Fragmentation in the European interbank market: Measures, determinants, and policy solutions

Sergio Mayordomo\textsuperscript{a,∗}, María Abascal\textsuperscript{b}, Tatiana Alonso\textsuperscript{b}, Maria Rodriguez-Moreno\textsuperscript{a}

\textsuperscript{a} School of Economics and Business Administration, University of Navarra, Edificio Amigos, 31009 Pamplona, Spain
\textsuperscript{b} BBVA Research, Paseo Castellana 81, 7th Floor, 28046 Madrid, Spain

\textbf{A R T I C L E    I N F O}

\textbf{Article history:}
Received 14 April 2014
Received in revised form 10 August 2014
Accepted 3 November 2014
Available online 18 November 2014

\textbf{JEL classification:}
E49
F36
G01
G18
G20

\textbf{Keywords:}
Interbank market
Eurozone
Fragmentation
ECB interventions
ECB announcements

\textbf{A B S T R A C T}

This paper measures fragmentation in the European interbank market. We document that, during the recent crisis, fragmentation in the interbank market has been, on average, higher in the peripheral countries than in the core ones and it has increased particularly during periods of financial stress. Among the most significant factors that contributed to the high fragmentation levels observed are global factors such as financing costs and counterparty risk; and country-specific factors such as the debt-to-GDP ratio, the economic sentiment, and the banking sector openness. We also study the short-run effect of the ECB programmes and announcements and find a significant decrease in the daily levels of fragmentation immediately after the implementation of the SMP and the 3-year LTRO ECB programmes, the expansion of the list of the assets eligible as collateral in Eurosystem, the announcement of the Banking Union, and ECB President Mario Draghi’s speech.

© 2014 Elsevier B.V. All rights reserved.

1. Introduction

The European Union is a purely integrative project and one of its main goals was to achieve a truly single financial market. However, with the latest crisis its financial markets have fallen into fragmentation. This is worrisome because fragmentation is incompatible with the very nature of the European Monetary Union (EMU). Moreover, it had not been foreseen as a potential problem in the EMU’s design, so possible solutions have not been explored before. As a consequence, the authorities are trying to fix it by reacting as they go along, showing that the EMU is to a certain extent a giant with feet of clay.

Over the past 30 years financial integration in the EMU had given signs of significant progress, especially after the creation of the single currency, which in turn needs a complete financial integration for it to work properly. Nevertheless, the outbreak of the crisis brought to the fore the weakness of this financial integration. Indeed, most European countries have ring-fenced their financial markets (with the local authorities sometimes even incurring in moral suasion), so the allocation of financial resources has been kept inside national boundaries. This renationalization of financial markets has even challenged the existence of the euro, given that a single monetary area cannot exist with fragmentation.

The aim of this paper is threefold. First, we develop a measure of fragmentation in the interbank market in several countries of the EU. The second aim of this paper is to analyze the key determinants of that fragmentation. Finally, it evaluates the contribution to integration of several European Central Bank’s (ECB) programmes and announcements. We focus exclusively on the European interbank market because, to the best of our knowledge, an analysis of the fragmentation in the interbank market and its determinants during the recent crisis is still lacking.

The main results of the paper are summarized in the following paragraphs. Integration in the European interbank market, which is measured on the basis of the 3-month interbank interest rate, ended with the Lehman Brothers collapse and reaches its
maximum level by the summer of 2012. Fragmentation in the interbank market differs at country level but moves together during special distressed periods. Moreover, the fragmentation in the peripheral countries has been, on average, higher than in the core countries during the recent crisis.

Among the most significant factors that contributed to the high levels of fragmentation observed in the interbank market are global factors such as financing costs and counterparty risk; and country specific factors such as the debt-to-GDP ratio, the economic sentiment, and the bank sector openness. Furthermore, fragmentation has affected peripheral countries more negatively due to their greater dependence on external funding, their higher levels of public debt, and worse economic situation.

This paper also documents a significant temporary decrease in fragmentation immediately after the implementation of the Securities Market Programme (SMP) and the Long Term Refinancing Operation (LTRO) by the ECB. Regarding the Covered Bond Purchase Programme (CBPP), we do not observe a significant effect on fragmentation. However, the expansion of the list of the assets eligible as collateral in Eurosystem, the announcement of the Banking Union, and ECB President Mario Draghi’s speech given on 26 July 2012 led to a significant decrease of fragmentation. These programmes and announcements helped to restore investors’ confidence in the euro and at the same time to confirm the ECB’s support to tackling the challenges of the European sovereign debt crisis.

This paper is structured as follows. Section 2 reviews the evolution of financial integration in the EU and provides a review of the literature. Section 3 describes the data employed in the subsequent analysis. Section 4 explains the measurement of fragmentation for the interbank market in the EMU. Section 5 includes the analysis for the determinants of fragmentation in the interbank market. Section 6 contains an analysis of the effect of the ECB programmes and announcements on the level of fragmentation. Section 7 presents the paper’s main conclusions.

2. Literature review: the evolution of financial integration in the EU

This section contains a description and a review of previous literature on the evolution from the rapid financial integration of the 2000s to a gradually increasing fragmentation, especially as a consequence of the aggravation of the European sovereign debt crisis in late 2011 and certain supervisory ring-fencing practices.

Financial integration has always been a focal point of the European Union (EU) project. As such, it has been a priority for its leaders since the late 1980s, when a single banking licence was introduced and all capital accounts were opened. A few years later, in 1992, the Maastricht Treaty formally abolished all barriers to cross-border financial integration and, most importantly, paved the way for the creation of a Monetary Union (ECB, 2012).

As Stavarek et al. (2011) state, financial integration is a process that has been taking place in the European Union for many years and that intensified after the adoption of the common currency in 1999. With the introduction of the euro in 1999, money markets became highly integrated as exchange-rate fluctuations in trade between the euro zone countries disappeared, currency risk plummeted and nominal convergence increased among EMU Member States (Kalemli-Ozkan et al., 2010). As a consequence, during the 2000s, impressive advances took place towards financial integration, especially in the wholesale domain, as evidenced by many economic and market indicators (ECB, 2012, COM 2012). This would last for more than a decade, assisted by enhanced pan-European market infrastructures (SEPA, TARGET) and a significant regulatory convergence promoted under the Financial Services Action Plan.

Hartmann et al. (2003) provide an overview of the structure and integration of the euro area financial systems and related policy initiatives four years after the introduction of the euro. The authors document the progress towards integration of the major euro area financial segments, namely money markets, bond markets, equity markets and banking. Baele et al. (2004) consider five key markets, namely the money, corporate bond, government bond, credit and equity markets. Their results indicate that the unsecured money market was fully integrated at that time, while integration was reasonably high in the government and corporate bond market, as well as in the equity markets. The credit market was among the least integrated, especially in the short-term segment.

Fratzscher (2002) analyses the integration process of European equity markets since the 1980s and finds that European equity markets have become highly integrated only since 1996. This integration is in large part explained by the drive towards EMU, and in particular the elimination of exchange-rate volatility and uncertainty in the process of monetary unification. Along the same lines, Mylonidis and Kollias (2010) show that the introduction of the euro epitomizes European economic integration in the major European stock markets in the first euro-decade, with the German and French markets the ones with a highest degree of convergence. This process of integration was also extended to the European financial services industry within the euro area (see Allen and Song, 2005).

The trend to financial integration in the wholesale markets suddenly came to a halt with the collapse of Lehman Brothers (September 2008) and the consequent loss of confidence and liquidity amid a slew of uncoordinated national responses to the emerging global financial crisis. Between 2007 and 2011 the average exposure of core EU Member banks to periphery banks dropped by 55% and the percentage of cross-border collateral used for Eurosystem credit operations dropped by one-third, returning to 2003 levels (ECB, 2012). But the tipping point in the fragmentation problem came in the second half of 2011, with the intensification of the EU sovereign debt crisis. Access to primary markets by the more distressed sovereigns became increasingly difficult as their cross-border yield spreads increased sharply. At this moment, the banks headquartered in these jurisdictions started to experience severe funding constraints as repo prices became extremely dependent on the nationality of the counterparties and the collaterals.

The academic literature has also shown the fragmentation trend observed in the EMU financial markets during the recent financial crisis. Battistini et al. (2014) show that according to conventional indicators, the euro-area financial integration has receded since 2007, mainly in the money market, sovereign debt market and uncollateralized credit markets. In fact, Philippas and Siriopoulos 1992, the Maastricht Treaty formally abolished all barriers to cross-border financial integration and, most importantly, paved the way for the creation of a Monetary Union (ECB, 2012).

1 Since September 2005 the ECB publishes a yearly report “Financial Integration in Europe”, which assesses the state of euro area financial integration based on indicators that are updated bimannually. The European Commission also produces, since 2007, its European Financial Stability and Integration Report (EFSIR); previously the European Financial Integration Report, EFIR). The indicators produced both by the ECB and the European Commission give strong evidence of the integration process prior to the crisis and the ensuing dramatic deterioration afterwards.

2 The Financial Services Action Plan was an ambitious initiative launched in 1998 by the EU Commission and the EU Council (its official completion being in 2003). Under its umbrella 42 measures aimed at creating a harmonized EU financial market were developed. As a result, the EU co-legislators passed 27 Directives and 2 Regulations.
دریافت فوری متن کامل مقاله

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