Available online at www.sciencedirect.com
SCIENCE DIRECT®
European Journal of Political Economy
Vol. 21 (2005) 872–902
European Journal of POLITICAL ECONOMY
www.elsevier.com/locate/ejpe

Credibility and commitment of monetary policy in open economies

Marcello D'Amato[a,*], Riccardo Martina[b]

[a]Dipartimento di Scienze Economiche, Csef, Celpe, Università di Salerno, Via Ponte don Melillo, 84084 Fisciano (Sa), Italy
[b]Dipartimento di Teoria e Storia dell'Economia Pubblica, Csef, Università di Napoli Federico II, Via Cintia, 80126 Napoli, Italy

Received 10 April 2003; received in revised form 10 September 2004; accepted 24 November 2004
Available online 9 April 2005

Abstract

We study the delegation of monetary policy to independent central bankers in a two-country world with monetary spillovers. It is shown that, under the hypotheses of imperfect commitment and private information, the equilibrium degree of commitment depends on the correlation structure of the shocks hitting the economies. When the correlation is negative (as when the variance of output depends mainly on shocks to the terms of trade) there is strategic complementarity in the degree of commitment in the two countries. When the correlation is positive (common technological or demand shocks) there is strategic substitutability. In this latter case, the degree of commitment is shown to be increasing in the correlation among shocks. Common components in the international business cycle have been shown in several studies to be relatively more relevant in developed countries. Therefore, our results may contribute to explaining why the institutional solution to the inflationary bias has been adopted in the most advanced countries.

JEL classification: E58; D82; F42
Keywords: Monetary policy delegation; Open economies; Central bankers; Private information

* Corresponding author. Tel.: +39 89 962074; fax: +39 89 962160.
E-mail address: damato@unisa.it (M. D'Amato).

doi:10.1016/j.ejpoleco.2004.11.006

1. Introduction

Since the end of the Bretton Woods agreement, the analysis of the role of the strategic interaction between national monetary authorities has been important in the academic and policy debate. The creation of the EMU and the establishment of the European Central Bank have further stimulated this line of research. Strategic interaction among monetary authorities in open economies is not, of course, the only major force shaping monetary policies in open economies. Since the seminal contributions of Kydland and Prescott (1977) and Barro and Gordon (1983), monetary policy has also been recognized to be affected by an inflationary bias. Economic, institutional and political aspects are at the core of the theoretical work in this field (see, for surveys, Eijffinger and de Haan, 1996; Persson and Tabellini, 2000). Rogoff (1985a) explicitly proposed an institutional solution to the credibility problem based on the strategic precommitment of monetary policy to an independent central bank (cb henceforth) with suitable preferences. Political scientists also argue that "credible delegation of monetary policy making to an independent and conservative central bank can serve as a commitment device circumventing [...] the inflationary bias" (Franzese, 1999).

Are strategic interactions among monetary policy makers and openness relevant for the inflationary bias and for the design of monetary institutions? Intuition, theory and data suggest that they are. For example, Rogoff (1985b) and Romer (1993) argue that, in open economies, policy spillovers affect the inflationary bias and may affect institutional design and incentives to precommit monetary policy in non-trivial ways. Rogoff (1985b) shows that international cooperation may be counterproductive if the credibility loss associated to the cooperative regime among monetary policy makers countervails the gains from the internalization of the negative externalities associated with the terms of trade effect of surprise inflation. Romer (1993), in his study of the determinants of long-run inflation in open economies, analyzes the relationship between the inflationary bias and the degree of openness and argues that the institutional solution to the inflationary bias problem only seems to have worked for rich countries.

If openness is relevant, how does it affect the institutional design of monetary authorities by sovereign governments? Giavazzi and Pagano (1988), by extending the model by Rogoff (1985a), show that governments of small open economies may have incentives to precommit monetary policy through a fixed exchange rate regime in order to gain credibility from abroad. Persson and Tabellini (1995, 1996) argue that cooperative stabilization policies may be implemented by suitable contracts between the government and central bankers. Extensions of the Obstfeld and Rogoff (1995) model by Corsetti et al. (2000), Corsetti and Pesenti (2001a,b) and Benigno (2002) have revisited the normative analysis of welfare effects of strategic interdependence in monetary policy making and the foundations of policy coordination. In this framework, for example, Betts and Devereux (2000) reevaluate the issue of international monetary policy coordination and, implicitly, the interdependence of institutional design. Their model studies how alternative assumptions on pricing strategies by exporting firms may change the nature and the incentives for policy coordination and shows that the microfoundation of welfare analysis of international monetary policy regimes may not be inconsistent with negative spillovers across countries.