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Asymmetric bank lending channels and ECB monetary policy ☆

Leonardo Gambacorta*

Banca d'Italia, Research Department, Via Nazionale, 91 00184 Rome, Italy

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Abstract

The launch of the euro has prompted interest in the differences between financial systems and their consequences for monetary policy transmission. This paper analyses the case of a monetary union composed of countries with heterogeneous bank lending channels. In order to insulate the economies from the asymmetric effects produced by differences in national banking systems, a money supply process based on the interest rate on bonds and its spread with respect to the lending rate is proposed. Using a two-country rational expectations model, this study highlights the properties of the optimal monetary instrument.

JEL classifications: E58; E63

Keywords: European Central Bank; Asymmetry; Bank lending channel; Optimal monetary policy

1. Introduction

European monetary integration has prompted interest in the study of differences between financial systems among EU countries and their consequences for monetary transmission mechanisms (Dornbusch et al., 1998). In the spirit of Bernanke and Blinder (1988), heterogeneity in the structure of financial intermediation and

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* Corresponding author. Tel.: +39-06-47922979; fax: +39-06-4792-3723.

E-mail address: gambacorta.leonardo@insedia.interbusiness.it (L. Gambacorta).

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in the degree and composition of firms' and households' debt could imply differences in the effectiveness of the 'credit channel' (or, now, the 'bank lending channel') of monetary policy in the euro area (Borio, 1996; Kashyap and Stein, 1997; Guiso et al., 1999). Empirical studies seem to confirm the importance of these asymmetries. For example, the credit channel has been found to be present in Italy (Buttiglione and Ferri, 1994; Angeloni et al., 1995; Bagliano and Favero, 1995; Fanelli and Paruolo, 1999; Chiades and Gambacorta, 2000), but not in France (Bellando and Pollin, 1996), Germany (Barran et al., 1995) or the Netherlands (Garretsen and Swank, 1998). The analysis could also be extended to other UE countries, such as the United Kingdom, where there is evidence of a significant credit channel (Dale and Haldane, 1993a,b, 1995). Apart from their different conclusions, these econometric studies point out the substantial information content of the spread between bank and bond market rates in explaining loan market disturbances and their impact on real output (see also Kashyap et al., 1993).

The aim of this paper is to analyse the optimal monetary policy for a monetary union composed of countries with structural differences in credit channels. In order to better insulate the economies from the asymmetric effects produced by heterogeneity in national financial systems, the classical money supply process proposed by Poole (1970) is modified to consider the spread between the interest rate on loans and that on bonds as an additional feedback variable. In fact, while the interest rate on bonds embodies information mainly on money market equilibrium, the spread also indicates the state of the credit and goods markets.

The analysis is carried out with reference to the economic policy scenario for the EMU where the Governing Council sets its objective for the Union as a whole. Nevertheless, heterogeneity in the financial structures has great influence on the choice of monetary policy, because it affects the geographical distribution of the effects. The main finding of this study is that if the countries that make up the Union have asymmetric bank lending channels, an active monetary policy that responds to information from financial indicators produces very great benefits; in this case, the optimal monetary policy is influenced not only by the magnitude of the variance of the shock but also by its point of origin, since its propagation within the union depends upon the characteristics of the country that has been hit by the disturbance.

The remainder of the paper is organised as follows. Section 2 presents the analytical framework, based on a two-country rational expectations model. Section 3 analyses the characteristics of a money supply process that uses as feedback variables both the interest rate on bonds as in Poole (1970) and its spread vis-à-vis the bank lending rate. After discussing the objective function of the area-wide monetary authority (Section 4), Section 5 investigates the properties of the optimal monetary instrument. Section 6 summarises the main conclusions.

2. The analytical framework

The analysis is based on a two-country rational expectations model in which both