A NOTE ON THE INDEPENDENCE OF CENTRAL BANKS IN THE CZECH REPUBLIC, HUNGARY
AND POLAND

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Abstract: This essay evaluates the legal independence of central banks in three Eastern European
countries: the Czech Republic, Hungary and Poland. It provides a descriptive account of
monetary policy making in these countries and interprets the relevant central bank charters in
light of arguments for central bank independence. Information found in the legal documents is
summarized in quantitative indices. The main finding is that the three central banks exhibit a
similar degree of legal independence, which does not differ from that of the Bundesbank.

Keywords: central bank independence, transition in Eastern Europe

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Introduction

Approaching the ten year anniversary of the start of political and economic transition in Eastern Europe, it is time to take this unique episode not only as a testing ground for economic analysis but also as a historical experiment providing lessons for policy makers and students of the region. The present note examines a specific aspect of economic transition. In particular, it describes and evaluates the legal independence of central banks in three selected countries in Eastern Europe: the Czech Republic, Hungary and Poland. The choice of the particular set of countries investigated is made with an eye to the general consensus among observers and analysts in the region that these countries are broadly homogenous in terms of their economic and political development and prospects for being a member state of the EU. The three countries are also geographically close to each other and, besides Slovenia, stand out among transition economies by successfully implementing structural reforms in the 1990s and having relatively prosperous economies by now.

Besides smoothing out short-term business fluctuations, in general, the primary goal of monetary policy is aimed at controlling aggregate inflation. Indeed, a large body of recent research in monetary economics seeks to explain how to reduce inflation the least costly way and then to credibly sustain it at a low level. The literature offers several related institutional solutions as the blueprint for enjoying the benefits of permanently low levels of inflation\(^1\). They are summarized under the headings of Central Bank Independence (CBI), the increased insulation of monetary policy making from political influence, and inflation targeting. In transition economies, as most structural reforms having been completed by now, monetary policy naturally emerges as an increasingly important policy device. Most importantly, these economies face the challenge of designing monetary policy to reduce inflation from a moderate range to a single digit level, and then to keep it there. Converging to low inflation, 2 to 3 percent annually, appears to be a particularly pressing and important issue for these countries as they are to join the European Union and subsequently the European Monetary Union as well.

Based on my reading of central bank laws, the primary purpose of this note is to characterize, quantify, and compare the degree of legal independence of the three selected central banks in Eastern Europe. The multitude of various structural changes occurring during the early years of economic transition, the short time span and the small number of countries examined

\(^{1}\) A comprehensive account of this research is clearly beyond the scope of the present note. See, for example, Bernanke and Mishkin (1997), Leiderman and Svensson (1995).
prevents me from searching a statistical relationship between CBI and trend inflation. Instead, I provide a descriptive account of the three central bank charters. To assist the interpretation of these documents, I summarize the information found in the charters in quantitative indices motivated by similar indices proposed in the previous empirical literature (see Cukierman (1992) and Grilli, Masciandaro and Tabellini (1991)). Then, I interpret the evidence in light of theoretical arguments for CBI and offer some observations on monetary policy targeting strategies in transition economies.

The main finding is that the legal status of the three central banks is similar to each other and can be characterized as independent. Indeed, there appears to be little difference between their legal status and that of the Bundesbank. All the three charters seem to have been modeled after the one governing the Bundesbank: phrased in one way or another, safeguarding the value of the national currency is set as an explicit task for the banks.

**RELATED EMPIRICAL LITERATURE**

By updating and extending previous related research, the present note explores the relevance of CBI in light of the experience of three transition economies, the Czech Republic, Hungary and Poland. Its direct predecessors include the empirical studies of Loungani and Sheets (1995) and Siklos (1994). Based on data from the first three years of transition, Loungani and Sheets (1995) study the relationship between CBI, inflation and economic growth in a cross-section of twelve countries in Eastern Europe. Using the turnover rate of central bank presidents and other two measures of legal independence as proxies for CBI, they conclude that independence is negatively correlated with inflation in the year of 1993. They also find that high inflation in the first years of transition impairs economic growth: countries managing to avoid high inflation seem to have had a better chance for subsequent growth. Of course, lower initial inflation and higher GDP may be causally unrelated and simply driven by other underlying factors.

Modifying and appending the legal index of Cukierman (1992) by transition specific measures, Siklos (1994) investigates the independence of central banks in the Czech Republic, Hungary, Poland and the Slovak Republic and he finds that all the four central banks are relatively independent. Slightly sensitively to the precise form of the index, the Czech Republic

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2 See also Siklos (1994).
3 For a descriptive account of the conduct of monetary policy in the Czech Republic, see Tosovsky (1996), in Hungary and Poland, see Hochreiter et al. (1996). Begg (1996) provides a more general survey on the practice of monetary policy making in transition economies.
is ranked first, Poland the second, Hungary the third and the Slovak Republic the last among the four countries in terms of CBI in 1994. Siklos also observes that central bank laws in these countries are designed to mimic the one governing the operations of the Bundesbank.

**CENTRAL BANK INDEPENDENCE**

The intellectual basis for CBI stems from the presumption that, due to the very nature of the democratic political process, governments are shortsighted and tend to perceive a potentially exploitable short-run Phillips-curve. This perception, in turn, induces them to try to reduce unemployment, even at the expense of generating extra inflation. CBI is widely considered as a necessary prerequisite to achieve permanently low levels of inflation. It is important to the extent that an independently run central bank is less likely to be exposed to the above inflationary bias inherent in monetary policy making and be more aware of the inflation cost of expansionary monetary policy. Cukierman (1992) presents empirical evidence that a legal index of CBI and average inflation is negatively correlated for a group of industrial countries. However, he also finds that this pattern of cross-sectional correlation cannot be observed for developing countries.

In practice, CBI has several, sometimes overlapping, interpretations. Importantly, Debelle and Fischer (1994) and Fischer (1995) make the distinction between goal versus instrument independence. They point out that the theoretical case for CBI appears to be primarily associated with instrument independence, the power to conduct monetary policy. Goal independence is secondary in this view but the central bank needs to be held accountable for achieving the goal set by a democratic institution like the parliament. Accountability is important for giving the right incentives to and providing democratic control over the central bank.

Casual observation including news in the media and informal conversation with central bank officials and financial market analysts suggests that actual CBI in these countries may differ from what might be expected on the basis of the legal framework. Indeed, Cukierman (1996) argues that legal indices of independence could well be noisy indicators of actual independence and serve as a necessary but not sufficient condition for actual CBI. To address this issue, he suggests a proxy for actual independence based on actual turnover rates of central bank Governors. However, there are two problems with this measure of CBI rendering any observed correlation between this and inflation spurious. First, observing a low turnover rate of Governors may simply indicate subservience. Second, either the dismissal or the resignation of the Governor may have absolutely genuine, including personal or professional, reasons. Or purely political
ones that are unrelated to the issue of inflationary bias. Given these concerns, the present study
ignores considerations related to the actual turnover of central bank Governors.

The above discussion also suggests that the choice of a reliable measure for quantifying
CBI is bound to involve a certain degree of conceptual ambiguity. Indeed, there exist various
classifications of independence in the literature. Although these classifications are somewhat
arbitrary by their nature, two of them still stand out and appear to be particularly relevant in the
present context. First, Cukierman (1992) splits the criteria for CBI into four categories including
the status of the Governor, the nature of policy formulation, the stated objective of the central
bank and the limitations on lending to the government. Siklos (1994) uses this index as the basis
for developing his own index of CBI for transition countries. Second, Grill, Masciandaro and
Tabellini (1991) (GMT) define two groups of criteria for CBI, political and economic
independence. In the latter index, the goal set for the central bank is one of the criteria. The index
defined by Loungani and Sheets (1995) builds on the work of GMT.

I examine two equally-weighted legal indices of CBI that are condensed versions of
similar indices introduced by Siklos (1994) and Loungani and Sheets (1995) (LS). I make the
following adjustments in the original indices. All aspects of central banking related to the role of
central banks as banking supervisory institutions and lenders of last resort are eliminated in both
cases. Two categories of political independence of the LS index are eliminated: the ratio of board
members appointed by the executive branch to other appointees and the presence of government
official on the board with veto power. Strictly transition specific, non-monetary variables and
one further category of the Siklos index (central bank involvement in formulating the budget) are
also removed.

EXCHANGE RATE ARRANGEMENTS

During the early years of transition, monetary policy strategies in all the three countries
examined here are well described as implicit inflation targeting arrangements relying on the
exchange rate as an intermediate target. The arrangement appears to have been the ultimate
recipe of the times. The argument was that countries with low initial reputation for price
stability, rapid financial innovation and relatively unstable money demand need a widely
observed and accurately measured, easily controllable target for monetary policy, like the
exchange rate with a substantial degree of fixity. Under the circumstances, the benefit from
building credibility by adopting a well-controlled, transparent intermediate target could outweigh the cost of the increased variability in the goal variable, inflation.

Since then only the Czech Republic was able to keep its fixed exchange band regime\(^4\). Initially adopted as part of a conscious effort to establish a nominal anchor in reducing inflation, even at the cost of real appreciation, the regime was honored for a relatively long period of time and it does appear to have contributed to the relatively high credibility of monetary policy. The specific exchange rate regimes in Poland and Hungary have been considerably altered in the mid-1990s and they eventually took the form of a crawling band system. In Poland, the crawling band, initially crawling peg, was introduced in a currency crisis situation, after the fixed exchange rate regime proved to be incompatible with the drastic increase in inflation. In Hungary, a similar regime was chosen in a preemptive manner as part of a fiscal and monetary adjustment package that aimed to avoid a Mexico-type financial crisis, as the aftermath of that.

The popularity of the crawling band systems have been motivated by the insight that if too tightly specified, strict exchange rate fixity could easily conflict with other economic objectives including inflation reduction (see Helpman, Leiderman and Bufman (1994)). A sufficiently wide band set around the (possibly crawling) exchange rate leaves room for policy maneuvering and thus makes inflationary objectives more immune from supply shocks. It was also recognized that given recurrent relative price shocks, a strict fixed exchange rate could be excessively costly in terms of lost output. Finally, the benefit of building credibility by abiding a policy rule is also preserved under the crawling band system.

**Central Bank Acts**

The following section describes the legal framework of monetary policy based on the most recent versions of the Acts governing central bank behavior in the Czech Republic, Hungary and Poland. New legislation on central banks came relatively early in transition in all the three countries. Since then the relevant laws have been modified several times with defining increasingly firmer grounds for central bank independence over time. This move towards more independence could be attributed to two considerations: the desire of these countries to join the European Union and eventually the European Monetary Union and the intellectual development

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\(^4\) Although it involved some hump and bump as the CNB first had to devalue the Crown and then widen the exchange rate band.
brought about by increased communication with the international financial and academic community.

Before proceeding to the discussion of central bank charters, it is important to emphasize that in the Czech and Hungarian political systems the President is not part of the executive government, similarly to the German political system. Instead, it plays a rather non-partisan, mostly symbolic role in the political life. In contrast, Poland has a presidential political system: the President of the country is directly elected and has a much more extensive executive power than in the other two countries.

Goals

Though appearing under more than one heading, its task is defined in the least compromised way for the Czech National Bank (CNB) of the three central banks. Primarily, there is a single objective assigned for the CNB in the Czech National Bank Act: “safeguard the stability of the Czech currency” (Section 2) and “in order to limit excessive liquidity and to overcome inflationary trends” (Section 25 (3)). The Hungarian National Bank Act is less unambiguous in defining the goal for the National Bank of Hungary (NBH). Although Article 4 states that “the fundamental goal of the NBH is to safeguard the internal and external value of the national currency”, it also stipulates in Article 5 (2) that “the NBH fosters economic balance by maintaining monetary balance”, whatever the latter requirement means. Finally, the Act on the National Bank of Poland is not clear either about the goal assigned for the National Bank of Poland (NBP). Article 3.1 stipulates that “The basic objective of NBP activity shall maintain price stability, and it shall at the same time act in support of Government economic policies, insofar as this does not constrain pursuit of the basic objectives of the NBP”.

Instruments

Instrument independence is associated with fairly heterogeneous areas of central bank legislation. It includes rules for the appointment and dismissal of the central bank Governor and Board, for the maximum degree of financing of the government by the central bank and for the nature of institutional relationship between the central bank and the government.

In the Czech Republic the President alone appoints the Governor of the central bank, in the Hungarian case the President appoints the Governor on the proposal of the Prime Minister.
Both of these central banks come close to this ideal set by the Bundesbank where the Governor is appointed by the President on the proposal of the government after consulting with the central bank Council (see Goodhart and Vinals (1994)). In Poland, the Parliament appoints the Governor, on the proposal of the President. At the same time, Poland is the only country of the three where no government officials serve on the Board of the central bank. In the Czech Republic and Hungary, government representatives are sitting on the Board, although only in an advisory capacity without voting rights. On balance, all the three central banks possess a fairly similar degree of independence from the perspective of appointing the Governor. Dismissal rules for are conservative in the three transition countries by providing fairly stringent firing rules practically free from political motives of any kind.

In all the three countries, there exist a limit of some sort on short-term loans in terms of the percent of annual budgetary revenues that could be transferred to the government by the central bank. However, in the case of Hungary and Poland this provision was not always honored in practice in the early 1990s, the budget law was able to overrule this particular provision of the Central Bank Act. The Hungarian central bank charter actually sets an explicit rate at which the government may obtain temporary loan from the central bank. In particular, Article 19.5 in the Act determines it as the base rate set by the central bank. In the other two countries, the central bank laws do not contain explicit provisions for the magnitude of this rate.

Regarding their institutional status with respect to the government, the three charters are similar in assigning the full control of the instruments of monetary policy to the central bank. For instance, the charter for the CNB states that “in pursuit of its main objective (Section 2), the Czech National Bank shall be independent of any instructions from the government of the Czech Republic” (Section 9.1). Similarly, Article 6 in the Hungarian Central Bank Act states that “the National Bank oh Hungary has an independent monetary policy and it conducts it in an independent manner”.

To quantify the above pieces of legal information, Table 1 and Table 2 summarize elements of CBI with a numerical value assigned to each of them\(^5\). In particular, Table 1 contains a compressed version of the index of Siklos (1994), while Table 2 reports a reduced version of the index compiled by Loungani and Sheet (1995). The coding in both cases follows the one applied in the original papers. According to the legal index presented in Table 1, the CNB is approximately as independent as the Bundesbank and the other two banks are ranked third with Hungary having a slightly higher score than Poland. Essentially, the rule for the term of office of

\(^5\) For comparison, both tables list numerical scores for the Bundesbank as well.
Board members makes the difference here between the Czech Republic and the other two countries. The modified LS-index presented in Table 2 ranks Hungary closest to the Bundesbank, the Czech Republic the second closest and Poland the last. The NBH precedes the CNB in this dimension only due to the fact that the Hungarian charter specifies the rate, at which the central bank can lend to the government, while the Czech charter does not do so. Poland lags behind the other two countries not only because the central bank charter does not specify the lending rate to the government but also because of allowing government directives to the central bank.

Overall, the above evidence on central bank charters allows three conclusions to be drawn. First, the charters seem to have been modeled after that of the Bundesbank, their legal status can be characterized as moderately independent (see also Siklos (1994)). In one sense or another, the most important explicit task of the all the three central banks is to safeguard the value of their national currency. Second, there appears to be little difference among the three banks in terms of "hawkishness": both quantitative indices assign similar scores of legal independence to them. Third, the revisions in the charters exhibit a clear trend in granting increasingly more independence. These findings do not imply that more transparency and independence in central banking are not welcomed rather they suggest the need for further progress in refining and implementing the rules for CBI in these countries.

**INFLATION TARGETING**

Implicit or explicit inflation targets have been instrumental in inspiring exchange rate-based stabilization programs including many developing countries. While its primary attraction is its potential reducing both inflation and inflation variability, inflation targeting (IT) also questions the ultimate role of CBI in credible monetary policy and low inflation (see Bernanke and Mishkin (1997)). At the same time, Laubach and Posen (1997) argue that transparency and accountability ("disciplined discretion") coupled with CBI are more important in practice and is able to produce outcomes similar to IT.

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6 Examples include Chile and Israel where adjustments made in the central parity of the crawling band have been based upon the difference between forecast foreign inflation and the inflation target (Israel) or actual inflation (Chile). See Helpman, Leiderman and Bufman (1994).
Experience with explicit IT monetary policy in developing countries is fairly limited.\(^7\) Masson et al (1997) argues that countries should fulfill certain basic requirements for successfully being able to adopt an IT framework such as

- lack of fiscal dominance as exemplified by seigniorage financing—it seems to be less and less of a problem in the three countries (Austria: 1.02%, Germany: 0.79%, Czech Republic 1.11% (Hochreiter et al (1993)), Poland 2.23% (Masson et al), and Hungary 4.2% but the main component of it (interest subsidy) to the government has been largely eliminated since then)
- lack of financial repression—well-developed capital markets
- stable and competitive banking system—percent of assets of banks held by private investors
- prudent financial regulation.

Although even these conditions to launch IT as a framework for monetary policy are not trivially satisfied, there exist other, potentially more constraining obstacles including willingness with a clear priority of inflation fighting, coherent analytical framework to understand and predict inflation and the necessary credibility and transparency to conduct policy\(^8,9\).

The multitude of large-scale relative price shocks including unfrozen energy prices, elimination of wage and rent controls, abrupt changes in the tax code has made it extremely hard to predict inflation in transition economies during the early years of transition (Hamecz, Vincze and Zsoldos (1996)). Moreover, relative price shocks appear to be significant even after the initial stages of transition (Coorey, Mecagni and Offerdal (1996)). Central bank reports, if they are published, tend to be backward looking in their focus on past “monetary developments” and provide little guidance for the assessment of monetary policy stance. When the reports make projections, they tend to be often implicit and vague. At the same time, the current highly visible intermediate targets by themselves have an important pedagogical role in educating the public about policy targets. All in all, the development of an effective inflation-forecasting framework is in its infancy in the three countries examined.

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\(^7\) As McCallum (1996) notes: “the issues at hand concern institutional arrangements that should be judged on the basis of their effects on the operating characteristics of economies over long spans of time – the average performance, that is, over a number of cycles … from that perspective it will be another decade or two before the potential advantages or disadvantages of [inflation targeting] will be clearly evident”.

\(^8\) King (1996) argues that introducing IT requires transparency and expertise to assist public learning about the empirical links between instruments and targets of monetary policy.

\(^9\) “…lack of a coherent analytical framework for assessing empirically the effects of monetary policy and forecasting inflation in these [developing] countries. This tends to impair both the central banks’ capacity to formulate monetary policy and the external observers’ ability to assess monetary developments.” (Masson et al (1997)).
A relatively poorly clarified element of IT is central bank accountability. Primarily, it involves establishing proper incentives and providing exposure to democratic control. These are fundamental requirements in any democratic society. Paradoxically, given that during the early years of economic transition the danger of fiscal populism could be excessively threatening, the absence of public accountability might even be optimal for conservative monetary policy.

Hungary is a case of example. The main explicit target of monetary policy is the exchange rate. First, as argued above, although the NBH can be considered as virtually instrument independent\textsuperscript{10}, its targeting regime could occasionally be in conflict with its inflation objectives. Second, when the central parity of devaluation is altered the only announcement the central bank and the Ministry of Finance make is that “the central parity of the exchange rate is changed in line of inflationary developments”. Third, as it is not clear if they are meant to serve as binding commitment or just a quantitative forecast the inflation target announcements of authorities tend to be unsystematic and of an ambiguous nature.

**TWO FURTHER CONSIDERATIONS**

First, the finding that legal indices of CBI are negatively related to average inflation in industrial countries provides the strongest evidence in favor of CBI. However, Posen (1995) has recently questioned the direction of causality between independence and inflation. He argues that an independent central bank is the byproduct of historical and institutional factors, primarily of the strength of the financial sector in the country. This strength is related to increased financial sophistication of the public, smaller regulatory power of the central bank over the financial sector and wider financial markets. The insight has clear implications for transition economies. First, cleaning up the balance sheets of banks is an important step towards to more CBI via establishing more efficient and thus stronger financial institutions. Among the three countries considered, perhaps Hungary is the one that did the most in this regard in the 1990s. Second, the protection of minority shareholder interests is an important ingredient in encouraging wider financial intermediation via the stock market leading to an overall stronger financial sector (see Modigliani and Perotti (1996)).

\textsuperscript{10} To the extent that some of the prices are still administered by the government in one way or another, some extra coordination between the central bank and the Finance Ministry might actually be desirable. This, in turn, questions CBI as an ultimate prerequisite in effective monetary policy.
Second, similarly to Germany, the Czech Republic, Hungary and Poland have experienced hyperinflation episodes during this century (see Sargent (1993))\textsuperscript{11}. Therefore, the public in these countries may be more inflation averse \textit{per se} and governments may be more reluctant to exert pressure on central banks in easing monetary policy. It implies that constantly reminding and educating the public about the costs of inflation is not only desirable but also expected to be effective in these countries.

\textsuperscript{11} Incidentally, another common element between the Bundesbank and the other three banks is that all of them started to introduce their monetary targeting framework following a strong supply shocks leading to stagflation. As was the case with the monetary targeting framework in Germany (see Laubach and Posen (1997)), the quasi-fixed exchange rate regimes also appear to have served as a signaling device for the inflation-averse stance of monetary policy.
Appendix: Central Bank Acts

The Czech Republic: The Czech National Bank Act (“Zákon o České národní bance”) No. 6/1993 Coll. as amended under Acts No. 60/1993 Coll. and No. 96/1993 Coll. is the Act that governs central bank behavior. It was enacted in January 1993 and it has not been altered since then.


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Table 1
Indices of CBI (based on Loungani and Sheets (1995))

<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>Czech Republic</th>
<th>Hungary</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal Independence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price stability as the primary objective</td>
<td>1</td>
<td>1</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Economic Independence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does central bank control instruments of monetary policy?</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Binding limit on direct financing of government?</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Any financing of government by CB</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Government directives to central bank in executing policy</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Political Independence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dismissal of Governor</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Term of office of Governor</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Term of office of Board members</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Appointment of Governor</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Appointment of Board members</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gov't officials on the Board</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gov't official on the Board with a vote</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Index Score</strong></td>
<td><strong>9</strong></td>
<td><strong>9</strong></td>
<td><strong>7.5</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>
Table 2
Indices of CBI (based on Siklos (1994))

<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>Czech Republic</th>
<th>Hungary</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO - Terms of office</td>
<td>1</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
</tr>
<tr>
<td>Appointment of CEO</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>0.5</td>
</tr>
<tr>
<td>Dismissal of CEO</td>
<td>1</td>
<td>0.83</td>
<td>0.83</td>
<td>0.83</td>
</tr>
<tr>
<td>Policy formulations -</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who conducts it</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Government directives and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>resolution of conflict</td>
<td>1</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>central bank objectives -</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single, multiple?</td>
<td>1</td>
<td>0.8</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Limitations on Lending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limitations on advances</td>
<td>0.67</td>
<td>0.67</td>
<td>0.67</td>
<td>0.67</td>
</tr>
<tr>
<td>Maturity of loans</td>
<td>1</td>
<td>0.67</td>
<td>1</td>
<td>0.67?</td>
</tr>
<tr>
<td>Interest rate restrictions</td>
<td>0.25</td>
<td>0.25</td>
<td>0.75</td>
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<tr>
<td>Index Score</td>
<td>7.66</td>
<td>6.5</td>
<td>6.9</td>
<td>5.83</td>
</tr>
</tbody>
</table>

Note: Following the conventions set in Loungani and Sheets (1995) and Siklos (1994), respectively, components of CBI in Tables 1 and 2 are coded on a scale between 0 and 1. Scores in specific entries are based on central bank laws as of 1993 in the Czech Republic, 1997 in Hungary and 1998 in Poland.