Central bank bashing: The case of the European Central Bank

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Abstract: Central banks do not operate in a vacuum. In this paper we analyse the factors leading to external pressure or public support for European monetary policy. Moreover, based upon the findings for the Deutsche Bundesbank, some additional lessons are drawn for the ECB. External pressure on the ECB mainly stems from politicians or from international organisations (such as the IMF). In contrast with evidence for the Bundesbank, interest groups (such as commercial banks) hardly try to influence European monetary policy. German data show that factors leading to external pressure on the central bank are rising unemployment and the threat for governments to lose their majority in the next election. This latter source of pressure is, however, likely to be of minor importance for the ECB.

Keywords: European Central Bank, Bundesbank, External Pressure, Public Support

JEL Codes: E 58, E 50, D 78

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The views expressed are the authors' and may not reflect those of De Nederlandsche Bank. We would like to thank Rene Bierdrager for research assistance. All remaining errors are ours.

"I hear, but I do not listen."

W. F. Duisenberg, President of the European Central Bank[1]

1 Introduction

The relationship between central banks and governments is notoriously difficult. Although central banks increasingly are made independent, governments in many countries attempt to influence monetary policy decisions. For instance, the former German minister of Finance, Oskar Lafontaine, called for lower European interest rates in 1998 and 1999. Although there is a vast literature investigating the impact of external (political) pressure on monetary policy, little is known about its sources and causes.

Following the Collins English Dictionary, bashing refers to strong, public and often unfair criticism used in journalism, showing disapproval. In this paper, pressure on central banks will be called *central bank bashing*. The question we are most interested in is when, why and by who are central banks bashed? Intuitively, if inflation or unemployment is high, politicians might start bashing a central bank. Still, for most countries a clear econometric relationship between external pressure and monetary policy does not show up. One reason for this could be that measuring pressure is tricky, and simple proxies for pressure (e.g. elections) do not capture the true relationship between the central bank and the outside world.

In what follows we use the methodology of Havrilesky (1993) to study external influence on European monetary policy. He examined newspaper evidence to construct a conflict indicator for the US; we use international newspapers to construct indicators for external pressure and for public support for European monetary policy. Using these indicators, we examine why, by whom and when external pressure on and public support for the ECB arises. To do so, the paper is organised as follows. In the next section, we explain the two main factors determining monetary policy. In section 3, we present the Havrilesky-methodology and examine the aggregated pressure and support-indicators for the ECB and its "role model", the Bundesbank. In section 4, we check which groups have exerted pressure or offered public support. Moreover, we assess to what extent pressure and support can be related to the national economic situation. Next, we check in section 5 to what extent we can relate external pressure to other economic or political variables. The final section summarises our main findings.

2 Determinants of monetary policy

The public choice literature emphasises the possibility that non-economic factors might influence monetary policy. Monetary policy is directed towards achieving a goal, e.g. price stability. The pursuit of this

[1] During the press conference after the meeting of the Governing Council of the ECB on April 11, 2001.

goal entails analysing a set of information with respect to the state of the economy. However, this is not to say that the relevant monetary policy information is entirely determined by economic factors. Indeed, given that the main instrument of monetary policy is a (short-term) interest rate, which is intended to influence market interest rates, expectations play a role. These expectations, however, are partly determined by non-economic factors. For instance it has been claimed that elections (Nordhaus 1975), the political colour of governments (Hibbs 1977), or the party preference of central bankers (Vaubel 1997)[2] might have a significant impact on the conduct of monetary policy. Waller (1991) presents a 'theory of optimal central bank bashing': by establishing a reputation for bashing, the government may be able to obtain its desired policy outcome in the future. Therefore, monetary policy may be the result of a combination of interrelated economic and political factors, defined as follows:

- **Economic situation**, characterised by a certain GDP growth, inflation rate etc. Traditional macroeconomics assumes a mapping of each economic situation into an 'optimal' monetary policy. Such mapping is for example reflected in the Taylor rule (Taylor 1992).
- **Non-economic factors:** central banks do not operate in a political vacuum. The public choice literature focuses on the impact of external pressure and public support. We define these factors as:
    - *External pressure*: Politicians and interest groups seek to influence the central bank's decisions by demanding higher or lower interest rates. External pressure on central banks is applied when the government or interest groups demand changes in its current monetary policy stance. Negative pressure indicates calls for lower interest rates, positive pressure calls for higher interest rates.
    - *Public support*: Behaviour where monetary authorities are supported, irrespective of the current policy stance (Maier and Knaap 2002). Reading the newspapers, supportive statements can be found quite frequently. For positive support they typically read as follows: "'Don't force the central bank to do anything, they know better how to conduct monetary policy. Trust them, they will do the right thing."[3] Any sector of the population can offer public support. One reason for support could be confidence in the central bank. External pressure and public support may be related; support becomes increasingly important, the higher is external pressure.

We mainly focus on pressure on and support for the monetary policy of the European Central Bank. However, due to the short sample period (the ECB only started to operate in 1999), we have also studied the German Bundesbank, often called a 'role model' for the ECB. Bundesbank data allow us to draw addi-

[2] Note, however, that Vaubel's results suffer from a number of methodological problems (Berger and Woitek 1997).

[3] Negative support is then expression of a general mistrust of the central bank, i.e. 'The central bank hardly knows how to conduct monetary policy."

tional implications where the short sample period for ECB data is a limiting factor. However, there is also a second reason why the Bundesbank offers interesting insight. Although the institutional setting of both central banks differs (the Bundesbank was a national central bank, whereas the ECB is a supra-national institution), for a number of results (e.g. the sources of pressure) it is illustrative to check whether the Bundesbank and the ECB were similarly exposed.

Both central banks are characterised by a high degree of statutory independence (De Haan 1997). On the one hand, this may protect European monetary policy from external pressure or prevent external pressure to be effective (i.e. to have a significant impact on the conduct of monetary policy). On the other hand, this does not imply that external pressure is not exerted. Piga (2001) argues that the degree of external pressure can be related to the degree of 'conservativeness' (i.e. the preference for low inflation) of the central banker. In his view, the Governing Council of the ECB "…is more akin to the conservative central banker than to a board representing the interest of several constituencies. … While it may be that these rules will discourage interest groups from [applying external pressure], it may also be that these groups will press even harder to get their desired policies implemented…" (Piga, 2001, p. 75).

3 Measuring 'Pressure' and 'Support'

Measuring external pressure and public support is not straightforward, as in particular pressure is frequently not directly observable. In the public choice literature several variables are used to proxy external pressure. For instance, it is commonly assumed that elections have a significant impact on the conduct of monetary policy (Nordhaus 1975), as politicians want to be re-elected and therefore have an incentive to stimulate the economy before elections. Still, attempts to establish empirically the importance of elections have delivered mixed results, to say the least (Berger et al. 2001). The approach pioneered by Havrilesky (1993) offers a refinement. He constructs an indicator for political pressure on the US Federal Reserve, based on the number of newspaper reports in which politicians argue in favour of a more or less restrictive monetary policy.[4] The main idea is as follows: if conflicts between (pressure) groups and the central bank occur or if external pressure is applied, this will be reflected by press coverage.[5] More severe struggles result in more articles. To construct the indicator, the number of articles in leading newspapers, in which a change in monetary policy was demanded, are counted as either +1 (demand for higher interest rates) or –1 (demand for lower interest rates). The external pressure index consists of the simple, unweighted sum of

[4] In regressions for the Federal Funds rate this indicator is highly significant (Havrilesky 1993, Froyen et al. 1997).

[5] This is not to say that all conflicts are reported *immediately*, but "[all information] that is of value to market participants will systematically appear in the financial press. Specifically, we assume that the policy content of formal and informal communications from the Administration to the Federal Reserve… is reliably and consistently reported in the press" (Havrilesky 1993, p. 40).

pluses and minuses. We use indicators for external pressure and public support for both the European Central Bank and the Bundesbank, based on those newspapers:[6]

- The ECB data set was build using the "*Frankfurter Allgemeine Zeitung*", the "*Handelsblatt*", "*Het Financieele Dagblad*", the "*NRC Handelsblad", "Financial Times*" and the "*Wall Street Journal*".[7]
- Bundesbank indices are based on the "*Frankfurter Allgemeine Zeitung*", "*Handelsblatt*" and "*Die Welt*".[8]

We concentrated on articles about interest rates (see appendix for more information). Reports calling for monetary ease were counted as -1 (negative pressure) and reports in favour of more restrictive monetary policy as +1 (positive pressure). In addition, articles voicing discontent with the ECB's interest rate policy were classified as –1 (negative support) and articles expressing support as +1 (positive support). We use the unweighted sum of the articles to construct the indicators.

For each article, we identified the sector that voiced the demand (support), and for the ECB the country in which pressure (support) occurred. As sectors, we included national government(s), banks,[9] the industry, trade unions and other sources – both statements from international organisations such as the IMF and pressure from governments outside the euro area (mainly the US), as well as academic viewpoints.[10] The indicators have the following desirable properties: first, they do not focus only on specific periods (such as elections), but on the relationship between the central bank and organised groups at any time. Second, they not only show the different origins of pressure and support (i.e. the interest groups), but also the strength

[6] Our selection of newspapers is based on the idea that we want to have independent and politically neutral newspapers that cover economic affairs extensively. Furthermore, the circulation should be as broad as possible, as the broader the circulation, the higher the effect on public opinion and (presumably) also on European monetary policy.

[7] The latter are included for their widespread circulation in business and finance circles, but also as a robustness check to verify that conflicts are consistently reported in all newspapers. We could not get hold of newspapers from each euro area country, but a number of cross-checks have been done and have shown that most news was consistently reported in all newspapers. This indicates that the benefit of including additional newspapers is likely to be small. For the ECB data this holds all the more since Hayo (1998) has shown that German and Dutch inflation aversion were quite similar, but during the period considered German and Dutch inflation rates were not. Still, the fact that only national newspapers have been used for the Bundesbank, whereas also "non-euro area" newspapers were used for the ECB, and the increased number of newspapers for the ECB limit the possibility for direct comparisons. We therefore do not compare absolute values of observations, but shares (e.g. the number of articles from trade unions relative to the total number of observations, instead of the absolute number of articles from trade unions).

[8] The Bundesbank data set has been used previously in Maier et al. (2002) and in Maier and Knaap (2002).

[9] Posen (1993) first mentioned the importance of financial sector interests for monetary policy.

[10] In some cases pressure from unspecified sources are mentioned, e.g. "The ECB is asked to lower the interest rates" or "The demand for monetary ease becomes more frequent", which we also counted as "Other sources".

(as indicated by the number of articles). This indicates the magnitude of a conflict. The ECB indices run from 1/1999 to 2/2002 (weekly data), the Bundesbank index from 1/1960 to 12/1998 (monthly data).

We generally believe that this approach should give a reliable picture of the attempts to influence European monetary policy from outside. Nevertheless, potential drawbacks with the approach should also be pointed out: first, a conflict will most probably be covered more extensively during the "dull season" (limited other news available) than during a hectic period. Furthermore, it is assumed that two articles measuring pressure indicate twice as much pressure than one article, which may, but need not, be correct.

4 Sources of pressure and support

In what follows we examine the sources of pressure and support for two central banks: first, the Deutsche Bundesbank as an example of a national central bank; second the ECB as an example of a supra-national central bank. We use the German data to derive conclusions about the de-facto position of the Bundesbank in the public arena. These results can be regarded as a prior for the analysis of the ECB. Then, we check whether these priors are confirmed for the ECB, or to what extent (structural) differences exist in the public position of the supra-national ECB.

4.1 The Deutsche Bundesbank

Figure 1 displays the indicators for pressure and support on the left axis and the German short-term interest rate (day-to-day rate) on the right axis. Both indicators are shown at the most aggregated level, i.e. 'total pressure' and 'total support'. Pressure has been negative on average, which implies that calls to lower interest rates were more frequent than attempts to convince the Bundesbank to increase interest rates.[11] However, there were periods when calls for higher interest rates (i.e. positive pressure) were strong. These were typically periods of relatively high inflation, e.g. in the early 1970s when the Bretton Woods system restricted the Bundesbank's ability to increase interest rates. Visual inspection suggests a negative correlation between pressure and support, i.e. the higher external pressure to lower interest rates, the higher public support.

This is confirmed in Table 1, where we report the correlation between pressure, support and the absolute values of pressure and support and some key economic variables over the entire sample. Additional research shows that the causality between pressure and support runs one way, i.e. high external pressure causes public support (Maier and Knaap 2002). This is what we expect: if external pressure mounts, pub-

[11] This can also be seen in Table 1, where the correlation between ABS(Pressure) and Pressure is -0.6 – this implies that on average 60% of the newspaper articles classified as pressure were calling for lower interest rates.

lic support increases as some people realise that some sectors try to force the central bank to adopt a different policy stance. Note also that the correlation between pressure and interest rates is negative, whereas interest rates and support are positively correlated. This implies that high interest rates lead to negative pressure (i.e. demands for lower interest rates) and positive support.

Figure 1: External pressure and public support: The case of the Bundesbank (monthly data)

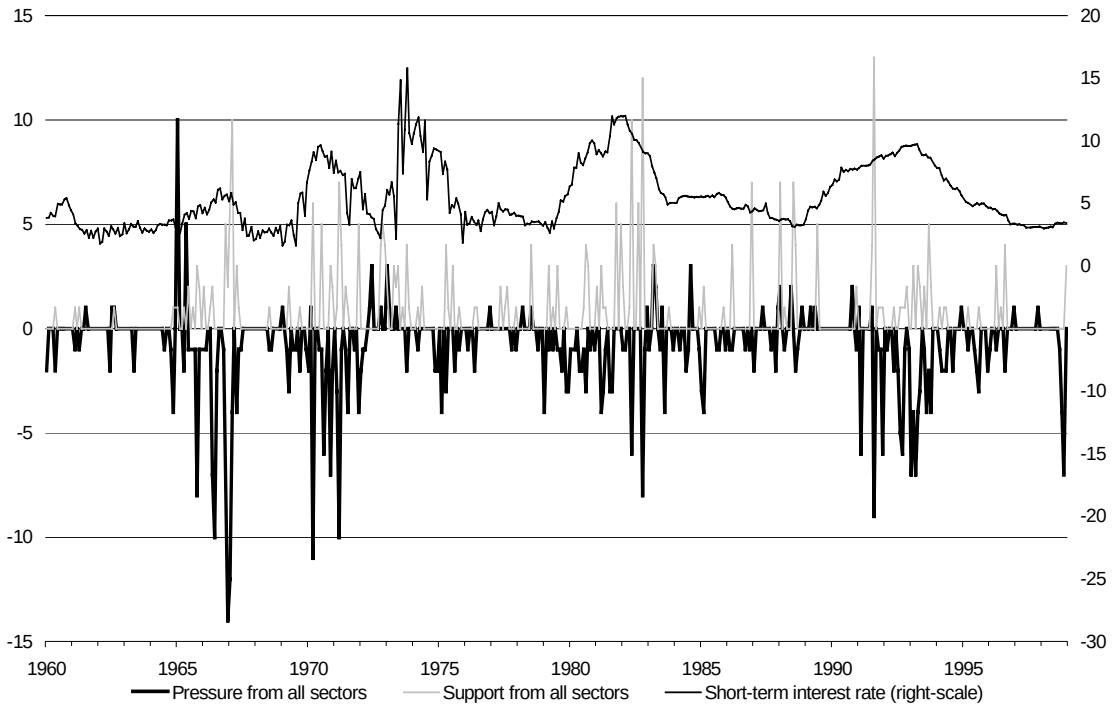


Table 1: Correlations for the Bundesbank (monthly data)

	Abs(Pressure)	Pressure	Support	Interest rate
Abs(Pressure)	1.00			
Pressure	-0.60	1.00		
Support	0.47	-0.40	1.00	
Interest rate	0.18	-0.21	0.19	1.00
Inflation	0.12	-0.10	0.16	0.60
Unemployment	0.14	-0.17	0.17	0.20

Unemployment and inflation is also negatively correlated with pressure and positively with support – the main reason here is that unemployment and high inflation typically occur at the same time (the correlation between inflation and unemployment in Germany during our sample is 0.39). Table 1 postulate that high interest rates, high inflation or high unemployment are all correlated with pressure to lower interest rates.

Figure 2: Source of external pressure: The Bundesbank

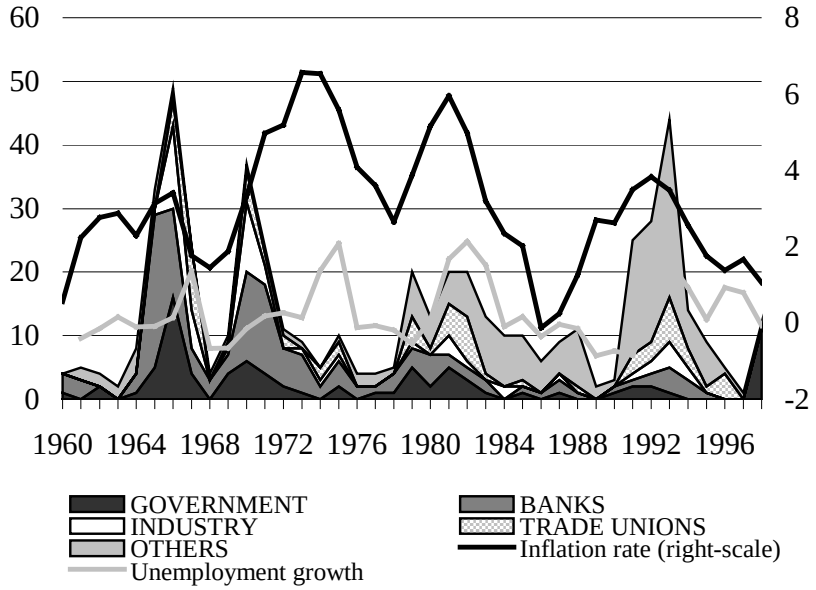
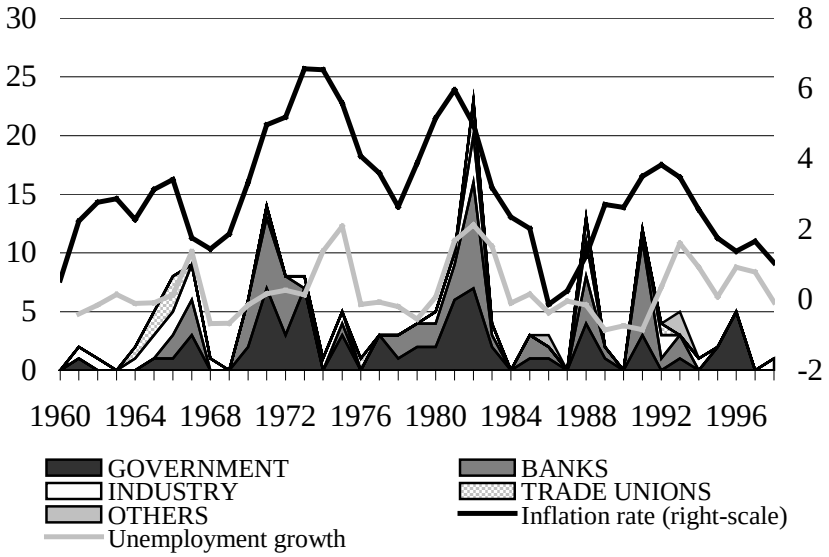


Figure 3: Sources of public support: The Bundesbank



To analyse the sources of pressure and support we plot the absolute values of both indicators per sector (see Figure 2 and 3). We see that on average the distribution of pressure and support has been rather stable with the government and the banks (i.e. the financial sector) accounting for the bulk of the evidence. In **Fout! Ongeldige bladwijzerverwijzing.** we show the relative importance of the different interest groups, i.e. the number of statements of a certain group relative to the total number of articles. For example, the number of articles related to trade unions and employers' organisation amount to 15% and 12%, respectively. Since the early 1980s 'other sources' (in particular the EU Commission and the IMF) also attempted to influence the Bundesbank. The impact of these international institutions is particularly evident

in the early 1990s, when high German interest rates ultimately led to the collapse of the European Monetary System in 1992 (see Figure 2).

Regarding the sources of support, it is interesting to note that the German government frequently supported the Bundesbank (in fact it supported the Bundesbank's policy more often than it attempted to influence it). Again, we note the relatively strong influence of various interest groups. Reading the newspapers it is interesting to see that different members of the same interest group are often far from being homogeneous in their desires regarding monetary policy.[12]

Table 2: Percentage of newspaper evidence from each interest group

	Deutsche Bundesbank		**European Central Bank**	
	Pressure	*Support*	*Pressure*	*Support*
Government	18.5%	31.3%	39.2%	9.0%
Banks	30.5%	39.5%	12.5%	32.8%
Industry	12%	21%	4.2%	0.0%
Trade Unions	15%	3.2%	2.5%	0.0%
Other sources	24%	5%	41.7%	58.2%

To summarise, from the German data the following priors can be drawn: first, the high degree of statutory independence of the Bundesbank did not avoid frequent attempts from interest groups or governments to apply pressure for lower or higher interest rates. This implies that a high degree of legal independence itself says relatively little about the de-facto position of a central bank – only if it resists external pressure, its monetary policy can truly be classified as independent. Second, attempts to influence German monetary policy came from all major German interest groups. Third, the government played a strong role, both in exercising pressure and in supporting its central bank.

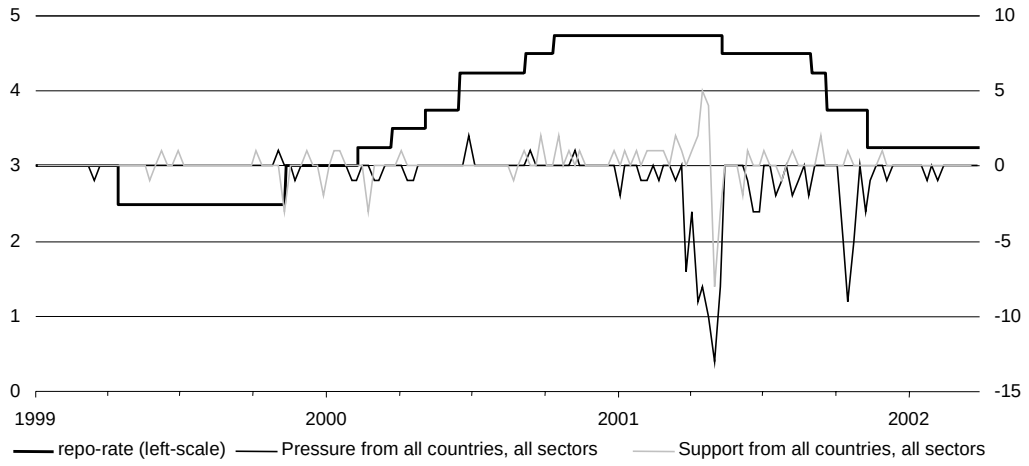
4.2 The European Central Bank

In Figure 4 we plot the most aggregated pressure and support indicator for European monetary policy. These indicators include pressure and support from all interest groups and newspapers in all countries. We identify two spikes in terms of external pressure, in the second quarter 2001 and in the fourth quarter of 2001, and one spike in public support (second quarter of 2001).

[12] For instance, in the sector 'Industry' domestic-oriented employers care more about stable domestic prices, whereas export-oriented employers care more about favourable exchange rates (Maier et al. 2002).

External pressure was on average negative; i.e. pressure was primarily directed towards interest rate reductions. Unlike the Bundesbank data, we have made a distinction between positive and negative support for the ECB: positive support indicates that people express an overall satisfaction with the ECB and do not want other to influence it, whereas negative support indicates an overall dissatisfaction with the ECB's conduct of monetary policy (see appendix). We see that support was negative in most cases, indicating that overall European monetary policy was not well-received. The correlation between pressure, support and the absolute values of pressure and support over the entire sample for the ECB is reported in Table 3. The correlation between Pressure and ABS(Pressure) is strongly negative, illustrating that most newspaper articles were calling for monetary ease. The correlation between interest rates and pressure is relatively low, but the sign is as in the German case: high interest rates lead to negative pressure, that is, external pressure is applied to reduce interest rates. Also the correlation between (absolute) pressure and (absolute) support on the one hand, and unemployment and inflation on the other have the same sign and are of roughly similar magnitudes as in the German case.[13] This suggests that economic conditions have comparable effects on the external position of both central banks. Finally, note the negative correlation between support and ABS(support): overall, people were less inclined to support the ECB than to express a general dissatisfaction. This illustrates the criticism the ECB has received.

Figure 4: External pressure and public support: The European Central Bank (weekly data)



Notable differences with the German case arise when the sources of pressure and support are analysed. We plot the absolute values of both indicators for the ECB per sector in Figure 5 and Figure 6. We see that

[13] All coefficients are somewhat higher in Table 3 than in Table 1, this is due to the shorter sample period (less economic fluctuations). Detailed econometrics tests could not be run, due to the short sample period.

in particular political pressure has increased in 2001, although pressure by "others" also increased in the second quarter of 2001. Unlike the German case support from governments is largely missing for the ECB. Moreover, interest groups, in particular trade unions and employers (the latter counted as "Industry"), hardly play a role. Concerning public support, employers' organisations and trade unions did not support the ECB at all, whereas banks were relatively outspoken (they account for the bulk of the negative support evidence, in particular in 2001).

Table 3: Correlations for the ECB (weekly data)

	Abs(Pressure)	Pressure	Abs(Support)	Support	Interest rate
ABS(Pressure)	1.00				
Pressure	-0.99	1.00			
ABS(Support)	0.70	-0.70	1.00		
Support	0.50	-0.49	0.06	1.00	
Interest rate	0.32	-0.30	0.42	0.27	1.00
Inflation[a]	0.42	-0.42	0.67	0.02	0.70
Unemployment[a]	0.27	-0.29	0.07	-0.05	-0.26

[a] Monthly data

This contrasts with our results for the Bundesbank, where interest groups, in particular commercial banks, frequently attempted to influence German monetary policy. How can this be explained? From a public choice perspective, the discretion of national policymakers is sharply reduced in a monetary union, as responsibility for monetary policy is shifted to the European level. Therefore, the balance between policymakers and national interest groups in member countries changes significantly: national policymakers have less to "offer" to interest groups. Interest groups realise that monetary policy decisions are now based on the euro area aggregate. This limits the scope for national interest groups to influence European monetary policy. From a theoretical perspective, this development can only be welcomed. The entire idea of making central banks independent is based on the notion that monetary policy should be protected from short-run considerations or individual or group-specific rent-seeking. Fewer attempts to influence the ECB can only result in a monetary policy that concentrates more on economic fundamentals.

Next, we look briefly at the results for four countries covered relatively extensively in our newspaper sample: Germany, the Netherlands, France and Belgium. The idea here is to identify which countries are most likely to exert political pressure, given the hypothesis that the interest rate set by the single monetary policy need not be optimal for all countries. Based on the national economic situation, some politicians might prefer higher or lower interest rates. Note also that to some extent, the reaction might be asymmetric, i.e. pressure to lower interest rates is voiced more quickly than demands to raise interest rates.

Figure 5: Sources of external pressure: The European Central Bank

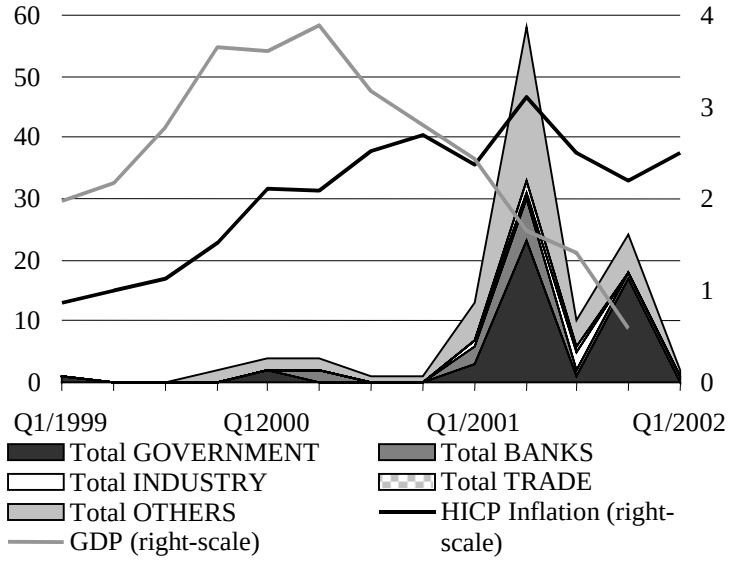
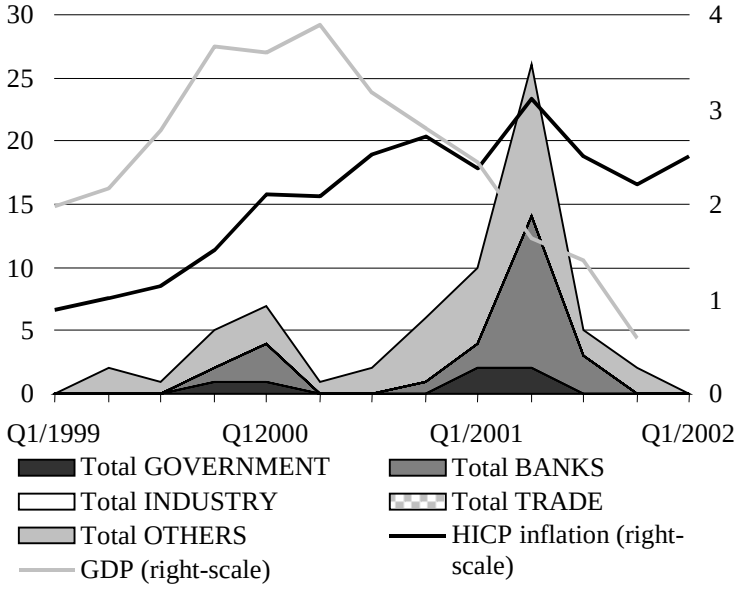


Figure 6: Sources of public support: The European Central Bank



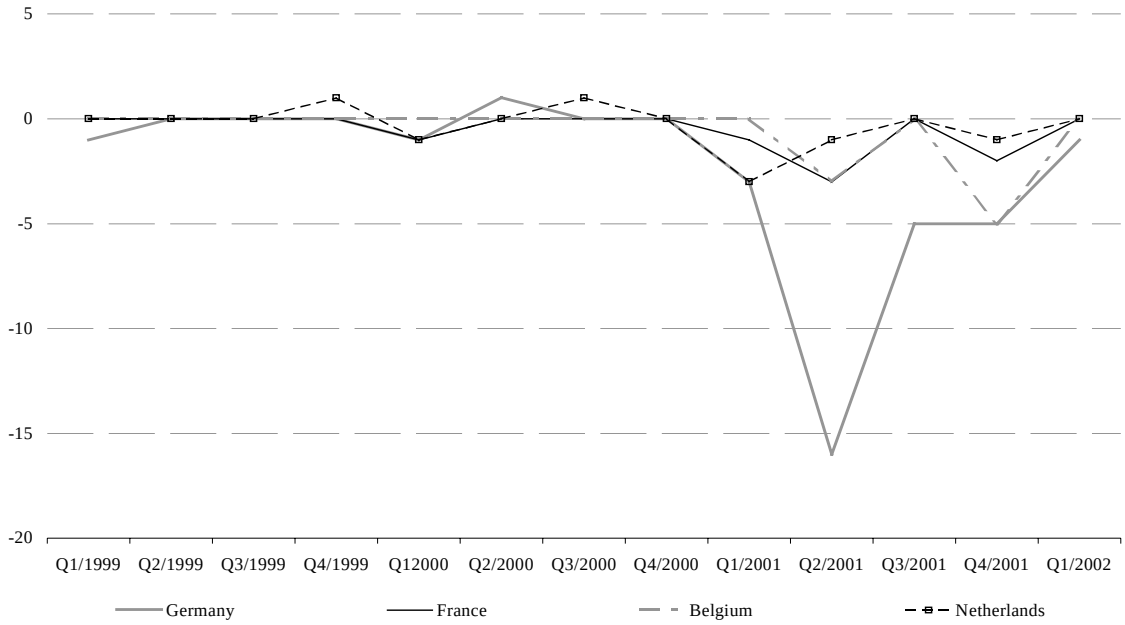
A popular measure to determine ex-post whether monetary policy was 'economically optimal' is the Taylor rule (Taylor 1992). We have estimated Taylor-rules for Germany, the Netherlands, France and Belgium to evaluate when and whether they might have preferred higher or lower interest rates.[14] In Table 4 we report (a) the 'optimal' interest rate per country, as suggested by the Taylor-rule, (b) the 'de-facto' interest rate set by the ECB and (c) the difference between the optimal and the de-facto interest rate.

[14] Taylor rules require a measure for the output gap. Being aware of the measurement difficulties we simply used OECD data.

Table 4: Taylor-rules

	1999			2000			2001		
	Taylor-rule	De facto	Difference	Taylor-rule	De facto	Difference	Taylor-rule	De facto	Difference
Belgium	2.8	3.3	0.6	6.0	4.9	- 1.1	5.0	3.3	- 1.7
France	2.1	3.3	1.3	4.6	4.9	0.3	4.5	3.3	- 1.2
Germany	1.7	3.3	1.7	4.6	4.9	0.3	4.4	3.3	- 1.1
Netherlands	5.4	3.3	- 2.1	6.0	4.9	- 1.1	9.2	3.3	- 5.9

Figure 7: Pressure from selected countries



For all these countries the *de facto* interest rate was too low in 2001, while the results were more mixed in 2000 and 1999. In 1999 for example, France, Belgium and Germany would have been better off with a lower interest rate, while the Netherlands would have preferred a higher interest rate given its economic constellation. Therefore, we would expect pressure to lower interest rates from Germany, Belgium or France, and to raise interest rates from the Netherlands. In line with this expectation, the external pressure indicator points (mildly) to some downward pressure stemming from Germany and some upward pressure stemming from the Netherlands in 1999 (Figure 7). When external pressure to lower interest rates increased in 2001, the Taylor-rules indicate that the *de facto* interest rate was too low for all countries. This indicates that pressure may indeed be voiced in an asymmetric manner. An interesting result is that the only countries that at certain points in time pressured (mildly) for an interest rate increase were the Netherlands and Germany. However, Dutch demands for higher interest rates occurred *before* Dutch inflation

started to diverge upwards from the euro area average, and high Dutch inflation in 2000 and 2001 has not led to further Dutch pressure to increase interest rates. This can be interpreted as a good sign: apparently, the Dutch realised that if monetary policy became more restrictive due to (short-term) Dutch interests, this might be detrimental for the euro area as a whole. Besides, as the Dutch economy is very open, feedback effects might also have affected the Netherlands negatively in the medium term.

5 What causes external pressure?

Finally, we formally explore the underlying causes for external pressure. Estimates for the ECB are not reliable due to the short sample period, but we are able to run regressions for the Bundesbank. This may further clarify the influence of economic variables on the attempts to influence central banks externally, which is a relationship likely to hold not only in Germany, but also for Europe as a whole. Our hypothesis is that pressure on a central bank increases as inflation or unemployment rises. Moreover, we have included an additional potential source for external pressure: if the hypothesis is true that governments care about being re-elected, we might expect that pressure increases if the current government is doing badly in opinion polls. We start by estimating the following model (monthly data):

$$Pressure_t = \sum_i \alpha_i Inflation_{t-i} + \sum_i \beta_i Unemployment_{t-i} + \gamma Opinionpoll_t + \varepsilon_t,$$

where $Pressure_t$ is the aggregated German pressure index, $Unemployment_t$ denotes the year-on-year changes in the unemployment rate, $Inflation_t$ is the annual growth of consumer prices and ε_t is an independent and identically distributed disturbance term. $Opinionpoll_t$ is a dummy variable, equalling +1 if opinion polls indicate that current government may be loosing their majority in Parliament (i.e. the current coalition government gets less than 50 per cent of the votes in the latest opinion poll), equalling +2 if the coalition government is behind in the polls less than 6 months prior to elections and 0 otherwise (see appendix for details). In other words, the dummy variable measures the incentives for governments to put pressure on the central bank if opinion polls show that its re-election might be in danger – particularly so if election date approaches. [15]

Imposing common lag lengths has no basis in theory and may lead to misleading inferences concerning causality.[16] To overcome this problem Hsiao (1981) suggested using Akaike's Final Prediction Error criterion (Akaike 1969, 1970) to determine the lag structure. Therefore we use the FPE criterion to select the

[15] Different specifications of the *Opinionpoll* variable have been tested, and delivered qualitatively similar results. Robustness tests included the DM/Dollar exchange rate to capture the idea that employers' organisations might react to an appreciating currency, but this variable remained insignificant.

[16] See Ahking and Miller (1985) and Thornton and Batten (1985).

appropriate number of lags *i* for each independent variable.[17] The results for this specification are reported in Table 5. The relatively poor fit of the regression can be explained by a missing lag of the dependent variable. The results indicate that high unemployment growth indeed leads to pressure to lower interest rates. The inflation variable is negative: as explained previously, economic crises were frequently characterised by a combination of rising inflation and unemployment. Most interesting is the fact that the data from opinion polls is significant and has the right sign, i.e. if a government's majority in Parliament is endangered, pressure to lower interest rates is applied.[18]

Table 5: Dependent variable: Total pressure on the Bundesbank

Sample (adjusted): 1977:04 1995:12; included observations: 173

Variable	Lags[a]		Sum[b]	F-Each[c]
Inflation			-0.11**	4.70***
Unemployment	1		-0.43***	8.94***
Opinionpoll	1		-0.16	-2.25*
Adjusted R-squared	0.15	AIC		3.42
S.E. of regression	1.32	DW statistic		1.81
Sum squared resid	293.02	S.D. dependent var		1.44
Log likelihood	-291.06	Schwarz criterion		3.51

[a] Numer of lags included according to the FPE-criterion

[b] Sum of the estimated coefficients: neutrality tests

[c] F-statistic testing whether each of the estimated coefficient equals zero: Granger causality test

What do these results for the Bundesbank bank imply for the European Central Bank? We might expect that pressure from governments on the ECB increases if certain governments are doing badly in opinion polls. This could coincide with an overall increase in political pressure, simply because the number of governments involved is higher than for any national central bank.

To what extent will external pressure influence the actual conduct of European monetary policy? Based on the institutional setting and the Bundesbank's experience, we expect the following: first, there are no signs that the Bundesbank altered its policy significantly in the face of political pressure (Maier et al. 2002).

[17] If necessary, variables have been de-trended to ensure stationarity. A Ramsey RESET test did not indicate parameter instability.

[18] $Opinionpoll_t$ is in fact significant at the 5% level. We have also tested for asymmetric effects, i.e. the possibility that the motives to rise interest rates differ from those leading to interest rate reductions. Here the results are far from being robust. Therefore, we have decided not to report them.

Second, there is one major difference with respect to the institutional setting: to some extent the Bundesbank was more 'vulnerable' with regard to political pressure than the ECB is, because as a national central bank it was accountable to one, national government. Although the constitutional hurdles were high, the German government ultimately had the power to change the Bundesbank law, thereby reducing its independence. So the Bundesbank faced a real, albeit small, possibility that the political rhetoric might become a serious threat. The ECB's statutory position is different: it is more likely to face political pressure from different governments, but none can ultimately influence its monetary policy. This is because any change to the ECB's legal status requires unanimous consent of all EMU member states. Clearly, such a consensus is not likely because the re-election changes of one government are in danger. Only if all EMU governments agreed to change the Maastricht Treaty, the ECB's legal position is threatened. We do not regard such a scenario as very likely. As a result, we think it is highly unlikely that the ECB will ever give in to external pressure, in particular not to external pressure resulting from elections in certain member states.

6 Conclusion

Much literature is devoted to the possibility that central banks might give in to external pressure, but apart from a number of hypotheses, the source of external pressure has remained unclear. In this paper, we have examined political pressure on two central banks: a national one, the Bundesbank, and the supra-national European Central Bank. Using newspaper evidence we were able to show that interest groups are more inclined to influence the national Bundesbank than the supra-national ECB. Given the limited impact of national interest groups within Europe, this finding does not come as a surprise. This also explains why the overall degree of pressure on the ECB was relatively low, compared to the Bundesbank – and shows that the hypothesis by (Piga 2001) does not hold. For some countries we also estimated Taylor-rules and analysed the extent to which deviations from an optimal monetary policy, tailored to the specific needs of a country, leads to pressure from that country. Here the conclusions are relatively simple: external pressure on the ECB need not come from countries that experience a deviation from the Taylor rule.

Lastly, we have used Bundesbank data to relate external pressure to economic and political variables. This analysis has shown that pressure on a national central bank is likely to mount if unemployment is rising or the government performs badly in opinion polls. This last factor, which to a large extent has dominated the literature on political business cycles so far, has lost most of this threat for the supra-national ECB: in our view, it is highly unlikely that the ECB will give in to pressure stemming from a particular country, simply because its degree of statutory independence is unprecedented – and no member country has the means to force the ECB to adopt a certain policy stance, as this was the case prior to EMU.

In the introduction we asked when, why and by whom central banks are bashed. Based on our findings, we can answer this questions as follows: national central banks are likely to be bashed not only by politicians and international organisations, but also by (national) interest groups. The supra-national ECB, however, does not need to fear the latter. Econometrically, Bundesbank bashing occurred when unemployment was rising or when a government risked losing upcoming elections. To what extent these factors also apply for the ECB remains to be seen.

Appendix: Data sources

The newspaper indicators

The data sets were build by screening all articles related to the Bundesbank or the ECB. For each article the main actors, the main statements and the date of appearance was noted. It is important to stress that in the index, we have only included articles with 'policy implications', i.e. articles that call for lower or higher interest rates. Articles expressing a general frustration about monetary policy strategy (i.e. the ECB's two pillar-approach) without direct implications for interest rate decisions are not included in the index. In addition, discontent with the euro exchange rate was not included, since this discomfort did not translate into a preference for higher or lower interest rates. Therefore, the index mirrors external requests to change interest rates, but not the 'general opinion' about monetary policy in Germany or the euro area.

Articles demanding a more restrictive monetary policy were counted as +1 (positive pressure), each article calling for monetary ease was counted as –1 (negative pressure). The news indicator for each category consists of the simple, unweighted sum of pluses and minuses. This closely follows Havrilesky's methodological approach. If an approval statement contains also a demand for further policy measures ("we are glad interest rates were lowered, but this was only a first step and further policy measures are necessary"), then such a statement was classified as pressure. For the "support index" we counted all articles expressing approval of current monetary policy as +1 (positive support) and disapproval as –1 (negative support). Note that the support series are not fully comparable: as at the time the Bundesbank support series were build, the need for 'negative support' was not evident from the newspaper articles. Therefore, for the Bundesbank only positive support was counted. For the ECB, however, negative support was clearly visible, so we accounted for the possibility that the public expresses a general 'unhappiness' about the ECB.

For the Bundesbank, the articles were classified according to the sectors government, banks, industry, trade unions and others. We used the same categories for the ECB, but additionally grouped the articles per country. The total number of articles exceed more than 400 and 200 for the pressure and support indices for the Bundesbank and more than 100 and 60 for the ECB pressure and support indices, respectively.

Other data

The opinion poll data used in section 5 was provided from the *Zentralarchiv für empirische Sozialforschung* and is based on publications from the German *Allensbach Institut*. They are widely perceived as good indicator for the political mood. The percentage of the population voting the incumbent government if elections were held 'next Sunday' has been used to construct the $Opinionpoll_t$ dummy variable: this variable equals +1 if the current government would get less than 50% of the votes in an election and +2 if elections are actually held in less than 6 months. For the short-term interest rate day-to-day rates have been used. All variables have been de-trended if necessary to ensure stationarity.

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