



## Viewpoint

# The Hazard of Moral Hazard: Untangling the Asian Crisis

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**Summary.** — The paper critically examines the explanations of the Asian crisis which emphasize the role of national policies and institutions that allegedly created moral hazard by overprotecting the investors—industrial policy, crony capitalism, and government guarantees accorded to banks and industrial firms that are considered too important to fail. We also discuss the international dimension of the moral hazard argument in the presence of International Monetary Fund (IMF) bail-out. The paper finds these explanations theoretically ill-defined and empirically weak, and argues that the prescriptions for changes in policy and institutions based on them are unlikely to prevent similar kinds of crises in the future. © 2000 Elsevier Science Ltd. All rights reserved.

*Key words* — Asian crisis, moral hazard, cronyism, industrial policy, financial policy, political economy

## 1. INTRODUCTION

It has been widely argued that the recent Asian crisis was not the result of simple macroeconomic mismanagement but the result of certain deep-rooted institutional deficiencies that created moral hazard among its industrial and financial enterprises, leading to inefficient investments and/or excessive risk-taking.<sup>1</sup> While the International Monetary Fund (IMF) bail-out has also been identified as a potential source of moral hazard for the international lenders (e.g., McKinnon & Pill, 1998; Frankel, 1998), most accounts argue the *national* institutions of the Asian countries to be the main sources of moral hazard that was behind the crisis.

The first, and perhaps most popular, variety of the moral hazard argument is that of “crony capitalism,” where personal connections and political patronage, rather than entrepreneurial abilities, determine who gets access to credit and other resources on which terms (e.g., Krugman, 1998b; Frankel, 1998). Others emphasize the role of industrial policy in providing (at least implicit) guarantees to investment projects in government-favored industries, thus encouraging their managers to take excessive risk (e.g., *The Economist*, November 15, 1997; Brittan, 1997). McKinnon

and Pill (1998) and Krugman (1998a) identify deposit insurance and other implicit guarantees for banks as the major source of moral hazard. Still others argue that the large firms in the crisis-stricken countries, especially Korea, had taken excessive risks because they knew that the

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governments would be unwilling and/or unable to let them go bankrupt for fear of knock-on effects on the rest of the economy—the logic of so-called too big to fail (e.g., Yoo, 1997; Pyo, 1998; Burton, 1998).

These arguments have profoundly influenced the currently dominant prescription for policy changes and institutional reforms issued by the IMF and the many leaders in the Asian and international policy-making circles. According to this prescription, the Asian countries should radically liberalize their economies, as this will not only abolish market-defying industrial policy but also reduce the scope for cronyism. Greater transparency in the conduct of business and politics is also demanded as a measure to expose cronyistic transactions. Those who support the “too big to fail” (henceforth TBTF) story argue for measures that will lead to the weakening and hopefully the dismemberment of large business groups, such as restrictions on cross-subsidies and mutual loan guarantees, greater reliance on the stock market, and the strengthening of minority shareholder rights. Put together, these policy recommendations amount to the dissolution of what have been regarded as the main ingredients of the so-called ‘East Asian’ economic model—close government-business relationship (now re-branded cronyism), bank-based financial system, industrial policy, large (and diversified) business groups, and relational (as opposed to arm’s-length) contracting.<sup>2</sup>

While the dominance of the moral hazard argument continues, there have been, fortunately in my view, a sizeable number of studies—very interestingly cutting across the traditional orthodox-unorthodox divide—which take a dim view of this argument and instead argue that the Asian crisis was mainly caused by the “manias, panics, and crashes” mechanism (the term is due to Charles Kindleberger) inherent in unregulated financial markets.<sup>3</sup> Unfortunately, however, the existing criticisms of the moral hazard argument have been rather fragmented and brief, so there is value in providing a comprehensive criticism of this dominant view—the task that this paper takes up.

Section 2 puts the problem of moral hazard into historical perspective by pointing out that, contrary to the popular perception, moral hazard has been an integral part of the development of modern capitalism. Section 3 analyzes the five main variants of the moral hazard

argument that we identified above—industrial policy, cronyism, deposit insurance, the logic of TBTF, and IMF bail-outs—to see whether they are theoretically coherent and how important (or not) they were in generating the Asian crisis. Section 4 sums up our discussion and draws policy conclusions.

## 2. MORAL HAZARD AND THE DEVELOPMENT OF CAPITALISM

It is by definition true that, whenever they do not need to bear the full consequences of their actions, economic agents will behave “irresponsibly” in the sense that they take more risk than they would do otherwise. Although the actual *extent* of such “irresponsible” behavior is often much less than what is assumed in the standard theory (as the assumption of total selfishness of individuals that the latter is based on does not hold in reality), this problem has been a long-running concern.

Throughout the history of capitalism, a range of institutions that protect individuals from bearing the full consequences of their actions have been developed—limited liability, central banking (and other lender-of-last-resort facilities), insurance, and the underwriting of risky ventures by the government (especially, but not only, in late-developing countries). Predictably, these institutions have been accused of encouraging “irresponsible” behavior by severing the link between economic agents’ actions and their responsibilities.

Especially to the observers of early capitalism, who regarded greed and fear as the two main forces that drive and restrain the capitalist system, the emergence of the above-mentioned risk-sharing institutions amounted to eliminating fear, thus unbinding greed and thereby pushing the system off the even keel. This sentiment is best summed up in the remark by Herbert Spencer when he voiced his opposition to the development of lender-of-last-resort facilities. He argued that “[t]he ultimate result of shielding man from the effects of folly is to people the world with fools” (quoted in Kindleberger, 1996, p. 146).<sup>4</sup> Modern discourses on these institutions may have taken more technically sophisticated forms, particularly with the help of the new techniques of information economics, but the underlying view is essentially the same—when risk is not fully borne by the actor, there will be an “excessive” risk-taking.

Is it, however, necessarily bad to allow people to off-load risk to some other people (or rather the society at large)? This depends on which particular institutional arrangement we are talking about in which particular context, as there are many respectable reasons for “socialization of risk” that the above-mentioned institutions provide.

For example, take limited liability—one institution that probably had generated the most heated debate for its potential to create moral hazard. Although most of us take it for granted these days, limited liability aroused great suspicion in its early days. Commenting on the late 19th century Britain, Rosenberg and Birdzell (1986) document how even decades after the full-scale introduction of the principle of limited liability (although limited liability had been occasionally granted by royal charters, it was generalized only in 1855), small businessmen “who, being actively in charge of a business as well as its owner, sought to limit responsibility for its debts by the device of incorporation” were still frowned upon (p. 200).

Capitalism would not have developed in the way it did, however, without the institution of limited liability, because, without it, it would have been impossible to make the risky large-scale investments that have characterized the modern industrial economy. As Richardson (1960) argues, “[i]f . . . uncertainty [involved in investment decisions] is very great, it may be that the decisions could not be taken unless liability for their consequences were generalized as widely as possible” (p. 221). In the words of Rosenberg (1994), “[t]he willingness to undertake experiments in both the social and technological spheres depends upon some sort of limitation upon the negative consequences for the individual if the risky enterprise should fail, as it frequently did” (p. 97), and therefore “[t]he emergence of business firms with limited liability . . . was central from the point of view of facilitating investment in risky undertakings (p. 96).

For another example, the introduction of lender of last resort facilities, and more specifically central banking (central banks are not the only possible lenders of last resort),<sup>5</sup> aroused the same concern as what the introduction of limited liability did (see the above quote from Spencer). But the classic works by Kindleberger (1984, 1996) show how the development of various lender-of-last-resort facilities, including modern central banking (and explicit deposit

insurance schemes in some countries), was critical in the development of banking and thus of the ability to finance industry in Europe and the United States.<sup>6</sup>

The point that we are trying to make here is *not* that limited liability, central banking, or any other institution that socializes risk does not create any moral hazard, although, as we argued earlier, they may not create as much moral hazard as is often believed. The point is that the social benefits of these institutions (investments of larger scale and of longer gestation, more innovation, the prevention of systemic financial collapses, etc.) are on the whole greater than the social costs arising from the moral hazard they create.

According to Rosenberg,

[t]he history of capitalism involved the progressive introduction of a number of institutional devices that facilitated the commitment of resources to the innovation process by reducing or placing limitations upon risk while, at the same time, holding out the prospect of large financial rewards to the successful innovator (1994, p. 96).

North (1981) also emphasizes that

economic organization that induces economic growth may well do so by internalizing the benefits and externalizing the costs and hence raising the private rate of return to “productive” economic activity at the expense of costs imposed on other groups in society (p. 62).

Thus seen, it may be said that moral hazard has been an essential element in the development of capitalism—or to put it more provocatively, capitalism has developed on the basis of moral hazard. The exact institutional form taken was different (limited liability, lender of last resort facility, industrial policy, etc.), but the principle was the same—socialization of risk. It is therefore misleading to look at only the cost side of those institutions that socialize risk while ignoring their benefits, and to condemn them. Once we recognize this, it becomes easier to see how misleading the present discourse on moral hazard as applied to the Asian crisis is.

### 3. MORAL HAZARD IN THE ASIAN CRISIS

In the prevailing discourse on the recent Asian crisis, the notion of moral hazard has

occupied the central place. But as we mentioned at the beginning (Section 1), in this discourse, different sources of (alleged) moral hazard in the afflicted countries are lumped together under the banner of "Asian capitalism" and their respective logics are not explored in full. In this section, we separate out different sources of moral hazard so that we can better analyze first, how well each of them is conceptualized, and second, how important they were respectively in the making of the Asian crisis.

#### (a) *Industrial policy*

Those who emphasize the "state capitalism" aspect of the Asian countries argue that industrial policy was the major source of moral hazard in these countries (e.g., *The Economist*, November 15, 1997; Brittan, 1997). The argument is that the Asian governments, in their attempts to promote their favored industries, have explicitly and implicitly underwritten the investments in them, which naturally encouraged lax management and excessive risk-taking. This argument is best summed up in the following passage from *The Economist*:

Most of the financial mess is of Asia's own making, and nowhere is this clearer than in South Korea. For years, the government has treated the banks as tools of state industrial policy, ordering them to make loans to uncreditworthy companies and industries (November 15, 1997).<sup>7</sup>

In discussing this view, we first need to point out that, contrary to the widespread assumption, state guarantee through industrial policy need not be bad. There are all kinds of "market failures" that justify socialization of risk through industrial policy as revealed in the recent debates: the presence of "specific" assets that make free entry and exit socially costly; complementarity between investments across industries (the "Big Push" consideration); externalities present in research and development (R&D) efforts and other knowledge-generating investments; infant industry considerations arising from the cost of learning; and the capital market failure that makes long-term financing more expensive than what is socially desirable (Chang, 1994, chapter 3; Stiglitz, 1996; Lall, 1998; Chang, 1999).<sup>8</sup> Once again, the point is *not* that such socialization of risk does not generate any moral hazard, but that the benefits that it brings about (e.g.,

higher productivity, better-coordinated investments, prevention of the "wastes" from duplicative investments) can more than offset the costs from the moral hazard that it may generate. The success of industrial policy in various East Asian countries in the past is good proof of this.

Of course, as we are all familiar with, there are many examples of failed industrial policy attempts all over the world (including in the successful East Asian countries). These failures have occurred, however, because of poor policy design and implementation (owing sometimes to political reasons and sometimes to the inevitable imperfection of human foresight), and not because the principle of socialization of risk itself is inherently wrong. Recent debates have shown that the net benefit from industrial policy critically depends on how exactly it is designed and implemented: how realistically the "target" industries are selected in light of the country's technological capabilities and world market conditions; how closely the policy is integrated with an export strategy so that there is some "objective" criterion to judge enterprise performance; how politically willing and able the state is to discipline the recipients of the rents that it creates; how competent and politically insulated the bureaucracy that implements the policy is; how closely the state interacts with the private sector while not becoming its hostage; and so on (Amsden, 1989; World Bank, 1993; Chang, 1994; Evans, 1995; Akyuz, Chang & Kozul-Wright, 1998).

Moreover, whether or not we believe in particular justifications for industrial policy, it is empirically difficult to sustain that industrial policy was responsible for the Asian crisis.<sup>9</sup>

First, while we should not ignore the role that it played in developing some natural resource-related industries, the extent of industrial policy in Southeast Asia has been rather limited (for country details, see Jomo & Rock, 1998). Thailand has had very little in the way of systematic industrial policy except in the agricultural processing industry. Indonesia may have had a little more industrial policy, but many of their industrial policy programs (such as the support for the aircraft industry) were haphazard and poorly conceived, especially when compared to the programs in the East Asian countries. Malaysia has had a more systematic industrial policy, but it can hardly be described as the dominant factor in the country's policy regime in the way that it was in the East Asian countries.

In fact, before the crisis, the World Bank (1993) was making a big deal out of the fact that the Southeast Asian countries have grown fast without the East Asian-style industrial policy, while some of the Bank's critics also argued that the *absence* of such policy was precisely the reason why these economies failed to achieve an effective industrial upgrading.<sup>10</sup> In short, industrial policy could not have been a major factor in causing crises in the Southeast Asian economies, because there was, simply, little of it around.

Then what about Korea? Isn't it one of the archetypal "industrial policy states" and therefore isn't it natural that industrial policy was the main factor behind its crisis, as the above quote from *The Economist* sums it up? Such conjecture sounds even more plausible when we recall that the overinvestments that caused the Korean crisis was mostly in industries, rather than in real estate development as in the case of Southeast Asia (see Henderson, 1999 on the role of real estate investments in Southeast Asia). This story, however, does not augur well with the facts.

Contrary to the popular perception, industrial policy was largely absent in Korea in the build-up to the current crisis. It is true that up to the mid-1980s the country practiced one of the most comprehensive and systemic industrial policies in the world. But slowly from the late 1980s, and very rapidly from 1993 with the inauguration of the Kim Young Sam administration, the Korean government had dismantled industrial policy, except for R&D supports in some high-technology industries (see Chang, 1998, for further details). If industrial policy was largely absent, it seems rather difficult to blame the Korean crisis on it.

Anyway, in the Korean case, it is not even the case that moral hazard was widespread under its traditional industrial policy regime. First of all, its government was willing and able to withdraw its supports even from firms investing in its favored sectors, if the performance lagged (Amsden, 1989; Chang, 1993; Evans, 1995). For this purpose, it closely monitored the performance of the enterprises receiving its supports, and routinely intervened to encourage (and sometimes force) mergers and take-overs of inefficient enterprises. Moreover, even the largest conglomerates were not free from such disciplinary process by the state (see Section 3d for further details). Moreover, given the highly export-oriented

nature of the Korean firms, it was very difficult for an inefficient firm to hide its problems for long. In other words, there was actually little room for moral hazard for the government-supported firms in the traditional Korean system, as continued government supports were *contingent* on their performance and was *not guaranteed* by just being in the "right" industries.

In fact, we can go even further and argue that it was actually the *demise* of industrial policy, rather than its continuation, which was mainly responsible for the current crisis in Korea. It was, for example, the end to the policy of investment coordination that allowed the proliferation of duplicative investments in the key industries that fuelled the massive foreign borrowing over 1993–97 (for more details, see Chang, Park & Yoo, 1998). In addition, the demise of industrial policy, as well as the official end in 1993 to the three-decade-old, five-year-planning practice, led to the disappearance of the "rational" criteria according to which government supports had been previously allocated and therefore made it easier to gain access to credits for risky ventures through "cronyistic" connections or clever political maneuvering (see Section 3b for further details).<sup>11</sup>

Let us summarize our argument in this section. The state's underwriting of risky investments through industrial policy may create some room for moral hazard and consequently certain social costs, but these costs have to be set against the gains that it may bring. Moreover, whether and how much moral hazard is created by industrial policy depends on how it is designed and implemented. Empirically, there is little evidence that industrial policy was an important factor behind the Asian crisis. It is rather well known that industrial policy has always been sparse, if not absent, in Southeast Asian countries, but even in Korea, industrial policy was largely dismantled by 1993. In the Korean case, it can even be said that the demise of industrial policy critically contributed to the crisis, by removing the restraints on duplicative investments and possibly creating more room for cronyism.

#### (b) *Cronyism*

If analytically less well-defined, the notion of cronyism has certainly attracted more attention than industrial policy as the main culprit of the

Asian crisis. The cronyism story is often mixed up with the industrial policy story, partly because sometimes cronyistic supports were provided under the guise of industrial policy, especially in some Southeast Asian countries. Analytically, however, government supports based on cronyism and those based on industrial policy concerns need to be clearly distinguished from one another.

If the industrial policy story argues that the Asian governments have provided guarantees to industrial and financial enterprises in their desire to develop certain industries against the market logic, the cronyism story sees them as providing such guarantees in order to promote the interests of their political allies. The root of such political alliance, it is argued, can be nepotism (or what Krugman, 1998b, calls "minister's nephew" syndrome) but it can also be the exchange of economic favors for political funding. Lenders naturally regarded, the story goes, enterprises with cronyistic connections as having no downside risk (as the government will rescue them if they get into trouble), and were willing to lend them as much as they wanted, thus inflating asset bubbles that led to the crisis (Krugman, 1998b).

One obvious problem with this story is that cronyism, in various forms and degrees, has been a feature in all the crisis-stricken Asian countries throughout their high-growth periods, and therefore that it cannot explain why it did not cause similar crises before.

One possible explanation is that the nature of cronyism prevailing in these societies had changed shortly before the current crisis. For example, in the Korean case, the weakening of "developmentalism" (and the consequent dismantling of industrial policy, financial regulation, and five-year planning) since the late 1980s significantly reduced the scope for state influence in resource allocation, but it at the same time made it easier to abuse whatever residual influence that the state still had through bribery or nepotism (see Chang, 1998). The result was a spilling-over of political corruption from the traditionally corrupt areas (such as urban planning and defence contracts) into the main manufacturing industries, which were previously insulated from corruption to a high degree (for further details, see Chang *et al.*, 1998). In the Thai case, some commentators point out that the increasing dominance of redistribution-oriented provincial politicians during the last decade or so seems to have

increased the importance of pork-barrel politics (Pasuk & Baker, forthcoming).

Neither of the above accounts, however, suggests that the changes in the form and the extent of corruption in Korea or Thailand were so significant as to turn cronyism into the major problem that it was not before. In Indonesia and Malaysia as well, it is difficult to detect signs that cronyism got much worse in the build-up to the crisis. In fact, for whatever it is worth, the "corruption perception index" compiled by the Transparency International shows that corruption was perceived to be *diminishing* in all the crisis-stricken countries on the eve of the crisis, *in spite of* the well-established historical regularity that during financial euphoria the incidences of corrupt behavior tends to increase both in the private sector and in the public sector (Kindleberger, 1996, chapter 5).<sup>12</sup>

Anyway, whatever its true extent, it is not clear whether cronyism can ever be a major explanation of the Asian crisis, because cronyism by definition has to be selective and therefore it does not make sense to argue that all (or even the bulk of) those Indonesian firms who had foreign loans, those Korean merchant banks that led the foreign lending boom, or those Thai financial companies which were speculating in real estate had such good political connections that they could expect bail-outs in times of trouble. If some foreign creditors thought this was the case, they should have practiced those "advanced" credit risk assessment techniques that they are now so eager to preach to the Asian financial institutions.

To conclude, cronyism did play a role in the generation of the crisis in the Asian countries, but it is unlikely to have been more than a minor factor. Cronyism has been a permanent feature of these countries at least in certain sectors during the last few decades, and there is little evidence that the changes in its form and extent that did occur in some of these countries (notably Korea and Thailand) were so significant as to create a crisis. In fact, in all crisis-stricken countries, corruption was perceived to have been diminishing in the build-up to the crisis. By definition, cronyism has to be selective, and therefore it cannot have affected more than a small portion of the borrowers. If some international lenders thought otherwise, it seems to be good proof that irrational euphoria can take hold during a financial mania.

(c) *Deposit insurance*

Deposit insurance was singled out by, for example, McKinnon and Pill (1998) as the main source of moral hazard in the Asian economies, or for that matter, any economy experiencing overborrowing (also see Krugman, 1998a). According to this argument, bank deposits are (at least implicitly) guaranteed by all governments because of the importance of the bank liabilities in the domestic payments system, and such guarantees create moral hazard on the side of the banks which then lead to misconceived or speculative projects.

One point to note immediately is that even many of those who advance the deposit insurance story accept that there is a clear benefit from such insurance, which is to preserve the stability of the domestic payments system (at least McKinnon & Pill, 1998, do that unequivocally). As we pointed out earlier (Section 2), the real question here is then whether the costs from moral hazard that deposit insurance creates is greater than the gains from the stability of the domestic payments system that it also provides. As we have seen in Section 2, economic historians suggest that the gains have been generally far greater.

More important, even ignoring the fact that deposit insurance may have more benefits than costs, the problem with this story is that deposit insurance does not necessarily create moral hazard for the bank managers who make the lending decisions. By definition, it is the depositors who are protected from this arrangement, and not the bank managers. Therefore whether deposit insurance gives the bank manager the incentive to make imprudent lending decisions will be critically determined by the degree to which his/her job security and remuneration depends on the quality of his/her decisions, and not merely by the existence of deposit insurance. In this sense, the widely used analogy between deposit insurance and fire insurance is fundamentally misleading, because in the latter case the insured has (some) control over the likelihood of the insurance money being paid out, while in the former case the insured (the depositor) does *not* have much meaningful control over the likelihood.<sup>13</sup>

Kindleberger's observation on the 1982 Debt Crisis supports our view that deposit insurance *in itself* need not create moral hazard on the part of the bank managers:

Have the money-centre banks loaned rather recklessly to Third World countries during the 1970s, secure in the knowledge that they would not be allowed to fail? There have been appearances of that sort. But the penalties for bank mismanagement requiring rescue operations are still substantial. Depositors may not lose, but stockholders suffer and risk-prone banks may have trouble raising capital. In addition, officers of failed banks tend to be fired. Sometimes this is not financially embarrassing because of golden handshakes or parachutes, clauses in contracts of hire that provide for substantial severance pay over an extended period. Few of these appear to provide for cancellation in the case of blatant mismanagement, as perhaps, in equity, they ought to do. Reputations generally suffer. Not always, however (p. 196).

The point is that, if the bank managers know that they will lose their jobs and suffer in reputation when their banks fail, the knowledge that their banks will be bailed out by the government does not give them much comfort. In this case, deposit insurance will not create moral hazard on the part of the bank managers. Of course, as Kindleberger points out in the above quote, in practice the bank managers are not necessarily fully punished for their poor decisions, but this is the result of a poorly designed incentive system for the bank managers, and *not* the result of deposit insurance *per se*.

The empirical limitation of the deposit insurance story as applied to the Asian crisis is that it cannot really explain why, if deposit insurance was what was driving the overlending, it was the nonbank financial institutions (e.g., the Korean merchant banks, the Thai finance companies) or the nonfinancial corporations (e.g., Indonesian corporations), rather than the banks, that led the overlending process. Neither the nonbank financial institutions nor nonfinancial corporations had the same extent of government guarantees as the banks, as proven by the fact that many of these institutions were promptly closed down after the outbreak of the crisis (in contrast to the banks most of which were bailed-out). When combined with the fact that there was also an enormous surge of portfolio investment inflows before the crisis (which obviously has no guarantee whatsoever), the above facts suggest that it was not mainly because of perceived guarantees that so much foreign capital flowed into the now crisis-stricken economies (Corden, 1998).

In conclusion, it is not very clear how deposit insurance *in itself* could have generated overborrowing and overlending in the crisis-stricken

Asian countries. If government guarantee were to play an important role in encouraging moral hazard on the part of those who make lending decisions, there should have been (at least the perception of) a guarantee that their job and reputation will be safe whatever happens to the institutions they manage, and not just a guarantee for the depositors. There is no evidence that such guarantee existed in the countries concerned. Moreover, when a high proportion of foreign capital inflows to these countries were either in the form of loans to the nonbank financial institutions and the nonfinancial corporate sector, which by no means had similar (even implicit) guarantees as the banking sector, or in the form of portfolio investment, it is difficult to believe that it was the perception of government guarantee that was driving the surge in capital inflows.

(d) *The logic of "too big to fail"*

This argument has been quite popular among those who write on the Korean crisis. Many of these commentators have argued that the reckless, unfocused diversification of the big conglomerates (known as the *chaebols*) is to blame for the country's crisis. These large conglomerates, they argue, took excessive risk because they knew that they were "too big to fail" in the sense that the government could not afford to sit and watch them go bankrupt for fear of large-scale "ripple effects" such as large-scale unemployment and bankruptcy of subcontracting firms (e.g., Yoo, 1997; Pyo, 1998; Burton, 1998). They point out the government rescue of some large firms in the past as the evidence that the logic of TBTF has been in operation in the country—the most frequently cited example being the nationalization of the bankrupt third-largest car manufacturer Kia in the build-up to the crisis (for the details on the fate of Kia, see Chang, 1998).<sup>14</sup>

The logic of TBTF seems difficult to dismiss, especially given that it is indeed practiced by all governments in all capitalist countries, including the ones that claim to be the most market-oriented. The rescue of the US hedge fund, Long Term Capital Management (LTCM), is one prominent recent example, but the late 1970s rescue of the bankrupt Swedish ship-building industry through nationalization by the country's first right-wing government for over 50 years or the early 1980s rescue of the carmaker Chrysler by the avowedly free-market

Reagan administration also seem to demonstrate the power of the logic of TBTF.

There is confusion, however, in the TBTF story between the rescue of a firm and the rescue of its owners or managers who are responsible for creating the situation where the rescue is needed. To the manager, it is not much of a consolation that his/her firm is saved by the government due to its large size, if the rescue operation involves the termination of his/her contract. So if a manager knows that his/her job would be in jeopardy if the firm performs badly, there is little moral hazard. The same goes for the owners. If the owners know that the rescue operation requires ceding of their corporate control (as has been almost always the case in Korea—see below), they cannot afford to be lax in management (in case they are owner-managers) or in supervising the hired managers.

In this sense, the rescue of LTCM, which did *not* involve the removal of the incumbent management (although its control was weakened due to debt-equity swaps), has definitely given a very bad signal to the rest of the financial industry and will probably encourage moral hazard in the future. On the other hand, the rescue of Kia, which involved a change in the top management, could not have sent such a signal to the managers of other large enterprises. In other words, whether government bail-out of some large firms encourages moral hazard by the managers of other large firms depends on whether they are accompanied by punishments for bad management.

The evidence from Korea is not on the side of the TBTF story. Especially in the 1960s and the 1970s, when the country was going through rapid structural changes, it was not infrequent to see even some of the largest *chaebols* going bankrupt and their carcasses being divided up through state-mediated take-overs. The second largest *chaebol* during the 1960s, Samho, had all but disappeared by the late 1970s after a series of bankruptcies of its core firms. The Gaepoong *chaebol*, which ranked between the third and the fourth during the 1960s virtually disappeared by the mid-1970 following a series of business failures. The Donglip *chaebol*, which ranked the ninth in the early 1960s, went bankrupt by the end of the decade. The owner of the once-largest car manufacturer in the country, Shinjin, was forced to sell it off to the state-owned Korea Development Bank (which then sold it to Daewoo) in the late 1970s, when it got into trouble. Dongmyung, the *chaebol*

built around what was the world's largest producer of plywood around the early 1970s, went bankrupt in 1980.

These are striking figures. For example, the collapse of the three of the top 10 *chaebols* of the 1960s (namely, Samho, Gaepoong, and Donglip) is equivalent in US terms to the disappearance by the early 1980s of Standard Oil (New Jersey), Ford Motor, and IBM, which ranked the second, the third and the ninth, respectively, in the *Fortune* US enterprise ranking in 1964. As a result, until the mid-1980s, there was a very high turnover even in the ranks of the top 10 *chaebols*. Only three of the top 10 *chaebol* in 1966 were among the 1974 top 10 and only five of the 1974 top 10 were in the 1980 top 10 (Chang, 1994, p. 123).

After the mid-1980s, and especially in the 1990s, the ranking of the top 10 *chaebols* remained highly, if not completely, stable, but among the lesser *chaebols* there was still a high turnover. During 1986–96, among the 20 *chaebols* that ranked between the 11th and the 30th, there were on average 14 changes in the rankings and 2.2 new entries into the group every year (Park, 1998, Table 9). During 1990–96 alone, three of the top 30 *chaebols* (Hanyang, Yoowon, and Woosung) went bankrupt, showing that there is no substance to the claims such as: “In Korea, none of the *chaebol* had been allowed to fail for a decade before Hanbo steel collapsed in early 1997” (Radelet & Sachs, 1998, p. 42). In 1997, in the build-up to and at the beginning of the crisis, six of the top 30 *chaebols* (Kia, Halla, Jinro, Hanbo, Sammi, and Haitai) went bankrupt, again debunking the TBTF story (Chang *et al.*, 1998).

Of course, this is not to deny that the Korean government not infrequently injected money into ailing large enterprises through the state-owned banks (especially the development bank, Korea Development Bank). These financial injections were, however, conditional, with very few exceptions, on the change of ownership and top management, and were always accompanied by tough terms of financial restructuring. In other words, the rescue of large enterprises by the Korean government should be seen as government-mediated takeover or restructuring rather than as bail-out in the strict sense (à la LTCM).<sup>15</sup>

The logic of TBTF, to conclude, seems compelling, given that all governments, and not just the Asian ones, have rescued some technically bankrupt large enterprises. But whether

such rescue will lead to moral hazard on the part of the managers of other large firms depends on the terms of the rescue, especially whether and how much the existing managers are made to pay for their mistakes (recall our distinction between the Kia and the LTCM types of government rescue). It is only when the managers are not properly punished that the logic of TBTF works. Looking at the Korean case, to which the logic of TBTF has been most widely applied, we find no evidence that this logic was in operation in any meaningful degree. Even the largest firms routinely went bankrupt, and state rescue programs almost always involved the ousting of the existing owners and managers, while always imposing tough terms of financial restructuring. These programs enabled the firm to continue as a going concern, but not allow incumbent managers get away with their mistakes and thus create moral hazard for the managers of other large firms.

#### (e) IMF bail-outs

Some commentators suggest that the IMF bail-outs during various postwar debt crises have created moral hazard on the part of the international lenders (e.g., McKinnon & Pill, 1998; Frankel, 1998). According to this argument, the history of IMF bail-outs, and especially the Mexican bail-out of 1995, has convinced the international lenders to Asia that they will be able to get their money back whatever happens in the borrowing country, encouraging them to make excessively risky lending. Some rightwing politicians and journalists (but none of the academics cited above) have even used this as an argument for abolishing, or at least severely weakening, the IMF.

While it is undeniable that the history of IMF bail-outs has created moral hazard on the part of the international lenders, there are two qualifications to be made with respect to this argument.

First, as we pointed out earlier, all lender-of-last resort facilities, of which the IMF bail-out is one, provide the benefits of maintaining the integrity of the financial system and of encouraging socially useful risk-taking through socialization of risk. These benefits need to be set against the costs from the inefficiency resulting from the moral hazard it creates. As we discussed this point in more detail in Sections 2 and 3 we need not dwell on it any further here.

Second, the IMF bail-outs have *not* always been fully effective in protecting the international lenders/investors. Most international lenders/investors probably got away unscathed through the IMF bail-out in the 1995 Mexican crisis or indeed in the current Asian crisis (Palma, 1998), but many of them have taken a good beating due to various unilateral and negotiated debt moratoria during the 1982 Debt Crisis (recall the quote from Kindleberger, 1996, cited in Section 3c) and the current Russian crisis. These losses have forced some, although by no means all, top bank managers out of their jobs (for example, the chief of the Union Bank of Switzerland resigned in the aftermath of the Russian crisis). In other words, the effectiveness of IMF bail-outs in saving the international lenders is not fully predictable, and therefore the extent of moral hazard created by them may not be as large as some authors suggest.

Moving more specifically to the role of IMF bail-outs in the creation of the Asian crisis, I wish to argue that, although previous IMF bail-outs must have created some moral hazard for the international lenders, it is doubtful whether this played an important role in the making of the Asian case.

It is unlikely that those who were lending to the region seriously thought that they were taking undue risk only, or even mainly, because the IMF would save them if anything went wrong. It is *not* that international lenders would not have counted on an IMF rescue in an Asian or international debt crisis. The point is that, given the record of very high growth and the absence of serious economic crises in the region during the last few decades, it seems unlikely that the possibility of IMF rescue was an important variable in the decisions behind the loans to the now crisis-stricken Asian economies.<sup>16</sup>

In the case of Korea, it is even more doubtful whether the possibility of an IMF rescue even figured in international lending decisions at all. During the period between 1993, when the country's debt build-up started, and the eve of the crisis in 1997, the country officially "graduated" from World Bank tutelage, joined the OECD, experienced a significant rise in sovereign credit rating, and saw an increasing number of its firms gaining enough international creditworthiness to be able to float corporate bonds in advanced country markets. Given these developments, it seems highly unlikely that IMF bail-outs had figured in

international lending decisions to Korea to any meaningful degree, if at all.

The credit ratings for all the would-be crisis economies were actually improving from 1995 until the eve of the crisis (Radelet & Sachs, 1998, pp. 41–2). If the international lenders believed that the Asian economies were heading for major trouble and would need an IMF bail-out soon, they would have started demanding, a risk premium on their lending to Asia, given that there was always the possibility that the IMF package would not be of sufficient size, would not arrive on time, and would involve some forced debt work-out arrangements. Indeed, the speed of exit by foreign lenders to Asia just before the signing of the IMF agreements in the crisis-stricken countries suggests that they were not sure at all that the "cavalry" will arrive on time (and in sufficient numbers).<sup>17</sup>

So to conclude this section, it is fair to say that the IMF bail-outs have created moral hazard on the part of the international lenders, although these bail-outs may be necessary evils and although they did not always fully save all the international lenders. Empirically, it seems unlikely that the moral hazard created by the history of IMF bail-outs of international lenders was a major factor behind the overlending to the Asian countries. During the last few decades, the countries in the region had almost unbroken records of growth and very few episodes of crises, and therefore it is implausible that the international lenders were lending excessively to these countries in the belief that the IMF would come to their rescue in the event of a crisis. Note that the IMF would indeed have done so. But given the extremely low (perceived) possibility that these countries, especially the soon-to-be OECD Korea, would need an IMF rescue (as suggested by the improving credit ratings of these countries), the moral hazard created by IMF bail-outs cannot have been a major factor behind the decisions by the international lenders.

#### 4. SUMMARY AND CONCLUSION

The present paper has tried to untangle the current debate on the Asian crisis by examining the theoretical and empirical foundations of some of the currently most popular arguments which are based on the notion of moral hazard.

At the beginning of the paper, we pointed out that, contrary to the popular belief, moral hazard is not some abnormality that exists only

in Asia, but has been an integral part of the development of capitalism. Capitalism has developed on the basis of moral hazard in the sense that institutions that socialize risk, such as limited liability and lender of last resort facilities, were essential in encouraging socially desirable but privately risky investment and innovation activities. We argued that these institutions do generate moral hazard, but the inefficiencies arising from such moral hazard may be more than offset by the gains from the greater investments and innovation that they allow.

With the above as the general historical backdrop, we identified and examined five types of explanation of the Asian crisis built around the notion of moral hazard—industrial policy, cronyism, deposit insurance, the logic of “too big to fail,” and the IMF bail-outs. The following problems with these explanations were identified.

First of all, some of the arguments are simply too ill-defined and thereby lead to conceptual confusion. Cronyism is the best example of this. Cronyism, by definition, has to be selective, but many of those who use this concept do not even seem to understand this, and imply that this relationship applies to more or less all major business transactions (including foreign borrowings) in Asian countries.

Second, some of the arguments patently misspecify the problem. For example, in the deposit insurance argument and the IMF bail-out argument, lender-of-last-resort facilities are identified as the source of moral hazard when it is really the deficiency of the incentive mechanism for the (national and international, respectively) bank managers that is at the heart of the problem. In the case of the TBTF argument or the industrial policy argument, it is not recognized that the heart of the problem is whether government punishes industrial managers for their mistakes, and not the mere existence of government intervention itself.

Last but not least, these arguments simply do not augur well with facts. Industrial policy is blamed for the crisis when it was largely absent in the build-up to the crisis in all the countries concerned. Cronyism is assumed to have gone out of control despite the fact that it was, if anything, actually perceived to be diminishing on the eve of the crisis in all crisis-stricken economies. Likewise, deposit insurance is criticized for overborrowing, when it was often nonbank financial institutions and industrial enterprises that did not have similar (explicit or implicit) insurance which led the borrowing boom. The TBTF argument fails to recognize that large firms in Korea have *not* been routinely bailed out by the government, and that, even when they were, the incumbent managers were forced out. It is also highly doubtful, given their excellent past economic records, whether the possibility that the Asian “miracle” economies (and especially the soon-to-be OECD Korea) would need IMF bail-outs had figured in any meaningful degree, if at all, in the decisions by the international lenders.

To conclude, while the explanations built around the notion of moral hazard contain some germs of truth (some more than others), they are conceptually ill-defined, misspecify the problems, and are empirically unconvincing. The policy conclusions from these flawed analyses, consequently, remain partial and often misleading. Indeed, the concept of moral hazard has been so much abused in the recent debate on the cause of the Asian crisis to the point of it becoming an intellectual hazard itself. By pointing out the fundamental weaknesses in the moral hazard arguments, it is hoped that the present paper has strengthened the case for the newly-emerging consensus across the intellectual spectrum that we will not be able to prevent similar crises in the future without a fundamental re-thinking on the mode of domestic financial regulation and the international financial architecture.

## NOTES

1. Frankel (1998) sums this position up: “The main problem in East Asia was not macroeconomic, but structural.”

2. The Southeast Asian economies of Thailand, Indonesia, and Malaysia were once praised by the World

Bank (1993) and by others for their allegedly greater market-orientation than that of the East Asian countries (Japan, Korea, Taiwan and Singapore). After the recent crisis, however, they have been lumped together by many commentators with the East Asian countries as practitioners of “Asian capitalism.”

3. The argument emphasizing the inherently unstable and irrational nature of unregulated financial markets has been endorsed both by a number of orthodox economists (e.g., Corden, 1998; Furman & Stiglitz, 1998; Radelet & Sachs, 1998; Stiglitz, 1998) and by many unorthodox economists (e.g., Kregel, 1998; Singh, 1999; Taylor, 1998; Chang, Palma & Whittaker, forthcoming).
4. The original source is H. Spencer, "State Tampering with Money and Banks" in *Essays: Scientific, Political, and Speculative* (London: Williams & Northgate, 1891), vol. 3, p. 354.
5. Before the emergence of central banking, the leading banks—the top London banks in the United Kingdom and the top New York banks in the United States—were willing and forced to take this role, although their effectiveness in this regard was limited for obvious reasons. See Kindleberger (1996, Chapter 10) for further details.
6. On the provision of lender-of-last-resort facilities before the start of modern central banking, Kindleberger (1996) says: "Intuitive politicians in the British government and the intuitive merchant-bankers who ran the Bank of England thought it best to give power to grant relief neither wholly to the Bank nor wholly to the government, but to leave it uncertain. If the giving of relief were formally within the power of either the Bank or the government, pressure from the public would be difficult to resist" (pp. 155-6) And then he goes on: "Within too large a group, responsibility inheres in no one. With a single entity responsible, pressure for action may build up irresistibly. The optimum may be a small number of actors, closely attuned to one another in an oligarchic relation, like-minded, applying strong pressure to keep down the chislers and free-riders, prepared ultimately to accept responsibility" (p. 156).
7. Although it is often mixed up with the "crony capitalism" argument that we discuss in Section 3b, the industrial policy argument can be, and should be, analytically separated from the latter, as it does not necessarily assume nepotism or corruption in the choice of favored industries and companies.
8. It was not just in East Asia but also in a number of European countries (e.g., France, Austria, Finland, and Norway), where industrial policy played an important role, at least until the 1970s. But the industrial policy debate since the 1980s concentrated on the East Asian experience. Reviews of the earlier phase of this debate, which focused on Japan, can be found in Johnson (1984, introduction) and Chang (1994, Chapter 3). The more recent phase of the debate revolved around the "East Asian Miracle Report" by the World Bank (1993). Critical assessments of this report's position on industrial policy can be found in Lall (1994); Fishlow, Gwin, Haggard, Rodrik and Wade (1994); Chang (1995), and Chang (1999).
9. Here, we are ignoring some essentially cronyistic policies that were dressed up as industrial policy, notably in Indonesia (more on this in Section 3b).
10. The difficulties that the Southeast Asian economies were having in upgrading their industrial structure was best manifested in their high and premature reliance on imported labor during the last several years. On the eve of the crisis, Malaysia, a country with a labor force of 9 million had up to three million legal and illegal immigrant workers, while Thailand, with a labor force of 34 million, is believed to have had around two million foreign workers. Compare these to about three million in Japan, a country with a workforce of 66 million and *per capita* income nearly 10 times higher. The importance of real estate-related investments in the Southeast Asian countries before the crisis also seems to suggest that there were not enough new investment opportunities opening up in the manufacturing sector because of the absence of a forward-looking industrial policy combined with effective investments in infrastructure and skills (Henderson, 1999).
11. The best example of the former—cronyism—was the Hanbo case, whose collapse in January 1997 revealed a web of high-level corruption involving the then President's closest political aides regarding bank lending decisions. The best example of the latter—clever political maneuvering—was the use of regionalist sentiment by Samsung in securing the government's approval for its new auto venture. One of the ways in which Samsung diffused the government's opposition to its entry into the already-crowded automobile industry (an opposition which was already feeble anyway, given its commitment to a "free market" policy and hence the abandonment of the traditional policy of investment coordination) was to decide to locate its factory in Pusan, the then President's hometown and power base. See Chang (1998) for further details.
12. On a scale of zero (very corrupt) to 10 (very clean), Korea's score went down from 3.93 during 1980–85 to 3.50 during 1988–92, but significantly went up to 5.02 in 1996. Thailand showed the same pattern—that is, corruption problem was perceived as having become worse in the late 1980s and the early 1990s but as much improved on the eve of the crisis compared to the early 1980s. The figures were 2.42 (1980–85), 1.85 (1988–92), and 3.33 (1996). In the Malaysian case, corruption was

also perceived to have become worse and then better, although the perception of corruption in 1996 was *worse* than that of the early 1980s—its figures were 6.29 (1980–85), 5.10 (1988–92), and 5.32 (1996). Indonesia, starting from a very low base, has shown a continuous and marked improvement right up to the crisis—its figures were 0.20 (1980–85), 0.57 (1988–92), and 2.65 (1996).

13. In theory, it is possible that deposit insurance allows the depositors to become lax in disciplining the bank managers by shopping around for better-managed banks. The question, of course, is how important such a mechanism is in practice in disciplining the bank managers, especially in the short run.

14. Kia was subsequently sold to the largest Korean car manufacturer Hyundai in autumn of 1998 through an open international bidding process.

15. When the money involved in the rescue operation (e.g., debt write-offs, tax exemption, and other direct and

indirect subsidies) was considered too large, the government went for direct nationalization. The merger and subsequent nationalization of the four companies in the power-generating equipment industry in the early 1980s is the best example (Chang, 1993, pp. 148–149, for further details).

16. In contrast, lending decisions to Russia and Brazil during the last couple of years seem to have critically depended on the likelihood of IMF rescue, given the obvious unsustainability of the macroeconomic policy, especially the high interest rate policy, in these countries.

17. Radelet and Sachs (1998) argue that the fact that foreign lenders kept lending to the Asian economies despite their long-voiced worries about the weak bankruptcy provisions (which make the collection of collateral difficult) is another piece of evidence that they perceived the possibility of the loans to the Asian economies going wrong to be very low (p. 42).

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