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Capital mobility and the output–inflation tradeoff

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Abstract

Identifying determinants of the output–inflation tradeoff has been a key issue in business cycle research. We provide evidence that in countries with greater restrictions on capital mobility, a given reduction in the inflation rate is associated with a smaller loss in output. This result is shown to be consistent with the predictions of a version of the Mundell–Fleming model. Restrictions on capital mobility are measured using the IMF's Annual Report on Exchange Rate Arrangements and Exchange Restrictions. Estimates of the output–inflation tradeoff are taken from previous studies (viz., Lucas [Am. Econ. Rev. 63 (1973)] and Ball, Mankies and Romer 19 (1988)). © 2001 Elsevier Science B.V. All rights reserved.

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1. Introduction

Understanding the determinants of the output–inflation tradeoff (or the "sacrifice ratio") has been a key area of research in business cycle theory. The new classical

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approach (Lucas, 1973) and the new Keynesian approach (Ball, 1994; Ball et al., 1988) offer competing explanations for the determinants of the tradeoff. Though these studies use cross-country data to test their models, both approaches are based on closed economy considerations.

In contrast, our paper analyses the determinants of the output–inflation tradeoff in an open-economy setting. In particular, we show that countries with greater restrictions on capital mobility have smaller tradeoff parameters (i.e., steeper Phillips curves). As a prelude to the empirical results in the paper, consider the evidence in Fig. 1 below.

In the left panel, we measure the extent to which countries restrict capital movements using an index constructed from the IMF's Annual Report on Exchange Rate Arrangements and Exchange Restrictions. We have divided the sample of 35 countries used in Ball, Mankiw and Romer (henceforth, BMR) into four groups based on the average value of our capital controls index over the period 1950–1986. Group I consists of countries such as the United States and Singapore, which have had essentially no capital controls over this period, whereas countries with the most restrictions on capital mobility are in group IV. In the panel on the left, the height of the bar shows the average value (across countries) of the capital controls index for each group. In the panel on the right, the average value of BMR's estimated output–inflation tradeoff parameter for the four groups is shown. It is evident that there is an inverse relationship: the greater the intensity of capital controls, the smaller is the tradeoff parameter (i.e., the steeper is the Phillips curve). The use of Ball's sacrifice ratio estimates—instead of BMR's estimates—yields similar results.

To develop some intuition for why capital mobility might matter, consider the two polar cases of zero mobility and perfect mobility of capital, respectively. In the zero mobility case, interest rate parity does not have to hold, and this leaves more scope for adjustment in the domestic interest rate in response to shocks; at the same time, however, closed capital accounts require that net trade be balanced,

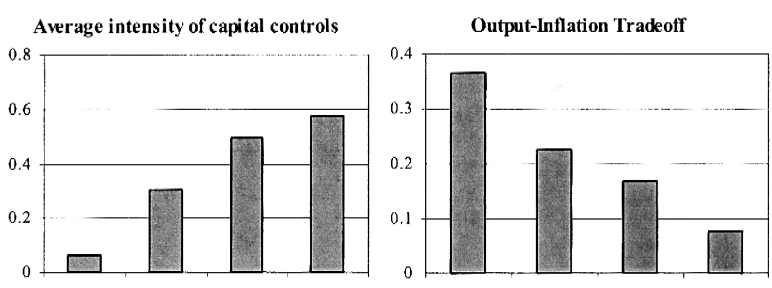

Fig. 1. Capital controls and the output-inflation.