Journal of Macroeconomics 32 (2010) 766–781

Contents lists available at ScienceDirect

Journal of Macroeconomics

journal homepage: www.elsevier.com/locate/jmacro

When is a central bank governor replaced? Evidence based on a new data set

Axel Dreher [a,b,c,d], Jan-Egbert Sturm [b,c,*], Jakob de Haan [b,c,e,f]

[a] University of Goettingen, Platz der Goettinger Sieben 3, 37073 Goettingen, Germany
[b] ETH Zurich, KOF Swiss Economic Institute, Weinbergstrasse 35, 8092 Zurich, Switzerland
[c] CESifo, Germany
[d] IZA, Germany
[e] De Nederlandsche Bank, P.O. Box 98, 1000 AB, Amsterdam, The Netherlands
[f] University of Groningen, The Netherlands

ARTICLE INFO

Article history:
Received 7 September 2009
Accepted 5 April 2010
Available online 11 April 2010

JEL classification:
E5

Keywords:
Central bank governors
Central bank independence

ABSTRACT

Using new data on the term in office of central bank governors for a large set of countries for 1970–2005, we estimate a model for the probability that a central bank governor is replaced before the end of his legal term in office. We formulate hypotheses based on the literature on the determinants of central bank independence that are tested using conditional logit models and the robustness approach of Sala-i-Martin (1997). We conclude that, apart from the share of the legal term in office that has elapsed, political and regime instability, the occurrence of elections, and the ratio of private credit to GDP increase the probability of a turnover.

1. Introduction

When will a central bank governor be replaced? For instance, is a new governor appointed when there is a new government? Or is poor policy a reason for dismissal of the governor? Surprisingly, there is only scant empirical research available addressing these questions. Using a new database on the term in office of central bank governors this paper examines which political and economic factors affect the likelihood that a central bank governor will be replaced before the end of his legal term in office. Instead of developing a new theory, we test as many hypotheses as possible that have been suggested in the literature on the determinants of central bank independence (CBI).

One obvious reason that countries have different central bank turnover rates is that central bank laws differ with respect to the legal term in office of the central bank governor. Still, the experience of several countries suggests that the actual term in office of the central bank governor is not necessarily in line with central bank legislation. A well-known example is Argentina where the actual average term in office of the governor of the central bank during the 1980s was about a year, which deviates substantially from the period as foreseen in the central bank law in place at the time. In fact, whenever a new

* Corresponding author. Address: ETH Zurich, KOF Swiss Economic Institute, Weinbergstrasse 35, 8092 Zurich, Switzerland. Tel.: +41 44 6325001; fax: +41 44 6321150.
E-mail addresses: mail@axel-dreher.de (A. Dreher), sturm@kof.ethz.ch (J.-E. Sturm), jakob.de.haan@rug.nl (J.de Haan).

0164-0704/$ - see front matter
doi:10.1016/j.jmacro.2010.04.001

government or even a new minister of finance was appointed, the governor was replaced. In other countries the governor has remained in office for many years. For example, Jóhannes Nordal had been governor of the central bank of Iceland for almost 30 years when he stepped down in 1994.

We estimate conditional logit models of the likelihood that the central bank governor will be replaced before the end of the legal term in office (so-called irregular turnovers). Our results suggest that apart from the share of the legal term in office that has elapsed, a high level of political and regime instability, the occurrence of elections, and the ratio of private credit to GDP increase the probability of a turnover. As it is well known that developing countries have a much higher turnover rate of central bank governors than industrial countries (Cukierman, 1992; De Haan and Kooi, 2000; Dreher et al., 2008), we also examine whether irregular central bank governor turnovers in OECD and non-OECD countries are driven by different factors. Our results suggest that there are indeed differences among both groups of countries, although some factors (like elections) affect the probability of a central bank turnover in both OECD and non-OECD countries.

The remainder of the paper is structured as follows. Section 2 summarizes the literature on the determinants of CBI in some more detail and formulates our hypotheses. Section 3 describes our data set and discusses the methodology used. Section 4 presents our results for the full sample of countries, while Section 5 shows the outcomes for some sub samples. The final section offers concluding comments.

2. Hypotheses

In this section we discuss various views that have been put forward explaining differences in CBI across time and countries. Based on this literature, we derive our hypotheses concerning the likelihood of a change of central bank governor.[1] We assume here that any argument suggested to affect CBI has an effect on the length of the term in office of the central bank governor as well.[2]

Table 1 summarizes the hypotheses tested in the paper. In the remainder of this section, the hypotheses are briefly explained.

Essentially, there are two different approaches explaining CBI. In the first approach, delegation of monetary authority by politicians is considered as a (partial) commitment device. By delegating monetary powers to an independent central bank that places a higher weight on inflation stabilization than the government, the inflationary bias may be reduced and the credibility of monetary policy increased. However, policy makers lose flexibility to employ monetary instruments for political or other purposes. So central bank independence entails both benefits (greater credibility) and costs (less flexibility) and the balance between benefits and costs determines the optimal and the actual level of CBI (see Cukierman, 1994).

In the second approach, CBI is determined by the preferences of a society and/or particular interest groups, in conjunction with the political decision process. According to Hayo (1998), societies differ with respect to their preference for inflation and this is reflected in monetary institutions. Similarly, the preferences of particular interest groups may be pivotal. For instance, Posen (1995) argues that the financial sector's opposition to inflation determines both inflation and CBI.

One of the potential benefits of CBI is that it signals increased creditworthiness to potential foreign investors. Maxfield (1997) argues that the more global financial markets become, the more politicians must concern themselves with this kind of signaling. According to Maxfield, the likelihood that governments will use CBI to try to signal creditworthiness is greater the larger the country's financial needs, i.e., the higher the level of government debt and/or the budget deficit (hypotheses 1 and 2), and the fewer restrictions the country concerned has on international financial transactions (hypothesis 3).[3]

Maxfield (1997, p. 47) points out that politicians' tenure security will also affect their policies to signal creditworthiness since "leaders insecure in their positions are likely to want to maintain policy flexibility because it provides greater potential for vote-buying and because the benefits of creditworthiness may accrue for the succeeding leadership." Similarly, it may be argued that if inflation surprises are valuable in the short run, and if the chances for a politician to be thrown out of office are high, it will be attractive for politicians to be able to overrun the central bank (hypothesis 4) or to appoint a new governor after they have come to power, be it after elections or otherwise (hypothesis 6). The short-run benefits of this flexibility may exceed the long-run costs of a higher inflation rate.

There is also an alternative line of reasoning based on Cukierman's (1994) framework. Suppose that different political parties strongly disagree about the structure of government expenditures. By granting independence to the central bank and thereby restricting the revenues from seigniorage, the political party in power may reduce the ability of the opposition to

[1] See Berger et al. (2001) for a survey of the literature on CBI.

[2] Of course, the reverse does not hold. For instance, if the governor has to step down because of a scandal this will affect his term in office but has not much to say about CBI.

[3] The first and second hypotheses can also be motivated in a somewhat different way within the framework of Cukierman (1994). Countries with a high level of debt and/or large government budget deficits suffer from an excessive inflationary bias, so that the benefits from commitment (i.e., a lower interest burden) will be larger.