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Political Pressure on the National Bank of Slovakia

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Abstract:
This paper analyzes political pressure on the National Bank of Slovakia, using the Havrilesky (1993) methodology based on media signalling. This methodology allows the pressure on the Central Bank of Slovakia to be compared with the pressure on the central banks to which the methodology was already applied, namely – the U.S. Federal Reserve, the Deutsche Bundesbank and the Czech National Bank. The analysis and the comparison reveals a relatively weak signalling of pressure in media in Slovakia and prevalence of financial sector representatives as the main commentaries on monetary policy of the National Bank of Slovakia in the period before euro adoption.

Keywords: political economy, central banks, monetary policy

JEL: E52, D78

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1. Introduction

Independent central banks are one of the most interesting institutional features in the overall framework of economic policy that is generally performed by government. However, as anecdotal evidence shows, independent central banks are often challenged by various political groups. Central banks’ long-term interests of economic stability might be in conflict with short-term interests of diverse pressure groups including elected politicians. Since the monetary policy is a powerful tool to influence macroeconomic variables like GDP growth, inflation or wage growth, etc., the pressure groups attempt to find channels to influence current monetary policy in line with their interests.

Furthermore, it is technically impossible for a central bank (CB) to be perfectly detached from the political system. The members of central bank’s board are usually selected by political mechanisms and appointed by parliament, government or the president. The central banks legislation which defines the legal environment for the central bank is formed by legislative bodies.

This paper focus on the political pressure that has been executed on the National Bank of Slovakia (NBS). We use the methodology firstly presented by Havrilesky (1993) and further extended by Maier (2002) and Geršl (2006). Our primary objective is to find out whether there have been any political pressure exercised on the National Bank of Slovakia in the period before Slovakia adopted the euro in 2009 and what was the pattern of the pressure. This methodology also allows for comparisons of those central banks for which studies of political pressure exist.

This paper is organized as follows: Chapter 1 introduces the topic of this paper, Chapter 2 surveys the existing literature on the political business cycles. In Chapter 3 we describe the methodology used, Chapter 4 discusses the findings as to the pressure on government while Chapter 5 also looks at other pressure groups and compares the results with Germany and the Czech Republic. Chapter 6 shows the support for the Slovak central bank as indicated by media signalling. Chapter 7 concludes.

2. Survey of the literature

The relationships between the politics and macroeconomic policy have fascinated economists long time ago. The central concept of this area of research constitutes the Political Business
Cycle (PBC). The original notion of PBC is attributed to German economist Karl Marx\(^1\). The PBC approach has two important features: voters, who are assumed to maximise their individual utilities; the incumbent politicians, who are assumed to implement those policies that allow them to retain power. The incumbent politicians stimulate the economy to acquire the maximum number of votes so as to get re-elected, and this stimulus in turn causes the economy to fluctuate around its long-run path. It is widely known expansionary monetary and fiscal policy have popular effects in the short run (tax cuts, falling unemployment and interest rates, government spending, etc.). However, in the long run these very policies tend to have directly opposite impacts (rising inflation, distorted trade balance, high government share on GDP, etc.). So after the elections the incumbent politicians restrict the monetary and fiscal policy to stabilize the economy. And this results in the artificially engineered boom and bust sequences labelled as the political business cycles. A political business cycle is therefore the economy’s fluctuation around its long-run behaviour generated by the political system, as pointed out by Gautier (2003).

The study of the Political Business Cycles can be divided into two main waves: Opportunistic/Electoral Models and Partisan Models, each having either Adaptive or Rational Voters. The first serious theoretical concept in the study of the PBCs was originally formalized by Nordhaus (1975). According to Nordhaus the opportunistic incumbent politicians are only interested in being re-elected. In order to do this they would exploit the well-known inverse relationship between unemployment and inflation (the Phillips curve) in the short run. His model is defined as opportunistic with adaptive voters. Thus the expected inflation is based only on past inflation. The empirical works have been always mixed in this area of research. One of the first empirical works was done by Edward R. Tufte (1978)\(^2\); in his seminal work he analyses the PBCs in the United Stated of America. This study together with Kramer (1971), Fair (1978), Hibbs (1987) show the validity of this notion for presidential elections; then again Tufte (1975, 1978) for congressional elections and finally Madsen (1980), Lewis-Beck (1988) for European democracies.

The rational opportunistic model deviates from the traditional opportunistic model with adaptive voters. This model was originally proposed by Persson and Tabellini (1990). According to Gautier (2003) the model can be described as follows. Voting is not retrospective but forward-looking, inflation expectations are rational, they do not depend only on past information of inflation but on the information available at the time of the election. Thus, under rational expectations, voters and other economic actors can foresee elections and the incentives of incumbent policy-makers, so political business cycles should not exist or should not have any real effects. This would be true if the incumbent policy-makers did not possess any informational advantage over voters, so Persson and Tabellini (1990) introduced a competence factor in their model. The competence factor together with the information asymmetries differentiates governments’ ability to handle the economy. Franteze and Jusko (2005)\(^3\) note that empirical research does not contradict rational expectations PBCs with competence factor.

The first notion of partisanship in PBC was presented in Hotelling-Downs-Black (1929, 1957, 1958) model. They considered two parties which build their reputations on distinct political preferences. They speculated how different political preferences would interact with the median voter. The first thorough analysis was presented by political economist Douglas Hibbs

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1 Connected to the name Karl Marx is a branch of political economy also concerned with economic policy. It is called Neo-Marxist approach which treats electoral politics as relatively insignificant and it has received very limited attention.


(1977). Following Gautier’s (2003) description, Hibb’s partisan models assume a two-party political system where each party has different preferences about economic policy: the right-wing party is concerned more about the inflation, while the left-wing party cares more about the unemployment and growth. Therefore, the macroeconomic fluctuations are caused by different party preferences (considering the movements along the Phillips curve). Another difference from the opportunistic model is that the key actors of the model are no longer political candidates but the voters. Each voter is to choose an appropriate candidate who better suits him according to the party’s preferences about economic policy. Franzese & Jusko (2005)\(^4\) conclude there is an extensive evidence for partisan cycles relative to the electoral cycles discussed previously. Hibbs (1987b), Paldman (1989), and others find supporting evidence for broader OECD samples. Alesina and his various colleagues also confirms existence of partisan-cycles in the US and the OECD countries.

The empirical support for the adaptive partisan PBC seems fairly consistent so it would be natural to think there is no need for partisan model with rational expectations (RE). However, to fill the gap in the theoretical needs of RE economics Alesina (1987, 1988) introduced *Rational Partisan Theory* (RPT)\(^5\). It was motivated by the notion that fully anticipated macroeconomic policies under rational expectations are ineffective.

The models just discussed are not appropriate for our study, therefore some modifications must be made, some new approaches must be explored. Schultz (1995) states that pre-election manipulations of economic policy will vary inversely with the government's security going into the election, as measured by popular opinion polls. It implies that the political economic cycles should occur only then and to the degree that they are needed. He supports his hypothesis with empirical study of the UK government transfer payments from 1961 to 1992. He concludes that government’s economic manipulations vary from election to election because government’s incentives vary, too. Sieg (2006) introduces a compelling modification to the rigid differentiation between partisan and opportunistic approach. If the government is indecisive on when to undertake what kind of policy to maximise its utility, it either implements its ideological policy if popularity is high, or secures its re-election by implementing opportunistic policy, if popularity is low.

Maier (2002)\(^6\) describes models which are not specifically linked to election dates, rather they analyze the tensions between the central bank and government at any time. He calls them the conflict models. Vaubel (1997) looks at the political preferences of the central bankers by considering their party affiliation. Hence, a following situation might arise that a left-wing government has to cope with a “rightist“ central bank council and vice versa. He named this approach „Party Preference Theory“ (PPT). Frey and Schneider (1981) focus on conflicts between the government and the central bank at any time. They state the central bank is generally independent following goal of low inflation which reflects the desires of the financial community. Though, in the times of conflict with the government, the central bank has to submit to the wishes of the government. Otherwise, it could be easily overruled by the government by changing the central bank law.


\(^5\) There are merely subtle differences between RE and non-RE theories of macroeconomic outcomes. In non-RE theories the incumbent politicians manipulate stable Phillips curve to shift macroeconomic outcomes permanently. In RE theories - (RPT) - only unanticipated policy creates real effects. So for example when the left-wing party wins, inflation rises but real outcomes rise as far as the winner party so the shift in the economic policy was unforeseen.

\(^6\) Maier (2002), p. 11-12
Cukierman (1998)\textsuperscript{7} drives attention to a different class of models. This root of research is revolving around \textit{Political Monetary Cycle} (PMC)\textsuperscript{8}, which is part of a wider segment of literature (PBC) studied above. The importance of monetary policy here has its justification as proposed by Havrilesky’s hypothesis that monetary policy is often used to offset the incentive and other politically adverse effects of non-monetary, distributionally motivated policies. In comparison to the early partisan theory of PBC, these models do not have a permanently exploitable trade-off between political activity and inflation, and policy objectives may change even during the term of office of the same party. Other authors try incorporating the central bank into the equation as the monetary policy is not exclusively in the hands of incumbent politicians. Nathaniel Beck\textsuperscript{9} incorporates the Fed into the model. He adds the Fed operates in a world of great uncertainty. Sometimes the uncertainty is so great that the Fed comes close to tossing a coin on some economic decision. In this extreme situation if one outcome will help an incumbent government and other will hurt it, it does seem reasonable for the Fed to choose the former option.

Brender & Drazen (2005) are attentive to the political-economic processes in Slovakia among others. They test a model in a large sample of 74 countries over the period 1960-2003 (1994-2003 for the Slovak Republic). Higher growth rate of real GDP per capita increases the probability of getting re-elected in less developed countries and new democracies (which includes the Slovak Republic) but voters are affected by GDP growth over the incumbent’s term in the office rather than in the election year. This research suggests the presence of a political business cycle in the Slovak Republic. Considering the influence of GDP through the whole term suggests the voters are adaptive while the model itself belongs to the conflict models. Alpanda & Honig (2007) studied large sample of countries including the Slovak Republic. They tested political monetary cycles between 1972 and 2001, more specifically how does the rise in M1 correlate with election cycles\textsuperscript{10}. The results say de facto CBI independece is very high in the Slovak Republic\textsuperscript{11}.

\textbf{3. Havrilesky methodology with Maier’s extension applied on NBS}

Not many PBC researchers included a central bank in its framework. They rather assumed direct control of policy instruments by an incumbent government. However, the central bank is de jure independent. So the government may only try to influence the central bank to accept its preferred policy in the case they have conflicting interests. In order to measure the pressure from the government on the central bank and whether the central bank has succumbed to it we need a „conflict indicator“.

Such an indicator was proposed by Havrilesky (1993) in his respectable study on pressure on the Federal Reserve. The indicator is based on the number of newspaper articles in which politicians argue in the favour of more or less expansionary monetary policy. He counted the articles in the Wall Street Journal where incumbent politicians demanded a change in monetary policy. An article demanding monetary ease was assigned value of +1, while article demanding monetary restriction was assigned value of -1. The sum of all pluses and minuses

\textsuperscript{8} These models are more closely linked to the Havrilesky (1993) methodology utilised in this paper comparing to the models described above.
\textsuperscript{9} Mayer (1990), p. 115-130.
\textsuperscript{10} They estimate panel regressions of a monetary policy indicator on an election dummy and control variables.
\textsuperscript{11} That is also true for Germany, the Czech Republic and the U.S.- countries for which the Pressure Indicator was constructed so far.
constitutes the SAFER\textsuperscript{12} index so that the positive value would indicate „net“ pressure for monetary ease.

This approach was then applied on the Deutsche Bundesbank by Philipp Maier (2002). Maier extended this approach in two ways.

First, he included in his research also pressure signals from other interest groups besides the government. This groups include: financial sector, employers, trade unions and others including academics, international institutions and other unspecified groups demanding monetary change. The explanation here is that not only government but also other interest groups might have substantial motivation to influence the policy of the central bank. For example, banking sector has many motives to do so. According to Wooley (1984)\textsuperscript{13} banks can profit from tight monetary policy when the economy is entering recession and they can profit from monetary expansion, too (the good business is good for banks, too). As net creditors, banks fear the unexpected inflation the most. So bankers desire stability and predictability in the financial development. Furthermore, bankers have many political resources, some arising from organizational and financial sources and others from the fact that the central bank needs support of bankers. There are also institutions which have respectable influence on the financial developments – ABA (American Bankers Association), SBA (Slovenská Banková Asociácia), CBA (Česká Bankovní Asociace).

Employers have also lots of interests when it comes to monetary policy. Low interest rate surely enables new investments and expands businesses. However, as we will soon observe, in a small open economy they might be also concerned about exchange rate interventions (which might be consistent with interest rate changes). Trade unions are also concerned with interest rate, though maybe not to such a high extent. Their primary concern is unemployment. As pointed out by Geršl (2006)\textsuperscript{15}, Havrilesky’s and Maier’s approach to measuring political pressure has some drawbacks. First, it assumes newspaper signalling from interest groups is the representative channel of signalling. This might not be true if there are other important channels through which interest groups can forward their preferences (e.g.: bilateral meetings, telephone calls etc.)\textsuperscript{16}. Second, it assumes two articles represent twice as much value as one article which may be false. And third, the number of articles on monetary policy may vary. It

\textsuperscript{12} Meaning - Signalling from the Administration to the Federal Reserve.
\textsuperscript{13} Wooley (1984), p. 71-75
\textsuperscript{14} December 2001 - December 2008.
\textsuperscript{15} Geršl (2006), p. 4-5.
\textsuperscript{16} Here we go under the assumption the political pressure is more difficult to observe through formal channels than through informal ones. Therefore, if we detect pressure signalling in the formal channels (newspapers) then the pressure signalling is in the informal channels is more likely to be existent.
depends on whether there is enough news from other areas and whether someone is deliberately discussing monetary policy.

Despite these little difficulties this indicator has desirable properties. This approach deals with monetary policy (interest rate)\textsuperscript{17}, it seeks conflicts during the whole term of the office of a government. Furthermore, this indicator measures the pressure on the central bank from the various interest groups up to the size and direction. Thus the preferences are known and observable, so the dual partisanship is overridden. The assumption here is that monetary policy changes will get the incumbents re-elected, so the economy is characterized by adaptive expectations. Independent central bank is incorporated in the approach, with the focus on measuring the pressure on the central bank and how is this pressure transformed in the real changes of monetary policy. And finally, the analysis is going to be conducted in its contextual background.

Conclusively, the indicator based on newspaper signalling has its value despite some drawbacks. Due to the lack of other valid indicators concerned with study of the central bank, this indicator is even more appreciated.

We construct the pressure indicator for the NBS according to the Maier (2002)’s extended approach based on Havrilesky (1993). Naturally, the first step was to choose a suitable newspaper from which to count the “pressure” articles. The selected newspaper is required to possess these criteria:

- independence (the newspaper should be politically neutral in order to avoid political bias in published articles),
- availability (the newspaper should cover reasonably long time), and
- circulation (the newspaper should be widely read, especially by central bank officials, so that signals published there in fact reach the intended recipients).

Slovakia is a tiny country comparing to the U.S. or Germany so the process of choosing the suitable newspaper was relatively more difficult. The only newspaper which systematically covers economic events in Slovakia, which is widely available and read by economic authorities and which is deemed to be politically neutral is Hospodárske noviny\textsuperscript{18} (“the economic newspaper”). This newspaper is owned by the same company as the Czech newspaper Hospodářské noviny, thus sharing similar structure. It is obvious this newspaper could be easily deemed as a counterpart to the U.S. Wall Street Journal (selected by Havrilesky) or the German German Handelsblatt (one of the newspapers selected by Maier).

Nevertheless, as will be seen in the analysis, also this newspaper may suffer from lack of appropriate coverage of monetary policy issues, thus any analysis based on signals collected from this newspaper may be misleading.\textsuperscript{19}

The second step was to choose an appropriate period. Slovakia practised exchange rate peg from the mid-1994 until late-1998 (to the basket of DEM with 40% weight and USD with 60% weight). In this period the NBS sustained a mix of inflation targeting, monetary programming and regime of fixed interest rate. Afterwards the Slovak koruna moved to floating with the exchange rate determined by the supply and demand on the interbank exchange market. The NBS was concentrating more on the inflation targeting and the

\textsuperscript{17} Which is easily quantifiable but not incorporating other monetary policy tools.

\textsuperscript{18} The articles from the electronic archive of Hospodárske noviny were used (http://archiv.hnonline.sk/).

\textsuperscript{19} We thank an anonymous referee for making us aware that the Hospodarske noviny in Slovakia do not have the same high status as economics newspaper as the Hospodarske noviny in the Czech Republic which were used by Gersl (2006).
exchange rate stability (favourable for export and matching the economic fundamentals) using the Interest Rate, Exchange Rate Interventions and Minimal Reserve Requirements as its tools. The floating ended at the end of 2005 when the Slovak koruna entered the ERM II (Europe Exchange Rate Mechanism) where it stayed for two years. In this period the policy of the NBS was explicit inflation targeting and the fulfilment of the Maastricht criteria. The NBS was under pressure from the ECB and other European/international institutions. The Slovak currency was revaluated two times (2007 and 2008) as the economic fundamentals allowed for this and which was approved by ECB. Finally, on the first January 2009 the euro was introduced in Slovakia and the dual circulation of the two currencies finished on 16 January 2009.

Based on this information, the period of December 2001 – December 2008 was chosen accommodating 85 months for the rigorous analysis. Following Geršl (2006) the period with the exchange rate peg (1994-1998) was excluded due to limitations in the monetary policy instruments available, non-fully functional banking sector and non-reformist government (prime minister – controversial Vladimír Mečiar). The period 1998-2001 is excluded partly due to the unavailability of the articles in the archive of Hospodárske noviny and partly due to the fact the new government just started reforming the functionality of the banking and financial sector.

In line with Maier (2002), we have counted articles either directly published by members of five different interest groups or where members of these interest groups were quoted. The following five pressure groups were identified:

- government, which includes all ministers of the current government, but also other members of the political parties forming the government (most of them members of parliament, but some of them also outside the parliament),
- financial sector, including representatives and analysts of all domestic banks and other financial institutions (insurance corporations, pension and investment funds etc.),
- employers, i.e. representatives (managers) of non-financial corporations20,
- trade unions, and
- other, including all other articles demanding change in monetary policy by other than members of the four above mentioned groups. (i.e. from the general public, journalists, political parties in opposition, international institutions, members of academia, independent researchers etc.). In the case of the NBS a lot of pressure articles originated from the European/international financial institutions21 as the Slovak Republic was preparing to enter the EMU.

All the articles that dealt with the National Bank of Slovakia were carefully reviewed and assessed. Following Maier (2002), Geršl (2006), and in contrast to Havrilesky (1993), the articles demanding monetary ease were assigned the value of -1, while the articles demanding monetary tightness were assigned the value of +1. This was done in order to facilitate the interpretation of the regression results later on. For measuring the “net” pressure, the sum of all pluses and minuses for all five interest groups and for the total were constructed at a monthly frequency, so that a negative sum indicates interest group’s net pressure for monetary ease, while a positive sum the net pressure for monetary restrictiveness.

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20 ZPS (Združenie podnikateľov Slovenska), SOPK (Slovenská obchodná a priemyselná komora), klub 500.
21 ECB, IMF, OECD.
Following Geršl (2006), the ratio of the sum to the total number of observations for every group and for total pressure was calculated. In comparison to the sum, the ratio has some advantageous features. First, because it relates to the net pressure as measured by the sum to the total number of pressure signals, it shows the degree of internal integrity of the group. Hereby, it is shown whether the pressure from members of a certain interest group is going in one direction (both over time and across different members of the same group), or whether it is rather heterogeneous. Thus, for a given level of the net pressure as measured by the sum, the higher the ratio (in absolute terms), the higher homogeneity of the pressure group (both over time and over different members of the group) and the more are signals from this group going in one direction. Second, in comparison to the sum, it is independent of the time period over which the ratio is calculated. As a result, it is possible to compare the pressure as measured by the ratio across countries, even if the time coverage is different.

As well as the Czech economy, the Slovak economy is a small and open one in contrast to the U.S. or Germany. Following Geršl (2006) we have to consider the impact exchange rate changes have on the small economy. Many export oriented companies may find themselves threatened by the strong Slovak koruna, reducing their profits. The managers of these non-financial companies or their political representatives may then demand an exchange rate intervention aimed at weakening the Slovak koruna (the desire for an exchange rate intervention aimed at weakening Slovak koruna was assigned value -1 as it is comparable to a desire for monetary ease). Sometimes a commercial bank may desire an exchange rate intervention aimed at strengthening the Slovak koruna. The first motive to do so would be if a commercial bank felt the real economy did not match the strength of the exchange rate. It is known the commercial banks also desire price stability. The second motive would be the high interest rate spread between the Western Europe and Slovakia. Thus, if the Slovak koruna depreciates the profits of the foreign investors are reduced, which is followed by the outflow of capital from the Slovak banks (a demand for an exchange rate intervention aimed at strengthening Slovak koruna was assigned value +1 as it is comparable to a desire for monetary tightness)22.

It must be noted the pressure index is unable to capture all the pressure exercised on the National Bank of Slovakia. There were some political attempts of the one of the opposition parties to eliminate the former governor of the NBS. Furthermore there were some institutional reforms of the banking sector which altered the powers and functioning of the NBS. And finally, a certain unique aspect of the the Slovak economy should be discussed.

The decision to enter the EU followed by entering the EMU is an economic-political consensus. From one perspective, this fact reduces pressure between the government and the NBS. Thus it is not always clear what is the independent central bank policy because the decision to enter the EMU is not of a purely economic nature. From the other perspective, one may not view the articles written by the European institutions consulting the Slovak economic affairs as the pressure signals. However, this would be a huge mistake. The official policy of the NBS was to enter the EMU and to fulfil the Maastricht criteria while sustaining stability of the Slovak economy. The European institutions often force countries to concentrate exclusively on the Maastricht criteria overlooking the economic situation of the particular country23. The pressure signals were extracted excluding some of these unclear quasi-pressure indications and including the relevant Slovak case-related pressure signals.

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22 These pressure articles constitute a small part of the overall pressure (call for interventions mainly by the financial sector or by the other sources) - amounting to 8 articles demanding intervention aimed at either strengthening or weakening Slovak koruna.

23 Due to lack of understanding of the local economy, over-emphasizing the needs of the EU, bureaucracy.
4. Political Pressure on the NBS from the government

In this chapter we will present the collected data. We will compare the countries where the pressure indicator was constructed so far. The key focus remains on the National Bank of Slovakia. The pressure shall be then explained by the economic fundamentals, political situation and institutional framework of Slovakia during the period 2001-2008.

We shall start with comparing the pressure from the government which is the only group Havrilesky considered. According to the theory of Political Business Cycle and common sense the incumbent government has many motivations to influence the central bank and has many direct or indirect tools at its disposal to accomplish this. So this may be the reason Havrilesky examined this sole group.

Table 1 shows several interesting aspects about the four countries.

**Table 1: Political pressure on central banks from government**

<table>
<thead>
<tr>
<th></th>
<th>NBS</th>
<th>CNB</th>
<th>FED</th>
<th>Bundesbank</th>
</tr>
</thead>
<tbody>
<tr>
<td># signals</td>
<td>6</td>
<td>41</td>
<td>287</td>
<td>85</td>
</tr>
<tr>
<td>(out of all pressure signals)</td>
<td>7.3%</td>
<td>22.8%</td>
<td>n/a</td>
<td>16.1%</td>
</tr>
<tr>
<td>(number of months)</td>
<td>85</td>
<td>94</td>
<td>480</td>
<td>468</td>
</tr>
<tr>
<td># signals per year</td>
<td>0.8</td>
<td>5.2</td>
<td>7.2</td>
<td>2.2</td>
</tr>
<tr>
<td># signals for monetary ease</td>
<td>6</td>
<td>41</td>
<td>192</td>
<td>78</td>
</tr>
<tr>
<td># signals for monetary tightness</td>
<td>0</td>
<td>0</td>
<td>95</td>
<td>7</td>
</tr>
<tr>
<td>net pressure (sum)</td>
<td>-6</td>
<td>-41</td>
<td>-97</td>
<td>-71</td>
</tr>
<tr>
<td>ratio (sum/# signals)</td>
<td>-100%</td>
<td>-100%</td>
<td>-33.8%</td>
<td>-83.5%</td>
</tr>
</tbody>
</table>

Source: authors’ calculations based on archiv.hnoline.sk, Geršl (2006), Havrilesky (1993), Maier (2002)

First, there are differences concerning the intensity of the pressure signals. We can clearly see there is a huge difference between the signalling from government in the European countries and in the USA. The USA is considered to be the world’s leading market economy where the institutions and market liberalisation are at the top level. This together with different political culture/traditions could freely contribute to the high amount of pressure signals on the Fed from government. Politicians in the European countries tend to be rather more respectable of central bank and more reserved about its declarations or simply newspaper articles may report less on monetary issues. There are 287 pressure signals for the FED comparing to 85 pressure signals for the Bundesbank (despite the fact Maier in his study has reviewed 3 newspaper magazines). The Bundesbank is thought to be the most independent central bank in the world and the data imply it enjoys high respect from the government.

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24 The comparison between the Fed, the Bundesbank, the CNB and justification of government’s pressure was provided in Havrilesky (1993), Maier (2002) and Geršl (2005), respectively. This paper will concentrate on how the Slovak case fits into this formula.
From another point of view one can differentiate between the industrialized countries (Germany) and the transition/developing countries (Slovakia and the Czech Republic). As Farrag and Kamaly (2007) suggests, legal charter does not reflect the degree of independence of central bank in developing countries. The legal charter is often ambiguous leaving a lot of room for subjective interpretation and the actual practice often deviates from the law. This implies there is some room for central bank dependency on government because the law is not specific enough and what is more, the real behaviour is often driven by less formal rules (in the case of transition countries – the remnants of left-wing centralistic behaviour). Therefore there could be no need for such a strong signalling from government in newspapers if the poor institutional framework and bad practice gives politicians room for pressure signalling.

As we can see the number of pressure signals for the CNB is 41, which is considerably higher than the modest 6 signals in the case of the NBS. The case of Slovakia may here support the notion proposed by Farrag and Kamaly, but the Czech Republic is somewhere halfway between Germany and Slovakia. The Czech Republic is thought to be a step ahead of Slovakia in the institutional-market-economic transition.

There are several other explanations why there is so small number of pressure signals from the Slovak government on the NBS. In his paper Mas (1994) argues “in countries with shallow financial systems, monetary policy is the reverse side of the coin of fiscal policy and can only play an accomodative role.” So we can easily deduce incumbent government does not need to push so hard for changes in monetary policy (interest rate tightness/easiness) when it does have this powerful tool at its disposal. Beblavy (2003) in his study observes interesting results. He presented a questionnaire to the central banks officials in the Czech Republic, Poland, Hungary and Slovakia concerning political and economic independence of central bank. He finds out officials of the NBS are much less concerned about some aspects of political independence from the government than officials of the CNB. Their lack of concerns suggests the connections to the incumbent government may be very real, the perception of central bank independence very vague. If the politicians can influence monetary policy in this manner they have no need to exert pressure through newspaper articles.

The government in Slovakia respects opinions and independence of the NBS (at least in the newspaper). This idea could be reinforced by the fact the government in the given period was pro-reformist and right-winged. There was a strong economic fundament in its personnel and thus its actions. An intuitive explanation could be delivered following Schultz (1995). The incentives for government to manipulate economic policy may have been weak. This could be very well due to the fact the risk of ruining reputation were quite high. What is more there are few voters who have rational expectations and few voters with adaptive expectations. The majority of the voters in Slovakia are more persuaded by media presentation of politicians than the economic policies.

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26 Although current development suggests Slovakia has made huge progress (i.e. joining the EMU).
29 On scale 1 to 10 (1 being least important, 10 being most important); to Criterion 1: CB governor not appointed directly by government (CNB – 10, NBS – 3), to Criterion 2: CB governor appointed for more than 5 years (CNB – 10, NBS – 5), to Criterion 3: Rest of the board not appointed directly by government (CNB – 10, NBS – 3), to Criterion 4: No govt. representative on the board (CNB – 8, NBS – 0), to Criterion 6: Requirement in the CB law that CB pursue monetary stability (CNB – 10, NBS – 6).
30 Consider former Vice-Prime Minister for Economics and former Minister of Finance Ivan Mikloš.
The pressure from the politicians on the central bank could have ambiguous impacts. Given the respect of the central bank, distrust in politicians by the people and bad image of politicians presented by media the potential pressure on the NBS could have had a disastrous impact on government’s preferences in the following elections. Thus the theoretic conclusion is that political pressure on the government may not always result in higher preferences.

Second, the pressure from the governments on the central banks in all four countries was on average towards monetary ease. Both Slovak and Czech governments were asking exclusively for monetary ease. The pressure of the German Government was prevailingly for monetary ease while the U.S. Government asked more for monetary contraction comparing to the rest of the countries. The reason for this nature of pressure could be explained by the economic development in these countries. Slovakia and the Czech Republic (former Czechoslovakia) shared common traits concerning economic fundamentals. The GDP growth was weak, inflation was rather declining and the interest rate relatively high. As transition economies these two countries had a room to expand their overall growth. So the pressure for monetary ease seemed to be natural. Similarly, the inflation in Germany was on average rather low, so the German Government wanted to exploit effects of the Phillips curve to pursue growth in the economy. Different situation arose in the USA, where the inflation of the 1970s and 1980s was quite a threat, so the fight against the inflation was the primary goal of incumbent government.

Third, the government of the U.S. was the least homogenous from all the studied countries. Whereas, the Slovak and the Czech governments were perfectly homogenous pertaining the pressure signalling. The question is whether in the U.S. case there was a heterogeneity across the different members of the government or a heterogeneity across the time. Chart 1 could shed light into this problem.

**Chart 1: The “net” political pressure on the Fed from the government**

(“sum” of pressure signals; minus refers to demand for monetary ease)

*Source: authors’ calculations based on Havrilesky (1993)*

As we can see from the Chart 1 the pressure is concentrated in clusters and peaks. Small homogeneity needs not to be the only explanation for the high peaks in the U.S. It is possible there is a higher flexibility of the American free market which has been established for a considerable longer time than in Slovakia. This flexibility includes the usage and
functioning of media, concretly speaking the newspapers. Another possibility for such a fluctuos behaviour of the pressure from the government on the Fed is the sensitive reactivity of the U.S. Government to the actual economic developments\textsuperscript{31} and decision-making of the Fed. The U.S. Government then reacted proportionally to its political goals. Such a flexibility is something that is very scarce in Slovakia. For comparison let us present the pressure exerted from the German Government on the Bundesbank in time.

**Chart 2: The “net” political pressure on Bundesbank from government**

(“sum” of pressure signals; minus refers to demand for monetary ease)

\textit{Source: Maier (2002), www.phillipp-maier.de}

Chart 2 confirms graphically the pressure is mainly towards monetary ease and the peaks are less extreme compared to the signalling towards the Fed on Chart 2. There are also more gaps between individual peaks of pressure indicating the underlying economic development in Germany was less fluctuos and more stable or it could just mean, as asserted before, higher respect for the decision making of the Bundesbank than in the case of the Fed.

\textsuperscript{31} As mentioned before the period of high inflation in the USA in the 1970s and 1980s.
Chart 3: The “net” political pressure on CNB from government
(“sum” of pressure signals; minus refers to demand for monetary ease)

Source: Geršl (2006)

Following on Chart 3, there is the graphical interpretation of the pressure signalling from the government on the Czech National Bank. As Table 1 proposes and Chart 3 clearly shows there is a relatively high concentration of signalling in such a small country like the Czech Republic. We could see there has been a lot of conflict between the CNB and the Czech Government. And finally the Chart 4 illustrates the pressure signalling in the case of the NBS.

Chart 4: The “net” political pressure on the NBS from government
(“sum” of pressure signals; minus refers to demand for monetary ease)

Source: authors’ calculations based on archiv.hnonline.sk
The graphics confirm there was very little pressure exerted on the National Bank of Slovakia. The pressure peaks are also the smallest from all the countries and we can deduce there was little conflict between the Slovak Government and the NBS. We could speculate the Slovak Government does not signal much and respects the policy-making of the NBS, and uses this way of pressure signalling as the option of the last resort. Therefore either the pressure peaks might have occurred when the economic situation of the country was very serious from the point of view of the Slovak Government or the Slovak Government exerted pressure prior to the end of electoral cycle in line with the PBC hypothesis. This notion will be further formally examined in the following chapters.

Fourth, the pressure signalling from the government on central banks in Slovakia, the Czech Republic and Germany constitutes a relatively small amount of the total pressure executed on respective central banks. This clearly heightens the attractiveness of Maier’s extension to the original Havrilesky methodology. Note also, the pressure signalling from the government on the NBS constitutes the tinnest part comparing to that of the CNB or the Bundesbank. As will be seen in the following chapter, the main signalling pressure group in Slovakia was financial sector.

5. Total political pressure on the NBS and its decomposition

Table 2 gives us a closer look at the comparison of the decomposed index between three countries it is possible to do so (Slovakia, Czech Republic, Germany). All sectors which have exerted pressure on the central banks will be analysed with a graphical interpretation in time. There are several interesting aspects to be seen about the pressure pattern differences between the NBS, the CNB and the Bundesbank.

First, the frequency of the pressure signals in total was lowest in Slovakia (only 11.6 compared to 23 in the Czech Republic and 13.5 in Germany). However, the frequency of total pressure signalling towards the NBS is comparable to that of the Bundesbank. This fact is clearly visible in the Chart 5. This could be very well due to the relative respect of the National Bank of Slovakia (the Government led by reformist Prime Minister Mikuláš Dzurinda from 1998-2006) and a very short time of existence of the NBS’s independent monetary policy.32

Second, in line with the pressure towards the Bundesbank and the CNB the pressure towards the NBS was also rather towards monetary ease, overally. However, in Slovakia the pressure for monetary restriction and ease were the most even (only 19.5% net pressure signals of total pressure signals were towards monetary ease in Slovakia, whereas 64.3% in Germany and 92.2% in the Czech Republic). So the biggest contrast could be seen between very similar countries (which constituted the former Czechoslovakia). The prevalent pressure for monetary ease was caused by relative short time span and low inflation in the Czech Republic. In the Slovak case, the government had problems in controlling its fiscal deficit so we could see positive values on the Chart 5 during 2005 -2007 indicating demand for monetary tightness. The rest of the total pressure is mainly for monetary ease caused by low inflation and good preparation of the Slovakia to enter the EMU.

Third, the financial sector is the pillar signaller in Slovakia (the signals from the financial sector constitute 75.6% of total signalling). The frequency of signalling was the highest in Slovakia and even the absolute amount of the signals from the financial sector was higher in Slovakia than in the Czech Republic (although the number of the total pressure signals in Slovakia is the lowest one). This high proportion of signaling from the financial sector may be

32 The National Bank of Slovakia came to existence in 1993 descending from the former Czecho-Slovak National Bank which was heavily influenced by the former communist regime.
caused by the fact the corporate financial personnel are besides the central bank personnel an exclusive group (besides the central bank personnel) with knowledge of the monetary issues. This idea seems to be very natural when considering a recently transformed country like Slovakia. There are few sectors of population which fully assimilated the newly formed market mechanisms in such a short period of time (year 1989 – breakdown of the Soviet Union).

Table 2: Political pressure on central banks

<table>
<thead>
<tr>
<th></th>
<th>NBS</th>
<th>CNB</th>
<th>Bundesbank</th>
</tr>
</thead>
<tbody>
<tr>
<td>(number of months)</td>
<td>85</td>
<td>94</td>
<td>468</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># signals</td>
<td>82</td>
<td>180</td>
<td>527</td>
</tr>
<tr>
<td>(out of all pressure signals)</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td># signals per year</td>
<td>11.6</td>
<td>23</td>
<td>13.5</td>
</tr>
<tr>
<td>net pressure (sum, minus=ease)</td>
<td>-16</td>
<td>-166</td>
<td>-339</td>
</tr>
<tr>
<td>ratio (sum/# signals)</td>
<td>-19.5%</td>
<td>-92.2%</td>
<td>-64.3%</td>
</tr>
<tr>
<td>government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># signals</td>
<td>6</td>
<td>41</td>
<td>85</td>
</tr>
<tr>
<td>(out of all pressure signals)</td>
<td>7.3%</td>
<td>22.8%</td>
<td>16.1%</td>
</tr>
<tr>
<td># signals per year</td>
<td>0.8</td>
<td>5.2</td>
<td>2.2</td>
</tr>
<tr>
<td>net pressure (sum, minus=ease)</td>
<td>-6</td>
<td>-41</td>
<td>-71</td>
</tr>
<tr>
<td>ratio (sum/# signals)</td>
<td>-100%</td>
<td>-100%</td>
<td>-83.5%</td>
</tr>
<tr>
<td>financial sector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># signals</td>
<td>62</td>
<td>40</td>
<td>140</td>
</tr>
<tr>
<td>(out of all pressure signals)</td>
<td>75.6%</td>
<td>22.2%</td>
<td>26.6%</td>
</tr>
<tr>
<td># signals per year</td>
<td>8.8</td>
<td>5.1</td>
<td>3.6</td>
</tr>
<tr>
<td>net pressure (sum, minus=ease)</td>
<td>-8</td>
<td>-28</td>
<td>-78</td>
</tr>
<tr>
<td>ratio (sum/# signals)</td>
<td>-12.9%</td>
<td>-70%</td>
<td>-55.7%</td>
</tr>
<tr>
<td>employers</td>
<td></td>
<td></td>
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</tr>
<tr>
<td># signals</td>
<td>1</td>
<td>36</td>
<td>55</td>
</tr>
<tr>
<td>(out of all pressure signals)</td>
<td>1.2%</td>
<td>20%</td>
<td>10.4%</td>
</tr>
<tr>
<td># signals per year</td>
<td>0.1</td>
<td>4.6</td>
<td>1.4</td>
</tr>
<tr>
<td>net pressure (sum, minus=ease)</td>
<td>-1</td>
<td>-36</td>
<td>-29</td>
</tr>
<tr>
<td>ratio (sum/# signals)</td>
<td>-100%</td>
<td>-100%</td>
<td>-52.7%</td>
</tr>
<tr>
<td>trade unions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># signals</td>
<td>0</td>
<td>6</td>
<td>69</td>
</tr>
<tr>
<td>(out of all pressure signals)</td>
<td>0%</td>
<td>3.3%</td>
<td>13.1%</td>
</tr>
<tr>
<td># signals per year</td>
<td>0</td>
<td>0.8</td>
<td>1.8</td>
</tr>
<tr>
<td>net pressure (sum, minus=ease)</td>
<td>0</td>
<td>-6</td>
<td>-60</td>
</tr>
<tr>
<td>ratio (sum/# signals)</td>
<td>n/a</td>
<td>-100%</td>
<td>-100%</td>
</tr>
<tr>
<td>other sources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># signals</td>
<td>13</td>
<td>57</td>
<td>178</td>
</tr>
<tr>
<td>(out of all pressure signals)</td>
<td>15.9%</td>
<td>31.7%</td>
<td>33.8%</td>
</tr>
<tr>
<td># signals per year</td>
<td>1.8</td>
<td>7.3</td>
<td>4.6</td>
</tr>
<tr>
<td>net pressure (sum, minus=ease)</td>
<td>-1</td>
<td>-55</td>
<td>-92</td>
</tr>
<tr>
<td>ratio (sum/# signals)</td>
<td>7.7%</td>
<td>-96.5%</td>
<td>-51.7%</td>
</tr>
</tbody>
</table>

Source: authors’ calculations based on archiv.hnonline.sk, Geršl (2006), Maier (2002)
Fourth, the pressure from financial sector in all three countries was rather for monetary ease. Chart 6 provides us with a graphical interpretation. What should be noted is that although the frequency of the signals from the financial sector in Slovakia was the highest, the net pressure for the monetary ease is here the lowest in Slovakia (only – 8, whereas – 28 in the Czech Republic and – 78 in Germany). The majority of the signals have cancelled out.

Chart 6: The total “net” political pressure on the NBS, the CNB and the Bundesbank from financial sector

(“sum” of pressure signals; minus refers to demand for monetary ease)

Source: authors’ calculations based on archiv.hnonline.sk, Geršl (2006), Maier (2002)

Let us have a closer look at the background of signalling of the financial sector in Slovakia as the most important and influential signalling pressure group. According to the theoretical literature, the financial sector functions as the counterpart to the pressure attempts of an incumbent government. When comparing Chart 4 and Chart 6 we see this is true only in 2007 (the pressure signals went in opposing directions) otherwise this notion is violated. The underlying economic development of Slovakia will serve us as explanation for this phenomenon. It is important to note the economic fundamentals of the country are of a very
high concern to the financial sector. The financial sector as well as the NBS seek financial stability because any extreme measures (high increases of interest rates, poor growth and performance of the economy, etc.) endanger the credibility of its debtors, endanger functioning of market mechanisms, interbank market and thus also their own image in the eyes of their creditors. It is in the interest of the financial sector to optimize economic situation of the country (stability means safety, changes and extremes mean riskiness).

Firstly, let us consider the period 2001-2005. Financial sector was well aware of the development of GDP growth and its pressure was intended to adjust the economic situation exploiting the best economic growth. Chart 7 represents the development of GDP growth. From 2001-2005 the pressure from financial sector on the NBS is for monetary ease with the exception of the beginning of year 2002 (it will be described in the next point). Throughout this period the GDP growth had rising tendencies which enabled for the healthy growth of the economy. Financial sector observed the situation in a similar manner and pushed for monetary ease so that new investments could have been made.

**Chart 7: Development of the GDP growth**

(in %, GDP growth y-o-y, quarterly data\(^{33}\))

![Chart 7: Development of the GDP growth](source: NBS)

Secondly, the beginning of 2002 is exceptional in some respects. From the Chart 6 we could observe there was a pressure on the NBS from financial sector towards monetary contraction. There was a substantial increase in the world price of oil which was reflected in the huge jump in the rate of inflation at the end of 2002. Chart 8 plastically illustrates this situation. So in order to stabilize economic development financial sector has pushed for lowering of the interest rate.

Thirdly, it is noteworthy to have a closer look at the period from 2005 to 2007. There is an improvement of GDP growth in Slovakia followed by a little decline (consult Chart 7). The sudden increase was a result of fine performance of the Slovak economy which was caused by the increase of foreign investments and foreign consumption in the country. The better performance and productivity were also fueled by economic reforms. The little setback that followed was accompanied by the rise of inflation which could be seen on the Chart 8. So the financial sector exerted pressure towards monetary contraction (Chart 6) in an attempt to signal to the National Bank of Slovakia to stabilize the situation.

\(^{33}\) Counted cumulatively, the change of growth in a period with respect to the corresponding period year before.
Final period to consider is 2007-2008. There was an outstanding performance of the Slovak economy in 2007 (Chart 7) where the foreign and domestic consumption fueled the GDP growth. After, there was a decline in the GDP growth caused by the starting consequences of the world credit crisis. The inflation was slightly rising but still remaining at reasonable levels (Chart 8). Keeping this in mind the financial sector in Slovakia demanded strongly for monetary ease in 2007 when the GDP growth was the highest in order to exploit the situation to its fullest. After that financial sector pushed for monetary ease as in an attempt to signal the NBS that by loosening the monetary conditions the economy could recover from the ongoing world financial crisis. Though the signalling for monetary ease was a little bit more sensitive than before.

There is an interesting relationship between the official interest rate of the NBS and the pressure from the financial sector during the period 2001 – 2008. As already asserted the financial sector consists of the experts with the greatest knowledge of the economic background of the country. The financial sector represents a sort of controlling organism for the economic stability which is the primary concern of a central bank. As already known it is in their best interest. When looking at the Chart 9 several interesting facts could be observed. The development of the interest of the NBS rate roughly reacts to the pressure signalling of the financial sector. The National Bank of Slovakia had the same view of the economic development or actually reacted to the financial sector signalling with a certain lag. From the Chart 9, a demand for monetary restriction triggered a rise in the interest rate and vice versa. The financial sector pressure chart appears to be an indicator of the slope (direction of the slope and roughly the magnitude) of the development of the interest rate of the NBS with some time lag.

Fifth, the situation concerning the pressure exercised by employers is very different in Slovakia from Germany and the Czech Republic. There was just one signal demanding monetary ease in Slovakia (as opposed to 36 in the Czech Republic and 55 in Germany). The direction of the pressure is as mentioned towards monetary ease which is in line with the „net“ pressure in Germany and the Czech Republic. Chart 10 illustrates the comparison of the pressure for the three countries.
There are several reasons for such a small number of pressure signals in Slovakia. One of the primary goals of the NBS is the exchange rate stability and the NBS was especially sensitive to this issue. This was true even when the European and international institutions recommended inverse movements of the key interest rates. The NBS was fully aware the exchange rate was important as the Slovak economy (small open economy) was heavily dependent on export. Although the overall growth (Chart 7) of the economy was enabling for a stronger currency and more rapid decline in the exchange rate the the NBS managed to keep the Slovak koruna weak proportionally to the healthy progress of the economy, enabling for a more sensitive decline (Chart 11). This optimization of the exchange rate and maintenance of favorable position for the exporters (majority of the employers) was reached through careful interventions on the foreign exchange and keeping of the key interest rate at relatively low levels with a declining tendency (Chart 9). Consequently, having such a care the employers had little need for exerting any serious pressure signalling on the National Bank of Slovakia.

The employers seem to look up to the decision making of the central bank and majority of their signalling was supporting the actual central bank’s policy (as will be seen in the next chapter).

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34 Monthly averages.
35 During the chairmanship of the both governors: Marián Jusko (1999 - 2004) and Ivan Šramko (2005 -).
36 From 2006 – 2008 the exchange rate decline was more rapid which to fulfilling of the Maastricht criteria, strong economy growth and consensus of the NBS and the government to reach as strongest currency as possible before the introduction of euro (the central exchange rate parity was lowered for the second time in 30.5.2008 to a lower level of 30,126 which became the conversion rate).
Sixth, the pressure from the trade unions was even more rare than that of employers. There was no pressure signal detected from the trade unions in Slovakia. Let us look at Chart 12 for a graphic interpretation. In Germany and the Czech Republic the signaling was quite modest and towards monetary ease. The fact there was no political pressure exercised by the trade unions in Slovakia is even more intriguing considering that nearly throughout the whole studied period the reformist right-winged goverment was holding power (1998-2006). One possible explanation could be offered by the development of unemployement in Slovakia. Consider Chart 13.
Chart 12: The total “net” political pressure on the NBS, the CNB and the Bundesbank from trade unions

(“sum” of pressure signals; minus refers to demand for monetary ease)

Source: authors’ calculations based on archiv.hnonline.sk, Geršl (2006), Maier (2002)

The declining unemployment with some minor fluctuations throughout the whole studied period was a result of increasing foreign investments in Slovakia. The trade unions could have been satisfied with this situation without a need to put pressure on the NBS. Alternatively, it is possible the trade unions concentrated on different issues concerning public spending, government’s employment policy, the new labour code. The trade unions were not involved in a conflict with the NBS as more urgent matters required their attention. The articles reviewed showed the trade unions conflicts were mainly with the government (e.g. often criticizing the public spending of the government).

Chart 13: Development of the unemployment

(in %, unemployment y-o-y monthly data)

Source: NBS

And seven, the pressure exercised by other groups (journalists, members of academia, politicians from the opposition, international institutions representatives, and the general public) is shown in the Chart 14. The pressure was very sporadic in Slovakia (just 9 pressure
signals comparing to 57 signals in the Czech Republic and 178 signals in Germany). This sector was very active in the Czech Republic (7.3 signals per year, opposing to 1.3 signals per year in Slovakia) – another huge difference between the states of the former Czechoslovakia. It could be seen this pressure group was very heterogenous in Slovakia (the signals nearly cancelled out – ratio 11.1%). It seems to be a natural fact as this group consists of very different individuals and sub-groups. The most active sub-group exercising the pressure on the NBS were IMF (International Monetary Fund) and other European/international institutions (ECB, OECD). This is natural because Slovakia was during the studied period on the verge to enter the EMU. The other sources group was very homogenous in the Czech Republic which hints on harmonic consistency and perception of the policy of the CNB by these rather independent groups. For Germany the group was 51.7% consistent.

**Chart 14: The total “net” political pressure on the NBS, the CNB and the Bundesbank from other sources**

(“sum” of pressure signals; minus refers to demand for monetary ease)

![Chart](image)

Source: authors’ calculations based on archiv.hnonline.sk, Geršl (2006), Maier (2002)

6 The construction and the role of the support variable

In this section we are going to closely examine the support for the monetary policy. Following Maier (2002) and Geršl (2006) the articles expressing support for the actual monetary policy were reviewed and assigned value of +1. The support examined is considered regardless the actual monetary policy stance of the central bank. As the theoretical literature suggests the role of the support is important when considering political pressure on the central bank. It could eliminate pressure from the other interest groups and enable central bank to concentrate on the important decisions about the economic fundamentals. Table 3 presents data for National Bank of Slovakia, Czech National Bank and the Bundesbank. We could observe several interesting differences among these three central banks.

As well as the number of the total pressure signals to the NBS the number of total support signals to the NBS is the smallest from the three countries. There were detected 27 articles supporting the NBS (compared to 90 in the Czech Republic and 311 in Germany). Naturally, the frequency of signaling per year is the smallest one for the NBS, too. The NBS received very few signals from the government (which is in line with the low number of pressure signals) and from the trade unions (literally no signals). The Czech Republic also received no support from the trade unions. This situation in both countries could be explained by the
arguments in the previous section. The financial sector in Slovakia supported the NBS very little, comparing to relative huge support in the Czech Republic or Germany (only 0.6 signals per year for Slovakia, whereas 4.6 in the Czech Republic and 2.8 in Germany). This is in line with the theoretical literature because the financial sector is the most active exercising pressure in Slovakia. The most active supporters in Slovakia were employers and other sources groups. The employers put forward 1.1 signals per year in Slovakia which is comparable to 1.5 signals per year in Germany (only 0.5 signals per year in the Czech Republic). It shows the employers in Slovakia and Germany respect the policy of central banks and support them regularly. In addition this high frequency of supporting from employers in Slovakia is compensated by very low number of pressure signals which is consistent with the theoretical literature.

Table 3: Political support for central banks

<table>
<thead>
<tr>
<th></th>
<th>NBS</th>
<th>CNB</th>
<th>Bundesbank</th>
</tr>
</thead>
<tbody>
<tr>
<td>(number of months)</td>
<td>85</td>
<td>94</td>
<td>468</td>
</tr>
<tr>
<td># support signals</td>
<td>27</td>
<td>90</td>
<td>311</td>
</tr>
<tr>
<td>(out of all support signals)</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td># support signals per year</td>
<td>3.8</td>
<td>11.5</td>
<td>8</td>
</tr>
<tr>
<td>ratio (# support/# pressure)</td>
<td>32.9%</td>
<td>50%</td>
<td>59%</td>
</tr>
<tr>
<td>government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># support signals</td>
<td>2</td>
<td>8</td>
<td>90</td>
</tr>
<tr>
<td>(out of all support signals)</td>
<td>7.4%</td>
<td>8.9%</td>
<td>28.9%</td>
</tr>
<tr>
<td># support signals per year</td>
<td>0.3</td>
<td>1</td>
<td>2.3</td>
</tr>
<tr>
<td>ratio (# support/# pressure)</td>
<td>33.3%</td>
<td>19.5%</td>
<td>105.9%</td>
</tr>
<tr>
<td>financial sector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># support signals</td>
<td>4</td>
<td>36</td>
<td>111</td>
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<tr>
<td>(out of all support signals)</td>
<td>14.8%</td>
<td>40%</td>
<td>35.7%</td>
</tr>
<tr>
<td># support signals per year</td>
<td>0.6</td>
<td>4.6</td>
<td>2.8</td>
</tr>
<tr>
<td>ratio (# support/# pressure)</td>
<td>6.5%</td>
<td>90%</td>
<td>79.3%</td>
</tr>
<tr>
<td>employers</td>
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<td></td>
<td></td>
</tr>
<tr>
<td># support signals</td>
<td>8</td>
<td>4</td>
<td>59</td>
</tr>
<tr>
<td>(out of all support signals)</td>
<td>29.6%</td>
<td>4.4%</td>
<td>19%</td>
</tr>
<tr>
<td># support signals per year</td>
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<td>0.5</td>
<td>1.5</td>
</tr>
<tr>
<td>ratio (# support/# pressure)</td>
<td>800%</td>
<td>11.1%</td>
<td>107.3%</td>
</tr>
<tr>
<td>trade unions</td>
<td></td>
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<td></td>
</tr>
<tr>
<td># support signals</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>(out of all support signals)</td>
<td>0%</td>
<td>0%</td>
<td>1.9%</td>
</tr>
<tr>
<td># support signals per year</td>
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<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>ratio (# support/# pressure)</td>
<td>n/a</td>
<td>0%</td>
<td>8.7%</td>
</tr>
<tr>
<td>other sources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># support signals</td>
<td>13</td>
<td>42</td>
<td>45</td>
</tr>
<tr>
<td>(out of all support signals)</td>
<td>48.1%</td>
<td>46.7%</td>
<td>14.5%</td>
</tr>
<tr>
<td># support signals per year</td>
<td>1.8</td>
<td>5.4</td>
<td>1.2</td>
</tr>
<tr>
<td>ratio (# support/# pressure)</td>
<td>100%</td>
<td>73.7%</td>
<td>25.3%</td>
</tr>
</tbody>
</table>

Source: authors’ calculations based on archiv.hnonline.sk, Geršl (2006), Maier (2002)

37 Transforming economies, relative infancy of the central banks, relative respect, etc.
The most interesting variable it is worth to look at is the ratio of support signals to pressure signals. This variable shows the homogeneity within the group. As described by Geršl (2006) a very low ratio would indicate the group is putting pressure mainly on monetary policy, 100% ratio would indicate there is an intensive debate within the group because the there is the same amount of signals supporting monetary policy and putting pressure on it, and finally, a very high ratio over 100% would indicate the group is supporting the actual monetary policy.

Totally, this ratio is 50-60% for the Czech Republic and Germany. It means there was some debate within all political groups but they were putting pressure more than supporting the central bank. In Slovakia there was even more pressure exercised from this point of view, as the ratio amounted to 36.5%. The government was homogenous in the case of the CNB (19.5%), slightly less homogenous in the case of the NBS (33.3%) which is still in accordance with the theoretical literature. Empirics from these two former Communist countries does support the notion of „everlasting“ conflict of interest between the government and the central bank. A divergence from this rule could be seen in the case of the Bundesbank where the support-pressure ratio amounted 105.9%. The German Government was rather supporting the Bundesbank which could be explained by a very high respect of the German Government for the Bundesbank. Still there was a lot of debate.

Financial sector for the case of the NBS is fairly consistent (ratio of 6.9%) compared to the high ratios in the case of the Bundesbank or the CNB.

For the employers sector the three countries differ substantially and the ratio for each country represents one of the possible scenarios. Huge 800% in the case of the NBS tells us the support for the National Bank of Slovakia was immense. As previously mentioned the Slovak economy is heavily dependent on export and this is very well known to the NBS. Thus the politics of the NBS is very well synchronized with the public declarations of the employers sector. In the case of the CNB the ratio was 11.1% which indicates prevailing pressure over support. And for the Bundesbank the pressure relative to support ratio amounted to 107.3% which is the case of intense debate within the employers group.

For the trade unions there are virtually no signals so the ratios play no role. And finally, the ratio for the unspecified groups amounted to 144.4% in the case of the NBS which means there is more of a pressure on the central bank than support. From the three countries the ratio for the NBS was the highest.

It is important to note that the support-to-pressure ratio could be a little bit misleading because the government does not necessarily have to be in a conflict with the central bank at all times. There are times during the political business cycle when government pursues the same goals as the central bank. It is possible to explain why the government does not have to be in a conflict with the central bank at all times. In the middle of the political business cycle when the government is less worried about the elections pursuing the independent economically „healthy“ goals of the central bank should be a good alternative. What is more this participation on good economic polticly is easily advertised by the government to the broad public. This was shown in the case of Slovakia under the Mikuláš Dzurinda`s pro-reformist government and under current Fico`s government. The majority of economic decisions were in line with the NBS. To conclude this idea the support signals do not have to be in opposition to the pressure signals. The ratio of 100% does not have to mean there is an intense debate within the group. If the different members of the group signalled both pressure and support in one unit of time and the ratio would be calculated for each separate unit of time and aggregated then it would be perfectly correct. But the ratio is time dependent and actions done
months or years apart have different contexts. The government could well be sometimes agreeable of the central bank’s policy and sometimes not.

Chart 15 gives us a further illustration of the total political support for the three countries. Slovakia tends to differ for all studied political sectors from the other countries. As table 3 suggests the case of the NBS is different in every political sector from the other countries and the total number of support signals is more more modest. However, there could be found some patterns of similarity. It would be difficult to compare the support for the NBS with the support for the Bundesbank but quite reasonable to compare it with the support for the CNB. The peaks of support tends to be higher in both countries earlier on with decreasing tendency later on. The support for the NBS is thus considered to be significant comparable to the support for the CNB.

**Chart 15: The total political support for the Bundesbank, the CNB and the NBS**

(number of support signals)

Source: authors’ calculations based on archiv.hnonline.sk, Geršl (2006), Maier (2002)

7. Explaining the pressure

Maier (2002) and Geršl (2006) use the pressure data in estimating econometrically whether political pressure had an impact on setting the monetary policy rates by the respective central bank. As indicated earlier, the relatively low number of signals and the fact that most signals come from financial sector representatives (mainly analysts) prevent us from doing a comprehensive econometric exercise.

In this section, we thus only devote a couple of paragraphs to explain the overall pattern in the pressure.

First, an interesting finding as to the emergence of pressure is related to a strange pattern in the pressure in relation to the dates of parliamentary elections. In Geršl (2002), one can see visible spikes in pressure towards monetary easy in pre-election months, while for the NBS case this is not visible (Chart 16).

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38 There is some time lag caused by the later publishing of the article to the former real declarations.
39 Due to the higher number of reviewed newspapers for the case of the Bundesbank and more active political groups in the case of the CNB.
Second, there was a considerable amount of pressure towards monetary ease exerted in the period from the end of 2003 until the beginning of 2004. In 2003, many new reforms have been passed (including new income tax law, companies register law, etc.). The unemployment (Chart 13) has reached a new record level (15.6%) in 2003 but by the end of the year there was further considerable increase. Due to the institutional changes the economy had more room to grow freely with the GDP growth still considerably low (Chart 7). Aware of these facts and considering the threat of high unemployment\(^{40}\), the government together with the financial sector have signalled substantially towards a decrease in the key central bank interest rate.

Third, at the end of 2005 the total political pressure on the NBS was exerted just by the financial sector. As explained before the unemployment was reasonably low while a rise in inflation occurred so financial sector signalled for monetary contraction in an attempt for stabilization of the economy. The interest rate was shortly increased by the NBS.

Fourth, the last and biggest pressure peak (beginning of 2007) was also produced by the financial sector with some minor help of the other sources. The situation was briefly described in the previous chapter. Let us look at it more specifically.

"Real GDP grew by 10.4 per cent in 2007, helped by buoyant performances in the automotive and electronics sectors. The country almost doubled its car production in 2007 and is now the world’s largest car manufacturer in per capita terms. The fiscal deficit amounted to 2.2 per cent of GDP in 2007 (down from a peak of 12.2 per cent in 2000), thanks to a significant reduction in expenditure and despite the introduction of the second-pillar pensions (mandatory private pension schemes) that added just over 1

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\(^{40}\) Which is not profitable for the economy and which would trigger criticism from the European institutions monitoring readiness of Slovakia to join the EU and consequently the EMU.
As asserted before this fine economic performance motivated the financial sector for more monetary contraction to maximal boost of the economy. The reaction of the NBS was a slight decrease while holding the interest rate constant for a considerable period of time. The NBS perceived the interest rate to be sufficiently low and it was seriously preparing for the adoption of the Euro while sustaining the Maastricht criteria.

8. Conclusions

It is generally accepted that independence of central banks is a vital aspect of a healthy economy. However, central banks usually face political pressure from number of pressure groups including government, financial sector, employers, trade unions, general public and last but not least from various international institutions. In this paper we have researched existing literature on political business cycles to find out an appropriate approach to measure and explain the the political pressure on the National Bank of Slovakia, the central Bank of the Slovak Republic. We have employed the methodology firstly presented by Havrilesky (1993) for measuring the political pressure on the U.S. Federal Reserve and further extended by Maier (2002), who applied it on the Deutsche Bundesbank. In addition, this methodology was modified by Geršl (2006), who studied political pressure on the Czech National Bank. He extended the approach for the application on small open economies. The direction, intensity and time patterns of the pressure were examined, compared with the patterns of the pressure on the Fed, the Bundesbank and the CNB, and explained. Furthermore, the patterns and the role of public support for the monetary policy were discussed.

The National Bank of Slovakia faced pressure towards monetary ease in the periods 2002-2004 and 2006-2008, and pressure towards monetary tightness in the period 2004-2006. The pressure on the NBS was considerably lower comparing to the pressure on the Fed, The Bundesbank, slightly lower than the pressure on the CNB, and with monetary ease-tightness peaks comparable to the pressure on the Fed.

It must be taken into account that given the relatively low number of media signals, the results of the analysis might be less robust than for the other countries with which have have compared the pressure, i.e. the US, Germany and the Czech Republic. In Slovakia, financial sector was the main commenter on monetary policy and was responsible for more than 75% of all signals found. However, this sector – while being an important stakeholder – is not the main political body to examine the issue of political independence of central banks. Given this fact, we were not able to run a robust econometric estimate of the link between pressure and monetary policy rates.

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