Fostering Capital Markets  
in a Bank-based Financial System:  
A Review of Major Conceptual Issues  
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The paper presents a review of major conceptual issues as a framework in which to conceptualize the rationales and strategies for fostering capital markets in a largely bank-based financial system. As elsewhere in the developing world, the relative underdevelopment of capital markets in developing Asia can be attributed to inadequate market and legal infrastructure, which, in the presence of informational problems, raises the cost of external finance. In such an environment, bank finance is often a less costly means of external finance because it can minimize informational problems by establishing a long-term monitoring relationship with borrowers. On the other hand, the benefits of capital market finance rise with economic development, which tends to increase the complexity and dispersion of information held in the economy. Price signals provided by market finance can lead to a better allocation of resources by allowing better investment and saving decisions. With the passage of time, an equity market will become particularly beneficial as a means of financing new and complex economic activities, as equity finance does not require fixed assets and can better reward risk taking activities. The paper concludes by discussing several conceptual issues that are important in designing an optimal financial structure.

I. INTRODUCTION

This paper presents a review of major conceptual issues as a framework in which to conceptualize the rationales and strategies for fostering capital markets in a largely bank-based financial system, such as those found in much of developing Asia. While bearing in mind the need for practical relevance within the Asian context, we rely heavily on the academic literature, which is largely abstract and, when empirical, is mostly based on industrial country experience. Our emphasis is on analytical issues, as opposed to practical ones. Hence, we will not discuss specific measures of legal and institutional nature concerning, for example, how to
design a settlement and clearance system for secondary trading, how to develop an institutional investor base, and how to establish accounting and disclosure standards for capital markets. We believe that the literature we survey contains much that is conceptually applicable to the Asian policymakers as they continue to foster the development of capital markets.

The topic of domestic capital market development is particularly pertinent today, as the Asian currency crisis of 1997-1998 has brought to our attention the potential vulnerability of a bank-dominated system (Herring and Chatusripitak 2000). Some have argued that the crisis was in part caused by a poorly supervised banking sector which, given some distorted incentive structure, had acquired mismatched balance sheets in terms of maturity, currency, and sectoral allocation. Because corporate financing was heavily dependent on the banking sector, the argument goes, the initial currency depreciation set in motion a downward spiral on the economy, as the resulting deterioration in the balance sheet led to a contraction of bank credit to the corporate sector, which had little alternative to bank borrowing. According to this view, in a bank-based system, everything tumbles once the banking sector gets into difficulty. Hence, the call for the development of domestic capital markets in postcrisis Asia (APF 2000).

To be sure, such a view of the Asian crisis may be too simplistic. For one thing, if there was a problem in the financial system at all, it could not have been the mere fact that the system was bank-based, but the problem must have reflected its overall institutional weakness in governance, accounting and disclosure rules, or financial supervision; this may or may not be directly connected with its presumed bank-based structure (Allen 2000). Moreover, since the late 1980s, progress had already been made in much of emerging Asia to develop capital market institutions, so that the financial structure of the crisis-affected countries could not have been characterized as bank-based in the same sense that they were in the early 1980s (Skully 1982, 1984). Within the framework of rapid economic growth, interest rate liberalization, and other financial deregulation, considerable improvements were made in the infrastructure of capital markets, and the size of the equity and bond markets did expand considerably in the late 1980s and early 1990s (Masuyama, Vandenbrink, and Yue 1999).

Despite the recent growth of capital markets, however, the Asian financial systems may still rightly be characterized as largely bank-based, even for the more advanced emerging market economies (see, for example, Cole, Scott, and Wellons 1995; Della et al. 1995; Fry 1995; Zahid 1995; and Yoshitomi and Shirai 2001). First, perhaps with the exception of Hong Kong, China and Malaysia, the number of listed firms as well as the participation of individual investors in the equity markets are limited. Much of the growth of the equity markets from the late 1980s to the early 1990s was driven by expectations of capital gains associated with booming economies, irrespective of the quality of market institutions or price formation. This was further aided by increased foreign investment, motivated by
portfolio diversification within the environments of financial market liberalization and rapid economic growth (Claessens 1995, Feldman and Kumar 1995). Given the concentrated ownership of shares and the lack of adequate transparency and investor protection, however, liquidity is necessarily limited.

It is true that the market for equities is sizable in emerging East Asia and may even exceed the balance of bank loans in some of them. It should be stressed, however, that the relatively large size of equity markets in these countries does not necessarily reflect the level of sophistication of the market infrastructure. Because equity holders can potentially claim unlimited upside returns (with downside risks limited to the value of initial investment by virtue of limited liability), equity markets can grow even when an existing market infrastructure does not support the development of a market for corporate bonds, for which the upside return is bounded by the contractual face value (Herring and Chatusripitak 2000). In this respect, an active equity market can flourish in a bank-based system, if there are growth opportunities, even in the absence of financial liberalization (Feldman and Kumar 1995).

Second, the bond markets remain even more limited. In virtually all Asian countries where bond markets exist, they are dominated by government securities, which are mostly held to maturity (Yoshitomi and Shirai 2001). Even in Malaysia and Singapore, where there is a relatively large balance of government securities, they are typically held by social securities institutions and the banking system for statutory liquidity requirements. The corporate bond market is virtually nonexistent. Thus, while there is now a fairly well developed market infrastructure, with the captive nature of primary placements and often regulated yields, the bond market has remained the least developed segment of the financial system, especially as a vehicle of long-term corporate financing (Herring and Chatusripitak 2000). As a result, Della et al. (1995) go as far as to call Korean corporate bond issues (largely purchased or guaranteed by banks) as a form of loan packages, and the Philippine bond market (dominated by short-term commercial paper issues) as essentially a money market. The banking sector continues to play a dominant role even in the corporate bond market (see also Endo 2001).

In view of the limited role of capital markets in the region and the perceived need to create a more robust financial system less susceptible to crisis, various initiatives have been made in recent years to foster the development of capital markets in Asia (see OECD 2001, APF 2001). This paper is intended to provide theoretical underpinnings for such initiatives. It will present a theoretical framework for thinking about financial issues from an agency perspective; consider both the benefits of bank finance and the need for market finance; discuss issues involved in designing an optimal financial structure; and draw implications for Asia.

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1The author was a contributor in the process. This paper in part draws on work presented to these fora (Takagi 2001).
The rest of the paper is organized as follows. Section II presents agency perspectives on finance, focusing on issues of imperfect information, agency cost, and the role of finance in economic growth. Section III discusses the economic functions of financial intermediaries. Section IV provides a discussion of why capital markets are important. Section V discusses major conceptual issues relevant to creating an optimal financial structure, including the role of debt finance, the choice and synergy between bank finance and market finance, institutional and regulatory requirements for market and bank finance, corporate governance, and unique challenges for financial sector development in Asia. Finally, Section VI concludes.

II. AGENCY PERSPECTIVES ON FINANCE

A. Finance under Imperfect Information

The financial system of an economy performs two fundamental tasks: (i) to channel savings to productive uses and (ii) to provide corporate governance. In a world of imperfect information, the “financing” role and the “corporate governance” role of the financial system are not independent. If a lender believes, for example, that the funds will be misused by the borrower, otherwise profitable projects will not be funded. Thus, in order to raise outside funds at minimum possible cost, there must be a credible mechanism of corporate governance to minimize the problems associated with imperfect information.

Imperfect information typically manifests itself as asymmetric information, whereby the borrower possesses more information about the profitability of an investment project (as well as about his own creditworthiness) than the lender does. This leads to two types of problems the financial system must address: moral hazard and adverse selection. In the context of credit markets, moral hazard refers to the incentives of borrowers to shirk efforts once the funds are provided, while adverse selection refers to the difficulty of assessing profitability and risk, such that a higher interest rate would attract riskier projects.

How the market mechanism may fail to work under imperfect information is illustrated by the well-known phenomenon of equilibrium credit rationing, which arises because adverse selection and moral hazard cause the probability and expected cost of monitoring to increase with the interest rate (Stiglitz and Weiss 1981). This means that those willing to borrow but cannot at the prevailing interest rate will not be able to bid the funds away from those receiving them by offering a higher interest rate. Moreover, as the cost of monitoring increases, the possibility of equilibrium credit rationing also increases. Williamson (1986) has shown that, with costly monitoring, asymmetry in the payoff functions between lender and borrower alone can generate equilibrium credit rationing, without resorting to moral hazard and adverse selection (see also Williamson 1987).
In his pioneering work on the economics of imperfect information, Akerlof (1970) explained the controlling role of “managing agencies” in Indian industrial enterprises as a solution to the problem of asymmetric information, which is considered severe in developing countries. Likewise, we find large industrial groups and informal financial arrangements, such as family-based or rural financial systems and interlinked transactions, in much of developing Asia (Ghate 1992; also see Hoff and Stiglitz 1990 for an imperfect information approach to rural financial arrangements). Braverman and Stiglitz (1982) have shown how interlinked transactions (whereby credit transactions are simultaneously made with concurrent transactions in another—such as labor, land, or product—market) can mitigate moral hazard problems when the cost of monitoring is high (see also Bell and Srinivasan 1989). These economic institutions can be considered as a response to the problems of asymmetric information within the environment of inadequate accounting and legal rules.

In a world of perfect information with complete markets and no transactions cost, two firms faced with the identical investment opportunity would make an identical decision. In such a world, there would be no role for financial institutions or financial intermediaries, and the choice of debt and equity would make no difference (i.e., the so-called Modigliani-Miller theorem). In the real world, however, information is imperfect, markets are incomplete, and transactions are not frictionless. In such an environment, institutions develop as a way of reducing transactions cost or mitigating the informational problems (Greenwald and Stiglitz 1986). Hence, the effectiveness of a financial system is measured by its ability to overcome the problems of moral hazard and adverse selection.

B. Agency Costs

Within the context of corporate finance, the cost of asymmetric information is called agency cost, which arises from the separation of management and control. Agency costs are made up of (i) the monitoring expenditures by the principal or investor, (ii) the bonding expenditures by the agent or manager (to guarantee that he would not take certain actions that would harm the principal), and (iii) the residual cost associated with the reduction in the principal’s welfare due to the divergence between the agent’s decisions and the welfare-maximizing ones (Jensen and Meckling 1976; also Shleifer and Vishny 1997, Stulz 2000). Agency problems arise from two sources of imperfect information, namely, the “hidden action problem” (i.e., the investor does not see all the actions of management) and the “hidden information problem” (i.e., management has information that the investor does not possess).2

2 According to Stulz (2000), the expressions “hidden action problem” and “hidden information problem” were first coined by Kenneth Arrow.
The agency problem creates a wedge between the cost of internal finance and the cost of external finance, which may stifle profitable investments (Stulz 2000). In the extreme case where the agency problem becomes prohibitively serious, no external funds will be raised. For example, if the investor believes that management will take the funds for personal gains, otherwise profitable projects will not be financed. Self-serving actions of management may include not only consumption (e.g., flashy offices, corporate jets, other perquisites) but also value-reducing expansion and diversification.3

It is for these reasons that a firm generally prefers internal finance, which is cheaper under the presence of agency cost. In fact, not only start-up firms but also large firms, including those in industrial countries, are known to make a predominant use of internal finance. When used properly, corporate mergers and acquisitions can also become an informal way of using internal funds; with mergers and acquisitions, information is internalized and informational asymmetry is mitigated (Allen and Gale 1995). Likewise, corporate groups may also act as an informal market for internal funds. In this respect, the dominance of large family-based corporate groups found in many Asian countries may be a reflection of the severity of the existing informational problems (Khan 1999).

C. Financial Development and Economic Growth

Empirical evidence suggests that economic growth is positively related to the stage of financial development, usually defined in terms of the size of financial markets or outstanding bank assets relative to gross domestic product (GDP) (see Levine 1997 for a review of the literature). The literature seems to suggest that financial development has a positive impact on growth both by facilitating better risk sharing and by better mitigating informational problems. First, productivity growth is achieved through greater specialization or use of long-gestation capital production technologies, both of which would place more and more resources at greater risk (Saint-Paul 1992; Bencivenga, Smith, and Starr 1995). The role of financial markets and institutions is to promote specialization and use of long-gestation technologies by reducing this risk by allowing agents to hold a diversified portfolio or by increasing the liquidity of investments. In the absence of effective financial markets, on the other hand, there would be less specialization and less use of capital inputs, leading to slower economic growth.

Second, a more developed financial system contributes to growth by providing more information about the quality of available investment projects and hence

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3Morck, Shleifer, and Vishny (1990) have shown that acquisitions by the United States (US) involving diversification, purchase of growth firms, and poorly performing management had predominantly negative announcement period returns to bidding firms. During roughly the same period, however, the work of Kang, Shivdasani, and Yamada (2000) indicates that acquisitions by Japanese firms had significantly positive announcement period returns, particularly when financing arrangements with banks were involved.
guiding more resources to better uses; it also enjoys a greater ability to overcome
the problems of moral hazard and adverse selection, hence reducing the cost of ex-
ternal finance. Rajan and Zingales (1998) have postulated that, if this view is
correct, financial development should disproportionately help firms typically de-
pendent on external finance for their growth. They then used the benchmarks
obtained from a sample of US firms, and tested the hypothesis against cross-
country data over the period 1980-1990. Their results indicate that the firms and
industries that are more dependent on outside financing indeed do grow faster in a
financially more developed economy, whether defined in terms of domestic credit
or equity market capitalization relative to GDP.

The effect of financial structure (bank-based or market-based) on economic
growth, however, is less clear. Greenwood and Jovanovic (1990) have emphasized
the informational role of financial intermediaries as a factor contributing to
growth, the point empirically confirmed in a sample of over 80 countries by King
and Levine (1993). By showing the positive contribution of banking deregulation
to faster per capita income growth in the US, Jayaratne and Strahan (1996) have
noted the importance of bank loan quality in raising the efficiency of investments.
On the other hand, Atje and Jovanovic (1993) and Levine and Zervos (1998) have
shown the importance of equity market liquidity (as opposed to equity market size)
as a factor contributing to growth, as market liquidity reduces the disincentive of
savers to invest in long-duration projects with higher returns. It may be that bank-
ing sector development and capital market development independently contribute
to economic growth and that financial sector development is a worthy goal to pur-
sue, irrespective of what structure it may take (Levine 2000).

III. ECONOMIC FUNCTIONS OF FINANCIAL
INTERMEDIARIES

A. Transactions Cost, Imperfect Information, and Incomplete Markets

Even under perfect information, the presence of transactions cost is a suffi-
cient reason for the emergence of financial intermediaries. With transactions cost,
investors with short-term liquidity needs may want to keep their assets in the form
of bank deposits, while banks will mobilize them for longer-term investment. An
important economic role of financial intermediaries is to transform illiquid assets
into liquid liabilities, thus providing better risk sharing among people who need to
consume at different random times (Diamond and Dybvig 1983). With transac-
tions cost and imperfect information, and if there are multiple investors per firm,
there are potential economies to be gained from not duplicating each other’s in-
formation gathering or monitoring activity. An intermediary has a gross cost
advantage in collecting information because the alternative is either duplication of
effort (if each lender monitors directly) or a free rider problem, in which case no monitoring takes place.

In a world of imperfect information and incomplete markets, there are more reasons for financial intermediaries to exist. When it is not possible to specify all contingencies in financial contracts, institutions emerge to use reputation to bond themselves, and achieve negotiated outcomes that are superior to those that can be obtained through direct transactions in the market (Rajan and Zingales 2001). In this respect, the distinguishing characteristic of financial intermediaries is their investment in reputation and relationships with clients, which give rise to their ability to outperform the market. This view of banking is referred to in the literature as the “incomplete-contract” approach (Rajan 1998).4

Relationship banking constitutes the core of modern banking theory (Boot 2000). Long-term relationships associated with bank finance can also reduce the cost of screening and monitoring. The effectiveness of screening and monitoring is further enhanced by the development of expertise and human capital within the banking sector. Anderson and Makhija (1999) have confirmed the benefit of bank monitoring in a sample of Japanese firms in the 1980s, by showing that they typically preferred bank finance to market finance when faced with intangible growth opportunities for which information asymmetry is particularly severe. Likewise, Kang, Shivdasani, and Yamada (2000) have shown that, during 1977-1993, bank-financed acquisitions in Japan had significantly positive announcement period returns, indicating the benefit of bank monitoring in improving the quality of investment decisions.

B. Financing for Small and Young Firms or Uncertain Projects

Bank finance is better suited for financing small to medium-size firms, because it reduces the agency cost associated with lending to entities for which the cost of information acquisition is large. The bank first screens prospective clients. Later, by threatening to cut off credit, it provides the firm with incentives to take the right investments. As a result of the diminished adverse selection and the reduced moral hazard, the bank has the capacity to provide “cheap informed funds” (Rajan 1992). More generally, small and medium-size firms would prefer bank finance because of the large fixed transactions costs involved in securities underwriting and distribution. Capital market finance, especially bond finance, is not a viable option for small firms. Perhaps for these reasons, small firms are dis-

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4According to this view, however, the recent information and technology revolution has reduced the rationale for commercial banks by enhancing contractual possibilities. Rajan (1998) argues that the only thing special about banks now is that they are regulated.
proportionately dependent on bank finance even in financially advanced countries, such as the United States.5

Bank finance (or intermediated finance, more generally) also has a feature that is particularly suited for financing young firms with uncertain prospects (as well as uncertain projects of more established firms), namely its greater ability to provide “staged financing.”6 Under staged financing, a project may start on a scale that allows investors to learn about it and stop funding if it is found unprofitable (Stulz 2000). With bond finance, it is also possible to provide staged financing by rolling over a series of short-term debt. Short-term debt mitigates adverse selection problems because those who would accept contracts of this form more willingly are those who have greater confidence in their venture; short-term debt also mitigates conventional agency problems, because there must be refinancing at short intervals (Dowd 1992). However, the cost of renegotiation is not trivial, diminishing the value of bond finance as a vehicle of staged financing.

If bank finance needs to be staged, the bank must expend resources to assess the project at each stage. It then follows that some restrictions must be placed on competition among financial intermediaries, in order to allow them to extract rents from successful projects, thereby justifying the expenditure of resources on projects to increase their probability of success. Some ability to extract rents is necessary for relationship banking, so as to recoup the cost of the initial subsidy by charging higher than competitive rates when firms are older (Stulz 2000). In fact, there is evidence to show that more credit is available to credit-rationed young and small firms in a concentrated banking market than in a competitive banking market (Petersen and Rajan 1994, 1995; Rajan and Zingales 2001).

This relationship-enhancing aspect of a concentrated banking market, however, should be weighed against the possibility that the ability of monopolistic banks to extract rents from successful ventures may discourage entrepreneurial ventures. Petersen and Rajan (1994) have shown that while relationship banking increases the availability of credit to small firms, it does not pass on cost reductions associated with scale economies in information production to the borrower; likewise, Houston and James (1996) have shown the significant “hold-up” of high-growth borrowers by monopolistic banks by finding a negative relationship between growth opportunities (measured by R&D expenditures or the ratio of market to book values of assets) and reliance on bank finance in a sample of publicly traded US firms in the 1980s, when they had a borrowing relationship with a single bank. On the other hand, Anderson and Makhija (1999) have found a positive

5Gertler and Gilchrist (1994) have shown that tight money disproportionately affects small firms, indicating that they have limited access to capital markets. Houston and James (1996) show that reliance on bank finance is inversely correlated with firm size in a sample of publicly traded US firms.

6In addition to banks, venture capitalists (as inside investors) can also provide staged financing (Gompers 1995).
relationship between growth opportunities and reliance on bank finance in a sample of Japanese firms in the 1980s, suggesting that the relative advantage of bank finance as a vehicle of financing projects with a large agency cost, after all, is an empirical matter.

C. Financial Restraint

Largely motivated by Japan’s postwar experience, Stiglitz and others have recently noted the virtue of restrictive banking sector policy as an instrument of “financial restraint”, which is a moderate form of financial repression (Stiglitz and Uy 1996; Hellmann, Murdock, and Stiglitz 1997, 1998). Under financial restraint, the government sets deposit rates below the competitive level, controls entry and competition in the financial sector, and regulates lending rates, so as to create rents in the banking industry. Rents, defined as returns in excess of those generated by a competitive market, are designed to induce private banks to expend sufficient resources in deposit collection. Unlike the situation under financial repression, however, real interest rates are kept in positive terms through creating a stable macroeconomic environment, so as to encourage savings; in order to minimize potential distortions, some competition is created in the industry. It is argued that, by creating financial restraint, the government can promote financial deepening, a key ingredient of economic development.

In order for financial restraint to work, there must be policies not only to restrict competition within the banking industry but also to restrict the substitution of alternative assets to bank assets. Thus, capital markets are not desirable when the process of financial deepening is beginning, as they compete with banks for household funds. Moreover, developing market institutions is often much more costly and takes much more time than developing concentrated financial expertise in the banking sector. By creating opportunities to earn rents, incentives are also being created for banks to capture them through continued viable operations, which both require greater efforts to screen and monitor the borrowers and facilitate the development of expertise over time. With greater deposit mobilization and better investment decisions, the banking sector is expected to contribute to faster economic growth.

Financial restraint cannot be a permanent arrangement, however. Even if one accepts its virtues at an early stage of economic development, it must be liberalized to allow for a more competitive environment as financial depth is acquired. The regulatory and protective culture that would develop from the policy of financial restraint has the danger of weakening the quality of financial intermediation. Horiuchi (1999) has argued that the creation of rents in the Japanese banking system (which may have served the country well in the early postwar years) created vested interests and resistance to change, causing the Japanese government to err in preserving the system for too long when economic conditions began to change.
In this view, the Japanese banking crisis of the 1990s was a result of the poor management of the transition to a more competitive environment by the government (Hellmann, Murdock, and Stiglitz 1998).

D. Delegation Costs and the Optimality of Two-sided Debt Contracts

If we think of the financial intermediary as a delegated monitor, it has an incentive problem of its own. Besanko and Kanatas (1993) have argued that while borrowers’ moral hazard problem makes bank finance valuable, use of bank finance would be limited in equilibrium by banks’ own moral hazard problem; banks choose the level of monitoring to maximize their own profits, while external investors would prefer that they choose the level of monitoring that maximizes the expected net present value (NPV) of investment projects. The problem of providing incentives for delegated monitoring has been termed in the literature as “delegation costs.” Then, the delegation costs of providing incentives to the intermediary must be netted out from any cost savings in information production. Optimal contracts must be designed to ensure simultaneously that the borrower report truthfully to the intermediary and that the intermediary report truthfully to the investor (Krasa and Villamil 1992).

This issue has been addressed in the literature. Diamond (1984) has shown that a financial intermediary has a net cost advantage over direct transactions because of diversification within the intermediary. This follows from the fact that the per-borrower cost of providing incentives to the intermediary is reduced as it contracts with more borrowers with independently distributed projects, which increases the probability that the intermediary has sufficient loan proceeds to repay a fixed debt claim to the investors (depositors), even though the intermediary is not being monitored by them (also Williamson 1986). With a diversified loan portfolio, it is easier to assess bank management’s performance (which presumably depends more on macroeconomic or aggregate signals) than to assess the performance of management in an undiversified firm. Moreover, the short-term nature of bank deposits exerts discipline on bank management (Stulz 2000).

Krasa and Villamil (1992) have considered the relative performance of “one-sided contracts” (i.e., direct trade between investor and firm, where each investor monitors each firm in case of bankruptcy) and “two-sided contracts” (i.e., financial intermediation between intermediary and firm, and between intermediary and investor, where the investors elect a monitor to perform the costly verification task). They have shown that, from the point of view of minimizing monitoring cost, (i) two-sided simple debt contracts with delegated monitoring dominate di-

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7Besanko and Kanatas (1993) have further argued that, as a result, the equilibrium level of bank debt (and monitoring) would be less than the level preferred by outside investors and that borrowers typically finance their investment projects by a combination of bank loans and market financing.
rect lending and borrowing in an economy with default risk (if there are sufficiently many borrowers), and that (ii) simple debt is an optimal contract for both the intermediary-borrower and intermediary-lender sides of the contract. For the lower end, a deposit with bankruptcy penalties provides the intermediary with incentives for paying the depositors and for monitoring the borrower (see also Diamond 1984, Williamson 1986, and Dowd 1992).

E. The Information Role of Intermediaries

Bank finance has some beneficial informational features. Certain types of proprietary information (e.g., about patents or new products) cannot be communicated to the public without reducing firm value, as it is also conveyed to the competitors. Other types of complex information can only be communicated to markets at a substantial cost, as disclosure must involve “verifiable detail sufficient to indicate the true state of nature” (Myers and Majluf 1984). An equity-financed firm may choose to pass up valuable investment opportunities, if it has sufficiently favorable inside information and acts in the interest of the old shareholders, because the cost of issuing shares at a bargain price outweighs the project’s NPV in some cases. In these cases, bank finance is the preferred way of raising funds at a lower cost. Likewise, a bank may obtain information about the firm in the course of lending, which cannot easily be supplied in any other way.

As inside debt, bank loans also provide positive signals to the market. James (1987) has shown that significant positive abnormal returns accrue to the equity holders of firms announcing new bank loan agreements. Moreover, negative abnormal returns are associated with the announcement of private placements and straight debt issues used to retire bank debt. On the other hand, Lummer and McConnell (1989) have shown that it is loan renewals, not new loans, which affect stock prices, suggesting that banks may not necessarily have informational advantage regarding new borrowers but acquire information from their relationships with the borrowers over time.

F. Financial Distress

When a firm gets into financial distress, it may be because of the poor quality of its projects (in which case, the firm should be liquidated) or for reasons unrelated to project quality (in which case, the firm should not be liquidated but debt be renegotiated, as continuation value is greater than liquidation value).

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8 More general discussion of the optimality characteristics of debt will be deferred to Section V.
9 Bolton and Freixas (2000) have called this cost of equity finance “information dilution cost.”
Lenders are unable to distinguish between the two kinds of situations without devoting additional resources to evaluation. Some have argued that the flexibility of banks in dealing with financial distress, arising from long-term relationships with borrowers, is the single most important benefit of bank finance (Bolton and Freixas 2000).

Financial distress can be costly if free-rider problems and information asymmetries make it difficult for the firm to renegotiate with the creditors, when it is in fact solvent. The free-rider problem is a situation where an individual creditor bears the full cost of renegotiation, all creditors share the benefits, so that no renegotiation will take place. Given the long-term relationship the bank maintains with the borrower, it is more likely to bail out a solvent firm in distress by internalizing the stream of future benefits that result from keeping the firm in business (Rajan and Zingales 2001). This is an example of the ability of bank finance to respond to different contingencies in a flexible manner (Berlin and Loeys 1988).

In contrast, with bond finance, the cost of collective creditor action, hence the cost of debt restructuring, is much higher because ownership is generally diversified. According to Shleifer and Vishny (1997), the higher renegotiation cost may explain why public debt is such an uncommon financing instrument even in a few developed countries where it is available. Moreover, bond finance lacks the flexibility to modify covenants in accordance with the realization of different contingencies. Bond covenants are written in terms of readily observable but noisy indicators of the firm’s ability to repay. As the covenants are based on imperfect information, default policies based on these covenants can be inefficient, when they allow unprofitable projects to continue or profitable projects to be terminated.

The advantage of bank finance in dealing with financial distress is enhanced by the bank’s desire to acquire reputation for “financial flexibility” and making the “right” decisions concerning the choice between renegotiation and liquidation. This provides an incentive for the bank to devote a larger amount of resources than bondholders toward such evaluations. A bank is able to use reputation as a commitment device to promise the borrower credibly that it will devote more resources toward evaluation and thereby make better renegotiation/liquidation decisions if the firm falls in financial difficulty (Chemmanur and Fulghieri 1994).

Hoshi, Kashyap, and Schafstein (1990) have used a sample of Tokyo Stock Exchange listed firms to show that bank group-affiliated firms invest more and sell more than independent firms in the years following the onset of financial distress. Moreover, independent firms that receive a greater fraction of debt financing from their largest lender bank invest more and sell more in the postdistress years. On this basis, they conclude that relationship banking reduces the cost of financial distress, by minimizing the free rider problem and the problem of informational asymmetry. By the same token, however, financial dependence can make firms vulnerable to the banking sector’s own distress. Evidence suggests that firms that
relied more on bank finance contracted investment more, during the Japanese banking crisis of the 1990s (Kang and Stulz 2000).

IV. WHY CAPITAL MARKETS?

Despite these many functions of bank finance, and its particularly useful role under the conditions of severe informational and legal imperfections as typically found in developing Asia, there are several reasons why it is still important to develop capital markets.

A. Lower Average Cost of External Finance

Bank finance can be costly because banks themselves face the cost of capital (Bolton and Freixas 2000). A less obvious source of the higher cost of bank finance is banks’ potential monopoly power, which arises from their ability to learn more about borrowers’ characteristics than their competitors do. While competition may initially keep interest rates low, the lending bank may begin to exploit its monopoly power over time as the borrower becomes “informationally captured” (Sharpe 1990, Rajan 1992). Although the bank may continue to make the best offer because of the difficulty in conveying certain types of information to other banks, it may extract rents from the borrowing firm. The higher cost of bank finance under monopolistic conditions may stifle profitable growth opportunities.

The greater flexibility of bank finance to deal with financial distress also comes with a cost. Firms with a higher probability of financial distress may be willing to pay more for this insurance function of bank finance. Likewise, more risky borrowers may prefer to borrow from banks with greater reputation for flexibility in dealing with firms in financial distress, even if the interest rate charged may be higher (Chemmanur and Fulghieri 1994, Bolton and Freixas 2000). On the other hand, firms with a lower probability of financial distress may not want to pay more for bank finance but prefer to use lower-cost capital market finance, if it is available.

Weinstein and Yafeh (1998) have shown that, prior to the financial market liberalization of the 1980s, Japanese firms with a main bank had lower profits and

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10As another aspect of inefficiency, more funds are allocated to low-quality firms than socially desirable because interest rates are kept low in the initial period when the bank is least familiar with the borrowers (Sharpe 1990).

11This ability to exploit the borrower, however, is limited by the desire of banks to develop good reputation to maintain market share (Sharpe 1990).

12Houston and James (1996) have shown in a sample of US firms that the relationship between growth opportunities and bank finance is negative when a single bank is involved, while the relationship is positive if the borrower has access to market finance or multiple banks.
lower growth rates than their industry peers, suggesting that main banks captured most of the rents through higher interest payments (and through pressure on clients to use large quantities of bank-financed capital inputs). Thus, when capital markets are underdeveloped and entry into the banking sector is restricted, close bank–firm relationships may lead to a redistribution of rents away from the manufacturing sector to the financial sector. In the case of these larger Japanese firms (for which asymmetric information is presumably less severe), access to market finance reduced the cost of external finance. The net benefit of bank finance, therefore, must be assessed by comparing the monitoring-induced reduction in the cost of funds against the value of rent extraction.

B. Efficient Capital Structure

Because a higher agency cost leads to a higher cost of finance, it is in the firm’s residual owners’ interest to choose a capital structure that minimizes agency cost. On the one hand, debt mitigates the conflict between insiders (owners-managers) and outside investors, by committing the former to a prespecified level of payment to outside investors, hence reducing room for opportunistic behavior. On the other hand, as leverage increases, insiders have incentives to engage in activities that promise high payoffs if successful even though they have a very low probability of success. Because of this incentive problem of debt, as well as the monitoring and bankruptcy costs it entails, the firm will never be entirely leveraged. The optimal mix of debt and equity is chosen so as to minimize total agency cost.14

Zender (1991) has considered a world inhabited by active and passive investors, where the active investor holds equity, hence the control of the firm, and the passive investor holds debt. Disagreement may arise between the two investors because of asymmetric information. In this environment, the debt holder’s cash flows are fixed in order to ensure optimal decision making by allowing the controlling investor to realize the marginal product of investment. The potential for moral hazard (i.e., underinvestment or excessive risk taking, given the fixed payment schedule) is offset by the ultimate transfer of control in case of default. Moreover, repaying as much as possible in bankruptcy states allows the fixed repayment in

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13 The main results are: (i) the share of capital used by main bank clients was significantly higher than that of independent firms prior to 1980, but the difference in capital use virtually disappeared since; (ii) the transfer of rents from client firms to main banks often took the form of higher interest payments; (iii) main bank client firms grew no faster than independent firms; and (iv) main bank client firms did not outperform their independent peers in terms of growth and profitability (Weinstein and Yafeh 1998).

14 Demirguc-Kunt and Maksimovic (1994) present an empirical application of the agency-theoretic approach to capital structure in developing countries (including India, Korea, Malaysia, Pakistan, and Thailand); the results were broadly consistent with the predictions of the theory based on annual data for 1980-1991.
nonbankruptcy states to be minimized, thus minimizing the probability of bankruptcy and hence the cost (Gale and Hellwig 1985).

Because agency cost reflects the cost of information gathering and legal enforcement, it is not independent of the nature of the firm’s business, the development of financial institutions and markets in the economy, and the efficiency of the legal system. Jensen and Meckling (1976) have argued that when the incentive effects of outside equity and debt are very different, there will be specialization in the use of the low agency cost financing arrangement. For example, in industries where it is easy for management to reduce firm value by outright theft (e.g., the restaurant industry), the ownership structure should be characterized by relatively little outside equity, with almost all outside capital obtained through debt. On the other hand, in conglomerates where it is easy to shift outcome distributions adversely for debt holders, the structure should be characterized by a relatively lower use of debt. In industries where the freedom of management to take riskier projects is severely constrained, such as regulated industries, there should be more intensive use of debt financing. The upshot is that the optimal financial structure of an externally financed firm is usually some mixture of debt and equity. Without well-developed equity markets, it is difficult to achieve an optimal financial structure.

C. Corporate Control

When external funds must be raised, the premium over the cost of internal finance needs to be reduced by a credible mechanism of corporate control. One of the devices used for this purpose is equity, which gives voice to the investor in the direct control of the firm. In contrast, public debt provides less binding control on management, particularly when the maturity is long; in the case of long-term zero coupon bonds, there is virtually no monitoring of management. For shorter-term maturity bonds, however, each possible rollover becomes an opportunity to monitor management. In terms of this characterization, a pecking-order theory of governance structure has been suggested in which the firm first wants to start with internal funds, then long-term and short-term debt, followed by equity, which gives full control to the investor (Aghion and Bolton 1992).

Capital markets exert discipline on management not only through outside control but also through security prices and pressure for better disclosure and transparency. In a liquid market, public trading of securities can also provide managerial incentives through the market’s constant assessment of managerial decisions (Holmstrom and Tirole 1993). Although financial intermediaries can perform these functions, in practice, the viability of long-term relationships inherent in bank finance necessarily requires some degree of opacity (Rajan and Zingales 2001), creating an environment conducive to misguided decisions, such as excessive risk taking. This danger is particularly strong when banks are state-
owned or closely connected with family or industrial groups, or when full deposit insurance creates moral hazard for banks.

Equity possesses several control mechanisms to align the interests of management with those of equity holders. First, shareholder meetings are a formal mechanism of management control, although the ability of small shareholders to voice their views may be limited. Second, performance pay (e.g., bonuses or stock options) is another control mechanism, allowing managerial compensation to rise with firm value. Third, a takeover (or just a threat of it) can discipline management by serving them notice that they will be ousted if they do not act in the best interest of equity holders. Managers will then be less likely to take self-serving actions that may lower firm value and increase the probability of a takeover (Scharfstein 1988; also Stein 1988).\footnote{Whether or not these control mechanisms work in practice is a different story. First, with shareholders’ meetings, it is difficult and costly to coordinate the interests and actions of small shareholders to influence the management who may have superior information. In order to exert any real control, equity ownership must be reasonably concentrated but, with concentrated ownership, the interests of large shareholders may be served at the expense of small shareholders (Stiglitz 1985). Second, available empirical evidence suggests that performance pay is not used sufficiently to minimize agency problems, perhaps owing to political and social constraints that limit huge payoffs for exceptional performance (Jensen and Murphy 1990). Third, while a liquid market is essential for the takeover mechanism to work, there is no guarantee that shareholders, if convinced of the raider’s ability to increase firm value, will be willing to sell their holdings. Nor is it clear, in the first place, that the raider’s assessment of firm performance is superior to that of the current management who should have informational advantage.}

These disciplinary roles of equity finance are precisely the reasons why equity markets do not develop in many developing countries. Owner-managers do not want to dilute their control through equity issues; nor do they want to expose their books to the public. However, there is a limit to the ability of start-up firms to expand through internal finance alone. If the owner-manager relies too much on debt for external finance in order to retain control, the risk of default, hence the probability of losing control to the creditors will rise. Thus, the owner-manager must sooner or later begin to weigh the marginal cost of diluting control rights to new shareholders against the marginal cost of debt and default (Aghion and Bolton 1992). Furthermore, the perceived risks of small start-up firms may be so high that investors are willing to invest only if they get an equity stake to share the upside returns (Bolton and Freixas 2000).

\section*{D. Efficient Resource Allocation}

Market finance provides price signals for investment decisions, hence leading to a more efficient allocation of resources. This, of course, presupposes that the capital markets are well developed, such that securities are correctly priced. For this to hold, there must be accurate disclosure of balance sheet information and a competent financial analysis industry, the conditions not likely met in most developing countries. When these conditions are met, however, capital market fi-
nance permits information feedback from equilibrium market prices to the decisions of firms, which in turn affect those market prices (Boot and Thakor 1997). In contrast, with relationship banking, there are no price signals to guide investment decisions, so that the effective cost of financing can deviate substantially from the true risk-adjusted cost (Rajan and Zingales 2001).

Here, there is a synergy between equity market development and bond market development. For a bond market to develop, there must be a well-developed equity market capable of processing complex information. In contrast, an equity market can develop without a well-developed bond market, particularly in a growing economy where downside risks are low. Given the principle of limited liability, equity holders may even be willing to invest in shares of poorly disclosed company stocks in order to benefit from upside gains. An efficiently priced equity market, however, will not develop without a well-developed bond market, which provides the correctly priced term structure of risk-adjusted discount rates (Herring and Chatusripitak 2000). Boot and Thakor (1997) have argued that the active use of bond finance by US firms can be explained by the greater information content of price signals in the US capital markets where a significant number of firms are covered by financial analysts.

Another source of resource misallocation comes from the nature of banks as creditors. Because the value of debt falls as risk increases, banks have incentives to discourage risk taking. Consequently, banks evaluate additional investment decisions differently from the firm, preventing otherwise profitable opportunities from being financed.16 On the other hand, when state intervention (in the form of implicit guarantees) creates moral hazard, banks may take excessive risk by engaging in speculative activities, the phenomenon recently observed in the crisis East Asian countries. Likewise, when banks are controlled by family business groups, inefficient credit allocation may result from lending made to affiliated firms (Fry 1995). These problems of outright misallocation do not exist at least to the same extent with market finance, particularly equity finance.

Resource allocation is also affected by incentives. When bank finance involves an element of revenue sharing (e.g., providing intertemporal subsidies by lending at lower interest rates to young firms in exchange for higher interest rates later), banks may use their bargaining power to extract rents when the investment turns out to be profitable. In these cases, management’s incentives to exert effort will be reduced, as it can no longer claim all of the marginal product of investment. In contrast, market finance would allow the borrower to realize the marginal product of investment. For this reason, market finance gives greater incentives to exert effort, hence better allocation of resources (Rajan 1992).

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16 Weinstein and Yafeh (1998) show that Japanese main banks have inhibited firm growth by discouraging risky yet profitable investments. This tendency, however, can be mitigated to some extent by allowing banks to hold equity (Stulz 2000).
E. Financing for Innovation

An important feature of debt finance is the requirement of collateral in one form or another. Even when debt is not explicitly secured, it is still effectively collateralized by the value of the whole firm (Stulz 2000). While collateral can be an efficient means of resolving moral hazard and adverse selection problems by making default more costly (Chan and Thakor 1987), this feature of debt finance is more conducive to financing of fixed assets than to economic growth, particularly when it involves innovative activities (such as R&D) that do not necessarily yield collateral. Some have thus argued that equity finance is essential as a way of financing intangible assets, including growth opportunities. Rajan and Zingales (2001) have observed that equity-financed industries tend to have few hard assets, and the development of accounting and legal standards would make it easier to finance intangible assets with equity. In contrast, in economies with inadequate accounting and legal standards, the resultant greater use of debt finance tends to distort asset holdings towards fixed capital.

A well-developed equity market, moreover, promotes innovation by permitting venture capitalists to exit through an initial public offering (IPO). Exit is important because the investors need to evaluate the venture capitalists’ skill as well as the risks and returns on the investments, and to be able to withdraw the funds if necessary (Black and Gilson 1998). The potential for exit through IPOs, made possible by a well-developed equity market, allows the venture capital provider and the entrepreneur to enter into an implicit contract over future control of the portfolio company; to the extent that the entrepreneur values retaining control, but is not able to do so at the time of the initial venture capital financing, an IPO allows the entrepreneur to reacquire control if the project is successful. In the absence of a liquid stock market, the only way of exit is by selling the company to a larger company (Black and Gilson 1998).

More generally, market finance (including both equity and bond finance) is particularly useful when diversity of opinion or serendipitous information becomes more important, such as when there is great demand uncertainty about introducing a new product (Allen and Gale 1999, Subrahmanyam and Titman 1999). Serendipitous information here refers to the type of information that is generated in the market place and is more likely held outside the firm.\(^{17}\) Likewise, firms that rely on complex or new technologies also gain more from the feedback role of market finance. In contrast, bank finance may be more suited for traditional industries where there is consensus on how the firms should be run (Allen and Gale 1995). In the case of new or dynamic industries where innovation matters and wide agreement is lacking, however, loan or monitoring decisions by a few bankers may

\(^{17}\) Serendipity is defined as the extent to which investors may by chance come across valuable information in their day-to-day activities.
not be adequate (Allen and Gale 1999). Banks may not possess the needed information; even if it does, it may not be able to process the information correctly. In either case, banks may fail to provide financing to promising but uncertain investments.

V. CREATING AN OPTIMAL FINANCIAL STRUCTURE—ADDITIONAL ISSUES

A. Optimality Characteristics of Debt

When informational asymmetry is particularly severe, the ability of debt finance to economize on monitoring becomes useful as a control device: debt carries no need for monitoring as long as the borrower is making the stated coupon payment. In a class of what is called costly state verification (CSV) models (in which verification is costly and the agents have limited wealth), first developed by Townsend (1979), the optimal contract is shown to be a simple debt contract, which requires a fixed repayment when the firm is solvent, requires the firm to be declared bankrupt if this fixed payment cannot be made, and allows the creditor to recoup as much of the debt as possible from the firm’s assets.

In these models, debt is optimal in the following way. In an alternative scheme, if the payment to outside investors varies with the reported cash flows, the firm may have an incentive to underreport its cash flows. If there is no way of verifying the true cash flows, the firm will always underreport its cash flows and the investor will not recover the investment. Debt is a way of solving this problem by designating certain levels of reported cash flows as being subject to verification. If a low cash flow report results in verification (i.e., default or bankruptcy), the firm with a high realized cash flow may not want to underreport.

The potential for deception is limited by two factors. First, if the firm falsely underreports to the point of requiring verification, it will certainly be found out because the contract requires the investor to observe the true state. Second, in order for the investor to be deceived, he must receive the same income as if the announced state had actually occurred. If that is the case, it must be that the firm is able to pay this income from the actual revenues (Gale and Hellwig 1985). This feature of a debt contract that encourages truthfulness on the part of the firm is called “incentive-compatibility.” In other words, with debt, the borrower has no incentive to lie about the true state, even though the contract is made contingent, not on the true cash flows, but on the reported cash flows.

Debt also exerts a disciplinary effect on management, because a default would give the creditor the option to force the firm into liquidation. Thus, management has an incentive to avoid that possibility by making sound investment decisions. If the cost of bankruptcy is low, high leverage works particularly well as an incentive and monitoring device, because liquidation becomes a real possibility.
in the event of mismanagement. Management that makes mistakes will not be able to repay the debt, and ends up yielding the control of the firm to the creditors (Harris and Raviv 1990, and Stulz 2000). In sum, debt is optimal because (i) it dispenses with the need for costly verification in good states; (ii) as management receives nothing when verification takes place, it tries to minimize the probability of verification taking place; and (iii) it is incentive-compatible (Townsend 1979, Williamson 1987, Chang 1990, and Dowd 1992).

B. The Choice between Bank Finance and Market Finance

Market finance and bank finance coexist because they address different types of informational problems with different degrees of effectiveness. In broadest terms, bank finance is better suited for mitigating the problems of asymmetric information, while market finance has a superior allocative function through its ability to provide price signals. Thus, the choice between bank finance and market finance is effectively a tradeoff between a more efficient attenuation of moral hazard and improved real decisions associated with feedback from market prices.

Boot and Thakor (1997) have conceptualized this tradeoff by assuming two types of investors (traders), called discretionary and liquidity traders. Discretionary traders pay a fixed cost to become either an informed trader or a monitoring trader. The financial market consists of informed traders, uninformed discretionary traders, and liquidity traders, where the presence of liquidity traders makes prices noisy and sustains the ex post trading profits of informed traders. Banks consist of monitoring agents and nonmonitoring depositors. The financial market is ineffective in deterring borrowers from investing in an unprofitable project. The bank, on the other hand, specializes in deterring borrowers from investing in unprofitable projects, but it learns nothing about the firm-specific piece of information that is conveyed by the market signal.

In this environment, it is shown that the firm chooses a combination of bank finance and bond finance by optimally balancing the benefits of bank monitoring and financial market information aggregation. If asset-substitution (postlending) moral hazard is severe, the firm is likely to choose considerable bank funding to induce sufficient monitoring. If moral hazard is low, the firm can better exploit the information aggregation benefits of financial markets by borrowing more by public bond issues. This prediction is consistent with the observation that firms in industries with substantial state verification (hence, little need for additional monitoring) use capital markets, while firms in industries that require a lot of monitoring use banks (Boot and Thakor 1997).
C. Reputation Acquisition through Bank Loans

Reputation can to some extent mitigate the problems caused by asymmetric information. Diamond (1989) has analyzed the joint influence of adverse selection and moral hazard on the ability of reputation to eliminate the conflict of interest between borrowers and lenders about the choice of risk in investment decisions. If there is initially widespread adverse selection, such that a large proportion of borrowers have undesirable characteristics, reputation effects are too weak to eliminate the conflict of interest for borrowers with short track records. Adverse selection becomes less severe as time produces a longer track record, and a good reputation can eventually become strong enough to eliminate the conflict of interest for borrowers with a long record of repayment without a default. If adverse selection is initially not substantial, reputation can begin to work immediately.

Because reputation requires time to develop, new borrowers face more severe incentive problems and would be most likely to utilize costly methods for dealing with such problems, including restrictive covenants in bond indentures and additional monitoring by a financial intermediary. The incentive problem is that debt contracts may encourage risky and less valuable projects. With a long time horizon, the reduced interest rates for a borrower who does not default imply that the present value of the borrower’s rents for any constant investment decision rises over time. The value of a good reputation rises over time, as does the cost of default. Therefore, over time, the payoff of a risky project declines relative to a safe but profitable project. The reputation itself becomes a valuable asset, and a single default causes a large decline in its value (Diamond 1989).

If moral hazard is sufficiently widespread, new borrowers will begin their reputation acquisition by being monitored by a bank and later switch to issuing bonds. A borrower’s credit record acquired when monitored by a bank serves to predict future actions of the borrower when not monitored. A bond is a contract with terms that depend only on public information. A bank loan uses this information plus information from costly monitoring of a borrower’s actions to condition the decision to grant a loan or to condition the loan’s covenants (Diamond 1991). Firms build reputation by taking on costly finance, and those that acquire good reputations then switch to bond finance to save monitoring costs. Evidence based on a large sample of US firms does confirm that reputation (proxied by the age of borrowers) and bank finance both reduce the yield spread of first-time public bond issues (Datta, Iskandar-Datta, and Patel 1999).

D. Institutional and Regulatory Requirements for Market and Bank Finance

Market finance and bank finance have different levels of institutional requirements. The infrastructure that supports market finance includes an appropriate legal framework, well-defined accounting and disclosure standards, ef-
ficient clearing and settlement systems, capable underwriting and distribution networks, and a competent financial analysis industry, including independent rating agencies. In addition, a viable bond market requires the rigorous and speedy enforcement of contractual terms, while a liquid equity market presupposes an adequate system of investor protection, including rules against insider trading. As noted earlier, while an equity market can flourish without a bond market, it may not be efficient. An equity market that is efficient in the processing of information presupposes the existence of an efficient bond market (Herring and Chatusripitak 2000).

In contrast, bank finance can function even if laws are poorly drafted and contracts not enforced. While market-based systems require transparency as a guarantee of protection, relationship-based systems are designed to preserve opacity, which has the effect of protecting the relationships from the threat of competition (Rajan and Zingales 2001). In fact, some restrictions on competition and disclosure are necessary for relationship banking to thrive. With too much competition and disclosure, hence with a reduced ability to appropriate rents, there is little incentive for banks to invest in resources in project evaluation, in which case they do not develop expertise, unprofitable projects might be started or continued, or fewer profitable projects would be funded. With too little competition, on the other hand, the bank may become too powerful, reducing the payoff to innovative activities, hence making it less likely that profitable projects will be undertaken (Rajan 1992).

E. Corporate Governance and Market Liquidity

The corporate governance role of equity finance may be compromised by attempts to enhance the quality of price signals through disclosure, fair trading and other investor protection measures designed to improve market liquidity. While market liquidity improves performance monitoring by enhancing the information content of securities prices (Holmstrom and Tirole 1993), a diversified equity holding inherent in a liquid market weakens the equity holders’ stake in the firm. On the other hand, concentrated ownership may be better able to discipline management by minimizing the free rider problem inherent with diversified equity holding. It may be for this reason that concentrated equity holding is known to be widespread and very substantial where present (Shleifer and Vishny 1986, 1997).

There is thus a tradeoff between market liquidity (enhanced by diffused ownership and information) and corporate governance (enhanced by concentrated equity holding), so that attempts to increase market liquidity may weaken corporate governance, unless they are accompanied by efforts to strengthen the requisite legal systems. Active equity holders who reduce agency cost by providing internal monitoring reduce market liquidity by creating information asymmetry. Conversely, equity market liquidity discourages internal monitoring by reducing the
cost of exit for dissatisfied equity holders. It is said that US securities laws and rules since the New Deal have discouraged concentrated equity holding, with disclosure regulations and restrictions on insider trading, which are designed to protect small equity holders and to reduce the risks of diffused equity holding. Against the gains in market liquidity, Bhide (1993) argues that the lack of concentrated equity holders has created serious corporate governance problems in large US firms. Ideally, there must be a calculated balance between diffused and concentrated equity holding, if the equity market is to play an effective corporate governance role.

Obviously, the benefit of a liquid market is the lower cost of information gathering. There is a synergy between market liquidity and the development of institutions that reduce the cost of information gathering. In the US, compared with other countries, there are a far more number of investment banks and financial analysts engaged in producing information about companies, reducing the cost to investors of evaluating firms (Chemmanur and Fulghieri 1999). Because these security analysis activities reduce the agency costs associated with the separation of ownership and control, they are socially productive, although they may not increase the rate of return (Jensen and Meckling 1976). As noted, this of course comes at the expense of effective corporate governance.

The benefit of market liquidity (relative to corporate governance) depends on the nature and type of information that is relevant to the firm in question. When investors receive different signals, diversified holding can generate better information than can be generated by more concentrated holding. Thus, the advantage of public financing increases as costly information becomes more diverse and cheaper to acquire. Moreover, as the equity market develops, the information conveyed by stock prices generally improves, which in turn increases the incentive for private firms to go public and for conglomerates to spin off independent business units. The same argument made for the value of equity finance when information is serendipitous applies here for the value of a liquid market with diversified equity holding (Subrahmanyam and Titman 1999).

F. Challenges for Financial Sector Development in Asia

The banking industry in most of Asia has certain features that are not well captured in the characterization of financial intermediaries in the academic literature (Okuda 2000). First, a large segment of the private banking sector is controlled by family business groups. Second, the share of state-owned banks is significant, though generally declining over time. Third, as a result of economic and financial liberalization, the nature of the historical tripartite relationship between governments, banks, and businesses has changed in the direction of smaller state involvement, causing the profitability of conventional banking to decline. Fourth, most Asian banks are small in size.
These conditions present unique challenges to the bankers and bank regulators of Asian countries. Limited size constrains the ability of banks to exploit the economy of scale in use of resources on developing financial expertise. Incentives to screen and monitor borrowers are limited by the culture and history of family control or state intervention. In the current environment of greater deregulation, moreover, Asian banks are increasingly orienting themselves toward consumer finance and other high-return activities of short-term nature, limiting their role in maturity transformation. Hence, in order to ensure that banks do well what they are supposed to do, we must not only safeguard their managerial autonomy from family control or government intervention, but also make sure that they be provided with sufficient resources and appropriate incentives to develop the capacity to collect and analyze information about their borrowers (Khan 1999, Okuda 2000).

The strategy for capital market development in Asia must take account of this reality of the banking sector. While it is important to develop capital markets as an alternative and potentially lower cost alternative of external financing, capital markets should not threaten the viability of the banking sector, which is likely to remain the predominant source of financing for a large segment of Asian economies. In this regard, universal banking may be a definite option, as it promotes the formation of larger institutions in a manner consistent with a liberalized financial regime necessary for capital market development. If implemented properly, financial restraint can be an acceptable policy for developing a strong banking sector, but it is not compatible with capital market development in the long run.

Recent research suggests that universal banking can yield considerable benefits in terms of better underwriting services (even for small firms) without necessarily undermining the viability of investment specialists, other specialized financial services or capital markets; potential conflict of interest problems do not seem to be significant (Benston 1994; Gande, Puri, Saunders, and Walter 1997; Puri 1999). The presence of well-established banks as equity investors may also be useful in the early stages of capital market development when effective corporate governance requires monitoring by concentrated yet independent shareholders.

VI. CONCLUSION

This paper has presented a review of major conceptual issues discussed in the academic literature, as a framework in which to conceptualize the rationales and strategies for fostering capital markets. The paper has argued that the presence of severe informational asymmetry explains the predominance of bank finance in much of developing and emerging Asia, as bank finance has advantage over capital market finance in mitigating adverse selection and moral hazard through closer monitoring. In an environment where accounting and disclosure rules are inade-
quate and legal enforcement is weak, it is difficult to develop capital markets; equity tends to be held privately or in a concentrated manner, so that the equity market remains illiquid.

Given the time it will take to develop adequate legal frameworks and other requisite institutions, bank finance is likely to remain the dominant source of external finance for a large portion of developing and emerging Asia, especially for smaller and younger firms. Thus, high priority should be given to improving the quality of bank intermediation by taking measures to safeguard the autonomy of banks from family or state control, develop expertise in screening, monitoring and information gathering, and minimize moral hazard arising from the provision of a deposit guarantee. To create sufficient incentives, it may be necessary initially to insure sufficient size and rent creation, but too strong a banking sector will begin to stifle profitable investment opportunities. It is also in this sense that developing capital markets becomes important as an alternative source of external finance.

The choice between bank finance and market finance is influenced by the country’s stage of economic development as well as by the government’s regulatory policies. The benefit of capital market finance increases with the development of financial and legal infrastructure, which reduces the cost of information acquisition, improves the informational content of securities prices, and ensures that covenants are enforced. With the country’s financial development and the maturing of larger firms with long credit histories, more firms with a lower agency cost may want to benefit from the lower cost of capital market finance. It is thus important that policymakers create an appropriate legal and institutional environment that is conducive to the working of natural economic forces driving firms to move from bank finance to capital market finance.

With the passage of time, a well-developed, liquid equity market will become increasingly beneficial for the financing of technical innovation and new economic activities. While use of debt finance tends to distort asset holdings toward fixed capital, equity finance facilitates the development of innovative activities (such as R&D) that do not necessarily yield collateral; a well-developed equity market supports a venture capital industry by allowing venture capitalists to exit through an IPO. At the same time, market finance in general becomes valuable with economic development, which causes information to be held more widely in the economy. In these and other ways, the innovation-promoting and price signaling roles of market finance are expected to become more important in Asia, where there will be an increasing need to support technical innovation and to process an ever more complex set of information.
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