Deposit over-insurance in EU accession countries – a moral hazard boomerang to the Euro Area?

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Abstract: The paper presents the coverage levels and institutional features of deposit insurance in EU accession countries. A simple comparison in relative and nominal terms states that deposit insurance in 10 Central and Eastern European countries is considerably not only above the level of "the good practice" but also above the euro area average. The characteristics of deposit insurance systems are studied as a part of the safety nets in these countries, which configuration is, on one hand, directly inherited from the legacy of the central-planned economy, modified in the transition process accompanied by deep structural changes and severe banking crises, and on the other hand, imposed by the EU accession requirements and harmonization process. In spite of the fact that there might be some historical and logical justification of the deposit over-insurance in accession countries, it could inevitably lead to increasing moral hazard, incentives distortion and increasing costs of banking intermediation in the whole enlarged euro area. Unfortunately, we have to point out that deposit insurance in accession countries is an example of the contradictions during the financial harmonization of the EU countries.

JEL classifications: G1, P2

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Introduction

In the beginning of the 90's the centrally-planned economies in Central and East Europe started a long process of transformation into functioning market economies. This process was accompanied by the recovery of the banking intermediation which also implied the establishment of the deposit insurance (DI) systems as a feature of the contemporary safety nets (including also lender of last resort and banking regulation characteristics). This was imposed by the particular importance of financial stability in these countries which experienced banking crises and panic that caused considerable loss of income and credibility in the banking system¹. Those crises were results of a complex of causes, related in their roots with the difficulties to reconstruct the basic market economy institutions and to establish modern banking and financial systems adequate to their state of economic development. A major factor that contributed to the crises is the contradiction between the laxist and discretional monetary and fiscal policies on the one hand, and the weak banking regulation, on the other hand. The latter could not be compensated by the market discipline due to the missing *risk culture* in the ex-centrally-planned $economy^2$.

The crises forced the competent authorities to introduce the explicit DI in order to avoid bank runs, calm down the population and restore banking system credibility. Chronologically, almost at the same time (in the middle of the 90's) it turned out that the ex-socialistic countries would apply for EU membership, which automatically imposed overall harmonization of the financial legislation. Thus, the second major reason for the establishment of the new DI schemes was the EU integration and the requirement for harmonization (Directive 91/19 EC of 30 May 1994).

The common problems of DI (moral hazard, adverse selection, agency problems, incentive-compatibility, and cost of intermediation)³ gain a particular

¹ See for a survey ECB (2005) and also Tang et al. (2000), Enoch et al. (2002), Caprio and Klingebiel (2003).

²In some sense, we can speak of genetically inherited systemic moral hazard or moral hazard path dependence.

³ See for example Demirguc-Kunt and Detragiache (1998, 2002), Demirguc-Kunt and Huzinga (2004), Carapella and Di Giorgio (2004). For theoretical aspects of DI and financial regulation as a whole see the discussion in Economic Journal (1996), particularly Dowd (1996), Benston and Kaufman (1996) and Dow (1996), as well as Garcia (1999) and Dale (2000). Concerning the role of DI in the system of

meaning in the transition countries. It is of particular interest to study the DI practices in the accession countries (AC) from the point of view of their potential impact on the euro after being integrated into the EMU.

In this study we set our task to make a basic comparison of the DI systems in 10 AC (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) looking for some common and specific features, assessing the current level of harmonization to the EU and further development. At the same time, we will try to find an answer to two questions: (i) whether there is over-insurance of deposits in accession countries, (ii) what the basic factors behind this over-insurance are and (iii) what the consequences for the banking system stability and efficiency could be in AC (taking into consideration the specific design of the safety nets), and what impact of this over-insurance over the whole euro area could be.

In this study we argue that the dynamics of the DI goes through two major phases: (i) implicit and full DI inherited from our socialistic past and (ii) explicit and high level of DI as a result of the experienced banking crises and EU harmonization Thus the proper moment when it was possible to foster market discipline and banking system efficiency, a new high level of DI was enforced, which further increased moral hazard and weakened market discipline. Moreover, the process of mechanically carried out nominal harmonization of the DI systems out of the context of the real condition of the economies and of the banking systems, could impose great costs to the EU. The nominal and real over-insurance could lead to increased general risk level in the financial system, to lower efficiency of the banking intermediation, and as a whole to larger disproportions within the euro area.

In the first section we make a brief review of the EU Directive on DI and present a detailed study of the features of the DI systems in AC on the basis of their legislation and a survey. We argue that deposits in the AC are over-insured with supporting evidence in nominal and real terms as well as in the future development of DI in line with EU integration process. Moreover we regard the over-insurance in the context of banking system development and supervision, and the quality of

financial regulation see Llewellyn (2001) and on the specificities of deposit guaranty in the financial system of accession countries - Hermes and Lensink (2000), Scholtens (2000). For a detailed description of financial sector development in transition economies during the first decade see Bonin and Wachtel (2002) and Thimann, C. (2002), EBRD (2004) and ECB (2005).

institutions as well. In the second part, we will analyze the reasons for that state of over-insurance in the AC and its specific relation to moral hazard. In the third section, we describe some possible channels, through which this over-insurance could influence the financial system in the euro area.

I The Design of DI in AC

The design of the DI systems in countries negotiating for EU accession is to a great extent predetermined by the Directive 94/19/EC of 30 May 1994, which intends to harmonize DI practice (EC, 1994). As the EU Directive is a "soft law", AC differ in how they treat the individual versus corporate deposits, how they view coinsurance issues, risk-adjusted premiums, size of cover, and institutional features (whether there is a special body managing the scheme, its legal status and scope of powers, the manner in which funds for deposit protection are raised and managed). All these features should be considered as country specific and closely related to the state of financial intermediation development. The process of EU integration is leaving little space for free choice except for credit institutions' contributions so far, which is more or less determined by the volume and characteristics of deposit creation process and banking stability. For the purpose of analyzing the DI as an element of the safety net, we present a short comparative analysis of selected institutional features in the view to DI "best practices", based on most up-to-date survey data and information⁴. Best practices are determined in DI contribution to safety net functioning in the context of decreasing moral hazard and imposing market discipline that promotes bank development, efficiency, and stability (Garcia, 1999).

As required by the Directive, all DI systems in the EU should be *mandatory* for depository institutions in the member countries and branches of home credit institutions abroad. Voluntary membership is not considered good practice as it contributes to the problems of adverse selection, however is argued to strengthen market discipline (Demirguc-Kunt and Huizinga, 2004). Hence, some of the EU15 members have been forced to revise the design of their DI schemes to come in compliance with the Directive (France, Germany and Italy). Besides to compulsory DI, some AC provide *additional* insurance. In the Czech Republic for instance,

⁴ For an earlier and detailed comparison, see Nenovsky and Dimitrova (2003).

foreign bank branches may take out supplementary deposit insurance under a contract with the Fund if the DI system to which they are members does not provide the same level and size of protection. In Poland there is a *de jure* contractual system that extends the guarantee cover beyond the minimum specified in the mandatory scheme, which has not still be into practice. All subjects, rules, rights and obligations are specified in the agreement on establishment of contractual guarantee fund. Also in Slovakia, banks may insure their deposits over and above the level of deposit protection required by the law by taking out insurance with a legal entity authorized by the Ministry to carry on such business.

In terms of best practices, it is disputable, which institutions shall be considered eligible for DI, although intuitively, all deposit-collecting institutions should be considered for inclusion. Depending on the depth of financial intermediation, we distinguish between bare-bone DI schemes providing deposit insurance guarantee only for deposit banks (Bulgaria, Poland, Slovenia, Romania, Slovakia and the Czech republic), while other more sophisticated systems extend their scope to credit unions, savings and loan association (Lithuania, Latvia, Hungary, and Estonia⁵). The nationally recognized DI system usually covers also foreign banks' branches on its territory in case the home country of the foreign bank does not provide adequate deposit protection in terms of scope and size. The widely-spread among AC bare-bone DI system is a result of the establishment of the rather "universal" than specialized banks playing the most important role in financial intermediation (presenting 86% of the financial markets in AC on average) and of the low performance of alternative direct financing opportunities in terms of the average stock market capitalization as a percent of GDP (15.8%).

Concerning the different *kinds of deposits* covered by the guarantee schemes, there are two contrasting approaches summarized by Garcia (1999). One is to cover depositors of all types at a low level of protection, which is easy to administer, and the other, which is conceptually clear, is to keep coverage low but to exclude some sophisticated depositors like financial institutions, governments and large corporations. Thus DI systems can protect small depositors while larger ones will monitor the condition of their bank. Thus, most AC systems include natural and

legal entities (residents and non-residents) deposits in national and foreign currency except Romania where only deposits of natural persons are protected, while in Estonia, Slovenia and Poland there is special treatment of different corporate depositors. Besides the ultimately excluded from protection deposits in the Directive (interbank deposits, government deposit and some others), almost all 10 AC prefer to keep the scope of coverage limited, and further exclude deposits of insurers, pension and insurance funds, privatization funds and other non-banking financial institutions deposits. Concerning foreign currency deposits, the EU excludes some non-EU currency deposits from coverage, while all AC countries that insure foreign currency risk.

Table 1. Basic characteristics of deposit insurance in Accession countries

Credit institutions' liabilities per depositor are set in terms of *coverage limit*, which should be low enough to encourage large depositors and sophisticated creditors to discipline their bank. The logic of defining the amount of coverage is to encompass a relatively high percentage of the number of accounts, but a smaller percentage of the total volume of deposits in the system (Garcia, 1999). Speaking in nominal terms, countries that are ahead in their negotiation process with the EU would score higher coverage limits like the Czech Republic, Slovakia, Slovenia, Poland and Hungary⁶, while Bulgaria and Romania should logically be on the low-level side. It is interesting to note that Estonia, Lithuania and Latvia are lagging behind their peers from the first accession wave in terms of the nominal DI insurance, which we interpret as a country specific feature justified in the process of negotiation taking into account the possibility of increased moral hazard in their banking system. However, according to the Directive all AC should attain the EU minimum coverage limit in foreseeable future.

With respect to *co-insurance issues*, since the Directive permits EU member countries to decide whether to choose or avoid co-insurance, equal number of AC

⁵ Among them the DI system in Estonia is the most developed one extending its coverage to funds deposited by clients of credit, investment institutions, and unit-holders of mandatory pension funds. However, there are three sectoral funds raised by different institutions and used for different purposes.

⁶ The EU Directive provides for limiting the minimum guaranteed amount to a certain percentage of deposits which should not be less than 90% of the total deposited amount, and for the guarantee to be up to the amount of EUR 20 000.

either maintain or eliminate their existing co-insurance systems by 2004. Coinsurance means that depositors are contractually required to share in their bank's losses (usually up to a maximum percentage of deposits - 10%) regardless of deposit size, thus curbing moral hazard and inducing market discipline (Demirguc-Kunt and Huizinga, 2004). In the EMU countries also try to strike a balance between discouraging moral hazard and avoiding systemic runs by adopting a system of coinsurance, so equal numbers practice or not co-insurance. Although the co-insurance might impose some transaction costs in calculations, it is a good sign for moral hazard combat that recently Hungary introduced co-insurance practice which is in line with the tendency described by Garcia (1999).

The *contributions* collected for DI funds are diverse in types and size and there is no binding requirement in the EU Directive on that subject. According to the common practice, they should be set according to the explicitly announced Fund *target* of accumulated resources. There is no doubt that DI funds need to be privately funded to encourage bankers to keep their institutions sound. There are mandatory annual premiums paid by commercial banks, but apart from them usually there are entry premiums (Bulgaria, Estonia, Hungary, Latvia, Romania and Slovakia⁷), and under special circumstances special premiums are collected as well (Slovakia and Romania). The size of the *annual premiums* (some of them collected on quarterly basis) needed to maintain a healthy fund should depend on the current condition of the banking system and its future prospects. Most commonly the assessment base includes only insured deposits, however, there is an ex-ante assistance fund in Poland which annual contributions are the sum of up to 0.4% of the total balance sheet assets and guarantees and endorsements that are risk-weighted plus the amount of 0.2% of the sum of the remaining risk-weighted off-balance sheet liabilities, except promised loan facilities where this rate is 0. The above contributions are currently reduced by 50% as the amount of reduction is paid to the Fund by the National Bank of Poland. As in Slovenia there is no permanent fund, the maximum annual liabilities payable by an individual bank amounts to 3.2% of the guaranteed held with the individual bank, as the commercial banks have the obligation to invest their premium in first-rate short-term securities in the amount equal to 2.5% of the guaranteed deposits.

⁷ It is interesting to note that in Slovakia the central bank participates in the DI system with an entry premium and in Latvia both the budget and the central bank.

Little attention was paid to enforce market disciple through *risk-adjusted premiums* as there is no consensus agreed on EU level (Garcia and Prast, 2002). The Directive gives full freedom for member countries and the AC to choose on that issue. In the euro area half of the countries have introduced risk-adjusted premiums (Belgium, Finland, France, Germany, Italy, Portugal and Spain), while others do not impose risk-adjusted premiums as an alternative means to combat adverse selection. Among all AC countries, in Hungary the system of increased premium payment is based on the capital adequacy ratio as the maximum premium is 0.3% of the premium payment base. The risk-adjusted contribution system in Romania provides a special premium of 1.6% of total household deposits for banks conducting higher risk transactions. The *extraordinary* premium in Slovakia does not perform functions of risk-adjustment but is rather related to the Fund target.

DI fund usually supposes the existence of a *special body* set explicitly by law with its functions described in a statute. On the debate whether to introduce exante or ex-post DI system, the Directive gives no recommendations. Considered best practice, AC are characterized by ex-ante funded DI system. Slovenia is the only exception with an ex-post. DI scheme (probably due to the lack of banking crisis experience) and it will not be a precedent in the EU since 1/3 of the euro area has established ex-post schemes - Italy, Austria, Luxemburg and the Netherlands. Although it is more costly to maintain a permanent DI fund, there is much ambiguity in ex-post DI systems regarding the base on which the insurance obligation is to be calculated as well as information sharing problems (Garcia, 1999).

Following the common practice, most DI systems in AC are identified with a permanent fund managed by a legal entity which administration could be either mixed (private and official) or only official (Latvia, Slovenia⁸). The choice between the private, mixed or officially managed DI funds is determined by two directions of reasoning. Serving both the private deposit institutions' interests and the public interest, mixed or joint administrations are usually managed by private or nongovernment agencies and they have limited authorities i.e. their decisions should be approved by the central bank. However, government members should not dominate the board as well as no banker expertise should be present as there will be a conflict

⁸ The Deposit Guarantee Fund management in Latvia is ensured by the Financial and Capital Market Commission, while in Slovenia the Fund is run by the central bank.

of interest. The management of the DI funds involves *investment activities* of the money raised by banks' contributions. Investments opportunities are limited by the law as a major part of the resources are most often invested in government securities.

The funding and management of the fund is closely related to the *back-up funding* when the resources of the fund become insufficient for the payment of insured and inaccessible deposits. There are three DI systems among AC which are entirely funded by the private sector (The Czech Republic, Lithuania and Slovenia). Apart from the credit institutions' contributions, in the Czech Republic additional resources can be raised on the market. In Lithuania, where there are sectoral insurance funds, when the DI fund is short of resources while the other has such resources, insurance compensations may be paid by the fund possessing the resources. There is no permanent fund in Slovenia; hence the central bank can temporarily finance it until the contributions of the banks are collected. In the other seven countries the additional resources are collected either from official or private sources. The lack of explicitly announced Fund target for most of the AC countries could be the reason for insufficient resources when needed following the common practice (Garcia, 1999).

The principal duties of all deposit guarantee institutes are to determine and collect the premiums, invest its assets and pay the guaranteed amount of deposits. Since deposit reimbursement is usually provoked by declaring a bank insolvent, most DI funds in AC have some *additional functions* and powers provided by the law on bank bankruptcy in the context of safety nets. The Fund in Poland has a second explicit function apart from DI, which is in the context of bank failure avoidance. In fulfillment of its task, the Fund may with limitations under certain conditions extend to the entities covered by the deposit guarantee system, loans, guarantees or endorsements on conditions that are better than generally offered by banks. This financial assistance is provided by the separate *assistance fund*. In order to increase the reliability and stability of the financial sector, the Fund in Hungary may have other commitments like granting credits, subordinate loans, acquisition of ownership participation in a credit institution, providing cover for the transfer of stock deposits against adequate collateral.

II Over-insurance in Accession Countries

One focus of the brief comparative study of the institutional design of the different DI systems in AC shows that some countries have already coverage limits close or above the EU Directive protection guaranteed level (for example Poland, the Czech Republic, Hungary, Slovenia). If we do not look at *absolute* but rather at *relative coverage* or *coverage ratio* the picture of over-insurance is confirmed. Assuming for best practice the principle of optimal coverage of deposits of about 1-2 times GDP per capita, and taking into account that the indicator for the euro area (1.3) is lower than the world average (Garcia, 1999)⁹, it is obvious that the average coverage ratio of the studied AC (2.8) is above the optimal world level and much higher than the euro area level (about 2 time the ratio for the euro area). In relative or *real* terms overprotection spreads among other countries as well like Bulgaria (3.1) and Lithuania (2.9) which in nominal terms do not seem to be overprotected. The AC under study, which has the lowest cover ratio is Estonia (1.0), followed by Slovenia (1.6), Romania (1.6)¹⁰ and Latvia (1.8) which are considered optimal.

Table 2 Coverage ratio of deposits in accession and euro area countries

Putting DI coverage limits of AC and individual EMU members together (see table 2), there is a clear opposite relationship between income per capita and coverage ratio for the whole group. If we may interpret the trend line as the average coverage ratio for the area, all countries standing above the line are over-insured, where among the mentioned over-protected AC we can see Italy and France. The high coverage limits in these countries are a result of their banking sector instability during the 90's. In 1994-1995 Credit Lyonnais experienced serious solvency problems in France, which regarded as the largest bank failure up to that time in the country. Analogically, since 1990 there has been huge banking restructuring in Italy (Caprio and Klingebiel, 2003).

At the same time it is interesting to note that in the course of time some of AC go or plan to go beyond the minimum requirement of the EU Directive (table 3). After

⁹ Garcia (1999) makes a review of the best practice in deposit insurance on the basis of a survey of 182 IMF member countries. A prior study was rendered by Kyei (1995). On the practice in EU countries, see Gropp and Vesala (2001).

¹⁰ The real coverage ratio for Romania is higher as it is said that the nominal coverage limit should be adjusted to inflation twice a year.

1999, the prohibition of high export coverage was eliminated and now there is no maximum guarantee limit, which allows for nominal and real overprotection although this could create moral hazard. It is interested to notice that countries joining the EU at one and the same pace have set different coverage development programs. For example, Hungary seems to join the Czech Republic, Poland, Slovakia and Slovenia rather than the Baltic countries which are not so urgent to attain the Directive limited protection. Coverage limits can be looked at from the point of view of negotiation process and political will, suggesting that those countries have negotiated optimal coverage ratios, paying special attention on the combat against moral hazard through slowly growing DI coverage limits, which will reach the EU minimum at the very end of the financial integration process. The optimal coverage limit growth rate could be analyzed in the framework of the safety net as a result of the monetary regime practiced in the countries. Not surprisingly, the three of the Baltic states have fixed exchange rate regimes (currency boards), which limits the flexibility of the safety nets putting constraints on LLR function.

Table 3 Development of the coverage limit in some AC

Another factor which is closely related to the development of the nominal guarantee limit in the AC is the dominant presence of foreign – owned banks which is estimate average at 76.4% of total banking system assets (table.4). The presence of foreign banks inevitably stimulates the introduction of similar DI systems like in their home countries. Hence we can distinguish a relationship between the share of foreign ownership in the banking system and the coverage limit among the AC. The hypothesis of over-insurance could be supported by the banking supervision features and particularly capital adequacy requirement of commercial banks, since in the AC under study solvency ratio is *de jure* and *de facto* considerably higher than the international standards.

Table 4 Some DI relevant indicators in accession countries

As DI is an element of safety net, this coverage has to be analyzed jointly with other characteristics of AC banking systems as the low share of deposits to GDP (42.8%) compared to the euro area average 81.9% as there are great differences among AC determined by the real conditions of the banking sector in each of them. This might support the logic of establishing best practice of coverage limit, which will want to encompass a relatively high percentage of the number of accounts but a smaller percentage of the total value of deposits in the system. However, calculating the optimal coverage limit, the DIF staff should take into consideration the distribution of deposits. Although we do not have such data at our disposal, GDP per capita could be a good proxy to show that the distribution of deposits in AC countries is shifted towards small deposits much more than in developed countries and the euro area (Table 4). Therefore, we should consider the fact that the majority of the deposits in AC is almost fully covered which does not enforce market discipline actions on behalf of depositors and stimulates moral hazard.

Taking all these factors together, the picture of deposit over-insurance in AC is confirmed, to which weak co-insurance practice and lack of risk-adjusted premiums also contribute. By 2004 only half of the AC observe the co-insurance principle in their systems (Lithuania, Poland, Hungary, the Czech Republic and Estonia) while there are only two imposing risk-adjusted premiums to the credit institutions. Although considered for best practice, these market discipline features are not explicitly stimulated by the EU Directive¹¹, and hence they were neglected by most AC in the process of their legal harmonization with respect to deposit insurance. Looking at the whole picture, we have come up with the results that DI in AC is considerably over the optimal level not only in quantitative measures but also in the context of banking supervision. Moreover, the deposit over-insurance in AC combined with some specific features of the overall development of the banking systems in AC might impede the performance of safety net.

III Why there is over-insurance in AC?

¹¹ During the negotiations leading to the Directive, German views prevailed and the proposal for a mandatory ceiling on protection and for a requirement for co-insurance was rejected, on the grounds that the dangers of moral hazard argument had been overstated (Garcia and Prast, 2002).

The answer to this question can be found only when DI is studies in the context of the systemic change which characterized all AC^{12} . Two events, rather political and global in their nature, were exogenously imposed to the AC economies and financial systems. The collapse of the centrally-planned economies was shortly followed (sometimes with a short period of time of not more than few years) by the forward political prospective of EU enlargement and integration into the European financial realm. Almost all AC suffered from some form of financial crises during the transition at different cost values and most often the change in DI systems was either set in the depth of a crisis or shortly after that. Before the institutional DI change, the inherited by the socialist regime implicit full state guarantee of deposits was practiced in all AC. The establishment of the explicit DI was in line with the committed harmonization with the EU Directives and with the preparation for entering the developed financial systems. Hence, we can illustrate the stages of the DI development in AC towards their process of EU accession (see. Figure 1), which we are going to analyze in the following sections.

Figure 1 Stages of DI development in AC during their EU accession



1. The legacy of the centrally-planned economy

There is no doubt that in its idea, the centrally planned economy was a *low risk economy*, which gave full protection of the savings and other deposits of the

¹² An analysis of the system change is offered by Kornai (2000). A review of the theoretical disputes about the character, the forms of centrally-planned economies' transformation as well as some summaries could be found in Roland (2002).

population¹³. The savings and other deposits were a part of the centralized monetary plan (apart from that there was a plan in kind) and the deposits were concentrated in the so called state saving funds¹⁴. In contrast to the enterprises, natural persons had their deposits at their disposal and they could withdraw them at any time.¹⁵. In fact in the late 80s there were no two-stage banking system with few exception. The administrative control on the financial system replaced the market discipline which was vital for market economies. There was no need for developing safety net because of the system ideology which used to say that the public are co-owners of the national wealth (national product).

The government took decisions on behalf of the economic agents and the population gradually lost its sensitivity towards risk¹⁶. Chronologically and logically, after the collapse of the centrally-planned economy and the start of the basic reforms (liberalization and privatization), in a short time there was a two-tier banking system by converting the ex-branches of the monobank into independent banks. The central bank started conducting active monetary policy under the conditions of loss-making big state-owned enterprises in different sectors of the economy, which were transferred to the banking sector and the budget. The active monetary policy was usually combined with lack of bank's expertise, weak bank regulation and supervision, with imposed barriers against foreign banks.

In spite of the early signs of the banking shake-up in the 90s, the implicit DI was still in function and all people believed that the "state" will take responsibilities and will reimburse the depositors in case of bank bankruptcy. Economic agents were willing to take a higher risk against relatively lower returns. This was true not only for the depositors who placed their money with more unstable banks against higher interest rates, and for the banks as well, that would put their money on risky and

¹³ For more details on planed economy see Atlas (1969), Sevic (2002), Litviakov (2003).

¹⁴ Apart form the monetary plan, there was a credit plan as well (often divided into short-term and long-term part), which reflected the artificial separation of the money flows between cash and non-cash corresponding to the two money functions: means of exchange and store of value. Deposits were included into the credit plan and were accounted as resources.

¹⁵ We have to remind that there was an artificial division between the consumer and investment goods (which is described in details in the theoretical models of Oscar Lange), as the former allowed some market elements, the latter was totally centrally-planned till the very end of the collapse of the regime. The dynamics of the deposits was closely related with the dynamics of the consumer goods' deficit (analyzed in the models of Ianosh Kornai), which determined to a great extent the interest rates on deposits (Litviakov (2003)).

¹⁶The phenomenon of low risky culture is a theoretical parallel to the role of DI in protecting naïve consumers of financial services in the theoretical framework if DI models.

potentially failing investments. Among some AC different kinds of financial pyramids and schemes for banks drawing appeared which in its nature were forms of income and wealth redistribution (Bulgaria, Romania and others). Although AC had different monetary and exchange rate regimes¹⁷, the overall dynamics of the transition was similar and can be described in the following pattern: - the central banks monetized the losses as it was difficult to distinguish between their LLR function and monetary policy¹⁸. In the context of the safety nets there were discrepancies between its elements – the deposits were *de jure* implicitly fully insured, the LLR function was misapplied and the bank regulation was week (leaving aside corruption and misuses).

Inflation and the depreciation of the national currency was an elegant way in favour of the debtors on the account of the creditors (particularly those who held deposits and treasury bonds)¹⁹. The winners (the banks as well) had no interest to change the system of implicit DI since the inflation helped them to achieve their goals. Therefore, the roots of the banking crises can be found in the inherited low (if any) risky culture, lack of market discipline, which were enhanced by the weak bank regulation, the overall specific institutional environment with low (if any) presence of foreign banks and other factors. In this line of reasoning we can speak of inherited (path-dependent) over-insurance and systemic moral hazard exploited by the winners of the systemic change.

2. DI system change

During the systemic change which broke out into some kind of crises in the financial intermediation, the expected state protection went into conflict with the gradually developing market mechanisms. In order to calm down the population, avoid further problems in the national financial systems and restore the credibility in the banking sector and national currencies, the monetary authorities decided to replace the old DI system with the modern explicit one. Although AC introduced the explicit DI systems at different times, the common between them is that these were

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¹⁷ It seems that countries which started the reforms with a fixed exchange rate and passive monetary policy were more successful.

¹⁸ Berlemann and Nenovsky (2004) analyze the evolution of the LLR function in Bulgaria.

¹⁹ For the political economy approach of the DI see Laeven (2004). In Nenovsky and Rizopoulos (2003) the political economy approach is applied to the transition form discretionary central bank to the currency board regime in Bulgaria.

times of some form of financial crises (see. Table 5)²⁰. Among the 10 CEEC, Hungary and the Czech Republic are the first to introduce the *explicit* DI (in 1993 and 1994 respectively) in line with the dynamics of their transition processes and in response to problems in their banking sector²¹.

Most of the other AC set up the new DI practice in 1995 and 1996 soon after the approval of the EU Directive with the view to provide explicit deposit protection in their fragile banking sectors. In 1995 Lithuania had problems with the credibility of its banking sector and had to close 18 out of 25 banks. Poland in the early 90' experienced huge banks insolvency problems which recapitalization costs in 1993 were equivalent to 2% of GDP, Bulgaria's banking and financial crisis started in 1995 when the explicit DI system was introduced and ended in hyperinflation the beginning of the 1997, in the same period Romania suffered from a domestic currency crisis which imposed large-scale banking restructuring, and Slovakia took measures to boost banking intermediation and precautions against bank panic, which financial system was very sensitive to the condition of the financial system in the Czech republic (due to their common economic development in the past as Czechoslovakia). Latvia and Estonia delayed the explicit DI introduction to 1998 as both of them experienced a strong impact of the Russian crisis over their financial sectors²². Slovenia is the last to introduce the explicit deposit guarantee scheme in 2001 due to the lack of severe banking crisis, delayed process of banking privatization and hence low level of foreign ownership presence in the banking system.

Table 5. Financial crises in AC

In terms of best practice, times of crises are the worst to introduce explicit limited DI. However, countries are often tempted to begin a limited explicit system when a crisis is imminent or in progress in the mistaken belief that it will avoid or cure the crisis (Garcia, 1999). Have AC countries chosen the optimal DI system and

²⁰ For details about financial crises see Caprio and Klingebiel (2003).

²¹ The Czech Republic had a significant banking system under the socialist regime and suffered from a banking crisis in the period 1993-1995, while Hungary in particular is characterized by a strong corporate sector with extensive access to financing abroad due to the high share of multinationals (Caviglia et al., 2002) as in 1993 8 banks (25% of financial system assets) were deemed insolvent.

²²The banking system in Latvia was very fragile between 1994-1995 35 banks saw their licenses revoked, were closed or ceased operation. In Estonia by 1995 the insolvent banks accounted for 41% percent of the GDP and 1997 there was a stock market crash.

coverage limit? Answering this question is constrained by the available alternative at the time of DI introduction. As limited coverage will not prevent uninsured depositors from running, most AC considered setting higher coverage rates although at the beginning they were nominally lower than the EU level. Another reason for setting higher coverage rates in times of crises is that it is difficult to determine to what extent the public is going to withdraw its deposits from the weak banks and put it back into the safety ones within the country, or it perceives that all banks are weak and there is a risk of currency crisis (the case of the Czech Republic, Bulgaria and Romania). Setting high but limited coverage does not solve the dilemma, as it may not prevent runs of those depositors who hold deposits above the limit, and it may prove to be politically very difficult to reduce the coverage limit in order to reduce the moral hazard. Faces with a systemic crisis, Garcia (1999) recommends a country either to (1) retain its existing implicit (full) guarantee or (2) to set explicit, but full and temporary guarantee.²³

AC applied neither of the two prescriptions. The implicit kind of insurance was not adequate as a feature of the old centrally-planned economy in the process of transition on one hand, and in response to the world-wide development of new financial safety net, on the other hand. Any form of full DI was out of question because the authorities and the other groups of interest (private debtors) did not want to bear the accumulated losses due to their irresponsible actions that lead to mass outbreak of crises in the mid 90's. Being in times of transformation, it is easy to give up the responsibilities designated by the old system and introduce new rules of the game. The establishment of the explicit DI at that time was justified and closely connected with AC commitment to the EU integration process. Hence, AC set high limited real coverage as the nominal coverage levels were not very high at the beginning, however, aiming at achieve EU Directive target minimum in short time. From another point of view, we would add that the emergency of the market disciplined DI was replaced in it very start by inadequate deposit over-protection not taking into consideration the specific development of the financial intermediation in AC. As a result to the financial crises, strict banking supervision was enforced, some improvements in the bankruptcy law were introduced, the monetary policy moved to

²³ Sweden and Finland offered temporary full coverage during the Nordic banking crises, which later on was replaced by a system of limited coverage (Garcia, 1999).

the implication of strict rules (like the introduction the Currency Board in Bulgaria), and on the whole the model was changed into a model of hard budget constraints.

3. The imposed EC over-insurance

Soon after the collapse of the centrally-planned economy, it was decided for AC to join the EU. The process of accession requires both nominal convergence and real integration. Apart from many other aspects, the nominal integration includes legislative harmonization as the regulations in the field of DI (EU Directive on DI, chapter 3 of the negotiation package), which requires the attaining of the minimum level of coverage regardless the real conditions of the banking systems in the 10 CEEC. Therefore, we can say that the explicit DI is once again exogenously imposed under systemic change circumstances. As we saw in most AC it was an emergency measure in critical times while we can envision Slovenia as the only exclusion to this rule since it introduced explicit DI in the late 2001 under normal circumstances. Although pressed by the turmoil in their financial sectors in the early 90's, Estonia and Latvia not only delayed the introduction of the explicit DI (1998), but also negotiated the lowest starting coverage limits among the 10 CEEC. According to their timetable they plan to reach the EU minimum level in 2008 at the earliest, trying to achieve a better synchronization with the functioning of the other elements of the safety net (currency boards, development of financial intermediation and supervision)²⁴.

The process of accession to the EU should imply that nominal and real integration go hand in hand, although the observations of the 10 CEEC show that nominal harmonization not only is far ahead of the real synchronization but it does not contribute to the real integration as argued (Sueppel, 2003). Being New Members or having just signed the accession contract, all AC have implemented the EU legislation to a high extent, while the performance of the sectors is far behind the one in the euro area (see. Table 6)²⁵. Above all, we want to focus on the fact that in AC financial intermediation is dominated by the commercial banks (96.4%) as there is high concentration in the banking sector (66%), although there is no obvious positive

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²⁴ The negotiation about AC integration into the EU is a matter of politics and should be studied in the context of groups of interests and other approaches in the field of social sciences.

correlation between the two. The former emphasizes on the importance for monetary policy implication and safety net issue in the enlarged EMU.

Table 6. Banking systems indicators in AC and the euro area

In spite of the nominal high profitability of the banking sector (average ROA=1.3 and average ROE=15) when the rate of inflation on the real value of the bank equity is taken into account, the results would not perform so well. The higher coverage ratios do not only increase the moral hazard into the national banking systems but also contribute to the decreased AC banks' efficiency expressed in high interest margin (5.5%) and credit growth rate (ECB, 2005, EBRD, 2004). This point of view extends the analysis over the quality of asset portfolios which on average is not in a very healthy condition with 6.3% share of non-performing loans into total loans as opposed to 3.4% for the euro area. Although the EDBR index of banking reforms (3.3) illustrates that AC have achieved substantial progress in establishing prudential regulation and supervision framework, there are a lot more things to be done (under 3) as far as non-bank financial institutions are concerned like extending deposit insurance to other deposit taking institutions, and thus enforce other financial institutions role in financial intermediation process. We should pay special attention that the moral hazard and low banking efficiency are particularly important issues in countries with fixed exchange rates or currency board (Estonia, Bulgaria, Lithuania and Latvia) where LLR function is limited²⁶. The increased moral hazard and low banking efficiency supported by the deposit over-insurance contradicts to the required exchange rate stability during ERM II.

Nominal harmonization and the real integration of the financial sectors depend on the whole institutional environment in AC. Since they are natural buffers (or the compensating mechanisms) against the moral hazard imposed by the explicit DI, recent empirical studies show that the positive contribution of the DI to financial sector stability and efficiency is significant in countries with weak regulatory and

²⁵ For a comprehensive comparison of the integration of the financial systems of the New EU Members see ECB (2005).

²⁶ Under currency board, the foreign reserves are used not only to pay the foreign debt, to cover the money base, to maintain the pegged exchange rate, but also to guarantee the deposits.

institutional settings²⁷. Demirguc-Kunt and Detragiache (2002) show that the poor institutional environment enforces the deteriorating effect of DI on bank fragility, Laeven (2002) and Demirguc-Kunt and Huizinga (2002) argue that it reduces market discipline in the sense of lowering banks' interest rate costs and making it less sensitive to bank risk and liquidity. The vital institutional environment which might cushion the negative effects of the established practice of deposit over-insurance are not developed enough in AC in comparison to the EU (see table 7) In terms of regulatory quality, rule of low, political stability, control of corruption, government effectiveness and voice and accountability (WB database on government effectiveness indicators) AC are quite lagging behind the euro zone average level (except in terms of political stability, where surprisingly Slovenia and Hungary are the leaders). Bulgaria and Romania rank last as we might expect since they have always been criticized by the EU commission for their poor regulatory quality, rule of law and corruption practices. The picture in the economic freedom elements is similar, with the remarkable advance for Estonia, which institutions are distinguished to enforce the excellent performance of its market economy.

Table. 7. Indicators of institutional environment and performance

As far as insolvency law is concerned, EBRD (2004) legal indicator survey finds out that here is no common relationship between bankruptcy law extensiveness and its effectiveness. For example, in spite of the high level of compliance with the international insolvency standards in some AC like Bulgaria and Slovak Republic, there is low speed, efficiency and predictability of the insolvency cases, Hungary and Slovenia are the opposite case, while Estonia and Poland hold for the universal consistent principle that the best legislation corresponds to the best performance of the application of the law. Another fining is that insolvency regimes tend to be more favourable to debtor-initiated processes, which triggers other weak sides of the institutional environment like the protection of creditors' rights.

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²⁷ For different aspects of the relationship between the institutional development and efficiency of the banking system see Barth, Caprio, Levine (2002).

I. Possible consequences of AC over-insurance – discussion

Tracing DI back to the centrally-planned economy, we can conclude that AC has kept the high levels of insurance (over-insurance) throughout the whole transition process and this might have some consequences in two directions. *From the point of view of* AC, the efficiency of the banking system may be undermined and hence probability of banking crisis may be increased. And *second, from the prospective of the EMU enlargement,* this could deteriorate the conditions of the banking system of the whole euro area and inevitably have an indirect impact on the common monetary policy and on its transmission mechanism.

In first place, we might suspect that the efficiency of their banking systems in AC will be depressed and the risk will be increased in terms of high interest spreads. This hypothesis might be supported by the empirical findings of the causal relationship between the DI and the risk in the banking sector, as the current state of DI world-wide would rather lead to increased lending interest rate than to decreased deposit rate (Carapella and Di Giorgio (2004). In the same line of reasoning, according to Demirguc-Kunt and Detragiache (2004) DI deteriorates market discipline by decreasing deposit interest rates and the growth of volume of deposits and as a whole DI lowers the risk elasticity of the interest rates. The results of these studies could partially explain the high lending-deposit interest spreads observed in AC (5.5%) as well as the higher than the euro area growth rate of credit.

Second, DI as an element of safety net should contribute to bank sector stability. However, DI over-insurance might increase the level of asymmetric information and respectively the likelihood of banking crisis (Demirguc-Kunt and Detragiache, 1998, 2002)²⁸. Regardless of the lack of empirical econometric results of DI in AC (which might not be very appropriate for the studying of transformation economies), a quick look at the time dynamics of the consequentiality of the explicit DI introduction and bank crises would incline us to argue that even if it does not predict a bank crises, DI at least cannot avoid such. Therefore, we can presume that moral hazard in AC will not be decreased due to the existing explicit limited DI

²⁸ According to Demirguc-Kunt and Detragiache (2004): "overgenerous protection of banks may easily introduce risk-enhancing moral hazard, and destabilize the very system it is meant to protect", p. 396. Theoretical foundations of moral hazard development under banking regulation are discussed by Freixas and Rochet (1999); see also Calomiris (1999).

schemes but rather the system risk can rise²⁹. This vulnerability to banking instability might go into contradiction with the requirements of ERM II particularly as far as interest rates and exchange rates are concerned, and EMU integration might turn out to be very costly for AC.

Third, from EU point of view, the increase of bank crisis probability in AC, *ceteris paribus*, combined with the asymmetric development of the banking sector, could be potentially translated into an increased probability of crisis in the whole European banking system. The dominant role of commercial banks in financial intermediation combined with the higher than in the euro area concentration in the banking sector itself emphasizes on the importance of monetary policy implication and safety nets issues. The bare-bone DI systems (and to a lesser degree the access to LLR refinancing) gives an unique advantage to commercial banks in offering loan commitments with fixed-formula floating interest rate, while investment banks specialize in loans for corporate restructuring, and insurance companies favor longer term fixed interest rate spot loans (Booth and Booth, 2004). Hence, the expected enhancement of the financial services competition within the frames of the common EU market might not take place and the interest lending-deposit margin will stay higher than in the euro area.

Furthermore, the banking sectors in the 10 CEEC are dominated by foreign (mainly (EU-15) banks and their parent-banks have recently reported increasing dependence on earnings from the CEEC in their total operating profits, especially because of the high competition/low margins in their home markets. The strong ownership links between the EU and the 10 CEEC may give rise to a risk transmission channel within the enlarged EU as adverse effects could be quite asymmetric with a stronger impact on AC systemic risk (ECB, 2005). From the point of view of EMU integration, the exchange rate regimes in AC are more inclined to fixed one (ERM II or the Currency boards) which constrains the flexibility of the functioning of the AC safety nets and eventually increase banking crisis likelihood. During the ERM II period ECB has no liability to perform LLR function in the AC but only when they become full members. However, it is arguable whether ECB will really take refinancing actions since on one side, these new members will not be

²⁹ About the relation between DI and systemic risk see Llewellyn (2001). On one hand, deposit guarantee protects against bank panic (in the model of Diamond and Dybvig) i.e. systemic risk

significant to the whole euro zone system, but on the other hand, big European banking groups might have a strategic presence in the AC. As a whole, in the case of potential problems, the costs of overcoming the crisis would be asymmetric – the richer countries in the EU would endure much more expenses than the poorer new members.

Hence, meeting mechanically the requirements for nominal harmonization³⁰, which are not in compliance with the real development of the AC financial sectors, could have an adverse result - increasing probability of financial crisis and decreasing efficiency of the enlarged European banking system. The problems that will be encountered by the common fiscal and monetary policies will not be minor and could not be discarded (we do not describe in detail them here)³¹.

One of the purposes of the nominal harmonization of the European legislation in the filed of DI is to avoid competition among national banking systems via DI. In fact, in the presence of different real deposit coverage (as a ratio to the GDP per capita), the banks in the AC are "punished" in terms of the higher expenses they bear (higher capital adequacy ratios, lower than potential banking sector efficiency, etc.). However, it is not likely that the higher level of DI in AC will attract deposits from the EU countries and thus enjoying economies of scale in funds raising. The overinsurance of deposits in the AC (combined with the higher capital adequacy requirements) would cause higher costs for banking intermediation not only in AC but also in the euro area as a whole.

The close study of the DI systems in the AC shows that those countries are really overinsured from a purely quantitative point of view as well as from the perspective of the European banks presence in these countries and the strength of the banking regulation. This inevitably leads to increasing moral hazard, competition distortion and to higher costs not only in those countries but in the whole euro area. Having in mind the functioning of the EU (the distribution process), the old and rich members will incur much more expenses.

decreases, while on the other hand; it triggers moral hazard thus increasing the systemic risk.

³⁰ Referring to the harmonization of the deposit insurance in the EU see Garcia and Prast (2002), Huizinga and Nicodeme (2002), Gropp and Vesala (2001).

³¹ Undoubtedly there would be certain macroeconomic consequences on the level of the common monetary policy conducted by ECB, and on the fiscal policy synchronization process since while the monetary policy is centralized, the banking supervision stays on a national level).

Some practical solutions are possible. Probably, next to the best-practice solutions like co-insurance and risk-weighted premiums, we can propose some more specific to AC. For example, despite the advancing nominal harmonization process, it would be better to bind the DI coverage development with GDP dynamics and with some indicators of the banking system of AC. Such reconsideration of the DI convergence process would benefit not only the AC in avoiding banking sector instability and passing through successfully the ERM II, but also the EU as a whole by achieving a better integrated banking system with lower likelihood of banking crisis and more efficient/symmetric monetary policy transmission mechanism. In order to enhance market disciple, it seems to be reasonable to allow for institutional competition in DI, similar to the model of fiscal competition. Whatever measures will be taken on behalf of AC and EU depends not only on their economic justification but also question of political realization and will.

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Appendix (to be inserted into the text)

Country	Type explicit=1 implicit=0	Date Enacted	Foreign Currencies (yes=1 no=0)	Coverage Limit (EUR)	Co-insurance yes=1 no=0	Permanent fund funded=1 unfunded=0	Premium or Assessment base	Annual premiums (% of base)	Risk- Adjusted Premiums yes=1 no=0	Source of Funding private=1 joint=2 official=3	Administration private=1 joint=2 official=3	Membership compulsory=1 voluntary=0
Bulgaria	1	1995	1	7670	0	1	insured deposits	entry contribution is equal to 1% of bank's registered capital but no less than 100 000 BGN (51129 EUR); annual premium is 0.5% of the total amount of the deposit base for the preceding year	0	2	2	1
Czech Republic	1	1994	1	25000	1	1	insured deposits	annual premium for banks - 0.1% of the average volume of insured deposits of the previous year, and 0.05% for building savings banks	0	1	2	1
Estonia	1	1998	1	6391	1	1	insured deposits	entry fee equals 50 000 kroons (3195 EUR); quarterly premiums of up to 0.125% (0.07% at present) of the insured deposits	0	2	2	1
Hungary	1	1993	1	25000	1	1	insured deposits	entry fee - 0.5% of the registered; annual premium is up to 0.2% of the total amount of insured deposits (up to 0.3% for risky banks)	1	2	2	1
Latvia	1	1998	1	8535	0	1	insured deposits	entry fee - 50 000 LVL (81 994 EUR) for banks and 100 LVL (164 EUR) for credit unions; quarterly premiums equal 0.05% of the insured deposits	0	2	3	1
Lithuania	1	1996	1	14481	1	1	insured deposits	annual premium of 0.45% of the insured deposits for banks and foreign banks departments, and 0.2% for credit unions	0	1	2	1
Poland	1	1995	1	22500	1	1	Insured deposits	annual premium not exceeding 0.4% of the deposit base, which is used as the basis for the calculation of obligatory reserve.	0	2	2	1
Romania	1	1996	1	3157	0	1	insured deposits	entry fee - 0.1% of the statutory capital of a bank; annual premium of 0.8% of total household deposits, and a special premium of 1.6% of total household deposits for banks conducting higher risk transactions.	1	2	2	1
Slovakia	1	1996	1	20000	1	1	insured deposits	entry fee of 1,000,000 SKK (24 874 EUR) for banks and 100,000,000 SKK (2 487 433 EUR) for the central bank, quarterly premiums from 0.1% to 0.75% of the amount of insured deposits from the preceding quarter, and an extraordinary premium ranging from 0.1% to 1.0% of the amount if insured deposits of the preceding quarter.	0	2	2	1
Slovenia	1	2001	1	21273	0	0	insured deposits	annual liabilities of 3.2% of guaranteed deposits held with the individual bank, there is an obligation to invest in first-rate short-term securities in the amount equal to 2.5% of the guaranteed deposits held with the individual bank	0	1	3	1

Table 1. Basic characteristics of deposit insurance in accession countries

Note: All data is valid at the end of 2004. The maximum coverage and entry fees are calculated on the basis of the exchange rate at the end of 2004. Source: National legislation, surveys and NDIF of Hungary internet database: <u>http://www.oba.hu/</u>. The layout of the table and content of indicators follows the one developed by Demirgic-Kunt and Sobaci (2000).



Table 2 Coverage ratio of deposits in accession and the euro area

Note: PPS (purchasing power standards) is an artificial currency that allows for variations between the national price level not taken into account by exchange rates. This unit improves data comparability (Eurostat). Data valid at the end of 2004. Raw data source: National Deposit Insurance Funds, European Commission.

Table 3 Development of the coverage limit in some CEEC



Note: Coverage limit in EUR calculated on the base of the exchange rate at the end of 2004. Source: Surveys, NIDF of Hungary internet database: <u>http://www.oba.hu/</u> and National Deposit Insurance Funds.

country	Coverage	Total capital adequa	acy ratio	Foreign ownership	Deposits/GDP	GDP per capita	
	ratio	Law provision (%)	Practice	(% of total assets)	(%)	(in 1000 PPS)	
Bulgaria	3.1	12	22.2	85.0	36.6	7.2	
Czech Republic	3.1	8	14.5	96.0	56.3	15.6	
Estonia	1.1	10	14.3	97.3	35.5	10.6	
Hungary	3.3	8	11.9	83.3	38.4	13.5	
Latvia	1.8	10	10.3	47.2	24.8	10.4	
Lithuania	2.9	10	13.2	95.6	23.9	11.3	
Poland	4.5	8	13.8	69.2	33.4	11.1	
Romania	1.6	12	18.2	58.2	21.8	6.0	
Slovakia	3.4	8	21.6	96.3	49.8	12.6	
Slovenia	1.6	8	11.6	36.0	53.6	18.3	
AC	2.8		15	76.4	42.6	11.7	
Euro area (ave)	1.3	8	9.9	15*	81.9	24.7	

Table 4 Some DI relevant indicators in accession countries

Note: Data for the coverage ratio and GDP per capita valid at the end of 2004, the rest valid at the end of 2003. Deposits in euro area include demand (overnight) deposits, deposits with agreed maturity and deposits redeemable at notice in other MFIs, and deposits in AC include demand, time, savings and foreign currency deposits.

Sources: ECB, European Commission database, National central banks'annual reports.

Table5. Financial and banking crises in CEEC

Country	Bulgaria	Czech Republic	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovak Republic	Slovenia
Banking crises*	1995-1997	1992-1995	1992-1995	1991-1995	1995-1999	1995-1996	1991-1996	1990-1998	1991-1997	1992-1994
Financial crises**	1996-1997	1997	Stock market crash in 1997 and Russian crisis impact in 1998	1994-1995	Russian crisis impact in 1998	1995-1996, and Russian crisis impact in 1998	High exchange rate volatility in 1998 and Brazilian crisis impact	1996-1997 banking crisis.	1997-1998	no
DI introductio n	1995	1994	1998	1993	1998	1996	1995	1996	1996	2001
ER develop**	floating up to 1997, after that CB	fixed ER up to 1996, Managed float since 1997, (Infl.Target since 1998)	CB since 1992	frequently adjusted peg, crawling peg in 1995, crawling band in 1998, and in 2001 - band broading to +/- 15%	Fixed ER	floating rates up to 1994, then CB	adjustable peg, crawling peg in 1991, crawling bands in 1995, fully floating since 2000	managed float	fixed ER to a basket with a fluctuation band, since Sept.1998 managed float	Managed Float

Source: Data valid till the end of 2003. * Information from Caprio and Klingebiel (2003); ** data based on Arvai and Vincze (2000).

2	2
3	2

Country/Indicator	Bulgaria	Czech	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovak	Slovenia	Euro
		Republic							Republic		area
Market share of commercial banks (%)	100	99.9	100	85	100	100	94.7	91.9	94.2	98.7	
Concentration index (CR5) for CI (%)	52.2	65.8	99	52.3	63.1	81.6	52.3	61.7	67.5	67.4	53
ROE	18.7	22.5	15.6	16.7	18.9	11.1	5.7	15.6	15.0	10.2	8.2
ROA	2.0	1.2	1.5	1.3	1.3	1.3	0.5	2.2	1.2	0.6	1.1
Interest margin	6.3	3.0	2.7	2.5	2.7	4.9	7.7	15.4	4.7	5.1	
Stock market capitalization (as a % of GDP)	7.9	16.5	37.4	18.7	9.6	17.2	17.2	6.4	3.5	23.3	68.0
Domestic credit to private sector (% of GDP)	25.8	17.9	33.7	42.3	38.8	19.9	17.8	9.5	25.0	43.3	117.0
Non-performing loans(% of total loans)	4.4	5.0	0.5	3.8	1.5	2.6	25.1	1.6	9.1	9.4	3.4
EBRD Index of banking sector reform	3.3	3.7	3.7	4.0	3.7	3.0	3.3	2.7	3.3	3.3	
EBRD index of reform in non-bank financial institutions	2.3	3.0	3.3	3.7	3.0	3.0	3.7	2.0	2.7	2.7	

Table 6. Banking systems indicators in AC and the euro area

Notes and source: Data valid for 2003. ECB (2005) "Banking structures in the new EU Member states", EBRD(2004) Transition Report, some data for Bulgaria and Romania - NCBs, annual reports and data for euro area ECB (2004) Financial Stability Review.

Indicators	Bulgaria	Czech Republic	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovak Republic	Slovenia	Euro zone
Governance Ind	icators										
Voice and	66.7	74.7	80.3	85.4	75.3	73.7	83.3	61.1	76.3	82.8	91.3
Accountability											
Political	64.3	84.9	82.7	88.6	77.8	80	69.7	58.4	84.3	90.8	87.2
Stability					50 0	5 0 (- 1 1			-	01.6
Government	56.2	/3./	/4./	74.2	72.2	/0.6	/1.1	46.4	67.5	/6.8	91.6
Regulatory	69.6	82	86.6	84	75.8	79.4	71.1	55.7	73.2	75.3	91.6
Quality											
Rule of Law	55.7	73.2	74.7	78.9	67.5	68	70.6	54.1	65.5	83.5	91.6
Control of	52.6	68.6	74.2	73.7	60.8	64.4	69.1	45.4	64.9	80.4	91.3
Corruption											
Economic Freedom Indicators											
Economic	3.1	2.4	1.8	2.6	2.4	2.2	2.8	3.7	2.4	2.7	2.2
Freedom											
Trade policy	2	3	1	3	2	2	2	3	3	2	2.0
Fiscal Burden	2.4	3.6	2	2	2.1	2.8	2.9	3.3	1.8	3.4	3.9
Government	2.5	2.5	2	2	2.5	2	2	2.5	2	2.5	2.5
Intervention											
Monetary	2	1	1	2	1	1	1	5	3	3	1.3
Policy						•			•	•	
Foreign	3	2	1	2	2	2	3	4	2	3	1.7
Investment	h	1	1	r	r	1	2	2	1	2	2.1
Finance	2	1	1	2	2	1	2	3	1	3	<i>4</i> ,1
Wages and	2	2	2	3	2	2	3	3	2	2	2.2
Prices	2	2	2	5	2	<i>L</i>	5	5	2	2	2.2
Property Rights	4	2	2	2	3	3	3	4	3	3	1.5
Regulation	4	3	2	3	3	3	3	4	3	2	2.8
Informal	3.5	3.5	2.5	3	3.5	3	3.5	4	3.5	2.5	1.7
Market											

Resource: World Bank database on Governance Indicators, 2002 and 2005 Index of Economic Freedom, Heritage Foundation.