# RETHINKING THE ASIAN FINANCIAL CRISIS THROUGH THE CAPITAL ACCOUNT CRISIS PARADIGM

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## ABSTRACT

*In this paper the authors rethink the Asian financial crisis that occurred in 1997-1998 through the relatively new capital account crisis paradigm. They argue that this paradigm provides a much more appropriate perspective to frame the questions regarding causes, cures, and preventive measures raised by the Asian crisis, and that it provides a more persuasive explanation for the greater-than-expected severity of the crisis than that which would have been expected from an analysis based on the traditional current-account mode of thinking. he authors conclude that, just as the Great Depression was a tragic testament to the failure of the political process to yield economic policies appropriate for sustaining the economy on a potential growth path, the Asian financial crisis may also be so construed.*

## INTRODUCTION

With the benefit of hindsight accumulated over the past three generations, Paul Krugman (1999) has characterized the Great Depression as "a gratuitous unnecessary tragedy." With the benefit of three years of hindsight, what lessons have we (economists, policymakers, and financial market practitioners) learned from the Asian financial crisis? The following important question may also be raised: Could the Asian crisis have been contained at the Thai border, and should it thus be viewed as "a

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gratuitous unnecessary tragedy"? In order to answer these questions, we propose to rethink the Asian crisis through the capital account crisis paradigm.[2]

In this paper, we argue that the capital account crisis paradigm provides a much more appropriate perspective to frame the questions regarding causes, cures and preventive measures raised by the Asian crisis. We also argue that such traditional indicators of sound macroeconomic fundamentals as government budget balance, relatively subdued inflation, and high domestic savings rates have become increasingly inadequate in a post-Cold War world characterized by increased globalization of financial markets and virtually free capital flows.

## THE ROOTS OF THE ASIAN CRISIS

For the purpose of this paper, the term "Asian crisis" is used as a broad generic term referring to the sharp and protracted real economic crisis (as indicated by plunging economic output and surging unemployment) and mounting socio-political turmoil (as exemplified by the ouster of the Suharto regime in Indonesia) precipitated by the twin financial crises, the banking and currency crises. The banking crisis was triggered by the bursting of accumulated bubbles in affected countries (e.g., real estate bubbles in Thailand and excess capacity bubbles in Korea) that led to the surge in non-performing assets in banks' balance sheets threatening their solvency. "Currency crisis," in turn, refers to the sudden plunge in the external value of a national currency which occurs when the national monetary authorities are compelled to abandon their efforts to maintain a certain target level for the external value of its currency, due principally to the actual or prospective exhaustion of international reserve holdings. The problem often encountered in developing countries is that the official decision to abandon a previously relatively fixed exchange rate regime by letting market forces determine the currency's market-clearing level often results in substantial overshooting due to the process identified in economic literature as "destabilizing speculation."

There has been a consensus that the twin financial crises themselves were caused by underlying conditions that have been characterized as (i) over-borrowing (over-lending) and over-investment and (ii) the double mismatch.[3]

[2] This paradigm was originally proposed by Masaru Yoshitomi (1998), Dean of the Asian Development Bank Institute in Tokyo and was transmitted to The 3/23 Group, a discussion group of international economic and financial experts in New York. An earlier version of the paradigm was also discussed at the UNITAR/Seton Hall University Workshops on *Global Economic Crisis from Thailand to Brazil: Lessons Yet to Be Learned* held at the U.N. headquarters in New York in February and in May 1999.

[3] One may suggest expanding it to "triple mismatch" to incorporate the idea that, in the post-Cold War era, an increasing globalization of finance has been joined by an increasing localization or nationalization of politics that too often stymies policies in a larger public interest.

In general, terms such as over-borrowing (over-lending) and over-investment are often ill defined. They should be viewed as *ex post facto* concepts referring to phenomena that become manifest only after the *ex ante* expectations regarding the prospective returns embodied in the respective decisions to borrow, lend and invest are shown to have been overly optimistic.

The "double mismatch" refers to the maturity mismatch and currency mismatch in the balance sheets of financial firms and their client firms. The maturity mismatch occurs when assets are financed by liabilities (debts) whose maturities are shorter than those of assets. The classic case was that of the U.S. Savings and Loan industry that typically borrowed short-term (customer deposits) and lent longer-term (fixed interest rate mortgages) to home buyers.

The currency mismatch refers to the imbalance in the currency of denomination of asset and liability items in the balance sheet, abstracting from their maturity profile. A domestic borrower with an excess of foreign-currency-denominated liabilities over foreign-currency-denominated assets may experience a liquidity crisis if the borrower has difficulty in having its creditors roll over the maturing claims and/or its access to new foreign-currency credits is closed, as happened across Asia during the recent crises.

The causes of dashed expectations that helped precipitate the Asian financial crisis have been varied. The common element driving the market-based decisions was the expectations that the financial and real assets in Asian countries would yield relatively higher risk-adjusted returns than those obtainable in mature industrial economies, especially in Japan, the world's largest net creditor and current account surplus-generating country.

In concrete terms, it was the massive capital flows from industrial countries into the Asian "miracle" economies that eventually precipitated the Asian financial crisis. These capital flows, in turn, were pushed by:

- the relatively low returns available in mature industrial economies because of their maturity
- below potential economic performance and record low interest rates (as in Japan)
- surges in the dollar/yen exchange rate (the value of the yen in terms of the dollar) driven by the fear of targeted protectionist pressures from the U.S.

Capital flows were also pulled in by the widely-shared perceptions of relatively high risk-adjusted expected returns on capital in Asian economies that had long enjoyed demonstrable economic success. In this connection, the following two perspectives should be noted:

First, despite the well-known demurrer raised recently by Paul Krugman, this paper accepts the general thesis of the well-known World Bank study of 1993 entitled

*The East Asian Miracle* that the Asian economic miracle had indeed happened.[4] Second, the massive inflows of capital in various forms -- including foreign direct investment, fixed income and equity securities, and loans by banks and other financial institutions -- that eventually set the stage for the eventual eruption of the Asian financial crisis occurred because of the perceived soundness of macroeconomic fundamentals of Asian economies, as measured by such conventional indicators as government budget balances, inflation and domestic savings rates.

In increasingly globalized financial markets supported by the greater liberalization of domestic financial markets (for example, deregulation of interest rates and financial products, accompanied by relaxation of entry restrictions on new competitors) and external capital account transactions (for example, freer corporate access to foreign borrowing and foreign direct investment), increasingly mobile capital tends to get allocated across borders and across instruments, seeking to maximize the risk-adjusted total returns of capital. The owners of capital (or their agents) allocate their capital in such a way to equalize the risk-adjusted marginal returns on capital across borders. In view of the prevailing euphoria about the coming Asian Century, it is not surprising that a lion's share of savings from the mature industrial economies flowed into Asia's miracle economies in the post-Cold War years.

In summary, the (proximate) roots of the Asian financial crisis may be understood in terms of over-borrowing (over-lending), over-investment, and the double mismatches which followed domestic financial market deregulation, hasty liberalization of international capital account transactions, and the accelerated globalization of financial markets as well as the integration of national economies spurred by the euphoria celebrating the widely declared triumph of capitalism over socialism. The information and communication revolution that coincided with the end of the Cold War helped accelerate the process of globalization and integration of markets. All these culminated in capital account crisis as discussed below.

## UNDERSTANDING THE ASIAN FINANCIAL CRISIS THROUGH THE CAPITAL ACCOUNT CRISIS PARADIGM

In the traditional current account crisis paradigm, the currency crisis generally occurs with a sudden reversal in capital flows in response to surging current account deficits triggered by deteriorating macroeconomic fundamentals. In this paradigm, capital

[4] Paul Krugman questioned the thesis on the technical ground that the Asian miracle (which has often been represented by the sustained near double digit economic growth rates) was driven almost exclusively by increased inputs of capital and labor, not by (total factor) productivity increases. Aside from many daunting conceptual problems involved in measuring the inputs of capital and labor accurately and measuring the productivity increases as residuals, the sudden and quantum leap in factor inputs and the associated domestic savings must indeed be deemed miraculous.

flows are viewed as adjusting passively to finance the current account imbalances that are determined autonomously by cross-border transactions in goods and services driven by relative income and exchange rate effects. A typical traditional current account crisis may be described as follows:

- Due to weak macroeconomic fundamentals (e.g., large budget deficits and high inflation rates), the domestic economy overspends its income. By the national income identity, the amount of overspending in excess of domestic production is equal to the current account deficit.
- The current account deficit can be financed by private capital inflows. Where that is unlikely in an economy with weak policy discipline, usable international reserves dwindle and the balance of payments becomes increasingly unsustainable.
- Faced with the prospect of default, the government calls for assistance of the International Monetary Fund (IMF). The IMF (sometimes with other bilateral and multilateral donors) provides emergency funds in return for the implementation of corrective measures, which include restraining domestic expenditures, devaluation of the country's currency, and structural adjustment designed to strengthen supply capacity.

In contrast, in the capital account crisis paradigm, the driver of the crisis is not the current account imbalance but cross-border private capital flows which are determined autonomously in response to the perceived changes in the risk-adjusted expected returns on capital. As shown by the Asian financial crisis, the process, which may be aptly characterized as "Manias, Panics and Crashes" *a la* Charles Kindleberger (1996), runs as follows:

- As an economy is opened up financially, over-borrowing (over-lending) and over-investment begin, leading to massive private capital inflows exceeding the underlying current-account deficit. In this stage, international reserves accumulate, monetary and domestic credit aggregates expand, and a domestic economic boom is ignited.
- The double mismatch (the maturity mismatch and currency mismatch discussed above) problem occurs and is aggravated by excess capacity and asset bubbles in stock and real estate. This may be characterized as the "manic" stage. While the current account deficit widens increasingly to match the domestic economic boom, continued over-borrowing (over-lending) and over-investment approach limits.
- The double mismatches make the balance sheets of domestic financial institutions and enterprises vulnerable to the combined effects of asset price declines,

depreciation of the country's currency value, and a refusal of rollover by foreign creditors. Seeing all this, international lenders and investors begin to recall or repatriate their loans or investments and domestic residents start to shift their savings abroad. The capital account surplus starts to decline and then turns into deficit. The country is forced to defend the exchange rate by intervention, leading to the depletion of international currency reserves.

- Negative market psychology, i.e., "panic," sets in and currency attacks by speculators finally succeed. Countries differ as to how long they hold on to their exchange rates (and how much reserves they have and are prepared to lose) before they let them float. The country's currency value depreciates, and the balance sheets of financial institutions and enterprises with unhedged foreign currency debt are seriously damaged. Banking crisis and currency crisis reinforce each other through the balance sheet effect. Panic spreads, and real sector activities, i.e., international trade, merchandise distribution, investment and production, are impeded. Domestic financial crisis deepens and the real gross domestic product (GDP) begins to decline.
- The government of the country in crisis rushes to the IMF to beg for rescue. The IMF, along with the international community, provides emergency financing and simultaneously imposes policy conditionality. Because of the drastic reversal in private capital flows, the amount of money required to replenish international reserves under the capital account crisis is far greater than in the case of the traditional current account crisis, which can usually be financed within the prescribed limits of IMF lending for each member country. At the same time, domestic financial crisis reduces business investment and shakes consumer confidence, resulting in a sharp decline in domestic demand. Credit risks rise drastically because of increasing defaults. Thus, the capital account crisis simultaneously causes domestic financial crisis, defaults, and contraction of domestic demand, which may be characterized as economic "crashes."

This capital account crisis paradigm provides a more persuasive explanation for the larger-than-expected severity of the Asian financial crisis than would have been expected from an analysis based on the traditional current account mode of thinking. Once the widely-held assumptions about expected returns on local assets and exchange rate stability are perceived to be untenable – a realization occasioned by the bursting of the asset price bubbles or widespread corporate bankruptcies that threaten the solvency of domestic banking and other financial institutions – international lenders and investors collectively head for the exits in order to escape the default risks. Their precipitous collective action, reminiscent of the classical bank run, triggers sudden and massive reversals in capital flows far exceeding the scale proportionate to the size of the current account deficits. For example, in 1997, with the sudden reversal in exchange rate expectation and prospective returns on Thai assets, there was an unprecedented reversal of capital flows from net inflows to net outflows. Total swing in capital flows exceeding 20% of Thailand's GDP, in turn, precipitated a massive deficit in its capital account. The consequent depletion of international reserve holdings (with the loss of reserves approaching 10% of GDP) triggered an abandonment of the exchange rate regime pegged to the dollar and the widely noted "free fall" in the external value of the baht. The extent of the currency decline was inconceivable from a current account crisis perspective as the extent of overvaluation implied by the standard measure of currency overvaluation (real effective exchange rate) was less than 10%. A similar pattern of swing in capital flows was registered for the five Asian countries severely impacted by the crisis.

The capital account crisis perspective, with its focus on the complex interactions between the twin financial (banking and currency) crises and the underlying double mismatch problem, provides a unified framework for understanding why so much complacency and misguided optimism prevailed before the eruption of the Asian financial crisis, and why the official and private responses have exacerbated the financial crisis, thereby triggering deeper socio-economic crises. The high interest rate prescription – considered to be appropriate in cases of a more traditional current account crisis caused by an expansionary aggregate demand fueled, for example, by a stimulative fiscal policy – precipitated higher-than-expected cutbacks in corporate spending due to the proliferation of corporate bankruptcies (owing to the prevalence of highly-leveraged capital structures). In addition, the high interest prescription triggered a widespread and severe credit crunch as domestic banks' balance sheets weakened sharply. Their balance sheets were decimated by the double impact of (a) shrinking values of assets due to an increased number of non-performing loans on their books as their clients experience widespread bankruptcies, and (b) escalating values of their foreign-currency-denominated liabilities as the value of the domestic currency sank much more than expected when the currency peg was abandoned.

By focusing on the complex interactions between the increasingly globalized financial markets and emerging market economies with demonstrated vulnerabilities to swings in market sentiments, the capital account crisis perspective (had it been employed) would have revealed the inadequacy of conventional indicators of the "soundness of macroeconomic fundamentals" (such as the budget balances, low inflation and high domestic savings) as early warning indicators of the impending financial crisis.

The Asian experience has shown that the conventional indicators must be supplemented by some indicators of financial vulnerabilities that may be constructed from the balance sheet data reflecting the extent of double (maturity and currency) mismatches and the extent of business reliance on debt financing vs. equity capital. Also, the capital account crisis perspective indicates that the amount of international reserve holdings required to reassure the market far exceeds the country's IMF quota, inasmuch as such quota calculations were designed to address the balance of payments problem arising from an imbalance in the current account.

In the brave new world of global financial markets, where capital account movements dominate flows initiated by current account transactions, the new perspective helps the policymakers to refocus on the importance of the speed and extent of domestic financial market deregulation and a proper sequencing of capital account liberalization in order to guard against the disruptive consequences of "excessive" speculation powered by over-borrowing (both in domestic and foreign currency), over-lending and over-investing. More broadly, this perspective provides a natural frame of reference for addressing policy and regulatory issues related to the judicious management of financial vulnerabilities.

## LESSONS LEARNED FROM THE ASIAN FINANCIAL CRISIS

The "correct" lessons finally learned from the Great Depression of the 1930s were applied with great success to render the *ex ante* system-threatening Crash of October 19, 1987 an *ex post* "small potato event."

The Great Depression was a manifestation of government policy failure, not of pervasive market failure (as is still widely believed among non-economists). Just as the Great Depression was a tragic testament to the failure of the political process to yield economic policies appropriate for sustaining the economy on a potential growth path, the Asian financial crisis may also be so construed.

As Robert Wade (1998) aptly points out, "Perhaps the single most irresponsible action in the whole crisis was capital account liberalization without a framework of regulation. This exposed economies built for patient capital to short-term financial pressures, and allowed the private sector to sidestep domestic monetary restrictions via foreign borrowings, helping to cause currency overvaluation. The blame is shared between national governments and international organizations. But it has to fall disproportionately on the IMF, that for several years now has been pushing hard for capital account opening."

Why did the IMF insist on capital account liberalization in the Asian countries that were awash with domestic savings? Why did it neglect organizing negotiations for debt rescheduling between the Asian debtors and the banks? Why did it provide these countries bailout money in return for structural and institutional reforms which have little to do with the causes of, and recovery from, the financial crisis? Perhaps, the following remark by James Tobin (1997), the Nobel laureate in economics, answers the questions: The Asian countries are "victims of a flawed international exchange rate system that, under U.S. leadership, gives the mobility of capital priority over all other considerations."

Moreover, had the IMF been true to its mandate of helping countries cope with temporary shortages of their international reserves and regaining the confidence of international capital markets, and had it focused its attention on organizing debt rescheduling negotiations between the debtor nations and the international banks, its prescriptions might have looked less like "screaming fire in the theater." (Wade 1998) The financial crisis has precipitated and accelerated economic reforms that, we hope, ought to lead to more stability in future. Across the emerging world, countries have learned the perils of fixed (but adjustable) exchange rates; they have discovered the dangers that come from excessive reliance on short-term debt denominated in foreign currency; and they have seen the consequences of lax financial supervision.

In Asia, financial and corporate restructuring should improve the financial system, corporate governance and the efficiency with which capital is used. In Latin America, fiscal reform should raise domestic savings and reduce the region's reliance on foreign capital.

Will these structural reforms on the part of emerging economies prevent future financial crises? We think not. They may help to reduce the chances of another crisis to some extent, but may not prevent another one as long as something is not done institutionally regarding short-term capital flows. As noted earlier, the economic historian Charles Kindleberger has characterized short-term capital flows as "manias and panics"; and such volatile capital flows were the major culprit in the recent financial crisis.[5]

What has happened in recent days to the impassioned oratory we heard during recent years about the need for remaking the "global financial architecture"? The oratory now seems to be dead. The debt crisis of the 1980s cost South America a decade of growth. The recent Asian financial crisis pushed back the living standards of Indonesians to the level of thirty years ago and those of South Koreans and Thais to the level of ten years ago. Due to the recent crisis, the middle class, which is the backbone of society in any country, has been devastated in these Asian countries. Besides suffering such economic setbacks, these countries have lost the political independence to run their economic policies as they deem fit.

None of the proposals discussed in Washington in recent years[6] is likely to rid the system of instability caused by the movement of hot money across national borders.

5 This statement should not be interpreted as overlooking other causes and problems such as state-directed banking systems and lending decisions, inadequate financial regulation and bank supervision, massive over-investment by corporations in projects without careful assessment of risk and return, the maturity mismatch and currency mismatch in the balance sheets of financial firms and their client firms, and lack of transparency.

6 For example, see the *G-7 Finance Ministers and Central Bank Governors Statement on Financial Architecture – Annex*, released on September 25, 1999 in Washington, D.C.

While no one can disagree that transparency and reform of banking systems in the emerging economies will help, they will not prevent the crises that unregulated short-term capital flows inherently generate.

In this connection, we wish to quote Jagdish Bhagwati (1998), who served as Economic Policy Advisor to the Director-General of the General Agreement on Tariffs and Trade (GATT), the predecessor of the World Trade Organization (WTO). He said:

> *This powerful network, which may aptly, if loosely, be called the Wall Street-Treasury complex, is unable to look much beyond the interests of Wall Street, which it equates with the good of the world... And despite the evidence of the inherent risks of short-term free capital flows, the Wall Street-Treasury complex is currently proceeding on the self-serving assumption that the ideal world is indeed one of free capital flows, with the IMF and its bailouts at the apex in a role that guarantees its survival and enhances its status. But the weight of evidence and the force of logic point in the opposite direction, toward restraint on capital flows.*

It seems prudent for the emerging Asian countries severely impacted by the recent financial crisis as well as other developing countries to attempt to limit inflows of hot money, especially very short-term loans from international banks. Money that pours into a country can just as easily pour out. Highly volatile short-run capital, often moved by self-fulfilling waves of euphoria or panic, can disrupt economies and cause massive swings in exchange rates. Some speed bumps, or "sand in the market's gears," should be imposed on inflows of short-term capital through appropriate regulation of the banking system or taxes. (Sachs and Larraine 1999) It is an "ideological humbug" to argue that without free mobility of volatile short-term capital the East Asian economies cannot function and their growth rates will collapse.

We would like to end this very secular paper with a quotation from a non-secular source, the Old Testament. In Chapter 9, Verse 11 of Ecclesiastes, we find a very interesting, perceptive passage, which reads as follows:

> *I came and saw under the sun that the race is not to the swift, and the battle is not to the warriors, and neither is bread to the wise, nor wealth to the discerning, nor favor to men of ability; for time and chance happeneth to them all.*

Though we are not trained in biblical interpretation, we would venture to say that the above passage from the Bible articulates the basic truth that essentially there is no divine justice -- the race is not given to the swift. In an allegorical sense, this passage is certainly relevant to the situation of emerging nations in Asia, which achieved a swift industrialization during the last quarter of the 20th century. Contrary to what many would like to believe, the much-vaunted ideology of free capital mobility exacted a heavy price -- the wise, the swift, the discerning and the men of ability in Asian emerging countries did not necessarily benefit, but were secondary to the purpose of global financial capitalism. As chance would have it, economic and political conditions worked to the advantage of Wall Street. And as time and chance change, so too, we hope, will the fortunes of the people living in these re-emerging, developing countries.

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