Financial system development in transition economies

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Abstract

This paper provides an overview of the major issues with respect to financial system development in transition economies, which were discussed at a conference in Groningen, the Netherlands, December 1997. After a brief remark on the role of financial system design during economic transition, the paper focuses on the role of stock markets in the process of financial intermediation with emphasis on the role of regulations in these markets, the role of deposit insurance to improve bank system stability, and the importance of an independent central bank, measurement issues relating to central bank independence and its impact on inflation and growth. © 2000 Elsevier Science B.V. All rights reserved.

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1. Introduction

This special issue of the Journal of Banking and Finance (JBF) contains a set of six papers on the theme of ‘financial system development in transition economies’. The papers were carefully selected from approximately 20 presentations, which were delivered at an international conference under the
above theme at the University of Groningen, the Netherlands, in December 1997. ¹

In general, the conference dealt with a variety of issues of special importance to transition economies. Most of these issues neither have been fully resolved to date in policy circles, nor in theoretical and empirical research. In this paper we provide a brief overview of the major issues that were discussed at the conference. The overview goes beyond the six selected papers in this special issue by focusing on those salient ideas that attracted heated debate among policy makers and practitioners, as well as academics at the conference. We formalise and structure these ideas in the context of the most extant literature, as discussed below.

This overview paper is structured as follows. Section 2 provides a brief remark on the role of financial system design in the process of financial re-structuring during economic development and transition. The discussion then focuses on the role of stock markets in enhancing the process of financial intermediation in transition economies, in Section 3, emphasizing the role of regulations in these markets. Section 4 examines the role of establishing deposit insurance in order to improve bank system stability. Section 5 presents an overview of the discussion on the importance of an independent central bank, designed to reduce macroeconomic and financial instability in these economies, and of the measurement issues relating to central bank independence and its impact on inflation and growth. The paper ends with some concluding remarks.

The selected papers provide the most challenging contributions on the conference theme. In this context, therefore, this special issue can be seen as a follow-up of an earlier one entitled ‘banks and capital markets in former centrally planned countries: their role in establishing a market economy’, which appeared in this journal (JBF, Vol. 17, No. 5, 1993).

2. Financial systems in transition

In recent years, financial system development has gained increasing attention, both in academic and policy circles. In particular, the subject has been discussed in the context of the developments in transition economies. Until recently, these countries did not really have a financial system. Financial transactions were just part of the planning system. When these countries

¹ The paper by Kairys et al. was not presented in Groningen. This paper was added to the set of selected conference papers during the editing process, since in our view it complements the discussion on the role of regulating stock markets in transition economies in the other two papers in this special issue.
started the process of economic and political transition during the late 1980s and early 1990s, one of the key policy issues was how they should design their domestic financial system. Scholtens (JBF, this issue) provides an exhaustive survey of the efforts of financial system development in a number of Central European countries during the 1990–1996 period, emphasizing the aspect of the regulation of financial markets.

As is acknowledged in the recent literature, the financial system plays a crucial role in economic development (Levine, 1997). Many papers have established a strong positive correlation between financial system characteristics and economic growth (see, among others, King and Levine, 1993a,b). Pagano (1993) provides a theoretical contribution showing how financial development may have a positive effect on growth. He stresses the role of financial institutions, e.g., banks, in providing important services such as facilitating the trading, hedging, diversifying and pooling of risk, which stimulates savings mobilization, and allocating financial savings to the most efficient investment projects by screening and monitoring borrowers. Moreover, he points out that financial development may influence the private saving rate.

The positive contribution the financial system can make to the process of economic growth depends, among other things, on how the system is designed. Knowledge of exactly how the design of the financial system may help to improve welfare is of course of particular importance to transition economies, since they still have options to influence the direction of development of their financial systems. Many different aspects of financial system design play a role, such as the type of financial institutions that should be established, the design of the regulatory and supervisory system, and the role of government policies related to stabilizing and controlling the financial system. In a broad sense, the design of the financial system involves the choice between two dominant systems: the market-oriented financial system – which can be found in countries like the United States and the United Kingdom – on the one hand, and the bank-dominated system – which is in place in countries like Germany and Japan – on the other hand. Of course, a country may also opt for intermediate ways of designing its financial system.² The choice for a particular financial system has direct implications for the type of financial institutions to be established, for regulatory and supervisory design and for the choice of government policies.

With respect to financial system design in transition economies a number of specific questions is of particular importance. In the area of the choice of financial system design in transition economies a number of specific questions is of particular importance. In the area of the choice of

² Szegö (1993) contains a proposal for an intermediate way of financial system design for transition economies. He advocates a separation of money banking, credit banking and investment banking.
establishing financial institutions one important question relates to the role of stock markets and institutions. Whether or not stock markets play an important role in the financial system of a country is directly linked to the choice between a bank oriented and market oriented system. In this paper, we shall summarize the main issues related to the role of stock markets in the financial systems of transition economies. The contributions by Charemza and Majerowska (JBF, this issue), Green et al. (JBF, this issue), and Kairys et al. (JBF, this issue) focus on the role of regulating stock markets in order to increase their efficiency.

A second specific theme of importance to transition economies is whether deposit insurance is essential for securing financial system stability. Several of these economies were confronted with bank instability during the 1990s and governments of these countries are currently evaluating ways to improve the stability of their banking system. In addition to introducing regulatory and supervisory schemes a government can decide to establish a deposit insurance system. This possibility was taken up by several developing countries during the 1980s (e.g., Chile, Colombia, Kenya, Nigeria, and several other countries) and by some transition economies in the 1990s (e.g., Hungary and Poland). Yet, it appears that in the literature there is no agreement on the positive contribution of deposit insurance to stabilizing the banking system. We provide a concise overview of the discussion on the role of deposit insurance as part of their regulatory system in transition economies. The paper by Gangophadyay and Singh (JBF, this issue) presents a theoretical model that provides a market solution to the problem of bank instability. In essence, the model provides an alternative for deposit insurance.

A final issue of specific importance to transition economies concerns the role of the central bank. Basically, the central bank has two main tasks. On the one hand, it is responsible for the reform and safeguarding of the payment system. On the other hand, it aims at contributing to a stable banking system by acting as the lender-of-last-resort. In transition economies especially, the former function is of crucial importance, since the payment system is reformed quite recently. Related to safeguarding of the payment system is the question of how to reduce inflationary pressures. In discussions on this issue it is argued that an independent central bank needs to be established. Two closely linked aspects remain debated in this context. First, does an independent central bank contribute to reducing inflation? And second, how should we measure central bank independence? In this introductory paper we summarize the discussion on the measurement of central bank independence. De Haan and Kooi (JBF, this issue) contribute to this discussion by constructing an extended data set for the turnover rate of central bank governors, based on earlier work by, among others, Cukierman et al. (1992).
3. The role of stock markets in transition

The development and regulation of stock markets play a key role in the financial system architecture in transition economies. In the communist era stock markets were non-existent. Nowadays a fast expansion of the stock markets is seen as an important component of the development of the financial sector of these economies. Stock market development and other aspects of financial market development take place simultaneously and complement each other (Demirguc-Kunt and Levine, 1996). A crucial question, however, is to what extent and under which conditions stock market development may contribute to a process of long-term economic growth.

According to authors who emphasize the importance of stock market development, liquid stock markets are crucial in stimulating industrialization. In addition to bank finance, share issues provide possibilities for raising external funds. More importantly, stock markets may have an important role in improving economic growth by allocating resources to investment projects that provide the highest returns. In the absence of well-functioning financial markets, agents may have difficulties in protecting themselves from (uncertain) liquidity shocks, which forces them to invest in liquid assets that can be converted very easily in a medium of exchange. Stock markets provide liquidity insurance since shareholders in need of liquidity can sell their shares – which are claims on profits of an illiquid production technology – while firms can permanently use the funds invested by the initial shareholders. Hence, stock markets are able to facilitate more productive long-duration investments (e.g., Levine, 1991; Benaveng et al., 1995). Commercial banks may also provide liquidity insurance. However, since commercial banks are subject to bank runs, which enforce banks to liquidate long-term projects, stock markets probably have a much more important role in stimulating productive investment. Stock markets may also help to overcome problems of asymmetric information when countries start to liberalize their financial sector without having a well functioning equity market (Cho, 1986). The reason is that equity markets, in contrast to banks, do not suffer from moral hazard and adverse selection. A final theoretical issue we want to mention here is that stock markets may reduce agency problems between the owners and the managers of the firm if the compensation of managers is tied to stock. This may also improve a firm’s productivity.

Empirical studies in general are also quite positive about the role of stock market development in promoting economic growth. A well-known example is the study by Atje and Jovanovic (1993). The study concludes that stock market trading and economic growth are strongly correlated for a group of 40 countries in the 1980s. Using the Atje–Jovanovic framework, Murinde (1996) finds
evidence for a positive effect of stock market development on the growth rate of the Pacific Basin countries. More recently, Levine and Zervos (1998a) provide a comprehensive empirical study on the importance of stock markets. Their study strongly suggests that stock markets contribute positively to economic growth. Moreover, they do not find any indication for a negative effect of stock price volatility, or capital market integration on economic growth. Some empirical studies explicitly deal with stock market development and the financing of firms’ investments (Demirguc-Kunt and Maksimovic, 1996; Rajan and Zingales, 1998). These studies suggest that well-developed financial systems, including good functioning stock markets, have positive effects on firm performance.

A related issue of considerable importance for countries in transition concerns the effects of capital control liberalization. In many transition economies capital controls exist. Very often, equity markets are controlled by restricting some shares to be held by domestic investors only, whereas other shares can be held by domestic and foreign investors. A well-known example exists in China, where a distinction is made between so-called A and B shares. The study of Levine and Zervos (1998b) suggests that capital control liberalization may help to enhance stock market development. According to them such liberalization contributes to more liquid, more volatile and larger stock markets. Moreover, they argue that larger and more liquid stock markets are positively correlated to long-term economic growth, which is why they are in favour of abolishing capital controls.

Yet, the role stock markets play in stimulating economic growth is not undisputed. Stein (1989), for instance, argues that stock markets stimulate investments in short-term projects since stock markets continuously evaluate the managers. It may also be the case that more liquid stock markets, with a substantial amount of small shareholders and hence diffuse ownership, decrease incentives to monitor the investors carefully (Levine, 1997). Moreover, liquid equity markets may facilitate hostile takeovers, which decrease the efficiency of resource allocation. There are also authors who argue that stock markets do not have an important role since only a small part of corporate investments is financed by means of equity. Stock markets may even have a negative effect since they are merely ‘casinos’. Singh (1997) is a well-known opponent of the view that stock markets are crucial for a process of long-run economic growth. He questions the methodology used in most recent studies on stock market development and economic growth. Most studies perform Barro-type reduced form growth regressions, which are not able to give any insights in the way by which stock markets influence economic growth. Singh argues that stock markets, even in developed economies, do not perform the monitoring, screening and disciplinary role very well (Singh, 1997, p. 774). In emerging markets, including the transition economies, it is even worse since the regulatory infrastructure is badly developed (Singh, 1997, p. 775). Moreover, in
most transition economies the stock markets are very thin. This may lead to excessively volatile share prices. ⁴ According to Singh (1997), stock price volatility may seriously hamper economic development. Recent developments in the Asian financial markets seem to confirm this. He also points out, in contrast to the analysis of Cho (1986), that stock markets have much more problems with asymmetric information than banks. ⁵ The reason is that stock markets very often provide investors with short-term finance, whereas banks, especially group-banks, have long-run relationships with firms. In other words, stock markets may suffer from short-termism. Finally, long-term growth may be hampered in the case of negative economic shocks due to close connections between the stock and currency markets (Singh, 1997, p. 780).

This short discussion on the role of stock markets in the process of economic development strongly suggests that, in principle, stock markets may fulfill an important role in inducing growth. However, a prerequisite seems to be that the regulatory infrastructure is well developed and that measures are taken to reduce extreme volatility of stock prices. Yet, there are not many empirical studies available that explicitly deal with regulatory issues concerning stock markets. This is particularly true for transition economies.

Three papers in this issue add to the small number of studies available on the effectiveness of stock market regulation. Charemza and Majerowska (JBF, this issue) examine whether trade limits, in the form of upper and lower limits on stock prices, are effective instruments in reducing portfolio risk. The paper is challenging both at the theoretical and the empirical level. Concerning the theoretical part, the standard CAPM model is amended in such a way that it allows for price regulations. Their empirical analysis relates to securities traded on the Warsaw Stock exchange. The empirical results suggest that trade barriers increase, rather than decrease, portfolio risk, which runs counter to popular belief. Charemza and Majerowska (JBF, this issue) seriously criticize the effectiveness of price limits, since price limits are expensive, increase market inefficiency and increase portfolio risk. Thus, the paper casts serious doubts on the relevance and efficiency of using price regulations in order to dampen fluctuations on stock markets in transition economies.

The paper of Green et al. (JBF, this issue) deals with a related issue. It examines the impact of transaction taxes (stamp duty) on the volatility of share prices. A very important contribution of the paper is that it uses a fairly unique data set of the London Stock Exchange for the period 1870–1986, which allows the authors to examine longer-term effects of different regulatory regimes. Green et al. (JBF, this issue) deliberately base their analysis on a data set for the UK since long-term data on stock market developments for transition economies exist.

⁴ See the survey of Scholtens (JBF, this issue).
⁵ For a critique on Cho, see also Kumar (1994).
economies are not available. The study provides important lessons for transition economies since current stock markets in transition economies are in many ways comparable to the 19th century British stock markets. It is shown that the effect of transaction taxes on share prices depends on the volatility measure used. Yet, in most cases transaction costs have a positive effect on share price volatility due to a ‘thin’ market effect. The results cast doubts on the effectiveness of using a ‘Tobin tax’ in order to improve stock market efficiency in transition economies. More generally, the study points out that transaction costs are an important factor in explaining stock market volatility. This implies that regulators should aim at setting transaction taxes at the right level.

As was mentioned above, the liquidity of stock markets is an important issue. Only if stocks are traded regularly have stock prices informative value and can they provide the right signals to users and suppliers of capital, thereby contributing to the efficient allocation of financial resources over competing projects. Among other things, the liquidity of stock markets depends on the microstructure of these markets. This relates to the question of how stock trading is organized. Policy makers in transition economies – where stock markets have only recently been set up and where these markets are generally less liquid as compared to those in developed countries – may benefit from knowledge with respect to how the microstructure influences liquidity. Based on this knowledge they might consider to influence the organization of stock market trading – through the right forms of regulation – in order to improve market liquidity. Kairys et al. (JBF, this issue) contribute to the knowledge on this issue by investigating the impact of changes in the microstructure of the Riga Stock Exchange (RSE) on the liquidity in this market. In November 1997 the RSE changed to a trading mechanism where a call auction is combined with continuous variable price trading. They find that for stocks with high liquidity before the change of the trading mechanism liquidity improved considerably. Yet, the opposite appeared to be the case for stocks having low liquidity before the change. Their research provides important lessons for policy makers that aim at developing stock markets in transition economies. In order to stimulate active trading in stocks of smaller companies alternative trading mechanisms need to be evaluated. Kairys et al. (JBF, this issue) discuss solutions provided by stock exchanges in London, Paris, New York, Prague and Tallinn. Yet, they emphasize the need for further research on the issue of the optimal design of a trading system for stocks with low liquidity in transition economies.

4. Deposit insurance and transition economies

During the 1990s several transition economies experienced major problems related to instable or even insolvent banking systems. In some cases,
governments of these countries have taken action to restore stability of the domestic banking system; in other cases, the crisis has yet to be resolved. Governments of transition economies confronted with unstable banking systems are currently considering how to avoid such instabilities in the near future. One of the proposals is to create a deposit insurance system to protect depositors against major losses of banks, as well as to protect banks against runs on their liabilities due to a loss of confidence by the public. The question arises, however, whether deposit insurance could really be a useful instrument to help to avoid banking failures in these countries.  

Basically, a deposit insurance system aims at protecting owners of financial savings (i.e., deposit holders) against the risk of losing their financial wealth, and of banks against the adverse impact of bank runs on their activities (Davis, 1995, p. 122; Talley and Mas, 1990, p. 5). If depositors are uncertain about the safety of their banks for whatever reason they may reduce their deposit holdings. This will hurt the process of financial intermediation. The lack of information held by depositors on the safety of banks may trigger a bank run, in which case deposit holders massively withdraw their deposit holdings with banks. Banks are especially vulnerable to such runs because of two properties of the deposit contracts they offer (Diamond and Dybvig, 1983). First, the deposit contract provides optimal liquidity risk-sharing to risk-averse savers through engaging in maturity transformation. Second, such a contract holds an incentive for panic runs in the case where the bank becomes insolvent due to the sequential service constraint \textit{(first come, first served)}, which specifies the rule by which depositors are paid back in case of insolvency. This rule gives depositors an incentive to be first in the queue to withdraw from the bank in order to be more certain that their claims are returned (Davis, 1995, pp. 118–119).

A bank run may occur when the failure of one (or a few) bank(s) is interpreted as being a signal of the weak financial situation of other banks. In turn, this may lead to liquidity problems of even solvent banks. Thus, there is a risk of\textit{ contagion} of good banks by bad banks. Apparently, deposit holders are not able to distinguish solvent from insolvent banks. Although the failure of insolvent banks may be economically sound in itself, it is the second-order effect of the failure on the behaviour of deposit holders, leading to the failure of solvent banks – which is economically inefficient – that leads governments to consider the introduction of a deposit insurance system. The objective of deposit insurance is to reduce the chance of the occurrence of such a \textit{contagious bank} run. Contagious bank runs lead to very unstable financial markets and to

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financial crises, and can therefore have very damaging effects for the development of the financial system, but also for the real economy.

Deposit insurance may increase confidence of the public in banking institutions, since it guarantees the value of (part of) the deposits held at banks in case a bank appears to be unable to meet its obligations. This stimulates savers to hold their wealth at banks, which increases the resources available for investment and growth. Moreover, deposit insurance reduces incentives to trigger a bank run. Although deposit insurance may potentially contribute to the safety of the financial system, there are also dangers related to its establishment, which may run counter to the initial objective of financial stability. The literature on deposit insurance spends much time explaining that the insurance may lead to increased moral hazard behaviour of both depositors and bankers. The insurance distorts their incentives with respect to risk taking. Without deposit insurance, depositors – especially those holding small amounts of deposits – may not inform themselves about the safety of a bank due to the public good character of gathering such information. Moreover, also banks may to some extent be reluctant to fully inform themselves about the nature of the risks and returns of the projects in which they invest due to the public good character of information (Levine, 1996; Stiglitz, 1994).

Yet, deposit insurance may further reduce incentives for deposit holders to monitor banks, whereas it may also further reduce incentives for banks to invest sufficient amounts of time and money in the monitoring of investment projects. **Depositors** know that their wealth will be insured, which makes the real value of wealth independent from the occurrence of a bank failure. In turn, **banks** will have incentives to take more risks given the fact that the insurance system may bail them out in case of problems.

The issue, then, of introducing a deposit insurance system poses a dilemma. On the one hand, deposit insurance may provide protection to deposit holders against the risk of losing their wealth, thereby eliminating incentives for bank runs; and it avoids the potentially high costs of such runs for the banking system, as well as for the real economy. On the other hand, however, the introduction of a deposit insurance system may lead to moral hazard behaviour of both depositors and banks, which may lead to the weakening of the banking system.

Based on the above brief survey the conclusion may be that the effectiveness of deposit insurance with respect to contributing to increasing depositors’ safety and reducing bank instability is dependent on the following features of the insurance (Talley and Mas, 1990, pp. 13–23): (i) how to prevent bank runs, (ii) the extent of depositor protection, (iii) how to deal with moral hazard problems, (iv) how to act in case of bank failures, and (v) what is the capacity of the insurance to absorb financial losses made by failing banks? The first two features are directly related to the main objectives of deposit insurance; the third feature is related to the main incentive problem resulting from
establishing any form of insurance; the latter two features deal with the issue of credibility of the insurance. These features are closely interlinked.

The question is whether it would be possible to establish effective deposit insurance in transition economies. In this context, the following characteristics of the banking system in these countries should be taken into account. First, financial markets in these economies are relatively underdeveloped. This means that information problems will be more important. Moral hazard as well as its adverse impact originates from information asymmetries and lack of information. The problems related to moral hazard behaviour of both depositors and banks associated with establishing deposit insurance may therefore be more pressing in the context of these countries as compared to the developed countries. Second, the banking system in many transition economies is confronted with a large share of bad debts in their portfolios. This has brought banks in a very weak financial position. This provides them with strong incentives to behave imprudently and to play an unfair bet against the government by engaging in financing high return/high risk projects in the hope that this may help them to overcome a financial crisis and save them from insolvency.

Third, governments have been reluctant to take action to overcome financial instability, since the financial means to help the ailing banking system are lacking. This has led to a policy of de facto forbearance, which – given the existing incentives to moral hazard behaviour – has resulted in a further build-up of bad loans and has led to a further weakening of the system.

Fourth, most transition economies have not been able yet to establish effective prudential regulation and bank supervision systems. Moreover, there is a lack of human capital within the regulatory institutions. Yet, prudential regulation and bank supervision are important in order to reduce moral hazard behaviour of banks.

In some transition economies attempts have been made to establish bank regulation in order to stimulate banks to be more risk averse and to enhancing their financial discipline (Dijkstra, 1996). Yet, the establishment of new rules for banking as such may not make any difference, at least in the short run. What is important is the quality of the institution that provides the supervisory and regulatory activities. Yet, the question remains: to what extent is it able to collect and use information on banking behaviour, and to what extent can it stimulate and/or help bank management to behave more prudently? Experience of other countries has shown that the positive impact of new regulation may become apparent only after several years (Caprio et al., 1994; Caprio and Klingebiel, 1997).

Keeping these characteristics of the banking system of transition economies in mind, it may be concluded that the introduction of deposit insurance in these economies is surrounded by problems. This would lead to the conclusion that introducing deposit insurance in the context of the current state of the banking
system in transition economies may not be feasible, at least not in the short run. This conclusion is enforced by the fact that adequate financial backing of deposit insurance by the governments of transition economies will be problematic for at least several years to follow, since the financial means the governments of these countries have at their disposal are severely limited. Government expenditures are currently under pressure, since fiscal deficits need to be reduced in order to establish macroeconomic stabilisation.

The contribution of Gangophadyay and Singh (JBF, this issue) considers an alternative approach to establish a stable banking system without the use of deposit insurance, given the problems such an insurance may pose in transition economies as discussed in this section. In particular, in the model they present they emphasize the possibility of a market solution to prevent bank runs by emphasizing the role of adequate capital for banks. Since equity plays an important role here, the Gangophadyay and Singh model indirectly also emphasize the importance of well-functioning stock markets, an issue discussed elsewhere in this special issue.

5. Central bank independence in transition economies

As discussed in Section 2, the central bank has two main tasks, namely the reform and safeguarding of the payment system, and contributing to a stable banking system by supervising banks’ behaviour and acting as the lender-of-last-resort. In transition economies the payment system is reformed only quite recently and the role of the central bank to safeguard the payment system is currently one of the most crucial issues the monetary authorities of these countries have to deal with. Directly related to safeguarding of the payment system is the question of how to reduce inflationary pressures. When inflation is high and highly variable the public might not be willing to hold domestic currency based on the fear of the adverse effect on real incomes. This may reduce economic transactions as well as the willingness to hold financial assets with the domestic financial system.

Many transition economies have been confronted with relatively high levels of inflation. This results mainly from pressure of the public sector to monetise large government budget deficits. One way the central bank may contribute to reducing inflationary pressures is by acting independently of the central government. In this way its aim to stabilize the real value of the domestic currency may become more credible, at least if it is able to communicate to the public that it is tough on inflation and that it therefore will restrain from financing government budget deficits. Another argument in favour of establishing an independent central bank is related to reducing inflationary pressures, which result from creation of inflation surprises. The chances that the public will be confronted with the possibility of high inflation due to inflation surprises that
result from government policies aiming at political benefits from increased output and employment – based on the time consistency problem – are reduced with the establishment of an independent central bank. Again, this holds only if the central bank can credibly establish a tough regime on inflation (De Gregorio, 1996).

Following the above line of reasoning the more independent the central bank of a country acts from the central government – and assuming that one of its main tasks is to pursue price stability – the better the performance of the central bank will be in keeping inflation low and stable. Establishing an independent central bank is a major challenge for transition economies. In the past central banks of these countries were subjected to instructions from the central planning bureau and/or the Ministry of Finance. In fact, they were nothing more than the central offices of bookkeeping (Poenisch, 1992, p. 30). Breaking the historically close ties between central bank officials and the central government will not be easy.

Since the early 1990s the transition economies began to set up of a modified and independent central bank, starting with Poland and Hungary, later on followed by countries like the Baltic states, Czech and Slovak republics, Romania, Bulgaria and the remaining former republics of the Soviet Union. Loungani and Sheets (1997, pp. 384–385) give an overview of the status of central banks in terms of their independence of 12 transition economies based on information from bank charters, national constitutions and legislation.

Before one may try to investigate whether there is empirical support for the hypothesis that central bank independence contributes to price stability one should first establish how central bank independence is to be measured. In order to be able to usefully measure independence we first have to discuss what exactly do we mean by an independent central bank? In this respect, it is useful to distinguish the different components of central bank independence. First, central bank independence can be divided into political and economic independence (Grilli et al., 1991). Political independence reflects the degree to which the central bank is able to pursue price stability without interference from the government. Economic independence refers to the extent to which the central bank independently determines the amount and the price of credit to the central government. Second, central bank independence can be divided into goal and instrument independence (Debelle and Fischer, 1995). Goal independence refers to the extent to which the central bank can set its own goals with respect to monetary policy. In contrast, instrument independence reflects the independence of choice of instruments to attain the goals set. Finally, one may distinguish between legal and actual independence (Cukierman, 1992).

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7 See Forder (1998) for a survey of recent issues on central bank independence.
8 The remainder of this paragraph is based on Loungani and Sheets (1997), pp. 382–383.
Legal independence refers to the interpretation of central bank laws with respect to its relation with the central government, its goals and instruments. Actual independence is interpreted in terms of the average turnover rate of bank governors, i.e., the average period of time after which a central bank governor is replaced. This rate may indirectly suggest the degree of freedom the central bank has with respect to setting its goals and using its instruments. Of course, the distinctions as discussed here do overlap and are closely related.

From the above classifications methods to measure independence can be derived. Empirical studies can best be divided based on the distinction made by Cukierman (1992). Several studies use the statutes of the central bank from which they deduct measures of political and economic independence, and measures for the goals and instruments of the bank, the so-called ‘statute reading literature’. An important strand of the empirical research uses measures based on the statutes of the central bank. These studies generally find that such measures are negatively correlated with inflation for developed countries, whereas for developing countries no correlation can be established. The latter finding is explained by pointing out that statutes of central banks are less useful to derive measures of independence from. Yet, critics have pointed out that the statute reading approach is insufficient, since central bank independence is about individual behaviour of bank governors. This behaviour cannot be observed by reading the statutes of the bank.

Since the statute reading literature can be criticized and since there is no relation found for developing countries, several other studies have used the turnover ratio of bank governors as a proxy for central bank independence. These studies generally do find a negative correlation between central bank independence and inflation, also for developing countries (see, e.g., Cukierman and Webb, 1995).

The paper by De Haan and Kooi (JBF, this issue) is a challenging contribution to the discussion of the role of central bank independence to reduce inflation. They use a newly constructed data set for turnover rates of central bank governors for a set of 82 developing countries, based on information from the IMF and from individual national central banks. In their empirical analysis they use advanced robustness tests (compare Levine and Renelt, 1992; Sala-i-Martin, 1997) of the relationship between independence and inflation. From their analysis they conclude that independence and inflation are correlated negatively only in the case where high inflation countries (mostly those in Latin America) are included in the data set. They also test the relationship between independence and growth and again find no robust relationship between these two variables. Transition economies were not included in their data.

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9 See Eijffinger and De Haan (1996) for an extensive review of this type of empirical research.
set due to difficulties constructing the measures used in the analysis for these countries.

The implication of the study by De Haan and Kooi (JBF, this issue) for transition economies may be that striving for central bank independence is useful to reduce inflation in countries that experience high levels of inflation. However, for countries that experience relatively low levels of inflation having an independent central bank does not matter so much in order to acquire lower levels of inflation. Thus, an independent central bank would be useful for countries like for instance Armenia, Russia, and Ukraine, which experienced inflation rates of over 1000% during the 1990s. We must realize, though, that establishing an independent central bank in transition economies is a difficult process and that real independence can only be obtained when a reliable legal and political infrastructure is in existence (Illing, 1998). Unfortunately, in some transition economies (e.g., in Russia and some other former republics of the Soviet Union) this infrastructure is still underdeveloped.

We may compare the results of De Haan and Kooi (JBF, this issue) with those of Loungani and Sheets (1997), who analyse the importance of central bank independence to reduce inflation for transition economies. Loungani and Sheets (1997) use different measures of central bank independence and find evidence for a negative correlation between inflation and central bank independence. How should we appreciate this result in the light of the findings by De Haan and Kooi? Two broad observations are of importance here. First, Loungani and Sheets (1997) did not perform advanced robustness tests, which means that their results should be interpreted with care. Second, using the conclusions of the study by De Haan and Kooi, the outcomes of the Loungani and Sheets study might be biased for the inclusion of the high inflation transition countries. Further research should provide more evidence on the role of central bank independence for transition economies.

6. Concluding remarks

Financial system development is an important topic for transition economies. Of course, several aspects of this topic could have been highlighted here. We have decided to focus on a limited number of issues that were subject of discussion at the conference, but we are well aware that there are some other key issues on the theme of financial system development, which are not addressed in this issue, such as bank regulation and supervision, the lender-of-last-resort function of the central bank, and the role of non-bank financial institutions. However, we maintain that our choice to focus on the role of regulation in stock markets, alternatives for deposit insurance to improve bank system stability, and the importance of establishing an independent central bank in order to reduce inflationary pressures, is valid, since these issues are the
most immediate concern for policy makers and researchers in transition economies these days. The papers selected for the special issue provide challenging contributions on one of these three aspects. They offer novel approaches both on the theoretical as well as on the empirical side. Moreover, all papers offer some policy recommendations – albeit in an indirect sense in some cases – for the financial system development of transition economies.

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