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CAPITAL MOVEMENTS, ASSET VALUES,  
AND BANKING POLICY IN  
GLOBALIZED MARKETS

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Banking Policy in Globalized Markets  
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### **ABSTRACT**

Weaknesses in banking systems are rooted in government credit-allocation preferences that prove unsupportable in private markets. Losses that preferential loans impose on lending banks and on the governmental safety net can be covered up for awhile, but not indefinitely. A silent run begins when sophisticated depositors recognize that assets in the country's combined banking and deposit-insurance system cannot cover the claims of bank depositors without being supplemented by substantial injections of funds from domestic or foreign taxpayers. Longstanding banking-system weakness devolves into a countrywide economic crisis when and as doubts about the government's willingness to force taxpayers to support an economically insolvent banking system are spread by an escalating "silent run."

Financial crises become more frequent, but also shallower when foreign-bank presence and activities are expanded. Offshore banks put the supervisory systems and safety-net guarantees of their homelands into competition with those of host countries. Intensified offshore banking competition provides substitutes for deposits in local banks. These substitutes make it easier for host-country depositors to test the local guarantee system by quietly fleeing to quality. In effect, banking crises discipline inefficient and unfair regulatory systems and push the social burdens created by weak supervisory systems toward the levels found in best-practices countries.

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**CAPITAL MOVEMENTS, ASSET VALUES, AND BANKING POLICY IN  
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Banking policy has two components: rulemaking and enforcement. In every country, government-made rules help to define formally what a bank is, what things a bank may and may not do, how and where bankers may and may not do these things, and what reciprocal rights and duties bankers and government regulators owe to one another.

To affect behavior, rules must be backed up by enforcement. Regulated parties (“regulatees”) have an incentive to disobey rules and that incentive increases with the weight of the burdens that any particular rule imposes. To control circumvention and evasion, an enforcement system must be established. In a free society, enforcement creates loopholes that define a second --and inevitably looser and less explicit-- set of rules. For example, although the formal speed limit on a given highway might be set at 55 miles per hour, drivers confidently expect the enforced limit to be much higher. Rules and their loopholes determine the net costs and benefits that banking policy ultimately generates for different members of society.

This paper conceives of the parameters of banking policy as being influenced by industry lobbying pressure as well as social goals, but portrays the influence-peddling process as constrained by competition from foreign regulatory systems. The analysis explains how, in globalized markets, capital movements and asset values simultaneously respond to and constrain the political pressures that operate on an individual country’s banking policy.

The purpose of the analysis is to clarify that offshore regulatory competition identifies and helps to discipline inefficient or unfair banking policy strategies in individual countries. It does this by facilitating “silent runs” on a country’s banks. In turn, silent runs put downward pressure on the country’s exchange rate. Though painful, such episodes bring policy crises to a boil sooner and with potentially less economic damage than a country’s taxpayers would experience in the absence of competition from offshore regulatory systems. The paper goes on to discuss the part that offshore regulatory

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\* The author wishes to acknowledge extraordinary research assistance by Tara Rice and to thank Richard Aspinwall, Michele Fratianni, Stephen Kane, Joseph Sinkey, and George von Furstenberg for valuable comments on early drafts of this work.

competition played in the rolling currency crises experienced during 1997-98 in Korea, Indonesia, Malaysia, the Philippines, and Thailand.

### I. The Market for Regulatory Services

Banking regulation is a service with benefits as well as costs. Its benefits lie in three realms: improvements in customer confidence, improvements in customer convenience, and assistance or resistance to bank efforts to accumulate and exercise market power. Of course, regulatory benefits typically flow in different proportions to particular private parties in particular economic sectors.

Because banking regulation is costly to produce, it is possible for authorities to produce it more or less efficiently. Whether or not the costs of regulation are minimized, they must ultimately be allocated across society. The difference between the benefits a sector receives from bank regulation and the costs that banking regulation imposes on that sector may be defined as the sector's net regulatory benefit from banking policy, NRB.

It is natural to presume that members of every economic sector ( $i=1, \dots, n$ ) would like to push their own NRB as high as it can. A sector's self-interested competition with other sectors seeks to capture regulatory benefits for itself and to shift the costs of financing these benefits to parties located in other sectors.

In a world in which banking markets are globalized, services that provide regulatory benefits are available from foreign as well as domestic suppliers. Hence, the struggle for net benefits by citizens of any one country spills over into what is a worldwide market for financial regulation.

The market for regulatory services comprises a body of persons that carry on extensive transactions in the specific activity of promulgating, enforcing, and accepting regulatory restrictions. Although jurisdictions are fixed in the very short run, the voluntariness of regulatory relationships is substantial over longer periods. Regulation is supplied competitively and accepted voluntarily, in that entry and exit opportunities exist for clients willing to incur the transaction costs of switching all or part of their regulatory business to another supplier. Geographic overlaps in the global market for financial regulatory services have expanded as entry and exit costs for foreign financial institutions have declined around the world. On-going downward trends in these entry and exit costs render the margin of regulatory competition --even in developing countries-- increasingly global.

Although rules and enforcement systems are continually tested and reshaped by market discipline, competition in regulatory markets is inherently imperfect. An individual regulatory entity may be said to have market power whenever it can lower the net benefits

its operations offer without surrendering its entire market share. It is important that society strive to minimize the degree of a regulator's market power, because the market discipline to which labor, capital, and political markets subject individual regulatory officials (including elected politicians) is less than complete.

The perfectibility of regulatory competition is limited by information asymmetries and other forms of principal-agent conflict inherent in governmental processes. The essence of a government's social contract is a quasi-monopolistic assignment from taxpayers of coercive powers to governmental entities. Although taxpayers hope that officials in their government will exercise the assigned powers to promote the "common good," it is recognized that any agency's conception of the common good may be opportunistically misrepresented to allow or encourage its leaders to pursue antisocial personal benefits. It is not easy for citizens to ferret out information either on the true motives of policymakers or about exchanges of personal benefits that officials choose to conceal. Even when evidence of unfaithful public service surfaces, it is difficult to assure a thorough investigation or to mount a political campaign to reverse policies that allegedly place inefficient or unfair burdens on taxpayers.

Regulatory competition provides an economic check on the fairness and efficiency of net regulatory burdens. On the demand side, competition encourages parties that feel overburdened by their government's system of regulation to remedy matters by paying whatever transition costs are necessary to reconfigure their business so that it moves within the jurisdiction of a more-advantageous supplier of regulatory services. The new supplier may be a private organization or a foreign government. The lower the transition costs of changing one's regulatory supplier, the more complete the demand-side check becomes.

On the supply side, the entry of private regulators into new arenas is limited by the costs of building up the high public standing and coercive authority needed to be perceived as a reliable supplier of regulatory services. The costs to a supplier of entering and exiting a particular regulatory market are substantial. The existence of these costs means that the number of potential new entrants that can economically supply regulatory services in any country is limited, particularly in the short run. Would-be entrants need specific skills and prior reputational capital. Successful entry into any regulatory market requires both a capacity for raising and distributing funds and a capacity for exercising disciplinary power. Entrants must be able to promise credibly that they can fairly and truly regulate and are committed to doing this for a long while. They must be able to support a system of rewards and punishments sufficient to change the behavior of potential regulatees. This means that government entities gain inherent advantages in the market for regulation from

the financial strength imparted to them by the right to shift costs to taxpayers, and the right to use the force of law to punish violators.

In brief, differential entry and exit costs confer definite competitive advantages on government regulators in vying for market share. The market structure that emerges in regulatory services is distorted by market power that the law freely gives to government enterprises and by reputational advantages enjoyed by incumbent private regulators. On the one hand, the law temporarily confers renewable monopoly power to make and enforce rules on elected politicians and appointed bureau heads. Because policymaking authority may be canceled by voters or the courts, this authority becomes all the stronger, the more confidently incumbent politicians may count on holding power and the more that top bureaucrats may count on holding onto their offices and avoiding prosecution or blame for questionable acts. Even in the private sector, market power is conferred in lasting fashion on successful regulatory firms. Hard-to-dislodge incumbent regulators tend to include a country's major stock exchange on the one hand, and key government bureaus such as a nation's central bank and ministry of finance on the other. Typically, such entities outlive by many generations the politicians or entrepreneurs that create them.

## II. Banking Subsidies and Silent Runs

Banking environments and patterns of banking regulation vary greatly from country to country. Nevertheless, three strategic elements characterize the banking policies of almost every country in the world today:

1. Politically-Directed Subsidies to Selected Bank Borrowers: The policy framework either requires or rewards banks for making credit available to designated classes of borrowers at a subsidized interest rate;
2. Subsidies to Bank Risk-Taking: The policy framework commits government officials to providing on subsidized terms explicit or conjectural guarantees to holders of bank liabilities;
3. Defective Monitoring and Control of the Subsidies: The contracting and reporting framework for government officials fails to make them directly accountable for controlling the size of either subsidy.

Taken together, the first two elements in the strategy let banks snatch wealth surreptitiously from taxpayers and require loan officers to pass some or all of the wealth that is snatched to a politically designated set of favored borrowers. The third element prevents taxpayers from monitoring the joint cost of the first two strategies and undermines efforts to discipline excess transfers in timely fashion by political action or parliamentary review. Creating an enforceable obligation for regulators to report truthfully to taxpayers

and watchdog institutions the size of the dual subsidies would make authorities accountable for explaining whether and how taxpayer benefits generated indirectly by these subsidies might be said to justify the costs that they pass through to taxpayers.

Without side payments from the sectors that receive net benefits, it would be unlikely that a growing flow of subsidies could prove incentive-compatible for top government officials even for short periods. To enlist high-ranking regulators into the benefit-redistribution game, two further conditions must hold. First, taxpayers must be kept from convincingly assessing by indirect means the magnitude of the costs they face in funding the subsidies. Second, regulators themselves must be able to extract laundered incentive compensation from banks and borrowers. Moreover, the compensation offered must be sufficient to balance the risk of damage to the reputations of policymakers and the regulatory bureaus they head if, during their watch on the bridge, the system for covertly financing the subsidy were to break down.

It is convenient to analyze the risk of a bureaucratic breakdown in the cost-shifting process as a two-state Markov process. The probability of breakdown,  $p$ , rises with the extent of financial weakness in the system for supporting government guarantees ( $G$ ) and with the cumulative size of taxpayers' hidden responsibility for supporting unfunded guarantees of bank liabilities ( $T$ ). In turn,  $T$  is an increasing function of system fragility ( $F$ ). When and as  $G$  and  $T$  become substantial,  $p$  also rises with informativeness of the accounting principles that are in use in a given country ( $A$ ):

$$p=p[G,T(F);A] . \quad (1)$$

In any accounting system, unbooked losses are created for banks by the very act of making subsidized (i.e., below-market) loans. This overvaluation may be conceived as sabotaging the asset and net-worth values shown on bank balance sheets. The damage from subsidized lending becomes harder to hide as the amount of government-directed loans looms larger and larger on bank balance sheets and as realizable cash flows become visible from the maturing submarginal investment projects from which they must be paid.

Sooner or later, savvy large-denomination depositors come to appreciate the unseen hole that value-sabotaged loans imbed in accounting approximations to the market or opportunity-cost value of their banks' enterprise-contributed net worth ( $NW_E$ ). As a bank's  $NW_E$  declines through zero, it becomes a "zombie" institution. A zombie is an insolvent institution whose creditors have no reason to force into a corporate grave. Its ability to renew its deposit funding and its foreign debt depends entirely on the continuing credibility of the explicit and implicit government guarantees that official policies attach to its obligations.

Systemwide fragility  $F$  increases with the number of zombies ( $Z$ ) and with the aggregate size of their negative  $NW_E$ :

$$F = F[Z, \sum_{j=1}^Z NW_E(j)]. \quad (2)$$

A “silent run” begins not when a bank becomes a zombie, but when large-denomination depositors begin rationally to doubt whether officials will continue to support its existence. A silent run on a country’s banking system begins when doubts arise about: weakness in arrangements for making taxpayers fund the cost of guaranteeing the country’s zombie banks, i.e., when  $G$  makes the bill  $T(F)$  unlikely to be paid in full. We describe runs by sophisticated large depositors as silent because pressure on a troubled bank from large depositors generates far less adverse publicity than a line of panicked small depositors engaged in a conventional run. What a silent run does generate is a growing increase in each zombie bank’s funding costs. In developing countries, a zombie bank’s first line of defense against a silent run is typically to arrange loans from relatively well-informed foreign banks. Like the sophisticated depositors that zombie bankers manage to retain, foreign banks demand higher interest rates and increased collateralization for their claims. The net deposit outflows zombie banks experience are financed by a combination of selected asset sales and high-rate new debt.

Unless and until bank regulators take steps to increase the credibility of their guarantee system (e.g., by establishing a substantial line of credit with the International Monetary Fund), a silent run on a nation’s banking system tends to escalate. This is because zombie banks’ asset sales and funding-cost increases make the fragility of the zombies’ condition visible to more and more outside observers by causing a deterioration in the accounting values of income and net worth. When a zombie bank sells assets at market value, its unbooked losses on subsidized loans become a larger proportion of its footings. The more liabilities that a zombie bank rolls over at increased interest rates, the more severely its accounting and economic profits will be squeezed.

As a silent run unfolds, disturbing information is revealed about the size of  $T(F)$ . At the same time, net regulatory burdens begin to diverge drastically between zombie and nonzombie banks. Zombie banks receive subsidies from deposit insurance and less-formal government guarantees that stronger banks and general taxpayers eventually help to pay for. A silent run increases pressure on regulators because it progressively undermines the willingness of taxpayers and stronger banks to tolerate the regulatory status quo. The transfer of benefits to zombies from taxpayers and viable banks becomes progressively greater the longer a silent run proceeds. Regulatory efforts to retard the exit of inefficient and insolvent deposit institutions lower the profit margins that strong banks can earn on



borrowed funds and push their prospective costs for funding the government's guarantee services above the value of the guarantees that the strong institutions receive.

Figure One breaks the evolution of a banking crisis into six stages. Most of the banking crises that have rolled through Latin America, Japan, Korea, the Philippines, Indonesia, and Thailand in recent years illustrate the first three and one-half stages of this model. Only a few crises have passed beyond stage 4A, although the U.S. and Argentina provide examples of what happens in the later stages of the crisis life-cycle.

## **FIGURE ONE**

### **SIX STAGES OF A BANKING CRISIS**

1. Generation of Multiple Zombies
  - Ab ovo zombieness of Most State-Owned Banks (Golems)
  - Transition Via Government-Directed Lending and Subsidies to Risk Taking
  
2. Escalating Silent Runs Testing Balance between Size of Unbooked Losses and Strength of Government Commitment to Support Zombies
  - Reliance on Disinformation and Coverup
  - Difficulty of Weathering Runs Rises Over Time
  
3. Palpable Bureaucratic Breakdown of Guarantee Support Mechanisms
  
4. Recapitalization of Government Stabilization Funds
  - A. Stopgap Partial Recapitalization: Back to Stage 2
  - B. Full Taxpayer Bailout of Explicit Nationalization
  
5. Clean-up of Zombie Institutions
  
6. Blame Distribution and Marked Policy Reform

Rolling and incompletely resolved crises sound at least three alarms. First, the frequency and geographic extent of banking crises convincingly demonstrates that, around the world, numerous banks have found it reasonable to book potentially ruinous risks. Looking at the period 1977-1995, Caprio and Klingebiel (1996) cite 58 countries in which the net worth of the banking system was almost or entirely eliminated. Second, in country after country, domestic (and sometimes foreign) taxpayers have been billed to bail out banks, depositors, and deposit-insurance funds. Caprio and Klingebiel report that taxpayers' bill for making good on implicit and explicit guarantees typically ran between 1 and 10 percent of GDP. The size of these bailouts establishes that bankers have often managed to shift a substantial amount of bank risk to taxpayers. Finally, authorities deserve substantial blame for the size of the bills taxpayers have been asked to pay. Officials have actively encouraged loss-causing patterns of credit allocation and have compounded the damage from credit losses by not resolving individual-bank insolvencies until their situations had deteriorated disastrously. The extent of the losses indicates how far the politically corrupted risk-taking preferences of high government officials have proved unsupportable in private financial markets.

Social controls on the job performance of government regulators responsible for protecting the safety and soundness of financial institutions differ between developed and developing countries. Although institutional mechanisms for promoting unsupportable lending differ between these types of countries, poor information flows and incentive conflict in government policymaking lie at the heart of banking crises.

In both kinds of countries, financial regulators subject foreign banks and the foreign operations of domestic banks to patterns of regulation that differ importantly from those that apply to strictly domestic banking operations. The consequences of two particular asymmetries are relevant here. First, most developed countries are willing to allow their domestic banks to book a wider range of risks in foreign subsidiaries than they are prepared to tolerate in home-country offices. This is because relationships with internationally active customers are a geographically footloose part of the banking business and because politicians don't expect to confront responsibility for foreign banking losses in domestic political arenas. Second, barriers to the entry of foreign financial firms into local banking markets customarily exist, but in recent years officials both in developed regions and in many developing countries have been persuaded --by technological change and appropriate side payments-- to relax these barriers (Claessens, Demirgüç-Kunt, and Klingebiel, 1996).

### III. The Two-Stage Globalization of Regulatory Competition<sup>1</sup>

Contemporary theories of industrial organization seek to explain how a product's market structure evolves through time to permit *efficient firms* to discipline or displace relatively less-efficient competitors. The force of these theories is particularly easy to grasp when we focus on hypothetical markets that meet a set of ideal conditions that Baumol, Panzar, and Willig (1986) call "perfect contestability."

A market is perfectly contestable when entry and exit costs are each zero *and* incumbent firms exit quickly whenever they find themselves faced with negative profits. In perfectly contestable markets, low-cost firms readily displace high-cost firms and incumbent competitors are prevented from setting monopoly prices by the threat of hit-and-run entry by other equally-efficient firms.

This paper deploys an imperfectly contestable-markets perspective on market-structure change to discern two stages of financial deregulation in Asia and elsewhere. The first stage takes the form of de facto deregulation of entry barriers by market forces. The second stage consist of subsequent de jure ratification and regularization of market developments by the financial regulatory establishment.

During the 1970s and 1980s, technological change made banking and other formal and informal financial markets increasingly more contestable. This brought clients that were regulated by regulators from other countries and from other domestic jurisdictions into increasing competition with one another. The second stage of deregulation followed when and as this mutual invasion of traditional markets put increasing pressure on specialized incumbent regulators to re-examine the burdensomeness of their rules.

#### **First Stage: De Facto Market Deregulation**

For several decades and particularly in corporate banking markets around the world, technological change has steadily lowered entry costs for foreign and non-traditional competitors. Initially, the more-cautious foreign and nontraditional financial firms booked their market-share incursions in innovative ways. They did banking business by making creative use of substitute products, substitute organizational forms, and substitute offshore locations. In most countries, a new entrant's ability to use differently regulated substitute opportunities was facilitated by longstanding and burdensome restrictions on how traditional deposit institutions could compete domestically.

#### **Second Stage: De Jure Ratification and Reregularization of Market-Driven Deregulation**

The second stage occurred when regulators officially acquiesced in this innovative entry by foreign and non-traditional firms and went on to relax many of the restraints under

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<sup>1</sup> This section draws heavily on Kane (1991).

which their traditional clients had previously operated. As banks' aggregate market share shrank, they pressed politically for their traditional domestic regulators to relax or jettison their most burdensome regulations. At the same time, foreign and non-traditional entrants into a country's banking markets pressed authorities to offer them charters that could regularize and reduce the circumvention costs occasioned by their creative de facto incursion into that country's banking markets. In Asia and elsewhere, authorities' positive response to these political pressures during the 1980s has been labeled *financial deregulation*.

Around the world, governmental and market deregulation has been greater for wholesale and private banking markets than for retail ones. Moreover, the word deregulation is in any case a *misnomer* for the detailed pattern of second-stage or "regularizing" regulatory adjustments that followed. In many countries a deregulation of entry costs was combined with lags in imposing adequate prudential supervision that amounted to a far-from-deregulatory accentuation of regulatory barriers to exit for insolvent domestic deposit-institution competitors. Using the contestable-markets paradigm of market-structure change makes it clear that banking regulation has in most countries occurred only on the entry side and that regulatory efforts to resist the exit of at least some classes of traditional domestic competitors foreshorten some of the increased contestability in specific banking markets that entry relaxation would otherwise produce. Banking regulators have lowered regulatory entry costs almost to zero, but in adopting or strengthening domestic guarantee systems, many countries turned around and raised incumbent exit barriers thereafter.

It is important to understand that incumbents' ability and willingness to run negative profits are a form of exit costs. Exit costs to limit a new entrant's ability to penetrate a market. By resisting the exit of its unprofitable clients, a regulator can prevent efficient competitors from being able to earn enough profits to sustain permanent entry. As foreign and nontraditional financial-services competitors have come to appreciate the importance of regulator-financed exit costs in many countries, they have slowed their rate of entry into new banking markets and even reversed some of their past entry.

#### IV. Asset Prices and Currency Crisis

For any policymaker, a crisis may be described as a time of upheaval that generates strong pressure for decisive changes in policy strategy. A country's currency undergoes a crisis when foreign and domestic holders of wealth seek to reduce holdings of assets denominated in the target currency and to sell target-currency assets short (Krugman, 1979;

Dooley, 1997). Figure Two depicts the crisis declines in value the five Asian currencies experienced in 1997-98.

It is helpful to frame the evolution of economic crises as resulting in a lagged fashion from a dialectical collision of contradictory forces:

**THESIS: UNSUSTAINABLE POLICY MIX**

- Expansionary Monetary and Fiscal Policy vs. Relatively Fixed Exchange Rates
- Loss-Causing Credit-Allocation Scheme (“government-sabotaged loans”) vs. Poorly Funded Government Guarantees of Bank Liabilities

**ANTITHESIS: MARKET DISCIPLINE TESTS GOVERNMENT PROMISES TO SUPPORT EXCHANGE RATE AND BANKING SYSTEM LIABILITIES**

- In Pure Currency Crises, the Market Test = Bear Raids
- In Pure Banking Crises, the Market Test = Silent Runs (Symptom = Flight to Quality)

**SYNTHESIS: CRISIS OCCURS WHEN AUTHORITIES LOSE THEIR NERVE AND CREATE SERIOUS DOUBTS ABOUT THEIR WILLINGNESS TO MAINTAIN THE CONTRADICTORY POLICY MIX.**

- The new policy mix has contradictory elements that renew the conflict with market forces.
- The probability of crisis rises the longer an unsustainable policy regime stays in place.

The appropriate policy response to a given currency crisis depends on the nature of the prior contradictions in government or business policy that occasioned the crisis. A particular issue is how extensively the observable run on the currency is compounded --or even occasioned-- by falling prices for risky financial assets. Asset-price meltdowns are likely to entail a crisis-intensifying run from claims issued by insolvent domestic corporations and commercial banks.

Macroeconomists typically conceive of currency runs as manifestations of a central-bank “liquidity problem.” The crisis is attributed to the central bank’s having accommodated domestic overspending by financing a series of unsustainable current-account deficits. In a simple liquidity crisis, central bank can prolong unsustainable deficits by drawing down the country’s foreign-exchange reserves and foreign lines of credit. In a consumption-driven currency crisis, a two-pronged prescription exists for rebuilding central-bank liquidity. Authorities are advised to shrink the current-account deficit in two

complementary ways: (1) allowing the exchange rate to decline and (2) tightening fiscal and monetary policy.

But this prescription is incomplete when these policies impose sizeable opportunity losses on foreign and domestic holders of the country's financial assets. The currency devaluation half of this strategy puts upward pressure on domestic prices. The second half of the prescription seeks to reduce this pressure by inducing a decline in aggregate economic demand. Both effects tend to reinforce each other in reducing the real value of a country's financial assets in general and the net worth of its banking system in particular. The first strategy harms asset values to the extent it reduces the real rate of interest that banks and other investors can collect on their performing assets. The second hurts asset values by raising prospective rates of default and delinquency on troubled assets.

It is inappropriate for authorities to ignore fallout effects that falling real asset prices have on aggregate demand and taxpayer loss exposure. These effects are particularly important when --as in the 1997-1998 crises in the five Asian countries-- the impetus for the current-account deficits that proved unsustainable came from a malinvested prior inflow of foreign private capital. In this case, the current-account deficits previously observed were not rooted in domestic policy decisions. They were occasioned by the economics of transferring enough real resources to absorb foreign-initiated capital inflows. During 1994-1996, Table 1 shows that the five countries received \$30 billion in portfolio equity investments and almost \$130 billion in loans from foreign banks. Figure Three shows the positions taken in six Asian countries by U.S. banks, while Figure Four contrasts U.S. positions in these countries with those of Japanese and European banks. Clearly, Japanese and European banks have much larger stakes in the resolution of Asian insolvencies than U.S. banks do. However, U.S. banks have been increasing their holdings of Korean debt.

In the five crisis countries, capital inflows supported domestic investment, financed silent runs on zombie banks, and permitted foreign-exchange reserves to increase by over \$35 billion. Recipient countries that have run current-account deficits to absorb capital inflows of the magnitude shown for 1994-1996 will suffer a substantial decline in investment spending when inflows stop. Using even the crudest model of aggregate demand, this interruption in resources looking to finance domestic investment projects translates into a sizable recession. During this recession, capital and labor are going to have to move out of inefficient activities (including many of the projects previously subsidized by politically driven schemes for allocating credit) and into efficient ones. The resulting asset revaluations are going to reveal and accentuate hidden losses and deepen the insolvencies of the region's zombie institutions.

Authorities face a Three-Way Policy Dilemma about how to stop silent runs and bear raids:

1. Choice One: Try to stop runs and raids with minimal adjustment in their policy mix. We may describe this strategy as disinformational “hardball.” Authorities deny that zombies exist and defend the pre-crisis exchange rate by drawing down reserves and borrowing from private and official foreign sources.
2. Choice Two: Rebalance the policy mix to make it more sustainable, but only over the foreseeable future. Authorities resolve or strengthen only some of the zombies and tighten macroeconomic and trade policies. We may call this disinformational “softball.”
3. Choice Three (almost never chosen): Completely eliminate contradictions in the policy mix. Such a policy would aim for a full cleanup of zombie institutions to impart incentive compatibility to the post-crisis regulatory system.

It is painful to resolve corporate and banking insolvencies in the midst of a recession. In crisis circumstances, politicians are strongly tempted to reflate demand and to direct foreign bailout funds to strengthening the resources of the government’s system for guaranteeing zombie lending institutions, without doing much to resolve the continuing incentive distortions that zombieness creates. Leaving bank and corporate insolvencies unresolved fosters incentives for further malinvestment and enhances the likelihood that a deeper crisis will emerge down the line.

The policy mistakes that reversed the 1994-1996 capital inflows shown in Table 1 were made in the financial, corporate, and government-planning sectors that determined how the resources transferred from abroad would be used in each country. It is because these capital inflows were not invested at a satisfactory real rate of return that asset values and bank net worth now have to be written down in recipient countries. Had real asset values either been sustained by an appropriate expansion in productive capacity or written down promptly as unfavorable information surfaced, large-denomination depositors and other prior investors in recipient-country assets would have had no reason to run recipient-country currencies.

#### V. How Regulatory Competition Influenced the Asian Banking Crises

What the press describes as a “banking crisis” may be more accurately described as the surfacing of tensions caused by the continuing efforts of zombie banks to force the rest of society to accept responsibility for the zombies’ unpaid bills for making bad loans. In the five Asian countries, longstanding systems for subsidizing inefficient loans to favored individuals imposed unbooked losses on their banking systems. These situations lasted for



years. They turned into banking and currency crises only when doubts began to surface about authorities' willingness and ability to bond the growing liabilities of an economically insolvent banking system. As in the U.S. savings-and-loan mess, crisis pressures were triggered in the face of silent runs by regulatory second thoughts about the wisdom of asking taxpayers to pay the full value of conjectural government guarantees.

Around the world, financial institutions and markets and concomitant regulatory systems show numerous country-specific features (Wilson, 1986; Germides *et al.*, 1991). Differences in patterns of financial regulation parallel differences that exist in the particular economic, political, and bureaucratic deficiencies and inefficiencies that regulation is overtly or covertly expected to correct.

However, the survival of differences in regulatory patterns is limited by the tendency of private capital and loan-making opportunities to flow to markets and institutions that offer their customers the best deals. The extent to which net regulatory burdens on financial markets and institutions differ across countries is narrowed by the regulatory arbitrage this deal-flow entails. When and as technological change in information processing and telecommunications lowers the cost of transacting with foreign entities, adverse flows of capital and financial deals should help to persuade a nation's authorities to lower the net burdens that their regulatory framework imposes on the savers, investors, and financial intermediaries that transact in its financial markets.

In recent years, rolling banking and currency crises have become frequent for two reasons. First, advances in information and communications technology have globalized banking markets and the market for government guarantees. Second, globalization of markets for banking and guarantee services has made it less costly for corporations and wealthy investors to mount silent runs on zombie banks.

The 1997-1998 crises in Korea, Indonesia, Malaysia, the Philippines, and Thailand were hastened by the continuing technologically driven passage in these countries to a more-globalized market structure in which large depositors could shop for ways to protect themselves against the burdens of unsustainable patterns of financial regulation. Globalization put the costs and benefits of host-country banking regulation into closer competition with the Basle-enhanced regulatory systems of offshore financial centers.

Offshore banking competition shortened the crisis-gestation period in two ways. First, even limited entry by outside banks expanded the stock of well-priced domestically available substitutes for deposits that local citizens had previously held in host-country banks. This lowered the cost to Asian depositors of participating in a silent run on local banks. Second, the greater safety of foreign-bank deposit substitutes reflects the greater

economic efficiency of the (still-very-imperfect) performance guarantees written for each offshore entrant by the regulatory systems of its homeland.

Each new crisis constitutes an exit cost that society is paying to shrink the domain of a high-cost or inequitable regulator. These crises come from efforts to avoid the inefficiencies and inequities that political maneuvering tends to produce when a government enjoys monopoly power in its domestic “onshore” market for regulatory services. By squeezing the equilibrium rents that short-sighted or corruptible officials can extract in individual countries, offshore regulatory competition has the salutary effect of creating pressure to discipline inefficient regulators and perhaps even to improve public-service contracting in the longer run.

Exploitive regulation drives sophisticated depositors, borrowers, and other bank stakeholders to book at least some of their business elsewhere: either abroad or in informal and differently regulated domestic markets. These acts of regulatory arbitrage limit the extent to which markets will tolerate a vector of regulatory burdens that deviates from its optimal long-run path composition. Authorities in countries such as Singapore and Taiwan that aspire to become international financial centers --and indeed in any country whose political environment supports a reasonably long decisionmaking horizon-- should see this on their own.

The normative goal of financial reform should be to induce fair and efficient patterns of regulation and supervision. Regulators should be accountable not just for producing a stable financial economy, but for providing this stability fairly and at minimum cost to society. In practice, this means establishing incentives that lead authorities to adopt market-mimicking standards of regulatory performance. In the absence of explicit or implicit government guarantees, markets would insist that any bank that experiences opportunity-cost losses do one or more of three things: shrink, raise more capital, or pay higher interest rates for funds. The public policy problem is how to make it in regulators’ self-interest to invoke “market-mimicking” disciplines when and as a country’s important institutions weaken.

For any regime, the size of tolerable deviations from a fair and efficient distribution of net regulatory burdens increases with the opportunity costs its citizens face in engaging in capital flight. In turn, the benefits and costs of capital flight evolve with information technology, the volatility of the real economy, and the fluidity of the political environment. This knowledge should help the World Bank and the International Monetary Fund to convince authorities in developing countries that the information revolution that is underway in finance today makes it short-sighted and unfair to adopt credit-allocation schemes that seek to force taxpayers to subsidize weak banks and uneconomic enterprises.

TABLE ONE

YEAR-TO-YEAR FLUCTUATIONS IN THE COMBINED BALANCE OF  
PAYMENTS OF FIVE ASIAN ECONOMIES CONFRONTED WITH  
FINANCIAL CRISIS DURING 1997-1998\*  
(in \$ billions)

	1994	1995	1996	1997e	1998f
1. Current account balance	<u>-24.6</u>	<u>-41.3</u>	<u>-54.9</u>	<u>-26.0</u>	<u>17.6</u>
2. External financing, net	<u>47.4</u>	<u>80.9</u>	<u>92.8</u>	<u>15.2</u>	<u>15.2</u>
Private flows, net	40.5	77.4	93.0	-12.1	-9.4
Equity investment	12.1	15.5	19.1	-4.5	7.9
Direct equity	4.7	4.9	7.0	7.2	9.8
Portfolio equity	7.6	10.6	12.1	-11.6	-1.9
Private creditors	28.2	61.8	74.0	-7.6	-17.3
Commercial banks	24.0	49.5	55.5	-21.3	-14.1
Non-bank private creditors	4.2	12.4	18.4	13.7	-3.2
3. Official flows, net	7.0	3.6	-0.2	27.2	24.6
Int'l financial institutions	-0.4	-0.6	-1.0	23.0	18.5
Bilateral creditors	7.4	4.2	0.7	4.3	6.1
4. Resident lending/other, net <sup>#</sup>	<u>-17.5</u>	<u>-25.9</u>	<u>-19.6</u>	<u>-11.9</u>	<u>-5.7</u>
5. Reserves excl. gold (-=increase)	<u>-5.4</u>	<u>-13.7</u>	<u>-18.3</u>	<u>22.7</u>	<u>-27.1</u>

Notes:

\* South Korea, Indonesia, Malaysia, Thailand, and the Philippines.

<sup>#</sup> Including resident net lending, monetary gold, and errors and omissions

e = estimate, f= IIF forecast

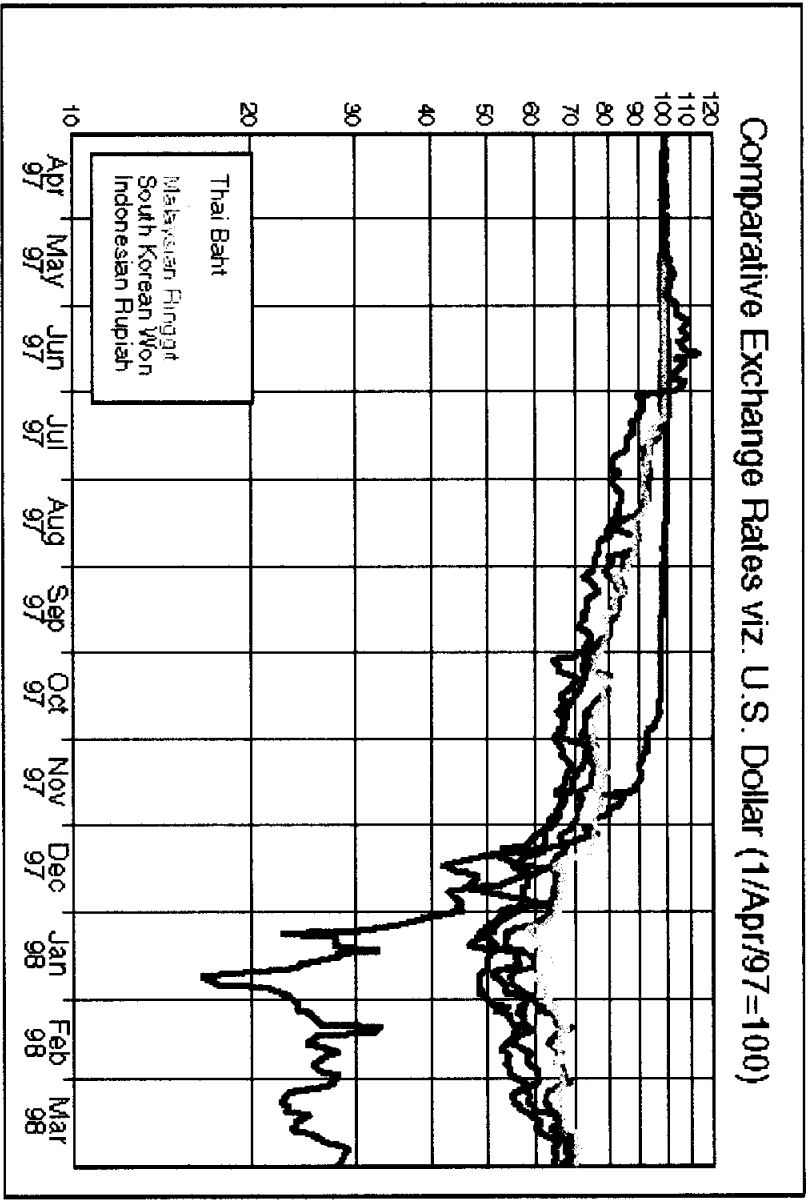
Source:

Institute of International Finance, Inc., Capital Flows to Emerging Market Economies, Washington, January 29, 1998, p. 2.

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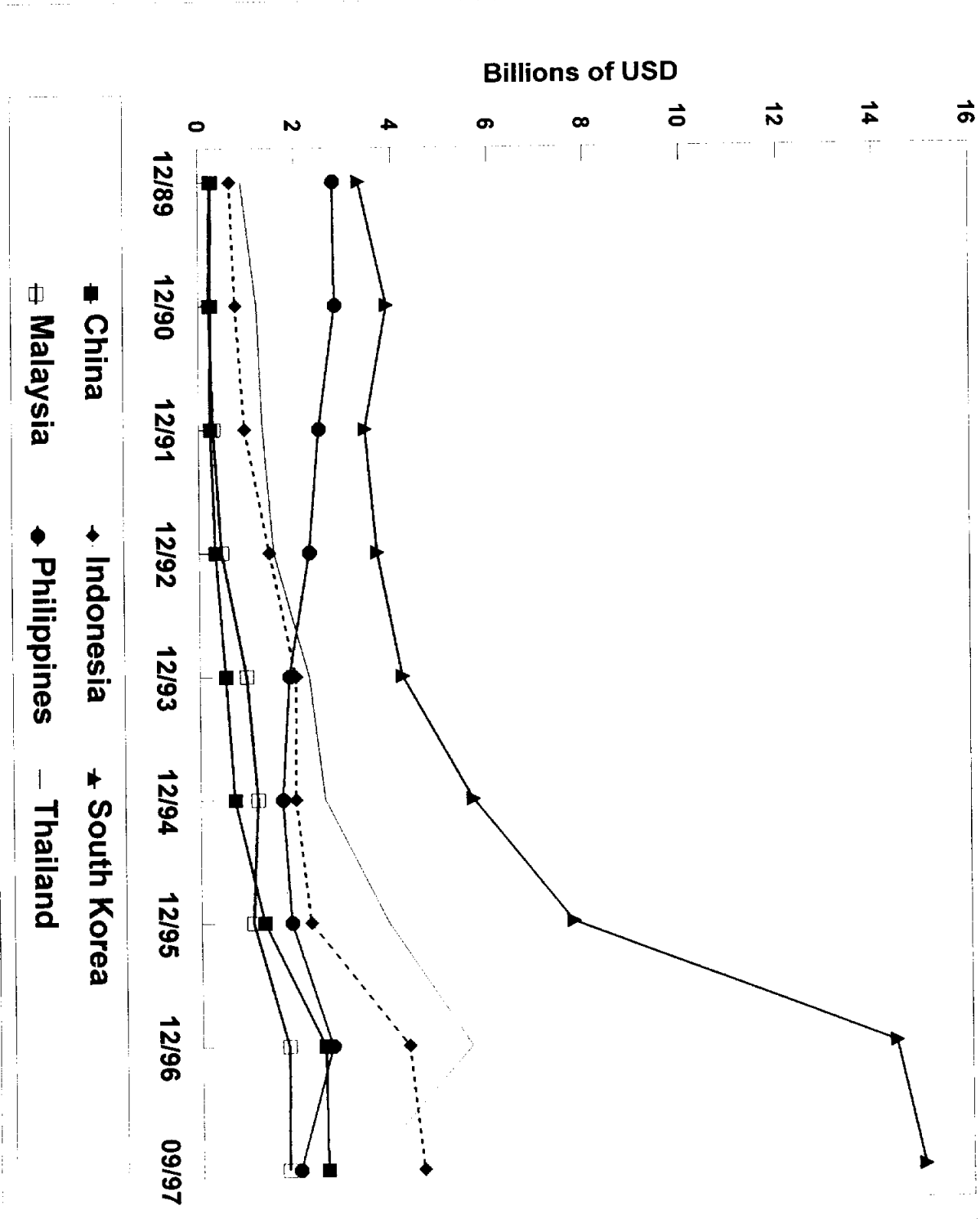
FIGURE TWO  
**PACIFIC Exchange Rate Service**



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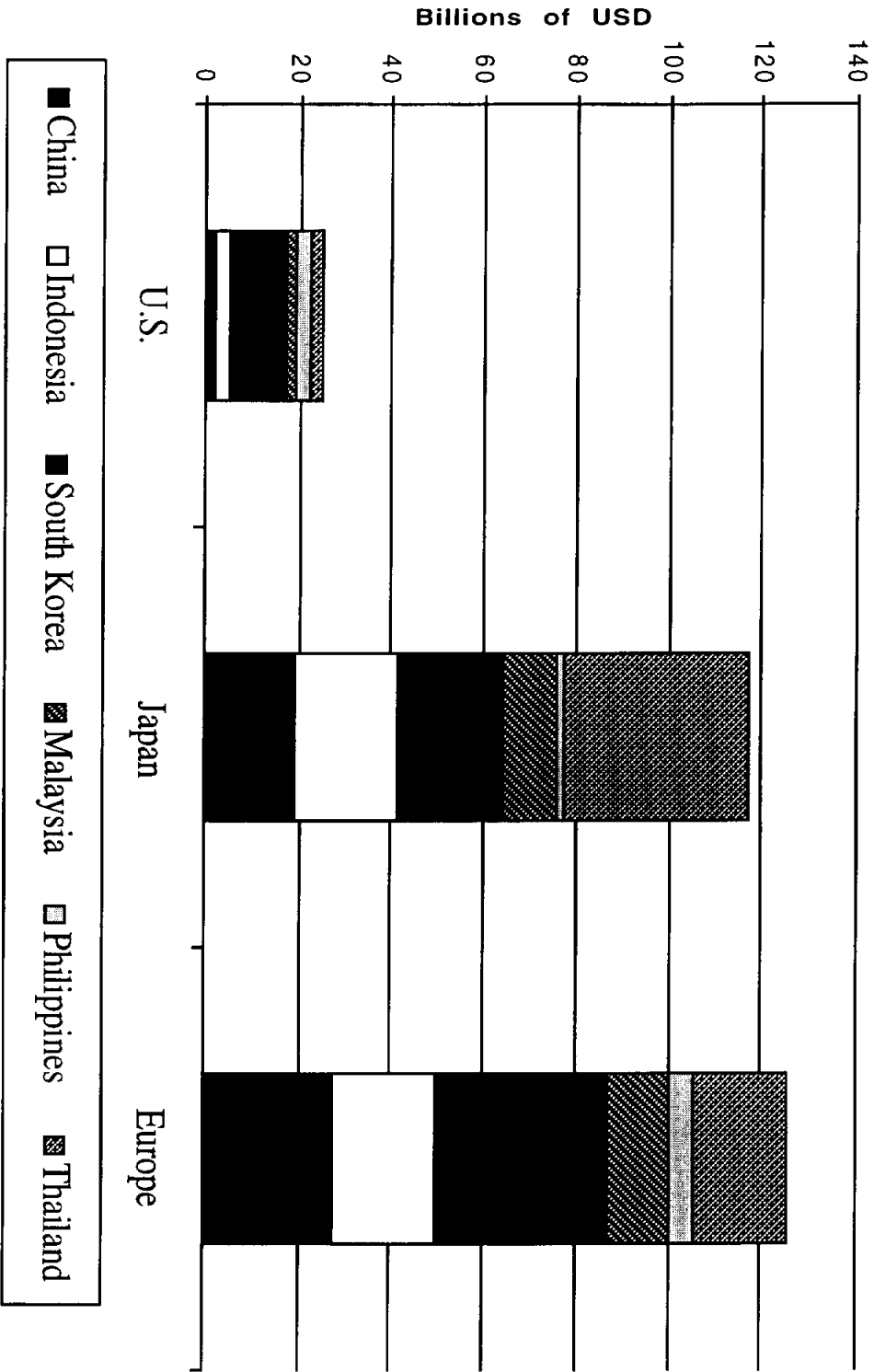
FIGURE THREE

Amounts Owed US Banks by Foreign Borrowers



Source: FFIEC Country Exposure Lending Survey

**FIGURE FOUR**  
**International Claims of U.S., Japanese and European Banks**  
**on Selected Asian Countries**  
 End-June 1997



Source: Bank for International Settlements, January 1998