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*The Regulatory and Public
Policy Agenda for Effective
Intermediation in Post Socialist
Economies*

by
Anthony M. Santomero

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Anthony M. Santomero
Director

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The Regulatory and Public Policy Agenda for Effective Intermediation in Post-Socialist Economies ¹

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Abstract: The advent of a market economy in formerly centralized economies has led to dramatic change in their financial sector, and the behavior of banking institutions. These firms must convert from de facto government agencies to credit evaluators, borrower monitors, and loan collectors. To perform these functions, substantial change has begun to transform the accounting, legal and property/bankruptcy laws in these economies. An equal change needs to occur in financial institution regulation. Financial system reforms must include a set of functions, procedures, and controls which collectively are referred to as a safety net for the system as a whole. A carefully constructed set of regulations appears necessary which will offset market imperfections without replacing them with a new bureaucratic structure. These regulations require trade-offs between stability and market discipline. In the end, however, no stability is offered by the removal or manipulation of market signals and the discipline of the price system.

Anthony Santomero is at the Wharton School of the University of Pennsylvania.

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1. INTRODUCTION

The financial structure appropriately has become a focus of attention in countries that were once part of the socialist bloc. Policymakers have come to recognize that financial markets and institutions are essential for a modern market economy. Yet, these policymakers and regulators are completely new to the scene, and, woefully unaware of the requirements for efficient financial intermediation.

One should not be surprised by this lack of experience. In a planned economy, banks as we know them do not exist. Their notion of banking, in fact, is quite alien to our own. Calvo and Coricelli (1993) summed up the socialist view of banking this way:

"In a centrally planned economy (CPE), bankers are a mixed breed of accountants and public notaries...(B)anks' role in screening financially viable firms from non-viable ones is relatively minor, if at all relevant. Firms, as well as banks, are state owned. Therefore, managers have no control over firms' revenues, let alone profits... (T)he firm will get new bank credit to buy new outputs. Banks continue to lend because they are ordered to do so...(T)he creation of new loans does not require previous loans to be served. Consequently in CPEs, firm creditworthiness is taken for granted as long as managers comply with the dictates of the central program." (p. 33)

And, just to accentuate the alien nature of the entities they conclude with:

"Little firm-specific information needs to be collected by the bank extending credit, since no firm-specific collateral is involved in the credit transaction."(p.33)

By contrast, market-based economies view financial intermediaries as providing a dramatically different service to the capital market participant. According to this view, the financial sector is central to the smooth functioning of a market-based economy. It facilitates savings and its efficient use by investors, transforming excess current income of one agent into demand for current output for investment purposes by other parts of the

economy.

Financial intermediaries, and most particularly banks, perform a significant portion of the services provided by the financial sector. Particularly in the early stages of financial development, the banking sector tends to provide the most substantial fraction of these services (McKinnon, 1973; Corbett and Mayer, 1991). They do so by combining two functions within a single institution, i.e., they accept deposits for transactions or savings, and use these funds to invest in investment opportunities requiring capital.

This conversion of savings into investment through bank lending is successful only if the institutions involved effectively and efficiently carry out this charge. However, this is not an easy task. It involves the ex ante evaluation of proposed investment opportunities, borrower monitoring throughout the project's life cycle, and the determination of the actual outcome associated with the projects financed using the borrowed funds.

Particularly in developing economies, there are always too many borrowers seeking credit for a set of highly heterogeneous projects, offering all kinds of contracts for future repayment in return. In most cases the situation is made worse by financial repression and regulated interest rates. Beyond this, the proposed projects are often misrepresented; the funds are often misallocated; and the investments' returns are often misstated ex post by the entrepreneurs involved. And, even in the best of both worlds, the investment projects themselves are risky endeavors. Results may prove unsatisfactory due to no fault of either the borrower or lender. In short, bad things happen to good projects. To researchers in the field, these inefficiencies in the market are a clear situation in which

contracting between borrower and lender can be said to occur in the presence of asymmetric imperfect information.

2. THE ENVIRONMENT FOR EFFECTIVE INTERMEDIATION

It is in this world that banking firms exist, and it is incumbent upon regulation and the legal system to foster an environment in which they can survive. The environment of laws and regulations surrounding these institutions must be constructed in a manner that permits them to evaluate investment opportunities as effectively as possible, enforce contractual relationships with borrowers in the most incentive compatible way, and allows them both a reasonable chance to determine investment outcome, and, if necessary, recourse to collateral in the event that these contractual commitments cannot be met. In short, the financial landscape must include a clear set of financial standards, a clear contractual legal environment, and clear property rights - all with the expectations that such an environment will enhance the efficiency of credit decisionmaking and the flow of savings into the highest present value investments available in the real economy.

Unfortunately, this is not the present condition in the formerly planned economies (FPEs). As Udell and Wachtel (1995) report, the status of banking law, the commercial legal code, and bankruptcy laws in FPEs are far from ideal. In fact, in virtually none of the eighteen countries surveyed in NatWest (1994) could the banking environment be characterized as acceptable. Therefore, the result is less than ideal. The banking industry in most of the FPEs is in desperate shape. Reluctant politicians, worried about closure without deposit insurance and the real possibility of bank runs, have been feverishly looking for a way out of the morass.

Most industry representatives, and academics alike, have continued to voice the need for structural reforms in three critical areas of financial reporting, contract law, and bankruptcy rights and remedies, as the only long-run solution. To them, a movement toward an efficient capital market requires greater transparency in financial reporting, free and enforceable contracting, and the very real possibility of collateral foreclosure for the lending market to function effectively (Sarcinelli, 1992). What is envisaged is a financial system in which institutions can make investment decisions in an environment that more closely approximates the first best solution of full and symmetric information facing both entrepreneurs and lenders alike, in which behavior is contractible and contracts enforceable.

This implies that reporting systems and standards are key ingredients in any viable structure, with contract law and commercial codes in place to ensure the enforceability of financial contracts. Both of these are necessary ingredients to a sound loan market. Finally, a clear definition of property rights, collateral rights, and bankruptcy remedies need to be established, so that violations of contract terms have well known and viable implications. While the first two areas appear to have advanced relatively rapidly, the issue of bankruptcy codes and lender recourse to collateral is significantly further behind.

However, even if these steps are completed, there is no assurance that the banking institutions will perform their stated function in an appropriate manner. Once the environment for lending is improved, there is a clear need to establish a regulatory framework in which these financial institutions will operate. As we solve the banks' problem of evaluation and monitoring of the borrower relationship, there is an equal, if not

greater, need to establish a framework for depositors and shareowners of financial institutions to likewise evaluate and monitor their financial institutions.

How is this accomplished? To many, the answer is straightforward. A regulatory regime needs to be established to permit the clear evaluation of bank assets, the monitoring of bank behavior, and the enforceability of remedies in the face of bank default. Essentially, some would argue, the banking environment needs to be established in a symmetric manner to that which is proposed for the non-bank sector (Udell and Wachtel, 1995; and Perotti, 1994).

Yet, this view does not have universal support. Many are quick to point out that bank balance sheets are less transparent than their non-financial counterparts, and the "overhang" from the previous regime more serious (Wihlborg, 1995; OECD,1992). In addition, depositors are less able to pierce the corporate veil, particularly in the FPE context. This has led some to recommend higher capital for banking firms, and the establishment of a formal deposit insurance system to assure bank stability and protect uninformed depositors. In general, these recommendations come from those that view banks as somewhat unique institutions that require special regulations (Herring and Litan, 1995). Their objectives, however, are the same as those proposing commercial code revisions. The goal is to establish a set of rules and regulations that enhance the workings of the market-based system. In short, they are attempts to remediate the imperfections in the market, not substitute for market-based signals.

Stiglitz, however, has caused somewhat of a stir lately. In both Stiglitz (1989) and Stiglitz, Jaramillo-Vallejo, and Park (1994), he has come out in favor of a system that is

less free-market based than many others would recommend. Relying on the existence of imperfect information in even the best of circumstances, he has argued in favor of selective government intervention in the financial structure of developing economies, including the use of various types of credit allocation schemes, as well as expanded government oversight of credit institutions. As Edwards (1995) characterizes the Stiglitz perspective, information problems in the credit market have two central consequences.

"First, since financial institutions know it is difficult to monitor them when information is limited, they are tempted to act recklessly, either undertaking excessively risky actions or committing fraud. And, second, since the public is aware of the incentive problem facing financial institutions it entrusts them with fewer resources than it would under the hypothetical case of full information" (Edwards, 1995, p. 202).

In short, in the presence of imperfect information, financial institutions assume excessive risk and provide insufficient funds for capital formation. Therefore, a move toward a market-based system, even when the current structure is admittedly ineffective and grossly inefficient, may not be desirable. To Stiglitz, the inefficiencies of the second best world of an imperfect credit market may be large enough to make government intervention and credit allocation a preferred solution to the current situation. What we are seeing, in short, is a call to arms to all those who favor non-market credit decisionmaking and an expanded role for proactive government policy.

Those opposed to this policy prescription argue in favor of policies that would improve the functioning of the market, rather than replacing it with a government bureaucracy and its attendant shortcomings. They believe that management is more likely to be responsive to stakeholders in a market based system than in one in which the

government plays a larger role. This point of view is neatly captured by Edwards (1995).

"In designing regulatory legislation for the financial sector, it is important to recognize that, to a large extent, the inadequate availability of information can be reduced significantly through actions mandated by the government but undertaken by the private sector itself. The use of credit-rating agencies and outside auditors to monitor the accounts of financial institutions are only two examples of quasi self-regulation. The long history of failed government initiatives in this direction strongly suggests that overregulating the financial sector, especially intervening through direct government actions, can be disastrous. It can negatively affect the efficiency of the capital market, while at the same time creating rent seeking and heightening corruption" (Edwards, 1995, p.202).

However, this is not to say that proponents of this view offer a laissez-faire government regime with no regulation. Rather, they argue that appropriate regulation requires an appreciation of the potential role of financial institutions in the capital market and how it can be enhanced by a supportive regulatory regime. Toward this end, let us review in further depth the current understanding of the functions performed by financial intermediaries with an eye toward a regulatory regime which can enhance their ability to perform these functions rather than replacing them with a greater government role.

3. REVIEWING THE ROLE OF FINANCIAL INTERMEDIARIES

The current academic view of the role of financial intermediaries is that they serve two primary functions. First and foremost, they are generators or creators of assets. These assets are obtained either from the government to finance deficits or from the private sector. In the latter case, banks are expected to screen the set of borrowing opportunities presented to them, using the expertise and specific-capital that is unique to this sector (Diamond, 1984; Bhattacharya and Thakor, 1993). Projects found worthy are

financed and monitored until repayment. This secondary phase of the lending function, on-going servicing and monitoring is critical for a number of reasons. It is well known that once the loan is made, it is frequently illiquid and difficult to value without substantial effort (Gorton and Pennacchi, 1990; Santomero and Trester, 1997). Therefore, monitoring its performance and estimating its current value are crucial elements in the intermediation process. In addition, such oversight by firms who are responsible for financing the investment project often leads to higher returns from the endeavor, as investors respond to on-going monitoring by increasing effort and maintaining closer adherence to the proposed purpose of the loan (Allen and Gale, 1988). For both reasons, the existence of a monitoring institution improves the project returns accruing to the stakeholders of the intermediary itself.

The second function of the intermediary sector is the channeling of savings resources to a higher purpose. This is achieved in two distinct ways. For transaction balances, the financial sector needs to develop the capacity to use idle balances, even while it installs a viable and efficient payment system. From the perspective of the institution, financial intermediaries provide depository services as a mechanism to finance the lending activity outlined above. Yet, the fact that these banks are central to the clearing process suggests a need for regulatory concern and oversight, viz., the integrity of the payment system (Goodfriend, 1989). For FPEs, this is an enormous challenge, but one that already has been identified and is currently being addressed. For standard savings balances, the consumer must see that the return warrants the risk and the delayed consumption. The institutions must offer standard financial assets to the public which fairly compensate

depositors. The benefits offered to the savings sector must include positive returns for deferred consumption, a return to risk-taking, and perhaps some liability transfer services, i.e., payment-clearing services.

As an intermediary, the financial institution provides both of these key functions simultaneously, i.e., it makes loans and accepts deposits. However, the maturity length of assets usually differs substantially from the average maturity of liabilities. Therefore, the standard asset transformation function includes maturity transformation as well as resource mobilization. While these can be viewed as mostly complementary services, at times the use of relatively liquid liabilities to finance illiquid and longer-term risk assets generates an inherent instability in the system (Diamond and Dybvig, 1983; Gorton, 1988). Yet, it is central to providing the economy its value-added activity of mobilizing savings assets into productive real investment.

Regulation and market intervention aimed at encouraging appropriate bank risk-taking and risk evaluation activity must be imposed in a way that supports these two key functions and improves the sector's ability to provide needed capital to capital-constrained firms. Given the above description of functions performed by the sector, a clear case can be made for why some regulatory oversight of the financial sector is appropriate.

4. WHY FINANCIAL INSTITUTIONS WARRANT OVERSIGHT

As can be seen from the above discussion, financial institutions are structurally vulnerable because they finance the holding of imperfectly marketable direct claims with liabilities that are viewed as redeemable at par. In addition, they provide the valuable

service of maturity transformation which is mutually beneficial to borrowers and savers but which may, nonetheless, place the financial institution itself in jeopardy (See Kareken and Wallace, 1978; Jacklin, 1987; Santomero, 1992).

In doing so, imperfect information about the project financed and the value of the bank's claim is likely to be a fundamental characteristic of most of the direct claims held by these institutions. This imperfect information of most of the non-government direct claims held by financial institutions means that the market does not provide direct or accurate information about the value of a financial firm's assets. Therefore, holders of indirect claims (liability holders) cannot readily evaluate the solvency of the institution to affirm that the market value of their assets exceeds the promised value of their aggregate liabilities (Berger and Udell, 1993; Santomero and Trester, 1997).

Depositors and many other liability holders place funds in these institutions fully expecting to be able to withdraw their deposits whenever they choose. Frequently, their investment horizon is uncertain and cannot be clearly established at the outset. Accordingly, the financial institution is left in the awkward position of investing in long-term, imperfectly marketable assets funded by liabilities with a perceived short, but uncertain maturity. If withdrawals are purely random, as they are likely to be most of the time, they may be statistically predictable. However, if liability holders become concerned about the solvency of the institution, withdrawals may become systematic and jeopardize the liquidity and solvency of the entire institution (Gorton, 1988; Jacklin and Battacharya, 1988).

For this very reason, the management of an institution which holds imperfectly

marketable assets may wish to be less than completely forthcoming. They may attempt to exercise control over information critical to estimating the value of their assets, and they may be tempted to conceal information regarding the deterioration of value. This may be done in the hope that delaying the release of information will give assets time to recover and thus avert giving liability holders an incentive to run.

Investors, of course, are aware that the financial institution's management has both the incentive and capacity to conceal a decline in the value of the imperfectly marketable direct claims. They are also aware that these same institutions are usually highly leveraged, so that a relatively small percentage decline in the value of an institution's direct claims results in a much larger percentage decline in its net worth. For this reason, as Calomiris and Kahn (1991) illustrate, many depositors require that much of their deposits be held in demand form. If bad news casts doubt on the value of the institution's direct claims, these creditors have a mechanism to withdraw their resources from the troubled firm. This may be accomplished quickly, as soon as they observe an action which reduces their estimate of the institution's net worth, despite assertions by the institution's management that the firm is solvent.

If creditors cannot demand immediate repayment of their claims at par, the institution would not be seriously damaged by the loss of liability holders' confidence. With time to make a convincing case, the financial institution might be able to persuade creditors that its net worth is truly positive. Even if it could not, a solvent institution can liquidate direct claims without suffering loss. But, if investors can present their claims for immediate redemption at par, they may force the financial institution to make a hurried

liquidation of imperfectly marketable direct claims at a loss. Alternatively, they may force the institution to borrow at rates sharply higher than it customarily pays or call in loans before the borrower's investment matures.

Runs, once begun, tend to be self-reinforcing. News that the depository institution is selling direct claims at distressed prices or is borrowing at very high rates will further undermine the confidence of current and potential depositors. Even those who believe that, with sufficient time the financial institution would be able to redeem all its liabilities, have a motive to join the run. They have reason to fear that the costs from the hurried liquidation of direct claims in response to the run by other creditors might render such an institution insolvent. This is the story that Diamond and Dybvig (1983) relate so forcefully.

Sophisticated investors know that illiquidity losses tend to get larger as the run goes on because the most marketable direct claims are sold first. They also know that as an institution's net worth approaches zero, the depository institution's managers may be tempted to take increasingly desperate gambles to stay in business (Herring and Vankudre, 1987; Kane, 1985). Thus, the perception of possible insolvency resulting from a decline in asset quality, whether true or not, can become a self-fulfilling prophecy by inducing creditors to take actions that erode the institution's net worth.

This vulnerability to runs is more than the strictly private concern of an individual depository institution and its customers. It becomes a public policy concern when a loss of confidence in the solvency of one institution may lead to a contagious loss of confidence in other institutions. Contagion may occur through three channels: (1)

financial institutions lose reserves because cash drains from failing institutions are not redeposited in other institutions; (2) institutions that have or are suspected to have claims against failing institutions are then vulnerable in the second tier of the crisis; and (3) creditors at other institutions suspect that their institutions are exposed to the same shocks as the failing institution, and run without concern other than the legitimacy of their suspicion. This danger is particularly acute for commercial banks operating in the payments-clearing system in some countries where intra-day extensions of interbank credits are large relative to the settling depository institution's capital (Humphrey, 1987).

This potential for contagion in the interbank market is heightened by the lack of timely data on interfirm exposures. When one institution gets into trouble, it is often very difficult for another institution to determine its aggregate exposure to the problem firm, let alone the exposures to other institutions on which it may hold claims. Nonbank creditors do not have access to timely information. Hence, any existing concerns about a particular institution's solvency would be heightened if another institution were to fail and one suspected that the two institutions had substantial interbank dealings (Faulhaber, Phillips and Santomero, 1989).

Finally, a failure also may be contagious if other financial institutions are believed to have positions similar to the failing depository institution, and therefore to have been weakened by the same economic disturbances (Gorton, 1988). This is a particularly serious problem when a large depository institution fails. The larger the institution, the greater the likelihood that its failure will attract public attention and undermine confidence in the financial system in general, and in similar large financial institutions in particular.

Moreover, failures of large institutions are usually attributable to economic disturbances which affect the value of large categories of assets, rather than to embezzlement or other idiosyncratic causes. Since large institutions compete in the same national and international markets, they face generally similar cost and demand conditions and tend to have similar portfolios (Mayer, 1975).

5. A REGULATORY STRUCTURE TO ASSURE FINANCIAL STABILITY

While the potential for contagion is clear, it does not necessarily follow that it needs to be a significant factor in a financial crisis. Financial sectors in developed economies have established a financial safety net, an elaborate set of institutional mechanisms for protecting the financial system, which has largely succeeded in preventing contagious runs in their financial sector. Most of these countries have developed a regulatory structure that prevents the amplification of shocks through the financial system. This safety net can be viewed as a set of preventive measures that can and should be triggered at various stages in the evolution of a financial crisis. These structures must be established in FPEs, as well. The simplest way of explaining the mechanism that has been established is to begin with an exogenous disturbance.

The earliest stage of financial crisis involves a financial institution's exposure to a shock which could jeopardize its solvency. This may occur because adverse changes in the economy have increased the probability of a shock. Alternatively, it may be the result of a decline in the value of assets, which was forced upon the institution by previous government policy or chosen by its managers, who had made conscious decisions to

accept the risk. In any case, the institution's capital position declines. If the occurrence of a shock causes creditors to question the solvency of an institution, a run may occur which can lead to the contagious transmission of liquidity problems, and perhaps solvency problems throughout the financial system, as discussed in the preceding section.

An appropriate regulatory structure is designed to stop this sequence of events at a number of points, and preserve the integrity of the financial structure and the health of the real economy. The components of a safety net are best described in terms of functions, because the agencies which perform a particular function vary across countries and some functions are shared among agencies within a particular country.

- The Chartering Function should begin the process. It should be set up so as to screen out imprudent, incompetent or dishonest institution managers who would be likely to take on excessive insolvency exposure.
- In the event that some managers attempt to expose their institutions to shocks that could jeopardize their solvency, the Prudential Supervision Function should prevent it. This set of regulations limits the degree of risk that managers can absorb in their portfolio.
- In the event that prudential supervision does not prevent an institution from assuming excessive insolvency exposure and a damaging shock occurs, the Termination Authority should terminate the license of the institution before it becomes insolvent and causes excessive loss to creditors.
- Even if the Termination Authority acts too late to prevent losses, the explicit or implicit Insurance function provided by official or private sources may prevent creditors, most often depositors, from running.
- Even if the depository institution closes abruptly, the Insurance function may prevent contagion by sustaining the confidence of the creditors at other institutions which are thought to be similar.
- If runs occur at other institutions, the Lender of Last Resort Function may enable solvent institutions to meet the claims of liability holders, avoiding forced asset liquidations and depressed prices.

- If other failures occur, the Monetary Authority can prevent a shift in the public's demand for cash from reducing the volume of reserves available to the financial system as a whole, thereby confining the damage to the institutions affected directly by the original shock.

In the major industrialized countries, the various circuit breakers that comprise financial safety nets have been generally successful in preventing a problem at one institution from damaging the system as a whole. In the United States, for example, the safety net which was constructed in the 1930s has virtually eliminated the contagious transmission of shocks from one depository institution to the rest of the system. In the crisis associated with the 1987 market decline, the central bank made it clear that this security would also be offered to other members of the financial industry. Likewise in Scandinavia, the safety net was tested at the opening of this decade and was able to stabilize a vulnerable financial system.

Governments clearly have an interest in maintaining the integrity of the financial sector, its assets, its unique capacity to provide risk capital to the industrial sector, and last but not least, its clearing and settlement system capability (Bernanke and Gertler, 1989, 1990). They also rely on it as a venue for macroeconomic policy. Governments therefore believe that they can and must play a role in improving the stability of the system through structures and support mechanisms which enhance the depth of the market.

6. THE COSTS OF THE REGULATORY STRUCTURE

However, in an important sense, any regulatory regime can be too successful. An overly broad safety net which de facto replaces private sector assurances with government

guarantees has three very negative effects on the integrity of the financial sector. First, if the liability holders are confident that they will be protected against any loss, they have less incentive to monitor and discipline the behavior of institutions that hold their resources. This is why the EU Deposit Insurance Directorate has set minimum deposit insurance coverage at the relatively low level of 50,000 ECU. Second, if government officials have any substantial impact on the fundamental lending decisions, they may view this as an opportunity to allocate credit to unworthy but potentially well connected borrowers. This may be viewed as a throwback to the vices embedded in the former FPE structure, where financial decisions were based on political expediency. In any case, the effect is that the integrity of the credit process deteriorates, as does the quality of the assets held by the financial sector. This is, then, further complicated by a third side effect of over-zealous government intervention, i.e., an erosion of both predictability and accountability within the system. Both bank and industrial management find that decisions are determined by an essentially political process which they can predict and for which they can not realistically be held accountable. In the extreme case, we are de facto back to the Calvo and Coricelli (1993) quote at the opening of this paper. Even beyond this, since liability holders do not demand greater compensation when their institutions take greater risks in the new market-based system, both bank and non-financial firm managers will feel free to assume more risk in the hope of achieving higher expected returns.

The preceding section emphasized the rationale for regulating and supporting financial institutions, namely a concern over the possibility of damaging risktaking with detrimental effects on the system as a whole. As we have seen recently in the FPEs, there

is a real possibility that a liquidity shock could become contagious and damage the banking system as a whole. However, there are equally dangerous effects from excessive government involvement in the decisions made by the financial sector. By definition, a greater government role in the sector reduces the accountability of management. In the name of the public good, the financial condition of these institutions is frequently obfuscated and lending decisions influenced by political considerations. In the limit, this type of government involvement completely removes decisions from the marketplace and market discipline. Indeed, the intervention has made matters worse by preventing the triggering of market response functions. In essence, regulation itself has generated a need for regulation by eliminating the potential for market discipline and accountability by managers (Kareken and Wallace, 1978).

It is often contended, as Stiglitz, Jaramillo-Vallejo, and Park (1994) have recently, that public interest is best served by politically motivated lending to specific firms or industries. However, in doing this, market forces are being thwarted and market discipline removed. There is little incentive for the establishment of a rational allocation of resources, the primary goal for moving to a market-based economy. Even at the operating level, government intervention thwarts the goal of appropriate asset allocation. There is little reason to demand repayment if loans are the result of government decisionmaking and not economics. Finally, there is little cause to worry if management knows that the institution itself is supported by government subsidy, oversight and the safety net.

The result is a bad institutional structure, not the development of rational, efficient intermediaries. Lending is not made for the public good, but for political expediency.

Everywhere in the process, incentives are set up to prevent efficient utilization of the society's scarce capital. And, in the end, the government will be forced to intervene again to guarantee the creditors of the ill-fated institutions. This is the story of virtually every governmentally supported financial sector. Government intervenes because the financial sector, broadly defined, had not devoted sufficient attention to asset quality. This failure of management occurs throughout the lending process from loan approval procedures, to loan monitoring, to collection. In many cases, loan concentration in allegedly key sectors had been fostered by public policy, so the lack of diversification was not viewed as alarming. If large borrowers were having financial difficulties, these same firms were often granted extensions and concessions. It was, after all, a set of discussions that had been made for non-economic reasons of public policy or political expediency.

The resultant system reverts back to, or at least in the direction of, the FPE structure which we so decry. In the end, one is left with a financial sector that has not achieved the desired goal of efficient asset creation and funds allocation. The economy will achieve sub-par performance because scarce capital is being squandered on projects that may have had negative returns from the start.

Proponents of government involvement in decisionmaking would argue with this characterization. They have asserted that if the professional bureaucracy were properly trained, the outcome would exceed the private sector outcome. However, as was discussed above, the efficient allocation of financial resources is exceedingly difficult even in the best of circumstances. We have found, throughout history, that Plato's "philosopher-king" rarely appears. It is equally unlikely that the all-knowing bureaucratic

class will emerge. Such a class may be present in the Asian economies, defined today as the miracle economies or Asian Tigers. However, even this characterization is being subjected to increased scrutiny as of late (Edwards, 1995).

In the end, the challenge is to build a support system for the financial sector that insures its stability but does not supersede its authority. The goal of regulation ought to be to offset negative externalities without creating too many new ones in the process (Udell and Wachtel, 1995).

7. GOVERNMENT'S ROLE IN SUPPORTING FINANCIAL INNOVATIONS

There may also be a role for the government beyond its attempts to build an appropriate safety net around an inherently fragile system. In fact, it may be able to foster improvement and innovation in a sector that must be transformed to catch up to the rest of the world. Advances in computer hardware and software, telecommunication, and financial theory have led to a rapid increase in the pace of financial innovation in this sector in market economies. Such changes can be attributed to attempts by the private sector to respond to opportunities that exist in the marketplace.

Merton (1989), Santomero (1989), and others have identified several forces driving the innovation process. First, innovations have responded to market demands for risk-sharing, risk-pooling, hedging and intertemporal or spatial transfers of resources that are not currently available. Second, innovations have satisfied continuing needs for lower transactions costs or increased liquidity. Third, innovations have reduced asymmetric information between trading parties and improved the monitoring of the performance of

principals by agents. Fourth, innovations have facilitated the avoidance of taxes, regulatory and accounting constraints.

Active investors in world capital markets have seen substantial benefits from this period of change. Such innovations have provided greater opportunities for entrepreneurs to obtain capital, and offer a mechanism to insure that corporate managers are more accountable to shareholders. It is worth considering whether or not regulators and policymakers can facilitate this process in the FPE environment.

Entrepreneurs generally introduce financial innovations but, in some more important instances, governments have successfully taken an active role in the innovation process. For example, the US government played a leading role in securitizing mortgages so that what had been a very segmented set of local markets became a highly integrated national market. And, the United Kingdom made an important contribution to the array of investment opportunities by issuing indexed bonds, thus providing investors with a hedge against the risk of general inflation which no private party could credibly supply. In each case, the government entered the market with a new product which established a standard for subsequent private sector innovation. This role of the government within the financial system is often neglected, but it offers important potential benefits (Jaffee and Renaud, 1997). Encouragement of financial innovations can add substantial value to both the financial sector and to the broader economy.

However, there are also some cases where the government may need to play a role in slowing the speed with which innovations are introduced as soon as they are privately profitable, without regard to their effect on the financial infrastructure. This can

be yet another variant of the public goods problem: although it is in everyone's interest to have a secure, reliable financial infrastructure, the entrepreneur who introduces a financial innovation will usually lack an incentive to consider the possible impact of the innovation on the financial infrastructure. Limits may occasionally be necessary, but they should be transient (Merton, 1990).

Regulatory attempts to constrain innovations should be made with extreme caution. Indeed, as a general matter, innovation should be encouraged. To the extent that innovations are a response to market forces, attempts to prohibit innovations may simply cause foreign and most domestic capital to flee offshore. Domestic firms, and consequently the growth of the real sector, may suffer. Although some innovations waste resources and diminish social welfare, this is not inevitably the case. When the financial structure is filled with inefficiencies due to an outdated financial structure such as exists in FPEs, even innovations motivated by short-term gain may enhance the efficiency of the economy.

8. THE PRICE OF INEFFICIENT REGULATION

Clumsily applied, any of the regulatory interventions described in the preceding sections can produce dysfunctional results and undermine both the performance and viability of financial institutions. For example, if the prudential function is used as an asset allocation system, all of the ills addressed above will inevitably follow. This led Western Europe to retreat from this method of subsidized financing that had been common prior to the 1970s. The procedure was rife with politics and special interest, and

ultimately did not appear to have the desired outcome. In the end, it transferred wealth from either the users of financial services or the government to the stakeholders of the preferred sector. Moreover, because the designated firms or industries were protected from new entrants, firms in these categories and the financial sector that supported them were likely to be less innovative in serving the changing needs of their customers. The world has seen any number of such cases including ill-conceived large scale government projects, or targeted industries which have led to staggering losses to lending institutions. These, in turn, had to be covered by other participants in the financial markets and, in some cases, the government itself. The macroeconomic effects of such policies are that they result in a lower capital stock and standard of living for the economy as a whole.

Similarly, regulations which place restrictions on the kinds of assets in which financial institutions are permitted to invest require them to hold assets which they would otherwise avoid holding. Alternatively, they may be prohibited from acquiring assets which they would prefer. Overly restrictive enforcement of these policies may also reduce the flow of risk capital to the real sector and reduce overall real sector investment. In each case, the allocation of capital will be distorted, relative to the competitive equilibrium, and the economy will be less productive than it could be.

In addition, the general level of supervision may also impose heavy direct costs on financial institutions in terms of auditing costs, filing requirements and examination fees. These side effects of regulation may reduce overall efficiency and cause regulated institutions to lose market share. Excessive regulation can and has rendered some financial services completely uneconomical in some jurisdictions.

Badly administrated termination and insurance policies also have costs. Delays in terminating insolvent institutions may result in a misallocation of funds, as desperate managers take increasingly risky gambles in order to prevent closure. Because shareholders are protected by limited liability, they may perceive high-risk activities as their only hope of salvation. Likewise, ineptly administered government guarantees may distort incentives for risk-taking in both the real sector and its financial counterparts. In addition, it may result in enormous transfers of wealth from conservatively managed institutions to risky institutions, and potentially, from taxpayers to creditors of involved firms. The thrift crisis in the United States provides dramatic evidence of the enormous potential costs of a badly managed insurance system and a failure to close insured institutions when they become insolvent (Kane, 1985).

The provision of lender-of-last resort assistance to insolvent institutions also has potential costs. This activity may undercut what would otherwise be a favorable signal to the market, thus weakening the ability of both the regulatory and monetary authority to deal with systemic shocks. It also may permit incompetently managed or excessively risky institutions to continue misallocating funds long after they would have been forced to close by market forces. And, perhaps worst of all, it may lead to expectations of future bailouts and intensify political pressures for such bailouts.

In the end, there is no substitute for appropriate proactive-promarket regulation. Badly administrated support structures have ways of exacerbating an already difficult situation. And, direct, centralized control of the financial structure and the lending process is doomed to failure because of all the negative incentive effects that are unleashed

by such a system. They have been tried and abandoned in Western Europe. They have been touted, but have been relatively ineffective in Asia. It appears unlikely that they have much merit for Eastern Europe.

9. SUMMARY AND CONCLUSIONS

The FPEs are at a unique point in their economic history. The advent of a market economy has led to dramatic change. Nowhere is the need for change greater than in the financial sector, and the behavior of banking institutions. These firms must convert from de facto government agencies to credit evaluators, borrower monitors, and loan collectors. To perform these functions, substantial change has begun to transform the accounting, legal system and property/bankruptcy law to be supportive of the new market economy. An equal change needs to occur in financial institution regulation. Financial system reform must be embarked upon in a manner that enhances the banks' ability to perform their new role. While they will not do so perfectly- because they function in an imperfect information environment- efforts should be made to have them approach their normative goal.

To remediate the problems associated with market imperfections a regulatory structure along the lines proposed here needs to be constructed. This includes a set of functions, procedures and controls which form the basis of a safety net for the system as a whole, not individual firms (Herring and Litan, 1995).

To some, this is not enough. They argue that permitting banks to function in an imperfect market may lead to inferior economic performance. They propose, instead,

direct government intervention to improve the ability of the financial sector to allocate capital within the economy. From the time of Adam Smith, policymakers have been looking for mechanisms to replace the market. Arguments have been offered that a market-based solution ignores important social factors, externalities as they are now called. However, the replacement must be better than the alternative (Udell and Wachtel, 1995). To be first-best solution, a government run financial sector must be able to obtain and process all of the information absorbed in market prices and arrive at a socially desirable outcome. A bureaucratic structure must be established which is both knowledgeable, professional, and altruistic to obtain these results (Edwards, 1995). In truth, this cannot really be expected from any human endeavor.

We are, therefore, left to a second-best world. Here, we must choose between two systems. One is bureaucratically based, where the FPE structure is replaced by well meaning bureaucrats trying to effect socially desirable capital allocation without market prices or by entering the market to enhance or alter market signals. The other is market based, with carefully crafted pro-market regulation and a delicately applied financial institution safety net. Experience from North America and Western Europe clearly favors the latter. Without doubt, previous experiences in Eastern Europe with centralized decision making offer little to attract us to the government intervention model. The prudent course for FPEs appears to be toward constructive pro-market regulation of the financial sector, not centralization.

As is evident from the discussion above, even market-based regulation involves trade-offs between stability and market discipline. However, it would be a mistake to

remove the latter. In the end, no stability is offered by the removal or manipulation of market signals and the discipline of the price system. The appearance of stability offered by centralization is only an illusion.

BIBLIOGRAPHY

- Allen, Franklin and Douglas Gale. 1988. Optimal security design. *Review of Financial Studies*, 1(3):229-263.
- Berger, A. and G. Udell. 1992. Securitization, risk and the liquidity problem in banking. in: M. Klausner and L. White, eds., *Structural change in banking* (Irwin Publishing, Homewood, IL).
- Bernanke, B. and M. Gertler. 1989. Agency costs, net worth, and business fluctuations. *American Economic Review*, 79(1):14-31.
- Bernanke, B. and M. Gertler. 1990. Financial fragility and economic performance. *Quarterly Journal of Economics*, 105(1):87-114.
- Bhattacharya, S. and A. V. Thakor. 1993. Contemporary banking theory. *Journal of Financial Intermediation*, 3:2-50.
- Bonin, John and Istvan Szekely, eds. 1994. *The Development and reform of financial systems in Central and Eastern Europe* (Edward Elgar Pub.).
- Calomiris, C. and C. Kahn. 1991. The Role of demandable debt in structuring optimal banking arrangements. *American Economic Review*, 81(3):497-513.
- Calvo, Guillermo and Fabrizio Coricelli. 1993. Output collapse in Eastern Europe: The role of credit. *IMF Staff Papers*, 40(1):32-52, March 1993.
- Calvo, Guillermo and Jacob A. Frenkel. 1991. Credit markets, credibility and economic transformation. *Journal of Economic Perspectives*, 5(4):139-48, Fall 1991.
- Caprio, Gerard, D. Folkers-Landau, T. Lane, eds. 1994. *Building sound finance in emerging market economies* (International Monetary Fund and World Bank:Washington, D.C.)
- Cecchi, Daniele. 1993. Creation of financial markets in (previously) centrally planned economies. *Journal of Banking and Finance*, 17(5):819-47.
- Corbett, J. and C. Mayer. 1991. Financial reform in Eastern Europe: progress with the wrong model. *Oxford Review of Economic Policy*, 7(4):57-75.
- Dewatripont, M. and J. Tirole. 1993. Efficient governance structure: implications for banking regulation. C. Mayer and X. Vives, eds., *Capital markets and financial intermediation*. (Cambridge University Press), 12-35.

- Diamond, Douglas W. and Philip H. Dybvig. 1983. Bank runs, deposit insurance and liquidity. *Journal of Political Economy*, 91:401-419.
- Diamond, Douglas W. 1984. Financial intermediation and delegated monitoring. *Review of Economic Studies*, 51:393-414.
- Edwards, Sebastian. 1995. *Crisis and reform in Latin America: From despair to hope* (Oxford University Press).
- Faulhaber, G., A. Phillips and A. Santomero 1990. Payment risk, network risk, and the role of the fed. in: D. B. Humphrey, *The US payment system: efficiency, risk and the role of the federal reserve*, 197-213 (Kluwer Academic Publishers).
- Fry, Maxwell J. 1995 (2nd Ed.). *Money, interest, and banking in economic development* (Johns Hopkins University Press, Baltimore).
- Goodfriend, Marvin S. 1989. Money, credit, banking and payment system policy. in: D. B. Humphrey, *The US payment system: efficiency, risk and the role of the federal reserve*, 247-77 (Kluwer Academic Publishers).
- Gorton, Gary. 1988. Banking panics and business cycles. *Oxford Economic Papers*, 40(4):751-81.
- Gorton, Gary and George Pennacchi. 1990. Financial intermediaries and liquidity creation. *Journal of Finance*, 45(1):49-71.
- Herring, Richard J. and Prashant Vankudre. 1987. Growth opportunities and risk taking by financial intermediaries. *Journal of Finance*, 42(3):583-99, July 1987.
- Herring, Richard J. and Robert E. Litan. 1995. *Financial regulation in the global economy* (The Brookings Institution, Washington, D.C.).
- Humphrey, David. 1987. Payments system risk, market failure, and public policy. in: E. H. Solomon, ed., *Electronic funds transfers and payments: the public policy issues*, 83-109 (Kluwer-Nijhof, Boston).
- Jacklin, C. 1987. Demand deposits, trading restrictions, and risk sharing. in: E. C. Prescott and N. Wallace, eds., *Contractual arrangements for intertemporal trade*, 26-47 (University of Minnesota Press, Minneapolis).
- Jacklin, C. J. and S. Bhattacharya. 1988. Distinguishing panics and information based bank runs: welfare and policy implications. *Journal of Political Economy*, 96(3):568-92.
- Jaffee, D. and B. Renaud. 1997. *Strategies to develop mortgage markets in transition*

economies. in: J. Doukas, V. Murinde, and C. Wihlborg, eds., *Privitization and financial section* (North Holland).

Kane, Edward J. 1985. *The Gathering crisis in federal deposit insurance* (MIT Press).

Kareken, J. and N. Wallace. 1978. Deposit insurance and bank regulation: a partial equilibrium exposition. *Journal of Business*, 51(3): 413-38, July 1978.

Mayer, Thomas. 1975. Preventing the failures of large banks. in: *Compendium of major issues in bank regulations* (Senate Committee on Banking, Housing and Urban Affairs, Washington, D.C.).

McKinnon, Ronald. 1973. *Money and capital in economic development* (The Brookings Institution, Washington, D.C.).

Merton, Robert C. 1989. On the application of the continuous-time theory of finance to financial intermediation and insurance. *The Geneva papers on risk and insurance*, 14(52):225-61, July 1989.

Merton, Robert C. 1990. The financial system and economic performance. *Journal of Financial Services Research*, 263-300, December 1990.

NatWest Securities. 1994. *Privatization in Central and Eastern Europe: look before you leap*.

OECD. 1992. Bank restructuring in Central and Eastern Europe: issues and strategies. *Financial Market Trends (France)*, 51:15-30, February 1992.

Perotti, Enrico. 1994. A Taxonomy of post-socialist financial systems: decentralized enforcement and the creation of inside money. *Economics of Transition*, Vol. 2(1):71-81.

Santomero, Anthony M. and Jeffrey J. Trester. 1997, forthcoming. Financial innovation and bank risk taking. *Journal of Economic Behavior and Organization*.

Santomero, Anthony M. 1989. The changing structure of financial institutions: a review essay. *Journal of Monetary Economics*, 24(2):321-28, September 1989.

Santomero, Anthony M. 1991. The bank capital issue. in: M. Fratianni, C. Whilborg, and T. Willett, eds., *Financial regulation and monetary arrangements after 1992*, 61-77 (North Holland Press).

Santomero, Anthony M. 1992. The banking firm. in: P. Newman, M. Milgate, J. Eatwell, eds., *The new palgrave dictionary of money and finance*, 141-3 (New York: Stockton

Press).

Sarcinelli, Mario. 1992. Eastern Europe and the financial sector: where are they going? *Banco Nazionale del Lavoro Quarterly Review*, 183:463-92, December 1992.

Saunders, Anthony and Andrea Sommariva. 1993. Banking sector and restructuring in Eastern Europe. *Journal of Banking and Finance*, 17(5):931-57.

Stiglitz, Joseph E., Jaime Jaramillo-Vallejo, and Yung Chal Park. 1994. The role of the state in financial markets. in: *Proceedings of the World Bank annual conference on development economics supplement* (Washington, D.C.).

Stiglitz, Joseph E. 1989. Financial markets and development. *Oxford Review of Economic Policy*, 5(4):55-68, Winter.

Szego, G. ed. 1993. Banks and capital markets in formerly centrally planned countries: Their role in establishing a market economy. *Journal of Banking and Finance*, 17(5), Special Issue, September.

Udell, Gregory F., and Paul Watchel 1995. Financial system design for formerly planned economies: defining the issues. *Financial Markets, Institutions & Instruments*, 4(2):1-60.

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