



# Uncertainty and fiscal policy in a monetary union: Why does monetary policy transmission matter?☆



Cornel Oros<sup>a,b,\*</sup>, Blandine Zimmer<sup>c</sup>

<sup>a</sup> CRIEF, University of Poitiers, 2, Rue Jean Carbonnier, Bât. A1 BP 623, 86022 Poitiers, France

<sup>b</sup> LEO, University of Orléans, Rue de Blois, 45067 Orléans, France

<sup>c</sup> LaRGE, University of Strasbourg, 47 avenue de la Forêt Noire, 67082 Strasbourg, France

## ARTICLE INFO

### Article history:

Accepted 8 June 2015

Available online 2 July 2015

### Keywords:

Central bank transparency

Monetary union

Fiscal policy

## ABSTRACT

In this paper, we develop a monetary-fiscal game in a monetary union with uncertainty due to imperfect transparency about the central bank's preferences. The objective is to investigate the macroeconomic effects of this uncertainty by explicitly taking into account the role of the monetary policy transmission mechanism. We first consider the case of symmetric monetary transmission in the monetary union and show that if the transmission mechanism is not too strong, monetary uncertainty may be beneficial in terms of macroeconomic performances and stabilisation. We then allow for some transmission asymmetry among the member countries and show that the beneficial impact of monetary uncertainty is exacerbated for countries that are more sensitive to the common monetary policy. More importantly, our findings suggest that the central bank's communication about its preferences could represent a specific instrument to influence inflation expectations and thus macroeconomic outcomes in the member countries.

© 2015 Elsevier B.V. All rights reserved.

## 1. Introduction

Monetary transparency has been a constant topic in the macroeconomic debates for a few decades. Despite a very vast literature starting with the seminal work of Brainard (1967) there is no clear and unitary vision stating the implications of central bank transparency on the economic agents' behaviour and economic outcomes.<sup>1</sup> The defenders of the idea of perfect monetary transparency suggest that it allows the private sector to better anticipate and understand the signals provided by the monetary policy. The effectiveness and credibility of monetary policy are thus reinforced (Blinder et al., 2001; Ferguson, 2002) as well as the capacity of the Central Bank to use discretionary policies (Kuttner and Posen, 2001).

Opposite views underline the positive effects of some central bank opacity. Thus, Cukierman and Meltzer (1986) show that perfect transparency is not optimal as only an unanticipated monetary policy can be effective. If we consider that the agents' capacity to absorb and

understand the information provided by the central bank is limited, a high degree of transparency could generate confusion as a consequence of an information overload (Van der Cruysen et al., 2010) leading to counterproductive effects like for instance an excessive volatility on financial markets (Jensen, 2002).<sup>2</sup> A series of papers has focused on the effects of central bank transparency on labour markets. Turdaliev (2009) studies the welfare effects of central bank transparency by making a distinction between workers and producers. He shows that, under certain conditions, workers are better off when the central bank is opaque, whereas producers are better off under a transparent central bank. Using models where wage setters are represented by strategically acting labour unions, Hefeker (2008), Grüner et al. (2005), Grüner (2002) and Sorensen (1991) show that an ambiguous monetary policy may be beneficial for macroeconomic performances as it leads to more wage discipline.<sup>3</sup> Sánchez (2011) somewhat challenges their result by showing that more transparency can help to moderate wage claims if it is accompanied by a high level of central bank inflation aversion.

Our paper adds a new theoretical argument to this debate, based on the implications of the monetary policy transmission mechanism for the effects of central bank transparency. More precisely, the objective of our

☆ The authors thank the two anonymous referees and the Editor, Professor Sushanta Mallick for their constructive comments and suggestions as well as the participants to the 31th GdRE Annual International Symposium on Money, Banking and Finance (Lyon), the JIR Conference (Niort), the 16th INFER Annual Conference (Pescara), the CREM seminar (University of Rennes I).

\* Corresponding author.

E-mail addresses: [cornel.oros@univ-poitiers.fr](mailto:cornel.oros@univ-poitiers.fr) (C. Oros), [zimmer@unistra.fr](mailto:zimmer@unistra.fr) (B. Zimmer).

<sup>1</sup> The aim of our paper is not to discuss all this literature. For a survey on transparency literature, we could refer for instance to Van der Cruysen and Eijffinger (2010), Geraats (2009), Dincer and Eichengreen (2009), Geraats (2002), Blinder et al. (2008), Crowe and Meade (2008), Posen (2003), and Chortareas et al. (2002).

<sup>2</sup> For a survey of the literature assessing the optimality of an intermediate degree of transparency, see Van der Cruysen et al. (2010) and Cukierman (2007).

<sup>3</sup> A similar disciplining effect of monetary uncertainty has been identified on the fiscal authorities' decisions. See for instance Ciccarone et al. (2007), Hefeker and Zimmer (2011) and Dai and Sidiropoulos (2011a,b).

paper is to show how the monetary transmission mechanism influences the effects of transparency on the private sector's anticipations and thus on macroeconomic performances. This is done in a two country-monetary union framework with strategic interactions between the common central bank, national governments and the member countries' non-unionised private sector which acts as a Stackelberg leader with respect to the public sector.<sup>4</sup> To introduce the issue of central bank transparency, we refer to the concept of "political" transparency. In other words, we assume that the central bank may not necessarily be fully transparent about the weights it gives to its different policy objectives, so that there is some uncertainty about these objectives for the governments and the private sector.<sup>5</sup>

Within this framework, we distinguish two cases. First, we consider the case of a symmetric monetary union where the transmission mechanism of the common monetary policy is identical in the member countries. In this benchmark case, we identify a new channel through which monetary uncertainty affects the private sector's anticipations. This channel depends on the monetary transmission mechanism. In particular, we show that when this latter is relatively weak – due for instance to low size of the interest rate pass-through between policy controlled interest rates and retail bank interest rates –, then higher monetary uncertainty may contribute to reduce the private agents' inflation expectations and thereby improve macroeconomic performances.<sup>6</sup> Indeed, when the central bank is not fully transparent about the importance it gives to its objectives, the private sector has to guess its policy stance. Thus, in the case where the monetary policy transmission is weak, the private sector anticipates a stronger reaction of the central bank in order to reach its price stability objective. The higher the uncertainty about the central bank's preferences, the more restrictive the expected monetary policy stance is and the lower the inflation expectations are.

Second, we allow for some structural asymmetries in the monetary union. Despite a high integration between the members countries, structural heterogeneities can still be present, conditioning the implementation and the efficiency of the common monetary policy. For instance, in the European Monetary Union (EMU), members display various and important structural heterogeneities (differentiated sectorial and financial structures, heterogeneous labour market organization) which are likely to become even more significant with the gradual enlargement of the EMU.<sup>7</sup> In this paper, we focus on monetary policy transmission heterogeneity. More precisely, we assume that the common monetary policy may have a stronger impact in one country than in the other. A series of papers has highlighted the heterogeneity of the monetary policy transmission mechanism in EMU.<sup>8,9</sup> Under this assumption, we begin by investigating how asymmetric monetary transmission translates into heterogeneous macroeconomic performances within the union

<sup>4</sup> There is a very abundant literature tackling the issue of the policy-mix within a monetary union. See for instance, Dixit and Lambertini (2001), Beetsma and Bovenberg (1998, 1999), Beetsma and Uhlig (1999), Chari and Kehoe (1998), Dornbusch (1997), Villieu (2003), Uhlig (2002), Mundschenk and Von Hagen (2003), Beetsma et al. (2001), and Engwerda et al. (2002).

<sup>5</sup> In the literature, a distinction is often made between "political" transparency, referring to the relative weights the central bank assigns to its policy objectives, and "economic" transparency, which relates to the central bank's policy targets (see for instance Hughes-Hallett and Viegi, 2003 or Demertzis and Hughes Hallett, 2007).

<sup>6</sup> Angeloni et al. (2002) argue that the interest rate channel is the most important for monetary policy transmission in the Eurozone. Recent empirical studies however show this channel has been impaired by the financial crisis (see for instance Blot and Labondance, 2013).

<sup>7</sup> The interactions between the fiscal and the monetary policies within a structural heterogeneous monetary union are assessed in Badarau and Leveugue (2011), Badarau et al. (2009), Menguy (2005), Oros (2008). These studies consider the case of perfect monetary transparency within the Union.

<sup>8</sup> See for instance, Penot et al. (2000), Mojon and Peersman (2001), Penot (2002), Ciccarelli et al. (2013), and Praet (2012). Leroy and Lucotte (2014), for instance, relate this asymmetry to the heterogeneous degrees of banking competition in the member countries.

<sup>9</sup> See Appendix A for some financial indicators providing evidence on heterogeneity of monetary policy transmission mechanism within Eurozone.

before highlighting the differentiated effects of monetary uncertainty resulting from the transmission asymmetry.

Our findings suggest that countries with a strong transmission mechanism undergo a lower output and a higher budget deficit as well as an increased macroeconomic volatility compared to the other member countries. It also appears that a higher degree of monetary transmission asymmetry within the union reinforces the impact of monetary uncertainty on macroeconomic variables in countries with strong transmission. Finally, our main result in this paper is to show that by taking into consideration the strength and the heterogeneity of the monetary transmission mechanism in the Union, the central bank could use the potential existence of private information about its preferences to influence the private sector's inflation expectations. The central bank's communication strategy about its preferences could thus play a major part in shaping macroeconomic performances in the monetary union and may de facto represent an additional monetary policy instrument.

The reminder of the paper is structured as follows: The next section describes the structure of the member countries' economy and the policy-makers' (national governments and central bank) objective function. Section 3 presents the impact of monetary uncertainty on the level and the variability of macroeconomic variables in a homogeneous monetary union whereas Section 4 analyses the effects of monetary uncertainty in a heterogeneous monetary union. Section 5 concludes.

## 2. The model

We consider a closed monetary union (MU) formed by two countries, indexed by  $i$  and  $j$ , whose economy is described by a static Keynesian model.<sup>10</sup> All the variables (except the interest rate) are expressed in logarithms. The demand function in country  $i$  is represented by a standard IS function<sup>11</sup>:

$$y_i^D = ag_i + bg_j - \delta_i r \quad \text{where } 0 < a < 1; |b| < 1; \delta > 0 \quad (1)$$

where  $y_i$  and  $g_i$  respectively stand for the output (as deviation from the natural output) and the budget deficit in country  $i$ ;  $g_j$  represents the budget deficit of country  $j$  and  $r$  defines the MU-wide short-term interest rate.

Hence, country  $i$ 's demand function positively depends on  $g_i$ , the national budget deficit;  $a$ , which measures the sensitivity of the demand to  $g_i$ , is below the unit ( $a < 1$ ) due to the crowding out effect.<sup>12</sup> Country  $i$ 's demand also negatively depends on the interest rate according to a sensitivity  $\delta_i$ . Since the heterogeneity of the MU concerns the mechanisms of monetary policy transmission, parameter  $\delta$  is specific to each country. We define the degree of heterogeneity between the country by  $h$  ( $0 < h < 1$ ), so that  $\delta_i = (1 + h)\delta$  and  $\delta_j = (1 - h)\delta$ , where  $\delta$  corresponds to the average impact of monetary policy on the economic activity in countries  $i$  and  $j$ . Therefore, if  $h = 0$ , countries are perfectly homogeneous in terms of monetary policy transmission mechanisms ( $\delta_i = \delta_j$ ) whereas the heterogeneity attains its maximum if  $h = 1$ . In this case, monetary policy only affects the demand in country  $i$  with a maximum impact ( $\delta_i = 2\delta$ ) and has no impact in country  $j$  ( $\delta_j = 0$ ).

Finally, country  $i$ 's demand is also influenced by the budget deficit of country  $j$  in a proportion  $b$ . We assume that the sign of parameter  $b$  is

<sup>10</sup> The aggregate demand and supply functions can be seen as a simplified version of a more general microfounded New Keynesian model. See for instance the papers of Clarida, Gali, and Gertler (1999) and Woodford (2003) for a deeper analysis and the complete derivation of the model.

<sup>11</sup> For sake of brevity, we only present variables and outcomes for country  $i$  but symmetric expressions hold for country  $j$ .

<sup>12</sup> This positive relationship only holds in the short run and is thus justified in our static Keynesian approach. In the long run, however, a permanent budget deficit, translating in a high level of public debt, could have a negative effect on demand. This case, which may be captured by using a dynamic approach based on general equilibrium, could represent an interesting extension of the paper.

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات