FINANCIAL FRAGMENTATION IN THE EUROZONE: New evidence from corporate bond spreads 2004-2015

New research documents how at the height of the Eurozone crisis, investors required Italian and Spanish issuers to pay a significant premium with respect to their German (and to a lesser extent French) counterparts to hold their bonds – the phenomenon of 'financial fragmentation'. The study by **Guillaume Horny** and colleagues, to be presented at the annual congress of the European Economic Association in Mannheim in August 2015, also computes a fragmentation index by adding up all country premia.

Overall, the results show little evidence of financial fragmentation during the post-Lehman Great Recession. Signs of financial fragmentation started to appear only in the first half of 2010, after Greek sovereign bonds were downgraded to 'junk' status in April of that year. The overall level of fragmentation peaked in summer 2012. Since the announcement of the European Central Bank's 'outright monetary transactions' programme in September 2012, fragmentation receded gradually until April 2015.

The research demonstrates how corporate bond markets data can be used to measure financial fragmentation and thereby assist monetary policy. The authors comment:

> 'Our synthetic indicator can be used to monitor the effectiveness of non-standard measures in addressing the heterogeneity in funding conditions in the various countries of the euro area. The adoption and the implementation of non-standard monetary policy measures in the euro area could take this additional piece of information into account.'

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Securities with identical risk and cash flows should command the same price. Over the period 2010-2012, the corporate bond market displayed significant heterogeneity in the rates offered to firms located in different euro area countries.

This study documents how investors required Italian and Spanish issuers to pay a significant premium with respect to their German (and to a lesser extent French) counterparts to hold their bonds, despite having similar risks characteristics. This phenomenon is called financial fragmentation.

The authors propose a measure to monitor financial fragmentation in the euro area. Such measurement is important because financial fragmentation and monetary policy are closely interconnected: financial fragmentation can severely hamper the proper functioning of monetary policy, monetary policy can help reducing financial fragmentation, as happened with the announcement of the Outright Monetary Transactions programme in July 2012.

Bond data have the advantage to measure funding costs that are, unlike interest rates on bank loans, readily observable from market prices. They are timely available and likely to reflect market sentiment on the risks of each bond. Figure 1 shows the additional interest rate (or spread), on top of the German sovereign interest rate, that non-financial corporate bonds have to offer to the market.

Average spreads in the four largest euro area countries co-moved remarkably up to 2010 and subsequently split into two groups. The larger spreads paid by Italian and Spanish firms, however, do not suffice to conclude that there was financial fragmentation from 2011 to 2014. If issuers located in Italy and Spain exhibit greater default risk relative to those in France or Germany, it is natural that the investors ask for some additional yield to get compensated for this increased risk.

The study's approach takes these considerations into account by controlling for issuer risk. Since bonds with similar characteristics should provide the same yields, the key challenge is to measure accurately bonds' characteristics. Specifically, the study explicitly controls for differences in their residual maturity and accounts for their credit worthiness using Moody's credit rating. The authors are therefore able to extract risk adjusted country premia: positive country premia are interpreted as evidence of financial fragmentation.

They also compute a fragmentation index by adding up all country premia (Figure 2). Overall, the results show little evidence of financial fragmentation during the post-Lehman Great Recession. Signs of financial fragmentation started to appear only in the first half of 2010, after Greek sovereign bonds were downgraded to 'junk' status in April 2010. The overall level of fragmentation peaked in summer 2012. Since the announcement of the Outright Monetary Transactions programme in September 2012, fragmentation receded gradually until April 2015.

This research demonstrates how corporate bond markets data can be used to measure financial fragmentation and to assist monetary policy. The synthetic indicator can also be used to monitor the effectiveness of non-standard measures in addressing the heterogeneity in funding conditions in the various countries of the euro area. The adoption and the implementation of non-standard monetary policy measures in the euro area could take this additional piece of information into account.

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Measuring Financial Fragmentation in the Euro Area Corporate Bond Market
Guillaume Horny, Banque de France
Simone Manganelli, European Central Bank, Financial Research
Benoit Mojon, Banque de France and Ecole Polytechnique, Paris

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Contact:
Guillaume Horny
Guillaume.horny@banque-france.fr
http://horny.economics.free.fr/
Banque de France
31 rue Croix des Petits Champs
75049 Paris Cedex 01

Figure 1: Average spread (corporate bond yield – German Bund) by country.
January 2004-June 2015

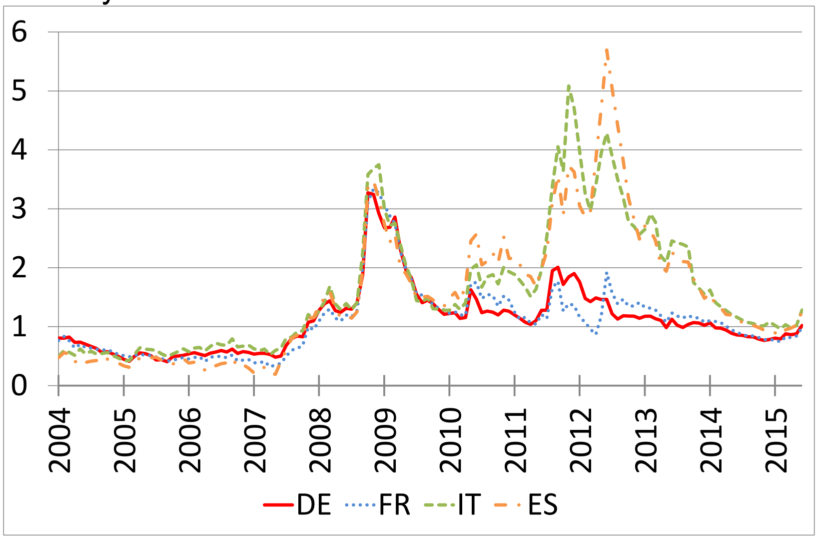

Figure 2: Fragmentation index
January 2004-June 2015