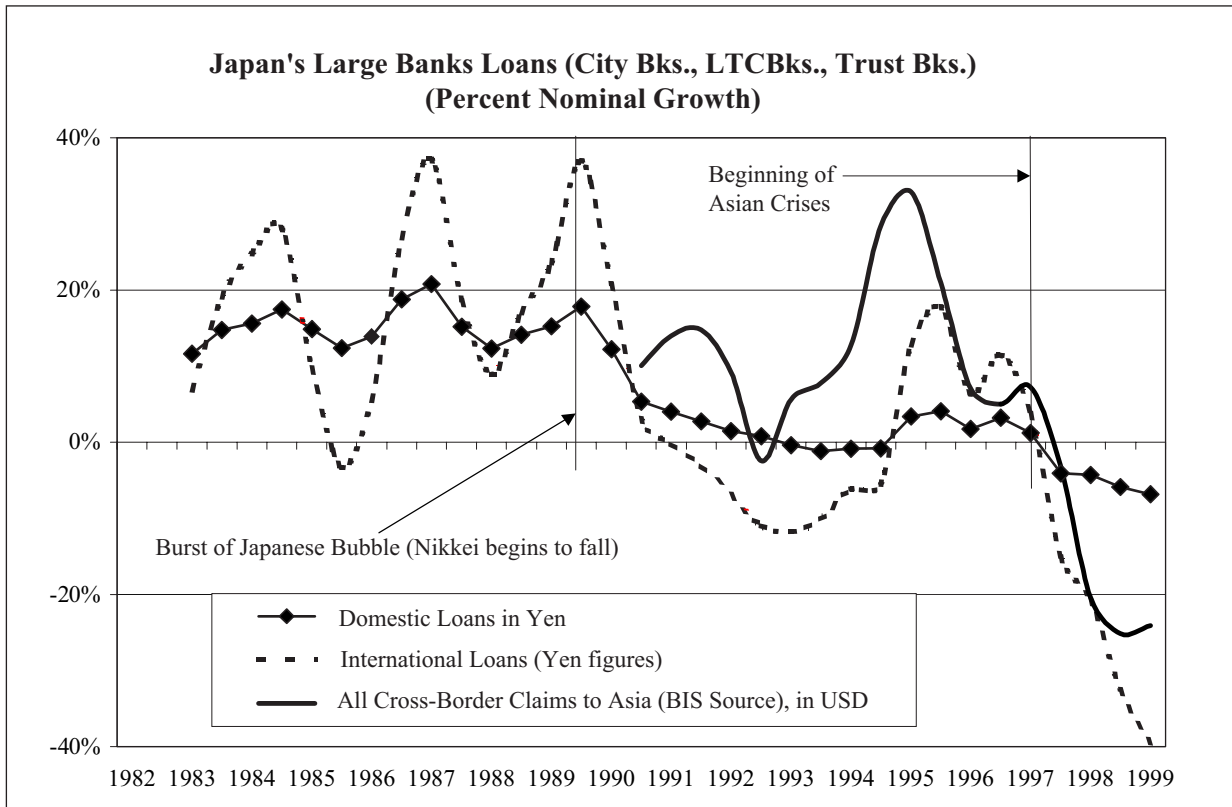


Chart 6



and international). At that point in time, international lending by Japanese banks became a “substitute” to the fall in their domestic lending activities. And there seems to be a substitution not only between domestic and international lending activity but also inside “international lending” activities. For example, the growth rates of Japanese loans to East Asia is higher than that of Japanese loans to the rest of the World (the international activity of Japanese banks in general, including other emerging markets and also the US and Europe).

2.3 The Moral Hazard Explanation of Over-Lending and Over-Investment

Massive capital flows into East Asia need to be

explained, more specifically, bank loans and in particular the roller coaster of Japanese bank loans. What was motivating this built-up of the “financial vulnerabilities” that created fragile and over-leveraged banking sectors in East Asia (IMF [1998], the World Bank [1998])? The puzzle was that the main borrowers and creditors were private sector banks and firms instead of Governments or the public sector. Why would private sector firms take excessive risks?

The conventional and now mainstream answer is because of Moral Hazard (MH). Moral Hazard became part of the fashionable stylized story explaining the formation of large credit bubbles in emerging markets, particularly in East Asia¹³. MH provided an illuminating rationale telling why there

13 The analytics of Moral Hazard can be found in Arnott and Stiglitz [1988]. But the first insights came from discussions of Arrow [1965] analysis of the theory of risk-bearing, mostly related to medical insurance coverage. In the standard (Arrow-Debreu) competitive treatment of risk, insurance systems provide lump-sum transfers across states of nature (for example, in the event of an accident). Insured parties pay an insurance premium regardless of the state of nature. These states of nature occur with exogenous probabilities. They are observable to both the insured and the insurer and hence, there is no incentive for “cheating”. Moral Hazard arises when neither the states of nature nor the actions of the insured are fully observable. In such cases, the insurer can not monitor the effort by the insured to prevent accidents from occurring. Hence, the provision of insurance could affect the incentives to take the necessary precautions to avoid accidents. Moral Hazard strictly speaking arises when “the provision of insurance affects the probabilities of the insured-against events”. Beyond the standard case described above, Moral Hazard occurs in many circumstances when there are risk, insurers and insured parties that are risk-averse and effort to prevent accident is costly to monitor.

was “over-borrowing” and “over-lending” precisely by the private sector during the years that preceded the Asian crises, and why it became a determinant factor in the built-up of financial vulnerabilities. Following an insightful paper by Krugman [1998], the term “Moral Hazard” (MH) has been used quite extensively¹⁴ to explain “excessive” risk-taking behavior by borrowers and creditors prior to the outbreak of the Asian 1997-98 currency and banking crises.

Moreover, the MH argument also brings a debate about what should be done to prevent new similar crises particularly since these crises are so difficult to detect¹⁵. An extreme consequence of the MH argument for example, would be a strong case for dissolving any institution, domestic or international and/or any mechanism that creates insurance, including international institutions functioning as quasi-lenders of last resort (e.g., the IMF). Opponents to that, on the other hand, argued that the tremendous social cost of a systemic financial collapse requires institutions (national and international) to regulate private agents. Local deposit insurance schemes, local supervision and monitoring of risks through strong central banks need to be strengthened. Therefore, when MH is invoked, one is inevitably also dragged into discussing the role of IFIs. (See below for more details)

a) The MH Explanation

There are a number of new models in the literature that link weak financial systems with crises. Most use a MH hypothesis. For example, McKinnon and Phil [1997], [1998] propose a model of entrepreneurs relying on banks’ risk assessments for their investment decisions. Banks tend to produce “rosy” pictures to inflate expected returns on entrepreneurs’ projects and entice entrepreneurs,

under asymmetric information conditions, to bid for additional bank credit. This cycle prompts a financial boom. Banks’ behavior relies on MH because bankers hope to force Governments to bail them out at the end of the boom in case of a “systemic” crash. Corsetti, Pesenti and Roubini [1999] revisit Krugman’s [1979] first-generation model of currency crisis where the crisis occur when the potential future fiscal deficits resulting from the accumulated liabilities of the banking sector exceeds a certain level of international reserves. The accumulated liabilities of the banking sector (or potential non-performing loans) result from a MH behavior in the private sector.

Krugman [1998] provided another insightful interpretation of the role of MH in the new capital account crises. After acknowledging that neither the “first-generation” nor the “second generation” currency crisis models could fully explain the Asian crises, Krugman and many others after him quickly pointed out that the Asian problems began actually with financial intermediaries and not with foreign exchange markets. These institutions had “liabilities that were perceived as having an implicit Government guarantee, (...) were essentially unregulated and therefore subject to severe moral hazard problems”.

The MH stylized story runs as follows. Despite the absence in Asia of formal guarantees provided through deposit insurance schemes, Krugman suggests that “informal” or “implicit” guarantees can play an identical role. The local political economy gives way to this informal protection from risk that came eventually to be associated with “crony capitalism”. Over-investment in such a context derives from the distorted incentives that financial intermediaries provide to investors when part of their liabilities is “guaranteed”. The accompanying boom in asset prices can be also explained in a similar way. Facing two investment possibilities with high or

14 There are several hundred references for “Moral Hazard” in 1999 in the JEL, NBER, Financial Times web sites with different meanings. Moreno [2000] provides an account of how the Asian Crises can be explained by MH. Dooley [1997] and Corsetti, Pesenti and Roubini [1999] show MH as a source of financial fragility during boom times and produced formal models accordingly. Krugman [1998] had earlier linked MH with over-investment in East-Asia. We discuss his views below.

15 We have now realized that these new types of crisis are not necessarily announced by old early-warning signals like weaker fundamentals (e.g., inflation, depletion of the level of international reserves or rising fiscal imbalances). Rather they are preceded by asset-price bubbles (e.g. booming local stock exchanges and over-lending to speculative areas of the economy) that are easy to observe but more difficult to stop (because of the recipient country’s political economy).

moderate expected returns associated with high or moderate losses (risk) in case of a “bad” outcome, an investor would choose the highest-return if he/she can walk out without (significant) losses in case of the “bad” outcome. A “guarantee” (particularly from Governments) is precisely the factor that creates this possibility of a “win-win” situation for reckless investors.

Krugman’s stylized story simplifies somehow the picture (by mixing industrialists and bankers) but tells a convincing story about how financial intermediaries are subject to MH and how it then translates into lending bubbles. Assuming financial intermediaries are (also) the owners of the capital stock, the fraction of “guaranteed” liabilities in their balance sheets lowers their cost of funds. That, in turn, allows investment to be pushed beyond the “normal” level (e.g., the level where the capital stock’s marginal product equals the cost of funding new investment in the absence of any insurance or guarantee). Hence, the MH story convincingly explains also the over-investment part of the Asian boom. Financial intermediaries are the vehicles and local Government is the cause of MH.

Although Krugman’s MH argument does not make an explicit distinction between foreign and domestic lending, his paper also points out that access to new sources of (external) financing can aggravate over-investment by offering new financing to a typical excess (and risky) local investment demand. Chinn and Kletzer [1999] provide explicitly a model of financial crisis in emerging markets based on the role of MH in international lending. The authors extend Krugman’s MH argument to “implicit guarantees of foreign loans by sovereign Governments”. Their paper, following Calvo [1998] argues that sovereign Governments have an incentive to subsidize foreign capital inflows. The form by which this happens is through the commitment to keep a fixed or a pegged exchange rate regime. Previously, Mishkin [1996]

had also argued that a Government’s choice for a pegged exchange rate regime seems to be driven by the need to offer some insurance to foreign investors. Chinn and Kletzer suggest that the behavior of creditors changes when they work under pegged exchange rate regimes and their investment in risky projects is somehow seen to be protected by implicit Government guarantees. In their view, currency crises and banking crises are linked because Governments provided this implicit insurance to contract foreign currency debt. Their paper is an extreme version of the new academic view suggesting that any exchange rate regime (such as a pegged-administered exchange rate) deviating from the two-corner solution (e.g., either the fixed regime of a currency board or a pure float), constitutes an “incentive” for “irresponsible” external borrowing.

Even in the absence of “incentives”, East Asia’s “success story” itself also produced a self-confidence perception that was almost equivalent to a “guarantee” or “insurance” to foreign investors. For a while, East Asian emerging markets managed skillfully a paradoxical framework (see B. Fischer and H. Reisen, [1992]). They were able to successfully reconcile an open capital account (free capital mobility) with exchange rate stability (a pegged currency and/or administered float) at competitive levels and some degree of monetary autonomy¹⁶.

That success in managing well financial liberalization and macro stability might have been contributed to the over-borrowing syndrome in East Asia described by McKinnon and Phil [1997]. Banks and corporations did believe that these policy stances were “credible” and stable. Consequently, they increased their investment (and borrowing) in anticipation of further growth. Financial markets fail to break the inflows that start financing even risky projects. That, in turn, inflated banks’ balance sheets with potentially non-performing assets. McKinnon

16 As discussed above, the “impossible trinity” according to textbooks. Standard economics suggests that opening the capital account makes monetary policy ineffective under a regime of fixed (or even pegged) exchange rate. With perfectly substitutable assets, free capital mobility forces the central bank to compensate any movement of domestic assets (domestic credit expansion, etc.) with its foreign exchange reserves. The experience in Argentina, Uruguay and Chile with financial liberalization during the 1970s and 1980s was much less successful than East Asia. Financial liberalization in the Southern Cone produced rapidly exchange rate appreciation that followed massive capital inflows, a crisis in the export sector and a severe deterioration of the domestic banking sector. It took several years before it happened in Asia.

and Phil also suggest that the existence of (implicit or explicit) guarantees¹⁷ on banks' liabilities (in particular deposits) exacerbate the trend. However, as we shall see below, MH can not necessarily explain a bad miscalculation by the private sector.

b) MH and the (direct and indirect) effect of international lending of last resort (LLR)

Could MH arise if an international lender of last resort like the IMF during the resolution of a crisis rescues private creditors in an indiscriminate and generous way? This type of MH raises issues related to the reform of the architecture of the international financial system. The departure point of economists raising this concern, was the way successive crises in Mexico (1994), Asia (1997), Russia (1998) and Brazil (1999) unfold. They criticized the appropriateness, the size of, and conditionality associated with, multilateral financial support to countries that were experiencing the effects of massive capital outflows. The point about these "rescue packages" was that they were susceptible of generating MH, by creating "bad" expectations and enticing emerging markets and their creditors to take excessive risks. The existence of these "packages" was thus seen as one of the reasons why the new capital account crises happen. Hence, an extreme policy consequence of this view of the MH argument for example, would be a plea for dissolving any institution, domestic or international and/or any mechanism that creates insurance, including international institutions functioning as quasi-lenders of last resort (e.g., the IMF).

MH from international (multilateral) financial support is considered a sub-set of MH arising from any public support. The reasoning is the following. The first (and simplistic) idea is that large international rescue packages give the impression that private creditors (bank and corporations) that took excessive risk (lending and borrowing) are bailed-out with public money during a crisis from (at least) a portion of the losses that they would have otherwise incurred. That, per se, is not *stricto sensu* a MH situation as we

have defined it. Bailouts can happen but it does not mean that they caused the excessive risk taking. The second layer of the argument is more complex and gets more to the point: large rescue package can create the "expectations" of future rescues and that possibility could function as an incentive to increase risk taking in lending and borrowing.

Fernandez-Arias E. and Hausmann R. [1999] call this line of thought a "Theory of Too Much". This reasoning explains why there is "excess" of capital flows into emerging markets. When investors expect to be repaid of their lending from official financial resources, they will tend to increase their lending and their exposure even when there are risks of future returns not materializing. Mussa [1999] also examines the issue in detail. He acknowledges that in some very specific cases, MH related to international support explains lending behavior. For example, in the case of Russia, it is arguable that creditors during the first half of 1998 thought that the nuclear status of the country made it too-big-to-fail or TBTF.

c) Rejecting the MH effect in international lending of last resort

The role of the IMF can be criticized, but not for creating MH. In Asia, it is difficult to see that MH played a role before the crisis. Mussa argues that there must be many other motives behind the large inflows of capital into Asia. For example, capital flows into East Asia took a variety of forms (DFI, Portfolio flows, Bank lending). Only the last category (bank lending) could give some room for the MH explanation. But in any event, the "expected" protection that lenders could rely upon for these flows was linked to the "expected" stability of macro-economic policies of local Governments, not from international financial institutions. If there were insurers that would eventually pick-up the cost of these policies (in the event of their collapse) that would have been the local taxpayers of the local recipient countries, not the IMF or the World Bank.

Another angle to reject the idea of MH associated

17 Evidence from several quarters suggests that, in Asia, the "guarantee" was implicit and given by Head Offices to subsidiaries. This form of "insurance" is linked to the "Main Bank" or German financial model, the privileged relationship between banks, firms and Governments that also the Japan Inc. model. Contrary to extreme forms of the MH assumption, emerging markets' Governments never gave a formal or even informal "guarantee" to private foreign creditors, insuring the borrowings by local private banks and corporations.

with international lending of last resort is that there is a cost associated with that. Benefiting from LLR it is not a subsidy. If the pricing of such instruments is right, if there is no subsidy component, if rescues are through loans, not grants, then it is hard to demonstrate that the existence of such instruments influenced the behavior of lenders beyond reasonable risk-taking.

Still, there is the argument that, even if there is a price to pay these international rescue package provide financial resources to countries at a discount. In other words the issue is not that LLR is done through loans that bear an interest rate. The real issue is that there is an implicit subsidy to provide LLR resources below the spread that countries would face in “temporary” circumstances preceding a crisis. The “spread” that countries would pay represents the market’s appreciation (pricing) of the country’s risk at that particular moment in time.

There are several answers to that. First, it could well be that, prior to a crisis, market’s perception of country risk could be misleading, either positively or negatively. For example, Cline and Barnes [1997] show that there was an over-optimistic pricing of emerging markets spreads after the Mexican crisis. They note that spreads in lending to emerging markets fell persistently and substantially after the height of the Mexican crisis until the third quarter of 1997 (i.e., well after the beginning of the Asian currency crises). The volatility, in any event, suggests that the exact level of risk is hardly captured by market spreads at that moment. Second, short of a “benchmark” in the spread set by LLR packages, the real economy could be sent to a low level of equilibrium, dictated by financial panic, not fundamentals. Third and most importantly, these rescue packages are usually associated with conditions, sometimes very tough ones. Hence, the perception that there is a implicit subsidy in rates is attenuated by the presence of conditions. The functioning of these instruments is

complex and not only a matter of the interest and maturity of the stand-by arrangement. The speed with which so far these packages have been repaid (Mexico, Korea, Thailand, Brazil and even Russia) tend to support this view that countries would prefer to live without them.

Finally, there is a subtle way to argue that even if the international rescue packages were not responsible “directly” for creating MH, their presence as an option to local Government as argued by Mussa, Swoboda, Zettlemeyer and Jeanne [1999] can induce local Governments to act in ways that create their own “domestic” MH (e.g., by extending blanket guarantees, by providing the impression that local banks will be rescued no matter what, etc.). The counter-argument here is that this is not specific to any emerging market and certainly not caused by the existence of international LLR. Most if not all G-7 countries (the US, Japan, the EU) have deposit insurance schemes and domestic mechanisms to rescue their own banking systems. Such rescues have been observed in the past during many financial and banking crises but are not related to the existence of an international LLR. Rather, they seem to be linked to the domestic political economy.

2.4 Herd Behavior

This section challenges the claim that MH played a major role in the excessive growth of (Japanese) international loans to East Asia. We do not dispute the claim that MH played a role in the built-up of financial vulnerabilities prior to the Asian crises. What we dispute is that MH is the “main” reason behind over-lending and over-borrowing. Our approach is not incompatible with the MH view. But it has a different emphasis. We propose an alternative stylized story of the built-up of financial vulnerabilities in East Asia that revolves around explaining the behavior of financial intermediaries by institutional characteristics of financial markets in Asia (“Japan Inc.” model¹⁸.) combined with

18 In a nutshell, the Japan Inc. model refers to triangular relationship between Government, Banks and Firms. This special support allowed the fine-tuning of private and public policies, institutions and financial flows involving the real, financial sectors of a typical country and its Government. The World Bank [1994] “East-Asian Miracle” report provided a positive account of how “institutional” factors behind Asia’s growth performance could bring useful insights to the findings of the traditional (neo-classical) growth (and growth accounting) literature. Among a vast body of research, for example, Ito [1992], Tachi [1993] or Nakamura [1981] describe Japan’s “growth-oriented” councils and institutions. For the East Asian experience, Ito and Krueger (ed.) [1995] provide an overview of the Asian growth experiences, how they fit the current growth theories (in particular “endogenous growth” models) and an examination of individual country experiences.

private commercial banks' Herd Behavior (HB).

The first account of banks behaving with "pack instinct" or like a "herd" came from the casual observation of their lending patterns prior to the 1982-84 debt crisis. This was based on the casual observation rather than on a firm theoretical model (Jain A. and Gupta S. [1987]). Jain and Gupta define Granger-causality tests for "herding" behavior and apply to US bank loans by testing whether small banks blindly replicated the international lending decisions of large banks during the 1977-1982 period.

On the Asian side, the much praised "Japan Inc." model (because Japan provided the canonical example) were identified as a manifestation of MH. However, these problems had little to do with MH as defined above particularly concerning international lending, as we shall see below. The strong ties between banks, firms and politicians that contributed to the model's high performance can not be put under the general label of MH. There were no "insurance", nor insured parties and neither an insurer. For example, it took Japan almost 10 years after the burst of its financial bubble in 1989 to set-up a formal mechanism to begin injecting public funds into ailing private commercial banks.

Our proposed alternative story in a nutshell goes like this and is developed in greater detail below. The excessive growth of foreign loans to recipient countries results from unregulated competition between private commercial banks. First comes, say, from Japan (the dominant regional economy), a wave of direct foreign investment (DFI) financed by Japanese banks. This wave boost exports and ignites an increasingly buoyant local business cycle. This cycle constitutes part of the observed "East-Asia Miracle" that is export-oriented and combines high growth with sound fundamentals (including foreign loans by traditional banks to sound borrowers like local exporters). But a side effect is that the local boom whets the appetites of competing foreign banks and funds from the US, Europe and also Japan. Local

financial markets are protected, banking licenses rationed. The "newcomers" are "outsiders" to the existing relationship between traditional lenders and borrowers. They want to enter the local credit market. Hence, they lobby local Governments to accelerate financial sector liberalization. They also offer attractive (low) interest rates (in their own foreign currency, usually USD rates that are below local interest rates). To get full bank licenses, they try to aggressively expand their market shares and they increase their loans and exposure. Inevitably, they end up financing riskier businesses and directly or indirectly (through local financial intermediaries) feeding the "infamous" real estate bubble.

Understandably, the typical behavior of private commercial banks competing for market shares is to accept returns that could be below their funding cost initially, knowing that eventually their presence in a fast-growing market more than compensates their initial loss. Hence, in our stylized story and contrary to Krugman's, there is no change in the funding cost of financial intermediaries due to an "implicit guarantee". There is a willingness to accept an initial higher risk (and pay an entry cost) because of the expected reward based on current observation of market trends. And what drives the model is the need for other banks to enter a promising market. This is the key assumption that differs from Krugman's. In the MH view, banks have an infinite set of investment (loan) opportunities, so they will pick the highest risk-adjusted return. In our view, even in a global financial World, banks have a finite set of business opportunities and they have to compete in a rationed market. So, more than "moral hazard" and "bad policies", unregulated competition between experienced financial institutions, "outsiders" and "insiders", can explain much of the East Asian financial bubbles, together with the business and financial cycles in the USA, Europe and Japan. There are other related factors that explain the pattern of Japanese bank lending that we describe below.

a) Institutions and the Political Economy: Debt-Financing versus Equity-Financing and the “Main Bank” model¹⁹.

There are other institutional characteristics that help explaining the surge of Japanese loans to East Asia.

First, on the local, recipient side. Asian banks and corporations opted for debt (bank loans) over other financing sources (equity) for fear of losing ownership control of their equity. This preference for private debt flows in East Asia explains the “over-borrowing”. The country data confirms the following (see Pereira da Silva [1999]):

- (a) The bias toward bank loans (loans in Asian emerging markets’ external liability structure represent about 70%, compared to about half or 35-36% for Latin American countries where debt securities account for about 29%.
- (b) The maturity structure (leaning toward the short-term) of bank loans because short-term loans were more convenient to get.
- (c) The larger share of private bank and corporate borrowing in Asia (where private sector banks represent about 45% and private corporations 48% of the stock of liabilities) compared to Latin America (where the public sector accounts for about 20% of liabilities alone). Therefore, the East Asia’s external debt structure suggested that any debt crisis would rather be a private sector liquidity crisis with no significant involvement of the sovereign.

Second, and on the emission, supply side of external loans.

- (d) The growth of Japanese banks’ loans to Emerging Asia depends on Japanese corporations’ direct investment into Emerging Asia and several other features of the “Main or principal” bank model. That

model got extended or internationalized to East Asia with the spread of the Japan Inc. model. True, originally the major actors in the Asian economic “miracle” were public sector entities. But private companies followed public sector planning directives and prospered too, founded (and sometimes still controlled) by a renowned family even after their listing on the local stock market for the reason stated above. The close cooperation between public and private corporations, their Governments and banks was reinforced by oligopolistic decision-making structures with sometimes a direct partial ownership by segments of the Government. These links explain partially that financial support was provided to these large private groups through the financial system. Accommodating regulations for the assessment of risk, for the banks capital adequacy and for the provision of new credit allowed the accumulation of financial assets with minimum supervision and control.

- (e) Japanese banks felt that “geographical and/or cultural proximity” brings “better information” about borrowers and influences positively lending decisions.
- (f) Japanese bank lending in East Asia is explained by the liberalization of international transactions (a Japanese-only regulatory decision) earlier in the 1980s. That change in regulations allowed large blue chip corporations to issue their own papers in international capital markets, removing them from the dependency to traditional bank-financing in the Japanese market. That prompted banks to seek new businesses, sometimes outside Japan. Later, in the 1990s, Japanese banks were facing the pressure to clean their balance sheets and

19 The “Main Bank” model refers to the way financial intermediation is conducted mostly in Japan and in Germany. For example large Japanese corporations always (but not exclusively) relied on a “Main Japanese (City) bank” for the bulk of its financing. The traditional Main bank of large Japanese manufacturing firms usually has an “old” full-licensed bank representation in East-Asia. That allowed the special relationship observed in Japan to be delocalized into a similar link between affiliates, joint-ventures of the leading Japanese corporation and the local branch of its own Japanese main bank. In the 1980s and 1990s, these special relations were a key factor behind the very high level of capital inflows (DFI accompanied by bank lending) into East-Asia from Japan.

improve their capital ratios. Many chose to withdraw from all international activities but remained active in the fast growing East-Asian financial markets.

- (g) Finally, bank loans to East Asia resulted from a combination of several special incentives (see Takayasu [1994] and [1995]). For example, official flows (ODA, etc.) supported the lending strategy of private banks. The Japanese Government through several of its agencies like the Ministry of Trade and Industry (MITI) Insurance schemes, the Export-Import Bank of Japan (JEXIM), the Overseas Economic Cooperation Fund (OECF), etc., offered support and like many G-7 countries, sometimes guarantees to Japanese investors. But the most typical pattern links bank loans to direct foreign investment (DFI).

b) The Regional Expansion of the “Japan Inc.” Model: DFI and Loans

The Japan Inc. model can be interpreted as an institutional set-up that increases the synergies between competing agents by reducing uncertainty of over economic decisions. Hence, even with identical returns on investment, an expectations-augmented investment function would result in higher levels of capital stocks. The model worked extremely well as it allowed rapid growth of the real sector in Japan first and then in many Asian economies, particularly in the manufacturing and export sectors. Economic success came from the capacity to mobilize several conditions for rapid and sustained growth in the production of (initially) labor-intensive manufactured tradable goods. Flexible labor markets, non-repressed (but sometimes “directed”) credit markets, stable foreign exchange markets; institutions and policies that were put in place to favor a strategy of continuous skills-up grading, stimulated by export competition, fostered by the acquisition of adequate technology, etc. All that resulted in increasing regional integration and the production in peripheral East Asian countries, of more sophisticated goods (the celebrated “Flying-of-the-Geese” pattern of development, see Akamatsu [1962] and Ito [1995], [1997]).

The Japanese economy’s structural transforma-

tions during the 1970s-1980s accelerated its internationalization. The nominal appreciation of the Yen (and of its real exchange rate), itself the result of the Plaza Accords (1985) together with real wage increases in Japan a la Balassa-Samuelson, made East-Asian assets cheaper and triggered an increase of Japanese DFI into the immediate periphery of Japan. This movement of decentralization of production centers also accelerated the shift of industrial locations from Japan to East Asia, concomitant to the decline of business opportunities in Japan and of lower profits after the collapse of Japan’s own financial bubble in 1989. The need for higher yields and new markets after the peak of the Japanese business and stock exchange cycle became also a motivation behind the increase in international activities of Japanese investors and firms.

What was observed throughout the period were waves of flows from Japan to East-Asia that were DFI in nature and usually into the industrial (manufacturing) export sector. They took the form of equity and joint-ventures (JV) and date back to the early and mid-1980s. These JVs were sound borrowers. Their purpose was either to re-export (Malaysia, Singapore, Hong-Kong) or to feed buoyant but solvent local markets (Thailand, Korea). Their Japanese Head Office sometimes guaranteed the JVs’ borrowing, and working capital loans were usually provided by the local branch of their Head Office’s main bank in Tokyo. So far so good, this first wave of DFI was the backbone of the acclaimed high growth or “miracle” period in East Asia. However, the profitability of these JVs’ accounts also entices the appetite of other investors and banks. The JVs’ success launches a local strong business cycle. The direct foreign investment in specific industries (labor-intensive export products) triggers equity investment into surrounding businesses. The industrial base of recipient countries became stronger. Some countries started then to diversify their export base, trying to gain access to more capital intensive industries (like automobile and technology intensive sectors). Intensive debt financing of such endeavors start then. Higher current account deficits emerged, given the higher level of required imports of intermediate and capital goods. Around or after the Mexican crisis (1993-1995), some countries, began to rely

increasingly on commercial bank financing and developed offshore financial markets to attract more capital²⁰ (see Aoki, Bushimata and Sudo [1997]).

c) Herd Behavior (HB) and Foreign Private Lenders.

Clearly the Asian high growth and high debt model in emerging Asia eventually caught the attention of other non-bank investors including Japanese brokerage houses that were also looking for yields higher than the ones prevailing in their own mature markets. The Asian long bull market turned into a buyer's market or rather a borrower's market. Yield-hungry investors dismissed prudent behavior and acted as if every Asian firm issuing securities was part of the successful model. They lowered the return demanded on their investment, bought assets that were not world class and offered financing at progressively lower rates. That was difficult to be turned down by local companies which, at the same time, were facing higher interest rates in their own domestic markets. External capital flows to East Asia exceeded the financing requirements of current account deficits by far. However, in many cases, the local East-Asian market was protected or closed, in particular banking licenses were rationed and/or controlled. Hence, there is pressure from potential "newcomers" (e.g., large and influential foreign banks²¹, from the US, Japan and the EU) for accelerating the financial sector liberalization and opening up (e.g., the granting of full banking licenses for others than the well-established, old "insiders"). To lobby for this outcome, "newcomers" (banks, funds) usually behave aggressively and expanded their assets. Newcomers (with limited bank licenses) will seek new businesses and inevitably riskier projects of local companies and banks will get loans. A supply-driven lending

momentum starts leading eventually to a financial bubble.

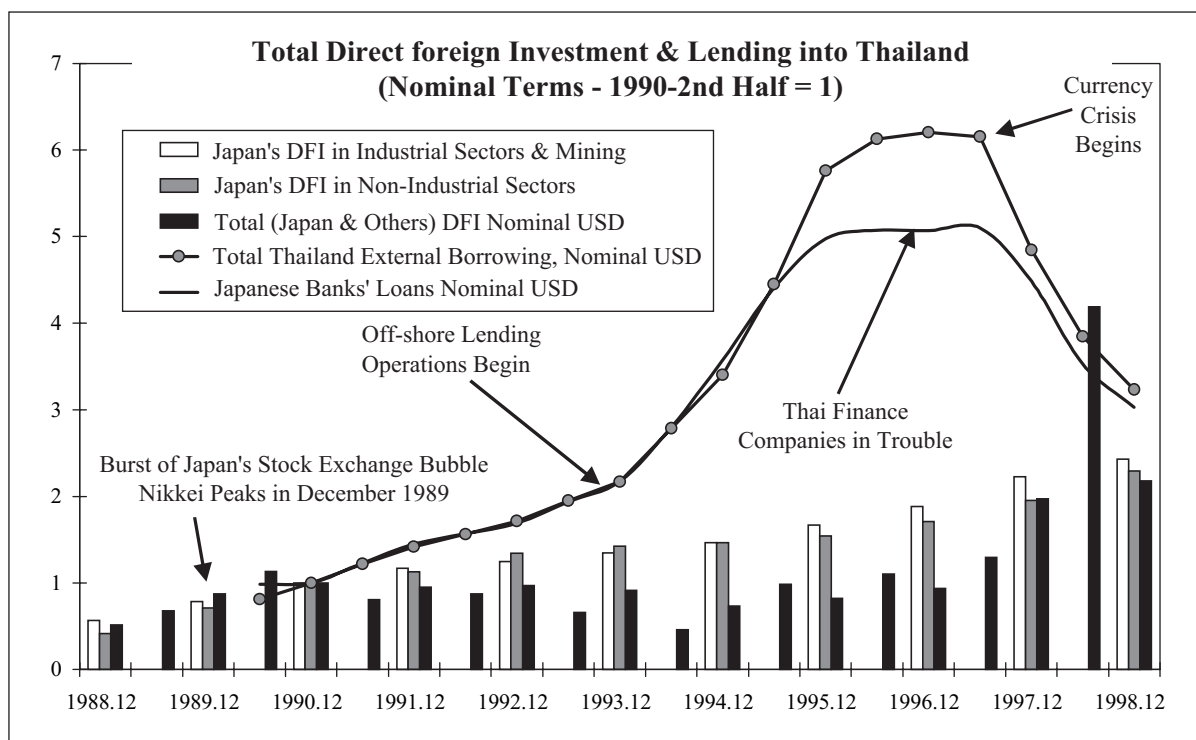
Take for instance the Thai case. It is only one stylized example but the story is similar in other East-Asian countries. Chart 5 shows the evolution of Japanese DFI (in white and gray columns) into Thailand, broken down by sector of destination (white columns for DFI in industry and mining, vs. gray columns for DFI in non-industrial sectors). The picture also shows the concomitant growth in Japanese banks cross-border claims (straight line, from the Bank of International Settlement -BIS-database). The picture re-bases all the data, which is in nominal terms, to equal 1 at the end of 1990 (the burst of Japan's stock exchange bubble and the beginning of the collapse of the Nikkei index). The picture shows that in the 1990s, DFI is more or less divided evenly between industrial and non-industrial sectors. There is no over-investment by Japanese banks into non-productive service sectors for example. And the lending from Japan (external borrowing by Thailand from Japanese banks) accompanies the DFI in a relatively fixed proportion (i.e. about the same growth rate).

Things start to change after 1993-1994, particularly in countries where there is a booming domestic market (Korea and Thailand). Lending (and borrowing of course) accelerates significantly. There is a "bubble" of loans provided by Japanese banks to Thailand that jumps well above the growth rates of Japanese DFI. That lending corresponds, in our view, to the effect of unregulated competition. The banks that are "over-lending" are not the traditional "main" banks of the safe and sound JVs in Thailand. Rather, they are the ones who adopted an aggressive behavior, trying to maximize market share irrespective of risk.

20 In some cases, local Governments encouraged indirectly bank lending in foreign exchange to domestic corporations and banks, through off-shore banking centers. For example, the Thai Government established the Bangkok International Banking Facilities or BIBF in March 1993. It is the best (and most successful) illustration of a trend that started with the Manila offshore market in 1976, and the Malaysian Labuan offshore facility in 1990. The key feature of the BIBF was its Out-In transactions which allowed Thai firms to access directly dollar-denominated loans at interest rates that were much lower than those charged on Baht loans in the domestic market. Around the end of 1996, dollar rates were around 6-7% compared to the Minimum Loan Rate of 13% charged by Thai commercial banks. Even when swap costs were taken into account, funding was cheaper in the BIBF Out-In window. From March 1993 till August 1996, the stock of dollar loans grew from \$1.4billion to \$30billion, at annual growth rates of about 50%.

21 That pressure could come sometimes from other rival Japanese banks competing for market share. Hence, capital inflows are not necessarily explained by a standard "carry-trade" story, where interest-rate differentials determines financial flows and concur to the formation of financial bubbles in East-Asia. It is rather the competition for larger asset-exposure in fast growing, profitable Asian markets that can explain the "euphoria" experienced by many financial institutions.

Chart 5



And it is not only the “outsiders-newcomers” Japanese banks that behaved in such a way. US and European banks compounded the trend. But perhaps the observed credit bubble can be explained by the effect of other countries’ DFI that also attracts bank credit? The bulleted line above the change in Japanese bank loans shows that overall bank claims (e.g. external borrowing from other sources than Japan) increases even more dramatically than Japanese bank loans. And this is not related to the overall DFI inflows into Thailand (the black columns) which remain quite stable during the high growth cycle.

Finally, local macro-economic policies also contributed to create a local credit boom. P. Demitriades [1999] shows that financial deregulation in East-Asian countries produced rapid growth of financial services and credit-assets bubbles. Restrictions to foreign banks in local financial markets played a role in exacerbating competition among foreigners for full-banking licenses in East Asia. While Japanese banks were seeking salvation and new profitable markets, there was an acceleration of financial liberalization in East Asia (see OECD-Asian Development Bank, [1999]). The important lessons here was that, despite their preference for a gradual approach to financial liberalization, Asian countries

opened up their capital account (through the suppression of capital controls on residents) relatively early, before building institutional capacity to monitor the borrowing behavior of domestic banks and firms. In parallel, bank licensing was liberalized, interest rates deregulated. Newly created institutions increased lending and used external borrowing to strengthen market shares even at the cost of higher risk.

3. AN ALTERNATIVE STYLIZED MODEL

We aim here at summarizing the discussion above by proposing a stylized model of the “endogenous” emergence and collapse of credit bubbles in emerging markets such as East Asia’s. In our stylized story, “over-lending” and “over-borrowing” result primarily from the behavior of rational, profit-maximizing firms and banks and not only from external shocks (excessive foreign liquidity). The local business cycles of small emerging markets are connected with that of a larger provider of capital flows (e.g., a regional or world economic leader) by a credit channel (financing investment) and a demand channel

(exports). Local businesses receive credit from their local banks, based on an assessment of the net worth posted in firms' balance sheets. Our approach, therefore, can be summarized as combining features of Samuelson's [1939] celebrated oscillator, Hicks' [1950] explanation of business cycle and the literature on asymmetric information and the credit view (Stiglitz and Weiss [1983] and Bernanke and Blinder [1988])²².

Local emerging markets are standard small open economies where two categories of firms (domestic producers and exporters) produce two goods (tradable –export– and non-tradable –e.g., services–). Firms are specialized and produce either tradable goods for export or say, services for the domestic market. Initially, foreign investors control (through joint ventures) entirely the export firms whereas domestic investors are proprietary of the domestic producers. The production functions of the two categories of firms have all the nice properties for derivation. Their production technology is the simplest fixed coefficient function with a constant depreciation rate. Each period, all investment is 100% financed by banks. We shall see that the ratio of this financing to investment is critical to determine the stability of the system. Firms are profit-maximizers. All inputs of all firms are imported.

There is a financial sector composed of two (domestic and foreign) types of banks. Domestic banks finance domestic firms. Their lending decisions are based on a risk assessment of domestic firms that takes into account the “perceived” market value of value. However, domestic banks can only observe imperfectly the true financial health of domestic firms. Foreign banks provide initially financing only to foreign-owned firms, i.e. the joint ventures of the export sector. Subsequently, we introduce financial liberalization and relax this condition (e.g., foreign banks will be able to lend to domestic banks and firms). Credit is initially rationed. There are a limited number of full bank licenses available for both domestic and foreign banks. In particular, because

of this rationing of bank licenses, no entry of any additional foreign bank is foreseeable in the near future. Foreign banks, however, can use the domestic stock market to gain exposure to domestic assets (firms' equity). Domestic banks have a fixed local currency funding cost whereas foreign banks are financed abroad at a foreign (their home country) interest rate.

Firms and banks maximize profit under the technological and cost constraints of their production functions²³. The firms' perceived market value is their (stock exchange priced) equity minus their borrowings from the banking sector. Domestic banks' net worth is their assets (loans to firms) minus their liabilities (net borrowings from foreign banks). Foreign banks are assumed to be always solvent, irrespective of their assets' (loans to firms and banks) value.

There is a domestic central bank that sets rules for the growth of domestic bank loans (credit) to be consistent with a set of (exogenous) macroeconomic targets. The central bank is also the supervision agency for the banking sector and sets prudential rules (e.g., capital requirement vis-à-vis risk-weighted assets leading to an upper ceiling for bank lending). In particular, the central bank also determines when a domestic bank is technically insolvent (negative net worth).

There is also a domestic stock market where domestic firms are listed. The market price of firms' stocks influences their perceived market value which, in turn, allows domestic banks to assess the firms' net worth and evaluate banks' portfolio of loans. The exchange rate regime is initially fixed for simplicity.

We also assume an adjacent open larger (foreign) economy to which foreign investors and foreign banks belong. This economy purchases the entirety of the exports of the smaller economy.

Growth of this small open (domestic) economy will therefore depend on both the (exogenous) growth of export demand (driven by the business cycle of the larger adjacent economy) and the (endogenous)

22 Samuelson's oscillator combined the Keynesian multiplier analysis with an investment acceleration that was due to consumption or income (a la Hicks). We hypothesize here (like Krugman) that the “over-investment” is due to excessive credit availability. But we give a different reason (not MH) for the emergence of excessive credit.

23 We define later a behavioral rule for latecomers (new entrants in the banking sector) where they maximize the stream of expected profits over a longer-term horizon.

growth of the domestic service economy. Demand in the domestic economy is a simple function of previous net income from firms and banks. It is a “producer’s economy” with no household consumption for simplicity. However, the domestic (service) economy is constrained by domestic credit availability, whereas there is unlimited (foreign) credit available to the export sector.

a) Virtuous dynamics: growth under the Japan Inc. model

Under the assumptions described above, the domestic economy grows according to the pace set by the exogenous demand for its exports (coming from the larger economy) and the availability of domestic credit (defined by the local central bank plus banks’ risk perception) to the rest of the economy.

Export firms will sell all their production to the larger adjacent economy and repatriate their earnings. Their financing needs (for investment) are entirely covered by foreign banks (which in the Japan Inc. model are also the banks of the parent companies of the local exporters). Export income, plus net income of domestic firms will push domestic demand. Domestic firms will then supply domestic demand accordingly. To meet demand growth in the domestic market, domestic firms invest and hence, borrow from domestic banks. Based upon firms’ initial market value, banks extend loans provided outstanding lending remains inside the prudential regulations set by central banks (defining a floor for banks’ minimum net worth).

Domestic firms’ market value increase, thanks to the growth of the economy (and firms’ stream of profits) but also due to portfolio investment of foreign banks purchasing domestic firms’ equity through the stock exchange. Therefore, with a rising market value, domestic firms’ borrowing capability vis-à-vis the domestic banks will also increase.

Export firms maximize their net income by exporting (producing) until they reach marginal cost conditions. Domestic firms also behave the same way, but their marginal cost comprises an exchange rate risk (in the cost of their imports) that we are assuming negligible for the moment (given the assumption of a quasi-fixed rate, based on the historic low volatility of the exchange rate). In addition, domestic firms

might be credit constrained. In that case, domestic supply of non-tradable goods (services) could be below demand (hence, creating local inflationary pressure).

Domestic banks maximize financial profit by increasing their loans to domestic firms until their marginal yield (on domestic loans) equals their marginal funding cost (comprising an estimate of their risks). However, local banks’ supply of additional loans could be further constrained, if for example the sum of all outstanding stocks of loans is above the ceiling set by the central bank for credit growth, and/or if the central bank’s prudential regulations are violated.

Foreign banks maximize financial profit by lending to exporters until their marginal yield equals their marginal funding cost (given their foreign nature and size vis-à-vis the local market, foreign banks have no binding constraint on their lending). In addition foreign banks can increase their net worth by investing in the local stock exchange

In such an environment, firms’ stock market value and banks’ net worth rise continuously and are ultimately determined by the exogenous demand for the country’s exports. One way to interpret a “Japan Inc.” model under such a framework is to observe that institutional setup ensures precisely that exporters get regular supply of credit and that domestic producers received also a steady and regular supply of credit together with other incentives and demand boosting programs. Under this model, the local regulatory authority ensures that there were sufficient guarantees to avoid any volatile behavior by suppliers of credit.

In addition, the coexistence of a strong export sector with a buoyant domestic economy is a recipe for significant improvements in the productivity of (domestic and export) firms. That would reduce continuously firms’ marginal costs, allowing them to increase production markedly and meet both demand for export coming from the larger economy and demand of the local economy.

b) Perverse dynamics: the formation of a bubble driven by competition between banks

The virtuous dynamics above can turn progressively into a less pleasant one. Export success

brings more income to the local economy. That, plus domestic growth creates also more demand for local non-tradable goods. Domestic firms tend to increase production. There will be a pressure for higher investment. Binding credit constraints could produce delays or limits to new domestic investment and domestic production expansion. But eventually, the rising stock market value of firms meets banks' natural lending behavior and provides more headroom for new borrowing and new (over?) investment. Although not contemplated here, there could be repressed demand for non-tradable goods in specific sectors and hence pressure on local prices (commodities and also assets, etc.). The local domestic boom also improves the prospects of firms' profitability and accentuates the asset price bubble of firms' stocks.

In general, domestic banks are subject to imperfect information about local borrowers' financial health. This feature, in the context described above, is the main cause of the over-lending that results from this framework. Domestic banks will use firms' "perceived" market value (reflected in the stock exchange) to assess their borrowers' solvency. Until a certain point, that would be true, i.e. there would be no real discrepancy between "perception" and prices based on "fundamentals". However, a stock exchange (rational) bubble (e.g. an increase in the stock price of domestic firms beyond what is warranted by "fundamentals") is likely to emerge after a while, in such circumstances (Blanchard [1983]). Firms' market value becomes then "over-valued". But domestic banks do not necessarily perceive it as such. They continue to look at firms' market "face" value as a good proxy to make their loan decisions. Nor it is perceived as a problem by foreign banks: they observe only a high (and increasingly better) performance of their portfolio of equity assets. Since foreign and domestic banks do not necessarily share information, this stylized story describes how a simple imperfect (asymmetric) information assumption can explain much of the over-lending and over-borrowing by domestic banks and firms, without the recourse to Krugman's [1998] more sophisticated (but empirically dubious) "moral hazard" assumption.

The net worth of domestic banks also improves. Their balance sheets show an increase in outstanding loans to firms, which have increasing market value

because of the local domestic boom. Therefore, risk-weighted capital adequacy ratios (CARs) improve. At a given, unchanged, set of prudential rules, domestic banks can lend more. But the local export sector receives unlimited supply of loans from its foreign bank partners. This segment of the credit market does not need more credit. Hence, the existing headroom for new loans will be directed to the local domestic firms and then to other domestic banks as well. What is binding now is not anymore the local CARs but rather the central bank's grip on the growth of domestic credit. The domestic credit market has become a "buyer's market".

A perverse dynamics is triggered, as we shall see below, when the above mentioned buyer's market encounters the change in the adjacent economy's business cycle. So far, the foreign banks were passive distributors of credit to the local exporters. They also invested in the local stock market but their main role was to be the "main" or exclusive bank of exporters (the joint ventures). Now suppose for a moment that competing "new" foreign banks challenge the foreign banks' comfortable situation. Suppose that in the larger, adjacent economy, there is a downturn in the financial and business cycle and a reduction in the demand for loans there. That fall in demand triggers the need for a restructuring of the loan portfolio of banks there. New loans possibly with higher yields are now sought by banks there to replace the maturing (or defaulted) loans. Many banks there start looking for foreign countries, as a possible source for new demand for new loans. They will turn to the smaller adjacent economy. But there, they will find difficult to penetrate the credit market. The "old", established foreign banks lend to their traditional export partners. The "new" banks, the "newcomers", soon realize that it is difficult to break this relationship between well-established foreign banks in these markets and their good, long-standing traditional customers. There are informational mutual benefits between creditors and borrowers "married" in an old relationship that are difficult to offset even by offering good deals. So these newcomers will try to challenge the market position of all foreign banks altogether.

First, they will try to by-pass the strong relationship between foreign banks and their export clients. Second, they will try to gain market share

against the local domestic banks. But for that, they need full banking licenses, which are rationed. Hence, pressure on local Governments for opening up the domestic local banking sector increases. It also comes from domestic firms that want more credit but also from this second type of foreign banks.

The behavior of these new banks is different from that of their predecessors. They maximize long-term expected financial profit. They are ready to sustain initial losses, as a way to gain access to a very buoyant local credit market. They can, of course invest in the local stock exchange. But they want primarily to get a foot in the local credit market. Hence, they do “financial dumping”, i.e. they offer loans at a discount, to attract customers (exporters, domestic firms and other domestic banks) away from their old traditional banks. They also offer loans to firms that were previously excluded from the market because their risk was considered too high by other banks.

The new lending from these “newcomer” banks creates what we could call a “resonance” effect with the local credit cycle (see Chart 7), driven by the dynamics described above. It amplifies at an unwarranted moment (the moment where risky borrowers are getting cheap loans) the upswing resulting from the beginning of the financial “bubble”

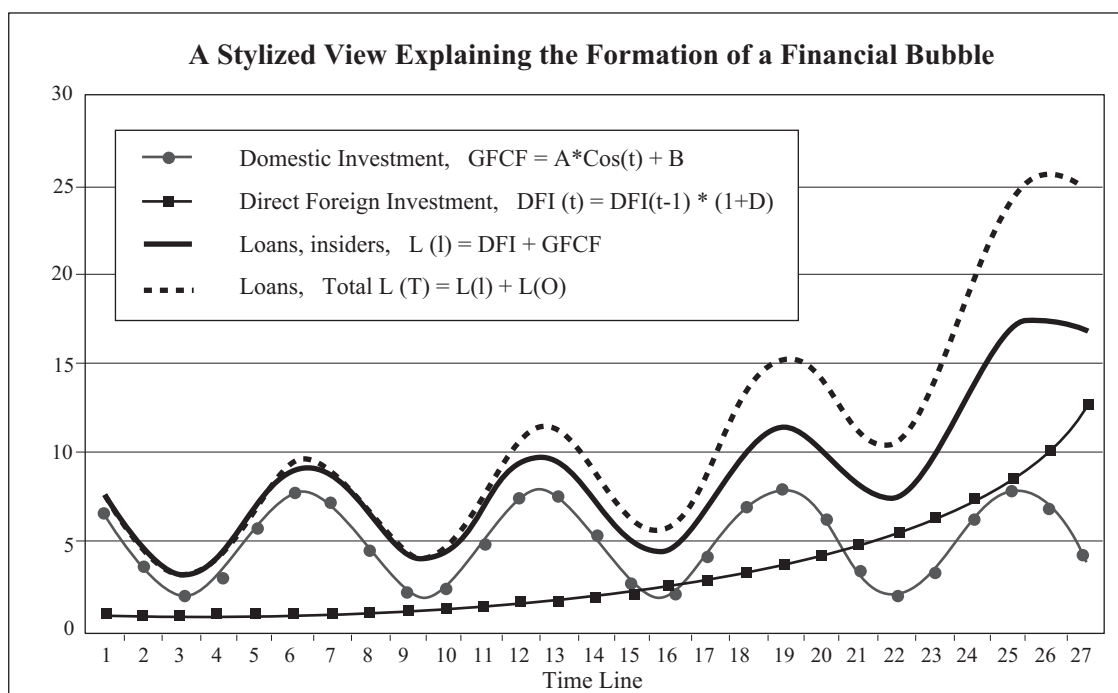
that was described earlier.

Eventually, the new foreign banks get full domestic banking licenses and start extending new lending to domestic firms that accentuates some of the trends described above. Newcomer banks also increase their portfolio exposure and purchase more equity in the domestic stock market. Firms’ stock market value jumps further. They borrow even more. Newcomers also start lending to local domestic banks, after pressure for liberalizing capital account and banking sector succeeds in a full opening up of the local capital account. Domestic banks and domestic firms borrow now directly in foreign exchange, and usually do not feel the need to hedge their currency risk.

Imports increase, given the strength of the local boom and the input requirements of the economy, thus deteriorating the balance-of-payments. But there is little concern initially for this imbalance. Apparently, everybody is better off and balance sheets of foreign, domestic banks and corporations are looking good. Banks’ net worth is high. Firms’ value is high. Earnings are high. Exports are also booming.

The key point here is that the trigger for this new (perverse) dynamics is the shock coming from the adjacent larger economy, where newcomer banks need

Chart 7



to enter a new credit market with a different maximization objective (e.g., long-term market share and not immediate financial profit subject to an evaluation of borrowers' risk).

c) Bust and credit crunch situations

One can think of a variety of triggers that can explain the bust. Let us list some of them.

First, the stock exchange channel. If there is a reversal of expectations, the equity market can suffer a severe downturn. That affects the "perceived" market value of domestic firms and hence it will affect their creditworthiness and later the perception of their financial health and solvency by all banks.

Second, the foreign exchange market. Asian currency crises featured prominently in the literature about the Asian crises but we can almost downplay their importance here, at least in the built-up of the local financial bubble. The fact that the exchange rate is fixed constitutes a story that runs in parallel to the developments in the domestic equity and credit markets. Naturally, the pegged (or fixed) exchange rate is an important element in portfolio investment decisions by borrowers and creditors. But one can assume a standard story of a simple first generation model of currency crisis, a la Krugman [1979] applying here. What matters is actually the balance sheet effect of the abrupt change that the foreign exchange crisis caused on the solvency of banks and corporations in the domestic economy, once the crisis started. The trigger for a crisis is the perception of the unsustainability of the foreign exchange regime, which increases risk perception by banks. When expectations change, banks will shift their behavior and recall loans.

Third, there is a change in the demand for exports in the larger adjacent economy. Thus, export income falls and so does domestic demand in the smaller economy. Profits in the domestic service economy fall as a result. The newcomers withdraw part of their loan exposure.

These three channels result in a change in the lending behavior of foreign and domestic banks. For example, when the local stock market collapses, so does the market value of firms listed there. Hence, banks will realize that domestic firms could be

insolvent and will try to cut their exposure. When domestic firms had borrowed in foreign exchange from foreign banks, their balance sheet situation becomes even worse after the depreciation of the local currency.

There is an overall contraction of credit. Because of panic and asymmetry of information, credit is cut across the board to all borrowers alike, whether they are solvent (like exporters) or not (like real estate contractors).

4. COMPARING THE EMPIRICAL EVIDENCE

4.1 Testing the Moral Hazard (MH) and Herd Behavior (HB) Stories

Although the MH story contains plausible elements and certainly elements of truth, it was not rigorously tested with data by neither Krugman, Chinn and Kletzer, Moreno nor others. The main reason is that the idea of an "implicit" guarantee is related to investors' expectations. It is a variable that is difficult to identify, specify and measure when the decision is taken. Ex-post yields on loans do not provide a proper measurement of the ex-ante expected return that motivated the decision, even when they are adjusted for the risk perception that prevailed at that moment in time. Hence, the theoretical appeal of the MH story faces difficulties when it comes to empirical confirmation. Demetriades P. and Fattouh B. [2000] in the context of Korea, model a long-run demand for credit that allows them to estimate an "excess" supply of "unproductive" loans using modern econometric techniques (cointegration). But the connection with "over-lending" and "over-borrowing" is obvious but by itself, it does not confirm the MH assumption.

On the other hand, testing the HB story is also difficult because of the lack of proper breakdown in the available time series of international bank lending. Ideally, one should conduct Granger-causality tests of HB for groups of banks (the "traditional" main banks and the "newcomers"). The BIS database focuses on the country of destination and lumps data by category of flow and not by country of origin. At

best, the statistics available with some central banks of the G-7 (Japan's BoJ for example) present gross international bank lending by country of origin and destination of flows. In order to test the HB assumption, one would need international lending by groups of banks and by country of origin and destination. Second, time-series should be long enough to enable testing for Granger-causality by groups of banks (which could belong to several countries of origin).

A second best way of testing the HB hypothesis was done by Pereira da Silva and Yoshitomi [2000]. They conduct simple time-series econometric testing of the relative strength of two classes of loan supply models that can explain Japanese lending to East Asia. First they test the MH assumption with a loan supply function. If the MH assumption holds, the Japanese lending to each of the emerging markets in East-Asia should be strongly influenced by relative risk factors, i.e. relative (Japan vis-à-vis recipient country) macro financial variables (return on the loan corrected by exchange-rate volatility). Then, they test a loan supply function where "institutional" factors are added. In this case, lending is rather influenced by Japanese DFI and credit growth. The statistical quality of the two approaches is compared. Individual country time-series and panel estimations are performed in the two classes of loan supply models and compared. The results confirm the greater importance of demand and institutional factors over "risk" and "yields". Their ranking by statistical significance puts demand variables first. Relative (Japan versus recipient country) credit expansion and Japanese DFI have stronger effects on Japanese lending than relative yields and/or risk. However, yields based on bank lending rates (e.g., interest rate differentials) are nevertheless statistically significant. These results suggest that bank lending would be more influenced by expected market growth (something associated with DFI and credit in our alternative stylized story) than by risk-mitigating factors (risk-adjusted return like in the MH assumption).

That result also increases the probability of lending booms and over-lending, even when central banks react to an emerging credit bubble by rising discount rates and/or when credit rating agencies

down-grade countries. For example, when recipient countries tighten their monetary stances in order to reduce the likelihood of local credit bubbles, they might be in fact contributing to an increase in foreign bank loans. This is consistent with the observed difficulties experienced by countries trying to manage large capital inflows. Similarly, when recipient countries tighten policies and improve their "relative" country risk vis-à-vis a major emission country, the end-result paradoxically would be an increase in capital inflows which eventually leads to a local credit bubble.

4.2 Results of the Qualitative Questionnaire to Japanese Banks

Another way to test our stylized model is to use qualitative inquiries. In recent years, qualitative questionnaires have been made to clarify the lending behavior of private commercial banks with significant international operation.

a) Answers from BIS reporting banks

For instance, the BIS [1998] investigated the behavior of private commercial banks and interviewed about 50 international banks. The answers can help to test the validity of the MH hypothesis which uses the stability of the foreign exchange regime as an indication of an "implicit guarantee" by local Governments. This assumption is an extension of a standard case linking over-lending to moral hazard in local credit markets (the Krugman argument). Chinn and Kletzer [1999] argued that financial crisis arise because local banks over-lend when domestic Governments provide implicit guarantees on loans to their private sector. Moreover, they continue suggesting that currency and local financial crises are linked because local Governments –through their commitment to a pegged exchange rate– also provide an "implicit guarantee" to foreign creditors. That, in turn, makes foreign creditors extend also foreign loans in excess to domestic borrowers. This second part is hard to confirm from the banks' answers.

Many banks acknowledged that the Asian crises made them revise their own definition and perception of country risk. "Before the Asian crisis, risk was typically associated with transfer risk: the risk of

government actions involving restrictions on capital movements or currency convertibility. The crisis has highlighted the need to enlarge this definition to include the credit risk associated with non-payment by private sector institutions due to macroeconomic developments”.

Many banks also agreed that they underestimated risk by an over-reliance on the past volatility of the Asian countries foreign exchange markets, particularly in countries where there had been a history of intervention. Banks agree also that their “monitoring systems had sometimes not given them sufficient warning system to arrange for an exit from the country risk exposure”. However, there is no mention of a reliance on or a even an influence of a local Government “implicit guarantee” as an insurance policy against possible losses of their exposure to East-Asian countries.

b) Answers from Japanese banks

Finally, our own research used a different empirical investigation of the determinants of Japanese lending, also using a qualitative questionnaire, specially designed for this purpose. We addressed (confidentially) a set of 13 qualitative questions to the major Japanese banks²⁴ in January-February 2000. We asked the banks to assess the motivations behind their lending during several critical periods (the 1980s, the period preceding the Asian crisis –1990 to 1996–, the crisis period itself –1997 and 1998– and the post-crisis period). Questions were asked in different ways in order to check for the consistency of the answers.

We were also seeking an indication of whether Japanese bank lending to East-Asian countries was motivated by institutional (e.g., regulations, guarantees, etc.) or rather by macro and financial factors either domestic (Japanese) or foreign (East-Asian). For example, did guarantees provided by the public sector and its direct lending play a role in the decision-making process of Japanese banks and corporations? Did they facilitate the extension of

loans by providing “comfort” to lenders”? Alternatively, did “herd behavior” and fierce competition for market shares and bank licenses between foreign banks in East-Asia play the most important role?

The answers from the questionnaire confirm several of our hypotheses about the motivations behind the growth of Japanese loans to East-Asian countries:

Japanese banks were fully aware that there was an “excessively rapid growth” of their exposure to East Asia (Question 1). 78% of Japanese City banks acknowledge that their exposure was growing too fast during the period 1990-1996, compared to only 11% during the previous decade (the 80s), where about 44% respond that their exposure was either growing too slow or at the right speed. Interestingly enough, during the year 1997, bank responses are equally divided between those thinking that exposure is growing too fast (33%), too slow (33%) or at about the right speed (33%), showing that it was probably difficult to read market trends and differentiate between clients when the crisis broke. Finally, in the immediate aftermath of the crisis, none of the Japanese City banks (0%) believe anymore that their exposure was growing too fast. In fact, 67% of them think that their activities were proceeding at about the right speed.

Throughout the 1980s, the 1990s, during the 97-98 crisis and after, keeping with the tradition of the “Main Bank” model, Japanese banks in East Asia were primarily lending to their own affiliates and subsidiaries in each country (Question 2). However, during the 1980s, this preferred activity (which scored a 2.1 in a scale from 1 to 10) was followed by lending to other affiliates of G-7 based commercial banks and foreign joint-ventures (scoring respectively a 3.6 and 3.8). Loans to local banks and corporations followed a relatively distant fourth and five with respectively 4.6 and 5.0. It is interesting to observe that, although

24 Our Qualitative Questionnaire was sent to the 2 major public sector financial institutions, all 9 City banks, 1 Long-Term Credit Bank (LTCB), all 7 Trust banks and 10 Regional banks. Questionnaires were sent in January - February 2000. We got back answers from 9 out of 9 City banks, 1 LTCB, 5 Trust banks and 2 Regional banks, reflecting banks’ perceptions during the 1997-98 crisis. The individual answers came between March and April 2000. They are confidential but the totals are computed and shown.

Answers by Japanese Citibanks (9) to the Qualitative Questions (13 in total)

Question 1: About the Growth of Your Institution's Exposure to East-Asia

In your opinion, during the following periods, your institution's exposure to East-Asia was:	Respondants	9	9	6	3
	Example: During the 70s	During the 80s	1990-96	During 1997	After the crisis (98-99)
Growing too fast	<input type="text"/>	<input type="text" value="11%"/>	<input type="text" value="78%"/>	<input type="text" value="33%"/>	<input type="text" value="0%"/>
Growing too slowly	<input type="text" value="X"/>	<input type="text" value="44%"/>	<input type="text" value="11%"/>	<input type="text" value="33%"/>	<input type="text" value="33%"/>
Growing at about the right speed	<input type="text"/>	<input type="text" value="44%"/>	<input type="text" value="11%"/>	<input type="text" value="33%"/>	<input type="text" value="67%"/>

Please mark your answer with an (X) in the adequate cell

Question 2: About Ranking Your Main Activities in East-Asia

In your opinion, what were the main activities of your institution in East-Asia during the following periods:

*Please give a rank for the following activities for each period:
(from one(1)=most preferred till ten(10)=least preferred)*

	Example: During the 70s	During the 80s	1990-96	During 1997	After the crisis (98-99)
Buying East-Asian Government & public sector debt securities	<input type="text" value="2"/>	<input type="text" value="6.8"/>	<input type="text" value="6.1"/>	<input type="text" value="7.0"/>	<input type="text" value="7.5"/>
Buying East-Asian private sector debt securities	<input type="text" value="1"/>	<input type="text" value="8.6"/>	<input type="text" value="7.6"/>	<input type="text" value="8.3"/>	<input type="text" value="8.8"/>
Taking equity participation in local private corporations	<input type="text" value="6"/>	<input type="text" value="8.1"/>	<input type="text" value="7.5"/>	<input type="text" value="8.3"/>	<input type="text" value="8.6"/>
Buying private sector stocks in local stock markets	<input type="text" value="4"/>	<input type="text" value="9.4"/>	<input type="text" value="9.0"/>	<input type="text" value="9.3"/>	<input type="text" value="9.5"/>
Lending to G-7 based commercial banks subsidiaries in East-Asia	<input type="text" value="3"/>	<input type="text" value="3.6"/>	<input type="text" value="3.1"/>	<input type="text" value="3.6"/>	<input type="text" value="3.4"/>
Lending to your own institution's own affiliates/subsidiaries in East-Asia	<input type="text" value="5"/>	<input type="text" value="2.1"/>	<input type="text" value="2.4"/>	<input type="text" value="2.6"/>	<input type="text" value="2.3"/>
Lending to local commercial banks in East-Asia	<input type="text" value="8"/>	<input type="text" value="4.6"/>	<input type="text" value="4.0"/>	<input type="text" value="5.0"/>	<input type="text" value="5.0"/>
Lending to other foreign joint-ventures or their affiliates in East-Asia	<input type="text" value="7"/>	<input type="text" value="3.8"/>	<input type="text" value="3.3"/>	<input type="text" value="3.9"/>	<input type="text" value="4.4"/>
Lending to local East-Asian corporations & local customers	<input type="text" value="9"/>	<input type="text" value="5.0"/>	<input type="text" value="3.4"/>	<input type="text" value="4.4"/>	<input type="text" value="5.9"/>
Any other activity (please specify): Mergers & Acquisitions	<input type="text" value="10"/>	<input type="text" value="4.5"/>	<input type="text" value="4.5"/>	<input type="text" value="5.5"/>	<input type="text" value="5.5"/>

the rankings were not altered during the 1990-96 boom period, the “preference distance” between lending to G-7 companies and local ones (both firms and banks) narrowed significantly down to scores of 4.0 and 3.4 respectively, making these activities almost “as good as” lending to foreign commercial banks (3.1) or foreign joint-ventures (3.3). Naturally, the picture changes during the 1997 crisis period, with scores for lending to locals jumping by 1 point altogether. Interestingly enough, the preference score for lending to local banks stayed at an average 5.0 after the crisis while the score for lending to local corporations continued to worsen down to 5.9 in 1998-99, showing the degradation in corporate sector perceived creditworthiness despite the presence of the IMF Stand-By Arrangements. Finally, it is also worth noting that portfolio investment scored low in the preferences of Japanese banks throughout the period 1980s till 1999: from 6.0 to 7.0 for public and private sector debt-securities down to 7.5 to 9.0 for private sector direct equity or listed stocks.

Throughout the 1980s, the boom period of the 1990s, Japanese banks in East Asia stood by the market consensus view about the relative low risk of East Asian local corporations and banks (Question 3). In particular, during the 1990-96 boom period they never considered that local corporate and banking sector risk was becoming “High” in Thailand, Malaysia or Korea. In fact, Thailand’s risk was considered “Moderate” by 89% of Japanese banks in the 1980s. This “Moderate” risk score went even further down to 67% during the 1990-96 period when 33% of banks even considered Thailand as a “Low” risk category. Similar “reassuring” ratings can be observed for both Korea and Malaysia when one looks at their risk scores for these two periods. Naturally, corporate and bank risk in the Philippines had been always perceived to be higher than in other East Asian countries and it is also true that Indonesia’s risk was also perceived to be “High” in 1990-96 by 11% of Japanese banks. It is also true that for other countries (Singapore, Hong-Kong, China and Japan), the market consensus view proved quite correct. However, it should be noted that the answers do point to an under-estimation of corporate and bank risk that appears to

be widespread across lenders of all origins. These assessments were commonly shared by many banks despite mounting evidence of the accumulation of foreign-currency denominated liabilities. In particular, Japanese banks despite and effort to lend in Japanese Yen (to Korea and China essentially), were conducting throughout the 1980s, 1990s and now all their operations with East Asia in US dollars.

Japanese banks’ perception of corporate and banking sector risk was also vulnerable to contagion during the year of the crisis (1997) and after (1998-99) (Question 3). Whereas 0% of Japanese banks ranked Korea as “High” risk throughout the 1980s and in 1990-96 this score suddenly jumped to 44% in 1997. The same sudden shift in risk perception occurred for Malaysia and Thailand and to some extent Indonesia. Nonetheless, despite these indications suggesting contagion, during the 1980s and the 1990-96 period, Japanese banks perception of corporate and banking sector risk was primarily determined by the borrower’s financial situation scoring 2.3 in a scale from 1 to 13 (Question 4). This element was followed by the recipient country’s fundamentals and the solvency of the sovereign (scoring 4.7 and 4.9 respectively). Private agencies’ ratings played only a secondary role (score of 6.2). Borrowers with special ties (the Main Bank hypothesis) with the Japanese lender did not get special attention and Japanese banks did rank these borrowers’ ties (score of 5.6) as relatively unimportant and comparable to the local legal and institutional framework. Interestingly enough, among the least important elements for determining the risk assessment of Japanese banks were statements by multilateral institutions and private information coming from peers (scoring 7.1 and 8.4) as well as the recipient country’s financial sector health (scoring 7.3) and political situation (scoring 7.9). It is also worth noting that the relative weight of these factors was not changed after the outbreak of the crisis, with one exception: the legal and institutional framework in the recipient country became a more important element of Japanese banks’ risk perception (scoring a 4.8 instead of 5.9).

Question 3: About Your Institution's Perception of Corporate and Banking Sectors Risks in East-Asia

In your opinion, during the following periods, your institution's perception of corporate and bank risk for the following countries, was:

Please mark with an (X)
the relevant cell:

	During the 1980s:			During 1990-96:			During 1997			During 1998-1999		
	Low Risk	Moderate Risk	High Risk	Low Risk	Moderate Risk	High Risk	Low Risk	Moderate Risk	High Risk	Low Risk	Moderate Risk	High Risk
<i>Banks and Corporations in:</i>												
Korea	33%	67%	0%	56%	44%	0%	22%	33%	44%	0%	89%	11%
Malaysia	22%	78%	0%	22%	78%	0%	22%	56%	22%	0%	78%	22%
Thailand	11%	89%	0%	33%	67%	0%	22%	44%	33%	0%	44%	56%
Indonesia	11%	44%	44%	11%	78%	11%	0%	38%	63%	0%	0%	100%
The Philippines	0%	13%	88%	11%	56%	33%	0%	38%	63%	0%	50%	50%
China PR	11%	78%	11%	0%	100%	0%	0%	75%	25%	11%	22%	67%
Hong-Kong SAR	88%	13%	0%	75%	25%	0%	50%	50%	0%	67%	33%	0%
Singapore	89%	11%	0%	89%	11%	0%	89%	11%	0%	89%	11%	0%
Taiwan	78%	22%	0%	89%	11%	0%	78%	22%	0%	67%	33%	0%
Other countries in Emerging Asia	0%	14%	86%	0%	17%	83%	0%	17%	83%	0%	0%	100%
Japan	89%	0%	11%	86%	14%	0%	75%	0%	25%	75%	13%	13%

During the following periods, lending from your institution to banks and corporations in the following countries, was predominantly in:

	During the 1980s:			During 1990-96:			During 1997			During 1998-1999		
	US dollar	Japan Yen	A Europ. Curren.	US dollar	Japan Yen	A Europ. Curren.	US dollar	Japan Yen	A Europ. Curren.	US dollar	Japan Yen	A Europ. Curren.
Korea	89%	11%	0%	89%	11%	0%	89%	11%	0%	89%	11%	0%
Malaysia	100%	0%	0%	100%	0%	0%	100%	0%	0%	89%	11%	0%
Thailand	100%	0%	0%	100%	0%	0%	100%	0%	0%	89%	11%	0%
Indonesia	100%	0%	0%	100%	0%	0%	100%	0%	0%	89%	11%	0%
The Philippines	100%	0%	0%	100%	0%	0%	100%	0%	0%	89%	11%	0%
China PR	89%	11%	0%	89%	11%	0%	89%	11%	0%	89%	11%	0%
Hong-Kong SAR	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Singapore	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Taiwan	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Other countries in Emerging Asia	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Emerg. Markets	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%

If there were specific lending in other currency, please specify when, where and what type: no reports of other currency lending

Question 4: About Ranking the Elements Determining your Institution's Risk Assessment

In your institution, during the following periods, for the purpose of assessing banks and corporates risk in East-Asian countries (hereby "the recipient country")

the following elements were considered important (by rank):
 Please give a rank for the following elements for each period:
 (from one(1)=most important till thirteen (13)= least important

Example:

During the 1970s During the 1980s: During 1990-96: During 1997 After the crisis (98-99)

The recipient country's legal framework for depositors' protection, bankruptcy, liquidation of assets, etc.

2

5.8

5.9

4.8

5.2

Statements and assessments by the IMF & the World Bank about the recipient country

5

6.6

7.1

6.3

6.0

Private rating agencies (S&P and Moody's) ratings and statements

6

6.5

6.2

7.1

7.1

Informal conversations with other private financial institutions, like commercial banks, etc.

7

7.9

8.4

9.3

9.3

Recipient country's market potential measured by growth of GDP, consumption, exports, etc.

8

6.1

5.9

6.8

7.0

Stability of the recipient country's exchange rate policy like its administered exchange rate regime.

10

6.8

6.8

5.9

6.6

Recipient country's macroeconomic fundamentals like inflation, fiscal deficit, domestic debt, etc.

11

5.4

4.9

5.6

5.4

Recipient country's financial sector health measured for ex: by the amounts of non-performing loans, etc.

9

7.1

7.3

6.1

5.8

Recipient country external solvency measured by its trade, current account, external debt, reserves, etc.

4

5.4

4.7

3.9

3.2

Your client (borrowers) financial situation measured by balance sheets, profit & losses, liabilities, etc.

1

2.5

2.3

2.3

2.3

Your client (borrower) is a affiliated company of your own institution or of another corporation or financial entity in your home country (e.g., a joint venture in the recipient country)

3

5.1

5.6

6.9

7.2

Miscellaneous political & social factors like the recipient country's political stability, social cohesion, etc.

12

7.8

7.9

6.9

6.4

Any other element or criteria (if any), please specify: NONE

13

Question 5: About the Quality and Availability of Information for Your Institution

Please mark from the list of elements below which elements were known to your institution and how you assessed the quality of this information when your institution was investing in East-Asia:

Please mark the relevant cell with an (X)

Information about your client's (the Borrower) financial situation in the recipient country in East-Asia:

Balance sheets of borrower
Reported Profits/Losses
Total Borrowings
Domestic borrowings
External borrowings (in foreign exchange)
Consolidated (subsidiaries of borrower) and contingent liabilities
Short-term (less than one year) foreign exchange liabilities
Quality of management of borrower

	Before the Crisis (from early 1990s till 1996)						After/During the Crisis (1997-1998)					
	Availability of Information:			Assessment of Quality of Information			Availability of Information:			Assessment of Quality of Information		
	Yes 90-100%	Partial about 50%	No close 0%	High	Medium	Low	Yes 90-100%	Partial about 50%	No close 0%	High	Medium	Low
Balance sheets of borrower	88%	13%	0%	0%	88%	13%	88%	13%	0%	0%	100%	0%
Reported Profits/Losses	88%	13%	0%	0%	88%	13%	88%	13%	0%	0%	100%	0%
Total Borrowings	88%	13%	0%	0%	100%	0%	88%	13%	0%	0%	100%	0%
Domestic borrowings	63%	38%	0%	0%	75%	25%	75%	25%	0%	0%	75%	25%
External borrowings (in foreign exchange)	75%	25%	0%	13%	75%	13%	88%	13%	0%	13%	75%	13%
Consolidated (subsidiaries of borrower) and contingent liabilities	25%	75%	0%	0%	75%	25%	38%	63%	0%	0%	88%	13%
Short-term (less than one year) foreign exchange liabilities	50%	50%	0%	13%	75%	13%	63%	38%	0%	13%	75%	13%
Quality of management of borrower	13%	75%	13%	0%	88%	13%	25%	75%	0%	0%	88%	13%

Information about the recipient country's financial sector:

Central bank supervision rules vis-à-vis local commercial banks
Loans from public sector to troubled local financial institutions
Existence of local deposit insurance schemes
Non-performing loans of local commercial banks
Capital Adequacy Ratios of local commercial banks
Interest rate structure, spreads and premiums in local markets

Central bank supervision rules vis-à-vis local commercial banks	56%	44%	0%	11%	67%	22%	89%	11%	0%	22%	78%	0%
Loans from public sector to troubled local financial institutions	22%	67%	11%	0%	67%	33%	33%	67%	0%	0%	89%	11%
Existence of local deposit insurance schemes	22%	44%	33%	0%	56%	44%	33%	56%	11%	11%	56%	33%
Non-performing loans of local commercial banks	11%	56%	33%	0%	44%	56%	22%	67%	11%	0%	67%	33%
Capital Adequacy Ratios of local commercial banks	22%	56%	22%	0%	44%	56%	33%	56%	11%	0%	78%	22%
Interest rate structure, spreads and premiums in local markets	56%	33%	11%	0%	89%	11%	67%	33%	0%	0%	100%	0%

Information about the recipient country's external repayment capacity:

Trade balance
Current account balance
External debt stock
Scheduled repayments on external liabilities
Level of International Reserves
Contingent foreign exchange liabilities (ex: forward forex contracts)

Trade balance	100%	0%	0%	11%	89%	0%	100%	0%	0%	33%	67%	0%
Current account balance	100%	0%	0%	11%	89%	0%	100%	0%	0%	33%	67%	0%
External debt stock	78%	22%	0%	11%	78%	11%	89%	11%	0%	33%	56%	11%
Scheduled repayments on external liabilities	67%	22%	11%	0%	89%	11%	78%	22%	0%	11%	78%	11%
Level of International Reserves	89%	11%	0%	11%	89%	0%	100%	0%	0%	33%	67%	0%
Contingent foreign exchange liabilities (ex: forward forex contracts)	56%	11%	33%	0%	67%	33%	67%	11%	22%	11%	67%	22%

Information about the recipient country's economic and political situation:

GDP, production growth
Prices, wages, other costs
Public finance situation
Stock of domestic public debt
Corporations financial strength
Political situation

GDP, production growth	100%	0%	0%	11%	89%	0%	100%	0%	0%	33%	67%	0%
Prices, wages, other costs	78%	11%	11%	11%	78%	11%	78%	11%	11%	22%	67%	11%
Public finance situation	78%	22%	0%	11%	89%	0%	78%	22%	0%	22%	78%	0%
Stock of domestic public debt	78%	11%	11%	0%	78%	22%	78%	11%	11%	11%	67%	22%
Corporations financial strength	22%	56%	22%	0%	56%	44%	33%	44%	22%	11%	56%	33%
Political situation	78%	22%	0%	11%	89%	0%	78%	22%	0%	22%	78%	0%

Japanese banks' had access to a fair amount of sovereign, corporate and banking sector data in order to assess their borrowers' risk (Question 5). For example, the information about the recipient country's macro fundamentals and repayment capacity is generally seen as available and of reasonable quality by the vast majority (75% to 88%) of Japanese banks. Also, before the crisis, the main elements of the borrowers' financial situation (balance sheets, profit and loss account, total borrowings) were available to roughly 88% of Japanese lenders. However, some key and more elements (consolidated accounts with subsidiaries, contingent liabilities and short-term component of foreign liabilities) revealed by the crisis as very important to assess the borrowers' risk were only available partially. Naturally, availability did not mean necessarily quality: roughly 90% of Japanese banks report that information was of medium quality. The main weakness noticed by Japanese banks concerns the country's financial system. Only roughly a relatively small fraction of Japanese banks (22%) report that information about the financial regulatory framework (central bank supervision, capital adequacy ratios, deposit insurance mechanisms) was fully available to lenders. Even less Japanese banks (11%) report that non-performing loans of local commercial banks were fully displayed. Indeed, it appears that some key early warning indicators of financial fragility were not available: in particular, 33% of Japanese banks report having no information about contingent foreign exchange liabilities. Finally, it appears that both the availability and quality of information improved after the outbreak of the crisis. In particular, the key elements of fragility that were overlooked became more available (for example, NPLs) and more reliable.

Japanese banks' lending to East Asia was essentially influenced by long-term market growth considerations (Question 6). During the 1980s and the 1990-96 boom period, 63 to 88% of Japanese banks state that "stable and high GDP growth" exerted a strong influence on their lending decisions. 50% and 38% respectively also state that the need to "gain market shares" as strongly influencing their lending. But 75% of Japanese banks recognize also that, during these periods, the ties between them and local

subsidiaries of G-7 based corporations – a feature related to the "Main Bank" framework – strongly influenced their lending. Many factors had a "Moderate" influence on Japanese bank lending to East Asia. Among them, the strongest group of factors is the potential role of international institutions in case of a crisis. But other factors like "sound macro fundamentals" and "adequate local regulatory framework" also scored very high as influencing "moderately" Japanese bank lending. Finally, there are only few factors that had "No" influence on Japanese bank lending during this period but they are worth noting. In particular, 63% of Japanese banks state that during the 1980s and the 1990-96 boom period, their lending was not influenced by neither the perception of a local deposit insurance mechanism, nor their perception of an "implicit" guarantee by local Governments to depositors or creditors. In a nutshell, this answer reveals that the argument explaining much of the Asian Crises through "Moral Hazard" do not seem to be confirmed by Japanese banks' behavior. Finally, it is also interesting to note that these influences behind Japanese lending behavior did not change significantly after the outbreak of the crisis. What happened was simply that more importance (in lending decision) was given to crisis resolution mechanisms (such as the role of international institutions) together with the local regulatory framework.

Like many financial institutions, the decision-making process in Japanese banks favored the "asset" side of banks vis-à-vis their "liability" side (Question 7). Throughout the boom period, the role of loan departments overpowers that of the "risk analysis" departments. It is only after the outbreak of the crisis that this is reversed. During the 1980s and the 1990-96 period, the key role in lending decisions was played by the bank's local branch in conjunction with the Board and the Head Office Loan (geographical) department. About two thirds of Japanese banks report the role of these three internal actors as key when banks' activities increase. During booms, even the role of "Research" or "Risk-Analysis" departments is cited as key to increase lending by 63% of Japanese banks. During the 1980s and 1990-96 period, due to their culture of consensus, two-thirds

Question 6: About What Influenced Your Institution's Overall Investment Decisions in East-Asia

During the following periods, please characterize how the following elements influenced your institution's investment decisions into East-Asia:

Please mark the relevant cell with an (X)

	During the 1980s:			During 1990-96:			During 1997			After the crisis (98-99)		
	Degree of Influence:			Degree of Influence:			Degree of Influence:			Degree of Influence:		
	None	Moderate	Strong	None	Moderate	Strong	None	Moderate	Strong	None	Moderate	Strong
<i>The existence of guarantees offered by recipient country's Gov.</i>												
Local Deposit Insurance Corporation (DIC)	63%	38%	0%	50%	38%	13%	50%	38%	13%	38%	38%	25%
Implicit guarantee by Government to depositors	63%	38%	0%	50%	38%	13%	50%	38%	13%	50%	38%	13%
Implicit guarantee by Government to creditors	63%	25%	13%	63%	25%	13%	50%	38%	13%	50%	25%	25%
Any other guarantee (please specify): _____												
<i>The sound macroeconomic policies followed by East-Asian countries</i>												
Sound public finance (low public deficits and low public debt)	13%	88%	0%	0%	75%	25%	0%	75%	25%	0%	50%	50%
Sound monetary policy (low real interest rate, easy credit)	13%	75%	13%	0%	63%	38%	0%	63%	38%	0%	25%	75%
Stable and high GDP growth	0%	38%	63%	0%	13%	88%	0%	50%	50%	0%	63%	38%
High level of international reserves	0%	63%	38%	0%	38%	63%	0%	13%	88%	0%	25%	75%
Commitment to a pegged exchange Rate policy	0%	86%	14%	0%	57%	43%	0%	86%	14%	14%	71%	14%
<i>The existence of an international mechanism of "lender of last resort" and high likelihood of support in case of a crisis</i>												
Likelihood of support by the International Monetary Fund	0%	88%	13%	0%	88%	13%	0%	75%	25%	0%	50%	50%
Same by other multilateral institutions (World Bank, ADB)	0%	88%	13%	0%	88%	13%	0%	88%	13%	0%	63%	38%
Likelihood of official G-7 Govts. support in case of crisis	13%	75%	13%	13%	75%	13%	0%	75%	25%	0%	63%	38%
<i>The existence of local mechanism of "lender of last resort" and high likelihood of support in case of a crisis</i>												
Likelihood of support by the country's central bank to banks	13%	63%	25%	13%	63%	25%	13%	63%	25%	13%	50%	38%
Likelihood of local private banks helping each other	25%	75%	0%	13%	75%	13%	13%	75%	13%	13%	63%	25%
<i>The local regulatory environment and prudential rules and high likelihood of its well-functioning in case of a crisis</i>												
Adequate, sound local prudential rules	25%	75%	0%	13%	75%	13%	13%	50%	38%	13%	38%	50%
Adequate local regulatory and legal environment	13%	88%	0%	0%	88%	13%	0%	63%	38%	0%	50%	50%
Adequate local bankruptcy rules	25%	75%	0%	13%	75%	13%	13%	75%	13%	13%	63%	25%
<i>Specific issues like</i>												
Slow-growing home (G-7) markets for equity and credit	38%	50%	13%	38%	50%	13%	38%	38%	25%	38%	38%	25%
Need to gain market shares in international banking business	13%	38%	50%	13%	50%	38%	25%	63%	13%	25%	63%	13%
Guarantees by G-7 parent companies to their local joint-ventures	0%	25%	75%	0%	25%	75%	0%	63%	38%	0%	63%	38%
Guarantees by affiliate cics. to their own local suppliers	25%	50%	25%	25%	50%	25%	13%	63%	25%	13%	63%	25%
<i>The information available about the recipient countries and their political and social environment</i>												
Good economic and financial information	0%	75%	25%	0%	75%	25%	0%	75%	25%	0%	75%	25%
Political stability in recipient countries	0%	63%	38%	0%	63%	38%	0%	50%	50%	0%	50%	50%
Good relationship with local political leadership	25%	63%	13%	25%	63%	13%	25%	63%	13%	25%	63%	13%

Question 7: About your Institution's Decision-Making Process

Please mark the relevant cell with an (X)

In your opinion during the following periods, and for the following decisions please mark your perception of the degree of responsibility of the following departments:

Increasing exposure to East-Asia
 Research or Risk-Analysis Department of your institution
 Headquarters Operational Loan department
 Headquarters Fixed Income department
 Headquarters Equity department
 Local branch of your institution (in East-Asian countries)
 Board, CEO office, top management, etc.

During the 1980s:
 Degree of Responsibility:
 Key Minor None

38%	50%	13%
63%	38%	0%
25%	50%	25%
25%	38%	38%
75%	25%	0%
63%	38%	0%

During 1990-96:
 Degree of Responsibility:
 Key Minor None

25%	63%	13%
63%	38%	0%
38%	38%	25%
38%	25%	38%
100%	0%	0%
63%	38%	0%

During 1997
 Degree of Responsibility:
 Key Minor None

38%	50%	13%
50%	50%	0%
13%	63%	25%
13%	50%	38%
50%	50%	0%
50%	50%	0%

After the crisis (98-99)
 Degree of Responsibility:
 Key Minor None

50%	38%	13%
38%	50%	13%
13%	50%	38%
13%	38%	50%
38%	50%	13%
38%	50%	13%

Reducing exposure to East-Asia
 Research or Risk-Analysis Department of your institution
 Headquarters Operational Loan department
 Headquarters Fixed Income department
 Headquarters Equity department
 Local branch of your institution (in East-Asian countries)
 Board, CEO office, top management, etc.

During the 1980s:
 Degree of Disagreement:
 None Moderate Strong

25%	75%	0%
38%	63%	0%

During 1990-96:
 Degree of Disagreement:
 None Moderate Strong

50%	38%	13%
38%	63%	0%

During 1997
 Degree of Disagreement:
 None Moderate Strong

50%	25%	25%
38%	50%	13%

After the crisis (98-99)
 Degree of Disagreement:
 None Moderate Strong

43%	14%	43%
71%	29%	0%

In your institution, during the following periods, how would you characterize the degree of disagreements for the following decisions:

Increase exposure to East-Asia
Reducing exposure to East-Asia

During the 1980s:
 Degree of Disagreement:
 None Moderate Strong

50%	0%	50%
56%	0%	44%

During 1990-96:
 Degree of Disagreement:
 None Moderate Strong

50%	14%	36%
69%	0%	31%

During 1997
 Degree of Disagreement:
 None Moderate Strong

50%	0%	50%
56%	0%	44%

After the crisis (98-99)
 Degree of Disagreement:
 None Moderate Strong

50%	0%	50%
58%	0%	42%

In your institution, during the following periods, and in the following places please mark your perception of how often there were discussions on the following decision:

Changing exposure to East-Asia
 Headquarters departments
 Local branches of your institution (in East-Asian countries)
 Board, CEO office, top management, etc.

During the 1980s:
 Periodicity of Discussions
 Daily / 1 month- 6 months
 Weekly 3 months 1 year

13%	38%	50%
38%	25%	38%
0%	50%	50%

During 1990-96:
 Periodicity of Discussions
 Daily / 1 month- 6 months
 Weekly 3 months 1 year

25%	38%	38%
38%	25%	38%
13%	50%	38%

During 1997
 Periodicity of Discussions
 Daily / 1 month- 6 months
 Weekly 3 months 1 year

38%	63%	0%
38%	63%	0%
13%	75%	13%

After the crisis (98-99)
 Periodicity of Discussions
 Daily / 1 month- 6 months
 Weekly 3 months 1 year

29%	71%	0%
29%	71%	0%
14%	71%	14%

to three-quarters of Japanese banks report a “Moderate” level of internal disagreement on decisions implying an increase or a cut in their exposure to East-Asia. However, these percentages jump to higher levels during the crisis. For example 13% of banks report “Strong” internal disagreement about increasing exposure during the 1990-96 period, an unusual candid answer. Internal dissent rises further to 25% in 1997 and up 43% in the post-crisis period! In parallel, “Strong” disagreement regarding cuts in activities drop to 0% in the post-crisis period. It is interesting to note that, in cases of internal disagreement, throughout the period 1980s till 1998-99, the final say regarding either increases or cuts in exposure would be roughly equally divided between Head Offices’ operational department (in Tokyo) and the Board. In the crisis period, the role of “Research” or “Risk-Analysis” departments rise: 71% of banks report their importance for cutting exposure to East-Asia. Finally, it should be noted that during the high growth (boom) period, the periodicity of discussions to change the banks’ exposure was only of 6 months to one year in 38% of banks. It is only when the crisis started (1997) that the periodicity of meetings increased to 1 to 3 months (in 63% of banks).

90% of the Japanese banks recognize that it is “true or very true” that the causes of the Asian crises were “the excessive lending by G-7 banks during the early 1990s” (Question 8). Hence, according to the answers, the rapid growth of loans to East Asian corporations and banks was motivated essentially by banks’ risk-taking behavior and not by any form of insurance or guarantee. For example, 100% of Japanese banks consider “true or very true” that the excessive lending was caused by “the big upside potential of Asian markets”. 90% consider “true or very true” that the main cause behind lending was “the need to gain or retain market shares in East-Asia”. 78% consider “true or very true” that lending motives were “the need to follow what competitors were doing in East Asian markets”. And 70% consider “true or very true” that the stability of the local exchange rates was a contributing factor as well. Among factors that were considered “false”, we find that 22% of banks disregarded the “track record of Governments committed to sound macro fundamentals”, and 11%

of them neglected the level of reserves, the good political relationships (“cronyism”) and changes in pension regulations in their home country.

80% of the Japanese banks add that it was “true or very true” that excessive lending to specific sectors such as Real Estate” caused the crises by weakening banks (Question 8). It is interesting to note here the reasons behind this unbalanced portfolio composition: 70% of Japanese banks consider “true or very true” that this biased lending was caused by the fact that “borrowers were a well-known local corporation or bank”. 66% of banks add that they need to “maintain market shares against their competitors”. More importantly, 70% of banks reject (consider “false”) to say that the “calculation of exposure to Real Estate was not available to management” (hence, management knew). 60% of banks reject (consider “false”) to say that local borrowers were given an “implicit guarantee by local Governments”. And 56% of banks reject (consider “false”) to say “banks (themselves) were not aware of the foreign liabilities in the balance sheets of their local borrowers”.

However, despite this candid set of perceptive answers about their own behavior, there is also a perception of “conspiracy” among Japanese banks: 90% of them consider “true or very true” that the devaluation of East Asian currencies was caused by speculators and hedge funds. It is interesting to note that no Japanese banks considered “very true” that the crises were caused by excessive domestic lending (although 70% of them consider it “true”). Finally, it is important to note that 22% of banks consider “false” that the crises were caused by “an expected slowdown in East-Asia’s business cycle” or the result of “volatility between the Japanese Yen and the US Dollar”. And 33% of them consider “false” that the East Asian devaluations were caused by massive selling by local banks and corporations.

80% of the Japanese banks believe that it is “true or very true” that the Asian crises started on the day of the Thai Baht floating (Question 9). 33% reject as “false” that the crisis had a long past history, and 25% also reject the connection with the Japanese recession in 1998 (as an aggravating factor for the Asian crisis).

Question 8: About Your Views of the Causes of the Asian Crises

In a scale from (very true) to (false), please mark the following statements according to what you think represents best your institution's views

Please mark the relevant case with (X)
Very True True Modera- False
tely true

The causes of the Asian Crises were essentially:

The vicious circle of competitive devaluations of East-Asian currencies	11%	33%	56%	0%
The excessive lending during the early 1990s by domestic local East-Asian banks	0%	70%	30%	0%
The excessive lending during the early 1990s by foreign G-7 banks	30%	60%	10%	0%
The result from an expected slowdown in East-Asia's business cycle	11%	22%	44%	22%
The result of the volatility between the Japanese Yen and the US Dollar	11%	44%	22%	22%
The excessive lending to specific sectors (like Real Estate) that weakened banks	20%	60%	20%	0%
The result of inadequate macroeconomic policies during the 1990:	30%	20%	50%	0%

The devaluations of East-Asian currencies were triggered by:

The devaluation of the Renminbi	11%	33%	22%	33%
The devaluation of the Japanese Yen vis-à-vis the US Dollar during 1997	11%	33%	56%	0%
Panic among small depositors in East-Asia	0%	22%	67%	11%
Speculators and hedge funds	40%	50%	10%	0%
Selling by large local banks and corporations	11%	22%	33%	33%

Rapid growth of loans to many East-Asian corporations and banks was caused by:

The track record of local Governments commitment to sound macroeconomic fundamentals	0%	33%	44%	22%
The high level of international reserves capable to pay back all foreign short-term loans	0%	22%	67%	11%
Looking for new markets after a decline in their lending at Head Quarters	11%	44%	44%	0%
The lower yields of all alternative investments in G-7 markets	0%	78%	22%	0%
The big upside potential in emerging Asia economies	30%	70%	0%	0%
Their good political and financial relationship in East Asia.	0%	11%	78%	11%
The change in institutional regulations for pension and investment funds	11%	11%	67%	11%
The need to gain or retain market shares in East-Asia	20%	70%	10%	0%
The need to follow what competitors were doing in East-Asian markets	22%	56%	22%	0%
The stability of the local exchange rate regimes	20%	50%	30%	0%

Rapid growth of loans to specific sectors (e.g., Real Estate), specific corporations and banks was caused by the following:

Our borrowers were usually our institution's own subsidiaries.	0%	22%	56%	22%
Our borrowers were usually a well-known local corporation or bank.	10%	60%	30%	0%
We perceived the exchange rate as essentially stable over the medium term.	20%	30%	40%	10%
Our local borrowers were given an explicit or implicit bail-out guarantee by their own Governments.	0%	40%	0%	60%
A calculation of our exposure to one single sector or market segment was not available to our managers	0%	10%	20%	70%
We were not fully aware of the amount of foreign liabilities in our customers balance sheets	0%	11%	33%	56%
We had long-term, well-established relationships with our customers in East-Asia	10%	20%	60%	10%
Our customers difficulties were perceived as temporary and manageable	0%	33%	67%	0%
Maintain market shares against our competitors.	11%	56%	22%	11%

Question 9: About Your Views on the Developments of the Asian Crisis

In a scale from (very true) to (false), please mark the following statements according to what you think represents best your institution's views (DURING the crisis).

Please mark the relevant case with (X)
 Very True True Modera- False
 tely true

The crisis in Asia started :

Long before the Thai Baht devaluation, around 1995-96	22%	0%	44%	33%
On the day of the floating of the Thai Baht July 2, 1997	30%	50%	20%	0%
When there were signs of severe contagion in East-Asia (end of 1997)	25%	13%	50%	13%
When Japan's economy went into officially declared recession	25%	0%	50%	25%

The dominant feeling mid-1997 was that:

The Thai crisis was an isolated event.	10%	30%	10%	50%
The crisis would spread across East-Asia because many countries had similar problems.	33%	22%	33%	11%
The Asian crisis was the beginning of other crises in all emerging markets.	11%	22%	56%	11%

After the crisis spread, the predominant reaction in financial institutions operating in East-Asia was to:

Roll-over lines of credit	11%	0%	67%	22%
Call back loans, cut credit exposure	50%	30%	20%	0%
Liquidate their East-Asian assets at whatever price in local East-Asian markets.	10%	20%	50%	20%
Wait for better opportunities to liquidate their East-Asian assets	11%	33%	22%	33%

The determinant factor for suspending lines of credit during the crisis was:

Determined exclusively by economic and financial considerations	22%	11%	67%	0%
Determined by the need to improve financial strength of your institution	50%	40%	10%	0%
Advice from the International Monetary Fund	0%	11%	33%	56%
Advice from Head-Office of your institution	30%	50%	10%	10%
Bad relationship with borrowers	0%	11%	44%	44%
Advice from East-Asian Governments	0%	0%	11%	89%
Advice from your own Government (G-7)	0%	11%	11%	78%
Following peer institutions behavior	0%	11%	56%	33%

The determinant factor behind maintaining lines of credit during the crisis was:

Determined exclusively by economic and financial considerations	0%	33%	44%	22%
Determined by the need to improve financial strength of your institution	0%	22%	22%	56%
Advice from the International Monetary Fund	0%	20%	10%	70%
Advice from Head-Office of your institution	30%	40%	20%	10%
Good relationship with borrowers	11%	11%	22%	56%
Advice from East-Asian Governments	11%	11%	0%	78%
Advice from your own Government (G-7)	11%	22%	11%	56%
Following peer institutions behavior	0%	22%	44%	33%

Nevertheless, 50% consider “false” that the Thai crisis was an isolated event. 55% acknowledge that the crisis spread because many countries in the region had similar problems. Japanese banks are very candid regarding their assessment of the financial community’s reaction to the crisis. Two-thirds of them consider only “Moderately true” that financial institutions rolled-over credit after the crisis (actually 22% of them say this is “false”). Regarding banks’ portfolio shifts, Japanese banks’ assessment is mixed. 20% consider “false” to say that the predominant reaction was to liquidate East Asian assets (although 10% say it is “very true” and 30% say it is “true”). But 33% say it is “false” to say banks waited for a better opportunity to sell (however, 44% say this is “true or very true”).

Japanese banks’ reading of the determinant factors behind other banks’ suspension of their lines of credit (Question 9). 90% of them say that it is “true or very true” that this was motivated by the need to improve financial strength, and 80% that decisions followed advice from Head Offices. It is noticeable that 89% of Japanese banks declare (consider it “false”) that suspension of credit lines was not motivated by advice from East Asian Government, 78% of them state (consider it “false”) that it was not motivated by advice from their own Government, and 56% say (consider it “false”) it was not suggested by the IMF. Also 44% say (consider it “false”) that credit suspension was not caused by bad relationship with clients. When lines of credit were maintained, 70% of banks say it is “true or very true” that the determinant factor was the advice from Head Offices, while 70% report that it “false” that lines were kept because of the advice of the IMF (78% say that it is also “false” that East Asian Governments influenced positively those decisions).

Japanese banks were predominantly doing the following during the 1996-99 period (Question 10). In 1996, 49% (1st half) and 39% (2nd half) of banks were increasing their exposure (lending essentially to the private sector) and buying other East-Asian assets. But, at then same time, about one-third of banks were changing management directions (cutting costs, changing managers, etc.). In the first half of

1997, strategic changes was the dominant activity for about one-third of Japanese banks. Then, during the second half, debt restructuring and provisioning against possible losses became the most important activity, together with cost cutting measures. During the 1998-99 period, well into the crisis, Japanese banks report that they were predominantly cutting operational costs and closing staff and branches while selling East Asia assets and restructuring debt. No banks reported any increase in their exposure to East Asia during that period.

Now, at the beginning of 2000, Japanese banks estimate that most financial institutions in Asia are still closing subsidiaries and reducing operating costs (Question 12). This is followed by merger activities, staff reduction and debt restructuring. On the bright side, banks state also that there is some resumption of lending coupled with capital increases.

60% of Japanese banks felt that the IMF was needed in Asia immediately after the Thai crisis. None state that there was no need for the Fund (Question 11). 70% of them thought that the “top or the high priority” of the IMF programs was to “get and agreement with the Governments on a macro-framework” enabling countries to provide “a rapid repayment of foreign creditors involved in the crisis”. But 75% of Japanese banks also felt that “bringing political change to the region” was not or, at best, only a “moderate” priority of the IMF programs.

At the inception of the IMF programs (1997), Japanese banks were confident about the recipe that was used. 76% of them thought that it was “most likely” or “likely” that the Fund would restore the confidence of foreign investors. 90% believed that it was “most likely” or “likely” that the programs would achieve exchange rate stabilization. Naturally, Japanese banks were aware of the trade-offs in these adjustment programs. 100% of them state that it was “most likely” or “likely” that the Fund would bring about a “mild recession”, 87% state a “higher unemployment”, 80% an “increase in banks’ non-performing loans” and 61% a possible “external debt moratorium for the private sector”. Japanese banks were divided in their assessment of other effects. 50%

Question 10: About What Was Done in Your Institution During the 1996-1999 Period

In this time-line, please mark (with X in the relevant cell) what you think your institution was predominantly doing, choosing from the list below:

Changes in management, strategic directions

- Cutting operational costs, reducing staff and branches
- Merging your institution with others
- Changing top management in East-Asia
- Changing top management in home (G-7) country
- Providing new strategic direction to business
- Total

Changes in equity and portfolio exposure

- Selling East-Asian assets
- Selling non-performing East-Asian assets
- Buying East-Asian assets
- Total

Changes in lending and credit exposure

- Closing lines of credit in East-Asia
- Cutting lending for a specific line of business considered risky (specify) : _____
- Closing lines of credit to all emerging markets
- Increasing credit to troubled borrowers in order to avoid borrowers' default.
- Increasing lending for this specific lines of business (specify) : _____
- Increasing lines of credit to Governments & public sectors in East-Asian countries
- Increasing lines of credit to private sector in East-Asia.
- Increasing lines of credit to all emerging markets
- Total

Changes in financial structure

- Agreeing on debt-equity swaps with borrowers
- Provisioning against losses in all emerging markets (East-Asia and elsewhere)
- Restructuring domestic debt with creditors
- Restructuring foreign debt with creditors
- Increasing capital
- Asking for Government support
- Total

1996		1997		1998		1999	
1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half
14%	17%	12%	14%	14%	11%	10%	11%
5%	6%	8%	4%	3%	5%	7%	8%
5%	6%	4%	4%	3%	2%	2%	5%
5%	6%	4%	4%	3%	2%	2%	5%
0%	0%	4%	7%	3%	5%	2%	3%
29%	33%	31%	32%	26%	25%	24%	32%
5%	6%	8%	11%	11%	11%	12%	8%
0%	0%	4%	7%	11%	11%	17%	16%
10%	11%	8%	4%	0%	0%	0%	0%
14%	17%	19%	21%	23%	23%	29%	24%
0%	0%	0%	7%	3%	7%	2%	3%
0%	0%	0%	0%	3%	5%	5%	5%
0%	0%	4%	7%	6%	5%	0%	0%
5%	6%	8%	4%	0%	0%	0%	0%
0%	0%	0%	0%	0%	0%	0%	0%
14%	11%	4%	4%	3%	0%	2%	3%
19%	17%	8%	0%	0%	0%	0%	0%
10%	6%	4%	0%	0%	0%	0%	0%
48%	39%	27%	21%	14%	16%	10%	11%
0%	0%	0%	0%	0%	0%	2%	8%
5%	6%	8%	11%	14%	16%	12%	5%
0%	0%	4%	4%	9%	9%	10%	5%
5%	6%	8%	7%	9%	7%	10%	11%
0%	0%	4%	4%	6%	5%	2%	3%
10%	11%	23%	25%	37%	36%	37%	32%

Question 11: About the Role of the International Monetary Fund (IMF) during the Asian crises

How did the following statements represent your views (around mid-1997) about the IMF programs in East-Asia

When did your institution feel that the IMF was needed in Asia, in terms of timing?

Much before the Thai crisis itself (in 1995 or 1996)	20%
Immediately after the Thai crisis (around July 1997)	60%
When contagion spread to Indonesia and Korea got into trouble (around end-1997)	10%
When Japan went into recession (mid-1998)	10%
The IMF was never needed.	0%
Other timing :	0%

Your feeling was that the IMF programs' priorities would be in Asia:

- Get agreement with Governments upon macro-economic framework
- Provide rapid repayment for domestic creditors involved in a domestic financial crisis.
- Provide rapid repayment for foreign creditors involved in an external debt crisis
- To be an indirect way to bring political change in the region

Around mid-1997, at the beginning of the crisis your institution felt that the IMF programs could produce the following:

- Restoration of confidence of domestic investors
- Restoration of confidence of foreign investors
- Higher inflation
- Economic downturn (mild recession)
- Deep recession like the Great 1930s Depression in the US
- Higher unemployment
- Increase in non-performing loans in the banking sector
- Continuous uncontrolled depreciation of the currency
- External debt moratorium for Government
- External debt moratorium for private banks and corporations
- Exchange rate stabilization in the short-term

Now end-1999 or early 2000, after the crisis, your institution feels that an alternative to the IMF programs could have been, in Asia:

- There was no alternative to the way the IMF programs operated in Asia
- An Asian monetary fund should have been set and has now to be put in place.
- Central banks should have:
 - set even higher interest rates
 - enforced tighter prudential regulations immediately
 - put prudential regulations on hold until after the crisis
 - provided more liquidity to all financial institutions
 - provided more liquidity to specific, solvent institutions
 - set lower interest rates
- Governments should have:
 - tighten budgets further
 - relaxed budgets immediately
 - instituted temporary capital controls
 - instituted temporary freeze on private debt repayments

Please mark the relevant cell with an (X)

Top Priority	High Priority	Moderate Priority	Not a Priority
40%	30%	30%	0%
0%	50%	50%	0%
30%	40%	30%	0%
0%	25%	50%	25%

Most Likely	Likely	Unlikely	Very Unlikely
0%	25%	63%	13%
38%	38%	25%	0%
0%	50%	50%	0%
30%	70%	0%	0%
13%	13%	50%	25%
22%	67%	11%	0%
30%	50%	20%	0%
13%	38%	38%	13%
25%	13%	50%	13%
25%	38%	38%	0%
10%	80%	0%	10%

Very True	True	Moderately true	False
0%	13%	25%	63%
20%	50%	20%	10%
0%	0%	71%	29%
33%	22%	44%	0%
29%	14%	43%	14%
13%	38%	50%	0%
0%	13%	50%	38%
13%	13%	38%	38%
14%	0%	57%	29%
20%	30%	30%	20%
14%	29%	43%	14%
0%	14%	43%	43%

Question 12: About What Your Institution's Peers Are Doing Now (end 1999-early 2000)

In a scale from (very true) to (false), please mark the following statements according to what you think represents best your institution's views about what others (banks & corporations, local and foreign) are doing now in East-Asia:

Please mark the relevant cell with (X)
 Very True True Modera- False
 tely true

Choosing from the SAME statements please rank below JUST the five most important things that your peers are doing now (JUST 1, 2, 3, 4 and 5)

Reducing operating and other costs	80%	20%	0%	0%	1.9
Merging with other entities	67%	22%	11%	0%	2.1
Reducing staff	67%	0%	33%	0%	2.7
Reducing lending	0%	11%	44%	44%	
Reducing investment and capital costs	10%	30%	40%	20%	3.3
Restructuring local East-Sain currency debt	22%	33%	33%	11%	3.5
Restructuring foreign currency (US, Euro or JPY) debt	22%	44%	33%	0%	3.0
Increasing capital	33%	22%	33%	11%	4.7
Closing subsidiaries	22%	22%	33%	22%	1.0
Increasing lending	22%	22%	33%	22%	3.0
Increasing investment and capital costs	0%	22%	11%	67%	
Increasing domestic borrowings	0%	0%	38%	63%	
Increasing external borrowings	0%	0%	33%	67%	
Hiring more staff	0%	11%	0%	89%	
Opening more subsidiaries	0%	0%	22%	78%	
Other actions please specify:					

Question 13: About the Prospects for the Regional Economic Recovery in Asia

In a scale from (very true) to (false), please mark the following statements according to what you think represents best your institution's views about what types of problems banks and corporations (local and foreign) face in their future expansion in East-Asia:

Please mark the relevant cell with (X)
 Very True True Moderately True False

A slow-growing economy in East-Asian countries	11%	44%	44%	0%
Lack of proper macroeconomic policies in East-Asian countries	11%	44%	33%	11%
Lack of East-Asian domestic investors' confidence	11%	56%	33%	0%
Lack of foreign (G-7) investors' confidence	30%	30%	40%	0%
Lack of adequate management in East-Asian countries	11%	33%	56%	0%
Shortage of skilled labor in East-Asian countries	0%	30%	70%	0%
Uncertainty vis-à-vis export markets for East-Asian products	0%	56%	44%	0%
Breakdown of suppliers' confidence	11%	44%	44%	0%
Tough competition from Japan, US and European firms	30%	40%	20%	10%
Lack of adequate level of capital in East-Asian firms	22%	56%	22%	0%
Non-competitive cost structure in East-Asian firms and banks	0%	78%	22%	0%
Excessive financial burden (interest rate payments and debt stocks) of East-Asian firms and banks	0%	89%	11%	0%
Exchange rate volatility in East-Asian countries	22%	56%	22%	0%
Lack of adequate regulatory environment in East-Asian countries	20%	60%	20%	0%
Weak financial sector in East-Asian countries	20%	60%	20%	0%
Political and social difficulties in East-Asian countries	10%	60%	30%	0%
Cost of funding in G-7 and international capital markets	0%	33%	44%	22%
Other problem please specify: _____				

Choosing from the SAME statements please rank below JUST the five most important problems that you are facing now (JUST 1, 2, 3, 4 and 5)

1.0
3.0
5.0
2.5
4.0
2.0
1.7
1.5
3.0
3.0
3.7
2.0
3.3
2.0

stated that the IMF programs would bring “higher inflation” (50% having the opposite assessment). And 50% believed that it was “most likely” or “likely” that the programs would produce a continuous depreciation of the local currencies (50% reporting the opposite assessment).

After a while (1998-99), many Japanese banks started discussing the possible alternative to the typical IMF program. It is interesting to note that around 1998-99, 88% of them thought, “there was an alternative to the way IMF program operated in Asia”. 70% believed that an Asian Monetary Fund should have been set and has now to be put in place. 29% of Japanese banks reject the idea that setting even higher interest rates would have worked better (answer “false” to that question). A majority (55% against 44%) suggests putting prudential regulations on hold until the end of the crisis. They are divided (50%-50%) over the provision of additional liquidity even to solvent financial institutions. But a small majority (38% against 26%) refuses to set “lower interest rates” to solve the crisis. However, there is a strong rejection (29% against 14%) of tighter fiscal frameworks. 33% of banks think that it is “true or very true” that capital controls should have been temporarily instituted while a vast majority (43% against 14%) reject the idea of a temporary freeze on private debt repayments. (Question 13)

From all the answers of Japanese banks, it appears also from a different viewpoint and using a qualitative methodology, that Japanese lending to East-Asia was driven by factors related rather to the Japanese business cycle and competition between Japanese banks themselves and also with foreign banks.

5. LESSONS AND POLICY IMPLICATIONS

This paper originated with our sense of vindication and also perplexity when the Asian crises made the headlines of World newspapers around July-August of 1997. Like many economists, we had a “feeling” that something was “wrong” (or at least unsustainable) in Bangkok, Jakarta, Kuala-Lumpur and even Seoul, by the casual observation of the boom in real estate

activity there during most of the 1993-1996 period. Like many honest professionals, we had been looking with increasing suspicion at the deterioration of Thailand’s current account balance during the two years preceding the Thai crisis itself. We also shared the economist’s uneasiness and skepticism vis-à-vis the various forms of the Lawson doctrine that had become a major piece of the rhetoric used by many Ministries of Finance from Thailand to Brazil to cajole markets and minimize the risks associated with large current account deficits. For us, and like for many fellow economists, capital inflows –even of a long-term nature as Direct Foreign Investment– were not going to sustain structural current account imbalances forever. And of course, from Tokyo, we had a vantage viewpoint: unlike the personal experience of most of our western colleagues, we were living under the illuminating albeit depressing experience of the burst of the Japanese bubble itself at the end of 1989. That experience was telling us how the fall in stock prices and other elements of investors’ confidence, was impacting bank credit and thus the real economy. Hence, the Asian crises, from a Tokyo perspective, had somehow a flavor of “*déjà vu*”.

We saw the Asian financial bubble in the making. However, we were not convinced that the main cause behind massive capital inflows could be attributed to an Asian brand of “cronyism” even re-labeled under the more sophisticated story of “Moral Hazard”. We observed the aggressive behavior of banks throughout the region in the 1990s and that “push-factor” seemed a much more convincing explanation for “excessive lending”.

Let us also recognize up-front that it never crossed our minds that the crisis that started unfolding in 1996-97 would become a regional (and global) problem so rapidly at the end of 1997, and that it would deeply affect the real sectors of these economies in such a devastating way. In that sense, we had the “wrong” model for such crises. We were still thinking in the terms of the “old” country-specific current account or balance-of-payment crises of the pre-globalized financial World. And here too, the experience of Japan was precisely misleading: while a wait-and-see attitude toward financial sector problems was possible (although not desirable) in a creditor and capital surplus country, it was clearly

unsustainable for highly indebted economies, whose short-term liabilities in foreign exchange were unstable and dependent on private sector confidence. In Japan, the burst of the bubble was followed by a period of appreciation (strengthening) of the currency (for many reasons including the strategic motives behind capital inflows into Japan and of course also the “political economy” of the US-Japan trade relationship). The reflection of Japan’s financial trouble in the Yen-Dollar exchange rate (and the Japan Premium) came only much later, with the perception of the Asian problems as a whole around 1996-97. As we know this breathing space of 4-5 years for the exchange rate was reduced to split seconds for most of the emerging markets in East-Asia, despite their holdings of relatively large foreign exchange reserves.

There is now, of course, a large body of literature already written on the Asian crises, its origins and the lessons that can be derived from them. But most of the papers have focussed on one or two particular aspects of the crises: the linkages between currency and banking crises, the effect of high interest rates on Asian floating exchange rates or the criticism of the IMF programs, or the accumulation of short-term foreign exchange liabilities, etc., without attempting to produce a more comprehensive explanation.

This paper attempted to take a different angle. First tried to understand the period of 5-6 years before the crises. Our goal was to show that many problems that led to the Asian crises arise of several institutional and macro-structural features that were built-in the framework that contributed to the success of the previous period. As much as we appreciate the importance of the exogenous shocks (the Yen-Dollar fluctuations for example) that triggered the crisis, the central objective of this paper is to find an “endogenous” explanation for the emergence and the collapse of credit bubbles in emerging markets such as East Asia’s. To that end, the central hypothesis of the paper is that financial booms in the business cycles of small emerging markets are related to financial cycles of a larger provider of capital flows (e.g., Japan). Simultaneously, we also suggest that, in Asia, this was compounded by the relation between the local businesses and their “main” banks, through an explicit reference to balance sheets of both firms and banks.

We believe that it is the marriage of the theories that explain emerging Asia’s business cycles endogenously with the theories that link credit (and not only money) to the macroeconomy that stand with the better chances of capturing best the events that unfold in Asia during the 1997-98 period. In other words, the paper suggests that the most promising comprehensive explanation of the Asian crises rests on creating a bridge where the institutional features of the Japan Inc. business cycles meets financial market imperfections.

Policy recommendations, of course, are very different depending on which type of story (MH or HB) you take as the main determinant of excessive capital inflows:

a) You believe that the supply of loans was excessive because the perception of risk (and hence the risk-adjusted return on investment) was attenuated by an “implicit” guarantee provided either by Governments or international agencies. The logical policy conclusion is to reduce this MH component. Hence, the policy framework should be directed to avoid providing rescue packages and should shut down any special facility (credit, insurance, DIC) that conveys the wrong incentive to local borrowers and domestic and foreign lenders.

b) You believe that loans went up because rational bankers estimated that attractive high returns in growing markets exceeded the high risks that they were observed and took a bet to increase market shares. The logical policy conclusion here is that bankers will lend to risky borrowers regardless of “guarantees” when there is a concomitant local and foreign financial and economic boom. Proper sequencing in financial liberalization and policy coordination between recipient and emission countries would bring a superior outcome than purely local demand management policies.

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