



ELSEVIER

Journal of International Economics 50 (2000) 421–447

---

---

Journal of  
INTERNATIONAL  
ECONOMICS

---

---

www.elsevier.nl/locate/econbase

## Exchange rate determination: The role of factor price rigidities and nontradeables

Harald Hau\*

*ESSEC, School of Management, Department of Finance, Avenue Bernard Hirsch, BP 105,  
95021 Cergy-Pontoise Cedex, France*

---

### Abstract

This paper introduces factor (labor) markets into the intertemporal monetary model of Obstfeld and Rogoff and combines this richer market structure with a new utility-independent representation of nontradeables. This allows us to explore the international monetary transmission mechanism for factor price (wage) rigidities under different degrees of macroeconomic openness. Factor price rigidities imply similar properties for the international transmission mechanism as domestic producer price rigidities. Nontradeables give raise to interesting new effects under asymmetric monetary shocks: They create short-run PPP deviations, increase exchange rate volatility relative to price level volatility and reduce (positive) consumption and (negative) output comovements. © 2000 Elsevier Science B.V. All rights reserved.

*Keywords:* Monetary transmission; Factor price rigidities; Nontradeables

*JEL classification:* F3; F4

---

### 1. Introduction

This paper investigates the role of factor price (wage) rigidities and nontradeables for the international monetary transmission mechanism. Our work builds on the dynamic two-country model of Obstfeld and Rogoff (1995a), which we generalize in three respects. First, we introduce factor markets (similar to

---

\*Tel.: +33-1-3443-3239; fax: +33-1-3443-3001.

*E-mail address:* hhau@edu.essec.fr. (H. Hau)

Blanchard and Kiyotaki, 1987) and assume that nominal rigidities originate in sticky factor prices (wages).<sup>1</sup> Historically, nominal factor price (or wage) rigidities have played a central role in theories of monetary non-neutrality. Recently, Christiano et al. (1997) have pointed out that firm profits decrease after a monetary contraction and that this observation is unexplained by a combination of sticky product prices and a flexible factor (labor) market. Our model with sticky factor prices (wages) correctly predicts procyclical firm profits. The international transmission mechanism is shown to be similar if we assume factor price rigidities instead of product price rigidities. Second, Obstfeld and Rogoff assume nominal price rigidities for the domestic products, while the foreign market price for the same product is flexible and determined by the law of one price. We assume destination-specific flexible price setting in local currency and do not assume international product arbitrage. Given identical constant elasticities in all markets, we recover the law of one price for tradeables as a consequence of optimal monopolistic price setting. However, nontradeables in the consumer price index produce large short-run and small long-run purchasing power parity (PPP) deviations. Third, we provide an integrated approach for the treatment of nontradeables. Obstfeld and Rogoff assume that tradeables and nontradeables enter consumer utility separately. This utility-based distinction between tradeables and nontradeables renders an analysis of the role of economic openness difficult. By contrast, the symmetric utility treatment of both product types in our model allows for a more meaningful comparative statics with respect to the degree of macroeconomic openness.

Nontradeables modify the international transmission mechanism in three different ways. An unanticipated home money expansion, given predetermined factor prices in a monopolistic factor market, increases home aggregate demand. The domestic demand expansion does not fully account for the money supply expansion and a price level increase is needed to clear the market for real balances. Constant demand elasticities tie domestic product prices to a fixed mark-up over nominally rigid factor prices. Only import prices can contribute to a short-run price level increase as foreign exporters pass through any exchange rate depreciation to the home market. More nontradeables reduce the impact of import prices on the domestic price level. The domestic money market equilibrium therefore requires a larger home depreciation and more import price inflation to compensate for fewer tradeables in the consumer price index. Nontradeables therefore create an *exchange rate magnification effect* for any given gap between relative money supply and relative consumption. This effect can explain why the volatility of the exchange rate is high relative to the volatility of the relative price levels (Chari et

---

<sup>1</sup>Since Obstfeld and Rogoff merge households and producers, the role of factor price (wage) rigidities cannot be addressed.

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