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# **Banking in Transition Countries**

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## **ABSTRACT**

Modern banking institutions were virtually non-existent in the planned economies of central Europe and the former Soviet Union. In the early transition period, banking sectors began to develop during several years of macroeconomic decline and turbulence accompanied by repeated bank crises. However, governments in many transition countries learned from these tumultuous experiences and eventually dealt successfully with the accumulated bad loans and lack of strong bank regulation. In addition, rapid progress in bank privatization and consolidation took place in the late 1990s and early 2000s, usually with the participation of foreign banks. By the mid 2000s the banking sectors in many transition countries were dominated by foreign owners and were able to provide a wide range of services. Credit growth resumed, sometimes too rapidly, particularly in the form of lending to households. The global financial crisis put transition banking to test. Countries that had expanded credit rapidly were vulnerable to the macroeconomic shock and there was considerable concern that foreign owners would reduce their funding to transition country subsidiaries. However, the banking sectors turned out to be resilient, a strong indication of the rapid progress in institutional development and regulatory capabilities in the transition countries.

## **KEYWORDS**

transition banking, bank privatization, foreign banks, bank regulation, credit growth

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# 1. Introduction

Banking in the transition countries is particularly interesting because banks played no economic role in planned Soviet-style economies while the financial sectors in most transition countries are now dominated by banks rather than equity markets. The first phase of transition banking is the emergence of banking sectors from the planned economies in the late 1980s and early 90s. The birthing process – section 2 of this paper - was hardly smooth; it took place amidst massive macroeconomic collapse and considerable economic uncertainty. Not surprisingly, these nascent banking sectors experienced crises ranging from serious bad loan problems to total collapse. The next section deals with the responses to the bad loan problem, the process of bank privatization, and the development of the necessary regulatory framework. The following section characterizes the second phase of transition banking, the remarkably rapid emergence in the late 1990s and early 2000s of more mature banking sectors with a dominant role played by foreign banks. By the late 2000s, banking sectors in many transition economies looked little different from their counterparts elsewhere except for the distinctive high percentage of foreign ownership. The third phase of transition banking coincides with the financial crisis and global recession starting in 2008. The crisis tested the resilience of new institutions and regulatory structures and brought the issue of foreign ownership to the fore. The advantages of foreign ownership as a conduit for good banking practice is actively being weighed against the disadvantages associated with the international transmission of financial shocks. All in all, these banking sectors are not immune to problems and do not always provide sufficient impetus for economic development, which is problematic because most transition economies have bank-dominated financial sectors. Our last section considers the problems of, and prospects for, banks fulfilling this role in the transition countries.

To illustrate the commonalities and differences in the transition experience, we have selected fourteen representative countries from three regions Central Eastern Europe (CEE), South Eastern Europe (SEE), and the former Soviet Union (FSU). We group the countries as follows: CEE consists of the Czech Republic, Hungary, Poland and Slovakia; SEE consists of Bulgaria, Croatia, Romania, Serbia, and Slovenia; and the FSU consists of Russia, Estonia, Latvia, Lithuania and the Ukraine. Banking and macroeconomic data for these countries at five year intervals from 1995 to 2010 are presented in the tables and the examples used in the text are drawn from these country experiences.<sup>1</sup>

## **2. The Emergence of Banking Institutions**

Banking sectors in the European transition economies were relatively underdeveloped compared with the real economies in these countries due mainly to the legacies of the pre-transition centrally planned economy. As examples of real sector development, Czechoslovakia had a relatively modern automobile industry, Hungary produced buses, and Bulgaria made computers and software for use within the Soviet bloc. However, in the planning framework, financial intermediation between savers and borrowers was internalized wholly within the state banking apparatus. Capital was allocated through a system of directed credits to state-owned enterprises (SOEs) for both investment needs and budget allocations for the working capital necessary to meet the output plan. Credit evaluation and risk management played no role in lending decisions. The national monobank served only as an accounting clearing house for inter-enterprise transactions. Cash issuances by enterprises were based on planned wage bills that were

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<sup>1</sup> Data on transition banking are sometimes unreliable or subject to revision. The data in the tables are from European Banking for Reconstruction and Development sources both on line data files (*Structural Change Indicators*) and annual *Transition Reports*. Additional sources for data used in the text are from Barisitz (2007) and Raiffeisen *CEE Banking Sector Reports* available on line.

calibrated to the expected aggregate value of consumer goods sold to households at administered prices. Money was entirely passive in that it was used solely as a unit of account in enterprise transactions and as a medium of exchange between households and the state distribution sector. Household savings, oftentimes the result of forced accumulation of monetary balances due to the unavailability of desirable consumer goods to purchase, were collected by a state savings bank that operated an extensive branch network throughout the country.

Pre-transition banking sectors typically included a foreign trade bank that handled all foreign currency transactions to isolate these from the domestic financial system and often contained separate specialty banks to oversee the financing of the agricultural and construction sectors. In this environment, banking was segmented along functional lines and credit allocation was entirely subservient to the plan. Hence, structural segmentation, state control of banking activities, and high concentration ratios are the major legacies inherited from the planning period by the banking sectors in the transition economies. Despite these commonalities, important differences among the experiences of countries both prior to and during the transition period yield unique characteristics. As an example, we begin with a brief discussion of banking in the SEE transition countries that were former republics of Yugoslavia because their sectors inherited somewhat special legacies. We continue with a consideration of the initial developments in banking during the first half decade of the transition followed by a more detailed look at several transition countries. This section concludes with a discussion of foreign bank participation in the early transition years.

In the 1950s, Yugoslavia established a two-tier banking system with a traditional central bank located in Belgrade, the National Bank of Yugoslavia (NBY), and republic-level commercial banks. Banks were owned collectively, as were all enterprises under the Yugoslavian

system of self-management. Because Yugoslavia was a small, open economy, commercial banks made a significant number of loans denominated in foreign currency throughout the 1980s. However, these republic-level banks were required to remit most of their foreign exchange deposits to the NBY in exchange for credits in dinars. Hence, the balance sheets of republic-level banks exhibited a serious currency mismatch between assets and liabilities by the late 1980s. Upon the secession of Croatia and Slovenia in 1991, the NBY froze the forex deposits of the republic banks in these two countries creating large holes in their balance sheets. Although many private banks, often company owned, dated back to the 1970s in these countries, high concentration, weak capitalization and a substantial accumulation of problem loans were important legacies from the Yugoslavian past. Government rehabilitation policies that were designed to deal with bank insolvency led to the nationalization of most banks; hence, state-owned banks were created at the beginning of the transition in Slovenia and Croatia.

The first step in banking sector reform for most transition economies involved the creation of a two-tier system with commercial activities carved out of the portfolio of the national monobank. The top tier consists of a traditional central bank that is charged with pursuing monetary policy, including exchange rate policy, and is given responsibility for supervising and monitoring the nascent banking sector. The second tier consists of the newly created state-owned commercial banks (SOCBs), the state-owned specialty banks, which themselves morphed into SOCBs, any operating foreign and joint-venture banks, and all private domestic banks, including those that entered after the political transition. As a rule, lax entry requirements led to the creation of many new private banks, some of which were of dubious quality, or even fraudulent, and virtually all of which were severely undercapitalized. Hence, the seeds for a banking crisis were planted at the beginning of the transition, or even before, in virtually all transition countries

due partly to the adoption of lax entry requirements with the intent of fostering competition for state-owned banks in highly segmented banking sectors. Moreover, the nascent regulatory systems were overwhelmed by the mismatch between their capabilities, which were severely restricted by a lack of human capital, and their mandates provided by quickly adopted standard financial rules and regulations, especially given the inherited loan portfolios of the SOCBs.

Although each country's financial restructuring program involved hiving off the commercial bank portfolio of the national bank to establish the two-tier system, different approaches were taken toward the creation of SOCBs, all of which were established initially as wholly state-owned joint-stock entities. In Hungary, the commercial portfolio was divided along sectoral lines, e.g., industry, agriculture, and infrastructure plus the nascent small business sector, to create three SOCBs. In Poland, the commercial portfolio was divided along regional lines to create nine SOCBs from regional offices of the national monobank. The commercial portfolio of the Czechoslovak national monobank was separated into two parts regionally to create two SOCBs, a Czech and a Slovak one. After the Velvet Divorce, each new country had a single large SOCB. Similarly, in Romania, only one SOCB was created from the entire commercial portfolio of the national monobank. All CEE countries and Russia had specialty banks that obtained universal banking licenses and, thus, became SOCBs after the transition.

At the opposite extreme, full separation of all commercial activities from the Bulgarian national bank's balance sheet occurred in 1990 when each of its 145 branch offices was granted a universal banking license that allowed it to pursue commercial business either as an individual entity or in combination with other branches. Again, the intent of this policy was to foster competition. As a result, 59 SOCBs were formed and, in 1992, the Bank Consolidation Company was established to oversee and orchestrate the eventual consolidation of the Bulgarian banking

sector by the government. By 1995, 41 banks were operating in Bulgaria and the two largest SOCBs were the former state foreign trade bank and the former state savings bank.

In Russia, then the Soviet Union, the two-tier banking system was established in 1987 with the separation of all commercial bank functions from the national monobank and the creation of sectoral banks by enterprises or former branch ministries. As in Bulgaria, branches of the national bank became independent entities and then regrouped into larger banks. In addition, new entry into Russian banking was dramatic. By 1995, about 2,300 banks were licensed and operating in Russia. Most of the newly created banks were small and poorly capitalized. Some of them were merely internal or house banks owned by industrial enterprises. However, by 1996, six of the *de novo* domestic private banks had grown sufficiently to be among the ten largest banks in Russia, a group that included the former state foreign trade bank and the former state savings bank as the two largest SOCBs. However, as noted below, the Russian private banking sector retracted due to numerous bank failures during the 1998 Ruble crisis.

In the first transition phase, policies toward foreign bank participation, both in establishing subsidiaries and in purchasing equity stakes in SOCBs, differed considerably across the region. In some countries, policies that invited entry, e.g., providing tax holidays, encouraged Greenfield foreign operations. In others, licensing was restrictive and foreign banks were limited to taking minority stakes in SOCBs or to participating in the resuscitation of ailing smaller domestic banks. Claeys and Hainz (2013) show that the mode of foreign bank entry – Greenfield or acquisition – has important implications. Greenfield banks, as new entrants, charge lower interest rates and the pressures of competition affect the domestic banks as well. Foreign participation in the banking sector was viewed initially by most governments as a vehicle for importing banking expertise and training to augment the scarce domestic human capital in the sector. Even before the political



change, the Hungarian government pursued a liberal licensing policy toward foreign financial institutions. The Central-European International Bank Ltd. was founded as an off-shore joint-venture bank by six foreign banks and the Hungarian National Bank in 1979; in 1986, Citibank Budapest Ltd. began operations as a foreign-majority-owned, joint-venture bank. By 1995, foreign-owned financial institutions held over one-third of banking assets in Hungary due in large part to the privatization of two SOCBS to foreign owners.

In 1995, about one-third of bank assets were owned by foreign financial institutions in Hungary, Slovakia and Latvia while the figures for were smaller in the Czech Republic and Poland; foreign ownership was miniscule elsewhere in the region. The relatively high figure for Slovakia is due to considering Czech owned banking assets as foreign while the ownership was being unwound after the Velvet Divorce. In contrast, the Czech Republic and Poland invited foreign owners to take only minority equity positions in existing banks. In the Czech Republic the structure of the voucher privatization program restricted foreign ownership. In Poland, the nine SOCBs were slated early on for privatization as part of a program supported by US Treasury. However, the eclectic privatization plans with two-tier tenders and employee participation inhibited foreign entry. These governments followed a more protectionist strategy, taking an infant industry approach according to which domestic banks are nurtured to become strong enough to fend off foreign competition when it arrives

For the most part, governments in transition countries succeeded in establishing the foundations for building commercial banking sectors early in the transition period. However, developing efficient banking sectors required the completion of three interrelated tasks namely, the resolution of non-performing loans, the privatization of the SOCBs, and the establishment of effective regulatory institutions. We discuss the progress made on these fronts during the first

decade of transition in the next section. With the development of modern banking sectors, foreign ownership spread rapidly. By 2000, the foreign asset share in most of the CEE and SEE as well as in the Baltic States exceeded 50%, often substantially more. The other FSU countries, Russia and the Ukraine, were the notable exceptions along with Slovenia which did not allow foreign ownership until KBC took a stake in Nova Ljubljanska Banka in 2002 and Serbia which was still politically unstable.

### **3. The Development of Modern Banking Sectors**

As described in the previous section, the typical banking sector in a transition economy consisted initially of state-owned banks that were carved out of the planned economy structure along with newly established small private domestic banks. Some countries began to privatize the large SOCBs quickly and also opened up to foreign bank entry early in the transition. However, the creation of market-based legislation and institutions did not lead automatically to good banking practices. To the contrary, the SOCBs and the newly created banks often did not behave like proper commercial banks due to distorted incentives.

First, the SOCBs continued to maintain banking relationships with their large clients, i.e., state owned enterprises (SOEs). Such lending was either politically mandated or simply the result of long-standing relationships between clients having little experience in choosing viable projects and banks unable to evaluate the risk of loans. Second, in many countries, *de novo* banks were created without adequate regulatory oversight. As a result, some *de novo* banks were used to channel loans improperly to their owners, many of which were enterprises so that these banks acted as pocket banks for their owners. Entry requirements for *de novo* domestic banks were initially very lenient because policy was based on the mistaken notion that competition would be

enhanced by easy entry. The proliferation of new, often undercapitalized, banks placed an added burden on an underdeveloped regulatory structure. Although most countries adopted modern banking and regulatory legislation immediately, effective supervision did not follow automatically due partially to the scarcity of knowledgeable staff.

Not surprisingly, bad loans were a serious problem for all transition economies due partly to the inherited legacies but also to continuing lending practices. The ratio of non-performing loans to total loans in 1995 averaged 27% in the four CEE countries. The reported ratio in 1995 was smaller for the SEE and FSU countries with the notable exception of Romania. However, information about the performance of borrowers in a rapidly changing environment is revealed only slowly under the best of circumstances so that these measures are only illustrative of the serious overall problem of bad loans that would only be revealed later on. Most governments responded to failing banks with efforts to save them from closure by recapitalization and the removal of bad loans from their balance sheets. For small insolvent banks, mergers with state-owned banks were used commonly. Repeated problems were inevitable because recapitalizations addressed only the stock of existing bad loans.

In the absence of independent market-oriented banking institutions, the flow of new bad loans continued to accumulate. Regulators did not have proper incentives, the requisite expertise, or sufficient independence to cope with this problem. To some extent the bad loan problem was unavoidable because transition recessions and the dissolution of trading relationships within the Soviet bloc generated severe real sector shocks that were mirrored on the balance sheets of the banks. Nonetheless, even though the roots of this problem were difficult to resolve, the average ratios of non-performing loans to total loans fell sharply; by 2005 Poland was the only country in

our data with a ratio greater than 10%. To examine the resolution of the bad loans problem in more detail, we consider several country experiences.

The Hungarian government began to clean up the portfolios of its banks in the early 1990s when it enacted strong bankruptcy laws, new accounting regulations, and a new banking law. At the time, the Hungarian government provided guarantees to cover a portion of the debts of SOEs as firms continued to accumulate debts in arrears. The government replaced non-performing loans on bank balance sheets with government securities and transferred these assets to a government collection agency. Repeated recapitalizations introduced an element of moral hazard into banking. The situation only changed when the authorities began to pursue an aggressive strategy of selling controlling stakes of the large SOCBs to foreign investors, signaling a credible commitment to no further bailouts. However, such a privatization strategy was not without difficulties as exemplified by an early transaction. The sale of a controlling stake in Budapest Bank, the third largest SOCB in Hungary, to GE Capital in 1995 was controversial because the buyer was given the right to off load bad loans that were uncovered after the sale. Nonetheless, the banking expertise and discipline imposed by foreign owners of the three major SOCBs in Hungary led to rapid improvements in the banking environment. By the end of the 1990s, the Hungarian banking sector was well capitalized, loan quality had improved, claims on the state were a declining share of bank assets, bank staffing declined, bank margins narrowed and, incidentally, bank regulation improved markedly (OECD, 1999; Hasan and Marton, 2003).

The government in the Czech Republic developed an explicit and detailed plan for privatization of most state-owned institutions, including SOCBs, using vouchers rather than direct sales. Initially in 1991, bad loans were removed from bank balance sheets and replaced with government bonds while the bad assets were taken over by a newly established hospital bank,

Konsolidacni Bank. These recapitalized SOCBs were privatized by placing a minority stake of bank stock in the voucher program. As a result, non-state ownership of these partially privatized banks was dispersed with the largest stakes held by bank-related investment funds. Furthermore, the bank-related funds held ownership interests in their unstructured industrial clients so that the large banks continued to lend to SOEs, which resulted in more bad loans. The key problems in the Czech Republic were interconnectedness between banks and their clients resulting from voucher privatization and the lack of independence of bank governance from a government which continued to hold controlling stakes in the banks. As a result, the resolution of bad loans required several rounds of recapitalization by the government, which increased the state's stake further and necessitated a second round of privatization. In this final round, foreign investors were allowed to take majority stakes in the large Czech banks and bank behavior changed accordingly. The continuing efforts to restructure the Czech banks over the first decade of transition were expensive with total costs amounting to more than 25% of 1998 GDP (Bonin and Wachtel, 2004).

In Poland, the first bank privatizations utilized a combination of domestic initial public offerings (IPOs) and tenders to sell non-majority stakes to a strategic foreign investor. The Polish stock market was not very large; trading was not very extensive and bank stocks were the largest issues traded. Thus, bank IPOs were difficult to price and accusations of market manipulation led to the political defeat of one of the early governments. The new government developed a bank consolidation program as an alternative approach to privatization and attempted to force mergers and acquisitions of banks but not without controversy. In one case, the attempt to include an already partially privatized bank (BPH) in the program caused a public uproar. Delays in privatization followed; over 20% of Polish bank assets remained in state hands as late as 2005

including the largest bank, the zloty savings bank, PKO which had not participated in either consolidation or privatization programs.

In other countries, banking crises reached systemic proportions and severely impeded the overall transition to a market economy. In Bulgaria, weak bank governance and poor regulation of the many small SOCBs created from the commercial portfolio of the original mono bank resulted in considerable asset stripping and insider lending. Repeated rounds of recapitalization of banks resulted in a total cost to the government at 42% of 1998 GDP, which made the Bulgarian banking crises one of the most costly of all transition countries. A currency board introduced in 1997 restored macroeconomic stability in Bulgaria and the banking system was rationalized quickly thereafter. In Romania, the dominant SOCBs accumulated large portfolios of bad loans and also required massive capital injections from the government. Non-performing loans peaked at 58% in 1998. In both of these SEE countries, severe macroeconomic shocks led to serious banking crises and sustainable economic growth resumed only after these crises were resolved. Most of the later bank privatization programs in Romania, Bulgaria, Croatia, and the Czech Republic involved negotiated deals between the government and a single foreign bank, sometimes after a tender.

After a decade and a half of transition, privatization of SOCBs with extensive foreign ownership was largely completed in CEE, SEE and the Baltics, although the situation was different in many other countries of the former Soviet Union. Both the method, e.g., attracting a strategic foreign investor, and the timing of privatization matter to bank performance. Even after considering selection effects, Bonin, Hasan, and Wachtel (2005b) conclude that voucher-privatized and late-privatized banks lagged in performance and efficiency relative to non-voucher and early-privatized banks

The surprising aspect of banking in the transition countries is not the depth of the crises after the end of communism but the speed with which financial restructuring took place subsequently. The rapid changes in the last decade can be attributed to two related phenomenon. First, the desire of European transition countries to qualify for EU membership was a strong force for reform, not only in the eight original transition accession countries but also in the later joiners and in countries still hoping to join. Thus, improvements in bank regulation and investments in the banking sector took place rapidly. Second, the prospect of EU membership (and ultimately the adoption of the Euro) made these under-served banking markets attractive to European banks once macroeconomic stability was attained and a reasonably effective regulatory structure was in place. However, the governments in many transition countries were reluctant to allow foreign ownership for all the common arguments that attempt to show that foreign direct investment (FDI) in banking, unlike all other FDI, is dangerous. The usual claims that foreign-owned banks would facilitate capital flight and fail to provide credit for local economic development were made. As noted earlier, Hungary was the exception in that foreign banks were allowed to operate even before the transition and SOCBs were sold to foreign investors early in the transition. However, other transition governments took longer to realize that privatization to foreign buyers is not only a source of revenue but also a means of improving bank performance.

The proportion of assets in foreign-owned banks rose from virtually zero in the early 1990s to more than half in most countries a decade later. By 2005, the average share of assets in foreign-owned banks was 85% in the CEE countries and 63% in the SEE countries. In most cases, privatization by itself was not sufficient to improve bank performance; rather joint ownership with foreign strategic investors was the crucial determinant in behavioral change (Bonin, Hasan, and Wachtel, 2005a). The FSU countries are an exception; foreign banks were not a major factor

in Russia or in any other former Soviet republic except for the Baltic countries although this is changing slowly. Kazakhstan, with large capital inflows related to the energy industry, has allowed foreign bank entry since 2005; the foreign bank share of assets peaked before the financial crisis at almost 20%. Corruption in the banking industry continues to be a problem in Kazakhstan where some foreign banks require their employees to take regular polygraph tests. Many FSU countries have banking regulations that inhibit foreign entry and there is a continuing reluctance on the part of many governments to accept foreign dominance of the banking sector. For example, although Russia has relaxed its limits on the overall size of the foreign banking sector, it sets minima for the number of Russian employees and board members in foreign banks. In addition, unstable supervisory environments and weak legal protection have deterred foreign interest in such investments.

The characteristics of banking in Russia differ considerably from patterns found in CEE and SEE. In addition to three dominant SOCBs, Russia has a large number of mostly very small private commercial banks and many pocket banks having industrial owners. Some of these banks were involved in speculative activity and many were insolvent when the Russian government defaulted on its debt in 1998. At the time, weak bankruptcy laws and poor regulation made it difficult to close institutions so that the managers or owners were able to strip banks of any remaining good assets. The 1998 banking crisis did not have too large an impact on the real economy because the credit to GDP ratio was considerably lower in Russia than such ratios in the CEE transition countries and cash was used widely for transactions throughout the FSU. Exacerbating the economic crisis in 1998 was uncertainty about the economic and legal environment.



The Russian banking sector has shown some signs of improvement since 1998. Although about 1,100 banks still operate, this number is roughly half of the total in 1995 due to consolidations and closures. In addition, the influence of foreign banks is increasing as three foreign-controlled banks are among the 15 largest banks in Russia. Moreover, financial intermediation has increased as the bank asset to GDP ratio is double its level before 1998, though still lower than in the European transition countries. Nonetheless, some of the private banks still operate as private financial services institutions for their energy-sector owners and provide little overall intermediation. The banking system is still fragmented with many small and poorly capitalized institutions characterized by poor governance, inadequate risk management and high operating costs. Although deposits have increased, household savings are still largely held in the state savings bank, Sberbank, or in cash (Steinherr, 2006). Sberbank and Vneshtorgbank, the former foreign trade bank, have begun to provide credit to the private sector even though the government has no current plans to privatize either of these SOCBs. Sberbank is still the dominant bank in Russia holding 27% of all banking assets in 2012. The next two largest banks in Russia are also SOCBs; Vneshtorgbank has about a 6% market share and Gazprombank has a 3% market share. Interestingly, there are no known plans for privatization; moreover, state-owned Sberbank and Vneshtorgbank are actually ‘foreign owners’ of banks in other countries in the region.

In all countries, successful restructuring and privatization in the financial sector depends on the establishment of an effective institutional and legislative infrastructure to support proper regulation as well as bankruptcy laws and appropriate accounting standards. An arms-length relationship between banks and regulators, and the state generally, is required in order to change the behavior of economic agents who are accustomed to operating in a non-market environment.

Moreover, training of bank supervisors and other types of professional human capital development are needed to promote effective implementation of the legislation. Although the basic legal framework for modern banking was established early in the transition, additional related elements that are crucial for its effective functioning took more time to develop. In particular, a modern banking sector needs a functioning credit information system, which includes a credit registry and ratings agencies, and a reliably functioning court system to mediate contract disputes.

Hungary took the lead among the transition countries in promoting such institutional development with a legislative shock therapy program in 1992. In January, the government promulgated new, modern banking legislation, instituted international accounting standards, and revised its bankruptcy law to include a draconian trigger that resulted in a large number of company insolvencies. In addition, Poland developed a computer-supported system of bank oversight at the beginning of the transition and had in place rather stringent bankruptcy legislation for private firms even before the political change. Other countries took considerably longer to address these problems and, as a consequence, bank restructuring and privatization took longer to complete.

### **3. The Maturation of Transition Banking Sectors**

The distinctive characteristic of the banking sectors in virtually all transition countries was the rapid emergence of foreign-dominated ownership. By 2010, foreign banks dominated the banking sectors in all countries in our sample except Slovenia and Russia where foreign participation was 30%, and 18%, respectively. The asset shares of foreign-owned banks in CEE and SEE countries are now among the highest of any banking sectors in the world. Serbian

banking experienced a remarkable transformation over a five-year period; foreign ownership increased from a negligible amount in 2000 to 66% in 2005.

In most transition countries, state ownership basically disappeared over a ten-year period centered on the turn of the century. The only countries in our sample with state ownership as a percent of assets in double digits in 2005 were Poland (20%), Slovenia (18%), Serbia (24%) and Russia (34%).

After 1995 the EBRD index of banking reform increased (denoting an improvement), gradually in all the countries in our sample with just a few reversals. In 2005, four countries in our sample had attained a rating of 4.0 on a scale from 1.0 to 4+ where the highest score reflects full convergence to performance norms and regulation standards of advanced industrial economies. These four were the Czech Republic, Hungary, Croatia and Estonia. However, Serbia and Romania had lower scores in 2005 than five years earlier and Hungary's rating was downgraded during the crisis. By 2010, Serbia, Romania, Russia and the Ukraine were the only countries in our sample with scores lower than 3.7. Hence, banking sectors in most transition countries have reached, or are rapidly approaching, their counterparts in developed market economies with one major difference, namely, an extremely high foreign bank presence.

Based on the legacy of segmented sectors and exacerbated by consolidation programs, banking concentration is high in most transition countries. In 2012, the three-firm concentration ratios were above 30% in all the countries in our sample; they were above 50% in Croatia, Slovakia and a few very small countries. The concentration ratios declined in the six years to 2012 in Czech Republic (to 49.5%), Hungary (to 38.2%) and Poland (to 31.6%) but they rose in Russia (to 48.4%) and the Ukraine (to 30.7%). Although high, these concentration ratios are

similar to those found elsewhere. Moreover, relatively high concentration ratios have not prevented competition from developing in many of these banking sectors.

Interest rate spreads declined considerably since the beginning of the transition, which may be attributable as much to improvements in the macroeconomic environment as to increased banking competition. Very high spreads between lending and deposit rates, often in excess of 10%, in the early transition years were due to instability and high inflation. However, considerable differences among the transition countries persist. Throughout the decade of the 2000s, spreads were lowest in Hungary, generally been less than 2.5%. Spreads in the Czech Republic and Poland were often two or more percentage points higher. There are still many countries, notably Croatia, Romania and Russia, with spreads above 5% which we take to be the threshold to indicate a relatively competitive banking sector. Interestingly, the inflation rate since 2000 has been higher in Hungary than in the neighboring countries, Czech Republic, Croatia, and Poland, with higher spreads. Overall, the experiences of the transition countries indicate that neither high foreign participation in the banking sector nor low inflation is a sufficient condition for competitive interest rate spreads.

Financial depth, the ratio of domestic credit to the private sector to GDP, is a common measure of financial sector development and the extent of intermediation in the economy. There were considerable differences among the transition countries in 1995 as well as wide variation in the growth of the ratio subsequently. The Czech Republic had the deepest financial markets in 1995; the financial depth ratio was 47% and it grew to 75% in 2010. Stabilization of the banking sectors led to financial deepening throughout the region in the decade to 2005. The credit to GDP ratios were over 30% in 2005 in all the countries except Romania and Russia. Ratios around 50%

are higher than those found in under-banked developing countries with little intermediary activity and are similar to those found in many emerging markets.

The financial depth ratio can also be an indicator of financial fragility because it often increases dramatically when there is a credit boom. It is sometimes hard to distinguish between improvements in the financial sector and potentially dangerous increase in credit. For example, depth increased in the decade beginning in 2000 in Bulgaria from 12% to 75%, in Hungary from 30% to 67% and in Croatia from 40% to 70%. It is difficult to say which of these might represent increased public confidence in the banking system (perhaps Bulgaria) and which are reflections of excessive expansion of lending. By 2010, the credit to GDP ratios were between 40% and 80% in most of our transition countries though figures were higher in a few small countries with credit booms (Slovenia and the Baltics). The range is consistent with other middle income countries around the world. However, credit depth in 2010 in the most advanced transition countries, the new member states, was well below the EU average which was 86% in 2005. Even the four leading transition countries are well below the EU average in providing credit to the private sector.

A discussion of financial depth in the 2006 EBRD *Transition Report* notes that financial deepening in CEE and SEE countries was often due to sharp increase in loans to households, particularly mortgage lending. Household credit, in particular mortgage lending, depends on well-defined property rights over collateral and an effective legislative infrastructure to facilitate the collection of collateral in case of default. Hence, the dramatic growth of both types of lending in many transition countries reflects significant improvements in supportive institutions. Nevertheless, rapid growth in such lending can also signal an asset price boom, usually in real estate, and the potential vulnerability of the financial sector. The explosion of retail credit in some

transition countries contributed to instability in the banking sector when the global financial crisis occurred.

Retail credit accounted for well over half of all loans in Croatia and around half of the total in the Czech Republic and Poland in 2005. Mortgage lending as a percent of GDP in 2005 was highest in Croatia and Hungary, somewhat smaller in Bulgaria and Poland and virtually nonexistent in Romania and Russia.

By the end of the first decade of the century, banking systems in the more advanced transition countries were mature institutions, little different than their counterparts in other middle income and emerging market countries. The global financial crisis starting in 2008, which was quickly followed by a European sovereign debt crisis, put this conclusion to test. The resilience of transition banking in the face of major shocks is the third phase in the development of transition banking.

#### **4. Transition Banking in the Financial Crisis**

The global financial crisis starting in 2008 put to test the progress in transition banking from the previous decade. First, foreign ownership of banks which had been an important source of managerial and technological improvements in the industry also serves to link the financial systems of the home and host countries. The crisis showed that foreign ownership could amplify the effect of the global shock on transition countries (De Haas, 2014). This experience led to a reexamination of the arguments regarding the benefits and costs of foreign bank ownership. Second, many transition countries experienced retail credit booms in the years leading up to the crisis which tested the regulatory and supervisory capabilities of these still relatively new financial systems. In several instances transition economies were able to put timely policy

responses to the credit boom in place which made them appear prescient when the crisis hit. Although the impact of the financial crisis on the region was severe, systemic problems were rare and many banks in the region generally outperformed their counterparts in more developed countries. The two important characteristics of the banking systems in this era – foreign ownership and credit booms – were related. The EBRD *Transition Report* (2009) indicates that abundant foreign financing often intermediated by foreign banks contributed to booms in retail credit, some of which is denominated in foreign currency in several countries, throughout the region prior to the financial crisis

Between 2004 and 2013 eleven transition countries joined the EU which spurred further consolidations and mergers in the banking system so that foreign ownership was concentrated in a handful of banks with extensive interests in many countries. Six large West-European banking groups (the Big 6) -- Unicredit (Austria), Erste, Raiffeisen, Societe Generale, KBC, and Intesa -- accounted for more than two-thirds of foreign banking assets in the region in 2010. In addition Swedbank dominates the banking sectors of the Baltic countries. Unicredit through takeovers and subsequent mergers acquired Greenfield operations of several previously Austrian banks that had operated in the region since the beginning of the transition. Erste's strategy involved taking over the state-owned savings banks in five countries and focusing on retail banking activities using a solid in-country deposit base. Raiffeisen's business strategy involved growing its Greenfield operations that it had in the region since the beginning of the transition with a focus on corporate lending. Societe Generale purchased previously state-owned banks with mixed deposit bases in three countries. KBC participated by taking over banks in three of the early EU entrants and taking a minority stake in the largest bank in Slovenia. Intesa is a relative late comer to the region having purchased the largest bank in Serbia and the second largest bank in both Slovakia and

Croatia. Taken together in 2010, the Big 6 account for the five largest banks in the Czech Republic and Slovakia, the four largest banks in Croatia, four of the five largest banks in Serbia, and three of the five largest banks in Romania, Hungary, and Slovenia. For each bank, the region became what Epstein (2013) calls “a second home market” to which these Big 6 banks remained committed during the crisis.

The idea that foreign bank ownership would bring efficient banking with important spillover effects on domestic banks to countries in transition had been debated in the 1990s. The positive role of foreign ownership quickly came into question when the crisis started. It was feared that foreign-owned banks, particularly if they relied on funding and liquidity from their parent, would transmit the crisis shock to the region. Poor conditions in the home country might lead the parent banks to reduce funding or even try to withdraw capital. If parent banks attempted to limit their losses by reducing foreign exposures they could trigger systemic crises in banking systems dominated by foreign ownership.

These concerns led to a joint action plan, the Vienna Initiative (VI) which was adopted in January 2009. Both the International Financial Institutions (IFIs) such as the EBRD, IMF and the EIB and private institutions (i.e. the parent banks in the region) participated in the VI. The banks agreed to maintain their exposures to the transition countries and recapitalize banks as necessary while the IFIs offered support of 33 billion Euros to maintain stability in the region. Five of the Big 6 multinational banks signed letters of commitment to host countries as part of this program (the sixth, KBC was restricted by the terms of a support package it received from its home country, Belgium). An expanded plan, VI 2.0, was adopted in 2012 in response to the European sovereign debt crisis.



According to De Hass *et al.* (2012), the contraction in credit by foreign bank subsidiaries in 30 transition countries occurred earlier and was deeper than that of domestic banks during the crisis years of 2008 and 2009. However, these authors find that banks that participated in the Vienna Initiative were less likely to contract credit in the region than banks that did not participate. Popov and Udell (2012) show that transition country firm's access to credit during the crisis was affected by the balance sheet conditions of foreign parent banks. Thus, there is evidence of the international transmission of the crisis shock to the transition countries. Nonetheless, Epstein (2013) argues that it was the business models of the banks themselves rather than the intervention of the IFIs that kept the Big 6 committed to their longer-term objectives of maintaining market share and reputation in their "second-home" markets. In fact, the Big 6 themselves originated the idea of a coordinated approach in a letter expressing concern for the financial stability of the region sent to the European Commission in November 2008. Some combination of IFI coordination and the banks' business models led the Big 6 to remain committed to the region and to maintain a relative stable credit situation in the 9 European transition countries considered here throughout the crisis years.

Credit growth throughout the region slowed as the international financial crisis affected economies, particularly those that were closely integrated with the Euro area (Hungary and the Baltics) or vulnerable to swings in energy prices (Russia and Kazakhstan). The worldwide credit crunch reduced volume in international bond and syndicated loan markets. Further, countries with macroeconomic imbalances were particularly vulnerable to contagion effects when the European sovereign debt crisis spread across the periphery of Europe.

Hungary was among the first emerging market countries to suffer the fall out of the global credit crunch. It was vulnerable because of a large fiscal deficit, its reliance on external financing

and the extent of domestic, particularly household, borrowing in foreign currency. The credit crunch led to pressure on the forint and an increase in the country risk premium. In October 2008, the IMF, the World Bank and the EU joined forces to provide a \$25 billion support program. Importantly, the program included provisions for preemptive additions to bank capital and guarantees for the interbank market. That is, the macroeconomic issues and financial sector stability are inseparable problems. As the Hungarian currency depreciated, the country faced a serious problem since the vast majority of loans in its large mortgage market were denominated in Swiss francs. The regulatory authorities and the government intervened by allowing repayment of these mortgages at a preferential exchange rate. However, the program was of limited success because the holder of the mortgage had to have sufficient funds to buy out the entire mortgage at the preferential exchange rate. Although the recession in Hungary deepened and credit contracted, Hungary has avoided a systemic banking crisis like that which occurred early in the transition process.

Croatia also faced a rapid expansion of household borrowing in the years prior to the crisis. Unlike other countries around the world, it imposed prudential constraints on lending activity through a series of innovative central bank actions which enabled it to mitigate the effects of the boom. In retrospect these steps could well have been emulated by more advanced countries.

Croatia suffered from a common combination of problems. First, the growth of credit outstripped GDP growth; it was fueled by improvements in the banking sector capabilities and low external borrowing costs. Second, the resultant capital inflows created a large external imbalance. Third, 70% of mortgages in Croatia are denominated in Euros. Even if the deposit base of the banks is also in Euros, foreign exchange risk is not eliminated by this matching

because a domestic slowdown or exchange rate shock would affect the ability of domestic borrowers to repay in Euros (as was the case in Hungary).

The first measure introduced by the Croatian National Bank for a short period of time starting in 2003 was a ceiling on credit growth above 16%. Further measures included compulsory bank purchases of central bank notes, required holdings of liquid foreign currency assets to balance their domestic currency exposures and marginal reserve requirements on external borrowing by the banks. Starting in 2006, the central bank increased the risk weights on foreign currency loans to domestic customers with the expressed purpose of discouraging such loans. The variety of programs and the frequent changes in their application introduced some uncertainty into the banking environment. Nevertheless, Croatia was able to maintain the stability of its banking sector throughout the crisis period.

Credit expanded rapidly in Poland as well; the credit to GDP ratio almost doubled between 2004 and 2008 and much new lending was denominated in foreign currency. This might appear to be a recipe for financial instability except that the bank regulators leaned on the banks to increase capital buffers and maintain the quality of loan portfolios. Although more formal tightening of regulatory standards did not occur until much later, Poland did not suffer any systemic instability during the global crisis.

The Russian banking system encountered serious liquidity problems before the crisis, in 2004, and again late in 2008. A lack in trust paralyzed the interbank market for a short period in 2004 though this did not have much effect since deposits were concentrated in the large state owned banks. The problems were more serious in 2008 when oil prices fell and the Ruble depreciated while many institutions borrowed abroad in foreign currencies. This time the closure of the Russian interbank market threatened a significant systemic crisis. . Deposits were

switched into foreign currency and total deposits declined. Nonperforming loans increased, loans outstanding fell and there were some bank closures. However, unlike the crisis a decade earlier, there were no major bank runs. Furthermore, there was a rapid and comprehensive policy response. The central bank eased its refinancing terms and extended deposit insurance coverage and the government offered support to enterprises in trouble. The Russian banking system is much stronger than it was before the 1998 crisis but it is still vulnerable to large macroeconomic shocks. From 1998 to 2008 the ratio of bank credit to GDP in Russia doubled.

These episodes suggest that transition banking in its most recent stage is still vulnerable to both external and internal shocks. However, foreign ownership continues to bolster the ability to absorb shocks even if it is also a source for the transmission of developed world shocks to the region and, importantly, central bankers have developed the tools and expertise to react in a timely fashion to shocks. Though the banking sectors are fragile, they exhibited surprising resilience in the face of the global financial crisis.

## **5. Retrospective on Transition and Prospects for the Future**

Although banks in the transition countries have made rapid strides in improving performance and services since the early 1990s, the banking sectors in the transition economies still do not possess the financial depth of their EU counterparts nor are banking services as well developed in these countries. Nonetheless, with few exceptions, the transition in banking is complete. State mono banking structures have been replaced by privately owned, market-oriented, well-capitalized banking institutions that are independent from the government and from state-owned clients. The legal environment has improved with respect to bankruptcy laws, collateral laws, and confidence in the application of the law. Furthermore, banking regulatory and

supervisory capabilities have developed considerably. Thus, any evaluation of the structure of banking in transition countries must be positive. However, banking conduct is a somewhat different matter; any evaluation of what banks are doing and how they are contributing to economic performance in the transition economies must be more nuanced.

For the transition countries, the financial depth ratio is well below industrial country levels, although the numbers are not unusual for countries having similar GDP levels. In some CEE countries, this ratio has fallen as bad loans have been removed from balance sheets while GDP has grown. Deepening has occurred in the major FSU countries with the achievement of financial stability and the resulting return of public confidence in banks. Financial deepening or increasing intermediation has been shown to be associated with more rapid economic growth in cross-country studies (Wachtel, 2001). Thus, the increased credit ratios should be viewed as a positive development even though there is reason for concern that credit deepening has come in the form of rapid growth in mortgage lending and other forms of consumer credit. As the crisis suggested, such rapid credit increases might have been more a sign of excessive risk taking and financial vulnerability than a precursor of financial deepening and long term growth.

Lending to households has grown rapidly in many countries. The expansion of household lending in transition countries may be related to the dominance of foreign-owned banks. Once the legal environment is in place, lending to households is a commodity business that can be entered easily through the application of banking technology from abroad. Still ratios of household credit to GDP are still not large by developed country standards. However, the ratio of household credit to the financial wealth of the consumer sector is high in Croatia and elsewhere suggesting that the expansion credit increased the vulnerability of consumers to economic shocks.

In contrast, lending to enterprises requires developing client relationships and having the ability to evaluate unique situations, both of which require expertise that is generally lacking in foreign banks although acquired banks may bring such local knowledge. Using the first EBRD Banking Environment and Performance Survey, Haselmann and Wachtel (2010) show that banks in many transition economies have shifted their asset portfolios out of government securities towards mortgages and consumer credit. Foreign banks in particular have increased consumer lending and only maintained the existing level of lending to enterprises. The EBRD/World Bank surveys of enterprises in transition countries indicate that many firms are financially constrained in the sense that they are unable to obtain bank lending. Based on these surveys, the EBRD concludes that “despite some regional variation, bank loans still play a limited role in enterprise financing” (EBRD *Transition Report*, 2006, p. 47). Since lending to enterprises is important to support economic growth, this finding has important implications for any evaluation of the conduct of banking in transition countries.

The EBRD surveys provide little evidence of increased lending to small and medium enterprises (SMEs). Improvements in the legal environment for banking have been associated with greater risk taking and more credit extended to SMEs (EBRD *Transition Report*, 2006; Haselmann and Wachtel, 2007). Frequently, the survey respondents indicate that a lack of creditworthy borrowers and difficulty in evaluating risks were the main reasons for slow loan growth. In their lending activity, banks in transition countries tend to favor large firms and foreign affiliates currently. However, improvements in the legal and regulatory environment, such as good bankruptcy laws, efficient ownership structures, reliable court systems for their application, credit registries, and defined legal rights to collateral should lead to more lending to SMEs and more support of local entrepreneurs in the future (de Haas and Lelyveld 2006).

The largest enterprises in the transition countries, particularly those that are part of the EU, face fewer problems in obtaining financing because of the growth in cross border financings. Such firms have access to the European syndicated loan market as well as direct access to banks and capital markets in Frankfurt and London. Further such activity introduces competition into some of the highly concentrated domestic markets. However, cross border activity ceased during the financial crisis and has taken several years to recover

The relationship between parent banks and their local partners is a mixed blessing. In some cases, the parent bank provides assistance for a troubled local institution, e.g. prior to its own crisis difficulties, KBC from Belgium supported its troubled Polish subsidiary, Kredybank. However, parent bank support can not be taken for granted, e.g. Bayerische Landesbank walked away from its Croatian subsidiary, Rijecka Banka, when fraud was uncovered. In addition, ownership changes in the parent bank can affect the structure of banking in the host country. When HVB joined the Unicredito banking group, several Polish subsidiaries were merged to create the second largest bank in Poland despite objections from the Polish authorities.

Banking regulation in the European Union follows the home country principle in that the home country regulators supervise the consolidated balance sheet of multinational banks. At the same time, the host country regulators have responsibility over the local subsidiaries. Hence, a potential for conflict arises if a home country regulator does not have sufficient interest in a foreign subsidiary that is a small part of a multinational bank but an important player in the financial sector of the host country. The lack of explicit coordination of bank regulation across borders is a problem that is finally getting the attention due through the ongoing (as of this writing) discussions regarding a European Banking Union which would include the new member states.

In summary, virtually all of the European transition countries have developed mature banking sectors and considerable strides in this direction have been made by banks in the other transition countries. The FSU countries now have models to emulate; hence, their progress toward achieving mature and effective banking institutions warrants careful watching to see if the relevant lessons have been learned. Further, banks around the world have lessons to learn from the recent experiences of the transition countries regarding the role of foreign banks in the transmission of shocks and the ability of central banks to respond to credit booms. Banks in the transition economies have become part of the competitive global financial industry.

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### Banking Sector in Transition: Selected Data

	Number of banks (foreign owned)	Asset share of foreign banks (%)	Domestic credit to GDP ratio (%)	Net Interest margin (%)	Non-performing loans % of total	EBRD Bank Transition Index
<b>Early Transition – 1995</b>						
<b>CEE</b>						
Czech Rep.	55(23)	15.5	62.5	3.44	31.5	3
Hungary	43(21)	36.8	22.7	5.99	12.1	3
Poland	81(18)	4.4	16.7	8.84	23.9	3
Slovakia	33(18)	32.7	26.3	3.93	41.3	2.7
<b>SEE</b>						
Bulgaria	41 (3)	<1	39.4	2.17	12.5	2
Croatia	54 (1)	<1	33.4	5.73	12.9	2.7
Romania	24 (8)	<1	7.8	8.27	37.9	3
Serbia	103(3)	<1	9.2	3.62	12.0	1
Slovenia	39 (6)	4.8	27.3	4.48	9.3	3
<b>FSU</b>						
Estonia	19 (5)	1.8	14.4	9.26	2.4	3
Latvia	41 (17)	34.6	--	10.29	18.9	3
Lithuania	15 (0)	0	15.2	10.87	17.3	3
Russia	2297 (21)	3	8.7	8.89	4.6	2
Ukraine	230 (1)	--	1.5	5.43	--	2
<b>Mid-Transition – 2000</b>						
<b>CEE</b>						
Czech Rep.	40 (26)	65.4	44	2.03	33.8	3.3
Hungary	42 (33)	67.4	29.9	4.01	3.1	4
Poland	73 (46)	72.6	26.9	4.36	16.8	3.3
Slovakia	23 (13)	42.7	43.7	2.69	26.2	3
<b>SEE</b>						
Bulgaria	35 (25)	75.3	12.5	5.52	10.9	3
Croatia	45 (21)	84.1	39.9	4.89	22.6	3.3
Romania	33 (21)	46.7	7.2	7.57	5.3	2.7
Serbia	81 (3)	0.5	63.6	3.31	--	1
Slovenia	28 (6)	15.3	36.7	3.75	9.3	3.3
<b>FSU</b>						
Estonia	7 (4)	97.4	23.3	3.55	1.3	3.7
Latvia	22 (12)	74.4	--	3.38	4.5	3
Lithuania	13 (6)	54.7	11.3	3.78	10.8	3
Russia	1311 (33)	9.5	13.3	5.26	9.6	1.7
Ukraine	154 (14)	11.1	11.2	6.35	12.5	2

	Number of banks (foreign owned)	Asset share of foreign banks (%)	Domestic credit to GDP ratio (%)	Net Interest margin (%)	Non-performing loans % of total	EBRD Bank Transition Index
<b>Later Transition -- 2005</b>						
<b>CEE</b>						
Czech Rep.	36 (27)	84.4	35.8	2.39	4	4
Hungary	38 (27)	82.6	49.9	4.46	3.1	4
Poland	61 (50)	74.3	33.4	2.96	11.6	3.7
Slovakia	23 (16)	97.3	35.1	2.08	5.5	3.7
<b>SEE</b>						
Bulgaria	34 (23)	74.5	41	3.96	3.8	3.7
Croatia	34 (13)	91.3	56.4	3.50	6.2	4
Romania	33 (24)	59.2	19.9	4.23	1.7	3
Serbia	40 (17)	66	30.7	5.69	--	2.7
Slovenia	25 (9)	22.6	56.3	2.19	6.4	3.3
<b>FSU</b>						
Estonia	13 (10)	99.4	56.6	3.01	0.2	4
Latvia	23 (9)	57.9	67.8	2.93	0.7	3.7
Lithuania	12 (6)	91.7	40.9	2.02	3.4	3.7
Russia	1253 (52)	8.3	25.7	5.57	2.7	2.3
Ukraine	165 (23)	21.3	32.2	3.96	2.2	2.7
<b>Post-crisis – 2010</b>						
<b>CEE</b>						
Czech Rep.	37(15)	84.8	75.3	2.68	2.8	4
Hungary	38 (23)	81.3	66.5	3.82	6.7	3.7
Poland	67 (57)	72.3	55.2	3.18	8	3.7
Slovakia	26 (13)	91.6	51.1	2.77	5.2	3.7
<b>SEE</b>						
Bulgaria	30 (22)	84	75.3	3.59	6.7	3.7
Croatia	32 (15)	91	69.6	2.95	7.8	4
Romania	31 (25)	84.3	40.7	4.35	8.5	3.3
Serbia	--	--	45	4.54	--	3
Slovenia	25 (11)	29.5	92.7	2.36	6	3.3
<b>FSU</b>						
Estonia	17 (14)	98.3	--	3.21	5.3	4
Latvia	27 (18)	69.3	103.3	1.57	16.4	3.7
Lithuania	17 (5)	91.5	69.8	1.44	20.8	3.7
Russia	1058 (108)	18.3	44.4	5.08	9.7	2.7
Ukraine	182 (51)	50.8	73.3	4.66	47.9	3

Notes: Data are from country tables in EBRD *Transition Report*, various issues and the EBRD on line “Structural and Institutional Change” indicators. Some additional data for 1995 are from Barisitz (2007). EBRD Index takes values between 1.0 and 4.0+. In case of a missing number in 2010, we use the value from the previous available year. CEE – Central and Eastern Europe; SEE – Southeastern Europe; FSU – Former Soviet Union; -- indicates data not available.

### Average Interest Rate Spread and Inflation Rate in Transition

	Interest Rate Spread				Inflation Rate			
	1991-95	1996-00	2001-05	2006-10	1991-95	1996-00	2001-05	2006-10
<b>CEE</b>								
Czech Rep.	6.5	4.7	5.6	4.7	20.1	6.4	2.2	1.7
Hungary	7.2	4.4	2.3	2.4	24.9	14.0	5.4	5.5
Poland	5.6	6.7	7.0	4.1*	38.7	11.7	2.2	3.1
Slovakia	5.7	5.8	5.7	3.6*	22.3	8.0	5.6	3.0
<b>SEE</b>								
Bulgaria	29.4	61.9	6.5	5.9	127.4	181.6	5.0	6.6
Croatia	489.2	10.5.	8.7	7.6	467.6	4.9	2.8	2.9
Romania	23.1	19.5	15.9	6.7	161.4	68.9	16.0	6.1
Serbia	86.4	72.2	15.7	7.9	12.4	52.5	18.6	8.5
Slovenia	13.5	6.0	4.7	3.5	78.3	8.2	5.2	3.0
<b>FSU</b>								
Estonia	7.9	4.0	4.3	4.4	272.8	7.9	3.8	5.1
Latvia	25.5	8.6	3.2	5.8	261.1	5.6	4.5	12.5
Lithuania	28.6	6.4	3.7	2.4	355.1	5.9	1.8	5.2
Russia	155.3	25.8	9.1	6.0.	767.8	34.8	14.2	10.4
Ukraine	43.0	31.1	13.4	6.6	2725.6	23.0	7.3	14.4

Note: Spreads are computed as the difference between lending rates and deposit rates from the country tables in EBRD *Transition Report*, various issues. Maturities are always less than one year but they differ across countries. In case of a missing number in Transition Report, we have taken available numbers from the World Bank's World Development Indicator (WDI) data. If it is missing in WDI, we used forecasted numbers in the EBRD report "annual indicators and projections." Inflation rate is the average of year end changes in the Consumer Price Index. Same data sources as for spreads. Missing values followed the same procedure as mentioned above. In case of a missing number in a given year, we have taken the value from the previous available year. CEE – Central and Eastern Europe; SEE – Southeastern Europe; FSU – Former Soviet Union.