Why Countries Matter for Monetary Policy Decision-Making in the ESCB

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The ECB's mission

The mission of the ECB was set in the Maastricht Treaty, which paved way to the European Monetary Union (EMU). Namely, in accordance with Article 105(1) of the Maastricht treaty, Article 2 of the Statutes of the European System of Central Banks and the European Central Bank states that the primary objective of the ECB is to maintain price stability in EMU. The ECB defines price stability asan inflation rate of below, but close to, 2 percent over the medium term.

Article 2 of the statutes of the ESCB and the ECB states that "without prejudice to the objective of price stability", the secondary objective of the ECB is to support the general economic policies in the EU with a view to contributing to the achievement of the objectives of the EU. These include a "high level of employment" and "sustainable and non-inflationary growth". One may note that both the primary and secondary objectives of the ECB are officially federal, as they are defined at the level of the eurozone or even the EU.

The objective of price stability has been achieved quite successfully and inflation expectations in the euro area are now firmly anchored at 2 percent (European Commission 2011). Whether the recent rescue operations of the ECB in the European debt crisis will contribute to higher inflation expectations remains to be seen. A key question, however, is how the ECB weighs its two objectives. Although the ECB has adopted a unique "two pillar strategy", with a variety of indicators for short- to medium-term inflation forecasts and a monetary reference value guiding long-run inflation expectations, it is not obvious whether the monetary reference value has played a substantial role at all. One can even argue that, instead of simplifying communication with the public, the two-pillar strategy does the opposite (Hayo 2003).

Thus, rather than trying to model the official monetary policy strategy to explain ECB decision-making, many researchers adopt a different approach: estimating interest rates reaction functions or "Taylor rules". In a Taylor rule, the deviation of inflation and the output gap – as an indicator of the business cycle – are typically used as variables that help explain ECB decision-making. For instance, Hayo and Hofmann (2006) estimated a forward-looking Taylor rule for the ECB and foundsignificant and plausible results: a one percentage point increase in the inflation rate leads to a 1.5 percentage point increase in the short-term interest rate, and a one percentage point decrease in the output gap, indicating an economic downturn, lowers rates by 0.6 percentage points. What these estimates suggest is that the ECB reacts not only to inflation but also to fluctuations in output, which is sometimes interpreted as evidence that the ECB is less focused on price stability than what its statutes would suggest.

An estimated Taylor rule can also be used to study monetary policy from a normative perspective. This is often done by comparing the actual interest rate path with a "counterfactual" path based on "target rates" derived from the Taylor rule. In the case of the Fed, Taylor (2009) argued that actual interest rates were below those recommended by the interest rate reaction function and thereby fuelling financial market bubbles. A similar argument can be made in the case of the ECB. Applying Hayo and Hofmann's (2006) estimate to

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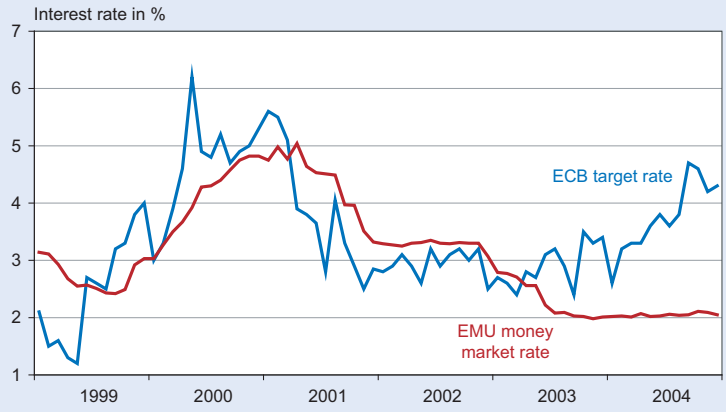
Figure 1

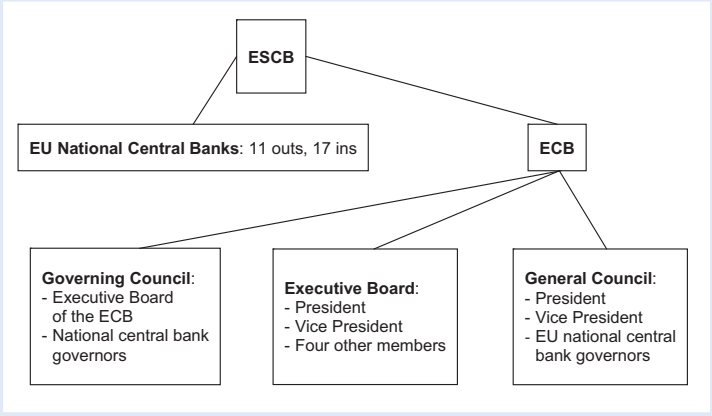
MONEY MARKET INTEREST RATES AND ECB TARGET RATES IN THE EURO AREA



Source: ECB; Hayo/Hofmann (2006) and own calculations.

Figure 2

STRUCTURE OF ESCB



Source: ECB.

the period preceding the financial crisis, we find that interest rates should have been raised earlier (see Figure 2).

Actual interest rates are less variable than target rates, which emphasises the importance of interest rate smoothing. At the beginning of the observation period, target rates were lower than actual rates but they explain very well the interest rate reductions after 11 September 2001. Target rates would have predicted an increase in interest rates from at least 2004 onwards but the ECB kept rates stable. The interest rate hike finally occurred in December 2005 (from 2 to 2.25 percent). Thus, it is likely that the ECB contributed to the worldwide excess in liquidity, fuelling exuberance of financial markets.

National central bank governors have a large influence on ECB decision-making

Although the Taylor rule is helpful in terms of providing a perspective for the euro area as a whole, it somewhat begs the question of how these decisions actually come about and how they blend federal and national objectives. The institutional structure of European monetary policy reflects the structure of the EU and is fairly complicated (De Haan et al. 2005). A noteworthy feature of the system is that it grants a lot of influence to participating countries, as opposed to the eurozone as a whole. To see this, one has to look into the details of the ESCB's institutional structure and into its decision-making mechanisms.

The European System of Central Banks (ESCB) consists of the European Central Bank (ECB), located in Frankfurt, and all of the EU national central banks (see Figure 1).The ESCB is governed by the Governing Council, the Executive Board and the General Council.

Currently, 17 out of 28 EU members have introduced the euro. Since not all EU members have joined the European Monetary Union, the General Council plays the role of a forum for discussion between "ins" and "outs" regarding monetary policy issues and their exchange rate relations with the euro. However, it has no direct decision-making power and, according to Article 9.3 of the statutes of the ESCB and the ECB, "the decision-making bodies of the ECB shall be the Governing Council and the Executive Board".

The Executive Board steers monetary policy on a day-to day-basis. It is also in charge of preparing the meetings of the Governing Council. It comprises the president and the vice-president of the ECB and four other members. They are appointed by the European Council for a non-renewable term in

office of 8 years. The Executive Board may therefore be considered the true federal body of the ESCB. However, it does not determine monetary policy. Formulating monetary policy principles and interest rate decisions is a prerogative of the Governing Council, which is consequently the true decision-making body of the ESCB. It consists of the six members of the Executive Board and 17 central bank governors from each euro area member country.

Article 10.2 of the ECB statutes posits that decisions of the Governing Council are in principle based on simple majority voting: one person, one vote. EMU member states are relatively more represented than regions in other federal central bank systems, such as the Fed or the Bundesbank. This becomes clear when comparing the relative importance of central and national representatives in the main decision- making bodies of various central banks.

Table 1 shows the ratio of the number of representatives of the centre to the number of representatives of the regions for the ECB, the Bundesbank, and the US Fed. The ratio was 0.89 for the Bundesbank before 1999 and is 1.40 for the Fed. It was 0.55 at the start of EMU and has now shrunk to 0.35. In the ECB Governing Council, national central bank governors have huge influence. Whereas in the US regional Fed presidents with voting power constitute a minority in the Federal Open Market Committee (FOMC), in the ECB regional representatives dom inate the Governing Council.

With 23 members, the Governing Council has already become quite large compared to the Bundesbank (17 voting members) or the FOMC (12 voting members). However, if all EU members adopted the euro, the size of the Council would reach 34, which is likely far beyond the optimal size of a decision-making committee.

Recognising this problem, the ECB developed a new "rotation principle" of decision-making in the Governing Council in 2003. The mechanism was ratified by member countries in 2004 and amended in 2009. It will be adopted when the number of member countries reaches 18. The rotation of voting rights ensures that over time all countries will be represented in the Governing Council, and the "one member, one vote"-principle will still be in place, even though not all national governors will actually be allowed to vote at one point in time and the probability that a governor of the big five countries will be able to cast a vote is relatively higher. It is worth pointing out that, first, the system is designed to allocate voting rights among member countries, not members of the Council. Members of the Executive Board will always have a vote. This suggests that governors of national central banks are viewed as representatives of their country of origin. Second, the rotation system would have already come into power with 15 members if the amendment had not been passed. This indicates that member countries of the Eurosystem appear to value having a voting representative in the Governing Council.

Evidence of national influence on monetary policy

The previous section emphasises that the Eurosystem's member states have substantial weight in the Governing Council. Although we find hints that member countries value voting rights, this does not imply that they will use their influence to steer monetary policy towards national needs. However, given the potentially important role of national interests in the formulation of European monetary

Table 1

Relative importance of representatives of the centre and the regions

	Centre	Regions	Centre/Regions
Bundesbank before 1999	8	9	0.89
US Federal Reserve	7	5	1.40
ECB in 1999	6	11	0.55
ECB with 17 members	6	17	0.35

Source: Updated from Berger et al. (2004).

policy, whether governors and members of the Governing Council can be expected to take only a European view is a key question.

An instructive straightforward way to address the question would be to study the behaviour of members of the Governing council and determine if they exhibit national biases. However, the ECB does neither publish the voting records of its members nor the minutes of its meetings. One must therefore resort to indirect evidence.

A first set of indirect evidence comes from the experience we have with other federally organised monetary unions. The Fed's main decision-making body, the FOMC, is much more open with regard to providing information about monetary policy decisions. Gildea (1992) has found that unemployment rates in the regions represented by the Fed presidents help predict their votes in the FOMC. Meade and Sheets (2005) have reached similar conclusions, not just for regional Fed presidents but also for members of the Board of Governors, who are supposed to represent only federal interests. Hayo and Neuenkirch (2011) have demonstrated that even in terms of monetary policy communication with the public, Fed presidents show clear regional patterns.

These results from the US in conjunction with our discussion about the "rotation principle" of decision-making in the Governing Council suggest that regional interests play a role in EMU. Yet, the ECB has never openly acknowledged any disagreements due to different regional interests. Although voting is explicitly envisaged, it officially reaches decisions by consensus (see ECB press statements). However, if consensus is indeed the only way decisions are made, voting rules would be irrelevant – and there would be no need to change them. Additional doubt is raised by the fact that, unlike other central banks such as the Fed, the ECB does not publish minutes of Governing Council meetings. Thus, possible disagreements are hidden behind a diplomatic veil, and the ECB does not reveal the actual decision mechanism that it uses to reach decisions.

Studies departing from the assumption of an aggregate ECB reaction function have provided evidence that regional developments affect monetary policy. Heinemann and Huefner (2004) have found that regional divergences help explain ECB interest rate decisions. Other studies have found similar evidence and suggest that the ECB places a disproportionately large weight on economic conditions in the bigger EMU member countries (von Hagen and Brückner 2001; Kool, 2006). In contrast to these findings, Sturm and Wollmershäuser (2008) have reported that economic conditions in small member countries receive more than proportional weight in actual ECB monetary policy decisions. Sousa (2009) has assumed that national representatives on the Governing Council take into account national perspectives when they vote on interest-rate decisions, and discovered evidence that voting coalitions are likely. Badinger and Nitsch (2011) have focused on the share of different nationalities in the ECB staff and argued, based on Taylor rules, that national background influences monetary policy decisions.

National influences in the governing council

A large body of theoretical contributions has emphasised the importance of the decision rule used by monetary policy committees, because the chosen decision rule determines the extent to which asymmetric national characteristics are considered in federal monetary policy. Some contributions have considered differences in preferences, in the structure of member economics or in shocks. For instance, Riboni and Ruge-Murcia (2010) have focused on differences in inflation aversion among committee members, Hefeker (2003) has emphasised structural differences across countries, whereas Grüner and Kiel (2004), Matsen and Røisland (2005), Méon (2008), and Farvaque et al.(2009) have looked at differences in shocks across member countries. The common message of these papers is that decision rules in monetary policy committees matter, especially in a federal monetary union.

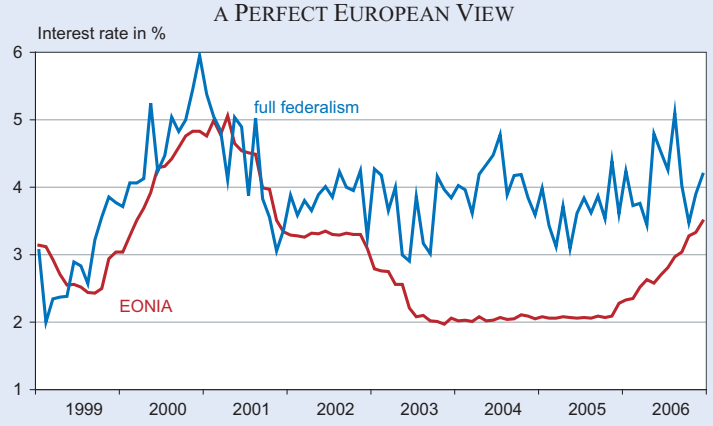
However, our knowledge of the actual decision-making mechanisms used by the ESCB lags far behind the sophistication of theoretical contributions. As no information has been published about Governing Council debates, its decisions have been analysed from an aggregate, namely, federal, point of view. Riboni and Ruge-Murcia (2010) have studied the aggregate evolution of interest rates set by five central banks, including the ECB. They reported that the consensus model, i.e., a decision-making mechanism where no member has proposal power and a "supermajority" is required for a policy change, conforms to actual policy decisions better than the alternative models. A major drawback of Riboni and Ruge-Murcia's (2010) approach is that they do not

describe the institutional details of decision-making in the euro area. First, they overlook the evolution of the Executive Board and do not adjust its size after Greece joined. Second, and more importantly, their approach does not take into account the federal nature of the Governing Council. In Riboni and Ruge-Murcia's (2010) setting, members of the monetary policy committee disagree because their relative weight placed on inflation and output differ, but they all base their decisions on the euro area's aggregate evolution, without any specific consideration for their home country's economic situation.

In a recent paper (Hayo and Méon, 2011), we have attempted to infer the decision-making mechanism used by the Governing Council and the preferences of its members. We investigated whether members of the Governing Council pursue aggregate objectives or try to implement a monetary policy that reflects the situation of their home country. From the literature, we took estimated national Taylor rules employing historical data so as to produce counterfactual national interest rate paths, i.e., what interest rates a country would have implemented if it were not an EMU member. These counterfactual interest rate paths were then aggregated using different decision procedures and various assumptions as to preferences of members of the Governing Council to produce hypothetical interest rates that can be compared to the historical interest rates set by the Governing Council. We considered four important decision procedures: (i) full chairman dominance, (ii) one man, one vote, (iii) several versions of bargaining, and (iv) the agenda-setting power of the president, under different assumptions about the behaviour of Executive Board members. We also considered two alternative types of preferences of the members of the Governing Council: (i) "federal" preferences, whereby council members seek to implement policies that best suit the euro area as a whole and (ii) "national" preferences, if they seek to implement policies that best suit their country of origin. By comparing the fit of hypothetical interest rates to observed ones, we can determine the decision rule that best describes the ECB's decisions.

Figure 3

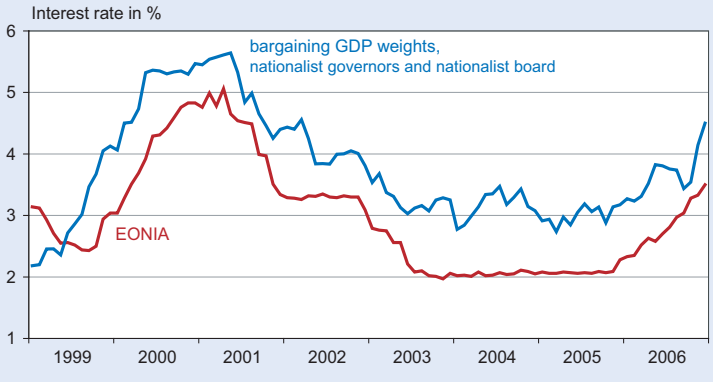
COUNTERFACTUAL INTEREST RATE PATH ASSUMING A PERFECT EUROPEAN VIEW



Source: ECB and Hayo/Méon (2011).

Figure 4

COUNTERFACTUAL INTEREST RATE PATH ASSUMING NATIONAL GOVERNORS AND NATIONAL EXECUTIVE BOARD MEMBERS AS WELL AS BARGAINING BASED ON GDP WEIGHTS



Source: ECB and Hayo/Méon (2011).

Figures 3 and 4 compare two important scenarios with the actual interest rate (Eonia). In Figure 3, the simulated interest rates obtained under a perfectly "federal" or European view are shown. In that scenario, all the members of the Governing Council are assumed to pursue a purely European monetary policy. Figure 4 shows the counterfactual interest rate path based on a bargaining scenario, where members of the Executive Board as well as national governors negotiate interest rates. Negotiations take into account the relative economic power, as measured by the respective country's share in the GDP of the Eurosystem.

Both simulations show the characteristics already mentioned in the discussion of Figure 2, namely that European interest rates were below the values recommended by a Taylor rule. However, clear differences appear. In Figure 3, while the simulated and actual rates are relatively close together in the earlier part of the sample, they diverge markedly from mid- 2003 onwards. At the end of the sample, another convergence takes place. In Figure 4, although the fit between simulated and actual series is not quite as tight during the early part of the sample, important turning points of the Eonia are well captured. Although there is still a difference between both series, the phase of decreasing interest rates in 2002–03 corresponds very nicely as well as the increase from the end of 2005 onwards

The conclusions based on the analysis of the figures holds up when using a variety of criteria, for instance correlation between the series, persistence and reaction of Eonia to changes in counterfactual target rates. Thus, our results robustly show that of all the scenarios we have considered, the best performing is the one in which individual members follow national objectives, bargain over the interest rate, and their weights in the negotiation are based on their country's share of the zone's GDP.

Thus, there is more than casual evidence that European monetary policy is affected by regional concerns and that decision-making in the Governing Council does not necessarily follow a one country, one vote principle. Taking these concerns seriously would imply that the current and planned ECB decision-making framework may not be optimal and should be adjusted to reflect these circumstances.

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