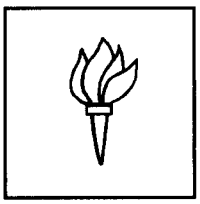

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Financial System Design For Formerly Planned Economies: Defining the Issues

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FINANCIAL SYSTEM DESIGN FOR FORMERLY PLANNED ECONOMIES: DEFINING THE ISSUES

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CONTENTS

I. Introduction

The formerly planned economies (FPEs) of Eastern Europe and the former Soviet Union are a rather disparate group of nations with widely differing financial structures. In some of the countries of Eastern Europe the financial infrastructure is beginning to assume the characteristics that are found in the West. In other instances, the very institutions of a functioning financial system hardly exist. Thus, the tasks faced by policy-makers in these countries can vary from the reform of existing institutions to the creation of brand new ones. However, in all instances it is important to focus on the steps that must be taken to develop the financial institutions with the incentive structure for efficient capital market allocations and the provision of a stable payments mechanism, as well as the mechanisms for the conduct of monetary policy. In this paper we will outline the issues and problems faced by the financial sector in the transition from a planned to a market economy.[1]

In places where financial institutions are already in place, rebuilding the institutions to serve a market economy is difficult. In addition, there are numerous transition tasks for these institutions such as creation of a viable deposit insurance scheme, how to modernize the payments mechanism, how to promote liquidity in the securities markets, how to remove the debts of bankrupt nationalized industries from the private banking sector and how to guarantee

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[1] Our interest is not the transition per se but the design of financial institutions for the FPEs. There is a large literature already on transition policies such as voucher schemes for privatization (for example, on Russia see Boycko, Shleifer and Vishny, 1993), problems of existing banks (see Kemme and Rudka, 1992) and techniques for restructuring their balance sheets (see OECD, 1993 and Blommestein and Spencer, 1994). There is less discussion of the goals of such policies and the issues to consider in developing the institutions that can serve the ultimate aim of the transition. The essays in Bonin and Szekely (1994) examine current institutions and talk about institutional design and Federal Reserve Bank of Kansas City (1990) provides the perspective of central bankers in the FPEs and in the West.

the independence of the central bank. In these countries the banks, including the central bank, were largely accounting, disbursement and collection arms of a centralized economic planning mechanism. Moreover, these relationships have barely changed in the first two or more years of the transition to a market economy. The banks have no experience with their role as allocators of capital. Credit evaluation and the structuring of loan agreements are completely out of their ken. The central banks, similarly, have little experience with bank examination or with the conduct of monetary policy. The latter is further complicated by deficit ridden government structures which are unable and unwilling to give a central bank the authority to conduct an independent monetary policy. As a consequence, the issues faced in these countries include the creation of inter-bank payments mechanisms, the legal definition of banking institutions and the establishment of monetary policy instruments.

There are wide and significant differences among the FPEs regarding the extent of financial sector development.[2] Moreover, a sharp distinction can be made between the eastern European countries that joined the Soviet bloc after World War II and the republics of the former Soviet Union. In the Soviet economies the institutional tools and infrastructure that comprise a financial system are often lacking.[3] The nations that entered the Soviet bloc after the war often retained aspects of the pre-war legal and institutional structure which can be used

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[2] We restrict our discussion to the formerly planned economies in Central and Eastern Europe and the former Soviet Union. Financial sector developments in the People's Republic of China and other planned economies in Asia are not addressed in this paper.

[3] Ofer (1990) refers to at least four specific issues: (i) the state budget had little connection to Western conceptions of accounting and fiscal management, (ii) producers had little connection to the financial system, (iii) there was no credit system in a market economy sense and (iv) there was no legislation pertaining to market operations.

to rebuild the financial system. Furthermore, the progress made so far in developing modern financial institutions differs from country to country. It is difficult to generalize about developments in recent years because they change so rapidly. A recent assessment of banking reforms and restructuring in all of the FPEs is included as Appendix I.

No matter what the state of the financial system happens to be, understanding the transition to a market economy involves setting priorities for the transition period. However, it is necessary to determine the characteristics of the financial system that need to be developed before these priorities can be established. In this paper we discuss the nature of financial system design in the context of the formerly planned economies of Eastern Europe and the former Soviet Union. In the spirit of earlier work (e.g., Corbett and Mayer 1991, Saunders and Walter 1991, Sametz 1993, Sarcinelli 1992 and several of the articles in Szego 1993) we examine the applicability of the alternative financial system models found in the West. We also explore some of the micro-foundations associated with these models and relate them to the existing circumstances in the formerly planned economies.

The design of any financial system includes a role for the government in varying degrees. Even in the most market-oriented financial structures, there is a government role which involves the promotion and development of particular financial institutions, as well as the usual regulatory functions. Furthermore, there are often substantial amounts of directed credit in even the most liberalized financial systems.[4] Thus, the design of financial institutions also calls for a definition of the role of the government sector. Stiglitz (1993) discusses how the incompleteness

[4] An example is the depression era legislation in the U.S. that led to the development of savings institutions. Also, government credit, including all loan guarantees and government borrowing is a significant fraction of all lending in the U.S.

of financial markets calls for a government role to avoid market failures. The appropriate parameters that define the role of government in institutional design, regulation and credit allocation will be a constant topic in our discussion. These issues are particularly important in the FPEs where the legacy of government domination and inefficiency is still fresh.

The scope of concerns that fall under the rubric of financial markets and institutions is extremely large. Therefore it will be helpful to segment our analysis into component issues. The next section of our paper focuses on central banking and related issues including monetary policy, bank regulation and the payments system, Section III analyzes the role of banking in credit allocation, and Section IV explores the role of other financial institutions and markets. Section V analyzes the overall question of the optimal financial structure.[5] Our conclusions are found in Section VI.

II. Central Banking and Related Issues

The 1980's and 1990's have seen the rapid spread of economic financial liberalization around the world. The prevailing ideology of our age is that the market determination of economic outcomes unfettered by regulation or interference is sacrosanct. As a consequence, deregulation and privatization have brought about major changes in the structure of economies in both the capitalist west and the formerly planned economies of the east. Socialized industries, including public utilities and natural monopolies in transportation and communication have been

[5] Some proposals for financial system design in Eastern Europe have been based on a multi-tiered structure in which each one of these components are provided by separate tiers within the financial system. For example, Szego (1993, Introduction, pp. 773-85) suggests a four tier structure (money banks, credit banking, central banking and investment banking). We defer discussion of overall system design until section V.

sold to the private sector in the U.K. as well as in Eastern Europe. The regulatory structure that governed air, rail and road transportation in the U.S. has been substantially dismantled. Also, nations around the world seek to establish free trade agreements that remove barriers to trade.

The only industry where we find exceptions to this trend is the banking sector. Although, there has been much deregulation in the financial services industry generally and liberalization of relationships between governments and the financial markets, how to properly use regulatory structures to maintain the viability of the financial sector continues to be an important policy issue in free market as well as planned economies around the world. In all countries we find that financial sector regulation is used for two purposes -- to guarantee the safety and soundness of the banking system and to provide an institutional structure for macroeconomic monetary policy.

Banks and financial institutions play a central role in a market economy by providing the institutional structure for the allocation of capital and the mechanisms for monetary payments. Both of these roles are crucial for the existence and growth of a modern economy. As a consequence it is hardly surprising that governments take an intimate interest in the activities of the financial institutions.

The emerging market economies in Eastern Europe and the former Soviet Union are largely preoccupied with dismantling planning structures, privatizing control of enterprises and liberalizing market mechanisms. However, with respect to the banking system the task is somewhat different. For the financial sector, new regulatory structures need to be put in place which are able to provide safety and soundness regulation for a liberalized financial services industry and monetary policy tools for a market economy. In both instances, the institutions

often need to be created anew.

Government regulation or interference in the financial industry is of three types. First, there is concern about the viability of the banks which provide the transactions medium or the deposits which constitute the money stock. Second, government interference in the allocation and availability of capital is an aspect of central planning that lingers in many free market economies. The allocation of credit among borrowers is influenced in various ways. The direct allocation of credit granted by banks is a planning mechanism that is common among the rapidly developing Asian countries. The extension of government guarantees or insurance to private sector loans is even more common. Third, the price (interest rates) and/or the quantity of credit are influenced by governments because of their macroeconomic consequences. Interference of the first and third types -- bank safety and soundness regulation and the use of monetary policy instruments, respectively -- are rarely criticized as being improper. Interference of the second type is often viewed as an inappropriate and lingering vestige of central planning, although such policies are not uncommon in market economies. The problem faced by the formerly planned economies is that the institutional framework necessary to define and limit the government's role in the financial system is largely absent and in need of development.

In the traditional centrally planned economy all functions of central banking and, often many of the functions of the banking system itself were wrapped into a single institution. The so-called monobank was an agent of the central planning mechanism. It was the source of funds to other financial institutions and the agent of the central plan in allocating funds and in setting interest rates. Since the central planning mechanism dominated the economy, there was very little in the way of a capital market. Saving by individuals (which was substantial in the former

Soviet Union and elsewhere) was held in savings banks which maintained accounts at commercial banks or at the central bank. The commercial banks provided credits (working capital) to enterprises at the direction of the central plan. In the post-plan era, particularly in the former Soviet republics, such credits continued at the behest of the government in order to maintain enterprises which were more often than not inviable.

Although the rudiments of a banking system existed, it would be a mistake to say that financial intermediation took place. The reason is simply that none of the financial flows among savers, enterprises and the government were affected by market mechanisms to determine either quantities or interest rates. There were banking institutions but there was no market for credit allocation. Although banks took deposits and issued credits, they did so as the agents of the central plan and under the direction of the central bank.

Reforms of rigid banking structures took place over a number of years.[6] Reforms usually begin with the establishment of a two tier banking system that attempts to separate central bank and commercial banking functions (see Appendix I). Such reforms are followed by bank restructuring and the development of central banking monetary policy and regulatory functions.

In Hungary the reforms began some time ago, in 1983 when the credit function of the central bank was converted into a commercial bank. In Czechoslovakia the monobank was not divided into a central bank and commercial banks until 1990 (see Szekely, 1990 and OECD,

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[6] Catte and Mastropasqua (1993) argue that the financial reforms in Eastern Europe in the 1980's did little to change the overall nature of financial development. However, the movement away from credit allocation by a central planner were significant changes that provided the groundwork for later steps.

1991, p. 100ff.). However, soon thereafter the tools of monetary policy and bank regulation were introduced. A central bank liquidity facility and means of supplying credit was created and there was a start at applying the Basle agreements standards for bank capital requirements.

Institution-building in the Eastern European countries contrasts starkly with developments in the former Soviet Union. The Gorbachev reforms of the mid-1980's began to recognize changes in the Soviet Union and the monobanking system was changed as new commercial bank charters were distributed and new quasi-governmental banking structures created. However, there was no vision of what the structure of the banking system should be. The role of the various institutions were ill-defined and there was no monetary policy instrument for the control of credit growth and no regulatory structure was put in place. Finally, development and reform of the post-Soviet banking system was hampered by the explosion of central bank credits to enterprises and the confusing state of payments among the states of the former Soviet Union (see Ofer 1990).

Commercial banks in the former Soviet Union have evolved as distinct institutions from the central bank but roles are still ill-defined. The central bank does not have a structure for bank examination or regulation or a structure for monetary policy operations. It sets interest rates and issues credits as directed by the government; as a result the struggle for power between the central bank and the government is intense. The commercial banks themselves have a degree of nominal independence but they do not have the infrastructure or expertise to develop credit operations in any significant way.[7]

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[7] Bankers in Russia appeal to the hyperinflation as the reason why lending and credit operations have not emerged. To a large extent this is a smoke-screen for the primitive state of the industry.

Nevertheless, a recent assessment (Rytilla, 1994) of the Russian banking system suggests that since 1993, Russia has embarked on a third phase of banking development. The first phase was Soviet monobanking and the second was the two-tiered banking system. Evidence of an emerging third stage includes the diminishing importance of direct central bank lending to enterprises and increasing ability of the Central Bank of Russia to supervise bank activities and enforce capital and reserve requirements. Finally, Rytilla cites a draft law that will prohibit (at the start of 1996) the central bank from directly financing the government deficit.

In order to develop a functioning banking system -- one that provides transactions services and the institutions for credit allocation -- a number of central banking developments are necessary.[8] In some FPEs, these developments are already underway, but in others the fall of central planning has not been accompanied by any development of a private banking structure.

First, the central bank or another government agency must ensure the viability of the monetary system. **Safety and soundness regulatory structure** involves several possible developments:

i) development of a payments system for safe and rapid clearing
ii) bank examination and capital adequacy regulation
iii) deposit insurance
iv) lender of last resort

Second, the role of the central bank and the government in capital markets and credit allocation -- **credit policy** -- must be defined. Realistically speaking, in most formerly planned economies (and elsewhere as well) the government will continue to play an important role in the

[8] The original role of central banks was primarily to provide a uniform currency. The necessity for a modern central bank, with substantially expanded functions, in competitive market economies is discussed by Goodhart (1990). Sundararajan (1992) outlines the necessary steps of central bank reform for FPEs.

allocation of credit to the economy and the determination of interest rates. Given this reality, the relationship between government economic policy and financial sector policy must be carefully reconciled.

There are at least three issues to consider in clarifying the relationship between the government and the private financial system:

i) It is more than likely that the governments of the FPEs will run large deficits and the role of the central bank in financing these deficits needs to be defined.

ii) Interest rates in the FPEs, like rates in many developed and developing economies with partially controlled capital markets are likely to some extent to be set by administrative fiat. This can undermine the best of intentions and plans for a competitive private banking system and capital market.

iii) Similarly, the governments of the FPEs are likely to continue to some extent the direct allocation of credit. The implications of such activities for the ability of the banking sector to develop competitive allocation of credit needs to be considered. The banks should neither be squeezed out of a credit allocation role nor should they be used as the vehicles for transactions determined administratively.

Finally, the **instruments for monetary policy** will be an increasingly important aspect of central bank activity as the economies stabilize. In the transition period the central bank needs to develop the independence to set appropriate targets and also develop the instruments for control of credit and the money supply.

Safety and Soundness Regulation. The banking system is the most important financial institution because there are unique characteristics of both its assets and liabilities. On the liability side, the deposit liabilities of the banking system are the transactions asset or the money stock. On the asset side, bank loans provide a major means of credit allocation. Even in markets-oriented economy like the U.S., banks play a crucial role as the primary source of

external credit to small and medium-size companies (see Carey et al. 1993).[9] As we will argue later, bank credit allocation will play an even greater role in FPEs. Thus, the viability of the banks is necessary to maintain the integrity of the money asset and the functioning of credit market allocation. In addition, the amount of credit (deposit) creation by the banks has macroeconomic consequences.

Bank regulation therefore consists of two parts. First, there is the safety and soundness regulation which consists of instruments like capital requirements and bank examination. Second, there are the monetary policy actions that influence the conduct of the banks through instruments like reserve (liquidity) requirements and operations in the money markets. Often central banks provide both of these activities but sometimes the former are vested in a separate regulatory body.

Safety and soundness regulation is relatively new in most of the FPEs because these functions were largely non-existent prior to the reforms of the 1980's. In a monobanking system, the banks were arms of the government and thus there was no need for capital requirements, deposit insurance or bank examination and supervision. All of the financial institutions were essentially backed by the powers of government.

We will discuss each of the four facets of safety and soundness regulation noted earlier: (i) the payments system, (ii) bank examination and capital adequacy, (iii) deposit insurance and (iv) a lender of last resort facility.

(i) The payments system. A basic element of a functioning banking system is a means

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[9]Some argue that this credit role is the transmission mechanism of monetary policy (see Bernanke and Blinder 1992).

of clearing bank balances quickly and safely. The usual way in which this is accomplished is to clear interbank credits and debits through accounts at the central bank. This is not necessarily the only way to organize a clearing mechanism. The clearing and payments mechanism can just as well operate through private clearinghouse arrangements. In any event, an effective system requires extensive cooperation between the central bank and the private banking entities that are the ultimate users of the system.

With the demise of the monobanks, the need for a clearing mechanism was obvious. The absence of a reliable and safe structure for clearing payments is one of the most serious financial problems facing the FPEs.[10] In some FPEs the computer technology was rapidly put in place to facilitate clearing. In others, such as Poland, the absence of a technological infrastructure inhibited the development of safe and rapid clearing. Moreover, bank fraud using the interbank payments system in 1991 resulted in a $200 million loss in Poland. In still other countries, there was virtually no payments mechanism in place. Clearing among different countries in the Ruble zone is still, to the best of our knowledge, haphazard. In fact, the trade that exists between some of these countries is restricted to cash and barter deals.

The first step in the organization of a payments scheme is to provide the technological infrastructure that allows all banks to be connected. The next step and the principle policy issue for a clearing system is to determine who guarantees payment. There are wide differences among the Western economies regarding the role of the central bank in the payments system. In some places it merely oversees a private system, while in others it is the guarantor of

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[10]The importance of clearing systems, the current situation in the FPEs and the reform plans that are under discussion are all discussed in Folkerts-Landau, Garber and Lane (1994).

payments.

An effective payments system is an important element of a safe banking system (see Hook, 1992). In addition, a poor payments system makes monetary management more difficult because it results in large and highly variable excess reserves (see Balino, Dhawan and Sundararajan, 1994). For example, net float in Poland is about 5 percent of the monetary base and varies enormously.

In many FPEs, the organizational and technological improvements have been made without determining who bears the risks of payment failures. If the central bank guarantees that all transactions will in fact clear then it is implicitly providing a guarantee against failure for all financial institutions in the clearing system. This is clearly unsatisfactory but the alternatives are complicated.

One alternative is to develop a private clearinghouse (which may use the deposit accounts at the central banks as its means of payment) where the members are jointly responsible for each other. Although the idea is admirable, it requires that the individual financial institutions are able to cooperate. This is unlikely in an environment where the financial condition of institutions may be information that is hard to obtain even by the institutions themselves.[11]

A second alternative is for the central bank to restrict access to the clearing privileges to institutions that satisfy its safety and soundness regulations. This is a viable alternative once the procedures for bank examination and the standards for capital adequacy are in place. A related possibility is to combine access to the clearing system with deposit insurance. However,

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[11] See Gorton (1985) and Dwyer and Gilbert (1989) for discussions of the role of private clearing houses in the U.S.

the design of a deposit insurance scheme that is both adequate and stops short of government guarantees is difficult even in advanced countries.

A third possibility is the provision of a payments system through narrow banking (see Szego 1993). Narrow banks would be established which provide deposits on the liability side but are restricted to government securities on the asset side. The appeal of this approach is that it appears to simultaneously guarantee payments without moral hazard and other problems associated with deposit insurance. The adoption of narrow banking by western economies has been much debated with compelling arguments offered on the other side.[12] However, the fact of the matter is that despite its appeal it has not been adopted by any western economies. Therefore, we will focus here on the first two alternatives.

(ii) Bank examination and capital adequacy. Bank examination and capital adequacy are interrelated in many ways. In a very general framework, capital requirements must be accompanied by monitoring and control through bank examinations in order to achieve the desired effect. This is a consequence of the fact that banks have an incentive to offset high capital requirements with high portfolio risk in order to achieve a preferred risk-return profile (see Kahane 1977, Keeley 1990, and Gennotte and Pyle 1991). The issue is further complicated

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[12] One argument against narrow banking is that synergies which accrue to jointly offering deposit and lending services (see Udell 1986, Allen, Saunders and Udell 1991, and Nakamura 1993). For example, lenders may cull information about borrower quality from deposit activity which can be used in providing lending services. Others counter that the narrow banking concept could be implemented through a bank holding company which owns both an uninsured lending bank and a narrow bank where the two entities are separated by regulatory "fire walls." However, organizational issues and the strength of these fire walls may render the holding company solution problematic.

Narrow banking may also have monetary policy implications. If the transmission mechanism of monetary policy operates through the loan side of depository institutions, narrow banking could diminish the ability of the central bank to execute monetary policy.

in the FPEs because existing banking institutions often carry worthless assets on their books. If all loans in default were written off, many of these banks would have negative capital. The presence of these loans on the bank's balance sheet could create an extreme "moral hazard" incentive problem somewhat analogous to the U.S. savings and loan crisis in the early 1980s. Many savings and loan institutions were insolvent on a market value basis as early as 1980. However, regulatory accounting practices disguised the insolvency of these institutions in what amounted to an institutionalized form of forbearance. Some empirical evidence suggests that these (market value-insolvent but regulatory value-solvent) institutions significantly increased their portfolio risk as a result of their financial condition (see White 1991). Thus, major restructuring of bank balance sheets may be necessary before capital adequacy requirements can be imposed.

Portfolio restructuring should be an important goal in the FPEs. Until the banks can satisfy the internationally recognized standards for risk based capital requirements, the institutions will not be recognized as part of the international banking community. In addition, moral hazard problems will prevent the banks from operating as responsible financial intermediaries unless they are adequately recapitalized. Thus, first and foremost, the asset portfolios of banks must be restructured.

Different approaches to bank recapitalization have been suggested (see OECD 1993). A centralized approach involves removing bad loans from the bank balance sheets and setting up separate, perhaps governmental, agencies to work on enterprise restructuring. This approach has the benefit of quickly putting the banks back into the banking business and allows for speedy privatization of the banks. A decentralized approach leaves it to the individual banks to work

out bad loan situations, perhaps with additional government supplied capital or with government assistance in the restructuring of the enterprises that with bank debt.

There have been substantial steps towards bank restructuring in Czech and Slovakia, Poland and Hungary but not in the former CIS republics, usually with elements of both the centralized and decentralized approaches (see Thorne 1993, OECD 1993 and Bonin and Szekely 1994; see Saunders and Sommariva 1993 for a general discussion of the debt overhang problem). Restructuring is accomplished by the government providing capital to the banks so they can write off non-preforming loans and still maintain their own viability. Alternatively or additionally, the government moves some non-preforming assets into a separate government financial institution which gives the banks the freedom to continue lending. Of course, once the restructuring tales place, there should be a regulatory agency, which may be independent of the central bank, that can adequately and accurately audit and examine the banks on a continuous basis. It is not clear that these additional steps have been taken in the larger FPEs.

For example, restructuring has taken a decentralized approach which relies on the establishment of bank "work-out" departments. This has not always been adequate and some banks have closed. In the Czech republic a centralized approach has been followed. The government established a recovery agency in 1991 to take over bad loans and also allocated funds for bank recapitalization by swapping government bonds for enterprise debts. In Russia, banking reform and enterprise restructuring have not yet been disentangled. The stock of bad loans and inter-enterprise arrears is being devalued by rapid inflation and little new bank lending goes on except for the residue of central planning -- government directed central bank credits. In all of these countries, prudential regulation such as capital requirements and loan limits have

been legislated. However, it is difficult to generalize about the extent of compliance.

(iii) Deposit insurance. Deposit insurance is a complicated and controversial issue throughout the world. The FPEs are likely to opt for some system and there are various models from the developed economies. However, it is difficult to maintain a clear distinction between a system of risk rated deposit insurance and an implicit government guarantee of bank deposits. In the first instance, the risks are borne by a deposit insurance fund while in the second instance the government ultimately absorbs all residual risks. American experience in the 1980's showed that deposit insurance premiums are often unrelated to the risks actually involved (see Marcus and Shaked 1994 and Ronn and Verma 1986).

Even in the context of well-developed western banking systems the creation of a fairly-priced deposit insurance scheme may be problematic because it is difficult for government agencies to price the risks involved.[13] Acute information problems in the FPEs may simply preclude the possibility of rating insurance risks. Thus, deposit insurance in the FPEs is more akin to a deposit guarantee. If there are a small number of banks, as is often the case in the FPEs, or if banks are considered too big to fail, then the government may be, in effect, guaranteeing the entire banking industry. Under these circumstances, deposit insurance pricing schemes may not be desirable until the banking industry stabilizes. In the interim, bank failures may occur but some short-run instability is preferred to an insurance scheme that encourages risk taking and inhibits the development of financial intermediation.

If fair pricing of deposit insurance is impossible, then governments can choose to allow

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[13] See Chan, Greenbaum and Thakor (1992) for a theoretical discussion of fairly priced deposit insurance under asymmetric information and Kendall and Levonian (1991) for a discussion of practical schemes for fairly pricing deposit insurance.

bank failures and financial instability or they can extend industry-wide guarantees. In developed countries, governments choose the latter route more often than not and we would expect the same thing to occur in the FPEs. However, difficulties in establishing a true (or risk-based) deposit insurance system should not preclude efforts to move in that direction in the long-run.

In the short-run virtually all governments will choose to extend guarantees to the banking system for two reasons. First, the absence of any guarantee may make it difficult for the banks to attract deposits and, therefore, for bank deposits to become the transactions medium. Second, instability in the banking system may inhibit the development of lending relationships. Instability in the banking system may be even more of a problem in the FPEs because these economies are skewed toward smaller, new enterprises that need to develop banking relationships. The importance of banking relationships has been established empirically (Petersen and Rajan 1993, 1994 and Berger and Udell 1995).[14]

(iv) Lender of last resort. A final aspect of the safety net provided by central banks is the lender of last resort facility. By design such facilities are aimed at providing liquidity for illiquid but fundamentally sound banking institutions. Such facilities were the initial impetus for the creation of central banks and they can play an important role, particularly when short-term money markets are not well developed.

However, in many countries central bank lending to the banks goes well beyond the lender of last resort or liquidity function. Under the best of circumstances, it is difficult in

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[14] Moreover, there is empirical evidence for the U.S. that lending to small bank-dependent businesses is sensitive to bank stability (Peek and Rosengren, 1994) and that there are costs associated with the interruption in banking relationships caused by bank failures (Slovin, Sushka and Polonchek 1993).

practice to distinguish between a bank liquidity problem and a solvency problem (see Steinherr 1993). Misuse of the lender of last resort facility is common. First, central banks often support failed banks by providing funds through the lender of last resort facility. Second, the lender of last resort facility is often used to provide funds to the banking system generally. Misuse of central bank lending facilities generally leads to excessive monetary expansion (see the discussion of monetary policy below).

Credit and Interest Rate Policy As noted earlier, it is hard to imagine that the FPEs will quickly move towards completely free capital markets. It is more likely that direct government influence over interest rates and direct control of some credit allocations will continue. In fact, controls of this kind are common in many developing countries (South Korea, Israel) and were not uncommon in industrialized countries in the recent past including countries such as the U.S. and France.

The danger is that extensive controls over capital markets can create distortions which make the banking business unattractive or inhibit the development of banking institutions. For example, if loan rates are maintained at an artificially low level then the banks will not develop as intermediaries. In such cases, the banks will take deposits and simply provide short term credits rather than serving as an intermediary which improves the allocation of capital. Similarly, if the government retains control over substantial parts of the allocation of capital to investment projects, the opportunities for the development of competitive intermediation will not develop.

Some degree of government intervention in the pricing of credit and its sectoral allocation is inevitable. The important question to be faced is how much is too much. That is, at what

point does the existence of government allocation or pricing schemes begin to crowd out or preclude the development of private capital markets? This is not an easy question to answer for any economy. If there is too much government allocation, then the residual role of banks is merely to channel funds in the administratively determined direction. The former Soviet Union is a large country with vast financial institutions whose role was simply to act as a fiscal and accounting agent for the government planning mechanism. Thus, there was no role left for banks as institutions responsible for credit allocation.

There is a middle ground to this discussion which involves the creation of quasi-governmental institutions for the allocation of credit using market based decision making. Such institutions are inevitable since financial markets are so often incomplete (see Stiglitz, 1993). The institutions include development banks which obtain government or foreign capital and have the mandate of using competitive allocation schemes to choose among investment projects. The track record of such investment banks is mixed since there is strong potential for such institutions to be coopted by governments and politics. However, the development banks in South Korea and Japan do provide some history of success for quasi-governmental credit allocations.

For example, in Hungary, two credit facilities have been established since 1990 which are similar to development banks (see OECD 1993, pp. 148-151). One of them is a credit guarantee company which offers partial guarantees on loans to the private sector with capital jointly provided by the government and the banks. The facility is designed to encourage lending to small or medium size enterprises by introducing risk sharing. In Russia, there are at least two development banks on the drawing boards that plan to combine capital from the government and

the international community (they are described in Section IV below).

Monetary policy. Monetary policy was rarely a significant issue in centrally planned economies. Both credit (money) creation and prices (including interest rates) were determined by the planning authority. Inconsistencies in the plan which led to either inflationary pressures or disequilibria in the goods market were dealt with by changing the plan. Thus, there was no formal statement of monetary policy and no significant distinction between monetary policy and fiscal policy. With the collapse of the planning mechanism, the FPEs need to specify the goals, targets and instruments of monetary policy.

The choice of monetary policy goals is rather straightforward -- price stability and real growth. Similarly, the intermediate targets of monetary policy are, as in most countries, various combinations of interest rates, exchange rates and the monetary aggregates. The problem for the FPEs is to establish a political framework that gives the monetary policy authority the ability to determine at least some of the targets and the institutional framework, the policy instruments, to do so. The policy instruments can be any of a variety of mechanisms including an interest rate on central bank loans, the quantity of central bank credit or both.

Macroeconomic monetary policy is only feasible if the central bank has the political independence to determine policy targets and if it is not inhibited from doing so by other concerns. For example, the government may insist upon providing credit at low interest rates which effectively prevents the central bank from choosing an interest rate target with positive real rates. There may be arguments for such credits if their absence will lead to chaotic economic conditions and political dissolution. However, most Western economists would favor a 'shock therapy approach' which leads to a quick restructuring of the economy and allows the

central bank to adhere to an anti-inflationary economy. The debate between the approaches is not one that should be opened here.

The comparison of the recent experiences of Russia and Poland are used to argue both sides. The massive short-term working capital credits provided by the Russian government in order to sustain enterprises has prevented the central bank from taking any macroeconomic monetary policy action to combat inflation.[15] The gradualist approach in Russia has not been entirely successful from a political perspective and has been less successful from a macroeconomic perspective. This policy is contrasted with the successful application of shock therapy in bringing back a return of economic growth without any political repercussions in Poland (see Sachs 1993). Of course, this contrast of Russia and Poland is not without controversy.[16]

Government deficits and the responsibility of the central bank to finance them by providing credits to the government can also inhibit monetary policy. The implied level of credit creation can preclude any sensible monetary policy. The only alternative is to have the government deficit brought down to manageable proportions by a restructuring of the public sector.

Similarly, a foreign exchange regime that is imposed on the central bank can inhibit its policy activities. If the central bank is required to maintain an artificially high exchange rate,

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[15] It does appear that the Russian government has begun to understand the inflationary consequences of following such a policy. Thus, the relative size of the budget deficit and extent of directed credits is diminishing.

[16] Jagdish Bhagwati's (1994) critical review of Sachs' book makes the case for the failure of shock therapy in Russia.

then its ability to conduct monetary policy will be limited.

-- Finally, monetary policy is often inhibited by a central bank that uses its lender of last resort facilities to support the banking system or provide more liquidity than is desired by macroeconomic policy.

Once the pressures on the central bank to create credit for the public sector or the bankrupt elements of the private sector are brought under control, an independent central bank can begin to pursue monetary policy. There are many observers who worry whether it is reasonable to expect that central banks in the FPEs will be able to pursue an anti-inflationary monetary policy in the foreseeable future. They call for a different set of monetary arrangements, such as the currency board approach. The term currency board is used to purposely distinguish it from a central bank (see Hanke, et al. 1993). The currency board issues notes and currency which are 100 percent backed by foreign currency deposits. The currency board issues a transactions asset with a fixed exchange rate to some anchoring currency. The advantage of such an arrangement is that it imposes a non-inflationary anchor on an economy that has been unable to avoid excessive monetary expansion. The disadvantage (and the reason that it is not a likely solution except for very small open economies) is that the banking system has to fend for itself and the problem of developing a structure of financial intermediation is unsolved.

An effective central bank needs independence from both the government and the financial sector. Independence from the government is often discussed so that monetary policy is not driven by the necessity to monetize the government deficit. Independence from the financial institutions is not often discussed but it can be just as important. If the central bank does not

have such independence, it will be under pressure to provide liquidity to weak financial institutions which can easily result in excessive aggregate credit creation.

Once independence is established, the central bank must choose its instruments for monetary policy and the institutional framework to use them. The key element of the transition to a monetary policy structure like those found in the developed countries is the switch from quantitative controls on credit or rates to market based operations.[17] The most logical instrument for monetary policy involves an institutional structure to effect interest rates or the supply of credit in an interbank market for liquidity. This can be enacted in a number of ways including loans to the banks or participation in a securities market. The market interference can involve setting an interest rate on liquidity loans or changing the supply of liquidity or a combination of the two. The precise form of the institutional arrangement for monetary policy is less important than the existence of an independent central bank that can exercise its policy discretion.

The extent to which the structures required for monetary policy have been developed differs among the FPEs. In some (e.g. Hungary), most interest rates are market determined while in others various ceilings and controls determine the interest rate structure. In the Czech and Slovak Republics and elsewhere, sophisticated instruments for supplying central bank credit have begun to develop. These include central bank loans, allocated through a competitive auction to the banks. In many countries, where the tools of monetary policy are not well developed, the central bank relies on specific credit ceilings for bank by bank control.

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[17] Although market based monetary policy instruments are now widespread, this has not been the case for very long. Quantitative controls were equally common as recently as the 1970's in major developed countries including Japan and France (see Wachtel, 1995).

In Russia, interest rates are largely determined by the central bank since central bank credit continues to be the most important source of funds. Efforts have been made to make the central bank discount facility an effective monetary policy instrument; since the end of 1993 the real discount rate in Russia has been positive. In addition, Rytila (1994) reports that the central bank of Russia has begun to develop secondary securities markets. As government securities markets develop, it is likely that open market operations will also be used to determine the amount of central bank credit outstanding.

In the absences of market mechanisms to determine interest rates, the central bank bears the responsibility for making monetary policy sensible. Often, monetary policy boils down to the choice of the interest rate to charge on bank loans from the central bank. Even a simple mechanism like that is important because it will determine whether the structure of interest rates is sensible.

The preferred tools of monetary policy are those that maintain the independence of the central bank from both the government and the banking sector. Thus, central bank's conduct of monetary policy should be independent of the structure used to finance the government deficits and the central bank's ability to pursue macroeconomic goals should not be limited by fiscal constraints. In addition, the central bank should have the ability to pursue macroeconomic monetary policy without being constrained by concern for the viability of individual banking institutions.

The monetary policy tool that has emerged in Western countries because it has these characteristics is open market operations. In the FPEs, it is more likely to find central bank discounting or credit from the central bank to the banks used as the monetary policy tools. Open

market operations and central bank lending or discounting are not fundamentally different in terms of their macroeconomic effects. Both can affect interest rates (particularly on bank liquidity), bank liquidity and their ability to lend. However, there are some important reasons to prefer open market operations to central bank lending or discounting. As a consequence the FPE central banks should develop the ability to use this tool.

To begin, central bank credit extensions impart an inflationary bias to monetary policy. This is likely to be the case if credit is routinely extended to provide liquidity to the banking system. The pressure to maintain the liquidity and viability of the banks can easily lead to excessive credit creation and inflation. Of course, the same argument can be made about open market operations. The pressure to assist the government with the burden of deficit financing can lead to excessive credit creation through open market purchases of government debt. Thus, monetary policy should be insulated from the primary market for government debt and from concerns about the viability of individual banks. Open market operations which use the secondary market for government securities as the venue for macroeconomic monetary policy fill that need.

Open market operations provide an impetus for the development of an inter-bank money market, if it does not already exist. Inter-bank money markets and secondary securities markets are valuable institutions for the financial system. An inter-bank money market encourages competition in the banking sector. A secondary market in government securities increases the efficiency of financial intermediation in the whole economy. It leads to a market determination of interest rates on government securities so government borrowing costs reflect the true value of funds.

Open market operations encourage more financial sector competition. Many FPEs and developed countries have highly concentrated banking sectors. The use of central bank credit to the banks for monetary policy operations insulates the banks from competition from elsewhere within the financial system. Open market operation effects the interest rates available to all financial institutions.

If the banking industry is not truly competitive then interest rate determination (loan and deposit rates) by the banks may be very slow to change when central bank operations alter the cost of bank liquidity. In addition, the response of the banking system to policy changes may impact more heavily on certain sectors of the economy and not on others. Open market operations that affect interest rates and balance sheets throughout the economy will have a more general effect.

Finally, open market operations help keep the central bank out of the banking business. The provision of central bank credit puts the central bank in the banking business which is highly undesirable. Consider a case where the central bank provides credit to the banking system and also provides some guarantees to the banks. The guarantee can be some explicit insurance, adherence to a too-big-to-fail doctrine or some other support for the banking industry that provides an implicit guarantee. In such a situation, the central bank credit is less like a loan and more like the provision of capital to the banking system because there is little or no likelihood that the credit will be withdrawn. Thus, the central bank has a stake in the private banking business and the determination of the success of individual banks and the scope of the whole banking system is removed from market forces.

In transition economies which are restructuring bank portfolios and/or privatizing state

owned banks, the central banks are intimately involved in the banking business. Monetary policy tools which reinforce or sustain such an involvement would be counter productive. Thus, the introduction of open market operations would be very helpful. If macroeconomic monetary policy relies on open market operations then it need not be confounded with the central bank's credit facilities to banks. Central bank lending can then be treated as lending from one bank to another and should be rigorously evaluated as such.

Prudent banking practice suggests that there should be limits on the quantity of central bank credit to the banks individually and as a whole, and differences in interest rates that vary with the creditworthiness of the borrower. The absence of these distinctions leads inevitably to inefficiencies in the allocation of central bank credit within the banking system. In addition, the availability of central bank credit provides the individual bank with the incentive to take on excessive risk. The central bank channels credit to particular banks and the availability of such credit provides the banks with an implicit guarantee of its risky activities. Even if the credit is expensive, its availability gives the bank some insurance against becoming insolvent if a risky portfolio turns out to be unprofitable.

III. Banks and Credit Allocation

For purposes of this discussion we define banks as commercial banks which accept deposits from and make loans to economic agents. These institutions may or may not be privately owned. Although private ownership has important advantages, we will distinguish

between banks and the central bank on the basis of function.[18] The central bank has various regulatory and policy functions which it conducts by providing banking services to the banks themselves. The banks, in turn, deal with economic agents directly.[19]

There are two aspects of banking to explore. The first involves the special nature of bank liabilities and the second involves the special nature of bank assets. With respect to the first, bank liabilities provide the means for maintaining a payments system; they are important because they are the money stock. This aspect of banking was discussed in the previous section. Here, we principally focus on the second aspect, the asset side. Bank assets are special because bank loans are the most important instrument for credit allocation, particularly in developing market economies. However, as we will discuss below, the provision of lending services is not necessarily separable from the provision of deposit services.

The fundamental purpose of a financial system is to funnel funds from investors to users in an efficient way. This process, however, is characterized by the presence of transactions costs associated with bringing investors and issuers together. Thus, an important challenge to any financial system is the minimization of these transactions costs. A second challenge is to design a financial system which insures that funds are funnelled to those issuers with the highest valued projects. Two alternative mechanisms for achieving these ends are possible: direct

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[18] This does not imply that bank ownership is unimportant. Bonin (1993) discusses how bank privatization affects the way in which banks function as intermediaries.

[19] We cannot assume that this distinction between banks and central banks is relevant in all of the FPEs. In the centrally planned economy there was no such distinction. In the initial stages of reform the distinction is often artificial because central banks often refinanced much of the private bank's credit. In such an instance, the private banks are merely agents of the central bank. The distinction becomes relevant when the private banks can successfully retain deposits in order to fund lending activities.

finance through financial markets in which investors directly purchase issuers' securities (direct finance), and intermediated finance in which a financial intermediary repackages issuers' financial claims by selling its own financial claims to ultimate investors (intermediated finance).

Empirically the mix between direct finance and intermediated finance varies significantly across economies. In the German-Japan model intermediated finance plays a dominant role. In the Anglo-U.S. model direct finance and intermediated finance play a more comparable role. However, even in the Anglo-U.S. model financial intermediaries appear to be extremely important. Financial intermediaries specialize in taking funds from relatively small investors and investing those funds in relatively small issuers. In the U.S., for example, commercial banks, are the principal source of credit for small businesses. But why exactly are banks and other financial intermediaries suited for this role? The answer to this question may provide insight into the role of banks in Eastern Europe.

Traditionally transactions efficiency was offered as the dominant explanation for the existence of banks and other financial intermediaries (see Benston and Smith 1976). Relatively recently, however, financial economists have turned their attention to investment efficiency as the driving force behind financial intermediation. In particular, the modern theory of the banking firm focuses on the role of information production as the raison d'etre for banks (see Diamond 1984, Ramakrishnan and Thakor 1984, Boyd and Prescott 1986). This theory is built upon the notion that financial contracting is problematic because issuers and investors are asymmetrically informed about the issuer's payoff relevant characteristics. This asymmetry of

information leads to various forms of bondholder-stockholder conflict.[20] By combining funds from many depositors (i.e., investors) banks and other financial intermediaries enjoy economies of scale in the production of information about borrower quality in their role as delegated monitors. They use this information to design tailored debt contracts to insure that funds are allocated to value-enhancing projects.[21] The rate of return on intermediated information production is highest in markets where information asymmetries are most acute such as the market for small business loans. This explains why financial intermediaries, even in markets-oriented economies like the U.S., specialize in lending to smaller borrowers about whom there is relatively little publicly available information. It follows that contracting problems associated with information asymmetry would be particularly acute in Eastern Europe given the constraints on information availability and limitations on reputation building (see Frydman and Rapaczynski 1993). This suggests a rather large role for intermediated information production in the FPE countries.

The extant information-based models of the banking firm, however, tend to abstract from more complicated issues of organization and regulation which are associated with financial intermediation and credit allocation. We will focus here primarily on business credit allocation for which problems of asymmetric information are arguably more acute. Figures 1 and 2 illustrate the complex nature of contracting within the organizational context of banking.

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[20]Types of stockholder-bondholder conflict include risk-shifting, claim dilution, dividend payment problems, and the under-investment problem (see Smith and Warner 1979).

[21]There is increasing empirical support for the notion that commercial banks play a unique role in the production of information about bank borrowers (see, for example, James 1987, Lummer and McConnell 1989, Petersen and Rajan 1993, and Berger and Udell 1995).

Contracting occurs at several levels. Business borrowers contract with bank loan officers. Bank loan officers, in turn, contract with bank managers; bank managers with bank owners; and bank owners with bank regulators. Credit allocation depends on the outcome of all of these contracts because each of these contracts produces incentives which affect the lending decision. Contracting at each level is complicated by asymmetric information. The information-based models of financial intermediation, however, have focused principally on the information wedge between the bank (i.e., the bank loan officer) and the borrower. This is represented by the broken line between the "borrowing firm owners" and the "bank loan officer" in Figure 2. However, each level of contracting is characterized by an informational wedge (see Acharya and Udell 1992).

Contracts must be designed which encourage loan officers to both generate new loans and monitor the quality of existing loans under conditions where bank managers cannot observe loan officer behavior. Bank managers, in turn, must be provided incentives to act in the interests of bank owners given the owners' informational disadvantage. Finally, problems associated with moral hazard characterize the contract between bank regulators, who provide deposit insurance, and bank owners. The credit allocation process, and for that matter the structure of the banking system, will depend on the optimal solution to these various contracting problems. The nature of these contracting problems is environmentally dependent. Factors such as information infrastructure and culture play a critical role in determining the nature of contracts reflected in Figure 2. In the remainder of this section we discuss these contracting problems in the context of designing a financial system for the FPEs of Eastern Europe.

Firm-Loan Officer Contracting. The literature on debt contracting under imperfect

information is now quite rich. It focuses on the problems associated with a borrower who contracts with a lender (bank) that is informationally disadvantaged. In virtually all of this literature the organizational attributes of the bank are suppressed in the sense that the bank speaks with one voice. Our contribution here is to emphasize that this literature is better characterized as addressing the contracting problem between the borrowing firm (more precisely, the borrowing firm's owners) and the bank's agent, the commercial loan officer. This relabeling does not alter the fact that problems associated with bondholder-stockholder conflict still characterize the borrower-bank (i.e., the borrowing firm's owners-bank commercial loan officer) relationship. (The importance of this relabeling will become apparent as we discuss the nature of the bank-borrower relationship within the nexus of contracts which comprise the organizational structure of the bank.)

Bank loan officers draw upon a menu of contract elements with which to minimize the distortions caused by bondholder-stockholder conflict. The contract elements must be chosen within the context of the legal environment. It is no accident that FPEs are in the process of adopting commercial and securities laws which define the rules of the contracting game. There has been considerably more progress in Eastern Europe than in the republics of the former Soviet Union. In many of the Eastern countries new laws have been put in place and in some pre-Soviet law is still in effect.[22] The contrast with Russia is striking where pre-Soviet laws are not useful and the Russian parliament has not yet fully turned its attention to the commercial infrastructure.

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[22] For example, the current company law in Poland is the commercial code of 1934. For discussion of commercial law in Poland, see OECD (1993). There have been attempts in Poland to clarify property rights but there is still much ambiguity.

For financial contracting, the bankruptcy laws which specify the priority of claims and the process under which these claims will be discharged are of particular importance (see Saunders and Sommariva 1993 and Sinclair 1992). Bankruptcy laws not only specify the rules which govern the course of events once a firm enters bankruptcy, but also influence the behavior of the contracting parties prior to bankruptcy. Greater uncertainty regarding legal parameters and outcomes in bankruptcy likely leads to a significant increase in contracting costs.[23] Some of the FPEs, notably Hungary in 1991, have moved quickly to adopt new bankruptcy laws (see Estrin, Hare and Suranyi 1992) while others still have no viable bankruptcy structure. Appendix II provides a summary of the status of bankruptcy law in the FPEs.

The design and appropriate application of bankruptcy laws for FPEs is not a simple matter. In some instances bankruptcy laws that promote liquidation are preferable while in other instances reorganization is the preferred route for bankrupt enterprises (see Miszei 1994). Liquidations that lead to widespread closures of enterprises may be undesirable if the value of a firm in liquidation is less than its ultimate value as a going concern. In such instances creditors will often allow arrears to accumulate. However, there needs to be sufficient discipline in the bankruptcy law so that firms do not continually accumulate arrears and assume that the government will ultimately guarantee payment in order to avoid liquidation.

Also of great importance is the establishment of accounting rules and standards and a commercial code to govern business relationships. On these fronts the FPEs are also making progress; several countries introduced new accounting laws or commercial codes in 1992; see

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[23] There is now a growing empirical and theoretical literature on debt restructuring of distressed firms (e.g., Gilson, John and Lang 1990, and John and Vasudevan 1992).

Appendix II for a summary.

The establishment of accounting standards and rules for commercial relationships, along with the generation of publicly available financial information define the information environment in which contracting takes place. This environment, in turn, determines in great part the magnitude of bondholder-stockholder conflict.[24] The availability of information about borrower performance, either from accounting statements or other sources, is essential for building both bank relationships based on private information and external reputations based on public information. Firms with established bank relationships and/or public reputations can credibly commit to avoid nonvalue-enhancing activities, thus minimizing bondholder-stockholder conflict.

Against this legal and information backdrop, bank loan officers and their borrowers will design contracts which address the information problems mentioned above. The U.S. financial landscape is illustrative. Commercial bank business lending in the U.S. typically results in a restrictive contract tailored to the idiosyncratic characteristics of the borrower. Private placements are somewhat less restrictive, and public corporate bonds are typically not restrictive.

Carey et al. (1993) offer a "covenant-monitoring-renegotiation paradigm" to explain the observed differences in contracting across these three debt markets, the largest corporate debt markets in the U.S. The paradigm argues that banks specialize in lending to relatively small

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[24]The information infrastructure includes more than just accounting rules and standards and the generation of financial statements. It also includes the entire process by which information about past performance is shared between lenders. In the U.S., for example, this includes the rules established by banks governing the exchange of credit information as reflected in the Robert Morris Associates Code of Ethics. It also includes providers of credit information such as Dunn and Bradstreet and rating agencies.

companies about which there is relatively little publicly available information. The debt contract banks offer these borrowers is short-term, usually secured and very covenant-restrictive. However, the contract also includes the flexibility to renegotiate if covenant restrictions preclude value-enhancing investment opportunities. Banks (i.e., loan officers) are able to provide this flexibility because they continuously monitor the performance of the borrowing firm. Banks have a comparative advantage over other financial intermediaries in this regard because they offer joint services all of which provide information about firm performance. For example, banks cull information about borrower behavior from balance activity in checking accounts.[25] Over time a relationship develops between the bank and the borrower as the bank acquires information about borrower quality and behavior and uses this information in designing and pricing its loan contracts.[26]

In the U.S. mid-sized companies, about which more information is publicly available, have access to the private placement market. Here life insurance companies offer long-term debt contracts which are covenant-restrictive, but less so than commercial bank loans. Like banks, life insurance companies also monitor their borrowers. Most private placements are renegotiated during their lifespan, but not as frequently as in the bank loan market. Only large companies

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[25]The information link between the right-hand side of bank balance sheets (deposits) and the left-hand side has been the subject of increased academic interest (e.g., Udell 1986, Allen, Saunders and Udell 1992, Nakamura 1992).

[26]Recent empirical evidence indicates that for small firms the duration of the bank-borrower relationship is an economically significant factor in determining the interest rate on a commercial bank loan, whether the bank requires collateral (Berger and Udell 1995) and regardless of the extent of dependency on trade credit (Petersen and Rajan 1993, 1994). These empirical results are consistent with recent theoretical work by Petersen and Rajan (1993) and Boot and Thakor (1993).

have access to the U.S. public bond market. Publicly issued bonds, however, are rarely covenant restrictive and investor monitoring is not very intensive.[27] Also, public bonds are typically not renegotiated.

The covenant-monitoring-renegotiation paradigm highlights the special role of financial intermediaries. Financial intermediaries, like banks in the commercial loan market and life insurance companies in the private placement market, specialized in offering covenant-restrictive contracts. They can do this because of their ability to monitor borrowers and their ability to consolidate the renegotiation process in a single or small number of investors.

The covenant-monitoring-renegotiation paradigm may offer some insight into banking design for FPEs. It explains why financial intermediaries play a special role, even in countries like the U.S. which emphasize direct finance. Intermediaries specialize in lending under complex terms to firms about which the acquisition of information is problematic. Because most firms in the FPEs are highly information-problematic, the covenant-monitoring-renegotiation paradigm suggests a very large role for financial intermediaries in the FPEs where information is problematic for most firms.

The paradigm also suggests that loan contracts are likely to be quite restrictive in the FPEs. Fries and Lane (1993), for example, note that covenants are likely to play an important role in the control of capital in Eastern Europe. However, this is most likely to be initially reflected in nonfinancial covenants.[28] Financial covenants, however, may be problematic.[29]

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[27]For the most part monitoring is delegated to third party rating agencies.

[28]Nonfinancial covenants include merger restrictions, negative pledge agreements, investment restrictions, sale leaseback restrictions, and asset sale restrictions.

Financial covenants require that the lender must have access to extensive financial information about the borrowing firm's performance. More precisely, financial covenants must be based on mutually observable and verifiable financial information. Practically speaking, this means audited financial statements.[30] Unfortunately, audited financial statements are likely to be a luxury for FPEs in the near future.

Again, western banking practices provide a useful analogue. As noted above, commercial banks in the U.S. specialize in being the principal source of external finance for smaller companies. Where feasible, this usually involves a covenant-restrictive loan contract. However, for the smallest borrowers, financial covenants may not be feasible because the cost of audited financial statements is prohibitively expensive. For these borrowers, the commercial loan officer must rely on nonfinancial covenants and other elements of the loan contract including loan commitments, collateral and personal guarantees to address bondholder-stockholder conflict.[31] In addition, the establishment of a banking relationship becomes particularly important for these borrowers.

It can be argued that currently, and in the near future, most borrowers in the FPEs are

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[29]Financial covenants include restrictions on a variety of financial ratios including working capital, leverage and dividend payouts.

[30]The monitoring of some nonfinancial covenants, such as asset sales and investment restrictions, are also facilitated by financial statements.

[31]There is an extensive literature on the role of loan commitments (see Kanatas 1987, Thakor and Udell 1987, Boot, Thakor and Udell 1987, Avery and Berger 1991, Berkovitch and Greenbaum 1991) and collateral (Chan and Kanatas 1985, Besanko and Thakor 1987, Boot, Thakor and Udell 1991, Black and de Meza 1992) under imperfect information. Recent empirical evidence suggests that the use of these contract elements in commercial banking is widespread (see Berger and Udell 1990,1993, Booth 1992,1993, Berger, Udell and Wolken 1992 for the U.S., and Binks, Ennew, and Reed 1988, and Cressy 1993 for the U.K.).

analogous to the smallest borrowers in the West. Agency problems are particularly acute (see Frydman and Rapaczynski 1993). The absence of publicly available financial information and the absence of a credit history precludes reputation building. The lack of credible accounting information renders the imposition of financial covenant constraints problematic. This suggests that loan contracts which emphasize nonfinancial covenants, collateral, personal guarantees and commitment lending may initially dominate debt contracting in the FPEs,[32] with banks serving as the unique provider of such credit. It also suggests that in lieu of the capacity to generate external public reputations, the debt market is likely to depend heavily on relationship lending where banks acquire over time private information about firm behavior.

The above analysis requires several qualifications because of the idiosyncratic nature of the post communist business environment. First, the development of relationship banking is likely to be inhibited by the lack of experience and qualifications of commercial loan officers in the FPEs.[33] As has been noted elsewhere, the capacity of commercial lenders to analyze borrower quality may be quite limited (e.g., OECD 1992b). Second, lender-borrower relationships in post communist economies are exacerbated by issues related to corporate control. The upheaval associated with privatization may have resulted in a managerial structure often characterized by "ineptitude and outright dishonesty" (Frydman and Rapaczynski 1993, p. 10). (We will revisit this issue later in the context of the relationship between corporate governance

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[32] This is consistent with the type of contracting that occurs in Western economies which have not invested heavily in information infrastructure. For example, in Israel where relatively few companies have audited financial statements, nearly all lending is done on a collateralized basis.

[33]The lack of lending expertise is a common denominator among FPEs, including the more advance countries (see, for example, Estrin, Hare, and Suranyi 1992).

and the banking system.)

Loan Officer-Bank Manager Contracting. As reflected in Figure 2 the relationship between the loan officer and the bank manager is also characterized by an informational wedge. Specifically this relationship can be viewed in the context of the principal agent problem where the interests of the loan officer and the interests of the bank (manager) are not always coincident. In Western banking, the loan officer's job typically involves two tasks. First, the loan officer is responsible for generating new commercial business. Second, the loan officer is responsible for monitoring the existing loans he/she has previously made. The loan officer's supervisor (i.e., the bank manager), however, can not perfectly observe the actions of the loan officer. The loan officer's supervisor can observe the outcome of the loans ex post, but this will not perfectly map ex ante actions by the loan officer. Contracting is problematic because, for a variety of reasons, the loan officer's incentives may not aligned with the bank's objectives.

As in the standard principal-agent problem the loan officer has an incentive to shirk his/her responsibility to monitor existing loans, hoping that relatively few will deteriorate. Other factors, however, may complicate the generic principal-agent problem. The loan officer might, for instance, allocate too much time to generating new business at the expense of monitoring existing loans. The loan officer may be reluctant to report that the quality of a loan that he/she originally approved has subsequently deteriorated. In addition, a loan officer's objectivity in monitoring loans may be shaded by conflicts of interest. For example, the loan officer may view the borrower as a potential future employer. More perversely, the loan officer may enter into illegal side payments or have an undisclosed equity interest in the borrower.

Banks attempt to address these problems through the organizational structure of the

lending function and the terms of the loan officer contract. In a study of commercial lending practices in the U.S., Udell (1989) found that banks monitor loan officers through loan review departments. The loan review department essentially audits loan officer portfolios in order to detect any deteriorating credits which have not been reported by the loan officer him(her)self. His analysis also found that banks which invested in riskier loans, delegated more lending authority to their loan officers, and explicitly compensated their loan officers for new business, tended to have larger loan review departments. Consistent with the principal-agent paradigm, this suggests that banks with a more acute contracting problem (i.e., riskier banks that delegate more authority to their loan officers and compensate their loan officers for generating new business) spend more on monitoring their loan officers by investing more in the loan review function.

The loan officer-bank manager contracting problem may be more severe in FPEs than in Western economies. In general, the agency problem is mitigated to the extent that loan officers can acquire reputations for diligence in loan monitoring and credit evaluation. To the extent that personal reputation-building in FPEs is more difficult than in the U.S., this contracting problem is likely to be greater in the FPEs. The issue of side payments and undisclosed equity interests may also be problematic in FPEs given lax controls and the primitive nature of the information infrastructure. Extrapolating from the U.S. experience, this could lead to an initial equilibrium in which relatively little lending authority is delegated to loan officers, and salary-based rather than commission-based compensation schemes prevail. Ceteris paribus this could result in a less responsive and less flexible lending environment.

Bank Manager-Bank Owner Contracting. The contracting problem between owners and

managers has received considerable attention in the academic literature on corporate control.[34] To a great extent the problem of corporate control in private banking is equivalent to the corporate control problem in any corporation. The interests of managers and owners may not be mutual because managers may seek to maximize their own utility at the expense of maximizing shareholder wealth. For instance, managers may act to minimize risk in order to protect their own human capital; or, they may seek to maximize firm size; or, they may indulge in excessive perquisite consumption. Empirical evidence suggests that this may characterize the behavior of managers of financial intermediaries just as it characterizes the behavior of managers of nonfinancial corporations (see, for example, Allen and Cebenoyan 1991, and Mester 1991).

The presence of government guarantees in the form of deposit insurance adds a new dimension to the issue of corporate control in banking. Deposit insurance may create a moral hazard problem which results in an incentive for bank shareholders to increase the risk of their banks.[35] It may be difficult, however, for bank owners to encourage bank managers to risk their careers in order to take advantage of this subsidy for risk-taking. Consistent with this argument Saunders, Strock and Travlos 1990 provide evidence that bank risk-taking is associated with ownership structure (which, in turn, is likely related to the degree to which the interests of managers and owners are aligned).

It is difficult to say how the bank corporate control problem will play out in the FPEs.

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[34]See Prowse (1995) for an excellent review of this literature in an international context.

[35]It should be noted that this problem arises under any kind of debt financing and is not exclusive to government guaranteed debt (see John, John and Senbet (1991)). The argument here, however, is that mis-priced deposit insurance produces a greater subsidy for risk-taking than is typically associated with the straight issuance of corporate debt among nonfinancial corporations.

It will depend in great part on the deposit insurance program adopted and the nature of prudential supervision in each FPE. Bank examinations, in particular, can play an important role. In the U.S., for example, the Comptroller's Handbook for National Bank Examiners states that one of the objectives of an examination is "to permit the OCC [the Office of the Comptroller of the Currency] to appraise the quality of management and directors." This appraisal is included in a comprehensive report which is delivered to the bank's management and board of directors (see Golembe and Holland 1986) at the conclusion of the bank examination. Essentially bank examiners provide a free good to the bank's owners: they monitor the performance of the bank's management.[36] This would suggest that nonvalue-maximizing behavior may be less of a problem in the banking sector than in the nonbanking sector (or, at least, less of a problem than it otherwise would be) because the government monitors bank managers.[37]

Bank Owners-Bank Regulator Contracting. The problem of bank regulation and deposit insurance has been discussed earlier in a more general framework. The important point here is to highlight the notion that the bank-regulator contract is fundamentally a contract between the bank's owners and the bank regulator. Bank owners have a residual claim on the value of

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[36]To some extent bank examiners also monitor the performance of individual loan officers and the thus influence the loan officer-bank manager contracting problem. To the extent that examiners review the entire loan portfolios of individual loan officers, they provide important feedback on individual loan officer portfolios. Udell (1989), however, points out that a shift in bank examination policy occurred in the early 1980s in the U.S. Banks were required to adopt their own internal monitoring mechanism in the form of establishing loan review departments. The emphasis in bank examinations shifted from auditing individual loans to auditing the loan review process. This likely reduced the amount of loan officer-specific information produced during the course of a bank examination.

[37] There may be reasons to believe, however, that the corporate control problem in banking is greater than elsewhere. Bank managers, for example, may have more ability to divert funds for their own benefit than nonbank managers.

the firm, and hence it is in their interest to disguise insolvency and it is in their interest to exploit any risk-taking subsidies associated with the deposit insurance contract.[38]

Regulators employ prudential supervision in order minimize the problems which arise out of divergent interests between the regulated and the regulator.[39] However, the bank owners-bank regulator contracting problem may be further complicated by the fact that the regulator may act in its own self interest rather than maximizing social welfare (see Kane 1990). For example, regulators may be interested in enhancing their own power or minimizing their own effort. Campbell, Chan and Marino (1992) offer a two-stage principal agent model in which taxpayers contract with the bank regulator, and the bank regulator contracts with the bank. There is no reason to suspect that this problem would be diminished in the FPEs.

Bank regulation in Eastern Europe may be vulnerable to another problem stemming from the fact the bank regulators may be captured by the state and used to implement social policy. The state may use the bank regulator to force banks to make politically expedient loans or to require banks to make interest rates artificially low (see Bokros 1987).

The above characterization of the credit allocation process suggests that the credit allocation problem is more complex than simply borrowers and banks contracting with each

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[38]John, Saunders and Senbet (1994) suggest that an appropriately designed managerial compensation package may be useful in solving the moral hazard problem associated with deposit insurance (i.e., the contracting problem between bank owners and regulators). Such a compensation package would be designed to provide a disincentive for managers to implement (unobservable) policies associated with exploitive risk-taking.

[39]As we have noted above, regulator monitoring may have an effect beyond the bank owners-bank regulator contracting problem. Information produced by regulators about bank managers and about bank loan officers may have an additional impact on the nature these respective contracting problems. Our focus here, however, is on the role of regulator monitoring in the context of the bank owners-bank regulator contracting problem.

other. The process instead involves rather complex organizational issues all of which affect the way in which credit decisions are made. Indeed even the level of complexity suggested in Figure 2 may understate the true complexity of the challenge of setting up a credit allocation process with a new banking system. As we have noted, contracting at one level in the credit allocation process interacts with contracting at other levels so that these contracting problems can not be viewed in isolation but rather must considered as a joint optimization problem.

IV. Financial Institutions and Markets

Our discussion so far has principally focused on the single most important financial institution -- the banks. The paramount importance of banks is a consequence of the unique characteristics of both their assets (business loans) and liabilities (transactions assets). Thus, banks are the focal point of any discussion of financial system design. However, they are not the only elements of the financial system. As noted in the previous section, credit allocation in developed financial systems utilizes both bank loans and direct finance. Thus, the three biggest forms of credit to business in the U.S. are bank loans, private placements and corporate securities. The ability of banks to overcome information problems makes them particularly important in the FPEs. However, credit allocation will not be confined to just bank intermediation in the FPEs. In this section we will examine other types of intermediary institutions and the role of financial markets in credit allocation.

Such institutions include financial intermediaries like savings banks and insurance companies which often play an important role in the intermediation of private savings. Market structures include primary and secondary markets for all kinds of corporate and government

securities.

Developed financial systems always include a mix of bank and direct market mechanisms.[40] However, the balance between the two can vary widely.[41] In some countries almost all business finance is conducted through banks while in others bank financing is relatively small. In the next section we will discuss different models for the balance between banks and other financial institutions. That is, we will evaluate the merits of the German/Japanese and Anglo-Saxon models of banking. In the former bank finance dominates and the banks are actively involved in corporate governance. In the latter direct financing by the business sector dominates and the financial markets and market making institutions (e.g. investment bankers) are very important.

Financial markets and institutions are, broadly speaking, the means by which an economy gathers capital from savers and allocates it among investment projects. The allocation can be done through intermediary institutions (such as banks), through markets for direct financing (such as the stock market) or through institutions that combine both roles. We will examine here the extent to which non-bank institutions should be part of the financial system design for FPEs.

We can begin by looking at the principal types of institutions and markets that exist in countries with developed financial sectors. Financial institutions other than the banks include:

(i) non-bank depository institutions such as savings banks

(ii) insurance companies

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[40]For a comparison of the mix across developed economies see Swary and Topf (1992).

[41]The mix of direct and intermediated finance (i.e., the line separating intermediation and direct finance), however, is not stationary. Securitization has diminished the importance of intermediated finance in the U.S. relative to direct finance.

(iii) development banks

Financial markets include:

(i) Stock market

(ii) Government bond market

(iii) Informal financial markets for direct financing or private placements and internal markets.

Financial institutions: Savings banks and insurance companies

Non-bank depository institutions are found in most developed countries, LDCs and FPEs. In the developed economies, they tend to focus on intermediating between the savings of individuals and housing investments. In less developed countries, they often play an important role in small scale agricultural financing. Savings institutions were common in the formerly planned economies as well and were often the only the only means of holding financial savings (other than hoarding cash) since non-deposit instruments (e.g. bonds, life insurance contracts) were largely non-existent. Furthermore, the state savings institutions attracted deposits which were guaranteed by the government.

However, savings institutions in the FPEs were hardly intermediaries. They did not do any lending and their assets usually consisted of government securities or deposits at a central bank or government bank. Thus, the intermediation of savings was subordinated to the economic plan and the financing of the government deficit. For example, the Russian State savings bank (Sbeerbank) collected deposits from savers through a network of 44,000 offices and its assets represented about one-third of all financial domestic financial assets. Historically, the

savings bank funded the government deficit although in recent years it has begun to lend to commercial banks and certain enterprises (see IMF 1992, pp. 92-96),

The savings institutions continue to exist and are potentially important institutions because individual's savings is often quite large in the FPEs. The savings institutions have the infrastructure needed to attract savings -- staff, deposits, networks of branch offices. If the institutions were able to offer a positive real rate of return, then they could channel large amounts of savings to capital formation. However, since some explicit or implicit government guarantee of deposits is likely too continue, it is not a simple matter to determine how the savings banks should be regulated or how they should manage their assets.

Asset management can concentrate on either securities or loans. These institutions could keep their assets in debt securities such as government bonds or debt instruments issued by large industry. Alternatively, the institutions can develop the ability to evaluate and monitor loans to either the consumer or business sectors. There are two problems with securities purchases in the FPEs. First, if the savings institutions purchase government debt they run the risk of becoming the agents of ill conceived fiscal policy. Second, if they purchase private securities they may be assisting the government in maintaining enterprises that ought to be restructured. The savings institutions cannot impose discipline on the securities markets unless they are free to choose which securities to buy and unless they have ability to do other things with their assets. For this reason, the development of lending ability is important. If the institutions have the staff and expertise to conduct a lending business, then an alternative to absorbing risky securities exists.

True intermediation of savings to capital formation by the savings institutions has two

parts -- the accumulation of deposits and the efficient allocation of assets. These institutions have been able to accomplish the first task, if for no other reason than the lack of competition. The second task requires considerable institutional development. The savings institutions need to develop the ability to judge business opportunities and measure the risk on different securities. Furthermore, the institutions should train staffs of loan officers so that direct lending is an alternative to purchasing securities. Direct lending can also be important as a means of financing small business, new enterprises and individuals. These sectors were largely excluded from the planning mechanisms of the FPEs and can be important vehicles for economic growth. Their growth can be encouraged if an institutional structure for intermediation to small enterprises exists.

Insurance companies, both life and indemnity, are financial intermediaries because in the course of selling insurance services, they accumulate assets to invest. In developed countries they are a formidable presence in all financial markets. As mentioned in the previous section, life insurance companies are the principal investors in the private placement market in the U.S. In addition, they are significant players in the commercial mortgage, long term government bond and corporate bond markets. Insurance services exist in many FPEs and the demand for such services is likely to grow with the development of private sector activity. However, these institutions also need to develop expertise in the management of assets.

The available assets - securities - in the FPEs tend to be government debt and the debt of quasi-governmental organizations or state industries. In the centrally planned setting, all debt securities implicitly had government guarantees so there was little incentive for the financial intermediary to examine differences in relative risk characteristics. An essential aspect of

transition must be the removal of all implicit government guarantees so that the financial intermediaries are forced to price risk differentials.

Thus, a necessary condition for the development of financial intermediaries is a degree of financial liberalization. Specifically, one cannot realistically expect existing institutions such as savings banks and insurance companies to begin acting as true intermediaries until they begin to bear some the risk on the asset side of their balance sheets by lending to the private sector and develop the ability to evaluate those risks. The government can force these developments by making it clear that the assets held by these intermediaries are not guaranteed.

There is an additional public policy role in the development of non-bank financial institutions. Regulatory policy should be limited to minimal capital requirements and standards for auditing and examination. However, it is often difficult to avoid extending government guarantees to such institutions. As we have already discussed, all developed countries provides some kind of explicit or implicit institutional guarantee to banks. If such guarantees are extended to non-bank financial intermediaries then the moral hazard problems extend to the entire financial services industry (see Stiglitz, 1993). Care must be taken in designing financial intermediaries and defining the extent of the implicit government guarantees.

New institutions: Development Banks

Suggestions are often made that new intermediary institutions should be created -- such as **development banks.** In regard to Russia the World Bank (1993) suggested that:

> The creation of Development Banks is being proposed as a means to alleviate these supply side problems: to augment the level of investment in the country and to provide new, market-oriented channels for allocating investment funds.

There are several motivations for such institutions:

i) Create an institutions that can evaluate investments, including those made by government and quasi-governmental organizations, on economic grounds.

ii) Provide a market-oriented allocation mechanism for investment when the existing financial institutions (commercial banks) are unwilling to make long-term investment loans because they cannot fund loans with long term resources. In addition, since expertise on risk evaluation is limited, create an institution that will concentrate on the development of lending skills.

iii) Provide a means of efficiently intermediating funds from the international community.

iv) Create a mechanism for attracting private savings by offering market returns.

v) Create an institution that may attract savings from abroad and provide a vehicle for direct financial investment.

vi) Help introduce financial instruments such as bonds and aid in the creation of secondary markets.

These arguments for new intermediaries are reasonable responses to the existence of market failure or the incompleteness of financial markets in general. The arguments are compelling if we can be confident that the institutions will be able to meet their objectives. In order to meet these objectives, development banks should be organized with the following general principles in mind:

i) The development banks should be independent of the government to as great an extent as possible. Thus, they should be profit maximizing and free of political influence.

ii) The activities of the bank should not be constrained by government priorities that favor particular industries or patterns of economic development.

iii) The development bank should not preclude the development of private financial institutions and instruments. It should not be a monopoly supplier of funds but should encourage enterprises to form lending relationships with the existing commercial banks and to develop the use of financial instruments such as bonds and notes.

There are at least two development banking institutions being proposed in Russia at the present (see Wachtel 1994). One is a quasi-governmental institution -- the Russian Financial Corporation (RFC) -- and the other is an independent bank which is partly state owned -- the Russian Bank for Reconstruction and Development (RBRD).

The **Russian Financial Corporation** (RFC) is a government institution that was founded in early 1993 but is not yet active. The main objective of the corporation is to encourage Russian economic development by aiding the transition to a market economy. The RFC aims to channel state investment funding towards projects which are evaluated with economic criteria. It plans to do so by organizing a mix of state financing, financing from commercial banks and enterprises with surpluses and the accumulated profits of the RFC to provide investment financing. Initially, the RFC will be a transitional institution that will provide market-oriented evaluation of investments that would otherwise be part of the state investment budget. It will rely, at least in part, on state credits but it will use economic principles to make investment decisions and will assist enterprises in applying economic principles. The RFC's incentive to make profit maximizing decisions will come from its reliance on its own profits and financial market credibility to grow. Although, the initial capital of the RFC is from the government, it envisions growth from its own commercial profitability. Ultimately, the RFC should be able to raise its own funds and be independent of the state investment budget.

The institution as envisioned by its President, Andrei Netchaev, the former Minister of Economics, is a precarious one. It is an agent of the government and its links to politically based allocation mechanisms could easily undermine the goal of introducing commercial principles into the process. It will be difficult to develop an institution whose expressed purpose is to be a bridge between the government and the commercial sector which is truly independent of government interference.

It remains to be seen whether the RFC will be able to move quickly away from a dependence on government resources. It is likely that its growth will require more resources than generated by the profitability of its own investments. In the best of circumstances resources for expansion would be obtained from sources other than government. For example, the RFC might be able to create investment vehicles which would encourage the Russian banks to, at least indirectly, begin to provide some investment financing.

The **Russian Bank for Reconstruction and Development** (RBRD) is owned by the commercial banks although the government has a 35 per cent stake in the bank. Its aim is to allocate investment funds among commercial banks and non-bank intermediaries on market principles. Its lending practices will be independent of the government and all lending will be collateralized loans at market interest rates. The RBRD envisions that it will be an intermediary for project financing from the international community to Russian enterprises.

The plan for the RBRD calls for loans that are completely independent of any state influence or subsidies. This is an admirable goal but if the bank is called on to intermediate substantial amounts funds from the international community, it might not be able to adhere to these goals. The Russian financial community may not have sufficient capacity to absorb large

amounts of market based lending activity at the present. The RBRD should be careful to avoid undermining the principles of market-oriented lending activity.

The principle advantage of the RBRD business plan is that it may provide a means of introducing commercial bank lending into the Russian financial sector. The institutional development of an innovative institution like the RBRD should proceed gradually and be independent of major international initiatives in particular industries or activities. There is a danger that it might not be able to develop gradually if it is expected to be the conduit for large amounts of financing from abroad.

Financial Markets

Financial markets, both primary and secondary, were largely non-existent in the FPEs. To begin, financial markets can only exist if there are financial instruments. The planning mechanisms of the Soviet era simply did not create any financial instruments that could be marketable. As noted in Section II, even in systems where bank finance dominates, there is room for direct finance and a role for financial markets. Financial markets are important for the simple reason that they increase the efficiency of capital allocation.

There are three types of financial markets that are initially feasible: the government securities market, the stock or equities market and what we will call for lack of a better term, informal markets.[42] Most discussions of financial market development in FPEs give undue

[42] In the U.K. and U.S. the corporate public bond market is another important source of business finance. However, as we discuss in the next section it is unlikely that debt finance will be provided in the FPEs through a public corporate bond market. The information requirements associated with the establishment of this market may be too formidable.

emphasis to equity markets but the government bond markets and the less formal financial markets are of equal importance. We will consider each individually and also consider both primary and secondary markets.

The **government securities market** is important for at least three reasons. First, it is a means of imposing fiscal discipline on the government. To begin, government securities must be sold to the public if the central bank is committed to a policy of not monetizing the deficit. It this case, the willingness of the private sector to absorb government debt is a constraint on fiscal policy. Thus, the primary market for government securities is an important disciplinary force in the move away from a planning structure and towards a modern market economy.

Given that the FPEs are currently running large government deficits, the only non-inflationary means of financing the deficits is to sell government securities. Progress in the development of government securities markets has been slow in the FPEs, although such experience is not uncommon in most NICs and LDCs. Calvo and Kumar (1993) report some sales of treasury bills have begun in most of the central European countries but not elsewhere. More recently, Rytila (1994) that Russia has developed an infrastructure for the issuance of government securities. Since mid-1994 there have been regular issues of government securities and the "issues have been growing steadily and are starting to have an impact on the financing of the budget deficit" (Rytila, 1994, p. 34).

Second, the secondary market in government securities market can provide the whole financial system with a market determined benchmark interest rate. Government securities are a homogeneous financial instrument with risk characteristics that are easy to understand. If secondary market trading is active and the markets are liquid, then the interest rate on

government bonds provides a benchmark for all financial transactions. This is particularly important if competition in the determination of bank deposit and loan rates is restricted.

Finally, the existence of a government securities market enables the central bank to broaden the set of monetary policy tools to include open market operations. Although open market operations can be conducted without a deep securities market or with assets other than government securities, a functioning secondary market for government securities facilitates policy operations. The advantages of open market operations as a tool of monetary policy were discussed earlier in the section on monetary policy.

The development of **stock or equities markets** in FPEs has been a subject of enormous interest and discussion which is probably out of proportion to their importance. The powerful image of a stock market, the paragon of all capitalist symbols, opening in a formerly planned economy is an almost romantic symbol of the collapse of the eastern bloc.

In fact equity markets are not as widespread in market economies as the symbolism would suggest. Growth of equity markets in developing countries is a very recent phenomenon and, furthermore, equity markets are of limited importance in many large industrialized countries (e.g., Germany). These examples indicate that active trading of equity ownership by the public is not necessary for private sector capital formation and efficient allocation of capital. A stock market provides liquidity to capital markets and a means of price discovery; it makes it easier to determine the value of capital. However, as long as banks and other financial intermediaries are working well, the absence of equity trading need not inhibit capital formation.

There are several substantive reasons why equity markets may be important for the FPEs. First, particularly with other financial institutions -- banks, investment banking, institutional

investors -- in various stages of infancy, the equity market provides a conduit for the allocation of capital by setting stock prices (see Grossman 1976, 1978, Grossman and Stiglitz 1980, and Diamond and Verrechia 1981). Moreover, equity markets can, in principle, be organized quickly and the rudiments of the industry started more easily than other institutional developments. In Western countries, equities markets are usually subject to a formal regulatory structures (sometimes self-regulatory) to prevent price manipulation and supervise transfers of ownership. In the FPEs, equities markets have been started before the regulatory structure has been put in place. The characteristics of the institutional infrastructure that are necessary for equities markets to function appropriately in transition economies have been outlined by Mendelson and Peake (1993).

It is not surprising that several equity markets are operating in FPEs while investment banking and venture capital segments of the financial industry are slow to develop. Of course, the mere existence of some equity trading does not imply that the capital allocation throughout the economy (or even the private sector) has achieved Western standards of efficiency.

Second, a major problem in the transition from a planned to a market economy is the valuation of existing enterprises. With state planning dominating most decisions, there was no reason to evaluate the assets and activities of any enterprise. The transition to a market economy requires some market information about the relative merits or value of different enterprises. Trading in equity ownership, even while the transition to private control and ownership is going on, provides very important information. For this reason, equity markets may be more useful to the FPEs than to other developing economies.

Third, the various schemes that have been suggested and tried to privatize state owned

industries usually make use of some mechanism for distributing ownership rights and subsequently allowing the public to trade these rights or shares. Thus, the equity market is a linchpin of most privatization schemes. Moreover, the distribution of privatization vouchers or actual shares to the public is probably the strongest argument for the existence of an equity market. Many individuals will want to reallocate their wealth and a market that provides liquidity and price discovery is very useful when there is a large supply of securities already in existence.

Fourth, the existence of an equities market can provide a vehicle for foreign direct investment. For example, although Western firms have had difficulty entering joint ventures with Russian companies, Western portfolio managers have made billions of dollars in investments on the Moscow stock exchange.[43] These investments are a means of getting a foot hold in Russian industry and, particularly, in Russian natural resource companies and utilities. They have occurred despite the still ill-defined nature of corporate ownership and control in Russia. Given the current legal framework in Russia, it is unclear what rights of ownership and control would actually accrue to a majority owner of a firm.

Fifth, information-based theories of optimal capital structure along with the existence of nontrivial bankruptcy costs provide ample rationale for a departure from the Modigliani and Miller capital structure indifference hypothesis. To the extent that limitations on the availability of private equity would otherwise constrain the ability of FPE business to achieve the optimal capital structure, the existence of public equity markets may be critical.

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[43]The Economist (September 24, 1994, p.77) reports that the capitalization of the 30 largest firms on the Moscow stock exchange was about $30 billions and that portfolio investment from the West reached $500 million in the summer months.

Sixth, the FPEs have no tradition of entrepreneurship or new enterprise formation. In the United States only a small amount of capital is raised from new equity issues or public offerings. There are other avenues for raising equity capital -- the venture capital industry -- and initial public offerings are often a second rather than a first step. Nevertheless, the IPO market is viewed as an important aid to the growth of young innovative enterprises. However, the venture capital industry does not exist in the FPEs so the opportunity to approach the stock market directly may be even more important than it is in the U.S.

This last point leads us to the least discussed part of the financial markets -- **informal markets**. Informal structures and institutions for the raising and allocation of capital are, by their very nature, difficult to describe. However, their importance in developed economies, in all likelihood, rivals the importance of formal markets. In both developed and undeveloped market economies, many new enterprises and small businesses use a variety of capital raising mechanisms which were conspicuously absent in centrally planned economies.

Informal market structures range from schemes for pooling savings by individuals that are common in South Korea and some other countries to venture capitalists and mezzanine funds that broker relationships between savers and entrepreneurs. These markets are characterized by the lack of large-scale formalized trading (i.e., by their illiquidity). The private placement market in developed countries by which institutional investors (including formal intermediaries like banks and insurance funds) make capital investments in a relatively informal market structure that is often used for very large transactions. For example, when a pension fund invests in a commercial real estate venture, there is no formal tradeable security or institutional structure used for the transaction. It is simply a contractual arrangement between economic

units. Another aspect of the informal sector is the intra-firm market in capital or the ability of one enterprise to buy or sell all or part of the activities of another enterprise. This market is particularly important, for example, in Europe.

Small firm financing in developed countries is not solely the domain of traditional debt lenders -- banks and commercial finance companies. Private equity capital is often obtained either informally in limited equity offerings which do not have to meet government securities regulations or more formally in through agents in the equity private placement markets. Venture capitalists also play a vital role in the provision of external funds to emerging companies. Mezzanine debt financing may play a role in subsequent-stage financing prior to going public through an IPO.[44] A common contract feature in these alternatives to conventional commercial lending is the presence of equity or equity-like features in the funding contract. Again, the presence of asymmetric information is the driving force, particularly with respect to emerging companies.[45] For these companies, the absence of public information, the lack of established track records and often great uncertainty surrounding product viability (e.g., biotech companies) greatly exacerbate the problems associated with bondholder-stockholder conflict. Equity, or debt with equity kickers, is the natural contracting solution to these problems. When sufficient collateral is not available to support bank or commercial finance company lending, many small firms may in fact be substantially limited to these type of equity-oriented sources of finance.

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[44] See Bloch (1989, Chapter 11) for a discussion of the financing stages leading up to an IPO offering.

[45]See Sagari and Guidotti (1992) for an extensive review of the literature on venture capital financing and a discussion of its role in developing countries.

Analogous problems are likely to be very common in FPEs and thus such non-traditional forms of financing should be encouraged. However, it is difficult to make policy recommendations for the development of the informal sector of the financial markets. However, it is important to note that the FPEs should avoid actions that discourage such developments. In addition, there are several related developments that will assist the development of the informal sector. Contractual relations in the informal sector rely heavily on a legal framework for commercial relationships. These include clear definitions of property rights, mechanisms for contract enforcement (e.g. liens), a commercial code to govern contractual relations and bankruptcy laws. The absence of these legal structures are critical impediments to the growth of the informal sector.

V. Financial Structure Design

Financial structure reform is well under way in the FPEs of eastern Europe. While different FPE economies are at different stages, the old mono-bank system has generally been replaced with a two-tier banking system. Concomitantly, the FPEs are privatizing non-financial enterprises with the shares being distributed through a variety of different mechanisms. Corbett and Mayer (1991) point out, however, that until relatively recently FPE financial advisors have more or less taken for granted that the FPE economies were progressing toward a capital markets-oriented financial system. This view holds that privatization comes with private individual share-ownership which naturally leads to a traded securities market. Corbett and Mayer (1991, p. 2) argue, however, that:

> Capitalism in the minds of most people is synonymous with stock markets. What epitomizes the break with socialism more than anything else is the creation of

stock markets. This idea has been reinforced by advisors to the fledgling nation states who, for the most part, come from two countries with the most developed stock markets: the U.K. and the U.S.

A number of financial economists in the past several years have questioned the pursuit by FPEs of the U.S./U.K. model. They argue that the banking-dominated systems of Germany and Japan may be much better suited to the embryonic economies of eastern Europe (see, for example, Corbett and Mayer 1991, Frydman and Rapaczynski 1992, and Smith and Walter 1992).

All financial systems must solve two basic problems of asymmetric information associated with business finance: the problem of bondholder-stockholder conflict and the problem of corporate control. The first problem is most acute for small firms and virtually all developed financial systems address it in the same way by funneling credit to small information-problematic firms through banks and other financial intermediaries who enjoy economies of scale in the production of information about borrower quality (see previous discussion in section III).

It is with respect to the second problem, corporate governance, that financial systems in developed countries differ markedly. Specifically, many critics of the markets-oriented approach argue that a bank-intermediated financial structure is much better suited to solving the corporate governance problem in the embryonic FPEs. In this section we review this argument and relate it to the organizational issues raised in our earlier section on credit allocation. In addition, we discuss other issues which may affect the mix between the banking sector and the financial markets sectors.

Corporate Control and Financial Structure Design. The issue of corporate control arises because of the existence of agency problems associated with the separation of ownership and

control. Firm shareholders seek to maximize the value of the firm. Professional managers, on the other hand, may prefer non-value maximizing strategies. Managers might prefer risk minimizing strategies in order to maximize the value of their firm-specific capital, or strategies which benefit them personally (for example, diversion of resources for personal benefit, or increasing the size of the firm in order to maximize their personal power), or strategies which minimize their effort. Within their local information and regulatory context, capitalist economies have developed mechanisms which address the problems associated with corporate control.

Broadly defined, there are two basic mechanisms available to address the corporate control problem: the intermediation-dominated financial system and the capital markets-dominated financial system.

The Intermediation-dominated Model. In the intermediation-dominated model, a financial intermediary acquires an ownership stake in the firm sufficiently large to solve the free rider problem associated with diffuse ownership.[46] This consolidation of ownership enables the financial intermediary to exert discipline on the manager of the firm. The costs associated with this discipline are justified because of the financial intermediary's large stake in the firm.

There are several variants of the intermediation-dominated model from which to choose. The German model essentially permits commercial banks to invest in the equity of non-financial businesses without limitation. This solves the corporate control problem by concentrating the ownership in a single investor (the bank) who has sufficient incentive to monitor the management of the firm. Because banks jointly provide other services to the borrower such as cash

[46]In a diffusely held firm, no single owner has sufficiently large interest in the firm to justify the cost of monitoring the manager.

management and depositor services, they may have an advantage over other financial intermediaries in acquiring information about management behavior. Also because the bank is both a lender and an investor, risk-shifting problems associated with debt financing may be substantially less. The incentive for firm shareholders to expropriate wealth from lenders diminishes to the extent that the lender is also a shareholder.

The Japanese model represents an alternative intermediation-dominated system. Unlike German banks, Japanese banks are constrained in their ownership of corporate stock. Japanese commercial banks can not own more than 5% of the shares outstanding of any corporation. Large firms in Japan, however, are members of Keiretsu, industrial groups in which firms have strong ties to affiliated banks and other financial institutions within the group. Firms within the Keiretsu typically have product ties to each other and cross ownership of shares.

The similarities between the German and Japanese systems may be more important than the differences with respect to the problems of governance and external finance. Under both systems, concentration of ownership is significantly higher than in the capital markets-dominated systems of the U.S. and the U.K. (see Prowse 1995). Concentration of ownership under both systems gives significant control to the commercial banks,[47] and the commercial banks tend to

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[47]Not all researchers are in agreement regarding the exact role played by banks in addressing the corporate control problem in Germany. Cable (1985) demonstrated that corporate profitability was positively associated with the proportion of voting rights held by the three big German universal banks. Elster (1993) showed that liquidity constraints were less for firms with strong bank ties. However, Edwards and Fisher (1993) emphasize the importance of non-financial shareholders in Germany. They find that ownership control is only weakly associated with bank representation on the supervisory boards of firms, and that bank representation is not associated with the level of bank debt.

Prowse (1995) notes that there is less empirical research on corporate control and external debt available in Germany than Japan. Consequently, the evidence appears to be less ambiguous regarding Japan than Germany.

be much more important suppliers of external debt finance than in the U.S. and the U.K. (see Prowse 1995). Empirical evidence suggests that intermediation positively affects investment efficiency -- Hoshi et al. 1990a for Japan, and Elster 1993 for Germany.[48]

In addition to the Japanese Keiretsu and the German universal bank, there has been discussion of a third variant of the intermediation-dominated model which relies on a special intermediary that takes the form of a holding company or mutual fund. Frydman and Rapaczynski (1992) note that such intermediaries would exercise the supervisory functions associated with corporate control in addition to pooling investor resources to achieve diversification. These financial intermediaries would necessarily assume a significant degree of involvement in monitoring and controlling the management of the firms in which they invest.[49] The distinguishing feature of this third model is that unlike the Japanese and German commercial bank models, mutual funds under this model would not offer loans to the companies in which they invest. This feature may place this model at a distinct disadvantage because mutual fund ownership addresses only the control problem and not the problems of bondholder-stockholder conflict associated with external debt. Consequently, any economies of scope associated with being both a lender and an investor are foregone. At least two such economies of scope can be identified. Consolidating lending and investing (i.e., loans and equity) in the same entity

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[48]Prowse (1995) notes that conventional wisdom about the role of Japanese main banks was that their monitoring and disciplining role were of importance only during periods of firm distress (see Sheard 1988). However, evidence by Lichtenburg and Pushner (1992) suggest that Japanese financial institutions engage in continuous monitoring. In particular they find that high financial institution ownership is associated with greater efficiency and profitability.

[49]The degree of monitoring distinguishes these mutual funds from pension funds and mutual funds in the U.S. and the U.K.

eliminates the agency cost of debt; and consolidating lending and investing may simplify the adjustment or adjudication of claims in the event of financial distress (see Berlin, John and Saunders 1994). Under the mutual fund model these benefits are lost.

One advantage of the mutual fund model may be that it avoids giving any institution, or group of institutions, the kind of power and influence that the German and Japanese models do. This may be of particular concern given the evolving state of Eastern European political systems.

The Capital Markets-Dominated Model. In capital markets-dominated economies such as the U.K. and the U.S., large firms depend much more on the traded securities markets for their external financing.[50]

In the absence of financial intermediaries playing a significant role in corporate control by directly monitoring non-financial firms, the U.K. and the U.S. rely principally on the external market for corporate control. Prowse (1995) reports that while hostile takeovers are frequent in the U.K. and the U.S., they are infrequent and virtually non-existent in Japan and

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[50]Prowse (1995) indicates that non-financial corporations in the U.S., U.K., Japan, and Germany obtain 45.5, 57.6, 13.6 and 8.0 percent respectively, of their external financing in non-intermediated debt and equity.

It should be noted, however, that in the U.S., for example, financial intermediaries participate significantly in the public equity markets. Households now own only about 50% of corporate equity while pension funds and mutual funds own about 25% in the U.S. (see Edwards 1993). However, there are significant restrictions which discourage concentrated active shareholding by any agent, particularly mutual and pension funds. These include taxes and restrictions on ownership concentration, insider trading rules, disclosure rules and the legal doctrine of equitable subordination which discourages creditors from taking equity positions (see Prowse 1995). Consequently, the degree of control exerted by mutual and pension funds is substantially less than the type of control associated with Japanese main banks and German universal banks.

Germany respectively.[51]

In addressing costs associated with external debt (e.g., the agency cost of debt), the U.K. and the U.S. principally rely on wide dissemination of public information and the importance of firm reputation -- as opposed to relying on control mechanisms associated with the debt instrument itself. Specifically, public debt contains relatively few covenant restrictions and is typically not secured (see Carey et al. 1993).

The Issue of Small Firm Finance. A principal wedge between the U.S./U.K. model and the German/Japan model is the issue of corporate governance. This issue, however, largely disappears when discussing small firm finance. Small firms are rarely publicly owned and the vast majority are owner-managed (see Berger and Udell 1994). Consequently, separation of ownership and control is not an issue for small firms. It is not surprising, therefore, that commercial lending to small firms is not all that different across these four countries. Small firms in all of these countries are likely to obtain relatively restrictive debt contracts as noted in section III and usually rely on financial intermediaries for external nontrade-debt financing as discussed in section III. The bank-borrower relationship plays a vital role in determining access to and the nature of external financing.

Which Model for Eastern Europe?[52] Two factors appear to preclude the capital markets model for Eastern Europe. First, the FPE's lack the informational and institutional structure

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[51]This should not be interpreted as entirely ruling out other control mechanisms. However, these other mechanisms are not as important as the takeover market, nor are they relatively as important as in Japan and Germany (see Prowse 1995).

[52]To some extent this discussion abstracts from consideration of issues related to the sequencing and the rapidity of financial reform. See Cecchi (1993) for a further discussion of these issues.

necessary for a well-developed takeover market. This market requires the existence of investment banks with the expertise to offer advisory services to participating parties in a takeover -- and the capital to certify the veracity of the information and advise they offer. Arguably, foreign investment banks could provide these services. However, the lack of an information infrastructure makes it unlikely that a takeover market could develop in which investment banks (as well as permanent investors) could evaluate the benefits of a hostile takeover. Another prerequisite to an active takeover market appears to be the existence of sophisticated institutional investors who can muster large sums of money for bridge loans and permanent financing. The ability of commercial banks to extend bridge loans and senior debt, and the willingness of institutional investors (mutual funds, pension funds, thrifts and life insurance companies) to invest in junk bonds and mezzanine debt, appear to be necessary conditions for the development of this market.[53]

A second factor arguing against the capital markets model is the information structure under which the FPE financial systems must address problems associated with external finance. A number of papers have demonstrated theoretically the coexistence of both an intermediated/private securities market in parallel with a public securities market such as we observe in the U.K./U.S. model (see, for example, Diamond 1991, Rajan 1992, and Boot and Thakor 1994). Again, however, the undeveloped nature of the information infrastructure in the FPEs will inhibit the development of a traded securities market, particularly a public debt market. Widely held public debt precludes extensive use of restrictive covenants, intensive

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[53]That is, the creation of junk bonds and the LBO market in the U.S. appears to have depended on the institutionalization of the securities markets which did not occur in the U.S. until the 1970s.

monitoring and renegotiation flexibility. However, FPE firms require these type of contracting controls because they are characterized by acute asymmetric information and they lack the ability to establish reputations. This argues that external business debt financing must be extended by financial intermediaries who can offer monitoring-intensive contracts with restrictive covenants and renegotiation flexibility.[54]

The combination of these factors suggests that the intermediation-dominated, German-Japanese, system might be optimal. Information production by an equity investor bank will facilitate monitoring and disciplining managers. Bank ownership of non-financial firms also diminishes agency problems associated with debt.[55] The agency cost of debt will still exist to the extent of non-bank ownership. Information production by the bank, and covenant restrictions in bank loan contracts will address problems associated with residual outside ownership of the firm.

The choice between the U.K./U.S. model and the German/Japan model, as discussed above, is not particularly relevant to small firm finance. As noted above owner-managed small

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[54]See Boot and Thakor (1994) for a theoretical model of financial system design under asymmetric information which argues that FPE financial systems are likely to be skewed toward bank financing. In their model, firms with lower observable qualities (which are associated with more acute moral hazard) will fund in the bank market while firms with higher observable qualities will fund in the traded securities market. They conclude that because the observable quality of businesses in the FPEs tends to be low, the optimal financial system should be bank-dominated.

[55]Berlin, John and Saunders (1994) argue that universal banking (i.e., bank ownership of corporate stock) may be beneficial when banks have superior information over uninformed equity stakeholders about the condition of distressed firms. Banks with an ownership stake in distressed firms will have improved ability to convince uninformed stakeholders to make necessary concessions. Arguably, the conditions under which nonbank stakeholders will be uninformed will are more prevalent in the FPEs. This suggests another reason why FPE financial systems should be skewed toward bank financing.

firms (and closely held small firms where owners are active monitors of the firm's management) do not have a corporate governance problem. Issues related to bondholder/stockholder conflict, instead, drive the nature of external funding for small firms. As a result, all financial systems including the FPEs must provide credit to small firms through banks and possibly other financial intermediaries under restrictive contracts supported by collateral and relationship lending. However, as we have noted earlier, lending to small businesses will not be easy in the FPEs. Without an established information infrastructure, relationship lending will be much more difficult. Financial covenants are only feasible within the context of reliable accounting data and a legal infrastructure which can assure contract enforcement. Collateral, may also be problematic. Collateral lending requires a substantial information structure in order to appraise and monitor collateral value and to register liens. In addition, lenders need to have the assurance that there will be markets in which repossessed collateral can be sold. This is often problematic in the West, and is likely to be even more so in Eastern Europe.

These potential limitations on straight debt financing to small firms by commercial banks suggest an even more important role for external equity-oriented funding analogous to venture capital and mezzanine financing in the U.S. Theoretically, banks could also provide this type of financing. (That they don't in the U.S., for example, may be mostly an artifact of regulation.) Alternatively, separate funds could be established along the lines of the venture capital funds and limited partnership mezzanine funds found in the West. Advantages related to specialization and monitoring might argue in support of this alternative. Venture capitalists invest in a portfolio of companies with the hopes that a few of them will be big successes. Commercial banks invest in a portfolio of loans in the hope that only a few will not be fully

repaid. It may be difficult to design an appropriate incentive-compatible contract which properly encourages agents of the bank to invest simultaneously in both kinds of investments across different kinds of borrowers. Practically speaking, most practitioners would probably argue that the credit culture which defines the investment perspective of most commercial bank loan officers (in the West) is strikingly different than the investment perspective of most venture capitalists. It may also be true that the skills required to assess prospects of success of an emerging company may be substantially different than those required to design a commercial loan contract which minimizes the costs associated with bondholder-stockholder conflict.

To the extent that it is desirable to separate the provision of risk-oriented equity capital from the provision of commercial loans to small, emerging companies, the question arises as to the source of this risk-oriented equity capital. It is not at all clear that a sufficiently large market for this type of capital will emerge on its own to kick-start FPE economies. Foreign investors might fill the gap. Foreign private sources might be limited given the present economic conditions Eastern Europe. This suggests a role for government guaranteed investment funds possibly modeled after Small Business Investment Corporations in the U.S. In our opinion, this may be one of the most promising areas for further research.

In our discussion of FPE financial system design we have emphasized the importance of two problems associated with asymmetric information: bondholder-stockholder conflict, and owner-manager conflict. These problems arise because insiders may have more information than outsiders -- stockholders having superior information to bondholders in the former, and managers having superior information to owners in the latter. Financial systems, however, also face a third type of problem that arises because firm managers may not have perfect information on

which to base their policy actions. Allen (1993) argues that, in a very general setting, the information set used by managers to determine firm policy may not be the true information set. Outside investors, however, will gather information related to the firm and use it to set the stock price. As a result the stock price will tend to reflect the collective wisdom of (information gathering) investors and tend to reflect the true value of the firm. As a result Allen argues that the stock market will provide an important "checking" mechanism continually providing feedback on whether managers' policies are effective.

The importance of this checking mechanism depends on the nature of the industry. If industries are competitive with many producers, short production cycles and constant technology, then this checking mechanism may not be very important because the optimal managerial policies are well known and easily enforced -- for instance, by a bank. However, if the industry is characterized by economies of scale (and few firms), long production cycles and complex and evolving technology, this checking mechanism may be extremely important.[56] That is, for these types of firms the information impounded into the stock price gathered by many investors (and analysts) will be extremely valuable.[57] Based on this paradigm Allen concludes that FPE financial systems are likely to be bank-oriented because their economies will be concentrated in basic industries with straightforward technologies. As a result the value of a stock market

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[56]Large conglomerates and high technology firms would be good examples.

[57]In competitive industries information about managerial effectiveness essentially comes from the observation of many competing firms, while information about managerial effectiveness in high tech, concentrated industries comes from many different investors/analysts.

checking mechanism will be relatively small.[58] This argument, in combination with issues associated with asymmetric information (i.e., bondholder-stockholder conflict and corporate governance) rather strongly suggest that the bank-dominated model is likely to prevail in determining financial system design in the FPEs.

VI. Conclusion

In the euphoria that followed the disintegration of the Soviet world, discussions of financial system design seemed to emphasize the transplantation of Western institutions to the FPEs. There was little analysis of the advantages and disadvantages of different institutional structures and their applicability to the FPEs. Our discussion of financial structure design has some specific conclusions and also raises some significant concerns.[59]

To begin, the role of bank financing is likely to increase in importance for two reasons. First, the information structure necessary for direct finance to play a dominant role simply does not exist. Second, the institutional structure and expertise for informal market structures to flourish also do not exist. Thus, the burden of financing of the commercial sector is likely to fall on the banks.

Banking policy in the transition so far has concentrated on the reform of bank balance sheets and the restructuring of banking institutions. As important as the process of creating viable banks out of the shells of state owned banks of the Soviet era may be, it is only part of

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[58]For those FPE industries which are high tech and concentrated, it is debatable whether a sufficiently large number of informed investor/analysts could provide the type of checking mechanism envisioned by Allen in the foreseeable future.

[59] Our conclusions are similar to those reached by Steinherr (1993).

the task. It is also necessary to make competent banking organizations out of the recapitalized banks with their brand new clean balance sheets.

The task is daunting for several reasons. First, as the dominant financial institutions, the banks may not resist the pressure to channel state credits or provide loans without the requisite evaluation of risk and specification of contracts. Second, if the banks succeed in maintaining tight standards, then there may be no sources of long-term credit to enterprises. How to balance the credit needs of the economy against the standards of the banking business is going to be a major task.

For this reason, it is important to encourage the rapid development of institutional arrangements in the informal sector. The best way that government policy can support such developments is by encouraging the development of the legal infrastructure for the commercial sector. This includes contract law, definition of property rights, accounting and auditing standards and bankruptcy law and administration.

Our emphasis on bank lending is only warranted if the banks develop the ability to form and monitor loan contracts effectively. Otherwise, the central banks will face enormous pressures to support the bad business decisions of the banking sector. Thus, the emphasis on bank lending is not without dangers. For this reason, other financial institutions should be encouraged as well. Stock and bond markets might be less important than banks for intermediating between savings and investment, but they should be encouraged since they provide some market tests to evaluate bank performance.

Finally, the central bank plays an important and delicate role in encouraging the development of the banking industry. It must provide liquidity facilities but at the same time

it must avoid public financing of the intermediaries. It must regulate bank risk and insure against systemic failure but it must avoid the blanket extension of public sector guarantees to the financial industry.

The financial systems of the FPEs are likely to be highly concentrated and therefore many institutions will be virtually public entities. The challenge is to manage such a structure and simultaneously avoid the public sector control and inefficiencies of centralized planning.

APPENDIX I

Status of Banking Reform and Restructuring in the FPEs*

	Reform	Restructuring
Albania	The legal framework for a two-tier banking system was established in 1990. Three commercial banks exist, fully government owned.	None
Armenia	A two-tier banking system was established in 1987. There exist five large, specialised commercial banks which were former branches of the Soviet banking system. In addition, there are 50 new commercial banks. All commercial banks are government owned, with small number of private shareholders. No adequate regulatory and supervisory framework exists and most banks are in poor conditions because of their poor capitalisation.	None
Azerbaijan	A two-tier banking system was established in 1987 and an independent central bank was created in 1992. There are four large government-owned banks and more than 90 small commercial banks, all with majority state ownership. The conditions of the large government owned commercial banks are weak. Not very much is yet known on the conditions of the new smaller banks.	None
Belarus	A two-tier banking system was established in 1987. Further financial reforms took place in 1991 with the establishment of new commercial banks and the strengthening of prudential regulation. The banking system comprises a Saving Bank and 24 commercial banks. These last include a joint stock companies owned by the government, state enterprises and private individuals. These banks are characterised by close relationship with their owners which are also their main borrowers.	None
Bulgaria	A two-tier banking system was introduced in 1987 when the Bulgarian National Bank transfered to seven specialised banks its loan investment portfolio and some of its branches. In 1992, the Law on Banks and Credit Activity further advanced this process by providing the basic legal framework for an independent central bank and the development of private banking. The banking sector is now dominated by 75 majority state-owned banks, all of which are saddled with non performing assets inherited from the previous regime.	In Jannuary 1992, the government established the Bank Consolidation Company to which all state-owned shares of banks have been transfered. The target is to merge the 75 existing banks into a small number of core banks. Full external audits of the banks have started and all banks are required to conduct such audits by the end of 1993. Once this has been accomplished, the government intends to relieve the banks of the inherited bad assets by replacing the bad loans with government bonds in the portfolios of the banks.
Czech Republic	A two-tier banking system was established in January 1990. Since then, financial sector reforms have figured prominently in the overall market orientation of the Czech Republic. The commercial banking sector is dominated by four banks hived off from the old system. There have been new entrants, including foreign institutions, and there are now 47 banks operating in the country. The largest commercial banks are characterised by the poor quality of their loan portfolios.	In March 1991, a Consolidation Bank was established to take over revolving credit that carried a low rate of interest. On the liabilities side, the Consolidation Bank assumed responsibility for banks' debts to the State Bank and the saving banks. At the end of 1991, the state provided commercial banks with capital infusions when banks made a debt to equity conversion. In the debt to equity conversion the banks wrote down claims on enterprises that were believed to be viable but over indebted and, in return, received bonds in the same nominal amount from the government.
Estonia	Two-tier banking system adopted in 1987 and new reforms passed in 1992 towards the creation of a sustainable regulatory and supervisory framework. The regulatory framework enables the central bank to refuse a banking license if a number of prudential norms are breeched.	The introduction of the rudiments of Western style banking supervision and regulation, together with the currency reform, have put an enormous on the banking system. Since 1992, at least ten banks have failed to meet the central bank's requirements and have had their licenses withdrawn. The banking crisis had the benefit of hastening some much needed financial reforms. New reforms were approved in the summer of 1993 to attempt to restructure those banks that still appear to be financially weak.

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Georgia	A two-tier banking system was established in 1987. The banking system comprises the National Bank of Georgia, five state owned commercial banks, and 80 private commercial banks. The five state-owned commercial banks dominate the banking system and control about 85 percent of credits to enterprises and households. The portfolios of the banks are estimated to be heavily saddled with doubtful assets.	None
Hungary	In 1987, the government established a two-tier banking system. Since then the structure of the banking system was modernised. In 1989, and the government has permitted both saving and commercial banks to deal with households and enterprises. In 1991, the law on supervision and prudential regulation was introduced and modeled on guidelines issued by the Bank of International Settlements. In the same year, all ceilings on interest rates on deposits and loans were rescinded. The number of commercial banks has risen steadily after 1989. There are now 31 fully licensed banks, with a significant foreign presence.	In the autumn of 1992, the government launched a consolidation scheme for non performing assets of the banks in an attempt to improve financial sector intermediation. The basic idea was to remove the bad loans from the banks' balance sheets while at the same time to inject additional capital in the banking system. In March 1993, the government handed over to the banks bonds in the amount of 79.4 billion fl. and received non performing loans with the nominal value of 192.6 billion. The non performing assets are held by the Ministry of Finance and will be handed over to the Hungarian Investment and Development Corporation which will be responsible for negotiating work out solutions.
Kazakhstan	The financial market in Kazakhstan is still in its infancy. Following the initial reform of 1988, the banking system consits of the central bank and five specialised government-owned banks. After 1988, a number of banks were created, of which 12 are fully privately owned. The banking system lack of competition and the rudimentary state of prudential regulation and banking supervision make this problem more acute.	None
Kyrgyzstan	Kyrgyzstan has inherited the two-tier banking system from the former Soviet Union. It comprises the central bank and 17 commercial banks organised as joint stock companies and largely owned by the enterprises. In 1992, the central bank became independent from the government. With the introduction of a new currency in 1992, the central bank controls the country's monetary policy.	None
Latvia	At the end of 1990, the banking system consisted of the Latvijas Banka, a Saving Bank and some independent commercial banks. The banking law of May 1992 shed the commercial functions of the Latvijas Banka which is now functioning as a central bank. The management of the bank's commercial branches has been assigned to a Reorganisation and Privatisation Commission. Ownership of these branches has been transferred to a Privatisation Fund. The branches are burdened with substantial but as yet unaudited bad loans.	The government has separated the branches which are viable for privatisation from the rest, which are to be merged into two or three core banks. At present, a full evaluation of the portfolios of these last ones is carried out by the Privatisation Fund with external help. The government is confident that the non performing loans could be written down against their good outstanding loans to the commercial banks, causing a capital loss but no net monetary emission. However this view is not universally shared.
Lithuania	Since the banking reform of 1992, the banking system comprises a central bank, three specialised state owned banks, and a number of independent commercial banks which are partly owned by state enterprises. Since 1991, the deposit taking and lending activities of non-bank enterprises has grown substantially. Disintermediation of banks represents a threat to the fledging financial sector. Legislation was introduced in Parliament in 1993 to eliminate the legal vacuum underlying these activities.	There has been little progress in the restructuring of state-owned banks, which are saddled with as yet unaudited bad loans and claims on the Mosow Saving Bank which have little prospects of being collected.

Poland	In 1989, nine new commercial banks were created to take over the commercial operations of the National Bank of Poland, thus creating a two-tier system with the National Bank acting as a Central Bank. Along side with the nine commercial banks, there exist two state owned saving banks,a group of state-owned specialised banks, and 86 private banks. State banks are treated preferentially with respect to guarantees on their deposit base but are obliged to pay a fixed dividend to the state. As a consequence, private banks account only for 5 percent of all deposits.	Polish banks are saddled with a large number of bad and dubious loans. An Enterprise and Bank Restructuring Act was approved by Parliament in December 1992. In accordance with the Act, the government has instructed nine banks to set up special work out departments to deal with the firms whose loans have been declared sub-standard or non performing. The Act also foresees the state financed injection of capital in the nine banks.
Romania	A two-tier banking system was created in December 1990 by spinning off the commercial functions of the National Bank into the Romanian Commercial Bank allowing the National Bank to function as a central bank. Two banking laws were approved in April 1991 providing for the transformation of banks into joint stock companies. The banking system consists now of six state-owned banks and 12 private banks. The portfolios of state-owned banks are in poor conditions .	A restructuring programme was initiated in 1990. By the end of the year, 90 percent of the bad loans identified were canceled and replaced by government liabilities.These loans totaled 15 billion lei and were replaced by about 150 billion lei of government bonds. The banks had to absorb the remaining losses which they can write off in 5 years. Audit results in 1992 have revealed a much improved capital adequacy situation with each of the banks achieving positive net worth and capital adequacy ratios (BIS standard) of 4.8 percent.
Russia	Russia inherited from the Soviet Union a financial sector in great disarray. Despite the proliferation of banks, the degree of competition is strongly limited by the oligopolistic structure and the ownership relations between banks and enterprises. It is estimated that less than 4 percent of banks account for over 70 percent of total assets. Almost all banks are undercapitalised. Taking into account the high credit risk associated with the current economic environment, the ratios of capital to assets is vey low for all banks. With the possible exception of a few well managed institutions, Russian banks have weak loan portfolios, although the extremely loose monetary policy helped in hiding this problem.	None
Slovenia	Slovenia inherited Yugoslavia's two-tier banking system and decided from the start to enhance the independence of the central bank. A new banking law came into effect on June 1991. Commercial banks are in general licensed to undertake all banking operations. The banking law was very liberal in terms of licensing. The minimum capital requirement was set initially at 2 million Deutsche marks. Consequently a large number of poorly capitalised banks were licensed. Subsequently the government raised the capital requirement to 60 million Deutsche marks and banks have two years to abide by the revised capital requirement. The banking system is still highly concentrated. Five out of six of the largest commercial banks are owned by the Ljubljanska Banka Group, which presently owns 14 banks.	In response to the banks' financial difficulties, the government established a Bank Rehabilitation Agency to administer a recapitalisation scheme which will initially focus on the Ljubljanska Banka Group. The agency will replace non performing assets in the portfolio of the bank with bonds, cash, and a credit line. Restructuring plans for the other banks have not yet been completed.
Ukraine	The Ukrainian banking system has evolved by default rather than following a structured reform programme with well defined targets. The main developments in the financial sector since independence have been the introduction of an interim national currency and the creation of new commercial banks. Despite the increasing number of banks, competition remains limited and the financial sector is beset by structural problems. Central to these problems are the limited powers, capability and capacity of the National Bank to function and operate according to the requirements of a market oriented economy.	None

APPENDIX II

Status of Bankruptcy law and Commercial Code in the FPEs*

	Bankruptcy law	Commercial law
Albania	Only for state enterprises. Law for the private sector in draft.	New commercial law and accounting system approved in 1992.
Armenia	Soviet law that is effectively not viable.	New commercial code adopted in 1992.
Arzerbaijan	Soviet law that is effectively not viable.	Old Soviet code not compatible with market economy.
Belarus	Law drafted but not yet approved.	Old Soviet code, with the exception of a new law for joint stock companies.
Bulgaria	Law drafted but not yet approved.	Laws dealing with accounting, competition, privatization, and joint stock companies approved in 1992.
Croatia	Law inherited from former Yugoslavia.	Former Yugoslav law.
Czech Republic	Revised law approved in 1993.	New code adopted in 1992.
Estonia	Law drafted but not yet approved.	New law drafted but not yet approved.
Georgia	None.	Old Soviet law, not suitable for a market economy.
Hungary	New law approved in 1992.	New enterprise law approved in 1992.
Kazakhstan	New law approved in 1992.	New laws on enterprise and competition approved in 1991-1993.
Kyrgyzstan	New law drafted but not yet approved.	Old Soviet law, not suitable for a market economy.
Latvia	Law drafted but not yet approved.	New laws in place in 1992.
Lithuania	Law drafted but not yet approved.	New laws in place in 1992.
Poland	New law governing state enterprises. Old commercial code of 1934 regulates private firms.	Old code of 1934.
Romania	Draft of a new law, but for the time being old code of 1934 still in place.	New law for commercial companies.
Russian Fed	New law approved in 1992.	New law under consideration. Old Soviet code still in place.
Slovakia	Revised law approved in 1993.	New code approved in 1992.
Slovenia	Law drafted but not yet approved.	New law on enterprises approved in 1992.
Tajikistan	None.	New law drafted but not yet approved.
Turkmenistan	None.	Old Soviet law, not suitable for a market economy.
Ukraine	New law approved in 1992.	Draft of new law, but not yet approved.
Uzbekistan	None.	Old Soviet law not suitable for a market economy.

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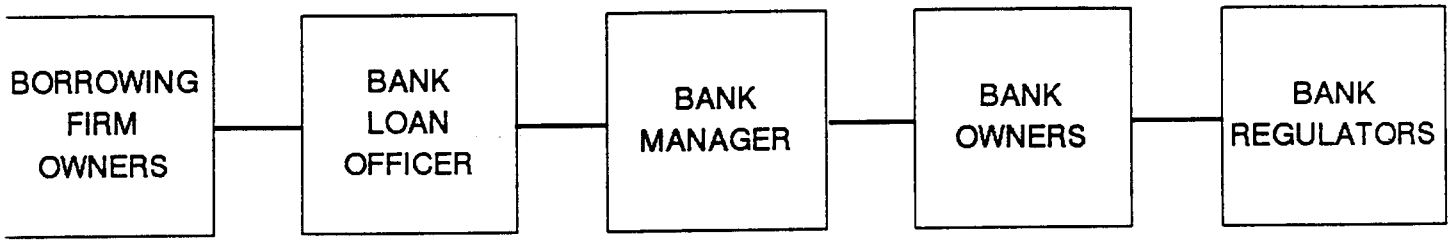
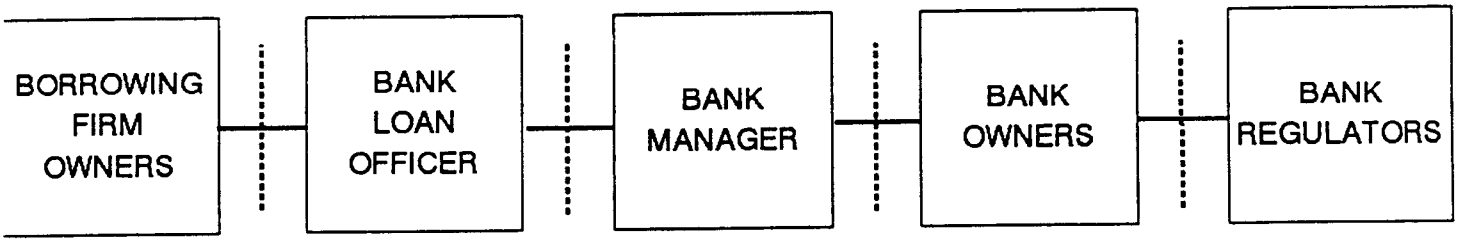
LENDING AND BANK CONTRACTING UNDER SYMMETRIC INFORMATION
Figure 1



LENDING AND BANK CONTRACTING UNDER ASYMMETRIC INFORMATION
Figure 2



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