A Comparative Essay on the Causes of Recent Financial Crises

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ABSTRACT

Causes of recent financial crisis are explored. The study points out different reasons for the financial crisis which have plagued different countries and takes a country by country analysis as the main approach. The essay includes aspects of short-term volatility, macroeconomic fundamentals, policy misalignments, banking performance, exchange rate management, and contagion. A comparative summary concludes the analysis. Countries studied include Mexico (1994), Thailand (1997), Korea (1997), Indonesia (1998), Malaysia (1998), Russia (1999), Brazil (1999), Turkey (2000), and Argentina (2001).

INTRODUCTION

Globalization and uncontrolled speculation have been blamed as the leading reasons for the effects of recent financial crises on developing economies (Kraussl 2003). The size and speed of capital flow movements in international financial markets are argued to have created "devastating" consequences for those countries, and as have been quoted by Malaysian Prime Minister Mahatir in the Jakarta Post on January 24, 1998:

> "*For forty years, all these (emerging) countries have been trying hard to build up their economies and a moron like George Soros comes with huge sums of money to speculate and destroys everything*".

Different financial crises arise due to different reasons. It can be argued that a specific financial crisis initially occurs due to specific market failures in specific sectors of the economy and then it may spread to other countries through contagion and other regional spill-over effects. However, three general forms of financial instability have constituted most forms of recent financial crises (based on Kaminsky and Reinhart 1996, Caprio 1998, Kraussl 2003, and White 2000): (1) short term volatility, (2) medium term misalignments including excessive international capital flows, and (3) contagion.

MEXICO (1994-95)

As has been noted in the literature (Kraussl 2003 and NBER 2002), economic fundamentals cannot fully account for the panic and chaos effects of the Mexican "Tequila" crisis. However, the fact that short-term liabilities of the government, despite "bold fiscal reform", became greater than its liquid assets; and with the economy relying too heavily on foreign borrowing, real exchange rate depreciation was necessary in 1994. A financial adjustment could have saved the economy if it had been made early enough, before any forms of financial panic took place. Yet, as a result of creditor panic, the current account deficit disappeared rather abruptly. It seems that the Mexican economy experienced a series of unexpected shocks that mainly occurred throughout 1994, coupled with inadequate policy responses to those shocks. The assassination of presidential candidate Colosio in March, nominal exchange rate devaluation of around 10% (reaching the edge of the Mexican band), and an interest rate increase of 7 percentage points are examples of such shocks (NBER 2002). In addition, capital outflow and foreign investor panic were characteristic in 1994. The policy response was to maintain the exchange rate rule while limiting the increase in interest rates. The government decided to approach this policy situation by expanding domestic credit and converting short-term peso-dominated government liabilities into dollar-denominated bonds. The almost immediate result was a rapid fall in international reserves and a drastic increase in short-term debt. This left the economy basically illiquid and financially vulnerable.

The Tequila crisis, at its very core, may have had several inter-related causes for its development. An expected devaluation coupled with financial panic on government debt created financial vulnerability. Further on, as reserves gradually ran out due to excessive domestic credit, and when stock adjustments eventually depleted the remaining reserves, the government became illiquid based on its policy of convertibility. Additionally, rising interest rates with devaluation created a self-fulfilling panic on government securities with investors realizing that the government would be unable to repay its dollar-denominated debts. These reasons explain why the Tequila crisis came so suddenly.

SOUTHEAST ASIA (1997-98)

Although the analysis of the financial crisis plaguing Southeast Asia in 1997-98 is usually treated as a block, it is the point of view of the author that there exists fundamental economic weaknesses which are country-specific pertaining to each economy, and that the causation factors of financial vulnerability may have been different from one country to the next, although the final effects may have been common for all (NBER 2002). The contagion effect between Asian countries is not denied, but rather the intensity of contagion may have been different from one country to the next, a fact which may partially explain why different Asian countries recovered more quickly than others (Kaminsky and Reinhart, NBER 2002, and White 2000).

Thailand

The financial turbulence in Southeast Asia is claimed to have been started by the Thai devaluation of 1997. Before the devaluation, namely in 1996, Thailand's export growth fell dramatically due to the depreciation of the Japanese yen coupled with a recession in the electronics industry. Thailand had been shifting its export specialization from textiles to consumer electronics, but it was unable to follow the required speed of technological catch-up in the electronic industry due to tough competition from China. Moreover, since the Asian countries are known to follow a "flying geese" pattern of development, whereby different countries are lined up in the order of technological sophistication of production, led by Japan, followed by Korea and Taiwan, and then followed by Thailand and others; it was a fundamental necessity for Thailand to be able to catch up the "geese ladder" from Korea and Taiwan with respect to the electronics industry, a necessity which was not realized except late.

Also, as the economy slowed down in 1997, a financial bubble occurred which led to a substantial increase in the non-performing loans in the balance sheets of banks and other financial institutions (the majority of which were specialized in obtaining foreign currency deposits and then lending the money domestically for real-estate projects). The Thai government was able, at the beginning, to provide adequate liquidity, but was unable to sustain its position due to currency speculation and the excess size of forward contracts unrevealed by the Central Bank as part of its reserve system. Continued speculative pressures and a deterioration of the Central Bank's reserve position led the government finally to abandon its peg policy to the dollar. This was followed by an immediate exchange rate depreciation. Following advice from the United States and Japan, the Thai government obtained an insufficient $17 billion IMF package. The end result was that the currency fluctuated widely, the Thai bhat lost more than 50 per cent of its value, and rising short-term external debt became an unsolvable problem.

Korea

The financial crisis that plagued Korea in early 1998 came as a surprise to most economic analysts, particularly because Korea had an impressive growth record, high capital flows, a tradition of reliable macroeconomic fundamentals, and had recently become an OECD member. The main characteristics usually agreed upon include two critical factors which helped create panic and finally resulted in the crisis: (1) a liquidity problem that resulted in structural imbalance, and (2) a combination of irrational short-term balance sheet management and contagion.

The liquidity problem came as a result of herding behavior of foreign investors. The semiconductor sector witnessed a terms of trade shock in 1996-7 when the share of non-performing loans to total loans was already high. This meant that many financial institutions were implicitly bankrupt even though the budget deficit was low. Also, investors discounted the possibility of sudden devaluation and under-estimated the real cost of capital. In essence, the liquidity problem happened because of four reasons: foreign exchange reserves were insufficient, short-term debt was on the rise, contagion from the Asian crisis (predominantly from mutual funds withdrawing their portfolios from emerging markets), and finally due to Korea's vulnerability to market access when short-term liabilities broke loose.

On the other hand, some analysts hold the view that the crisis would not have occurred if there were sufficient reserves and if there had been a strong banking system (i.e. sound balance sheet management). The core problem could be volatility. Many other economies had high ratios of short-term liabilities to reserves but significantly less volatility. Hence, it could be argued that the liquidity problem and weak structural factors are not different issues but that they are two factors mutually re-enforceable. From the structural weakness point of view, the economy was not structured properly to withstand excessive shocks to its system, i.e. there was over-confidence. Mainly, the recession in 1997 and the Thai contagion effect were the first of the troubles faced by an impressive Korean economy. Next came herding behavior. This was followed by significant government liability because of implicit guarantees (since some financial institutions were implicitly bankrupt due to the non-performing loans discussed above). Further, there was real appreciation under the pegged exchange rate system to the dollar.

Indonesia

The standard development policy sequence, i.e. achieve trade liberalization before financial sector liberalization, however, was not met. This may have been the core backbone of the Indonesian crisis. That is, the financial sector was vulnerable to external shocks because of excessive financial openness which was not matched by the same degree in trade openness. This deepened the contagion effect from Thailand and Korea. Also, the phenomenon of foreign capital flows to emerging market economies made a sudden reversal and Indonesia's economy was hardly hit by such an external shock. Another factor is the fixed exchange rate system. Although slight adjustments were made to compensate for inflation differentials, financial analysts believed that hedging was unnecessary due to apparent predictability while foreign borrowing was encouraged due to favorable interest differentials (without the necessity of hedging for exchange rate risk). From the banking side, smaller banks were crowded-out by larger banks in lending opportunities; with larger banks lending to the high risk real estate sector; all which led to a large increase in financial sector vulnerability.

Corruption was still another danger which had itself realized. The common practice of demanding illegal fat fees for the personal gains of bureaucrats (i.e. a pervasive abuse of public funds) created a structural misuse of national resources. It could be argued that, with or without contagion, the bubble was bound to burst after more than three decades of rent-seeking corruption. Unfortunately, this type of vulnerability was not reflected in the masked macroeconomic data or showcased balance sheets, but rather was a self-defeating which continued to feed upon itself. Compliments for Indonesia's success story in the World Bank and IMF reports also played a pivotal role in hiding the facts on the ground and helped in creating an erroneous picture of what was happening beyond the quantification of data. It is no surprise, then, that the Indonesian crisis was hit fast, hard, and had a very slow subsequent recovery.

Malaysia

The currency, ringgit, has been rather strong due to Malaysia’s strong trade position. Therefore, the policy of Bank Negara was concerned with holding the exchange rate down rather than supporting it (Mejai 1998). Unfortunately, after a decade of unprecedented growth, the ringgit began to be attacked by foreign investor speculation. This caused government austerity: large-scale infrastructure projects were delayed including the Baykun hydro-electric dam. The ringgit reached an all-time low by late 1997 and contagion effects of the financial crisis in neighboring Asian economies made the Malaysian economy form a full circle since the mid-1980s when Malaysia last experienced a recession (Mejai 1998).

Malaysia was seen as a high-growth developing economy and therefore the economy experienced excessive capital inflows. However, such capital inflows were not matched by a current account deficit (Kraussl 2003). If this had been the case, the upward pressure on the ringgit due to excessive inflows would have been absorbed by downward pressure of increasing imports. A currency appreciation would have solved the problem but Bank Negara maintained its ‘target zone’ policy within the range of RM 2.49-2.55 per US$ and had to inject its currency to the foreign exchange markets to counter the pressure of capital inflows. This caused substantial money supply increases which led to severe inflationary pressures on the economy (Jomo 1999). Then, Bank Negara sought to neutralize such an effect by sterilization i.e. issuing debt securities to banks in exchange for cash in order to curtail their liquidity. The fall in deposit growth due the decline in national savings should have reduced bank lending activities, yet the banking sector continued its lending efforts thanks to the sterilization policy of the Central Bank. Moreover, a large gap began to appear between short term and long term interest rates reaching a difference of more than 5 percentage points. Bank Negara was now faced with a dual crisis: an exchange rate problem due to foreign speculation and an interest rate problem causing credit imbalances in the economy. The response was to introduce a cap on lending rates. This caused a failure in investment demand and banks were forced to borrow offshore to make ends meet.

RUSSIA (1998-99)

The financial crisis which hit Russia in late 1998 did not come out of the blue, but was rather a reaction based on weak economic fundamentals, which can be summarized by the following points (Kagarlitsky 1998, Malki 1999, and Margolin 2000):

(1) Ballooning Debt: an outstanding foreign debt of $180 billion of which $50 billion was due by the end of 1999; this is a consequence of the country's policy of reliance on external financing for development,
(2) Decline in the Price of Oil & Raw Materials: fuel and energy comprise about 50% of total Russian exports, with Russia holding 5% of world oil reserves and producing 10% of world oil output; a constant decline in the price of oil & raw materials hit the country's export position,
(3) Weak Banking Sector: Russian banks sold multi-billion foreign exchange forward contracts gambling that the Russian ruble will not devaluate, with the use of government T-bills as assets, hence sudden devaluation hit the banks on both sides of their balance sheet, i.e. liabilities became impossibly expensive while assets became almost worthless,
(4) Contagion Effect: the contagion effect was basically run through global mutual funds who significantly reduced their emerging market positions following their losses during the Asian crisis,
(5) Exchange Rate Policy: the initial objective was to peg the Russian ruble to the US dollar within a narrow band to achieve stability, but due to the actual non-existence of a currency-board system to achieve such a target, reserves were drained to a limit of a one month cover of imports and the Russian Central Bank was forced to abandon its peg policy and let the ruble float causing sudden devaluation and investor panic.

From another perspective, the Russian crisis can be seen as a classical financial crisis comprised of a currency crisis, a debt crisis, and a banking crisis. The ruble collapsed from 6 RUR per US$ to 20-25 RUR per dollar (Kagarlitsky 1998), the aggregate capital of the banking system declined to almost negative levels, and the payment system came completely to a halt. As a result, the country's reactionary policy was to declare a moratorium on private foreign debt and default on all ruble-denominated public debt.

The currency crisis began as a result of excessive short-term capital outflows, with high interest rates unable to stop the outflow. The government had to raise new debt at the Russian Central Bank since they were unable to receive private credit from abroad. Official reserves were depleted in defense of the exchange rate. When attempts to continue defending the exchange rate regime were hopeless, floating was the preferred decision. Hence, there was a sudden devaluation. However, the most critical element here may have been the default on ruble-denominated government debt. This completely destroyed investor confidence (if any have been left at all).

BRAZIL (1999)

The financial crisis of Brazil can be seen as a “victim” of unsettled international capital markets rather than misalignment of economic fundamentals. The Brazilian ‘Real’ was devalued in February 1999 as a consequence of financial contagion which began with Thailand’s devaluation in July 1997. However, the innovative ‘Real Plan’ targeted low inflation and it was rather successful in curbing inflationary pressures on the economy, yet with the cost of an overvalued currency and a current account deficit. The ‘Real Plan’ had to deal with hyperinflation as a serious disease since the Brazilian economy was a highly indexed economy but never dollarized (NBER 2002). The plan began with a floating exchange rate and an initial nominal appreciation, but due to the Mexican crisis there was pressure to deal with a band system instead, and a de facto band system emerged with a ceiling on the dollar exchange rate. Following this, more external pressure forced the band system to systematically drift. The sad reason, it is heard, that what bothered the President was the trend in interest rates and not exchange rates. In defense of President Cardoso, fiscal concerns loomed large.

The absence of fiscal restraint and the overwhelming public debt were undermining Brazil's credibility in the eyes of foreign investors. Moreover, this was compounded with the lack of clear coordination between fiscal and monetary policies. An increase in the interest rate made financial expectations even more blurred, and many investors reverted to hedging their portfolios. However, the severe devaluation which followed was not at all anticipated. In addition, the view of the IMF towards Brazil was that of "burden sharing" rather than "bailing-out". This policy was due to the comparison made between Brazil and Russia after their financial crises. This was fundamentally unfair to Brazil. The IMF openly had little sympathy for the crisis noting that it was a moral hazard play with some IMF economists claiming that such a crisis may have been a blessing in disguise leading the private sector to reduce its reckless lending habits (NBER 2002). This was also seen as the case for Russia, hence came the "burden sharing" idea.

All in all, it seems that the financial crisis which hit Brazil with the sudden devaluation in February 1999 mostly came due to external pressures of financial contagion in addition to some misalignments between fiscal and monetary policy in addition to the heavy emphasis on curbing inflation rather than containing the exchange rate. It also seems that the exit strategy due to the IMF's stance had a heavy burden on the economy. Overall, it can be said that the origin and the solution of Brazil's problems came heavy on the economy as Brazil fell victim to unsettled international capital markets along with its reluctant lending institutions.

TURKEY (2000)

The economic background of the Turkish experience regarding the financial crisis of the years 2000-2001 had been that Turkey had earlier adopted a crawling peg exchange rate regime in order to contain inflation since inflation has been in the 50 to 60 percent range for most of the period post-1980. In addition, policy was directed towards a favorable position for an EU accession rather than what economic fundamentals propose. Some analysts say that Turkey's financial crisis, due to this reason alone, was "an accident waiting to happen" (NBER 2002). The crawling peg was overvalued, too little IMF money was lent out for financing the budget deficit, ineffective monetary (interest rate) policy, and large vulnerability to external shocks also kept little hopes for a brighter future.

The dynamite of the problem came when short-term debt reached higher levels than the reserves can handle. This happened in December 1999. In addition, due to Turkey's historical boom-bust cycles (NBER 2002) and the misguided IMF role in designing a program to address inflation rather than the balance of payments problem, the economy could not stand such severe macroeconomic instability. Consequently, the outflow of foreign funds led to an erosion of the capital base and fully revealed the financial weaknesses in the economy leading to the crisis.

However, many analysts observe that the Turkish government has done a lot to correct such imbalances but the word did not get out quickly enough and rumors concerning political instability made the situation worse (especially rumors related to the differences in opinion between the President and the Prime Minister). Together with political controversy, interest rates began to rise once again although they had declined from 100 percent to 50 percent in early 2001. In defense of the Turkish government, it would have been difficult to use money targeting and targeting the exchange rate would have created enormous economic losses, hence the only option left was to use effective inflation targeting.

ARGENTINA (2001)

Many of the historical causal factors affecting a financial crisis reappeared in the case of Argentina: the roles of the fixed exchange rate, a weakened banking system, politically-driven policy decisions, and fiscal irresponsibility. In the late 1990s, the Argentine banking system was a model for emerging markets. The banking system, however, was a major factor causing the Argentine financial crisis due to several reasons (NBER 2002): (1) the existence of a highly dollarized financial sector with large magnitude of balance sheet effects arising from devaluation and debt deflation, (2) the false sense of security produced by foreign banks in local investors, (3) a procyclical attitude in lending particularly by foreign banks, which have been relatively quick in reducing their exposure to international credit lines, and, at the same time, less willing to raise liquidity and remain engaged in preserving the payments system, and lastly (4) the incapacity of the payments system to effectively cope with regulator intervention in predominantly weak banks.

The second factor affecting the Argentine financial crisis is related to the bond market. It should be noted that the banking system worked well until the government "stuffed government bonds" into banks and then defaulted (under the direction of Domingo Cavallo, former Economics Minister of Argentina) (NBER 2002). The subsequent asymmetric revaluation of bank assets and liabilities, and efforts by the government and the IMF to impose a bond swap on depositors, made matters even worse. In his own defense, Cavallo has publicly noted that his government regrettably did not have time to implement its plan for a regulation for provinces which would mirror the United States' Chapter Nine regulation for municipalities.

With a public debt summing to 43% of GDP (given Maastricht guidelines of 60%) and a private debt equivalent to 12% of GDP, alongside a fiscal deficit of 2.6% (a vulnerable fiscal situation), fears of debt non-sustainability grew especially when coupled with a fixed exchange rate regime (NBER 2002). Such combination of factors led to a lack of confidence in the financial system.

From another viewpoint, Argentina's key problem could be seen from the excess increases in debt-financed public spending and the regulations that allowed these excesses. Regulations inadequately accounted for the risk posed by rising debt because public debt was calculated using a very low exchange rate rather than one sustainable in the long run. The Central Bank was incapable of cycle smoothing through the manipulation of liquidity requirements (one of the second order questions that the Central Bank had been considering when the crisis erupted). Hence, since very high liquidity requirements in foreign financial systems are necessary in an economy with dollarized banking liabilities, the system was not sustainable and resulted in a major crisis.

Other indirect modes of failure attributed to the Argentine financial crisis is due to the institutional bureaucracy of the economy: property rights were not well defined, the existence of excessive bribes for rent seeking, and Central Bank political dependence.

In a sense, the problem in Argentina was not that of "multiple equilibria", but rather there was only one bad equilibrium.

CONCLUSION

Causes of financial crisis are country specific. What is almost common to all is the existence of a banking crisis coupled with uncontrollable exchange rate fluctuations. Short-term volatility, macroeconomic policy misalignments, in addition to political factors and, of course, contagion through speculation, remain the critical factors in causing a financial crisis. On the other hand, the effects of these factors on a particular economy remain conditional on timing, politics, internal sustainability, and resilience to external shocks. The Mexican crisis (1994-95) was caused by short-term illiquidity, subsequent severe increases in the interest rate, and an overvalued currency. The nature of the Tiquilla crisis can be described as that of a self-fulfilling prophecy inducing investor panic. The Asian flu started with the Thai devaluation of 1997 on the basis of a financial bubble with a “too much open” capital account. The IMF’s insufficient $17b package did not solve the problem. Instead, Korea picked up the flu founded by poor balance sheet management in addition to an overconfidence with herding. However, Korea had a quick V-shaped recovery. Still, the flu continued to Indonesia and Malaysia based on severe contagion effects. Indonesia witnessed a GDP contraction, corruption, and financial openness before full trade liberalization whereas Malaysia faced a macroeconomic disequilibrium based on an irresponsible interest rate policy causing large gaps between short and long term interest rates. Following the Asian crisis, the Bear crisis in Russia (1998-99) was seen to have been caused by several factors including ballooning debt, external financing for development, and heavy mutual fund contagion in a transition economy with no currency board. The Russian crisis was based on insolvency rather than illiquidity. Later, Brazil (1999)’s ‘Real crisis’ came as Brazil fell “victim” to unsettled international capital markets, together with hyperinflation and moral hazard behavior in a non-dollarized highly indexed economy. Contagion was also blamed in the ‘Real crisis’. Further on, Turkey (2000), with its historical boom-bust cycles, fell into a financial crisis because of policy mismanagement, especially those policies related to EU accession without solid macroeconomic fundamentals. Sharp increases in interest rates, a non-sustainable crawling peg exchange rate regime, and differences in opinion between the President and the Prime Minister on key issues made Turkey an “accident waiting to happen”. Lastly, a financial crisis knocked Argentina (2001) with its economy behaving by means of pro-cyclical lending and fiscal irresponsibility coupled with inadequate regulations. An inflexible currency board and misguided policy directed towards “stuffing government bonds” and then defaulting made Argentina witness a tough financial crisis even though contagion effects were relatively weak.

Table 1: Summary and Comparison of Financial Crisis in Developing Countries

Country	*Year*	*Volatility*	*Policy Conduct (Misalignments)*	*Interest Rate*	*Contagion Effects*	*Political Factors*	*Exchange Rate*	*Role of the IMF*	*Nature of Crisis*	*Nickname of Crisis*
Mexico	1994-95	Short-term (Illiquidity)	Convertibility of short-term government liabilities (peso) into dollar bonds	Severe increase (seven percentage points)	No	Assassination of Presidential Candidate Colosio	Overvalued	Watchdog	Self-fulfilling prophecy (panic)	Tequila crisis
Thailand	1997-98	Non-performing loans/debt (Financial Bubble)	"Too much open" capital account	Relatively high	Origination	Late "geese ladder" development	Abandonment of peg to dollar (severe devaluation)	Insufficient \$17b IMF package	Currency devaluation with speculation	Asian Flu
Korea	1997-98	High debt to equity ratios	Poor "balance sheet management"	Moderate	Yes	Government credibility problem	Real appreciation	Quick recovery	Overconfidence with herding	Asian Flu (V-shaped crisis)
Indonesia	1997-98	GDP contraction	Financial openness before trade liberalization	High relative to the region	Severe	Corruption	Fixed	Masked	External shocks	Asian Flu
Malaysia	1997-98	Austerity	Contain inflationary pressures at any expense	Large gap between short & long term interest rates	Severe	Relative political stability	Strong currency (target zone)	Medium-term recovery	Disequilibrium	Asian Flu
Russia	1998-99	Ballooning debt & capital outflows (Solvency)	External financing for development	Moderate	Mutual funds	Transition economy	No currency board	Helping hand	Default	Bear crisis
Brazil	1999	Hyper-inflation	Non-dollarized highly indexed economy	High	Yes	Moral hazard	Band system with ceiling	Burden sharing but not bailing out	"Victim" of unsettled international capital markets	'Real' crisis
Turkey	2000	Historical boom-bust cycles	Policy towards EU accession rather than strict fundamentals	Sharp increases	Moderate	Differences in opinion between President and Prime Minister	Crawling peg	Too little IMF money	Accident waiting to happen	--
Argentina	2001	Pro-cyclical lending	Fiscal irresponsibility	Moderate	Weak	Economic Minister Cavallo "stuffed government bonds" and then defaulted	Inflexible currency board	Bond swap on depositors	Inadequate regulations	--

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