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**International Financial Liberalisation in  
Developing Countries: Lessons from Recent  
Experiences**

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**CIES DISCUSSION PAPER 0220**

**International Financial Liberalisation in Developing  
Countries: Lessons from Recent Experiences**

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## 1. Introduction

Theory offers a number of plausible benefits from international financial liberalisation (IFL). These include<sup>1</sup>: a) static resource allocation gains through international specialisation in the production of financial services; b) static financial gains through appropriate portfolio diversification internationally; c) dynamic or x-efficiency gains through the introduction of competition in the financial sector; d) gains from intertemporal trade through access to global financial markets; e) absence of rent-seeking and other costs of capital restraints; and f) imposition of market discipline on policy makers by ensuring that profligate policies, such as unsustainable external and fiscal imbalances and debt accumulation, trigger capital outflows and balance of payments/currency crises<sup>2</sup>. However, a careful examination of available empirical literature on the subject suggests much less reason to be sanguine about the benefits of IFL<sup>3</sup>. Why?

## 2. Defining IFL

An important reason for the lack of robust nexus between IFL and economic growth may be the fact that the definition of IFL is far from apparent. Indeed, many studies on the issue have failed to make a clear distinction between “capital account deregulation”, on the one hand, and “internationalisation of the financial sector”, on the other. The latter is broadly defined as the elimination of barriers to entry and discriminatory treatment of foreign competition and cross-border provision of financial services.

The nexus between international capital flows and financial services may be succinctly and effectively captured by Table 1. While Cell I on the uppermost left-

hand corner refers to the case of financial autarky, i.e. neither financial services trade nor an open capital account. Cell IV on the bottom right-hand side denotes the case of “complete” IFL, i.e. liberal capital account and bank internationalisation. The remaining two cells may be broadly classified as “partial IFL”. Specifically, Cell II involves the case of bank internationalisation with capital restrictions; while Cell III is the case of capital account deregulation but with restrictions on trade in banking services maintained. Of course, in reality, matters are not nearly as simple; the two elements of IFL are closely intertwined and cannot be cleanly separated. Nonetheless, the assumption of total separability is useful conceptually.

While the General Agreement on Trade in Services (GATS) recognises the right of countries to maintain sovereignty over prudential and related regulations of all financial firms resident in the country, studies suggest that the introduction of foreign banks into developing countries will create domestic pressure for local banking authorities in the host countries to enhance and eventually harmonise regulatory and supervisory procedures and standards to international levels, particularly with regard to risk management practices<sup>4</sup>. Moreover, if the banking system has a more internationally diversified asset base it may be less prone to instability and financial crises<sup>5</sup>. There are yet other potential advantages of allowing foreign bank entry - such as lowering overall financial costs structures - which may make it a desirable policy in and of itself<sup>6</sup>. There is a growing body of literature emphasising a direct relationship between the extent of IFL (loosely proxied by measures of foreign participation in the banking sector) and various measures of efficiency<sup>7</sup>.

This said, care must be taken to ensure that foreign competition is introduced gradually in order to avoid disrupting the domestic financial system by enticing domestic banks to opt for increasingly risky investments (i.e. “gambling for

redemption”). Without this, an increase in bad loans due to risky investments could offset the efficiency gains associated with greater international competition<sup>8</sup>. More generally, many of the suggested advantages of financial sector and capital account liberalisation are heavily contingent on the assumption that the deregulation takes place in a well-sequenced and timed manner<sup>9</sup>. Failure to do so could lead to calamitous repercussions on the domestic financial system and the overall macroeconomy. As Willett and Dillon note<sup>10</sup>:

(F)or markets to operate well they need considerable infrastructure that must be provided by the state, but state involvement has often been perverse. The issue is how states and markets can best complement. Market critics need to recognise that most of the recent currency and financial instability has been caused less by any inherent instability of financial markets than by financial markets reacting to perverse economic incentives generated by governments. Likewise market enthusiasts need to recognise that in the absence of an appropriate infrastructure of law and institutions, markets are unlikely to work well and where perverse economic incentives are in place that liberalisation can sometimes do more harm than good (p.27).

Echoing this point, Eichengreen notes<sup>11</sup>:

Capital account liberalisation can be counterproductive, to be sure, if it takes place before severe policy-related distortions have been removed and before domestic markets, institutions, and the administrative capacity of the prudential authorities have developed to the point where one can be confident that foreign finance will be channelled in productive directions. This qualification may be too frequently neglected, as the unconditional advocacy of capital account liberalisation heard in the mid-1990s and the Asian crisis that quickly followed remind us to our chagrin (p.31).

### **3. Defining Capital Account Deregulation and Components of Capital Flows**

#### **3.1 Finding Suitable Proxies**

Even in cases where studies limit their focus to capital account deregulation, the measures they often use to proxy capital account openness are certainly not without their difficulties. Such studies may be broadly divided into two groups. The first examines *de jure* capital account restrictions based on the statutes (using IMF

data from the *Exchange Arrangements and Exchange Restrictions* annual), while the other set has focused on *de facto* restrictions by examining the extent of stock market integration, degree of market capitalisation, magnitude of capital flows, on-shore and off-shore interest differentials. In his recent review of capital account liberalisation, Eichengreen discusses the limitations of all these measures of capital account liberalisation and concludes<sup>12</sup>:

Empiricists need to better distinguish between different kinds of controls...They need to develop more informative measures of those aspects of the legal, contracting and information environments that plausibly shape the effects of capital account liberalisation. They need to construct better indicators of the other policy initiatives with which capital account liberalisation is sequenced (p.32).

### **3.2 Components of Capital Flows**

Another important reason why studies on IFL (or capital account deregulation more narrowly) have failed to unearth robust evidence on its growth effects on a systematic basis is that capital account transactions consist of a number of sub-components ranging from foreign direct investment (FDI), which is seen as being relatively stable, on the one hand, to “mobile capital” or “hot money” (portfolio and short-term debt flows), on the other. According to received wisdom, inflows and sudden reversals in mobile capital are the reason for the recent financial crises in emerging economies (dubbed “capital account crises”). There do exist models that conveniently explain the volatility of short-term capital flows, covering both bank lending and portfolio flows. However, the essence of these models is that a relatively small initial loss of confidence can quickly translate into panic and a mass exodus of funds, especially when international reserves fall below a threshold where they become insufficient to cover short-term liabilities<sup>13</sup>. The conventional wisdom is that

it is these short-term flows that are highly liquid and mobile and therefore make a country susceptible to crisis.

Thus, during the Mexican currency crisis of 1994-95, the sharp outflows were primarily due to portfolio flows, while in the case of the East Asian crisis of 1997-98, the outflows were primarily due to reversals of short-term bank flows. To be sure, balance of payments data from the IMF reveal that the Asia-5 economies (viz. Indonesia, Korea, Malaysia, Thailand and the Philippines) experienced pointed reversals in net private capital flows of about \$100 billion between 1996 and 1998. This reversal was largely due to the “other net investment” category which primarily consists of short term bank lending. The entire \$85 billion of inflows into the Asia-5 economies of this category in 1995 and 1996 were lost in the next three years as international banks became unwilling to roll over existing short term debts to the region, let alone extend new ones (Table 2). In contrast, FDI is often determined by long-term fundamental economic characteristics which are more stable and relatively irreversible in the short run. Since FDI enhances the productive capacity of the host country, it produces the revenue stream necessary to cover future capital outflows<sup>14</sup>. There is a fairly large body of empirical studies which finds FDI to have been the most resilient form of external financing<sup>15</sup>. Empirical analysis suggests that emerging economies which are most prone to currency crashes tend to have a relatively smaller share of FDI in total capital inflows and a relatively higher share of short-term external debt<sup>16</sup>.

The foregoing has been the basis for the conventional wisdom that switching from short-term to long-term capital flows may reduce the probability of currency crises. However, recent empirical investigations into the causes of currency crises in emerging economies have raised doubts about the existence of a direct link between

FDI and the probability of currency crisis. One potential criticism of the conventional view regarding differing degrees of stability of various capital flows is that it fails to take account of the complex interactions between FDI and other flows<sup>17</sup>. Examining each flow individually, particularly during short periods of time (such as year-to-year variations), may at best be an unreliable indicator of the degree of risk of various classes of flows, and at worst could be highly misleading. Capital that flows in as FDI may well flow out under another guise. On these grounds, we should expect FDI and portfolio flows to be positively related. The nature of the relationship between FDI and other capital flows is, therefore, an empirical issue.

Between the two forms of mobile capital, i.e. portfolio and short-term debt, the latter is arguably of greater concern as a source of vulnerability. This is so as there can only be quantity adjustments in the case of debt flows unlike portfolio flows where volume adjustments may not necessarily have to be as large, as part of the brunt can be borne by variations in resale prices or valuation. Thus, Baily et al. note that “bank loans are mostly illiquid, fixed-price assets...because the ‘price’ of a loan – the interest rate – does not – automatically adjust to changing market conditions, banks adjust the quantity of lending instead” (p. 103)<sup>18</sup>.

In view of the preceding, it is not surprising that the extent of short-term indebtedness has been found to be a key indicator of illiquidity and a robust predictor of financial crises<sup>19</sup>. The extreme reversibility of short-term debt in the event of a negative shock exposes borrowers to liquidity runs and systemic crises. In a somewhat contrarian view, Jeanne argues that it is not clear that short-term debt contracts ought to be discouraged as they may play a socially advantageous function in reducing agency problems<sup>20</sup>. In addition, there is an issue of causality; it is plausible that the expectation of a crisis causes a shortening of debt contracts than

vice versa. Nonetheless, the mainstream view is that short-term debt is a potential source of destabilisation. The IMF appears to have embraced this position as well<sup>21</sup>.

Another reason why short-term debt is seen as a particularly acute source of vulnerability is that reversals in this component could give rise to *currency* or *maturity* mismatches. The latter is a source of vulnerability for all kinds of unhedged external debt including long-term debt (either borrowing via financial institutions or bonds). To the extent that a relatively larger proportion of a country's liabilities is denominated in foreign currency vis-à-vis its assets (so-called "liability dollarisation"), a currency devaluation could lead to sharp declines in the country's net worth with calamitous effects on the financial and real sectors (so-called "balance sheet" effects).

#### **4. Tackling the Problem of "Excessive" External Indebtedness**

In view of the above-noted concerns regarding short term indebtedness, a strong case can be made for the setting of prudential limits on the amount of short-term debt that a country can accumulate<sup>22</sup>. If such regulations are imposed, it is imperative that they be comprehensive. They cannot merely be limited to financial institutions, for instance, as this could lead to accumulation of such debts by quasi-financial institutions as well as corporates. Indeed, in the case of Indonesia, most of the external debt was amassed not by banks but by corporations<sup>23</sup>. As such, accumulation of offshore foreign currency liabilities by the non-financial corporate sector must also be restricted.

Another suggestion has been to permit relatively greater exchange rate flexibility. The argument here is that the more flexible the exchange rate regime the keener may be the incentives for agents to undertake appropriate foreign exchange

risk management techniques (i.e. buy necessary forex cover) in response to the higher element of exchange rate risk, while simultaneously reducing the extent of moral hazard which could lead to “excessive” unhedged external borrowing (referred to as a “fixed exchange rate bubble”). The introduction of these transactions costs, exchange rate risks and consequent removal of implicit exchange rate guarantees may also help moderate the extent of capital inflows, hence dampening the intensity of boom and bust cycles.

Somewhat less clear is what steps need to be taken to reduce vulnerability due to uncovered *long-term* foreign currency borrowing. There are two closely related questions. One, why are emerging economies *unable* to borrow overseas in their own currencies (so called “original sin” phenomenon)?<sup>24</sup>. Of course, there is always a price at which lenders will be willing to lend in a foreign currency, i.e. at an interest premium<sup>25</sup>. Insofar as the premium that is generated in emerging market interest rates reflects currency and country risk perceptions, a closely related question then is why are domestic borrowers (in the emerging economy) *unwilling* to pay that premium and instead choose to borrow in foreign currency despite the inherent riskiness of these actions?

There are at least two possible reasons. One, there could be an asymmetry in the risk perception of the domestic agents (potential borrowers) and foreign creditors, with the former’s risk perceptions being less than the latter’s. If this is the case, the only willing borrowers at the high interest rate will be those least likely to repay the loans. This adverse selection problem in turn raises the risk premium levied by foreign lenders, leading to the extreme case of drying up of liquidity in that market. Two, if domestic agents in the emerging economy are concerned about the possibility of being hit by random real shocks which might impact on their cash flow and thus

their ability to repay the high interest, on the one hand, and if there are nontrivial costs of defaulting interest payments during downturns, on the other, rational cost-benefit calculus may lead domestic agents to opt for “cheaper” foreign currency borrowing<sup>26</sup>.

In view of the fact that long term borrowing, like short term debt, involves a negative externality to the entire economy, short of placing outright restrictions on the magnitude of long-term foreign currency debt that can be accumulated, how might a country overcome the original sin phenomenon? Returning to the reason for the risk premium required to induce foreign creditors to hold the emerging economy’s currency at the margin, while part of *country* risk premium has to do with concerns about creditworthiness of the country (i.e. risk of non-payment), part of the *currency* risk premium has to do with the lack of credibility of the monetary authorities.

The *country risk* premium could possibly be reduced if the government or international agencies (such as the World Bank) act as guarantors for at least a portion of the country’s debt, though this could lead to concerns about moral hazard. With regard to the *currency risk* premium, the concern about investing in the country’s currency is that there is the possibility that the monetary authority may opportunistically inflate/devalue. Thus, the argument has recently been made that a precondition for foreigners to be willing to hold the emerging economy’s assets is that it be widely held by domestic agents. The rationale is that with a wide holding of the domestic assets by domestic residents, it is much less likely that the government will be tempted to erode the real value of the debt<sup>27</sup>. In this regard, steps ought to be taken to build up domestic bond markets. This might be achieved by the governments issuing domestic bonds, for instance. The creation of a robust government bond market would also allow for the establishment of a benchmark yield thus facilitating the development of markets for corporate bonds<sup>28</sup>. In addition, international

institutions like the World Bank or regional banks like the Asian Development Bank ought to consciously borrow in the emerging market currency to create confidence among other creditors in the currency.

One form of financial safeguard that has been increasingly used by crisis-affected countries in Asia has been the imposition of quantitative restrictions on foreign currency flows; Thailand and Indonesia are examples in this regard<sup>29</sup>. The IMF has been fairly supportive of such unilateral actions to restrain international financial flows. For instance, a recent IMF study has concluded that measures to limit the offshore trading of currencies “could be effective if they were comprehensive and effectively enforced, and were accompanied by consistent macroeconomic policies and structural reforms.”<sup>30</sup> While there may be some rationale for this, it is important to note that such types of restrictions that effectively reduce the degree of internationalisation of currencies and therefore the ability as well as willingness of non-residents to hold the currency, could aggravate the original sin problem that plagues many developing countries.

Such potential conflicts and tradeoffs make the job of an economic policymaker in this era of intensified cross-border capital flows particularly challenging.

**Table 1**  
**Domestic Versus International Capital Flows and Bank Internationalization**

	Loan provided by domestic supplier	Loan provided by foreign supplier
Loan involves domestic capital only	<b>Cell I:</b> <i>Neither financial services trade nor international capital flows</i>	<b>Cell II:</b> <i>Financial services trade only</i>
Loan involves international capital only	<b>Cell III:</b> <i>International capital flows only</i>	<b>Cell IV:</b> <i>Financial services trade and international capital flows</i>

Source: M. Kono and L. Schuknecht (1999). "Financial Services Trade, Capital Flows, and Financial Services", Staff Working Paper ERAD No.98-12, WTO.

**Table 2**  
**Net Capital Flows to Emerging East Asian Economies, 1992-2001**  
*(billions of US dollars)*

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Total:</b>										
Private Capital Flows	112.6	172.1	136.3	226.9	215.9	147.6	75.1	80.5	70.9	127.8
Direct investment	35.4	59.4	84.0	92.6	113.2	138.6	143.3	149.8	153.0	144.6
Portfolio Investment	56.1	84.4	109.6	36.9	77.8	52.9	8.5	23.3	30.4	33.5
Other Investment	21.0	28.3	-57.3	97.4	24.9	-43.9	-76.7	-92.5	-112.5	-50.3
Official Flows	21.2	17.2	3.4	11.7	0.4	23.5	44.7	3.0	14.4	6.6
Change in Reserves <sup>a</sup>	-56.9	-63.7	-63.6	-117.9	-114.2	-73.1	-37.8	-78.5	-102.2	-100.7
<b>Asia-5 Economies:</b>										
Private Capital Flows	29.0	31.8	36.1	74.2	65.8	-20.4	-25.6	-24.6	-40.6	-18.1
Direct investment	7.3	7.6	8.8	7.5	8.4	10.3	8.5	10.2	12.0	7.2
Portfolio Investment	6.4	17.2	9.9	17.4	20.3	12.9	-6.0	6.3	6.6	3.0
Other Investment	15.3	7.0	17.4	49.2	37.1	-43.6	-28.2	-41.1	-59.2	-28.3
Official Flows	2.0	0.6	0.3	0.7	-0.4	17.9	19.7	-4.7	5.0	-1.9
Change in Reserves <sup>a</sup>	-18.1	-20.6	-6.1	-18.5	-5.4	30.5	-52.1	-44.5	-17.2	-20.3
<b>Other Asian Emerging Economies:</b>										
Private Capital Flows	-8.3	25.6	27.5	30.8	38.3	19.0	-17.0	-2.5	10.6	10.3
Direct investment	8.4	26.3	38.3	39.1	44.6	45.1	49.7	39.6	41.3	39.3
Portfolio Investment	2.6	4.6	1.8	-3.2	-7.4	-9.4	-11.9	-11.9	-0.4	-3.5
Other Investment	-19.3	-5.3	-12.7	5.1	1.1	-16.7	-54.7	-30.2	-30.4	-25.6
Official Flows	8.3	7.9	10.4	5.8	4.1	3.7	7.9	3.8	5.1	8.6
Change in Reserves <sup>a</sup>	-6.6	-16.6	-47.3	-27.6	-44.8	-46.7	-18.2	-15.9	-32.9	-40.2

Notes: a) Minus sign denotes a rise and vice versa

Source: IMF

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<sup>1</sup> For elaborations of these benefits, see D. Mathieson and L. Rojas-Suarez (1993). "Liberalization of the Capital Account: Experiences and Issues", Occasional Paper No.103, IMF.

<sup>2</sup> Of course, the problem arises when an economy suffers from such crises even when the macroeconomic imbalances are not necessarily unsustainable. There is a class of models which allows for multiple equilibria and shows how currency runs may be "self-fulfilling". The focus of these models is on the existence of a tradeoff faced by policymakers between the benefits of retaining a pegged exchange rate, on the one hand, and the costs of doing so, on the other. This set of models stresses that while speculative attacks are not inevitable (based on underlying bad fundamentals), neither are they arbitrary or random (i.e., unanchored by fundamentals). Rather, there must exist some weaknesses in the economic fundamentals of the country for an attack to occur, as the credibility of the fixed exchange rate regime is less than perfect.

<sup>3</sup> See the recent review by B. Eichengreen (2002). "Capital Account Liberalization: What do Cross-Country Studies Tell Us?", World Bank Economic Review, 15, pp.341-65.

<sup>4</sup> For instance, see S. Claessens and T. Glaessner (1998). "Internationalisation of Financial Services in Asia", Policy Research Working Paper No.1911, World Bank and R. Levine (1996). "Foreign Banks, Financial Development, and Economic Growth", in C. Barfield (ed.), International Financial Markets: Harmonization Versus Competition (Washington, DC: AEI Press).

<sup>5</sup> It should be noted that foreign bank entry (or privately contracted contingent credit lines) could also be a source of financial contagion.

<sup>6</sup> See IMF (2000). World Economic Outlook 2000 (Washington, DC: IMF), Chapter 6 for a balanced and up-to-date discussion of the role of foreign banks in developing economies.

<sup>7</sup> See S. Claessens, A. Demirguc-Kunt and H. Huizinga (1999). "How does Foreign Entry Affect the Domestic Banking Market?", Working Paper No.1918, World Bank.

<sup>8</sup> This is formalised in G. Bird and R. Rajan (2001). "Banks Financial Liberalisation and Financial Crises in Emerging Markets", The World Economy, 24, pp.889-910.

<sup>9</sup> This follows from the theory of second best which, loosely speaking, states that removal of one distortion may not be welfare-enhancing if there are pre-existing distortions. For a recent discussion of domestic financial liberalization, see J. Williamson and M. Mahar (1999). "A Survey of Financial Liberalization", Princeton Essays in International Economics No.211, International Economics Section, Princeton University.

<sup>10</sup> T. Willett and P. Dillon (2002). "The Political Economy of Perverse Financial Liberalization: Examples from the Asian Crisis", mimeo (July).

<sup>11</sup> B. Eichengreen (2002). "Capital Account Liberalization: What do Cross-Country Studies Tell Us?", World Bank Economic Review, 15, pp.341-65.

<sup>12</sup> Eichengreen, *op. cit.*.

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<sup>13</sup> See R. Rajan (2001). “(Ir)relevance of Currency Crises Theory to the Devaluation and Collapse of the Thai Baht”, Princeton Studies in International Economics No.88, International Economics Section, Princeton University.

<sup>14</sup> There are, of course, many other benefits of FDI for the host country’s economic growth via technology transfer, crowding in of domestic investment, and the like. These issues are not presented here as our focus is on capital account reversal (liquidity) as opposed to issues of resource allocation.

<sup>15</sup> See G. Bird and R. Rajan (2002). “Does FDI Guarantee the Stability of International Capital Flows? Evidence from Malaysia”, Development Policy Review, 20, pp.191-202 and references cited within.

<sup>16</sup> For instance, see J. Frankel and A. Rose (1996). “Currency Crisis in Emerging Markets: Empirical Indicators”, Journal of International Economics, 41, pp.351-68.

<sup>17</sup> See G. Bird and R. Rajan (2002). “Does FDI Guarantee the Stability of International Capital Flows? Evidence from Malaysia”, Development Policy Review, 20, pp.191-202..

<sup>18</sup> M. Baily, D. Farrell and S. Lund (2000). “The Color of Hot Money”, Foreign Affairs, 79, pp.99-109.

<sup>19</sup> See M. Bussiere and C. Mulder (1999). “External Vulnerability in Emerging Market Economies: How High Liquidity Can Offset Weak Fundamentals and the Effects of Contagion?”. Working Paper No.99/88, IMF; U. Dadush, D. Dasgupta and D. Ratha (2000). “The Role of Short-term Debt in Recent Crises”, Finance and Development, 37, pp.54-7; D. Rodrik and A. Velasco (1999). “Short-term Capital Flows”, Working Paper No.7364, NBER; and World Bank (1999). Global Economic Prospects and the Developing Countries (New York: Oxford University Press).

<sup>20</sup> O. Jeanne (2000). “Foreign Currency Debt and the Global Financial Architecture”, European Economic Review, 44, pp.719-27.

<sup>21</sup> See for instance S. Fischer (2001). “Opening Remarks”, IMF/World Bank International Reserves: Policy Issues Forum (Washington, DC, April 28) and Y. Horiguchi (2001). “Capital Flows in Emerging Asia: Should External Borrowing be Restrained?”, paper presented the 7<sup>th</sup> Dubrovnik Economic Conference (Dubrovnik, June).

<sup>22</sup> Of course, there may be a number of liquidity enhancing measures that might be taken to safeguard against unhedged external debt. These are discussed in R. Rajan (2002). “Safeguarding Against Capital Account Crises: Unilateral, Regional and Multilateral Options for East Asia”, in G. de Brouwer (ed.), Financial Arrangements in East Asia (London: Routledge Press), forthcoming and G. Bird and R. Rajan (2002). “The Evolving Asian Financial Architecture”, Princeton Essays in International Economics No.226, International Economics Section, Princeton University.

<sup>23</sup> This was not the case in all countries in the region. In Indonesia, the major government-linked conglomerates undertook most of the borrowing (78 per cent in 1996).

<sup>24</sup> It is generally accepted that thin markets and consequent high transactions costs make hedging (of either maturity or currency mismatches) prohibitive. In addition, as Hausmann correctly notes, “if a country cannot borrow in its own currency, it cannot hedge the exposure to its foreign debt. To do so, foreigners would have to take a long position in pesos, and that the equivalent to assuming that the country can borrow abroad in pesos” (p.144). See R.

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Hausmann (1999). "Discussion", in Capital Flows and the International Financial System, (Sydney: Reserve Bank of Australia), pp.141-9. Also see R. Hausmann (1999). "Currencies: Should there be Five or One Hundred and Five", Foreign Policy, 116, pp.65-79.

<sup>25</sup> For bank-based explanations of the persistent interest premia offered by emerging economies, see G. Bird and R. Rajan (2001). "Banks Financial Liberalisation and Financial Crises in Emerging Markets", The World Economy, 24, pp.889-910.

<sup>26</sup> This point is formalised by O. Jeanne (2001). "Why Do Emerging Markets Borrow in Foreign Currency?", mimeo (IMF).

<sup>27</sup> Closely related to this argument, McLean and Shrestha have suggested that the development of a euro bond market is also a means of overcoming the original sin phenomenon. They find evidence that this was the case in Australia, New Zealand and South Africa, none of which appear to be plagued by the original sin problem. See B. McLean and S. Shrestha (2001). "International Borrowing in Domestic Currency: What Does it Take?", Reserve Bank of Australia, mimeo (January)

<sup>28</sup> Prior to the crisis, most East Asian countries did not make any attempt to develop an active government bond market as most governments were faced with persistent fiscal surpluses (i.e. there was no need to borrow) and there was a belief in the efficacy of a predominantly bank-based financial system. For an illuminating discussion of recent steps towards creating a corporate bond market in Singapore, see K.J. Ngiam and L. Loh (2002). "Developing a Viable Corporate Bond Market: The Singapore Experience", mimeo (June).

<sup>29</sup> Of course, the other middle-income Southeast Asian country, Malaysia, imposed restraints on capital flows as well. For a discussion of the distinction between *exchange* and *capital account* restraints, see G. Bird and R. Rajan (2000). "Restraining International Capital Flows: What does it Mean?", Global Economic Quarterly, 1, pp.57-80.

<sup>30</sup> See S. Ishii, I. Otker-Obe and L. Cui (2001). "Measures to Limit the Offshore Use of Currencies - Pros and Cons", Working Paper No.01/43, IMF.

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