

IN SEARCH OF THE MARKET FAILURE IN THE ASIAN CRISIS

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Since the onset of the Asian financial turmoil, countless commentaries have been put forward on the origins of the crisis and on ways of preventing future occurrences. Explanations have centered on country-specific factors, including weak financial systems, poor corporate governance and pervasive moral hazard, as well as market-specific factors, most notably herding and financial panic. However, these diagnoses of the Asian financial crisis are incomplete, as are the proposed remedies. The country-specific factors touted as root causes were known well, and well before the crisis. They were ignored or to be offset by other strengths. Proponents of market factors as the chief cause, on the other hand, fail to identify precisely where the breakdown occurred. They point out that history is littered with financial crises precipitated by panic, yet do not offer solutions for minimizing herd behavior in financial markets, especially on the upside, which always precedes panics on the downside.

Why were well-known country risk factors overlooked or, if they were not overlooked, why were preemptive decisions not taken by investors and creditors? At the heart of the Asian financial crisis was inadequate country risk analysis by the private sector and its failure to adequately weigh risk and return associated with cross-border lending and investment in the region. The market was unable to produce and process information adequately in order to perform its allocative role efficiently.

We offer three explanations for the failure of country risk analysis in the case of the Asian crisis. First and foremost, individual market participants and country risk services underinvested in the human, information and technological resources needed to properly analyze political, economic and financial risks. Second, the structure of marketplace analysis production was inefficient, given the redundancy of individual market

Special Features

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participants all performing relatively similar, but limited analysis. Instead, the marketplace in the aggregate overinvested in shortsighted risk analysis.

Third, analytical processes themselves were fragmented within market institutions, often reflecting institutional biases. Macro and micro-level research was rarely bridged, and systemic risks were ignored. The processes also lacked the sophistication needed to detect danger signaled by indicators different from those evidenced in past crises. The absence of high quality market analysis allowed dynamics, such as cognitive dissonance and herding, to assume decisive roles in financial market behavior and outcomes.

THE CHALLENGE OF TODAY'S COUNTRY ANALYTICS

Today's country risk analyst is challenged as never before by numerous interrelated variables demanding specific expertise, and by changes stemming from globalization and a rising number of interdependent countries. Yet, the analyst is hindered from meeting this challenge by an array of resource, institutional and methodological constraints. While many bank analysts predicted the 1980s debt crisis, and some warned of the 1994 Mexican peso crisis, virtually no one foresaw Asia's present predicament.

Of particular concern is the deterioration of market participants' capacity to evaluate risks at a time when cross-border private capital flows are assuming growing importance in financing development. The extreme volatility in the international financial system has inflicted heavy social and economic costs on emerging economies. Thus, it is understandable that leaders of the developing world are questioning the ability of Western capitalism and associated private capital flows to deliver the promise of economic prosperity.

CAPITAL ABUNDANCE AMIDST INADEQUATE ANALYSIS

To explain the Asian crisis, we must first examine the massive amounts of capital invested in the region in the first place. Without the excessive flow of capital to the region, the extent of debt financing, the size of the asset bubble and the subsequent fallout would not have approached their current proportions.

It is common knowledge that flows to emerging markets rose sharply during the 1990s. According to the Institute of International Finance (IIF), commercial bank and nonbank private lending to emerging market economies tripled in only two years to U.S.\$178 billion in 1996 from U.S.\$61

billion in 1994, almost one-half of which went to South Korea, Indonesia, Malaysia, the Philippines, and Thailand (IIF, 1998b). Furthermore, the growing volume of capital to the region was paralleled by declining returns, which narrowed beyond what could be justified by improvements in creditworthiness or economic fundamentals (Cline and Barnes, 1997).

The pricing of Asian risk was as good or as bad as the analysis underlying it. Judging from the IIF estimate of U.S.\$100 billion or more in losses to foreign investors, Asian risk was poorly analyzed and priced (IIF, 1998a). Although the liquidity of global markets fed the frenzy, it should not have prevented investors from demanding returns commensurate with the risks assumed, or from ignoring the risks associated with the region's rapidly increasing debt levels.

The market's failure to adequately weigh risk and return for the Asian region reflects, above all, the paucity of resources devoted to the task by market players. Country analysts are typically assigned Herculean tasks, bearing the sole responsibility of analyzing a number of countries. At the time of the Asian crisis, each individual analyst—whether working for a ratings agency, financial institution or institutional investor—was typically responsible for following a half-dozen or more sovereigns, or a dozen or more banks or corporations.

It is a stretch for even seasoned analysts to perform in-depth analysis and continuously monitor several countries at once. Even in the rare instances when one analyst is fully devoted to following one country, analytical responsibilities must be balanced against time-consuming travel, information collection, internal meetings and external communications. Under numerous pressures such as publishing deadlines, client presentations, credit/ratings committees and quick decision-making, the amount of time analysts devote to research and processing available information is often minimal. Therefore, telling a defensible tale often takes precedence over figuring out the real story. As a result, the market performs its allocative role with analytical output that mirrors the low level of input.

Compounding the problem of understaffing is the inexperience of many analysts responsible for performing an already impossible task. Due to the growth of capital flows to developing economies, the demand for analysts to follow emerging markets and identify investment opportunities within them surged. Yet emerging market research, bound by budget constraints and the limited supply of experienced analysts, had to rely on inexperienced analysts lacking analytical depth and historical perspective. The army of new risk analysts are handicapped by their lack of historical insight of lessons learned from past economic cycles and financial crises.

One need only to survey a sample of Asian country risk reports to observe that analyses tended to be limited in scope and depth, reliant on

shortcut assessments of short-term developments, misleadingly simplistic and confident, and were hardly distinguishable from one another. In addition, these analysts utilized a limited and similar array of primary resources. Many of them chased the same government officials and local private sector representatives and held the same one-hour meetings during two-to-three day visits. There was limited time and often a lack of analytical ability to question assumptions or statements and to scout out new or detailed sources. Thus, the conclusions drawn were often incorrect.

At work in today's information and analysis market on emerging economies is the classic "free-rider" problem. Market analysts frequently communicate with one another, ostensibly to supplement their analysis, but in fact they are either piggybacking off someone else's insights or seeking validation of their interpretations. In essence, market participants attempt to "free-ride" off those that do their homework, but to the extent that everyone is doing the same thing, the market is left with suboptimal, inadequately researched, mirror-imaged judgments as a basis for allocating capital. The relative ease of free-riding off readily accessible market opinion and, therefore, the difficulty of capturing value-added created by investing in research, reinforce "free-rider" behavior. The natural outcome of the this problem is that each market participant under-invests in information generation and analysis.

Another deterrent against investment in in-depth analysis is the demand for bottom-line conclusions by both producers and consumers of analysis. Under pressure to reach their own analytical and investment decisions, market participants demand immediate appraisal of country developments. The meaning and impact of a change in political leadership, exchange rate devaluation, or reform initiative need to be provided almost on a real time basis. The market itself reinforces this dynamic, with little tolerance for anything but quick results. As a result, risk analysts have little choice but to answer challenging questions via shortcuts, which have become the market norm.

Put simply, it does not pay to invest in country analysis beyond the market norm from the perspective of an individual investor, financial institution or rating agency, given the perception that little direct benefit will accrue. Heads of research departments report to profit-conscious management, which, in turn, are accountable to often shortsighted shareholders. Those who contribute to or make investment decisions (analysts and fund managers) are often rewarded on the basis of short-term returns.

The acute under-investment in analysis by each individual market, ironically, leads to over-investment in the aggregate. Almost every market

player retains in-house emerging market research teams. The market for analysis is thus characterized by a multiplicity of production centers manufacturing suboptimal goods. Clearly, the misallocation of investment in the production of knowledge represents a serious market imperfection that contributes to excesses in international capital markets. There is a strong case for market institutions producing higher quality products.

INSTITUTIONAL AND METHODOLOGICAL LIMITATIONS

Deficiencies in private sector analysis go beyond the scarcity and misallocation of resources devoted by individual institutions to the task. Clearly, time-constrained analysts were not alone in missing what in hindsight seems obvious. We must ask the business and policy communities: What has interfered with the ability of the individual analyst to analyze objectively?

First and foremost is institutional sell-side bias, a distinctly new phenomenon that has escalated over the last decade. A key outcome of the 1980s debt crisis was the securitization of emerging market assets. Commercial banks developed vast distribution networks for the assets they no longer wanted to keep on their books. As a result, the focus of country risk analysis in financial institutions changed from confidential in-house analysis undertaken by credit departments to sell-side research analysts publishing reports for clients. Individual "off-the-record" credit viewpoints are no longer the critical variable driving decision making and profitability. As financial institutions moved from holding to selling emerging market assets, influencing investor perspective became the decisive factor in determining the feasibility of transactions. Large-scale investments by a new set of players has led to the proliferation of analysts competing on road shows, providing opinions to investors, many with little capacity to perform independent research and make decisions. Working to support the trading, advisory and investing business units of these financial institutions, sell-side analysts are inherently biased in both function and approach.

Even risk analysts working within a credit rating agency or the credit function of a financial institution are subject to huge pressures to remain within the mainstream. This was evidenced by the Thai government's outrage when Moody's departed from prevailing market sentiment and moved to downgrade Thailand's short-term foreign currency rating in early 1997. Credit analysts working in South Korea have privately confessed the difficulty of expressing negative views that would interfere with the profitable strategies of their business managers; no one wants to spoil the party.

Another critical constraint impairing the quality of country assessments is the marketplace's demand for simple calls on complex questions, resulting in the oversimplification of analytical methods and conclusions. With new groups of influential institutional investors demanding concise judgments on countries, assessments have been reduced to letter grades and executive summaries from the qualitative, comprehensive approaches traditionally utilized by multinationals and financial institutions.

The rating agencies have become supreme arbiters in this new environment where creditors seek definitive assurances of creditworthiness. Investors seeking bottom-line answers rely heavily on the fixed income ratings given by rating agencies, even though they apply to bonds and not loans or investments. As Moody's has publicly stated, one of the more important problems underscored by the Asian crisis has been investors' overreliance on country ratings. Investors tended to ignore the risks highlighted in the rating reports or created by the marketplace itself.

Analytical methods have also been key culprits in creating the basis for inadequate analysis. The standardized approach to sovereign risk used by market participants has been narrow in focus, emphasizing public sector debt capacity. The private sector largely was ignored, except for its impact on current accounts and contribution to growth, despite its lead role in several crises in the past. Chile's balance of payments problems in the early 1980s, and to a lesser extent the Philippine's, were driven by private sector excesses, as were the Nordic banking crises of the early 1990s. Even the 1994 Mexican peso crisis had a large private sector dimension, and lessons learned there apply to Asia in several ways.

Yet, country analysts were still chained to the old paradigm of public sector-driven crises. Failure to revise analytical criteria in response to changing situations and to apply them, once again, derived from underinvestment in resources. Recent research advances in the theory and causes of financial crises hardly made their way into the analytical criteria of market participants. For example, country risk analysts in the Asian crisis looked at absolute levels of public sector debt, rather than use and productivity of debt incurred by the private sector. More qualitative factors, such as the productivity of investment on a sectoral basis, the quality of corporate governance and balance sheets, the competitiveness of export sectors, and the vulnerability of the economy to demand, supply and liquidity shocks were largely ignored. The labor intensity of these

tasks rendered them prohibitive for the vast majority of market participants, given the insufficient resource commitment.

The fragmentation of analytical functions within market institutions also served to impair the quality of analytical conclusions. Corporate and financial sector problems in the troubled Asian economies were no secret. They were noted by many analysts working in different functions, often in the same firm as country risk analysts. For example, Standard & Poor's completed a comprehensive study of the systemic weakening of Asian banking sectors that illustrated the surge in foreign funding of domestic credit for real estate and consumption. Moody's indicated the dismal standing of the region's banks in its Financial Strength Ratings, giving them an average grading of D to E on a scale of A to E. Ironically, as the globalization of the world's economies tightened the interrelations between macro and micro-variables, increasing the need for integrated analysis, the division of analytical functions in private sector institutions undermined its effectiveness.

HYPE AND HERD OVERTAKE MARKETS

Imperfect information and faulty analysis provide fertile breeding ground for herding, hype and cognitive dissonance in financial markets. Steven Radelet and Jeffrey Sachs concluded that uncertainties over future prices make it rational for creditors to withdraw their funds, regardless of their assessment of the fundamental risks, for fear of being the last to exit at the expense of huge losses (Radelet and Sachs, 1998). The outcome of individually rational decisions is decidedly irrational: productive and viable economic activity is destroyed, while both borrowers and creditors, on average, are worse off.

Even more important is the detrimental impact of hype and herding on the upswing, which sets the stage for panic on the downswing. Robert Shiller's investor survey taken after the 1987 U.S. stock market crash is revealing on this point. When asked whether they thought the stock market was overpriced prior to the crash, most investors said yes, but also reported that they were net buyers because stock prices were expected to continue climbing (Schiller, 1989). Thus, despite an assessment that suggested selling rather than buying stocks, they did the reverse. The expected direction of prices, regardless of its reasons or sustainability, dictated the outcome. Another survey on investor behavior during the recent surge in the U.S. stock market through mid-1998, and its subsequent downfall, would probably reveal the same logic. The Asian economies were similarly invested in because the future was supposed to replicate

the past.

The paucity of good analysis also creates the principal-agent problem by distorting the incentives affecting private financial decisions. Fund managers have strong incentives to behave like others, because the cost of going against the pack and being incorrect is greater than being wrong with everybody else. The absence of a sufficient number of dissenters needed to reach critical mass makes dissension a risky course to take, especially when neither the fund managers nor the shareholders are willing to hang in for the long haul.

Cognitive dissonance is another important, and perhaps unavoidable individual psychological factor impairing the quality of risk analysis that is partially bred by the initial lack of incisive analysis. Under the weight of their predispositions, analysts tend to be selective in their exposure and dismissive in their interpretation of information conflicting with their own analytical judgements. In the case of Asia, the very few analysts that detected trouble could not disarm the entrenched pro-Asia bias. It took overwhelming evidence to convince most analysts that Asia was really sick, at which time it was too late to preempt a violent market reversal.

Hype, herding, the principal-agent problem and cognitive dissonance undermine one of the most critical theoretical assumptions of international trade and finance, namely the inter-temporal nature of trade in goods, services and money. Put simply, hype and herding both feed, and feed on, systemic moral hazard problems. To the extent that market agents (both borrowers and lenders) who ride on the market upside do not pay the costs on the downside (which usually are borne by taxpayers), the absence of continuity among market agents over time distorts the inter-temporal supply and demand processes, and along with it, prices. This distortion robs the market of the economically meaningful information that should be contained in prices.

The predominance of hype and herding in financial markets has also generated a serious political backlash against free markets in the developing world. Those countries that were slow to liberalize segments of their economies feel vindicated, while those that did liberalize are reconsidering their courses. This political backlash, with its anti-market rhetoric instigated by herd market behavior, serves to validate and reinforce further extreme market movements, in what amounts to self-fulfilling attacks and counterattacks in the market. As such, the market is not just the medium through which risks are analyzed and priced, but has become a risk factor itself.

LESSONS LEARNED ONCE ARE LESSONS EASILY FORGOTTEN

The debate on causes of and solutions to the Asian crisis echoes those of crises past. Recall the debt crisis of the 1980s—then the cry too was lack of information and poor quality analysis. The answer was the banding together of the U.S. commercial banks to found the Institute of International Finance (IIF) to provide a solid basis of information and analysis to avert future crises. While the IIF has been a front-runner in providing key data and information in advance of both the Mexican and Thailand crises, the larger problem of transparency and analysis continues.

The global business elite and policy leaders have failed to effectively manage the rapid change toward market economies furtively advanced by bilateral and multilateral policies, decisions and a shared vision. The brass tacks information systems in creditor and debtor countries, including the Bank of International Settlements (BIS), for example, have failed to adequately reflect changes in the global financial system, including a growing number of investors, countries and instruments.

Inertia and bureaucracies also stood in the way. The Mexican and Thai government officials fought the re-categorization of new instruments as foreign currency debt. Foreign bank exposures captured by the BIS and in-country government authorities did not reflect the risks associated with new instruments, unhedged borrowing and poor investments. While financial experts understood the complex derivative and hedging instruments they were selling to emerging market governments and private companies, data providers did not incorporate those changes into the reporting of reserves and foreign debt. In short, the dynamics of policymaking and profit-making have been prioritized over the laborious, expensive and unceremonious chore of detailed, troublesome information production and analysis.

Other lessons learned were not heeded in Asia. After the 1980s debt crisis, the market understood its power of creating self-fulfilling prophecies. Commercial banks realized they had become a source of country risk: countries dependent on their loans were vulnerable to bank withdrawal and a resulting shortfall in financing. Similarly, post-debt crisis commercial bankers were careful to acknowledge South Korea's vulnerability to market perception, given its relatively high level of short-term debt. Yet, in the simplified world of investment grade ratings, the fall of South Korea, with its huge dependence on foreign banks turning over short-term loans, seemed inconceivable.

The global elite served to increase the level of country risk in these dependent countries in other ways as well. One example is the case of Basle capital requirements, which are based on an oversimplified con-

struct of country risk, thus skewing commercial bank lending to South Korean banks. Since South Korea is an Organization for Economic Cooperation and Development (OECD) country, banks making short-term loans to South Korean banks were not required to allocate risk-adjusted capital, thereby making such loans less costly. Indeed such loans were treated the same as those made to U.S. or British banks, while those to any non-OECD country bank required capital charges. In the interest of simplicity, real risk analysis was subjugated to bureaucratic rules, which distorted lending decisions. A review of these capital rules has been requested, albeit belatedly.

Finally, another lesson learned that fell by the wayside was the systemic nature of debt crises. Numerous scholars have studied the financial crises of the last few hundred years. Their principal findings have revealed the increasingly systemic nature of these crises, magnified by economic globalization and interdependence. Any observer of the 1980s debt crisis will recall that global interest rates and oil prices precipitated the crisis. Yet, not one rating agency or country risk service currently provides a regular overview of systemic risk and how it may affect the creditworthiness of regions or groups of individual countries. Instead, we continue to assess countries on an individual basis, and leave the analysis of systemic risk across countries to the ad hoc discussion of contagion.

REMEDIES AND POLICY OPTIONS

This article highlights two critical market failures that require remedial action. First, market participants under-invest in the collection and processing of information, a problem that is rooted in the positive externalities associated with those endeavors. Second, the analytical methodologies themselves are deficient. The two combined have allowed hype and herd to become key determinants of market outcomes, undermining faith in market mechanisms as a vehicle for delivering prosperity.

Inherent to the diagnoses advanced here is that the international financial system need not be condemned to hype and herd driven crises of extreme magnitude as that of Asia, and which are increasingly gripping emerging markets at large. International business leaders and economic policymakers can ill-afford to neglect these profound market imperfections at a time when numerous developing country leaders and societies are questioning the merits of free markets.

The architects of the evolving international financial system, above all, need to address the “free-rider” problem that characterizes the market for information and analysis. To the extent that adequate information and incisive analysis are public goods, which the private sector is unable

to supply, one option is for the public sector to step in as provider. This could be achieved by establishing an adequately staffed, independent and global institution to perform comprehensive risk analysis or by transforming parts of existing multilateral financial institutions (MFIs). Precisely what form this institution would take, such as an insurance agency (as proposed by George Soros) or a consultancy service, is beyond the scope of this paper. However, any such institution should be judged by the quality of analysis underpinning its business. Given the relatively high quality of research and analysis already undertaken by MFIs, making public their country and sector assessments would be a step in the right direction. Clearly, the MFIs are well-positioned to push for the development of better information on country, regional and global interdependencies, and market exposure information. They could also design and test the advanced analytical methods so urgently needed.

Alternatively, private sector investors and financial intermediators could take the lead in establishing such an organization. Precedents on this alternative, however, are not encouraging. For example, the IIF's creation on the heels of the 1980s debt crisis reflected the same goal of averting future international financial crises, but despite data retrieval and analysis success, the IIF was unable to sufficiently forewarn its members of either the Mexican or Asian crises. It suffers from the same resource constraints found elsewhere in the private sector.

Relieving resource constraints alone, however, will not ensure the adequacy of risk analysis in the marketplace. Reorienting the "art" of risk analysis is an equally vital prerequisite to getting it right. First, the analytical methods of all market participants—MFIs, ratings agencies, financial institutions and investors—need to integrate systemic risk factors into individual country, sector, corporate and project analysis. The global interdependencies resulting from market reform should be better understood, charted and assessed. For example, systemic risks can be captured in the context of global and regional scenarios that illustrate how individual countries perform under each scenario, given economic, financial, and political interdependencies. Aggregate risk issues—cutting across regions, sectors and countries—can be highlighted in a proactive and open manner, facilitating national remedial and multilateral policy action, as well as avoiding painful market volatility due to extreme market reversals. The creation of such scenarios should be an integral part of the analysis performed by the MFIs, the IIF, rating agencies and others.

Furthermore, fundamental risk factors, especially political and social risks, require greater emphasis. Uncertainties inherent in the transition to the post-Suharto era in Indonesia or to a market economy in Russia should never have been downplayed as they were, nor should the

risks associated with China's economic liberalization under political authoritarianism. Similarly, the risks associated with the march of other transition economies toward free markets cannot be taken lightly in the future. The economic transformations of these countries have spurred complex social and political changes that require deeper analysis by policymakers and market participants. Often constrained by political sensitivities, the MFIs, the IIF and others will benefit from close collaboration with the academic and think-tank communities in order to research these issues more thoroughly. This analysis should include understanding the role, objectives and agenda of the new economic elites, their impact on policymaking and their financial interests.

Moreover, the market's players, exposures and key drivers of behavior must become more transparent. After the 1980s debt crisis, the IIF compiled total foreign debt figures, and the U.S. government provided U.S. banks with banking exposure numbers. Commercial banks knew the key players and were well-positioned to judge the stability of financial flows. In today's market, however, given the sheer number of players, the diverse sources of funds and the daily changes in flows, such transparency is lost to the detriment of all. The MFIs, the BIS, the IIF and other players should join forces to examine how to provide markets with detailed, timely information on marketplace exposures.

Finally, the gap between research and practice in country risk analysis needs to be bridged. The insights of an impressive body of research undertaken by academics and MFIs has yet to be incorporated into the analytical criteria of the private sector. For example, the vast literature on currency and banking crises contains important clues on the excesses in Asia that might have kept some investors at bay. Finally, enhancing communication between market analysts and policymakers on an ongoing basis would improve the timeliness and quality of analysis in the marketplace. Clearly, achieving the recommended improvements in analytical methods, to a large extent, hinges on investing enough resources in the process.

Admittedly, there is at least one insurmountable obstacle in the way of perfecting analysis—namely the factor of the unknowable. No matter how much investment in analysis increase and analytical methodologies are upgraded, future uncertainties constitute the natural boundaries of the powers of analysis. However, ample room exists to improve the underpinnings of market decisions and their consequences. Indeed, markets must work without wreaking havoc, or backlash forces will prevail and global divisions reemerge to the detriment of all. ■

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