



Contents lists available at ScienceDirect

Journal of Monetary Economics

journal homepage: www.elsevier.com/locate/jmeFinancial globalization and monetary policy [☆]Michael B. Devereux ^{a,b,*}, Alan Sutherland ^c^a NBER, CEPR, University of British Columbia, Canada^b Department of Economics, University of British Columbia, 997-1873 East Mall, Vancouver, BC, Canada V6T 1Z1^c CEPR and University of St Andrews, UK

ARTICLE INFO

Article history:

Received 25 September 2007

Received in revised form

23 September 2008

Accepted 23 September 2008

Available online 4 October 2008

JEL classification:

E52

E58

F41

Keywords:

Portfolio choice

International risk sharing

Exchange rate

ABSTRACT

Recent data show substantial increases in the size of gross external asset and liability positions. The implications of these developments for optimal conduct of monetary policy are analyzed in a standard open economy model which is augmented to allow for endogenous portfolio choice. The model shows that monetary policy takes on new importance due to its impact on nominal asset returns. Nevertheless, the case for price stability as an optimal monetary rule remains. In fact, it is reinforced. Even without nominal price rigidities, price stability is optimal because it enhances the risk sharing properties of nominal bonds.

© 2008 Elsevier B.V. All rights reserved.

1. Introduction

The growth in the size and complexity of international financial markets has been one of the most striking aspects of the world economy over the last decade. Lane and Milesi-Ferretti (2001, 2006) document the increase in gross cross-border holdings of bond and equities, describing this as a process of *financial globalization*. Economists and policy makers have speculated on the implications of financial globalization for the design of monetary policy.¹ Most central banks now follow a policy of inflation targeting. Under this policy, price stability, appropriately defined, is the principal goal of monetary policy. Is this conclusion altered by the presence of large cross border gross holdings of financial assets, where movements in asset prices and exchange rates may have significant wealth redistribution effects?

This paper explores the implications of financial globalization for the design of monetary policy. We can address the question raised above, because our model determines the structure of gross holdings of cross-country financial assets. The principal finding is that endogenous portfolio structure does not alter the case for price stability as an optimal monetary policy. In fact, it may even reinforce this case. In an environment where financial markets are incomplete, price stability is

[☆] We thank Philippe Bacchetta, Ali Dib, Dale Henderson, an anonymous referee, and numerous seminar participants for comments. This research is supported by the ESRC World Economy and Finance Programme, award number 156-25-0027. Devereux also thanks SSHRC, the Bank of Canada, and the Royal Bank of Canada for financial support. The views in this paper are those of the authors alone, and do not reflect those of the Bank of Canada.

* Corresponding author. Tel.: +1 604 822 2542; fax: +1 604 822 5915.

E-mail address: devm@interchange.ubc.ca (M.B. Devereux).

¹ See, for instance, Ferguson (2005), Fisher (2006), and Rogoff (2006).

desirable because it enhances the international risk-sharing properties of nominal assets, even without nominal goods price rigidities.

A theoretical foundation for price stability has been given by King and Wolman (1999), Woodford (2003), and others, using sticky-price dynamic general equilibrium models. A monetary rule devoted to stabilizing prices eliminates the inefficiency of costly price adjustment. In an open economy, however, the optimality of price stability as the sole goal of monetary policy depends on the structure of international financial markets. Benigno and Benigno (2003) show that stability of producer prices is optimal when financial markets are complete. But Benigno (2001) and Obstfeld and Rogoff (2002) show that the absence of full international risk-sharing may interact with the inefficiency arising from sticky prices, so that price stability may not constitute the unique optimal goal of monetary policy.

A drawback of many of these papers is that international financial markets are modeled either by the absence of any type of international risk-sharing (e.g. trade in non-contingent bonds) or by full risk-sharing (complete markets). In reality, international financial markets seem to be somewhere in the middle. Once allowance is made for endogenous portfolio choice, it is possible that monetary policy rules actually affect the structure or efficiency of international financial markets. Thus, the analysis of monetary policy with endogenous portfolio structure is an important direction for this literature.

Research along these lines has been hindered by the difficulty of integrating portfolio choice into dynamic stochastic general equilibrium (DSGE) models. This paper resolves this difficulty by using a methodology developed in Devereux and Sutherland (2006), which can incorporate optimal portfolio choice in a standard DSGE setting in a tractable way. This is combined with an otherwise standard two-country model of an open economy with staggered price-setting. The paper allows for a range of financial structures, differing in the number of assets traded across countries. In one case, the only asset is a non-contingent real bond, and there is no portfolio choice at all. In another case, there is trade in nominal bonds and equities and given our stochastic environment, markets are complete. In an intermediate case, nominal bonds denominated in each country's currency can be traded. Portfolio choice is then endogenous, but asset markets are incomplete.

The model delivers analytical solutions for gross asset holdings under each financial market configuration. We ask how monetary policy interacts with portfolio choice in affecting macro-economic outcomes, investigate how monetary policy influences the degree of international risk-sharing, and characterize an optimal monetary policy.

With trade in both bonds and equities full international risk-sharing is achieved, for any monetary policy. In this case the portfolio composition of bonds and equities is independent of monetary policy. Then price stability is an optimal policy for conventional reasons, since it eliminates the welfare losses coming from slow price adjustment.² On the other hand, when asset trade is restricted to a real non-contingent bond, deviating from price stability is in general desirable in order to alleviate risk-sharing inefficiencies.

But in the intermediate case, with trade in nominal bonds, monetary policy affects the composition of portfolios. Monetary policy plays a dual role. First, it can be used so as to support the flexible price equilibrium of the economy. But monetary policy can also enhance the degree of international risk-sharing itself, by improving the hedging properties of nominal bonds. This second property of policy is conceptually independent of the first; it remains useful even in a flexible price economy. We find that in an environment where nominal bonds are traded, a policy of strict price stability will *endogenously* generate full international risk-sharing. Strict price stability is desirable on two counts. It supports the flexible price outcome, and it also allows nominal bond returns to offer full risk-sharing against country specific productivity shocks. Even if prices are fully flexible, there is still a non-trivial welfare case for price stability, if asset markets are incomplete.

The model implies that countries are holding large offsetting gross nominal asset positions, so that exchange rate movements can generate substantial 'valuation effects'. But the presence of these effects does not directly change the optimal monetary rule. Because portfolios are chosen optimally, the wealth redistribution arising from exchange-rate-induced valuation effects represent the workings of an efficient international financial structure. Moreover, monetary authorities do not have to be concerned with these redistributions. It is desirable to use the exchange rate in the traditional Friedman (1953) manner—to generate efficient terms-of-trade adjustment. The new insight from this paper is that Friedman's prescription may hold *even without* his underlying assumption of sluggish nominal goods price adjustment. When risk sharing is obtained via trade in nominal bonds, the Friedman argument—that it is better to use the exchange rate to facilitate terms of trade adjustment rather than price levels—is supported, *even in a fully flexible price economy*.

This paper is related to a growing literature on the analysis of portfolio composition and financial markets in dynamic general equilibrium models. The method used here is developed in Devereux and Sutherland (2006, 2007c). Related papers are Engel and Matsumoto (2006), Evans and Hnatkovska (2005) and Kollmann (2006). Engel and Matsumoto (2006) incorporate endogenous portfolio choice into a complete markets version of a sticky-price open economy macro model, focusing on the 'home equity bias' puzzle. They do not directly analyze the role of monetary policy. Kollmann (2006) and Evans and Hnatkovska (2005) construct non-monetary dynamic general equilibrium environments with endogenous

² Throughout this paper the focus is on optimal monetary policy from a global perspective, i.e. where monetary policy in all countries is chosen *cooperatively* to maximize world aggregate welfare. In our model price stability is the optimal cooperative policy for all parameter combinations as long as financial markets are complete. Benigno and Benigno (2003), who analyze a framework which is similar to the complete-markets version of our model, show that price stability is only a *non-cooperative* equilibrium for certain parameter combinations.

متن کامل مقاله

دریافت فوری ←

ISIArticles

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