

Systemic Risk and Home Bias in the Euro Area

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In this paper, we investigate the phenomenon of segmentation characterising euro-area financial markets since the inception of the global financial crisis in 2007 with three purposes. First, we present the recent dynamics of conventional (price- as well as quantity-based) indicators of euro-area financial integration and discuss their appropriateness: in particular, we focus on the euro-area sovereign debt market and argue that suitable price-based measures of financial segmentation should disregard the component of government bond yield differentials that is a reward for the issuer's specific credit risk. Second, by means of a dynamic factor model analysis, (i) we single out the component of yield differentials reflecting only the compensation for a common (or systemic) risk spanning the whole euro area and (ii) provide results on the suitability of the cross-country dispersion of yield differentials as a measure of financial segmentation. Third, we use a vector error-correction model to explore the dynamic interactions between a quantity-based measure of segmentation, i.e. the bias in banks' sovereign debt portfolios, and the corresponding price-based measure, i.e. domestic sovereign yield differentials, as well as their common and country components.

Conventional indicators of financial integration show that since 2008 in the euro area the degree of integration has receded in debt markets, and within these especially in (i) the money market, (ii) sovereign markets, and (iii) uncollateralized credit markets. There is less evidence of segmentation in collateralized credit markets and in equity markets.

Our second contribution is to question the appropriateness of price-based measures of financial integration, and put forward a more suitable measure of segmentation for debt issuers: starting from the definition of segmentation as a situation in which an issuer is required to pay a premium only because it belongs to a specific jurisdiction, irrespective of the issuer's own risk profile, we argue that only the component of yield differentials that is not a compensation for the issuer's own risk can be related to segmentation. We apply this idea to the euro-area sovereign debt market, using a dynamic factor model to decompose yield differentials in a country-specific and a common (or systemic) risk component. Our analysis reveals that most of the dispersion among euro-area yield differentials arises from differences in country-specific risk. Once yields are purged from the portion that compensates investors for different country-specific risks, their dispersion becomes considerably smaller than the unconditional one, which is typically used as a measure of euro-area bond market segmentation.

Thirdly, we explore whether the increasing home bias of the sovereign debt portfolios of euro-area banks (a quantity-based measure of segmentation) is correlated with domestic sovereign yield differentials, and more specifically with their country-related and systemic components. Our results show that the domestic sovereign exposures of euro-area banks positively respond to increases in domestic yield differentials in most countries.

However, there are at least three concomitant reasons why this form of home bias may be expected to increase in response to widening differentials between sovereign debt yields and the euro-area swap rate: (i) the “moral suasion” exerted by high-risk sovereign issuers on the banks in their jurisdiction to increase their domestic sovereign holdings; (ii) the “carry trades” performed by undercapitalized banks willing to invest in high-yield sovereign debt and fund such exposures either by going short on low-yield debt or by borrowing from the ECB; (iii) the “comparative advantage” of domestic banks (relatively to foreign banks) in each country in bearing the systemic component of the risk of domestic sovereign debt in the event of a collapse of the euro system.

According to our results, (i) in most periphery countries banks respond to increases in the country risk factor by *raising* their domestic exposure, whereas in core countries they do not; in contrast, (ii) in almost all countries banks increase their domestic exposures in response to an increase in the common risk factor. Finding (i) provides evidence in support of the “moral suasion” and/or the “carry-trade” hypothesis for banks in periphery countries, since these banks increase their exposures in response to increases in country-level sovereign risk, not just in response to systemic euro-area risk. Finding (ii) suggests that an increased risk of a euro collapse led to greater home bias of banks’ portfolios, especially in core countries.

The results of our analysis have several implications for policy. First, “purging” price-based measures of segmentation of issuer-specific solvency risks opens the door to the estimation of more reliable price-based indicators of segmentation than those currently used by the regulatory and supervisory authorities. Second, decomposing sovereign risk into a country-specific and a systemic component allows a better understanding of the motives behind changes in the home bias in the sovereign debt market. In particular, sovereign debt home bias of banks in the periphery must have been induced to some extent by national regulators’ moral suasion or by banks’ opportunistic carry trades. We argue that the behaviour of periphery banks should be regarded as problematic from a social viewpoint in either case. If due to moral suasion, such behaviour indicates that national regulators tended to induce risk-taking by banks in a context where government solvency was at danger, thus enhancing the vicious circle between fiscal solvency and bank solvency deterioration. If due to opportunistic carry trades, the increase in home bias raises concerns about the appropriateness of banks’ prudential regulation.