



Exchange rate regimes and the international transmission of business cycles: Capital account openness matters [☆]

Kyunghun Kim ^a, Ju Hyun Pyun ^{b,*}

^a Korea Institute for International Economic Policy, Building C, Sejong National Research Complex, 370 Sicheongdaero, Sejong-si 30147, Republic of Korea

^b Business School, Korea University, 145 Anam-Ro, Seongbuk-Gu, Seoul 02841, Republic of Korea

ARTICLE INFO

Article history:

Available online 30 May 2018

JEL classification:

E32
E52
F31
F33
F44

Keywords:

Exchange rate regime
Business cycle co-movement
Capital account openness
Global financial crisis
Trilemma

ABSTRACT

We investigate the role of exchange rate regimes in the international transmission of business cycles during the global financial crisis. We find that exchange rate regimes alone did not account for differences in the international transmission of business cycles during the crisis. However, analysis considering capital account openness and countries with currencies pegged to the U.S. dollar indicates that exchange rate regimes play an important role in shaping business cycle co-movement: adopting a fixed regime with high capital account openness (additionally) increased business cycle co-movement with the United States during the crisis, whereas U.S. dollar peggers with relatively restrictive capital accounts during the crisis were not found to affect business cycle transmission.

© 2018 Elsevier Ltd. All rights reserved.

1. Introduction

Whether fixed and floating exchange rate regimes exert differential influences on business cycle co-movement has long been debated. Seminal works such as [Baxter and Stockman \(1989\)](#) and [Ahmed et al. \(1993\)](#) find little evidence of systematic differences in business cycles under fixed and floating exchange rate regimes, using postwar data including the Bretton Woods period.¹ However, [Gerlach \(1988\)](#) finds that the business cycles observed during the flexible exchange rate regime were more synchronized than those observed during the Bretton Woods period. Subsequent studies such as [Artis and Zhang \(1997, 1999\)](#) and [Clark and van Wincoop \(2001\)](#) discuss this issue in the context of the European Exchange Rate Mechanism. These authors maintain that the role of the exchange rate regime in business cycle transmission in an “open” financial market is closely related to the debate on whether monetary policy coordination against external shocks leads to less output co-movement.²

^{*} We are grateful to Alan M. Taylor for his constructive comments. We also thank Sungbae An, Hyelin Choi, Makram El-Shagi, Minsoo Han, Kuk Mo Jung, Jung-sik Kim, Hyo Sang Kim, Jongwook Lee, Frank Shao, Kenneth West, two anonymous referees and seminar participants in HenU/JINFER conference for their valuable comments. All remaining errors and omissions are our own.

^{*} Corresponding author.

E-mail addresses: hunkim0831@gmail.com (K. Kim), jhpyun@korea.ac.kr (J.H. Pyun).

¹ However, [Baxter and Stockman \(1989\)](#) use quarterly data on 49 countries and find that the cross-correlations of output generally decreased in the post-1973 period compared with the Bretton Woods period.

² [Artis and Zhang \(1997, 1999\)](#) find that the formation of the European Exchange Rate Mechanism is associated with higher business cycle co-movement among its member countries. However, [Clark and van Wincoop \(2001\)](#) find that in Europe, coordinated monetary policies through a single currency do not significantly increase business cycle synchronization.

This study investigates the effect of a country's exchange rate regime on the international transmission of real business cycles during the global financial crisis (GFC) of 2008–2009, which is akin to a negative shock from the United States to other countries. If the negative shock from the epicenter of the GFC were transmitted to the rest of the world, both the country of origin and recipients would simultaneously experience economic downturns, and their business cycles would become more synchronized (e.g., Kalemli-Ozcan et al., 2013a, 2013b; Pyun and An, 2016). Using a simultaneous equation model of the international real business cycle (Imbs, 2004; Déés and Zorell, 2012; Davis, 2014; Pyun and An, 2016) that controls for endogeneity and various international linkages that transmit the crisis shock, we check whether there is any distinction in the international transmission of the U.S. GFC shock to 56 other countries with respect to their exchange rate regime. As a distinctive feature, this study examines the role of a country's capital account openness in shaping the effect of the exchange rate regime on the international transmission of business cycles.

We find that the exchange rate regime alone did not play a significant role in generating different outcomes of business cycle co-movement during the GFC. However, when considering capital account openness and the base country of the currency peg, the exchange rate regime indeed affected business cycle co-movement. That is, countries with a fixed exchange rate regime and high capital account openness were more vulnerable to the negative shock originating in the United States, and their business cycle co-movements with the United States increased during the GFC.

Conversely, the international transmission of business cycles during the GFC was less pronounced in countries with currencies pegged to the U.S. dollar and relatively low capital account openness. Our results are *robust* to the inclusion of policy, trade, financial linkages, and unobserved country-pair heterogeneity, which influence the evolution of the business cycles in a country. Additional analysis considering contemporaneous contagion and *time lags* of shock transmission using a country's quarterly gross domestic product (GDP) growth supports our main findings.

What is the theoretical rationale for including capital account openness to understand the relationship between exchange rate regimes and business cycle co-movement across countries? Our arguments rely on a popular policy trilemma³ perspective stemming from the Mundell–Fleming model, which pertains to the previous debate on exchange rate regimes and international business cycle co-movement in the context of an “open” financial market (Artis and Zhang, 1997, 1999; Clark and van Wincoop, 2001). In an integrated financial market, a country's choice of currency peg is likely to result in a loss of monetary autonomy, which prevents the country from proactively stabilizing business cycle fluctuations driven by external shocks. As monetary policy is an important fine tuning tool to smooth a country-specific business cycle, imported policy from the base country of the currency peg would not perfectly work even though the policy responses to the shock are the same between the country that pegs its currency and the base country.⁴ Thus, if the policy trilemma holds, a country in which monetary autonomy is foregone (with a pegged exchange rate and full capital mobility) would be more susceptible to the external shocks. In this regard, our empirical finding that fixed regime countries *with* high financial openness had business cycles more synchronized with those of the United States during the GFC than did other countries can be construed as an outcome of a lack of monetary policy independence.

In particular, our findings for fixed regime countries are reinforced when we control for the countries with currencies pegged to the U.S. dollar because the few such countries in the sample (i) are mostly emerging and developing countries with “restrictive” capital accounts and (ii) experienced the appreciation of the U.S. dollar during the GFC. Thus, countries with currencies pegged to the U.S. dollar were insulated from the negative consequences of the GFC to a certain extent, as they had some room for independent monetary policy responses via capital controls and low risk of capital reversals.

Previous studies examine the role of exchange rate regimes in the cross-country spillover of external shocks (including financial crises). Choudhri and Kochin (1980) find that during the Great Depression, four European countries that opted for fixed exchange rates with the United States suffered severe contractions in both output and prices, while Spain, which maintained floating regimes, enjoyed relatively stable output and prices. Mathy and Meissner (2011) show that both trade integration and the gold standard played significant roles in the transmission of negative shocks during the Great Depression. Using a developing country sample, Hoffmann (2007) shows that external shocks from the world output or world interest rate changes are less contractionary under floating regimes than fixed regimes. For the GFC, Lane and Milesi-Ferretti (2011) find that fixed regime countries experienced relatively more severe economic downturns during the GFC than floating regime countries. However, Rose (2014) finds that hard fixers and inflation targeters with floating regimes among emerging and developing countries showed similar phases of business cycles, capital flows, and so on during and after the GFC.

While some studies find that fixed regime countries are more vulnerable to external shocks, others report negligible difference in the transmission of the shocks between exchange rate regimes: the literature does not reach consensus yet. Thus, this study contributes to the existing literature by revealing that “the degree” of capital account openness (another open macro policy goal) needs to be considered to further elucidate the role of exchange rate regimes in the transmission of shocks, in the context of the trilemma. Notice that none of previous studies explicitly consider the role of free capital mobility in shaping the effect of exchange rate regimes on the international transmission of such shocks. Furthermore, we dissect the detailed nature of a country's fixed exchange rate regime—the choice of the base currency—because fixed regime

³ The trilemma suggests that a government cannot simultaneously opt for an open financial market, exchange rate stability, and monetary autonomy.

⁴ Monetary autonomy itself does not guarantee monetary policy effectiveness that stabilizes fluctuations. Even in countries with monetary autonomy, policymakers may fail to stabilize business cycle fluctuations. However, skeptics of the European single currency have frequently argued that the inability to respond to country-specific shocks can lead to greater business cycle volatility (Clark and van Wincoop, 2001).

Download English Version:

<https://daneshyari.com/en/article/7364977>

Download Persian Version:

<https://daneshyari.com/article/7364977>

[Daneshyari.com](https://daneshyari.com)