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John Bonin and Paul Wachtel

Financial sector development in transition  
economies: Lessons from the first decade

Bank of Finland  
Institute for Economies in Transition, BOFIT

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Lessons from the first decade**

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All opinions expressed are those of the author and do not necessarily reflect the views of the Bank of Finland.

John Bonin \* and Paul Wachtel \*\*

## Financial sector development in transition economies: Lessons from the first decade

### Abstract

The first decade of transition witnessed rapid and tumultuous financial sector development. Although, few transition economies have reached the point where institutions and markets fulfill all the functions of market based financial intermediation, progress has been much more rapid than had been anticipated. In many countries, active market-oriented financial institutions function where there was only a state planning mechanism a decade ago. Initial experiences showed that bank privatization programs often failed to achieve independence from government control and from undesirable weak clients. It is now widely accepted that the participation of foreign strategic investors in banking is an effective way of meeting these goals. Capital market development is complicated by the need to support the development of institutional infrastructure and regulatory mechanisms while at the same time avoid interfering in the markets. In many instances policy makers expected immature markets and institutions to accomplish unattainable goals. Equity markets cannot be effectively support mass privatization programs. There are still many missing pieces in virtually all of the transition country capital markets.

Key words: capital markets, financial sector, privatization, transition economies

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John Bonin and Paul Wachtel

## Financial sector development in transition economies: Lessons from the first decade

### Tiivistelmä

Järjestelmämuutoksen ensimmäisen vuosikymmenen aikana siirtymätalouksien rahoitussektori on muuttunut erittäin paljon ja nopeasti. Muutos on ollut odotettua nopeampi, vaikka harvalla siirtymätaloudella on vielä tehokkaaseen rahoituksenvälitykseen tarvittavat instituutiot ja markkinat. Useissa maissa rahoitusjärjestelmä perustuu kuitenkin markkinoiden toimintaan, kun vielä vuosikymmen sitten toimintaa ohjasi valtion suunnittelujärjestelmä. Järjestelmämuutoksen alussa pankkien yksityistäminen ei useinkaan johtanut todelliseen riippumattomuuteen hallituksesta ja heikoista asiakkaista. Nykyään uskotaan, että ulkomaisten strategisten sijoittajien mukaantulo on erittäin tärkeää. Pääomamarkkinoiden kehittyminen on monimutkainen prosessi, joka tarvitsee tuekseen sopivia instituutioita ja valvontajärjestelmiä. Nämä järjestelmät eivät kuitenkaan saa estää markkinoiden toimintaa. Usein kehittymättömiltä markkinoilta odotettiin liikaa. Massayksityistämisen kautta osakemarkkinoille tuli liikaa osakkeita. Kaikkien siirtymätalouksien pääomamarkkinoilta puuttuu edelleen useita osia.

Asiasanat: rahoitussektorin kehitys, rahoituksenvälitys, rahoitusjärjestelmä, pääoma markkinat, siirtymätaloudet

# 1 Introduction - The special characteristics of transition

Broadly speaking, the role of the financial sector in all economies is to channel resources from primary savers to investment projects. The importance of this financial sector role has received much attention in the recent literature on economic growth. A strong consensus has emerged in the last decade that well-functioning financial intermediaries have a significant impact on economic growth.<sup>1</sup> Modern economies have a wide range of market-oriented institutions for facilitating this process. In planned economies, this process was conducted by administrative arrangements and there were few market-oriented elements of the financial sector. The only ubiquitous financial institutions in the pre-transition planned economies were banks, which acted as recordkeepers for the planning process and payment agents among state entities rather than as financial intermediaries. Although these banks had the appearances of real banks, they did not function as banks would in a market-oriented economy.

Thus, the first step in the transition process for the financial sector is the development of market-oriented financial sector institutions. Given the unique problem faced by the financial sectors in formerly planned economies, many observers expected that the transition process would extend over many years. In fact, many transition economies have made remarkable progress in the first decade of transition. Although financial sectors are far from perfect, the elements of market-oriented intermediation are already the rule rather than the exception throughout the transition world.

Although banks are the most visible and often the dominant financial sector institutions, they are only one part of the process of financial intermediation. Financing arrangements that allocate resources in a market economy fall along a broad and long continuum. Financing starts with the entrepreneur, who collects the savings of friends and family, and extends to the large firm that raises capital in a variety of ways, ranging from the issuance of publicly traded equity to internationally syndicated loans and private placements. There are many modes of financing and different types of institutions to facilitate these. The modes can be grouped into three broad categories:

- *Entrepreneurial finance*

Entrepreneurial financing begins with the efforts of start-ups to utilize self-financing, e.g., the personal saving of the entrepreneurs' friends and family. It is quite important in all economies, including the transition economies, where large numbers of start-ups do occur. However, the paucity of data on the financial activity of new enterprises in transition economies makes it difficult to examine how much investment goes on and how well it is channeled.

In many places, efforts are made to provide some formal institutional structures for financing start-ups. In most instances, these involve governmental efforts to assist entrepreneurial finance, such as the Small Business Administration in the U.S. Some of the transition economies have developed similar programs with quasi-governmental support for entrepreneurs. For example, government-sponsored micro lending programs have been started in several countries. Another example is technology centers that channel physical resources to favored scientific enterprises and help them obtain financing often with some

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<sup>1</sup> For a critical survey and evaluation of the literature on finance and growth, see Wachtel (2001).

form of guarantee. It should be pointed out that these efforts, in both developed and transition economies, are often government-run and not market-oriented.

Finally, trade credit provides an important source of informal interfirm financing that is particularly valuable to small firms. In developed countries, trade credit is an important but often overlooked source of finance. Channeled from large firms to small firms, it provides the latter with working capital and enables them to cope with financial difficulties. In the transition economies, trade credit has a bad reputation because it often results from interfirm arrears and soft budget constraints.

- *Bank lending*

As firms grow, they turn to formal financial sector institutions for financing needs, starting with banks. In some transition countries, bank lending to the business sector remained primarily a simple extension of government soft lending to state-owned firms. Hence, the banks accumulated large portfolios of non-performing loans and required extensive recapitalization. In the more advanced transition economies, bank lending at the behest of the government has stopped and the banking sectors in a few countries have been privatized successfully. In these countries, bank lending to business is on commercial terms using appropriate credit standards.

Nevertheless, there is a tendency to expect banks to do more than they can reasonably accomplish. In some developed economies (including the U.S.), capital market financing is as important as bank lending. Still, banks are important institutions because credit ratings by banks and the relationships between firms and their banks are important sources of information to other credit market sources. In other countries, which follow a German bank-oriented rather than a market-oriented approach to corporate financing, bank lending is more important. Even in these countries, banks are often intermediating between investors and other financial institutions. In both typologies, banks are important partly because they work in conjunction with other financial institutions.

- *Capital market financing*

The next step in business financing is access to capital markets. Capital market activity can start at the early stages of a firm's development with venture capital. Initially, institutions provide *angel financing*, *i.e.*, start-up capital for an entrepreneur who lacks the track record needed for bank financing or even trade credit. As a firm develops, venture capitalists provide *long term loans* or *private equity* or *private placements* that supplement any short-term financing available to the firm.

A fully developed enterprise is likely to turn to public capital market flotations such as *publicly traded equity* or *bonds*. Although much of the supporting financial sector infrastructure and institutions has been slow to develop in the transition economies, the more sophisticated institutions do exist, or at least they appear to exist. In particular, extensive equity markets are common in the transition economies.

There are some clear reasons for the rapid development of these markets. First, in countries that relied on voucher methods, equity markets got a kick-start from the privatization process. Privatization led to extensive equity ownership of firms but often the stakes were quite small and the holdings were dispersed. Thus, all of a sudden some transition economies found themselves with extensive equity markets.

Private sector bond markets are less well developed. The macro environment is not sufficiently stable to encourage much long-term bond financing of firms. Most bond issues in the transition economies are government debt. However, the extensive interest of asset

owners around the world in transition economic assets has led to the rapid development of government bond markets in many areas.

Finally, another significant source of capital market financing for firms in some transition economies is the international capital market. Both sovereign borrowers and the largest firms in the transition economies have had considerable direct access to international markets, in the form primarily of bond issuance and private equity placements. In addition, there have been examples of firms selling equity in international markets. Access to international capital markets facilitates the flow of portfolio investments in the transition economies. However, at the same time, international access for just a few top companies stifles the development of domestic capital markets because of cream skimming.

This continuum of financing applies both to the sources of financing usually available to a firm as it grows from a start-up to a large publicly held corporation and to the development and maturation of the financial sector of a developing economy. However, the transition economies are not analogous to traditional developing countries in that their pre-transition environment differs significantly from the environment in other emerging markets. In some, inherited industrial sectors are highly developed with companies competing in global markets selling world-class products. Most have very uneven pockets of development throughout their industrial sectors. All have financial sectors that are undeveloped compared to the level of development in the economy. At the same time, these financial sectors have institutions with some of the characteristics of similar institutions in developed market economies. Perhaps the most important examples are the large state-owned banks that, as a network, collect household deposits and provide financial services, e.g., record keeping and payment facilities, to the state-owned companies. In addition, the transition process has led to the rapid development of other institutions, particularly equity markets that were thrust into prominence by privatization processes in many transition countries.

The transition economies differ in size from large countries, e.g., China and Russia, to many fairly small countries, e.g., Hungary, and to some tiny countries, e.g., Estonia and Slovenia. The extent to which different elements of the continuum of financial sector institutions develop will depend on country size. Ultimately, small countries are unlikely to develop the full continuum of markets and institutions. In such cases, access to foreign capital and global financial markets will substitute for domestic institutional development. This phenomenon is not restricted to transition or emerging markets but is characteristic of well-developed small countries as well. Capital markets in the smaller transition countries of Central Europe should be compared to those in developed small open economies, e.g., the Scandinavian countries, as opposed to the United States or Western Europe.

Nevertheless, uneven development of the real sector and the immaturity of the financial sector leave the transition economies with gaping institutional and legislative holes in their financial spectra. In addition, evolutionary strategies have been discarded as taking too much time given the importance of the financial sector to the modern economy. For these reasons, any analysis of transition economies should consider both on the development of financial institutions and on the importance of the missing pieces to the overall functioning of the financial sector.

Our focus will be on the two parts of the financing spectrum that have received most attention in transition economies, banks and capital markets. In section 2, we discuss banking in transition by first providing a broad overview of the issues, then illustrating the principles with country experiences, and finally concluding with lessons from these experiences. Banking gets the most attention in the literature on the financial sector because of

its role in the payments system.<sup>2</sup> Section 3 uses this same framework to evaluate the development of capital markets in transition economies. Equity markets in particular draw a lot of attention because of their role in the privatization process. In section 4, we identify the gaps in the institutional continuum of the financial sector. There is a paucity of information about the elements of financial sector development that fall in the gap, such as venture capital, money markets, institutional intermediaries and contractual savings. However, they can be as important as the more familiar elements of the financial sector because successful intermediation will require a broad array of institutions. Section 5 concludes with policy implications for transition economies.

It is difficult to generalize about the transition economies as a whole because of the wide differences among them. Many of them are small open economies whose experiences and challenges differ from those of the large relatively closed economies (e.g. China) and the pre-transition economies (e.g. Azerbaijan). We will draw some examples from all of these groups although much of the discussion will focus on those countries with the broadest financial market experiences (i.e., Central Europe and Russia). The sections on country experiences draw most heavily on the three so-called fast track countries of Central Europe (Poland, Hungary and the Czech Republic) and the largest countries in transition (Russia and China). Additional examples are drawn from other regions (Baltics and South East Europe) although there are few references to the smallest transition economies and the pre-transition economies of Central Asia. Tables in the Appendix summarize important financial sector indicators for the transition economies. The tables provide a data overview of banking and credit conditions as well as the extent of equity market development.

This article is not the first to take note of the progress that has been made in the first decade of transition. Most of the literature focuses on specific transition problems such as privatization and restructuring<sup>3</sup> but there has been some limited attention paid to the financial sector. However, interest in the financial sector is often part of a broader interest in macroeconomic stability and the role of monetary policy in containing inflation (see Berglof and Bolton 2002 and Wagner and Iakova 2001). For more specific attention to the financial sector see Scholtens (2000) and Hermes and Lensink (2000).<sup>4</sup> Although the level of output in some transition economies is still below peak pre-transition levels, considerable progress has been made. The data are subject to measurement errors that overstate the value of pre-transition output due to the poor quality of unwanted goods and understate the value of post-transition output in the informal economy. A more telling evaluation of the process is the fact that the term transition is quickly becoming superfluous. The problems of the transition economies are increasingly the same as those faced by other countries around the world. For example, the fiscal deficit and the capital adequacy of the banks are problems faced by the Czech Republic and many other developing countries. The weaknesses of the Central Asian republics are similar to those of less-developed economies in Africa and Asia. The travails of privatization processes and social security reform are

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<sup>2</sup> The discussion of banking draws on our earlier work; see Bonin and Wachtel (1999a and b), and Bonin, Mizsei, Szekely and Wachtel, (1998).

<sup>3</sup> For broad discussions of the first decade of transition see Organization of Economic Cooperation and Development (1998), World Bank (2002), Blejer and Skreb (2001) and Wyplosz (2000).

<sup>4</sup> These articles are part of a special issue of the *Journal of Banking and Finance* (Volume 24, April 2000) on research on the financial sector in transition. The topics are all on issues that are relevant to non-transition developing and developed economies. This contrasts with an earlier *Journal of Banking and Finance* special issue (Volume 17, September 1993) on "Banks and Capital Markets in Former Centrally Planned Countries," which reflects the preliminary and tentative developments in the first few years of transition.

found all over the world. Nevertheless, after just a decade, there are still distinct transition problems that merit attention. However, we find it unlikely that the intensity of interest will warrant a future survey of the first century of transition.

## 2 Banking in transition - Principles of efficient banking in transition economies

In the planned economy, money served as a unit of account and played only a limited role as a medium of exchange. A two-track financial system was maintained in which households used cash for transactions while transactions within the state sector, including those between state-owned production enterprises, involved no monetary payment. The passivity of money was supported by a banking sector in which the mono-central bank was a record-keeping entity for transactions between production units. In most economies, specialty banks existed separately from the central bank and performed specific functions. A state savings bank with an extensive branch network was responsible for collecting household deposits. A foreign trade bank handled all transactions involving foreign currency. An agricultural bank provided short-term financing to the agricultural sector. A construction bank funded long-term capital projects and infrastructure development. Hence, banking activities were segmented along functional lines and played a subservient role to central planning.

Intermediation between savers and borrowers was internalized within the state banking apparatus basically through a system of directed credits to state-owned enterprises (SOEs) for both investment needs and budget allocations for working capital necessary to meet the output plan. Credit evaluation and risk management were irrelevant; hence, these skills were never developed domestically. Employees at the foreign trade bank and those at the central bank involved in international financial arrangements did analyze foreign exchange risk but often in only a rudimentary way. In all transition economies, the first step in banking sector reform was structural and involved the creation of a two-tier system with commercial and retail activities carved out of the portfolio of the mono-central bank. The new Central Bank was charged with pursuing monetary policy, including exchange rate policy, and made responsible for the supervision and monitoring of the nascent banking sector. The second tier consisted of the newly created commercial banks, the specialty banks, foreign banks, and *de novo* private banks.

The three essential functions of a modern banking system are payments settlement and record keeping, efficient intermediation between savers and investors, and the provision of the appropriate system wide liquidity using indirect monetary policy instruments. The argument that banks are crucial to the payments system and depositories of important financial information persuaded policymakers in the more advanced transition economies to preserve the old structure in a new form to avoid destroying informational and institutional capital. Hence, the payments system was left in tact and banks were given the responsibility for providing financial intermediation by matching funds from savers with needs of investors. In this process, banks are involved in various financial activities: agglomeration of funds for large projects, selection of investment projects to be financed, monitoring the performance and liquidity of clients, maturity conversion to provide longer-term financing for investment in fixed capital, and the diversification, pooling and pricing of risk. The

extent to which banks perform these activities or leave some or most of them to financial markets differs across countries.

In most high-income countries with developed banking sectors, the ratio of broad money to GDP is at least 60 per cent. For example, in Eurozone countries, M3/GDP was 78.2% in 1999 (Pissarides, 2001). The banking sectors in the transition economies are not so developed with a few exceptions. However, the highest monetization ratios are found in the Czech and Slovak Republics where the ratios of M2 to GDP in 1999 were 75 and 65 percent respectively. The other fast track transition economies, Hungary and Poland, have ratios of about 45 percent, as do some other countries that have successfully brought down inflation, e.g., Croatia and Estonia. However, the monetization ratios elsewhere, particularly in the former Soviet Union, are typically about 25 percent, which is a ratio associated with undeveloped economies. For example, in Romania the ratio of M3 to GDP in 1999 was 26 percent and in the Ukraine it was 17 percent.<sup>5</sup>

The two pillars of an efficient banking sector are: financially strong and independent banks with a governance structure that promotes efficient intermediation, and a regulatory system for supervising effectively existing banks and licensing prudently new banks. The primary objectives of the regulatory agency are maintaining the stability of the payments system and protecting household savings. The initial conditions in transition economies made constructing both pillars a daunting task. The newly created commercial banks were burdened with concentrated loan portfolios, the quality of which was unknown but dubious in a market economy. The transition generated macroeconomic turbulence and made any new bank lending extremely risky. Initially, the banks were wholly state-owned so that the appropriate governance structure was left to be determined in the bank privatization process. The nascent regulatory system was based on new legislation modeled on well-developed international standards but insufficient resources, both infrastructure and human capital, impeded its ability to perform tasks effectively. Entry requirements for *de novo* domestic banks were initially very lenient because policy was based on the mistaken notion that competition could be promoted most easily by such entry. Instead, the proliferation of new undercapitalized domestic banks only placed an added unwanted burden on an underdeveloped regulatory structure.

Achieving the first pillar, independence both from the state via privatization and from the legacies of the past, i.e., inherited bad loans and bad clients, turned out to be a longer and more complicated process than anticipated for the state-owned banks. The quality of any bank's loan portfolio in a highly uncertain macroeconomic environment is extremely difficult to evaluate. In transition economies, the stock of bad loans evolved partly due to the gradual recognition of the quality of existing relationships in state-owned banks (the stock issue) and partly due to continuing bad lending practices (the flow problem). Although it is widely understood that bank recapitalization should be a credible one-shot occurrence to avoid moral hazard, this objective turned out to be difficult to achieve in all transition economies because the true quality of the loan portfolios of the banks was revealed only gradually over time.

Bank restructuring involves not only a clean up of banks' balance sheets but, more importantly, a change in lending practice to preclude the need for continuing bailouts. In addition to ridding themselves of past overdue loans, banks must be allowed, and encouraged, to divest themselves of responsibility for undesirable clients to avoid making new bad loans to them in the future. The difficulty of restructuring and the magnitude of recapitalization

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<sup>5</sup> Differences in monetization ratios among countries are strongly influenced by the development of household credit, particularly mortgage markets. The highest ratios are found in developed countries with consumer lending which was largely unknown in the formerly planned economies.

slowed significantly the achievement of independent governance by privatization in state-owned banks.

Turning to regulation, most transition economies adopted modern banking legislation early with the expectation that effective regulation would follow. However, implementing effective banking supervision turned out to be difficult because of a lack of trained personnel and supporting infrastructure. A regulatory mistake was made at the beginning of the transition in many countries when entry of new domestic banks was the policy chosen to promote competition. Minimum capital requirements for a bank license were set at fairly low levels and the review process for new entrants was lax. Rather than improving the efficiency of financial intermediation and promoting new services through competition, small weak banks engaged in risky, and sometimes fraudulent, activities. Since banks are an integral part of the payments system, a large number of poorly capitalized banks has negative systemic effects that outweigh any advantages of increased competition.

The banking market in many transition economies is quite small so that only a few domestic banks will be viable. When insolvent banks appeared to threaten systemic stability, the authorities forced mergers and acquisitions upon larger banks. Large, state-owned banks were “encouraged” to take over the failing smaller banks with a resulting further weakening of their balance sheets. Given that a reduction in the number of small banks is necessary to rationalize banking sectors after excessive entry, the wrong way to achieve this is to force small insolvent banks on larger weak banks making the acquirers weaker still. Small, undercapitalized banks should be allowed to fail outright as insolvent banks did in Estonia.<sup>6</sup> Furthermore, when consolidation of some of the larger banks is desirable, market-oriented policies such as tax codes that are merger-friendly are preferable to orchestrated consolidation.<sup>7</sup> The basic lesson is to impose much stricter licensing conditions on banks initially so as to screen better new entrants and not to use entry of domestic banks to promote competition.

Effective regulation obliges the state to commit to an arms-length only relationship with banks and to support the development of the necessary legislative infrastructure. Preoccupation with the legacies of the past, e.g., inherited bad loans and the privatization of state-owned banks, led to an allocation of resources focused on solving existing problems. The lack of resources available for regulatory activities kept banking supervision in an underdeveloped state. A well-functioning regulatory system provides a high degree of self-enforcement to preclude the need for intervention. Self-enforcing regulation is particularly important in transition economies because the human capital required for supervision and enforcement is scarce.

Banking is of essence a future-looking business, not a past-dependent activity. Future returns to banking should depend on providing high-quality services and products to both retail and commercial clients, meeting the short-term liquidity needs of profitable commercial clients, and arranging long-term funding for economically rational investment projects. In transition economies, the franchise value of banks has often been linked to short-term, rent-seeking activities. In designing policy, regulators should pay closer attention to the franchise value of the bank. The key to a self-enforcing regulatory system is to make the franchise value of the banks dependent on efficient intermediation and in so doing reduce the monitoring burden on regulators.

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<sup>6</sup> See chapter 4 of Bonin, Mizsei, Szekely and Wachtel (1998) for discussion of Estonian policy regarding failing banks.

<sup>7</sup> See Bonin and Leven (1996) for a supportive argument applied to the Polish case.

## 2.1 Country experiences

In this section we present country experiences for three fast-track reformers, Hungary, Poland, and the Czech Republic, two less-advanced reformers, Bulgaria and Romania and two large countries, Russia and China. We also make some observations about banking in less-developed transition countries, such as the Central Asian republics. The experiences of fast track reformers will be used to examine the first pillar, i.e., the establishment of strong, independent banks. As a group, these countries have had varying success on this score. Hungary's bank privatization policy consisted of selling controlling shares in state-owned banks to strategic foreign investors as rapidly as possible. Such sales required an initial recapitalization of the banks so that the combination of current net worth and franchise value would attract a foreign investor. Due primarily to the gradual recognition of the poor quality of loan portfolios, the Hungarian government engaged in multiple recapitalizations of its domestic banks and earned the dubious distinction of the country most oblivious to moral hazard. Ultimately, the Hungarian government was able to attract strategic foreign investors and thus signal credibly the end to bailouts of these banks. By the end of 1997, four of Hungary's five large state-owned banks had been sold to foreign owners.

The Hungarian bank with the most exposure to loss-making industrial clients was Magyar Hitel Bank (MHB). MHB's bad loan portfolio was put into a separate organizational unit, a bank within a bank, in an effort to recover some of the loans. The remaining good part of the bank was privatized with a transaction that was structured to attract a strategic foreign investor who would increase the bank's capital. Shortly after purchasing a 90% stake, ABN Amro merged MHB with its own Hungarian branch subsidiary. Hence, MHB now bears the name of the Dutch parent and is a financially sound foreign-owned bank. MHB's experience highlights the importance of shedding undesirable clients.

Interestingly enough, the largest Hungarian bank is now Országos Takarékpénztár és Kereskedelmi Bank (OTP), the national savings bank. OTP was privatized in 1995 but without a dominant foreign strategic investor (see Abel and Bonin 2000). At the time the bank dominated the Hungarian retail market and although its market share has declined, it is still the most important retail bank and the largest bank in the country. The privatization of OTP was designed, because of its size and prominence, to avoid foreign domination and foreign portfolio investors own only about one-third of the shares. The bank ownership is diffuse and there has been continuity in management. Although competition in retail banking from greenfield and foreign institutions is intense, OTP is a successful institution. Thus, privatization of the majority of the banks in a transition country to strategic foreign investors is likely to have spillover effects that improve the performance of the banks that remain domestically owned.

In contrast to the Hungarian experience, the early recapitalization of the four large state-owned Czech banks that dominated the financial sector at the time was to little avail because soft lending practices continued even though these banks passed accumulated bad debts to a newly created "hospital" bank. Three of the four large commercial banks participated in voucher privatization in which a minority portion of their shares was transferred to individual investors and investment funds in exchange for privatization vouchers. These banks participated on both sides of voucher privatization as they also sponsored the largest investment funds. As a result, Czech banks took ownership stakes in their voucher-privatized clients, some of which continued to be loss making, while the state retained a controlling ownership stake in the large banks. Consequently, voucher privatization in the

Czech Republic strengthened the relationship between banks and clients and left bank governance held hostage to the legacies of the past.

The full extent of the bad loans problem was not recognized for several years. Estimates indicate that the final cost of bank bailout in the Czech Republic may approach 30 per cent of GDP as compared to just over 10 per cent for Hungary. In 1999, classified credits reached 32 percent of the total (Dedek, 2001). Interestingly, the Czech government's protectionist policy had allowed domestic banks to maintain high spreads and, hence, have the potential to be profitable. Although the banks could self-capitalize, they did not do so because soft lending practices and poor risk assessment continued. Nor did the several rounds of cleaning up the banks' balance sheets strengthen the big four Czech banks because they did not achieve independence either from the state or from their unstructured clients.

Bank privatization in the Czech republic took place twice. As already noted, voucher privatization in 1992 did not successfully lead to the development of a market-oriented independent banking industry. The second round of privatization occurred from 1998 to 2000 with the sale to foreigners of majority equity interests in three large Czech banks. Ceskoslovenska Obchodni Banka (CSOB), the former Czech foreign trade bank, Ceska Sporitelna (CS), the national savings bank, and Investicni a Postovni Banka (IPB). Subsequent to its privatization to Nomura Securities, IPB became insolvent, was placed under state receivership, and finally merged with CSOB. The Czech commercial bank, Komerční Bank (KB), was effectively renationalized when capital injections in 2000 resulted again in majority state ownership. In June 2001, the Czech government sold its interest in KB to Société Générale so that all of the four major Czech banks have now been privatized and have majority foreign owners.

The Polish experience indicates the danger in combining the resolution of bad loans with bank responsibility for enterprise restructuring. The World Bank supported a program of bank-led enterprise restructuring based on the notion that the major bank creditor had sufficient information about its clients either to promote restructuring or to decide on the winding-up of large SOEs. The main instrument used to restructure these loans was debt-equity swaps; the weaker banks chose this option disproportionately. Hence, weak banks with no expertise in restructuring large companies wound up taking ownership stakes in their weak clients. Thus, bank credit was provided regularly to ailing enterprises and no meaningful enterprise restructuring was promoted banks (Gray and Holle, 1996). Poland's program strengthened, rather than severed the ties between weak banks and their undesirable clients and, thus, provided breathing room for ailing SOEs to postpone painful restructuring (Bonin and Leven, 2001).

Poland's efforts to establish an independent banking sector fell victim to inconsistent policies that switched from attracting a strategic foreign investor to attempting to arrange a large politically motivated bank merger, in which the three weakest of the commercial banks were merged with a state savings bank to form the largest financial group in Poland. The group's privatization plan was delayed by the government's desire to place some of its shares in pension funds. In 1998, 15% of its shares were sold in a domestic IPO and, finally in 1999, a majority ownership stake was sold to Unicredito Italiano. In the first phase of transition, changing political objectives and preoccupations with protecting domestic banks retarded Poland's progress in developing a banking sector independent from state control.

The Polish banking sector entered a second phase in the late 1990s with a series of post-privatization consolidations (see Kokoszczynski, 2000). Foreign owners were instrumental in promoting post-privatization mergers as a means of expansion. Five such mergers occurred from 1999 to 2001 and foreign owners were involved in four of these. In two of the

four cases, the foreign bank had obtained a minority interest as part of the initial privatization of the state-owned bank and followed up with additional share purchases prior to the merger. For example, Allied Irish Banks purchased a minority stake in Wielkopolski Bank Kredytowy in 1993, purchased a majority stake in this bank in 1997, and then bought an 80% stake in Bank Zachodni in 1999 when that bank was privatized. Their common foreign owner merged the two banks in 2000. In the other two cases, a foreign greenfield operation was merged with a Polish bank soon after it had been privatized, e.g., Bank Handlowy and Citibank Poland merged in 2000 to form the fourth largest bank in the country. Significant strides have been made since Poland has allowed foreign strategic investors to take controlling interests in the large commercial banks. At the end of 1994, foreign institutions controlled only 2.1% of Polish banking assets. By 2000, 63.7% of commercial bank assets in Poland were held by banks controlled by foreign owners.

The experiences in Hungary since 1995 and in Poland since 1999 indicate that foreign participation in bank privatization is an effective, and perhaps inevitable, road to independent strong banks for small and medium open bank-dominated transition countries. At the end of 1999, foreign-controlled banks, held 68.5% of all banking assets in Hungary (Abel and Bonin, 2000). Interestingly, EU accession was a dominant political concern that led to the acceptance of foreign bank ownership in the Czech Republic and Poland. In embracing this strategy earlier rather than later, Hungary developed a banking sector that is currently far more developed, in terms of the strength and independence of its banks, than the sectors in either of these other two countries.

Most of the other transition economies inherited banking sectors with more severe structural distortions and more unstable macroeconomic environments than those in the fast-track reformers. This combination is a regulatory nightmare because of the constant threat that runs on weak banks will upset the stability of the banking sector and overwhelm the supervisory system. Consequently, for these countries, the second pillar, effective regulation, takes precedent over the first in banking reform policy.

The banking system in Bulgaria in the early transition years suffered serious structural problems. At that time, two narrow specialty banks dominated Bulgaria's banking sector. Bulbank, the state-owned foreign trade bank, did not participate actively in commercial lending, as less than one percent of its assets were loans to the non-financial sector. Derzhavna Spestovna Kassa (DSK), the state-owned savings bank and dominant primary deposit collecting institution, held mainly government securities and interbank placements as assets. Together these two state banks constituted about half of all the banking assets in Bulgaria. The remainder of the sector was comprised of a handful of state-owned banks, some of which were sectoral specialty banks and some of which were created by government-orchestrated consolidation of the original state-owned commercial banks carved out from the Bulgarian National Bank (BNB), and about three dozen *de novo* private banks. Many of these private banks were licensed with less than the required amount of capital paid in and quickly proceeded to extend loans to companies and individuals with ties to the bank owners.

A full scale-banking crisis resulted from the macroeconomic instability and weaknesses in bank governance. Asset stripping, misuses of credit, and insider lending were pervasive and there was little effective regulatory capability to provide oversight. In addition, macroeconomic mismanagement resulted in hyperinflation. The overall lack of confidence in the monetary system led to massive bank runs in mid-1996.

The regulatory response to the crisis involved a combination of bank closures, bank privatization, and recapitalization. The BNB instituted bankruptcy proceedings against five banks, including the largest private bank in Bulgaria. The third largest bank, United Bulgarian Bank (UBB), which is a consolidation of former commercial branches of the BNB,

was privatized to a consortium consisting of the EBRD, a strategic foreign investor, and Bulbank in 1997. DSK was downsized significantly by the crisis because it held about half of its assets in interbank placements, many of which were not repaid. The total value of bank recapitalization in Bulgaria amounted to 35% of GDP, the highest among all transition economies. The Bulgarian experience illustrates how lethal is the mixture of macroeconomic instability and structural distortions in the banking sector. The currency board established in 1997 promoted macroeconomic stability and provided credibility for the domestic currency. Later on the government acknowledged that bank consolidations and strategic foreign investors were needed to develop strong independent commercial banks and relieve the pressure on the regulatory system. In addition, there were substantial improvements in bank capital adequacy and supervisory oversight. The Bulgarian banks had substantial exposure (through direct holdings and contagion effects on Bulgarian government debt) during the Russian crisis in 1998 but were able to weather the storm.

Beginning in 1999, virtually all of the shares in two medium-sized banks, SG Express Bank Bulgarian Post Bank, were sold to foreign owners. In 2000, two more banks, Bulbank and Hebrosbank, were also sold almost in their entirety each to a foreign owner. In that year, a foreign owner purchased 90% of the shares in the previously privatized UBB. By the end of 2000, less than 20 percent of bank assets were state owned while foreign-controlled banks accounted for 74% of total banking assets. More than half of Bulgarian bank assets are concentrated in three institutions including DSK, which is still state owned. During the two years from 1999 to 2000, most of the major banks in Bulgaria were sold to foreign majority owners with Biochim Bank, which is one of the eight sectoral banks, as the only exception other than DSK.

More important from a long run perspective is the primitive development of banking. Since the crisis of 1996, the banks have maintained very conservative liquid portfolios that are concentrated in government securities and foreign currency deposits. Thus, the banking sector has yet to develop a substantial role as a financial intermediary. This next step, i.e., the willingness and ability to lend to enterprises, is lacking in many other transition economies but it is clearly an important step to take once a sound structure for bank governance has been developed. Bulgaria is poised to take this step, although despite sound capital positions and adequate liquidity at present, the risks involved with a developed lending strategy could present challenges.

Romania, another relatively small open economy, also had severe structural problems in its banking sector. From the beginning of the two-tier system in 1990 through 1998, state-owned specialty banks and the state savings bank dominated Romanian banking. The big five state-owned banks, Bandore, the foreign trade bank, Blanca Roman pantry Desolater (BRD), the investment and development bank, Blanca Arcola, the renamed Bank for Agriculture and Food Industry, Casa de Economic si Consemnațiuni (CEC), the traditional state savings bank, and Banca Comerciala Romana (BCR), created from the commercial assets of the National Bank of Romania in 1990, held 73% of banking assets at the end of 1995. Bank lending to state enterprises without serious credit standards was common and soon a large portion of commercial bank loans were non-performing. By the middle of the decade, both Bancorex and Banca Agricola were in serious financial distress due to their accumulated bad debts from directed credits to the energy and agricultural sectors, respectively. The full nature of their problems became apparent in 1997. By the end of 1998 and after significant devaluation of the currency, bad loans accounted for about 80% of Bancorex's credit portfolio. There was a run on Bancorex, in 1998 during which \$200 million left the banking system (*Business Central Europe*, February 1999, p.30). Faced with the serious threat of a systemic banking crisis at the beginning of 1999, the authorities adopted a restructuring strategy that included setting up a hospital bank to take over the bad debts

from Bancorex and Banca Agricola. The strategy involved closing Bancorex and restructuring Banca Agricola by transferring its bad assets to the hospital bank in exchange for government securities to prepare the bank for privatization. Bancorex's healthy assets were absorbed by BCR and Banca Agricola was sold in 2001.

The Czech experience indicates that hospital banks cannot solve the bad loan problem alone. Rather, the lending behavior of banks must be modified to prevent its recurrence. For Romania, this meant changing the behavior of the large insolvent state-owned banks that held half of all bank loans. Bancorex's assets and liabilities were transferred to BCR, which became the largest bank in the country accounting for almost one third of all bank assets. The cost to the government of the Bancorex closure was about \$1.5 billion (4.5 percent of GDP) in 1999. In addition the unsuccessful recapitalization of the bank in 1997 and subsequent liabilities from the takeover by BCR added almost another billion dollars (International Monetary Fund, 2001). With the closure of Bancorex and the subsequent privatization to foreign owners of BRD and Banc Post, foreign banks held 49.6% of all banking assets and 47.4% were held by state-owned banks by the end of the decade.

Although the Romanian banking system is in much better shape now than in the recent past, it still faces major problems that are common in the transition countries. Banking assets are split virtually in half with one part held by foreigners and the other half still state-owned. At the beginning of 2002, three large banks together held 55.5% of all bank assets in Romania. Two of the three, BCR with a dominant 31% share of total assets and CEC with an 8.6% share, are still state owned and their privatization will not be easy. There are plans to privatize BCR by 2003 but CEC will not be ready for privatization for some time. The remainder of the industry consists of a large number of small private banks, including the rapidly growing greenfield operations of ABN Amro, ING and Citibank, and some smaller formerly state-owned banks. Without minimizing the importance of sound balance sheets and appropriate regulatory oversight, these do not imply that banks are effectively serving the economy. A fully developed banking sector will be intermediating household savings to private sector investment activity as well as providing money services. The degree of intermediation in Romania is small; the ratio of bank credit to GDP at about 17% in 1999 is low compared to other transition economies. Furthermore, the banks themselves tend to hold government debt and have not yet developed the ability to evaluate and monitor businesses loans.

Both of these problems, i.e., the remaining privatization of large dominant banks and the development of effective financial intermediation, are common to other transitions economies. The large relatively closed transition economies, e.g., China and Russia, have more scope for institutional choice in dealing with these issues because they have fewer external constraints. On the other hand, relatively protected domestic financial sectors in large countries allow policymakers to delay the development of efficient banking sectors.

Prior to the break-up of the Soviet Union, bank deposits (mostly household deposits) and loans to enterprises were each about one-half of GDP. The dissolution of the union caused problems for monetary policy and payments settlements. Russia experienced disintermediation following a bout of hyperinflation; household deposits as a ratio of GDP fell to 2% and enterprise loans to GDP fell to 11% by 1993. Regulatory problems were also severe in Russia and new entrants were largely unsupervised. By the middle of the 1990s, over 2,600 banks existed in Russia and about two-thirds of these were *de novo* private banks. Furthermore, the franchise value of the major Russian banks was linked to rent-seeking rather than efficient intermediation. Since the vouchers used in the mass privatization scheme were transferable in Russia, banks profited from transactions in vouchers in the early period of transition. Later on, banks earned significant rents on foreign exchange transactions. When these opportunities were no longer available, large Russian banks

found two new sources of rent, namely, purchasing high-yield government short-term securities (GKO) and participating in the loans-for-shares privatization scheme.

Before the financial crisis in 1998, the overall structure of the banking sector was not particularly different from other transition economies. The ten largest banks accounted for about half of banking sector assets; however, six of these were *de novo* private banks, a characteristic that distinguishes the Russian experience from the fast track countries. Sberbank, the state-owned, Central-Bank-controlled savings bank, is the largest Russian bank by far with about a quarter of total banking assets and over 50,000 branches. Sberbank was essentially a narrow savings bank holding about three-quarters of the retail deposits in Russia and having explicit full deposit insurance with state guarantees. On the asset side, Sberbank held mostly government debt (GKO). The next largest bank was the state-owned foreign trade bank with a little over 5% market share and the shares of the next largest banks ranged from 2% to less than 4%.

However, the financial sector in Russia was developing characteristics that were substantially different from other transition economies. Among the top ten banks were the lead banks in six of the "Big 7" financial-industrial groups (FIGs) including the high profile banks, Inkombank, Menatep, and Uneximbank. To the extent that these lead banks provided financing for the commercial members of their FIGs, a significant portion of bank loans to large companies was internalized within the groups. Hence, before the financial crisis, the Russian capital market was taking on characteristics of an Asian model in which large financial groups, each containing a lead bank, dominate the market. This illustrates the broader scope for institutional development in a large relatively closed transition economy but it does not establish the outcome as a conscious policy decision. Rather the Russian experience illustrates the ability of rent-seeking entrepreneurs to take strong market oligarchic positions in a loosely regulated and rapidly evolving financial sector.

In 1998, the Russian government defaulted on its domestic debt obligations and the country entered a prolonged financial crisis that affected severely the larger *de novo* banks. Many of the large Moscow banks that dominated the industry collapsed and at least two important institutions, Uneximbank and Menatep entered bankruptcy proceedings. The number of banks declined by more than 10% in the year after the crisis and 15 of the 18 largest banks were insolvent (EBRD, *Transition Report 1999*, p. 259). Sberbank, the only Russian bank with a one hundred percent government guarantee on deposits, survived the crisis and was one of the few Russian banks extending commercial loans in the aftermath of the crisis (*Business Central Europe*, March 1999, p.29). Smaller *de novo* private banks that had lost out to the rent-seeking entrepreneurs, who established the FIGs before the crisis, are now competing for market share. Appropriate legislation for dealing with the crisis did not exist at the time and the regulatory responses were entirely inadequate. There were some legislative changes in 1999 but the new legal framework has not been widely utilized. Nevertheless, there has been a remarkable recovery in the banking sector. Paradoxically, the banking sector has grown since the 1998 crisis despite limited changes in the overall financial environment (see OECD 2002, pp. 52-62).

A bank-restructuring agency was established in 1999 but it has not been particularly active because it has limited resources. The central bank has been able to close many small problem banks although capital adequacy rules are often applied very loosely. Nevertheless, by 2001, the banking sector more or less reached its pre-crisis size. Bank assets to GDP are almost at the 1998 level; commercial credit to the non-financial sector as percent of GDP is at the 1998 level; bank capital continues to grow and arrears declined.

Thus, the aggregate data could be used to tell a very optimistic story of a private sector banking system that successfully reacted to crisis. However that story would be an exaggeration. Much of the recent growth in banking comes from profitable and growing

industrial firms with a particular business connection to a bank. The degree of monetization in the economy is still rather small. Overall, there is still a lack of trust in banks and a very weak legal environment for pursuing claims of any kind. Moreover, real interest rates remain negative.

In addition, the state owned saving bank, Sberbank, is still the dominant institution with 23.5 percent of all commercial bank assets, 31.2% of all credits to the non-financial sector and 75.2% of household deposits at the beginning of 2001. Sberbank has begun to move its asset portfolio from government securities to private sector credits. Even the state owned savings bank is evolving into a commercial bank for the business sector. For many regional banks administration of the Federal and local budgets continue to be their major activity.

Although, there has been progress in the banking sector, substantial risks still exist. The weakness of the regulatory structure and low capital levels are the most important. In addition, the legal framework to provide protection to creditors claims is still undeveloped. The development of better banking regulation and supervision is a clear priority in Russia. The financial crisis provided the government with an opportunity to dismantle the weakened FIGs and develop a strategy for the evolution of the financial system but it has not been seized. As the banking sector grows beyond its 1998 levels the same underlying problems might arise. The experience in Russia echoes those in the Czech Republic with voucher privatization; it is extremely difficult to unravel non-transparent relationships between banks and clients.

China, also a large, relatively closed economy, has a deeper, more bank-dominated financial sector than any transition economy. Over two decades beginning in 1978, the ratio of household deposits to GDP rose from 6% to 57% and the ratio of bank loans to GDP grew from 50% to 90%. Four large state-owned specialty banks dominated the financial sector. Unlike other transition economies, China did not have a separate state savings bank network so that these same four banks collect more than three-quarters of the household deposits. The four banks took financial responsibility for government policy including the support of loss-making SOEs, which constituted about half of all SOEs by the end of the period. Banking regulation is in an embryonic stage in China and standard international loan classifications were only imposed on all the banks in the late 1990s. At that time, the central bank reported that 20% of the loans in the big four banks were non-performing while foreign estimates indicated that at least 25% of their loan books must be written off entirely (Bonin and Huang, 2001). If the latter estimate is correct, about \$190 billion or 22.5% of GDP must be subtracted from the assets of these four banks.

In an attempt to deal with the bad loan problem, the government created an asset management company to which bad loans are transferred and worked out or sold in packages. The experiences in Poland and Hungary indicate that secondary markets for bad debt are extremely thin and that recovery rates are consequently low on this type of asset. Moreover, the Czech experience with its hospital bank indicates that moving loans does not stop the flow of new bad loans in banks. The Chinese experiment does not separate undesirable clients from their banks so that soft lending practices are likely to continue because the large banks are not yet independent from government directives.

In recent years, there has been some progress in addressing the banking sector problems in China. The state commercial banks have been recapitalized and non-performing loans have been shifted to the asset management company. The recapitalization in 1998 amounted to 3½ percent of GDP and was followed in 1999 and 2000 by the transfer of non-performing loans totaling 15½ percent of GDP. There have been some efforts at assets sales and debt equity swaps. Despite these positive developments, the banking situation remains problematic as the state-owned banks often continue to accumulate loans to state-

owned enterprises. New estimates of non-performing loans in the four large banks that account for three-quarters of bank assets show improvement although they are still large. Estimates by Citigroup place non-performing loans at 41% in 1998 and 28% at the start of 2001. Capital asset ratios in these banks averaged 6.6% at the start of 2001. The underlying reform of enterprise ownership and management is progressing slowly but perhaps not quickly enough to avoid a banking crisis. In addition, China is one of the last transition countries to limit foreign bank activities and restrict foreign ownership of Chinese banks. Recent accession into the WTO establishes a timetable for opening the Chinese banking sector to foreign financial institutions but the impact of this move is likely to be minimal in the near future due to the dominance of the large four banks (Bonin and Huang, forthcoming).

China's closed financial sector has allowed the government to use these large banks to fund projects that should have been financed transparently from fiscal revenues. Unlike in the other Asian economies, the structural deficiencies of the Chinese banking system have not been exposed by an externally driven financial crisis. However, the further development of capital markets in China is impeded because it would provide attractive financial instruments and encourage households to withdraw deposits from insolvent banks. China should pursue more aggressively banking reforms that would support institutional development. In this way, the government could promote, not retard, broad institutional development in the financial sector and, at the same time, allow the state-owned banks to become independent from both the state and their undesirable clients. Although, the private sector in China has developed rapidly, private firms rely more on internal financing and stock issuance and less on banks than is the case in other transitions or developed economies (Gregory and Tenev, 2001).

The least-developed transition economies are the Central Asian republics. With the break up of the Soviet Union, these countries faced the daunting task of establishing an independent monetary system and creating banking organizations. The state-owned banks that were the successors to Soviet era institutions continued to operate as arms of the government. As could be anticipated, they accumulated large portfolios of bad loans and quickly required recapitalization and restructuring. In addition, bank regulation barely existed so there was wide proliferation of small private inadequately capitalized banks. Desperately weak financial systems emerged almost immediately after the transition started.

The initial institutions of bank regulation were efforts to respond to problem banks. In 1995, the new bank regulators in Kazakhstan liquidated 60 banks, which brought the total down to 130. In the Kyrgyz Republic in 1996, two large state-owned banks were liquidated. The Kyrgyz banks were exposed in the Russian banking crisis and, in 1998 authorities closed three banks that controlled almost 45 percent of total bank assets. Thus, the Central Asian republics experienced severe banking crises and embarked on costly restructuring programs.

Public confidence in the banking system continues to be very weak; credit to GDP ratios have declined; currency to deposit ratios are very high and the M2/GDP ratios are in the teens. Although there have been efforts to respond to the banking crises, progress has been very limited. Non-performing loans continue to grow. Although some banks have been privatized, there are still too many small and inadequately capitalized institutions. In sum, the banking sector in these countries is doing very little in the way of providing intermediary services. The banking sectors are both a reflection of and a cause of severe post-transition declines in output. Nevertheless, there are some signs of improvement in both the real and financial sectors. Real GDP per capita in Kazakhstan and Kyrgyzstan

increased in 2000 for the first time in almost a decade and banking sector assets began to grow in 2001 in both countries.

## 2.2 Lessons for the banking sector

After selling controlling stakes to strategic foreign owners shortly after the final round of bank recapitalization, Hungary was the first of the transition countries to develop a strong and independent banking system. The other fast-track countries started with somewhat different and less successful strategies before they adopted the approach used in Hungary. By a privatization strategy that maintained the links between banks and clients and did not promote a transfer of control from the state, the Czech Republic perpetuated the problems of a state owned banking system. Poland had a mixed experience in the early years of transition; its major successes occurred with banks that were sold to foreign owners and with mergers that were market-based. Poland's initial failures are attributable to a government-orchestrated consolidation policy and to an integrated restructuring program that encouraged weak banks to continue to support their weak clients. However, after a series of mergers and sales to foreign investors, the Polish banking system is now largely independent and strong. The Czech Republic has now completed a second round of privatizations in which all major banks have been sold to majority foreign owners. This should allow Czech banking to catch up rapidly with the others two countries' banking sectors.

The primary lesson from these experiences is the importance of severing the links between banks and weak clients. For small, open countries, Hungary's experience indicates that foreign participation in bank privatization is an effective, and perhaps inevitable, road to independent strong banks. Hungary was the first to learn the lesson, Poland caught on after some bad initial experiences and the Czech Republic has finally moved in that direction. In embracing this strategy earlier rather than later, Hungary has developed a banking sector that is ahead of those in the other two countries in terms of the strength and independence of its banks.

Another lesson is the importance of a market for the control of banking institutions. Equity issuance to dispersed owners does not accomplish this but mergers, consolidations and investments by strategic investors will create such a market. Once it exists, there can be competition even in small highly concentrated markets.

The experiences of less-advanced reformers indicate the importance of developing the regulatory structure, especially in unstable macroeconomic environments, for the banking sector. Hyperinflation leads to disintermediation and a significant shrinkage of the monetary base of the economy. Macroeconomic stability and strong bank supervision are necessary conditions to rebuilding the banking sectors of these countries. The experience of transition economies, large and small, fast track or not, indicates that the entry of many undercapitalized *de novo* private banks fosters systemic instability. For small open countries, foreign participation in domestic banking is a much more effective means of promoting both competition and development of the sector. However, stability is a necessary condition for sufficient foreign entry and strong regulation is a necessary condition for effective supervision once foreign participation occurs. In all transition economies, effective regulation requires resources and know-how to complement legislation.

The large, closed transition economies have more flexibility in designing efficient banking sectors. These countries can allow the banking sectors to develop according to either Anglo-Saxon or German models and they have the opportunity to allow their domestic banking sectors to evolve gradually and without significant foreign participation. However, Central

European economies, such as Bulgaria or Romania, do not have the luxury of gradual evolution. They are in a great hurry to reform their banking systems as quickly as possible to meet the overriding objective to join the European Union. This goal requires the development of a regulatory system that complies with EU guidelines and the opening of the domestic banking sector to foreign competition. Nonetheless, the large and somewhat closed economies can learn from the experiences of these countries. Although Russia and China have the ability to proceed more slowly and independently, this path is not without costs. The Russian banking sector suffered the same fate as the banking sectors in the fast-track countries due to excessive and improperly supervised entry. China's program for dealing with bad loans is destined to encounter many of the problems faced in the Czech Republic and, thus, it may allow soft lending to continue. In summary, the large countries seem to be repeating the mistakes of the fast-track transition economies rather than learning the appropriate lessons from banking sector development in these countries.

In the Central Asian Republics, as elsewhere in the former Soviet Union, the mistakes of the early transition years were very costly. Misguided credit expansion as an extension of the government budget and the emergence of new undercapitalized private banks created problems at a much faster pace than the increase in these countries' abilities to create institutional frameworks for a sound financial system. The banking crises in the late 1990s gave pause and allowed institution building to begin. Moreover, some lessons were learned from the experiences of the fast track reformers and foreign participation in banking is often encouraged. However, it is not at all clear that a sufficiently sound set of institutions is in place to support the financial sector required for growth.

### 3 Capital markets in transition

The term capital market refers to both bond and equity markets where the latter includes the debt issues of both private and public sector entities. The most fully developed segment of capital markets in transition economies is the equity market where developments have usually been pushed along by privatization. Public sector bond markets are also quite common because government deficits lead to debt issuance and efforts have been made to develop secondary markets in order to encourage inter-bank money markets and to enable the central bank to conduct open market operations for monetary policy. Private sector bond issues are few and far between and are discussed in more detail in the next section of the paper that is devoted to 'missing pieces' in the financial sector.

#### 3.1 Equity markets in transition economies

One of the most dramatic symbols of the transition process has been appearance of stock markets in formerly planned economies. The advent of a stock market – the most potent symbol of capitalism – in Central Europe was a dramatic indication of the enormous changes that came with the transition (see Mendelson and Peake, 1993, for an early discussion).

By 1999, 20 (out of 26) transition countries had equity markets, albeit with varying degrees of activity.<sup>8</sup>

A common measure of the extent of equity market development is the ratio of market capitalization to GDP. It is highest in those countries where the privatization process has gone the furthest. In 1997, the largest capitalization ratio among transition economies was in Hungary with 33 percent and Croatia and the Czech Republic were the only other countries above 20 percent. By 2000, capitalization ratios in Estonia and Hungary were in the mid 30s and Poland and the Czech Republic were above 20 percent. Capitalization ratios had been over 30 percent in the Czech Republic and about 25 percent in Russia before stock prices declined. In the other transition economies, market capitalization is just a small fraction of GDP (which itself is depressed).<sup>9</sup>

The EBRD *Transition Report 1998* provides comparisons of stock market development in the transition countries with the rest of the world. To begin, market capitalization as a percent of GDP rises with per capita GDP. The capitalization ratio in the Czech Republic peaked at 33 percent in 1996, but the EBRD study suggests that in a typical country with the same per capita output, the capitalization ratio would exceed 50 percent. In the other transition countries with large equity markets, the capitalization ratios are rarely over 20 percent, while capitalization ratios in countries with similar levels of output are 20-40 percent. Moreover, privatization processes that resulted in capitalization ratios that approach developed country levels in a few countries may be a misleading indicator of the maturity of equity markets. Transition economy equity markets may appear large but illiquidity and lack of transparency in trading limit the effectiveness of the markets.

Turnover ratios – the ratio of value traded to capitalization – are small in most of the transition economies with some notable exceptions. In 1999, the ratio was 103 percent in Hungary where it had increased rapidly from 17 percent in 1995. It was around 60 percent in 1999 in the Czech Republic, Poland and Romania. There have been episodes of high turnover rates for short periods in some smaller transition stock markets. For most of the transition economies, turnover has been very small, often less than 15 percent. The mean among the twenty countries with stock markets in 1999 was 32 percent. In wealthy developed economies turnover ratios average a bit over 50 percent. In emerging markets, there is wide variation in turnover ratios (see IMF, *International Capital Markets*, Sept. 1998, p.33) but around 40 percent is typical.

Another measure of overall stock market development is the number of listed companies although these counts can be very misleading for transition economies. The total number of companies listed on transition stock exchanges was 3372 in 1997 and 8748 in 1999. By comparison, in the United States there are fewer than 10000 firms listed on the three national exchanges and only about 3000 on the New York Stock Exchange. Mass privatization programs in some transition economies led to immediate diffuse ownership and mass listings of often very small and hardly traded equities. As a result there were almost 1700 listings in the Czech Republic in 1995. However, there was little trading in most of these companies; fewer than half traded daily and many small firms were delisted. The

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<sup>8</sup> Data on equity markets in the transition economies can be found in the Appendices to Claessens, Djankov and Klingbiel (2000) and in the International Finance Corporation's *Emerging Markets Fact Book*.

<sup>9</sup> In other countries around the world capitalization ratios vary with stock prices and market structure. In the U.S. it doubled in the market expansion of the 90s to a peak of about 150%. In the UK, it is above 100% while in Germany, with a different structure of corporate ownership, it is under 50%. In many emerging market countries it usually ranges between 30 and 70 percent of GDP.

number of listed companies declined to less than 200 in four years. Similarly privatization in Romania led to over 5000 new listings in 1998.

The market capitalization of individual firms is often very small in transition countries, much smaller than we might associate with liquid secondary markets in developed countries. Even the average firm capitalization is very small in most countries. Market capitalization is often dominated by just a handful of large companies.

It is time to ask whether equity markets in the transition economies are anything more than a symbol. Do they enhance the liquidity of capital in any significant way? Do they provide a significant mechanism for driving capital to its most efficient uses? In other words, are the nascent equity markets in the transition economies doing what equity markets are supposed to do?

Equity markets come into existence in developed countries as firms grow in size. First, over time the ownership of firms tends to become more diffuse as ownership passes from a single entrepreneur to heirs and additional investors. Second, firms begin to turn to equity or bond flotation as a means of raising funds. Finally, stock markets develop since such securities are always more attractive when there are opportunities to trade them. However, the sudden emergence of stock markets in most of the transition economies is related to an entirely different phenomenon – the privatization process. Mass privatization placed ownership of shares in the hands of large numbers of citizens very quickly. The stock markets were opened to provide some means of allocating and trading the ownership rights that came with privatization.

In Bulgaria, Romania, the Slovak Republic the Czech Republic and a few smaller countries the stock market grew suddenly because of mandatory mass listing following mass privatization programs. As expected there were a large number of illiquid issues. In Poland, Hungary and some other countries, listings followed a more traditional IPO process; they were smaller in number and more likely to have some trading activity.

There were two problems with the explosion of stock markets in the transition economies. First, it was unrealistic to expect the stock markets to provide liquidity and access to capital for so many firms. Even in those countries with larger markets, both capitalization and trading activity are concentrated among a handful of large companies. Thus, public stock ownership for many firms did little or nothing to increase their access to capital or provide a means of corporate control. Second, the stock markets leaped into existence before the institutional infrastructure for markets had come into existence. Thus, equity listings are not a guarantee of transparent share registration, the ability to transfer ownership or the absence of manipulation of prices. They do not imply any minimum standards of financial disclosure by firms nor do they promote competitive activity or provide a means for shifting corporate control.

To the extent that there have been IPOs, they have been orchestrated by the government as part of a privatization process. That is not to say that the role of stock markets in the privatization process has not been useful. In countries where mass privatization did not occur, the stock markets have been used to raise privatization revenues and spread control especially as the state rids itself of residual ownership shares of large companies.

For public equity markets to fulfill their primary economic functions, i.e., pricing capital, facilitating corporate governance, trading must be sufficient to provide liquidity to the share holder and enough ownership interest to make the equity market a source of market discipline and oversight over management. These requirements restrict the size and number of companies that are listed on equity markets. The fewer than 10,000 listed companies on the three national exchanges in the U.S. are not a relevant comparison. It is better to compare the transition economies with equity markets in other developing economies. For example, Greece has an active equity sector with 230 listed companies, a market capi-

talization equal to over 20 percent of GDP and an average capitalization of the listed companies of \$107 million. Equity market trading can be expected only in a handful of relatively large companies that will attract investor interest and scrutiny from domestic and foreign analysts.

Foreign investment in equities in the transition economies was modest until 1995. After that, the transition economies with stock markets were caught up in the general interest in emerging stock markets. The stock markets in the advanced transition economies were included in various emerging market stock indexes that generally facilitated market interest. Stocks in the transition economies surged in the following years as capital inflows pushed up prices until the collapse following the Russian crisis. In Poland, Czech Republic, Russia and, particularly Hungary, foreign stock holding accounts for substantial shares of the total. Over one-half of the total capitalization of the Hungarian market is foreign owned. These four countries (along with Slovakia) are included in the IFC investable country indices. It was estimated that foreign investors accounted for about one-fifth of exchange trading in 1995 and at the start of 1998 foreigners owned 38 percent of all Polish equities (*Financial Times*, 27 October 1998).

The more advanced transition economies have a handful of companies that might be of sufficient size and development to play a role on international equity markets. Some large and successful privatizations led to companies having access to international capital markets. In some instances, the stocks are listed on Western exchanges through depository receipts.<sup>10</sup> Hungary was the first issuer and Russia followed suit in 1995. There were placements in 1996 by the major Russian energy companies, Gazprom and Lukoil. By 1999 there were 12 Russian ADRs (American depository receipts) including 3 with NYSE listings. In addition, at least 6 Russian companies have depository receipts issued in Russia (RDCs) for trading in Europe. Seven of the ten largest Russian companies are listed abroad. Almost \$1 billion in Russian depository receipts have been issued, mostly in 1996 and little since then. A similar amount of receipts for the shares of Hungarian companies have been issued. Also, at least four large Czech companies are listed as GDRs (Global depository receipts) in London. The market capitalization of companies listed abroad is two-thirds as large as domestic market capitalization in Kazakhstan due to the international popularity of energy companies; the average for all the transition economies is less than 20 percent. By the end of 1999, 72 companies from the transition economies had ADRs traded on American markets and 61 transition country companies traded in London.

The issuance of depository receipts by companies in transition economies has advantages and disadvantages. On one hand, it is a clear signal of the maturity of capital markets since companies usually have to satisfy some accounting and disclosure requirements to gain listings abroad. It is also an indicator of the attractiveness of these companies. Notably, Russian companies were able to use depository receipts to access international capital markets even when Russian corporate governance and disclosure standards lagged Western standards. On the other hand, increased use of depository receipts might inhibit the development of local equity markets. If the large and strongest companies rely on international equity markets, then the local market is restricted to small and illiquid issues. If trading in large companies moves abroad, there is less liquidity on domestic exchanges, which will reduce the interest of foreign investors.

The conflict between international stock markets and domestic exchanges is not just a transition economy problem. As trading interest in the largest and most successful firms concentrates on a few global stock exchanges, domestic equity markets in all but the lar-

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<sup>10</sup> In order to facilitate equity trading in major financial markets, it is common to place shares in trust and for the trustee to issue depository receipts that are traded on major financial markets

gest emerging markets and in many small developed countries might become less viable. Market consolidation may inhibit the role that stock markets can play in the development process.

The domestic stock markets in the transition companies provide an additional function for foreign investors in these economies. They provide liquidity for foreign investors in these countries. An equity market investment is more liquid than direct foreign investments. However, the 1997 Asian crisis and the 1998 Russian crisis, demonstrated that there are also risks involved in emerging market stock market investments. These investments can be very volatile, are subject to exchange risk and contagion spreads market crises quickly among the markets. Thus, the verdict is unclear on whether emerging stock markets will lead to permanent increases in investor interest.

Claessens, Djankov and Klingbiel (2000) examined the determinants of capitalization and turnover in the transition economies with a regression model. They forecast that macroeconomic stability and improvements in shareholder rights might lead to some growth in equity markets in the transition economies that have been slow to reform (such as Romania and Central Asia). In the faster reformers, the growth of institutional investors might lead to some modest increases in capitalization ratios. Generally, stock markets are likely to be making a modest contribution to financial market development. The only exceptions might be in large countries such as Russia or China where significant structural reforms and improvements in corporate governance could lead to equity markets that are important parts of the intermediation process.

In the next section, we review stock market development in the three fast track reformers – Poland, Hungary and the Czech Republic – and the two large countries – Russia and China. Stock markets in the other transition countries are either too small or too undeveloped to play any role in financial sector development as yet.

## 3.2 Country experiences: Equity markets

The Warsaw Stock Exchange (WSE) first opened in 1817 but it was closed under the communist regime. Equity markets returned to Poland in April 1991 with the reopening of the exchange and the establishment of a regulatory body, the Polish Securities Commission, later in the year. Both the number of companies listed and market capitalization have increased steadily as the number of completed privatizations has increased. The mixed approach to privatization in Poland implies that there has not been any massive increase in the number of listings on the WSE. As a result, the stock market institutions have been able to grow gradually and provide adequate liquidity for new listings

The privatized banks are an important part of equity market activity. Several of them were privatized with IPOs and as a result, four of the ten largest companies on the WSE at the end of 1995 were banks. The mass privatization program distributed vouchers that can be converted to ownership of one of the fifteen investment funds that are traded on the exchange. More importantly, the privatization of firms in Poland is still underway through various combinations of IPOs and the block sale of shares. In most instances there is a strategic investor that is often foreign. As a result the number of WSE companies with large market capitalization has increased and the number of listings exceeds 200. Although trading activity has increased many of the larger privatized companies are closely held by the strategic investors or residual state ownership. As a result, much of the equity is not available for trading (typically less than 30 percent) which limits market liquidity.

The largest company privatized was the telecom company that started with a sale of 15 percent of the company in November 1998 in an IPO that valued the company at \$6.2 billion. Further block sales led to an ownership structure that gave about one-third to a strategic investor, one-third retained by the state and the rest split among employees and institutional investors.

Trading in Warsaw is computerized in a system that provides equal access to all participants and is designed to maximize liquidity and trading activity. Orders are collected in advance and a daily computer run call auction determines a single price. At the end of 1998 there were 1.2 million investment accounts at Polish brokerage houses. The stock exchange is also participating in efforts to strengthen corporate governance and increase shareholder, particularly domestic institutions, activism.

Although the Polish stock market has made remarkable strides, it still plays a limited role as a financial intermediary. There have been very few mergers and acquisitions using the stock market, only a handful of secondary market IPOs and few instances of share issuance as a source of funds.

The development of the equity market in the Czech Republic is related to the mass privatization program that started in 1990 and led to the privatization of most large enterprises in two waves of voucher privatization in 1992-94. A drawback of mass privatization is that it usually leads to very diffuse ownership of shares that enables the existing management to retain control of enterprises. Entrenched management may be unwilling or unable to work in the best interests of the shareholders. One of the motivations for the establishment of investment privatization funds (IPFs) in the Czech Republic was to create significant ownership influence over the corporation that would push the firms to restructure. The IPFs did not evolve, as anticipated, into mutual funds that would provide oversight and discipline of corporate management.

Despite limits on IPF holdings of any particular company, they dominate corporate control in many instances and are often closely connected to entrenched management. The influence of the funds was reinforced by the fact that most of them were created by and continue to be controlled by banks that are also the source of corporate financing. The IPFs and their bank owners became an entrenched management structure that chose to continue traditional business relationships rather than promote any radical restructuring that would endanger their positions or control of firms. The situation has not generated improvements in corporate governance nor has it led to as rapid restructuring of industry as had been anticipated. The Czech Republic was widely viewed as the star among transition economies, where voucher privatization, investment funds and equity trading would quickly modernize the economy. These widely held expectations have been largely unrealized.

Although, the Czech Republic has a relatively high level of stock market capitalization to GDP and a large number of publicly traded companies, the market was characterized by a lack of transparency in trading and very little trading in many issues. Equity markets have not improved the transparency of corporate governance nor provided a vehicle for raising additional equity capital.

A complex trading mechanism that allows shares to be traded in more than one way (for a description see OECD *Economic Surveys, Czech Republic, 1996*) was prone to manipulation of share prices and the Czech equity markets had a deservedly poor reputation. Reports of abuses of minority shareholder rights were common and at first there was little effort at creating a regulatory structure for trading and registration. The OECD *1998 Czech Economic Survey* (p.64) describes several common fraudulent practices. The most common was called "tunneling." A shareholder meeting is called quickly so only colluding share-owners are able to participate. The meeting approves a purchase or sale of assets by the Board that will benefit individuals. There are no rules that can hold the Board responsible

for damaging the interests of the company so there is no recourse once the shareholder meeting is held. Another technique used is for a company to sell assets to another entity with a long settlement date. The buyer liquidates the assets and declares bankruptcy before settlement is due.

In 1997, the government and the financial community began steps to create a regulatory structure for the equity markets and to introduce some rules for corporate governance. Legislative changes limited the banks' ability to hold controlling interests in non-financial firms, placed limits on the share holding by banks and the activities of bank managers in other companies and limited the holdings by an IPF in any one company in order to distinguish between investment funds and holding companies. Although these rules were introduced in order to harmonize with EU practice, they might have the effect of forestalling enterprise restructuring. Mergers and acquisitions and similar activities by large shareholders can lead to beneficial restructuring of the economy. There are other mechanisms for protecting minority shareholder rights in such a context. Another element of reform was the creation in 1998 of a Securities Commission with broad powers to enforce regulations and oversee trading activity. However, the commission is not an independent rule-making body that would have the power to initiate regulations that would increase the transparency of OTC trades and eliminate some of the dubious corporate governance practices. Finally, in 2001 additional commercial legislation was enacted that, among other things, strengthened minority share holder rights, tightened disclosure requirements and increased the powers of the Securities commission.

Despite the improvements in the legal framework, the capital markets in the Czech Republic are illiquid; investor confidence is shaky and brokerage firms have scaled back their activities. There have been no successful IPOs since the stock market opened. Trading is dominated by a few companies (banks, telecoms, power generating company). It is possible that trading activity for the best and strongest Czech companies will move abroad. At least four big companies are listed as GDRs in London. If this develops, then the local markets would merely be a trading venue for small companies. In summary, voucher privatization thrust the Czech stock market into prominence that was not deserved. It is not now serving any significant role in the intermediation process.

The Budapest Stock Exchange (BSE), the only one in Hungary, was established in 1990 and the legislation providing a legal framework and regulatory agency was passed at the same time. In addition to equities, government securities are traded through the BSE's automated systems. In fact, government securities accounted for two-thirds of total stock market capitalization at the end of 1995. Although there were 42 listed companies at that time, the two largest accounted for 47 percent of equity market value and only four companies had a capitalization greater than \$150 million. Equity trading volume was about one-third of total trading value in 1995 (up from 10 percent in 1993).

Hungary did not choose a mass privatization program or distribute vouchers. Once the legislation to govern privatization was enacted in 1995, privatizations have occurred rapidly, including those of public utilities and banks. The number of companies traded increased but only reached 66 at the end of 1999. Stock market capitalization has increased rapidly from 1995 to 1997 and has leveled off since at almost one-third of GDP. As a result the listed companies in Hungary tend to be larger than in neighboring countries and the markets are somewhat more liquid. There have been aggressive efforts to privatize the economy, which were virtually completed by 2000.

A distinguishing characteristic of the BSE is that foreigners own more than three-quarters of the shares traded and domestic small investors own only about 10 percent of the total. As a consequence of extensive foreign ownership, Hungarian stock prices were severely affected by the Russian crisis in 1998 and did not regain their peak for two years.

One large Hungarian company (the telecommunications company, MATAV) is listed on the NY Stock Exchange as an ADR after making an IPO in November 1997 and others are traded in Europe. In 1995, the Hungarian savings bank, OTP, completed an international private placement of about one-fifth of its shares.

Russian securities markets date to the start of transition, 1990-91, when a number of Russian firms, mostly banks and trading companies, were established as joint stock companies and began to sell shares to the public. A stock market opened in Moscow in 1991 and over 100 regional markets emerged. The extensive mass privatization program in 1992-94 spurred the development of trading in equities and in privatization vouchers on the regional markets and through over the counter arrangements. Shares in over 15,000 former state enterprises were sold through voucher auctions that resulted in widely dispersed stock ownership. Once the privatization program ended in mid-1994, trading on the stock exchanges diminished and most trading was done in an informal dealer market. However, insider trading of blocks of shares often manipulated prices and there was little confidence in reported stock prices. Widespread stock ownership emerged before there was a reliable institutional structure for trading, clearing, settlement, registration or oversight of brokers and dealers. In brief, secondary market trading that would induce companies to restructure and would enable outsiders to gain control or influence just did not emerge. The later privatizations efforts through 'loans for shares' arrangements just made matters worse. Foreign investors were excluded; the transactions were not transparent and favored those tied to the government.

As elsewhere, market capitalization and trading activity is concentrated in a handful of large companies. The ten largest companies consisted of about one-half of the total capitalization. At the end of 1995 there were three companies with capitalization in excess of \$1 billion and 14 in excess of \$150 million. Trading volume was even more concentrated with the four most active shares contributing one-half of all trading and the eight most active contributing over three-fourths of total volume. In 1994-95, most companies in Russia, including the large internationally known and active natural resource companies (e.g. Gazprom, Norilsk Nickel), were trading at a fraction of book value. There were several explanations for this. First, it was feared that the firms might have hidden liabilities such as social obligations to workers or yet unspecified taxes and regulations. Second, it was feared that managers and others would be able to steal assets without any regard for the rights of shareholders. Third, it was feared that share sales would not be properly registered and owners would be unable to prove or assert share ownership. Many of the problems with Russian equity markets stem from the privatization procedures (see *OECD Economic Surveys: Russian Federation 1997*) that often solidified the power of managers by transferring controlling blocks of shares to employees. Insiders controlled almost three-quarters of the privatized firms and outside ownership was often less than 20 percent. Expectations that the sale of residual state shares on secondary markets and competitive markets for share blocks would transform corporate control turned out to be unrealistic. Ownership of the largest companies is much more diffused and although insiders tend not to have a controlling interest, insiders along with the banking groups are able to maintain control of management.

A regulatory agency – the Federal Commission on Securities and the Capital Market – was established in 1994. The commission had a small staff and a difficult time catching up with market developments. Nevertheless, the commission did assist in the establishment of the Russian Trading System in mid-1995, a national electronic market that links various markets and brokers and also provides for rule making and self-regulation. A World Bank report (Fine and Karlova, 1998) indicates that the system has been very successful in improving the trading environment in Russia. Off market trading and attempts at price mani-

pulation through such trading have declined and spreads are smaller for companies using the price setting mechanism. At the end of 1997 daily bid and offers were set for over 200 companies and 700 additional companies were registered for trading on the system.

The trading system and regulatory structure promised to bring transparency of prices and eliminate registration problems that existed earlier. Particularly, for the largest Russian companies, the equity market quickly became an international investment vehicle with wide investor interest. Although, the trading system improved market transparency, the extensive control of firms by Russian financial groups and interlocking ownership by these groups continued to inhibit the development of the corporate sector. Nevertheless, the Russian equity market boomed throughout 1996 and 1997. Total market capitalization doubled in 1996 and tripled again in 1997. Although, the number of issues increased, the expansion was mostly due to price increases. Many large Russian companies were able to access international capital markets even though corporate governance and disclosure lagged Western standards. Optimism about the Russian economy seemed to outweigh any other concerns. Several large Russian natural resource companies had capitalizations in the billions of dollars.

All of this, of course, changed with the Russian economic crisis and debt default in 1998. By September the IFC total returns index, which had doubled in 1997, was 75 percent below its June 1998 level. Stock market performance has been spotty since 1998 with some recovery followed by declines despite distinct improvements in the economy. Trading volume is small and is dominated by a few companies.

Concerns about the institutional environment for investors have impaired any improvement in the Russian stock market. The damage done by the 1998 crisis lingers and the stock market is not playing a role in development. If Russian equity markets have any role it is through the Russian companies traded abroad.

Equity share issues were first permitted in China in 1990 and two stock exchanges opened at that time. The market grew rapidly after 1995 when China introduced a policy of gradually turning state owned enterprises into joint stock companies. By the end of 1996 there were 540 companies listed and by the end of 1997 the number reached 764. Most of the firms listed are state controlled enterprises with most shares held by the state or employees. Thus, there is little shareholder control of firms or any opportunity to use the stock market to gain control. Although public listings are supposed to enterprise reforms, the stock market does not serve as a vehicle for reform. Despite the stated commitment to reform, enterprises remain largely in government hands and significant improvements have yet to occur (see Boardman, 1999). Disclosure standards, proper accounting procedures, shareholder protections, independent directors are all largely lacking. Financial sector reforms will accelerate somewhat as part of commitments made by China in order to join the World Trade Organization.

Unlike other transition economies, the equity market in China is viewed as a means of raising capital for enterprises that remain majority state owned rather than as a vehicle for privatization. About \$10 billion was raised in various types of stock issues in both 1998 and 1999 and about \$25 billion in 2000 (Citibank – Salomon Smith Barney estimates). This fund raising performance is remarkable in the light of the overall environment maintains government control of firms. Some Chinese companies have been able to access international equity markets. Companies have raised capital by issuing shares on the Hong Kong Stock Exchange or issuing ADRs. By 1997 there were 10 Chinese ADRs traded on the New York Stock Exchange.

### 3.3 Bond markets in the transition economies

With all of their limitations, the equity markets in the transition economies are much more advanced than bond markets. With the exception of government bond markets and a handful of companies with access to international markets, bond markets are very small. However, it should also be noted that many of the advanced transition economies are very small countries. Capital markets in developed small countries are often small because of close links to capital markets in neighboring countries. Thus, it is not surprising that German and Austrian financial institutions and markets are active in the region and that independent publicly traded bond markets might not emerge in each transition country. Direct access to foreign markets by companies in the transition economies is already a significant source of finance. It facilitates capital inflow and improves the efficiency of allocation even in the absence of local bond markets.

Bond markets can be separated into three components:

1. *Domestic government bonds.* Large government deficits lead to the sale of debt to both the public and to financial institutions. However, there are only rarely active secondary markets for bonds since most of the government debt is purchased and held by the banks. State owned banks that have run up large bad debt portfolios from enterprise lending and privatized banks that lack lending expertise will often prefer to simply hold government debt.
2. *Domestic corporate bonds.* Corporate bond markets that can funnel domestic savings to enterprises are rare in transition economies. There are relatively few instances of local debt instruments sold and these are often private placements rather than public debt. Thus, secondary debt markets are virtually unheard of. One of the reasons for this is that the financial institutions that can be expected to participate in these markets – insurance companies, pension funds – are also undeveloped. Private sector bond markets are really a missing element of capital market development.
3. *International debt.* It is common for both governments and the largest and best enterprises to tap international debt markets. Most of the transition economies have done some sovereign borrowing in major currencies on world markets. Most of the transition countries have sovereign debt ratings and in many instances the spreads over Western government yields were surprisingly small prior to the Russian crisis. In addition, many large enterprises in the transition economies are able to borrow on international debt markets. Privately placed and publicly traded issues are common and substantial. Only the best companies can tap foreign markets but there are a surprisingly large number of issues from the advanced transition countries. Much of the portfolio investment flowing into Central and Eastern Europe is in the form of bond issues or syndicated loans in foreign markets.

From the point of view of financial sector development and improved intermediation, the domestic corporate bond market provides many advantages. First, a domestic currency bond market helps insulate a country from external shocks. Second, it promotes disclosure and transparency. Third, long term lending by banks was often based on cronyism or other ties rather than sound credit analysis. As banks improve they are less willing to provide such financing and the bond market provides a market-based alternative. Nevertheless,

developing a bond market is a daunting task that few emerging market economies have tackled.

### 3.4 Country experiences: Public sector and international bond markets

The Hungarian economy flirted with transition in the 1980s well before the actual political transition began. There were bond issues by some enterprises and local authorities starting in 1982 but these issues ceased when inflation increased. The government sold mostly short-term securities to individuals and to financial institutions. Since 1992, the government began to issue somewhat longer-term securities. Two and three year fixed rate bonds were introduced in 1996, five year bonds in the following year and most recently, a ten year note. It was anxious to do so because the benchmark ten-year government interest rate is one of the convergence criteria for the euro so the development of that market was viewed as an important step into Europe. Foreigners are allowed to buy issues with a maturity of at least one year and account for about 10 percent of holdings. Hungarian government entities tapped international bond markets throughout the 1990s, usually raising more than one billion dollars per year. Hungary was by far the biggest sovereign borrower in the region, raising as much as \$3.9 billion in one year (1993).

The situation in Poland is similar; there is substantial trading of government bond issues while the domestic corporate bond market is very small and the private equity market somewhat larger. The Polish government was not able to tap international bond markets until 1994 when it resolved its relationships with bank creditors regarding pre-transition debts. As firms began to restructure, Eurodollar lending began to appear. Among the first such issues was a \$50 million three-year note by the Polish Development Bank in early 1996. In addition, there have been zloty bond issues by some international organizations starting in 1996. At the end of 1997, 56 government bond issues were listed on the Warsaw Stock Exchange and trading volume was about as large as equity trading.

Capital markets have been less significant in the Czech Republic than elsewhere in the region because of the dominant role of bank financing and the ties between the banks and the investment funds. In 1995, the outstanding government debt (because of the sound fiscal position of the Czech Republic in the early transition years) was only slightly larger than the corporate market. Government debt issuance increased subsequently although most of it was short term. The Czech government has tapped foreign bond markets throughout the 1990s but it has borrowed less than the Hungarians have (about \$350 million per year from 1990-96, see Sobol, 1997). In 1994 the Czech state owned power company was the first enterprise in the region to tap Eurobond markets directly with a \$150 million issue and in 1996 Komerční Bank issued \$250 million in Eurobonds.

Foreign capital market access by Czech firms has out-paced domestic market development. Moreover, there is an offshore market for bonds denominated in the local currency, Eurokrona issues. The biggest issuers are the Czech banks that on lend the funds to Czech firms (IMF *Country Study Czech Republic, 1998/36*). By mid-1997 there was \$4 billion in such liabilities (similar markets exist in Poland and Hungary but they are much smaller, about \$600 million and \$400 million respectively). The World Bank has also used the Eurokrona market with an issue of almost \$100 million in 1995.

The Russian capital markets developed rapidly but unevenly in the mid-1990s. The most organized market was the market for government securities. The short-term, zero coupon notes known as GKO's traded daily on the Moscow International Currency Ex-

change. The government relied on the GKO market to finance the deficit and Russian commercial banks were originally the main purchasers. The GKO market was touted as an active and efficient domestic money market. After a while, high yields were used to pull investor interest from foreign exchange markets. The volume of GKOs expanded rapidly, reaching 3.2 percent of GDP in 1994. When the ruble exchange rate was relatively stable, the GKOs provided generous and seemingly safe returns to foreign investors. The willingness of foreign investors to absorb GKOs provided a noninflationary means of deficit financing. However, by 1997 investors began to leave GKOs and buy foreign exchange and by early 1998 interest costs on existing debt exceeded the government's ability to issue new bonds. The collapse of the GKO market was the first step of the Russian 1998 crisis.

In addition to GKOs the Russian government issued dollar denominated domestic bonds called MinFins starting in 1993 many of which were purchased by foreigners. Further, the Russian government was accepted by the world's debtor clubs and began selling Eurobonds in November 1996. There were two issues that totaled \$3.75 billion sold at high yields in June 1998, just before the financial crisis. Finally, many local government authorities have issued their own bonds. By mid-1997, Russian banks owned about \$27 billion in government debt and non-official foreign owners held about \$45 billion in post-Soviet government debt (IMF, *World Economic Outlook*, December 1998). The ability of the Russian government to tap international capital markets and the level of activity in the ruble bill and bond markets gave the appearances of extensive development of the financial system until the 1998 crisis.

The Russian sovereign entry into international markets was followed quickly by private sector borrowing abroad. The first Russian companies to directly access world debt markets were three Russian banks that sold three-year dollar bonds in 1997. The yields were very high but the deals were viewed as a way of gaining international exposure for Russian institutions that obtained credit ratings and had their reputations enhanced by the deals. In July 1997, the Russian oil giant Lukoil raised \$125 million with a one year private placement. Another oil company followed a month later with a three year floating rate public debt issue arranged by Salomon Brothers. The cities of Moscow and St. Petersburg also entered the Euro markets. In 1997, Russian entities were able to borrow with spreads that were usually 300-400 basis points over U.S. Treasuries. Over \$3 billion was raised in international capital markets in 1997 and observers were predicting that the world debt markets would finance the rebuilding of Russia.

Of course, all of this activity ceased in the summer of 1998. Although national and international markets remain thin and bondholders are understandably wary following the sovereign default, there has been a slow recovery and yields on Russian bonds have declined from the crisis levels. Furthermore, some private sector lenders that were previously crowded out by government borrowing have been able to access bond markets. These are typically large Russian enterprises with substantial hard currency revenues from natural resource industries.

Bond issuance in China grew very rapidly in the 1990s. It is largely government debt although it is used to finance enterprise expansion as well as to finance the deficit. Bonds are largely owned by the household sector that has a high savings rate and few alternative investment vehicles. Interest rates on bonds and on bank deposits were determined administratively. There have also been sovereign debt issues in international markets but these are offset by China's large foreign exchange reserves. China's bond and stock markets are a source of funding for industry, which gives the appearance of a market-based mechanism for the allocation of capital but it is just the appearance. Funds are allocated to state enterprises and new private sector enterprises rely on self-financing.

Bond markets for enterprise financing in other transition economies are tiny. However, many countries have made efforts to develop secondary markets for government debt in order to facilitate monetary policy operations. For example, as interest rates on government securities have become more market determined, the central bank of Romania has begun using repurchase agreements and reverse repurchases as an instrument of monetary control. This is likely to be common as central banks develop modern policy instruments.

### 3.5 Lessons for the capital markets

Bond markets in the transition economies are for the most part offshoots of government fiscal policy. In addition, large companies in the region can access financing from abroad, which has inhibited the development of local markets. There was little need to develop a sales or distribution network for domestic bond issues in small economies, if foreign markets are accessible for large companies and private market placements feasible for small companies. Although the inhibiting effect is unfortunate, the reputational effect of international capital market acceptance is valuable.

Domestic private debt markets have been slow to develop for several reasons:

1. The lack of transparency about corporate restructuring;
2. Poor accounting and disclosure that make it impossible to monitor the use of funds and the absence of a legal framework to clearly define the rights of creditors;
3. Power of insiders that gives creditors little influence over management and little recourse in event of default;
4. Bond pricing is difficult since it requires some knowledge of default probabilities and expectations of asset recovery.

Nevertheless, there may be reasons to expect the domestic bond markets to expand:

1. As restructured enterprises will be able to issue bonds at rates that are more favorable than bank loans;
2. And as the development of other financial institutions such as life insurance companies and private pension funds creates demand for debt instruments.

Recent discussions of financial development in transition economies emphasize the importance of a wide spectrum of financial instruments and markets. A broad variety of financial instruments helps an economy absorb shocks and provide useful information to the markets. In particular, Herring and Chatusripitak (2000) argue that the absence of private sector bond markets had a significant role in making the Asian financial sector crisis so serious. They conclude (p.4) that the Asian reliance on bank financing and the “the absence of a bond market may render an economy less efficient and significantly more vulnerable to financial crisis.” Sharma (2001) examines corporate financing patterns in Thailand, Malaysia and Indonesia and concludes that the interlocking relationships between banks and corporations, often through family owned conglomerates, discourage the development of bond financing. Thus, bond markets are less likely to develop when the banking sector

is not independent (e.g. the Czech Republic where funds tie the banks to corporations and Russia where the industrial groups often control banks as well). The very fact that is a topic of interest in the advanced transition economies indicates how far they have come; the issues faced in central Europe are emerging market and not transition issues.

Building local corporate bond markets is a difficult task that is currently being addressed by emerging market countries around the world. To begin, it requires the existence of a critical mass of corporate issuers and of potential holders. There have to be intermediary firms to develop the clientele on both the supply and demand sides and to bring them together. In order to do so, a number of ancillary developments might be needed in advance. First, institutional investors (insurance companies, pension funds, investment funds) that might hold the corporate bonds must exist. Second, a government securities market is often used to set pricing benchmarks. Many transition economies, particularly those interested in joining the euro area, have made efforts to develop government securities benchmarks. Third, investors might require the development of credit ratings agencies, which will need a critical mass of activity to succeed.<sup>11</sup>

Although the benefits of local bond markets are well understood, the difficulty in establishing them may be underestimated. Small emerging market economies might not generate the amount of activity needed to sustain market institutions. Thus, with the exception of Russia, China and perhaps a few others, larger enterprises will use international bond markets and domestic markets may stay small. This provides a gap in the opportunity to gain financing between the very largest companies in a small economy and all the rest. However, this is not a transition problem but will be one increasingly faced by all small open economies, both emerging markets and fully developed wealthy countries.

Stock markets in the transition countries exploded on to the scene as a consequence of privatization. All of a sudden, these economies had a large number of publicly owned companies and quickly put together trading mechanisms for shares. In some instances, the trading mechanisms were woefully inadequate (e.g. the difficulties with share registration in Russia). In other instances, they were used to manipulate corporate control because the rules for corporate governance were inadequate. In most instances, there was a naive notion that vast numbers of small enterprises would be restructured once their shares were available for trading. This was too much to expect for equity markets that are illiquid and where there is little reliable disclosure of information about companies. In many places the stock market activity diminished after the initial spurt for two reasons. First, it was soon apparent that many public companies were too small to have any meaningful stock market activity. Second, many large companies moved to trading in the U.S. or European equity markets. Thus, the role of the stock market is likely to be rather limited in the transition economies (as is also true in many small emerging market and even some small industrial countries).

Nevertheless, there are instances where the equity markets play an important role. In Poland, a number of privatizations have taken place with IPOs that have used the Polish equity market to determine the value of the firm. The IPO privatizations have been made possible and have raised more revenue because of the liquidity that comes with a successful market issue. In addition, there have been successful efforts to raise new equity capital with stock offerings.

Have capital markets increased the level of capital formation in the transition economies? It is probably premature to argue that these markets attract or increase the level of savings. Most individual holding of equity is the result of mass privatization. Institu-

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<sup>11</sup> For a discussion of bond market development in the context of Asian emerging markets, see Harwood (2001).

tional investors or intermediaries like pension funds or insurance companies that mobilize the savings of individuals and hold capital market instruments, are just getting started. On the other hand, it is important to remember that net portfolio investment flows to the transition economies averaged \$21.1 billion per year from 1994-97. These inflows might not have occurred at the same magnitude in the absence of the capital market development that has occurred already.

Have capital markets improved the allocation of resources? On a positive note, equity markets, notably in Poland and Hungary, have been used to generate substantial privatization revenues for the government that should be viewed as an improved allocation of resources. However, these revenues are rarely given to the private sector to recapitalize enterprises. More generally, the allocative improvements from capital markets are due to the benefits of liquidity.<sup>12</sup> Liquid markets enable investors to respond to changes in business conditions and enable entrepreneurs and venture capitalists to have an exit mechanism through IPOs.

The equity markets have played a role in introducing market forces to price assets and risks. In instances where IPOs have distributed large blocks of stock that were held by the state, the market provided an important pricing mechanism. However, corporate governance is weak and boards are rarely responsive to signals from the market. Thus, the capital markets are rarely a disciplining mechanism on management. Finally, the markets in most countries can now facilitate ownership transfers. However, the market for corporate control – takeovers, mergers, buying controlling interests – is still not very active.

After some years where the capital market infrastructure was inadequate, most of the advanced transition economies have made steps to improve the operation of capital market structures. Even in Russia, the infrastructure for capital market activity worked fairly well in 1997-98. Trading in GKO could take place fairly and trades could be cleared and registered. The market collapsed because of fundamental problems (the excessive increase in supply from the government and the unregulated hedging activities of the banks) rather than an inadequate market infrastructure.

Capital markets in more developed countries are part of a broad fabric of institutions. They include venture capital firms and investment banks that participate in private equity markets. Thus, there are markets for corporate control and for merger and acquisition activity of small and/or privately or tightly held firms. Similarly, developed economies will have investment banks that are able to underwrite IPOs. The stock market, the last stage of financial development, provides a market judgment of value and an opportunity for entrepreneurs to exit. They are not yet serving this role in the transition economies.

## 4 Missing pieces: Gaps in the institutional continuum

Developed economies provide competing paradigms for the role of financial institutions in corporate finance. One paradigm leads to a bank-dominated financial sector; the other leads to a more significant role for capital markets. The insider model, in which banks play a central role in corporate governance, is based on the German and Asian financial sys-

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<sup>12</sup> Recent research on equity markets around the world (see Rousseau and Wachtel, 2000) indicates that equity markets boost economic growth because they make investments more liquid.

tems. The outsider model, in which capital markets plays a crucial role in disciplining companies held widely, is based on the U.S. and U.K. systems. Due to complementarities and synergies among institutions, each of the paradigms has a different cluster of characteristics necessary to support its effective functioning.<sup>13</sup> For the outsider system to work effectively, sufficient competition and market liquidity with low transaction costs are necessary. For the insider system to work effectively, the conflicts of interest between and among stakeholders must be minimized so that consensus-based decision-making is not overly costly and a self-interested agent must be found to monitor compliance with the agreement. For a bank to play the latter role it is crucial that the bank be able to avoid capture by the stakeholders and also be able to address the inherent conflict of interest between its role as a debt and an equity holder. Otherwise the bank's cash flow is readily available to its company-clients on non-economic terms. Furthermore the bank may find it in its self-interest as owner to bail out its client when this would be imprudent from a creditor's perspective. Neither set of necessary conditions is present in transition economies. Nascent capital markets are thin and often lack the transparency necessary for the outsider system. Banks are weak and not well suited to play the role required of them in an insider system.

In developing economies, path dependency plays an important role in financial sector institutional development and the paradigm followed is often due to initial conditions. In the transition economies of Central Europe, the desire to join the European Union led to the adoption of EU banking regulations, including universal licensing for all banks. The choice of universal banking is likely to be an irreversible one because, once licensed, the universal bank will attempt to protect its franchise value by limiting the entry or activity of other institutions.<sup>14</sup> Hence, complementary financial institutions will develop to support the chosen system. Unlike in the Central European countries, irreversible institutional choices have not yet determined the eventual evolution of the financial systems in China and Russia.

Whether or not a transition economy has a bank-dominated or a market-dominated financial sector depends crucially on the macroeconomic environment since hyperinflation leads to severe disintermediation and currency substitution. Prior to the break-up of the Soviet Union, the aggregate balance sheets of banks looked similar to those in Western economies. However hyperinflation reduced significantly intermediation so that, even before the 1998 financial crisis, Russia was not a bank-dominated economy. In Bulgaria before the establishment of a currency board, hyperinflation had reduced significantly the dominance of banks and has contributed to a similar outcome in Romania. Hyperinflation in Poland, on the eve of the transition, resulted in two-thirds of the money supply being denominated in dollars. The credible exchange peg in Poland at the beginning of the transition allowed the banking sector to re-establish its dominance. The creation of a currency board in Bulgaria in 1997 has promoted macroeconomic stability that facilitated a banking recovery and bank privatization to foreign owners..

The paradigm for corporate finance in the transition economies depends on initial conditions and the macroeconomic environment as well as conscious policy choices. Whatever mix between bank and capital market finance emerges, there are still other important capital market institutions and instruments that play essential roles in developed

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<sup>13</sup> See Corbet and Mayer (1992) for a characterization of the two paradigms with an application to transition economies.

<sup>14</sup> See Raghuram G. Rajan (1998) for a model in which allowing universal banking effectively precludes the development of specialized banking even though the latter is more efficient and profitable at some later point in time.

country financial markets. These market structures are largely lacking in the transition countries; they are the missing pieces.

In this section, we examine three broad and interrelated missing pieces: entrepreneurial finance, other (than equities and government bonds) capital market instruments and institutional investors (non-bank financial intermediaries).

## 4.1 Entrepreneurial finance

Entrepreneurial financing runs the gamut from start-up funds to support the launching of new companies to growth financing for successful small and medium size enterprises (SMEs). Such transactions have important demand and supply components that are hardly unique to transition economies. On the supply side, the riskiness of these ventures is thought to make them unattractive to banks and, hence, these activities will be credit-constrained. On the demand side, the adverse selection argument indicates that firms that are successful have no need to access external credit markets so that the only borrowers left seeking outside financing will be 'lemons.' Creditors fearing adverse selection refuse to lend to the entire pool of borrowers and banks maintain below market clearing interest rates and ration credit according to other criteria. These problems are endemic to entrepreneurial finance and various institutions to surmount them have evolved in developed capital markets. In many instances, market imperfections for the financing of SMEs lead to government efforts to provide subsidized programs for start-up financing and micro lending.

Some of the literature on entrepreneurial finance in transition economies indicates that credit market imperfections are not serious impediments and that start-ups have succeeded without any apparent financing difficulties. For example, Czako and Vajda (1993) examined the sources of SME start-up and continuing financing in the early stage of the transition in Hungary and found that only about a quarter of the companies surveyed used either bank or concessionary loans for start-up financing. Furthermore, of the less than 20% of these Hungarian companies that reported the need for subsequent capital, only about 20% used concessionary financing while almost 45% attracted bank financing. In another study of small private firms in the Czech Republic, Hungary, and Poland, Bratkowski, Grosfeld, and Rostowski (1998) concluded that bank financing worked quite well. The authors found no evidence of supply constraints on credit to SMEs nor did they find compelling evidence of adverse selection and concluded that imperfections in capital markets were not impeding growth in these three fast-track countries.<sup>15</sup>

At the entry stage, a variety of programs can be found in the transition economies to provide subsidized financing for start ups. In an investigation of the early transition period in Hungary, Laky, (1994) found that the START program administered under the supervision of the Hungarian National Bank and designed to provide subsidized long-term credit for SMEs was successful enough to lead to a second stage of funding. In the Czech Republic, a specialized bank administers a variety of subsidized programs for SMEs. Participation in these programs has varied over time and interest seems to have fallen off in re-

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<sup>15</sup> Several additional papers on entrepreneurship and SMEs in the transition economies are found in Wachtel (1999).

cent years. In Russia, subsidized micro-lending programs have been funded by both the EBRD and the US-Russia fund and operated through Russian financial institutions.<sup>16</sup>

Government subsidized programs for start-up ventures can provide a useful source of initial financing for a small number of companies in transition economies when linked to the proper existing institutions. The institutional infrastructure needs to be in place so that start-ups do not view the subsidized credit mechanism as a continuing source of funds. Removing government influence from credit allocation to new enterprises is often a source of difficulty. Governments are often anxious to channel funds to favored industries and areas or to encourage new technology, which often leads to continued reliance on subsidized credit sources. Whether government efforts to direct funds are worthwhile is a subject of much debate. However, these programs can not fill the gap of bridge financing needed for the next stage of growth in which successful SMEs without the history necessary to attract bank credit and in financial sectors without the institutions that prepare companies to use capital markets must find longer term external financing.

Sustainable growth will depend strongly on the ability of successful SMEs to attract financing so that there is reason to be concerned about the SME sector. For example, although the total stock of real credit has increased by more than 20% from 1994 in Hungary, small enterprises received less than half of their 1994 level in 1998 (OECD, *Economic Surveys: Hungary*, 1999, p.86). Banks prefer to do business with medium and large enterprises and have moved aggressively into retail markets. As a result of high failure rates and poor information about new SMEs, there are stiff bank collateral requirements that often foreclose any possibility of bank lending.

Pissarides (2001) investigates the sources of finance for large enterprises, basically SOEs, and SMEs using sample survey data collected by the EBRD for 1999 to 2000 from five South Eastern European countries. She concludes that internal financing is the dominant source of funds for both types of enterprises in these countries. Among large enterprises, state financing accounts for 10% if the funds in Bulgaria, about 8% in Croatia and less than 5% in Romania. Local bank financing is important for large enterprises in Romanian and for all enterprises in Croatia. In Romania, 23% of large enterprises use local bank financing while 14% of the large enterprises and 18% of SMEs in Croatia use this source of funds. In Bulgaria, about 8% of large enterprises and 6% of SMEs use bank financing. Only 7% of the SMEs in Romania use local bank financing. Interestingly, 8% of the large enterprises surveyed in Croatia listed foreign bank financing as a source of funds while the percentage for SMEs was 3%. In Romania and Bulgaria, about 2% of large enterprises and 1% of SMEs used foreign bank financing. Taken from this perspective, only in Croatia banks, both local and foreign, play an important role in overall business financing in the five SEE countries studied while local Romanian banks are still the principle outside source of funds for large enterprises. In Bulgaria, the state is still the main external source of financing for large enterprises.

An enormously important source of private financing for start-ups and SMEs in both developed and developing countries is the venture capital industry. The availability of risk financing for new enterprises and SME expansion is organized around individuals and firms who seek such opportunities and market them to potential sources of capital. The venture capital industry is particularly important in countries where banks do not make equity investments. However, even under universal banking, banks often prefer customers with proven track records and shun new enterprises and longer-term commitments and

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<sup>16</sup> Although the Russian financial crisis affected adversely the EBRD program, it had little effect on the US-Russia program because the latter used smaller financial associations and credit unions while the former used larger Russian banks (*Business Central Europe*, April 1999)

risks that are hard to judge. Thus, the role of venture capital as a source of finance for activities with high risk and potentially large impacts on economic development cannot be understated.

There are indications of significant developments in entrepreneurial financing (see OECD 2001 on Poland). For example, professionally managed venture capital funds in Poland reached \$2 billion in 2000. In addition, small and medium enterprises report a growing array of financing possibilities. There are many leasing firms in Poland and they are growing rapidly. Furthermore, the emerging competitive banking industry provides lending to small and new firms. The combination of a venture industry, bank financing and leasing provide an encouraging picture. IPOs and listings on the local equity market are a last and perhaps less important step than these other developments.

The venture capital institutions found in more developed economies include angel financing (individuals who take risk stakes in new ventures), venture capital funds that pool capital and take equity or lending positions and venture capital firms that evaluate and market opportunities. All of these institutions are yet to develop in the transition economies with few exceptions. The venture capital industry in developed economies looks to the equity markets, as well as merger and acquisition activity of larger firms, as exit mechanisms. Thus, the continued development of liquid equity markets might lead to increased availability of entrepreneurial finance. There are already instances of private equity fund investments in the advanced transition economies. Leasing is another important instrument for enterprise financing. It has grown rapidly in the transition countries, some of it by banks and some by other intermediaries.

## 4.2 Missing capital market instruments

This section and the next are simply a statement of how wide the gap in institutional development happens to be. There are myriads of other capital market instruments and non-bank institutions that are both essential to the operation of a mature financial system and largely nonexistent in the transition economies. To begin, we look at some of the country experiences to see what kinds of capital market activity (in addition to the equity and government bond markets discussed earlier) exist.

Hungary stands out among the transition countries because there is a reasonable amount of capital market financing, mostly through private placements. There are a number of funds that make equity investments in companies; about \$400 million has been committed in about 100 deals. In at least one instance, the equity investment led to an international stock issue. There are also instances of debt financing by Hungarian companies with issues in local currency purchased by foreign and domestic investors although there is little evidence of secondary markets emerging for such issues. In 1996, corporate bonds accounted for just 0.1 percent of trading on the Budapest Stock Exchange.

By the end of 1998, about \$1 billion was invested in Poland by private equity funds with investments in both new and existing enterprises. Some large companies have issued bonds internationally but there have been fewer than ten domestic issues with maturities more than one year. Nevertheless, the capital markets are developing; there was a zloty bond issue in 1998 that exceeded \$100 million. A pharmaceutical company (a 1990 start-up venture) was scheduled to sell about \$12 million in zloty bonds on the domestic Polish market in early 1999.

Capital markets in the bank-dominated Czech Republic are relatively undeveloped with the exception of corporate bond issues by so-called "blue chip" issuers. By mid-1995,

there were eight bond issues with a total of about \$1.25 billion outstanding. However, there was little secondary market trading of bonds.

A telling indication of the limited development of the Russian capital market was that private sector domestic debt instruments (other than the inter-bank market) are virtually non-existent. There have been a few issues of collateralized debt by companies but there are no domestic corporate bond issues. Similarly, in China, only one percent of total fixed investment in 1996 was financed by any capital market issues. In addition, capital market developments are often miniscule once we look passed the advanced transition economies. For example, Bulgaria has made substantial progress since the currency board was introduced in 1997; banking is fairly stable and some other institutions have emerged. However, in 1999, the new pension funds had only \$15 million in assets and the finance companies only \$57 million.

A major factor that inhibits the growth of capital market instruments is the absence of the institutional investors and non-bank financial intermediaries that are the potential holders of such instruments. We noted earlier that the presence of a private sector bond market could help develop a financial sector that can absorb internal and external shocks. However, such a market requires both supply and demand development. Institutional investors that are independent of the dominant banks can provide the missing demand.

### 4.3 Missing sector: Housing finance

After corporate issues, the most prominent capital market instruments in developed countries are mortgages. Mortgage financing for commercial and residential building is virtually non-existent in the transition economies. In large OECD countries (e.g., U.S., U.K., Germany), the stock of mortgage loans is often over 50 percent of GDP. Even in France, which has a weaker tradition of mortgage lending, this stock is 50% and, in Italy, it is about 10%. The only transition economy with a mortgage loan to GDP ratio over 5 percent in 2000 was Estonia. In the other advanced transition economies, this ratio is about 2 or 3 percent. Nevertheless, these markets have grown rapidly since the mid-1990s, often by a factor of three or more. Mortgage financing in the transition economies often lacks many of the characteristics found in more developed markets. Loan to value ratios are small, maturities are short, and the loans are often denominated in foreign currencies to counteract domestic macro instabilities.

There is a good reason why this important element of the financial sector lags in transition economies. The privatization of the housing stock has still not occurred in some transition economies and ownership rights are often ambiguous (see Struyk, 1996). There are ambiguities in the legal structure governing housing ownership in even the most advanced transition countries. For example, the housing stock in Hungary was privatized at the start of the transition process and most housing is owner occupied. Existing subsidized mortgages were rationalized when holders were offered the chance to pay them down or have them rewritten at market interest rates. Many Hungarian homeowners chose to pay off their mortgages. Nevertheless, in most transition economies, the procedures for dealing with mortgage loans in default are likely to involve lengthy legal problems with uncertain outcomes. In the best of circumstances, these institutional problems inhibit the development of housing finance and home-equity loans.

In developed countries, the government has often played a role in the development of mortgage instruments and markets by providing guarantees or by creating subsidized or protected institutions. The transition countries have made efforts to develop mortgage

markets. Even before transition, there was mortgage lending by state-owned banks, which was a way to extend subsidies to the housing sector. In the early stages of transition, similar facilities for channeling subsidies were developed. In Poland, where housing loans had been arranged with associations rather than individuals, a mortgage liquidity facility provided funds to commercial banks for subsidized mortgage lending. Truly market-based mortgage institutions did not start to emerge until the late 1990s. In 1997, both Poland and Hungary passed legislation establishing mortgage banks. These institutions are not very active yet, the first issue of Polish mortgage bonds was sold in June 2000 (see OECD, 2002). Similar developments are underway throughout Central and Eastern Europe. There are different models for mortgage institutions and differences in the extent to which they will be used to channel public funding. Although government efforts at institutional building are probably needed, there is a tendency to emphasize institutions for extending subsidies to the housing sector. Market-based intermediaries that collect deposits or issue bonds in order to finance mortgage lending have a long way to go.

The successful development of mortgage markets requires a number of elements. First, the legal structure for ownership and the use of mortgage instruments needs to be in place. Second, there needs to be a source of funds from either deposit or through subsidies. There is no lack of deposit sources in transition economies but the institutional developments must make mortgage holding as attractive as government securities. Finally, macroeconomic stability is required to encourage the use of long-term instruments.

#### 4.4 Institutional investors and non-bank financial intermediaries

The least developed segment of financial markets in most transition economies is the one consisting of non-bank financial intermediaries such as life insurance companies and private pension funds. With the exception of share purchases, households are rarely the direct sources of financing to enterprises. Instead households tend to participate in contractual savings plans such as insurance contracts and pension funds, which in turn purchase capital market instruments. Thus, the development of a domestic market for private placements, corporate bonds, or mortgages is unlikely to occur until the demand for such debt appears.

Both life and non-life insurance companies exist throughout the transition world. However, legislative frameworks for the industry were developed only in the mid 1990s and the industry did not begin to grow until later in the decade (Pye 2000). Nevertheless, there have been rapid gains in the advanced transition countries over the last several years. A stable life insurance industry has appeared in the Czech Republic, Hungary (largely with foreign firms), Poland and Slovenia.<sup>17</sup> In most transition countries, the industry is highly concentrated and, in many cases, the former state insurance company dominates. Industry penetration is deepest in countries that allowed foreign companies to participate from the start. The non-life segment (largely automobile insurance) is larger than the life segment, which has a more significant savings component and a larger impact on capital markets. Premium income from life insurance in 1998 exceeded one per cent of GDP in only one transition country (Poland where it was 1.02%). The average among OECD countries in 1994 was 4.26 percent. Non-life premiums are considerably larger, more than 2% of GDP in four advanced transition economies.

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<sup>17</sup> See the EBRD, *Transition Report, 1996*, chapter 7.

The competitive and weakly regulated industry in Russia is problematic. It grew very quickly and, in 1995, there were 2700 insurance firms in Russia that collected \$2.5 billion in premia. However, the insurance contracts were short-run savings vehicles that enabled the holders to avoid taxes; the industry collapsed in 1996 when the tax laws changed. There are still a large number of companies, including many unlicensed operations, and regulation is very weak. Furthermore, foreign entry is restricted so there are no external influences that might lead to improved industry conditions.

Pension reform and the creation of private funds have been subject to much debate in all the transition economies. Legislation both to allow and to encourage private pension funds has been passed in several places and this industry should emerge soon. As of 1996, only six transition countries, Russia, Hungary, Poland, Lithuania, Slovak Republic and the Czech Republic, had a legal framework for the governance and regulation of private pension funds. Quite a few funds have been set up in these countries with over one million Czech workers and one-quarter million Hungarian workers covered. Nevertheless, fund assets under management are still miniscule.

In 1998, both Poland and Hungary introduced private pillars of the pension system that include a mandatory participation component. Pension funds have grown rapidly in just a few years. However, there is likely to be a period of consolidation in the fund industry. Regulators will have to develop means for monitoring the industry and will relax restrictions gradually on investments. It is too early to tell how these institutions will affect financial intermediations. The potential for growth is enormous and private pension funds could quickly become a major influence on capital markets. However, the potential for error and abuses in fund management is also large.

The potential for capital market failures and abuses is still large throughout much of the transition world even as banking regulation has improved markedly. For example, the largest mutual fund in Romania collapsed in May 2000. Clearly, the securities commission was not fulfilling its obligations and the state saving bank was involved with the fund as well. Banking supervision has improved markedly since the Bancorex crisis in Bulgaria and the quality of the remaining banks is improved as well. However, the non-bank financial sector is still very weak.

Generally, institutional investors are important for at least two reasons. First, they act as financial intermediaries that channel funds to enterprises through private placements and direct investments. Second, they spur the development of secondary markets through their demand for bonds and mortgages. As institutions like pension funds, insurance companies, and mutual funds develop, there is likely to be more issuance of capital market instruments as well. However, these institutions barely exist in most transition economies and little progress has been made to develop them (see Blommestein, 1999). Institutional investors in Hungary, probably the most developed transition capital market, were still very small in 1996. Insurance company assets were about 3 percent of GDP (mostly held in government securities), investment funds were about 2 percent and private pension funds were less than ½ of one percent of GDP (van Elkan, 1998). More recent data for the three most advanced transition economies (Poland, Hungary and the Czech Republic) from 2000 indicate that total assets of institutional investors as a fraction of GDP is well under 20 percent, less than one-tenth of the ratio in the U.S. The insurance sector is a bit larger in the Czech Republic (assets are 9 percent of GDP) and investment and mutual funds are the largest in Hungary (12 percent). Thus, it would be a mistake to say that, after a decade of transition, institutional investors are non-existent in the fast-track transition economies but their scope of activity is tiny.

The EBRD is considering domestic currency bond issues as a means of building and developing local institutions. Such issues would enhance the credibility of markets and

encourage interest in such markets by both foreign and local investors. In many countries, such sales will require legislative development regarding disclosure, listing, settlement, accounting and exchange control issues for foreign issuers.

## 4.5 Regulatory structures

Our discussion of missing pieces in the financial sector would not be complete without some mention of regulatory institutions. Neither the legislative framework nor the institutional expertise for regulatory oversight of banks, capital markets, or any other financial sector institutions was in place when transition started. If the banks, insurance companies, and other institutions were all state-owned enterprises, there was no perceived need for any further regulation. Thus, the development of regulatory institutions was one of the biggest steps taken in transition. With the assistance of international financial institutions (the IMF, World Bank and EBRD were all very active in this area), most countries were able to introduce frameworks for regulation rapidly. Of course, the responsible and adequate application of these structures was often another matter. Our earlier discussions of banking and equity markets noted numerous regulatory failures. However, these were more often due to an inability to apply regulatory standards and structures rather than to an absence of institutions and laws. Remarkable progress has been made in the advanced transition countries and elsewhere. Even in the former Soviet Union, there has been significant and extensive development of regulatory institutions (see Knight, 1997).

The importance of responsible institutions has been demonstrated in the case of central bank independence. In the transition countries, an independent central bank is associated with lower inflation once the initial price shocks of the transition are passed (see Cukierman, Miller and Neyapti, 2002). There are of course areas that still need development. Although many countries have deposit insurance systems, exactly how these should work in a crisis needs to be developed. However, this is a problem that is common to many countries, particularly those with concentrated banking systems like the ones in the transition countries. Another issue concerns the location of regulatory powers in the central bank, the finance ministry, or in an independent agency. The preferred organizational structure for regulation is underdebated in developed as well as in emerging market countries.

## 5 Conclusions

The performance of financial markets in the transition economies can be measured against our expectations of the role played by such markets generally. A succinct statement is found in an OECD report:

“An active and efficient capital market can convey accurate information about firm value and can serve to channel domestic and international savings to their most productive uses. In addition, through the appropriate monitoring of managerial decisions it can help to ensure the efficient (profit maximizing) behavior of firms.” (OECD, *Economic Surveys, Czech Republic*, 1998, pp. 61-63)

Specifically, we ask whether the institutions and markets in the transition economies are fulfilling their roles adequately or at least better than in the recent past. That is, do they:

1. Facilitate the mobilization of savings
2. Allocate financing to investment projects
3. Price risk and assets
4. Monitor corporate performance
5. Assist the transfer of ownership

Even the most advanced transition economy institutions often fail to fulfill these functions. This conclusion is not surprising once we realize how little time there has been for the evolution of sophisticated institutions. Also, such developments are often lacking in emerging market countries around the world with similar levels of income. Moreover, institutional development was not the first financial sector priority. Banking reform was needed to assure the operation of the payments system and to eliminate soft budget constraints. Thus, the most compelling conclusion is that there remains a need for additional institutional development.

This conclusion should not obscure the fact that many transition countries have crossed what Berglof and Bolton (2002) recently termed the “great divide.” The great divide separates countries plagued with institutional backwardness and macroeconomic instability from ‘emerging markets’ economies. An effort to categorize the transition world shows that, ten years after the start of the process, all of the countries of Central Europe (including the Baltics) have crossed the divide. In addition, most of Southern European countries (including some of the Balkans) have crossed as well. The large countries of the former Soviet Union provide a mixed picture with elements of emerging markets and institutional backwardness. The Central Asian republics and some of the small FSU countries have probably not crossed the divide but are showing recent signs of development in many cases. Finally, an interesting aspect of these developments is that the pace of movement is probably much more rapid than most observers anticipated when transition started. A decade ago, the process was expected to be long and slow; few observers would have predicted that the term “transition economy” would in many instances be obsolete at the end of the first decade.

Problems in the financial sector are often a reflection of real sector problems and vice versa. Thus, the development of the financial sector has important implications for the overall well being of any transition economy. Successful intermediation between savers and investors requires macroeconomic stability and macroeconomic growth relies on intermediation to support capital formation. Similarly, there is a clear link between microeconomic

restructuring and the health of financial institutions. Unrestructured corporate clients cause banks to be weak thus inhibiting effective intermediation.

The first element of financial sector development to consider is the regulatory and governmental infrastructure. In the first years of transition, government concerns with the financial sector emphasized bad loan problems in the banks and equity issuance as part of privatization. There was inadequate attention paid to institutional development and the regulatory structure. A functioning regulatory system requires scarce resources and should not be overburdened. The government must take an arms-length approach to regulating financial institutions by promoting market mechanisms and eschewing direct interference. Self-enforcing regulation focused on the franchise value of banks, tax codes that encourage rather than discourage financial mergers, and the prohibition of using banks to fund government expenditures as quasi-fiscal deficits are important lessons for regulatory systems in the transition economies.

Three features of banking sector development that are crucial to insuring intermediation on commercial terms only are:

- Independence of bank governance from government control as early as possible and stated as the primary goal of bank privatization programs.
- Independence of banks from their undesirable, weak clients who may require transparent fiscal assistance.
- Independence should also allow the development of a market for institutional control through takeovers, consolidations and strategic investments.

It is now widely accepted that the participation of foreign strategic investors in banking is an effective way of meeting these goals. Foreign control of banking was fought bitterly in the early stages of transition in most countries although it was accepted as a foregone conclusion in Hungary, partly because of the already strong foreign greenfield presence. However, the rapid development of banking systems in Hungary and, to a lesser extent, Poland and the Czech Republic has led other countries that embarked on banking reform at the end of the decade to turn immediately to foreign investors (e.g. Bulgaria and Croatia). Capital market development is complicated by the need to support the development of institutional infrastructure and regulatory mechanisms while at the same time avoid interfering in the markets. Challenges faced by policy makers include:

- Policy makers should not expect immature markets and institutions to accomplish unattainable goals. Privatization through vouchers is often predicated on the existence of well functioning equities markets. However, the privatization process was often begun well before any trading mechanisms were in place.
- Small open economies will be integrated into global capital markets so that foreign penetration and ownership early on is desirable in these countries. Protectionist policies in the Czech Republic and Poland have retarded the development of the banking sectors and proved to be futile in the medium term.
- Path dependency through synergies created by financial institutions indicates the need for a clear, coherent goal for financial sector development to guide policy sequencing.
- Sustainable growth depends on having a full enough continuum of financial institutions. Successful new businesses need efficient sources of external financing to support growth of the private sector; encouraging entry and then deserting the survivors is poor policy.

A decade into transition, the emerging financial sector architecture in the transition economies has begun to become clear. Transition economies are bank-dominated and universal banking prevails. At the start of the transition process, observers argued whether banking should follow a European, universal bank-dominant, model or an American model in which capital markets dominate. However, the two paradigms have converged; American banks are now much less restricted and capital market developments are providing enormous competitive pressures in Europe. The transition economies are following this path. Banks will have broad powers; they currently dominate financing activities. Unfortunately most financing is lending to the government, non-bank financial institutions, or short-term working capital for enterprises. However, capital markets and non-bank intermediaries will be providing competition to the banking sector in the future.

Equity markets will be a part, albeit small, of the emerging architecture. Expectations about the role of equity markets in the early transition years were often unrealistic. They will play a small, but important, role as the most mature source of enterprise financing following bond markets and informal capital market financing. The smaller transition economies share a problem with all other small emerging markets in that capital markets may never be sufficiently large to function well. Moreover, larger successful companies will have no problem accessing international capital markets, which will further inhibit local market development.

The biggest issue remaining in the transition economies is the role of the 'missing pieces.' First, the near absence of institutional investors, the natural absorbers of capital market instruments, slows capital development. The gradual maturing of the insurance industry and the growth of pension funds will change this over time. Second, the informal capital markets that provide various kinds of short- and long-term investments need to develop. This includes the use of trade credit and factoring intermediaries to provide an institutional context for inter-firm short-term credit. Also, for longer term financing, the venture capital and private placements industries must evolve. These less formal capital markets are even overlooked in large economies because they are less visible than banks and stock markets. However they are crucially important. These pieces are still missing in transition; venture capital and takeovers are hardly observed.

In summary, the first decade of transition has witnessed remarkable progress in the development of financial sector institutions. In many countries, active market-oriented financial institutions function where there was only a state planning mechanism a decade ago. For example, a description of the Hungarian financial sector in an IMF paper reads more like that of a developed European economy than that of an emerging market economy (see van Elkan, 1998). On the other hand, considerable effort at institutional restructuring in some transition economies has had little overall effect on economies in which market orientations are weak (see OECD, November 1998). Nevertheless, it is important to remember that even the most-developed institutions, i.e., banks and equity markets, do not always function as well as they should and that the broad array of other financial institutions and instruments that fill out the intermediation process are largely still missing.

## References

- Abel, Istvan and John Bonin, "Retail Banking In Hungary: A Foreign Affair," Background paper for the *World Development Report 2002*, World Bank 2000.  
<http://www.worldbank.org/wdr/2001/bkgroundpapers/boninppr.pdf>
- Berglof, Erik and Patrick Bolton, "The Great Divide and Beyond: Financial Architecture in Transition," *Journal of Economic Perspectives*, Vol. 16, No. 1, Winter 2002, pp. 77-100.
- Blommestein, Hans J. "Institutional Investors, Pension Reform and Emerging Securities Markets," Chapter 10 in *OECD*, 1998.
- Blejer, Mario I. and Skreb, Marko, *Transition: The First Decade*, MIT Press, 2001.
- Boardman, Harry G., "The Chinese State as Corporate Shareholder," *Finance and Development* (36), IMF, September 1999.
- Bonin, John P., and Huang, Yiping "Dealing with the Bad Loans of Chinese Banks," *Journal of Asian Economics*, Vol. 12, No. 2, (Summer )2001, pp. 197-214.
- Bonin, John P., and Huang, Yiping, "Foreign Entry into Chinese Banking: Does WTO Membership Threaten Domestic Banks?," *World Economy* (forthcoming).
- Bonin, John P., and Leven, Bozena, "Can State-Owned Banks Promote Enterprise Restructuring?: Evidence From One Polish Bank's Experience," *Post-Communist Economies*, Vol. 13, No. 4, (December) 2001, pp. 431 – 444.
- Bonin, John P. and Leven, Bozena, "Polish Bank Consolidation and Foreign Competition: Creating a Market-Oriented Banking Sector," *Journal of Comparative Economics*, Vol. 23, No. 1, (August) 1996, pp. 52 – 72.
- Bonin, John P., K. Mizsei, I. Szekely and P. Wachtel. *Banking in Transition Economies: Developing Market Oriented Banking Sectors in Eastern Europe*, Edward Elgar Publishers, 1998.
- Bonin, John and Paul Wachtel, "Toward Market-Oriented Banking in the Economies in Transition," in *Financial Sector Transformation: Lessons for the Economies in Transition*, edited by M. Blejer and M. Skreb, Cambridge University Press, 1999.
- Bonin, John and Paul Wachtel, "Lessons from Bank Privatization in Central Europe," in *Bank Privatization: Conference Proceedings of a Policy Research Workshop Held at the World Bank March 15-16, 1999*, ed. by Harvey Rosenblum.
- Bratkowski, Andrzej, Grosfeld, Irena, and Rostowski, Jacek, "Investment and Finance in *de novo* Private Firms: Empirical Results from the Czech Republic, Hungary, and Poland," *CASE-CEU Working Paper No. 21*, October 1998.
- Clasessens, Stijn, Daniel Oks and Rossana Polastri. "Capital Flows to Central and Eastern Europe and the Former Soviet Union," *Policy Research Paper 1976*, World Bank, September 1998.
- Claessens, Stijn, Simeon Djankov and Daniela Klingbiel, "Stock Markets in Transition Economies," World Bank Financial Sector Discussion Paper No. 5, September 2000.
- Corbet, Jenny and Colin Mayer, "Financial Reform in Eastern Europe: Progress With the Wrong Model," *Oxford Review of Economic Policy*, 7 (4), 1992, pp. 57 – 75

- Cukierman, Alex, Geoffrey Miller and Bilin Neyapti, "Central bank reform, liberalization and inflation in transition economies – an international perspective," *Journal of Monetary Economics*, 49, 2002, pp. 237-64.
- Czako, Agnes and Vajda, Agnes, "Small and Medium Sized Enterprises," SME Research Booklet #2, Hungarian Foundation for Enterprise Promotion, 1993
- Dedek, Oldrich, "Bank Consolidation in the Czech republic" in *The banking industry in the emerging market economies: competition, consolidation and systemic stability*, BIS Papers No. 4, Bank for International Settlements, 2001.
- Euromoney, *Developments in the World's Bond Markets*, Euromoney Research Guides, September 1994.
- Fine, Gary J. and Enna Karlova, "Privatization and the New Securities Markets in the Czech Republic, Poland and Russia" chapter 2 in Ira Lieberman and Christopher Kirkness, eds., *Privatization and Emerging Equity Markets*, Washington, D.C., World Bank and Flemings, 1998.
- Gelman, Lev M., and Alexandra G. Morozova, "Capital Markets in Russia: Putting the Cart Before the Horse," in Jouko Rautava, ed., *Russia's Financial Markets and the Banking Sector in Transition*, Bank of Finland, 1996.
- Gray, Cheryl W. and Arnold Holle, "Bank-led restructuring in Poland: the conciliation process in action," *Economics of Transition*, 4 (2), 1996, pp. 349-370.
- Gregory, Neil and Stoyan Tenev, "The Financing of Private Enterprise in China," *Finance and Development*, 38(1), March 2001, pp. 14-17.
- Harwood, Allison, ed., *Building Local Bond Markets: An Asian Perspective*, International Finance Corporation, 2001.
- Hermes, Niels and Robert Lensink, "Financial system development in transition economies," *Journal of Banking and Finance*, 24 (2000), 507-24.
- Herring, Richard J. and Nathporn Chatusripitak. "The case of the missing market: The Bond Market and Why it matters for financial development," Asian Development Bank ADB Institute Working Paper, July 2000.
- International Finance Corporation, *Emerging Markets Fact Book*, Washington, D.C., 1998.
- International Monetary Fund, *Romania: Selected Issues and Statistical Appendix*, Country Report 01/16, January 2001. <http://www.imf.org/external/pubs/ft/sctr/2001/cr0116.pdf>
- Knight, Malcolm, et.al., "Central Bank Reforms in the Baltics, Russia, and the other countries of the former Soviet Union," International Monetary Fund, Occasional Paper 157, December 1997.
- Kokoszczynski, Ryszard, "Structural changes in the Polish banking industry – there dimensions of consolidation processes in an emerging economy" in *The banking industry in the emerging market economies: competition, consolidation and systemic stability*, BIS Papers No. 4, Bank for International Settlements, 2001.
- Laky, Terez, "Small Enterprises Benefitting from START Credit," SME Research Booklet #1, Hungarian Foundation for Enterprise Promotion, 1994
- The LGT Guide to World Equity Markets 1996*, London: Euromoney Publications 1996.

- Mendelson, Morris and Junius Peake, "Equity Markets in Economies in Transition," *Journal of Banking and Finance* 17(1993), 913-29.
- Organization of Economic Cooperation and Development, *OECD Proceedings: Capital Market Development in Transition Economies: Country Experiences and Policies for the Future*, 1998.
- Organization of Economic Cooperation and Development, "The Development of Capital Markets in Central Asia," *Financial Market Trends*, Volume 71, November 1998.
- Organization of Economic Cooperation and Development, *OECD Economic Surveys 2001-02: Russian Federation*. 2002.
- Organization of Economic Cooperation and Development, *OECD Economic Surveys May 2001: Poland*.
- Organization of Economic Cooperation and Development, *Housing Finance in Transition Economies*, 2002.
- Pissarides, Francesca, "Financial Structures to Promote Private Sector Development in South Eastern Europe," mimeo, June 2001.
- Pye, Robert B.K., "The Evolution of the Insurance Sector in Central and Eastern Europe and the former Soviet Union," William Davidson Institute Working Paper No. 336, August 2000.  
<http://eres.bus.umich.edu/docs/workpap-dav/wp336.pdf>
- Rajan, Raghuram G., "An Investigation into the Economics of Extending Bank Powers," paper presented at the conference *Financial Sectors in Transition: A Conference on the Design of Financial Systems in Central Europe*, The William Davidson Institute, University of Michigan School of Business, May 1998.
- Roubini, Nouriel and Paul Wachtel, "Current Account Sustainability in Transition Economies" in *Balance of Payments, Exchange Rates and Competitiveness In Transition Economies*, edited by M. Blejer and M. Skreb, Kluwer, 1999.
- Rousseau, Peter and Paul Wachtel, "Equity Markets and Growth: Cross-country Evidence on Timing and Outcomes: 1980-1995." *Journal of Banking and Finance*, 24 (2000), 1933-57.
- Scholtens, Bert, "Financial sector regulation and financial system architecture in Central Europe," *Journal of Banking and Finance*, 24 (2000), 525-53.
- Sharma, Krishnan, "The Underlying Constraints on Corporate Bond Development in Southeast Asia," *World Development*, Vol. 29, No. 8, August 2001, 1405-19.
- Sobol, Dorothy Meadow, "Central and Eastern Europe: Financial Markets and Private Capital Flows," Federal Reserve Bank of New York, 1997.
- Struyk, Raymond, ed. *Economic Restructuring of the Former Soviet Bloc: The Case of Housing*, Washington, D.C., Urban Institute Press, 1996.
- United Nations, *World Economic and Social Survey 1999*.
- Van Elkan, Rachel, "Financial Markets in Hungary" chapter 11 in *Hungary: Economic Policies for Sustainable Growth*, IMF Occasional Paper 159, February 1998.
- Vorst, Karen S. and Willadee Wehmeyer, Eds. *Financial Market Restructuring in Selected Central European Countries*, Aldershot, U.K.: Ashgate Publishing, 1998.

- 
- Wachtel, Paul, "Special Issue: Entrepreneurship in the Transition Economies of Central and Eastern Europe," *Journal of Business Venturing*, 14 (5/6), September/November 1999.
- Wachtel, Paul, "Growth and Finance: What do we know and how do we know it?" *International Finance*, Autumn 2001.
- Wagner, Nancy and Dora Iakova. "Financial Sector Evolution in the Central European Economies: Challengers in Supporting Macroeconomic Stability and Sustainable Growth," IMF Working Paper, September 2001.
- World Bank, *Transition – The first Ten Years*, World Bank, 2002.
- Wyplosz, Charles, "Macroeconomic Lessons From The First Ten Years of Transition" in *Annual World Bank Conference on Development Economics 1999*, ed. By Boris Pleskovic and Joseph E. Stiglitz, World Bank, 2000.

## Appendix tables

### Financial sector indicators for selected transition economies

<b>BULGARIA</b>	1993	1994	1995	1996	1997	1998	1999	2000
Number of Banks	41	40	41	42	28	34	34	35
Number of Foreign Owned Banks	0	1	3	3	7	17	22	25
State Owned Banks % of Assets				82.2	66.0	56.4	50.5	19.8
Bad Loans % of Total Loans	6.7	6.8	12.5	15.2	13.0	11.8	17.5	10.9
Credit to Private Sector % of GDP	3.7	3.8	21.1	35.6	12.6	12.7	14.6	12.2
Broad Money % of GDP	78.3	79.5	66.3	74.9	35.3	30.6	32.3	36.5
<b>CROATIA</b>	1993	1994	1995	1996	1997	1998	1999	2000
Number of Banks	43	50	54	58	61	60	53	44
Number of Foreign Owned Banks			1	4	7	10	13	20
State Owned Banks % of Assets	58.9	55.5	51.9	36.2	32.6	37.5	39.6	5.7
Bad Loans % of Total Loans		12.2	12.9	11.2	8.2	12.6	20.6	19.7
Credit to Private Sector % of GDP	37.7	21.2	22.9	21.4	25.3	26.6	22.0	
Broad Money % of GDP	25.8	20.2	25.0	34.0	41.0	41.7	39.7	45.0
<b>CZECH REPUBLIC</b>	1993	1994	1995	1996	1997	1998	1999	2000
Number of Banks	52	55	55	53	50	45	42	40
Number of Foreign Owned Banks	12	13	13	14	15	15	17	16
State Owned Banks % of Assets	11.9	17.9	17.6	16.6	17.5	18.6	23.1	28.2
Bad Loans % of Total Loans		36.0	26.6	21.8	19.9	20.3	21.5	19.3
Credit to Private Sector % of GDP	51.0	50.3	46.7	47.1	54.7	48.0	43.8	
Broad Money % of GDP	70.6	73.6	75.3	71.3	73.0	71.2	75.4	77.6
<b>ESTONIA</b>	1993	1994	1995	1996	1997	1998	1999	2000
Number of Banks	21	22	18	15	12	6	7	7
Number of Foreign Owned Banks	1	1	4	3	3	2	2	4
State Owned Banks % of Assets	25.7	28.1	9.7	6.6	0.0	7.8	7.9	0.0
Bad Loans % of Total Loans		3.5	2.4	2.0	2.1	4.0	2.9	1.5
Credit to Private Sector % of GDP	11.1	13.4	14.7	19.2	26.4	25.2	25.9	25.9
Broad Money % of GDP	32.8	33.5	32.9	34.6	40.4	35.5	42.7	49.2
<b>HUNGARY</b>	1993	1994	1995	1996	1997	1998	1999	2000
Number of Banks	40	43	42	41	41	40	39	38
Number of Foreign Owned Banks	15	17	21	25	30	27	27	30
State Owned Banks % of Assets	74.9	62.8	52.0	16.3	10.8	11.8	9.1	8.6
Bad Loans % of Total Loans	29.6	20.2	12.1	9.0	5.3	6.8	4.4	3.1
Credit to Private Sector % of GDP	20.7	21.4	18.6	18.7	20.4	20.0	20.8	23.2
Broad Money % of GDP	56.8	52.2	48.7	48.6	47.3	45.8	46.2	46.3
<b>KAZAKHSTAN</b>	1993	1994	1995	1996	1997	1998	1999	2000
Number of Banks	204	184	130	101	81	71	55	48
Number of Foreign Owned Banks	5	8	8	9	22	20	18	16
State Owned Banks % of Assets			24.3	28.4	44.8	23.0	19.9	1.9
Bad Loans % of Total Loans			14.9	19.9	6.0	4.7	5.5	2.1
Credit to Private Sector % of GDP	49.3	26.6	7.1	6.3	4.3	5.4	7.4	10.6
Broad Money % of GDP	27.9	13.1	11.4	9.5	10.3	8.6	13.6	15.3

	1993	1994	1995	1996	1997	1998	1999	2000
<b>LATVIA</b>								
Number of Banks	62	56	42	35	32	27	23	21
Number of Foreign Owned Banks			11	14	15	15	12	12
State Owned Banks % of Assets		7.2	9.9	6.9	6.8	8.5	2.6	2.9
Bad Loans % of Total Loans		11.0	19.0	20.0	10.0	6.8	6.8	5.0
Credit to Private Sector % of GDP		15.9	7.4	6.8	10.5	15.2	16.0	19.6
Broad Money % of GDP	31.5	33.4	22.3	22.2	26.6	25.7	25.6	29.4
<b>LITHUANIA</b>								
Number of Banks	26	22	15	12	12	12	13	13
Number of Foreign Owned Banks	0	0	0	3	4	5	4	6
State Owned Banks % of Assets	53.6	48.0	61.8	54.0	48.8	44.4	41.9	38.9
Bad Loans % of Total Loans		27.0	17.3	32.2	28.3	12.5	11.9	10.8
Credit to Private Sector % of GDP	13.8	17.6	12.6	9.4	9.3	9.6	11.1	10.1
Broad Money % of GDP	23.1	25.8	23.3	17.2	19.0	19.4	21.1	23.3
<b>POLAND</b>								
Number of Banks	87	82	81	81	83	83	77	74
Number of Foreign Owned Banks	10	11	18	25	29	31	39	47
State Owned Banks % of Assets	86.2	80.4	71.7	69.8	51.6	48.0	24.9	24.0
Bad Loans % of Total Loans	36.4	34.0	23.9	14.7	11.5	11.8	14.5	15.9
Credit to Private Sector % of GDP	12.2	12.0	12.7	15.9	17.1	17.6	18.8	18.8
Broad Money % of GDP	35.9	36.7	36.1	37.2	39.6	40.2	43.1	42.0
<b>ROMANIA</b>								
Number of Banks		20	24	31	33	36	34	33
Number of Foreign Owned Banks		3	6	8	13	16	19	21
State Owned Banks % of Assets		80.4	84.3	80.9	80.0	75.3	50.3	50.0
Bad Loans % of Total Loans		18.5	37.9	48.0	56.5	58.5	35.4	3.8
Credit to Private Sector % of GDP				11.5	8.4	11.6	8.2	7.2
Broad Money % of GDP	22.3	21.4	25.3	27.9	24.8	27.5	25.7	22.0
<b>RUSSIA</b>								
Number of Banks	2009	2456	2297	2029	1697	1476	1349	1311
Number of Foreign Owned Banks			21	22	26	30	32	33
State Owned Banks % of Assets					37.0	41.9		
Bad Loans % of Total Loans			12.3	13.4	12.1	30.9	25.8	15.3
Credit to Private Sector % of GDP	11.8	12.1	8.5	7.4	9.4	12.8	11.5	
Broad Money % of GDP	19.0	16.0	13.9	13.4	14.8	19.5	17.4	18.5
<b>SLOVAK REPUBLIC</b>								
Number of Banks	28	29	33	29	29	27	25	23
Number of Foreign Owned Banks	13	14	18	14	13	11	10	13
State Owned Banks % of Assets	70.7	66.9	61.2	54.2	48.7	50.0	50.7	49.1
Bad Loans % of Total Loans	12.2	30.3	41.3	31.8	33.4	44.3	32.9	26.2
Credit to Private Sector % of GDP	30.4	23.0	26.3	30.4	42.1	43.9	40.5	37.6
Broad Money % of GDP	63.9	64.3	65.4	68.7	66.2	62.1	64.6	58.9
<b>SLOVENIA</b>								
Number of Banks	45	44	39	36	34	30	31	28
Number of Foreign Owned Banks	5	6	6	4	4	3	51	61
State Owned Banks % of Assets	47.8	39.8	41.7	40.7	40.1	41.3	41.7	42.2
Bad Loans % of Total Loans		13.8	9.3	10.1	10.0	9.5	8.6	8.5
Credit to Private Sector % of GDP	22.1	23.1	27.5	28.8	28.6	32.8	35.8	
Broad Money % of GDP	35.7	39.7	42.4	44.4	48.5	51.9	52.6	54.7

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<b>UKRAINE</b>	1993	1994	1995	1996	1997	1998	1999	2000
Number of Banks	211	228	230	229	227	175	161	154
Number of Foreign Owned Banks		1	1	6	12	12	15	14
State Owned Banks % of Assets					13.5	13.7	12.5	11.9
Bad Loans % of Total Loans						34.6	34.2	32.5
Credit to Private Sector % of GDP	1.4	4.6	1.5	1.4	2.5	7.8	8.6	
Broad Money % of GDP	33.6	26.5	12.7	11.5	13.4	15.3	17.6	17.0

**Source:** EBRD Transition Report, 2001

**Note:**

- 1) Data for 2000 are estimates.
- 2) Broad money as % of GDP is updated by the data from EBRD Transition Report Update April 2001

## Equity markets in selected transition economies

<b>BULGARIA</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies				16	26	15	15	998	828	503
Market Capitalization (million \$)					61.4	7.3	2.2	992	706	617
Trading Value (million \$)					4.4	0	0	11.6	53.5	57.7
Turnover Ratio						0.1	0	2.3	6	9.2
GDP	10944	10374	10833	9781	13106	9830	10056	12258	12403	
Market Capitalization per company					2.4	0.5	0.1	1.0	0.9	1.2
Market Capitalization as % of GDP					0.5	0.1	0.0	8.1	5.7	
<b>CROATIA</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies				29	61	66	77	50	59	64
Market Capitalization (million \$)				514	581	2975	4246	3190	2584	2742
Trading Value (million \$)				251.8	46.8	227	343.3	103	75	188
Turnover Ratio				104.4	8.2	12.6	9.7	2.8	2.7	7.4
GDP	13370	10241	10903	14583	18811	19886	20294	21752	20426	
Market Capitalization per company				17.7	9.5	45.1	55.1	63.8	43.8	42.8
Market Capitalization as % of GDP				3.5	3.1	15.0	20.9	14.7	12.7	
<b>CZECH REPUBLIC</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies				1024	1635	1588	276	261	164	131
Market Capitalization (million \$)				5938	15664	18077	12786	12045	11796	11002
Trading Value (million \$)				1328	3630	8431	7071	4807	4120	6582
Turnover Ratio					32.9	50.3	47.9	38	36.7	60.3
GDP	25572	29805	34998	41087	52037	57922	53000	56379	53111	
Market Capitalization per company				5.8	9.6	11.4	46.3	46.1	71.9	84.0
Market Capitalization as % of GDP				14.5	30.1	31.2	24.1	21.4	22.2	
<b>ESTONIA</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies							22	26	25	23
Market Capitalization (million \$)							1101	519	1789	1846
Trading Value (million \$)							1484	922	285	326
Turnover Ratio								116.1	24.1	18.9
GDP	6020	4226	3922	3945	4789	4358	4765	5202	5233	
Market Capitalization per company							50.0	20.0	71.6	80.3
Market Capitalization as % of GDP							23.1	10.0	34.2	
<b>HUNGARY</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies	21	23	28	40	42	45	49	55	66	60
Market Capitalization (million \$)	505	562	812	1604	2399	5273	14975	14028	16317	12021
Trading Value (million \$)	117	38	99	270	355	1641	7472	16042	14395	12150
Turnover Ratio		6.3	14.2	21.6	17.3	41.6	73.4	113.9	95.8	90.7
GDP	33429	37255	38596	41506	44669	45162	45723	47807	48436	
Market Capitalization per company	24.0	24.4	29.0	40.1	57.1	117.2	305.6	255.1	247.2	200.4
Market Capitalization as % of GDP	1.5	1.5	2.1	3.9	5.4	11.7	32.8	29.3	33.7	
<b>LATVIA</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies					17	34	51	69	70	64
Market Capitalization (million \$)					10	151	338	382	391	563
Trading Value (million \$)						11.9	84.2	85	45	228
Turnover Ratio						14.6	34.6	24.2	11.9	48.6
GDP					4904	5135	5638	6396	6260	
Market Capitalization per company					0.6	4.4	6.6	5.5	5.6	8.8
Market Capitalization as % of GDP					0.2	2.9	6.0	6.0	6.2	

<b>POLAND</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies	9	16	22	44	65	83	143	198	221	225
Market Capitalization (million \$)	144	222	2706	3057	4564	8390	12135	20461	29577	31279
Trading Value (million \$)	28	167	2170	5134	2770	5538	7951	8918	11149	14631
Turnover Ratio		89.7	129.1	176.7	71.5	84.8	78.4	54.4	45.8	49.9
GDP	80674	89412	91588	98534	126318	142965	143132	158102	155166	
Market Capitalization per company	16.0	13.9	123.0	69.5	70.2	101.1	84.9	103.3	133.8	139.0
Market Capitalization as % of GDP	0.2	0.2	3.0	3.1	3.6	5.9	8.5	12.9	19.1	
<b>RUSSIA</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies	13	26	51	72	170	73	208	237	207	249
Market Capitalization (million \$)	244	218	18	151	15863	37230	128207	20598	72205	38922
Trading Value (million \$)		91	118	268	465	2958	16229	10495	2839	20312
Turnover Ratio		31.1	196	234.8	2.6	10.8	19.4	11.3	5.9	36.9
GDP	542104	441988	393449	325918	357903	419000	435953	276611	401442	
Market Capitalization per company	18.8	8.4	0.4	2.1	93.3	510.0	616.4	86.9	348.8	156.3
Market Capitalization as % of GDP	0.0	0.0	0.0	0.0	4.4	8.9	29.4	7.4	18.0	
<b>SLOVAKIA</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies				18	18	816	872	837	845	838
Market Capitalization (million \$)				1093	1235	2182	1826	965	723	742
Trading Value (million \$)				120	832	2321	2165	1032	474	896
Turnover Ratio					69.9	134	109.4	73.7	59.7	129.7
GDP		10845	11757	11996	17393	18781	19452	20363	19712	
Market Capitalization per company				60.7	68.6	2.7	2.1	1.2	0.9	0.9
Market Capitalization as % of GDP				9.1	7.1	11.6	9.4	4.7	3.7	
<b>SLOVENIA</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies			16	25	17	21	26	28	28	38
Market Capitalization (million \$)				594.6	514.8	663.2	1624.7	2450	2180	2547
Trading Value (million \$)					344.6	401.3	351.9	702	733	465
Turnover Ratio					57.6	68.8	30.8	34.9	32.4	20.7
GDP	12673	12523	12673	14386	18743	18878	18206	19524	20011	
Market Capitalization per company				23.8	30.3	31.6	62.5	87.5	77.9	67.0
Market Capitalization as % of GDP				4.1	2.7	3.5	8.9	12.5	10.9	
<b>UKRAINE</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of Listed companies								125	125	139
Market Capitalization (million \$)							3666.8	570	1121	1881
Trading Value (million \$)								93	124	288
Turnover Ratio								4.7	14.8	19.6
GDP	81369	91505	71285	52292	49061	62761	53460	43615	38653	
Market Capitalization per company								4.6	9.0	13.5
Market Capitalization as % of GDP							6.9	1.3	2.9	

Source: S&P Emerging Stock Market Factbook, 2001 and IFC, Emerging Equity Market Factbook, 1998.

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