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Increase in home bias in the Eurozone debt crisis: The role of domestic shocks☆

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ABSTRACT

One of the most striking consequences of the recent episode of sovereign debt market stress in the Eurozone has been the increase in the share of public debt held by the domestic sector in fragile economies. However, the causes and potential consequences of this increase were only given scarce attention in the literature on the Euro area sovereign debt crisis. In order to fill this gap, we first determine the shocks that impact the variation in the share of sovereign debt held at home in an SVAR model on a sample of Eurozone countries between 2002 and 2014, distinguishing between external and domestic shocks. Thanks to several alternative tests, we show that home bias in sovereign debt responds positively to country-specific fundamentals and expectation shocks but we find no evidence that the increase in home bias is destabilizing per se in the short-run. Second, a stylized theoretical model backed by the empirical results predicts that the consequences for sovereign debt crisis depend on the relative impact of domestic initial destabilizing shocks and increased home bias. The analysis suggests that an increase in home bias in times of sovereign debt stress, despite reflecting deteriorating fiscal conditions, may make default less likely.

1. Introduction

One of the most striking and seemingly surprising consequences of the recent episode of sovereign debt market stress in the Eurozone has been the increase in the share of public debt held by the domestic sector in fragile economies (Merler and Pisani-Ferry, 2012; Van Riet, 2014). Despite a deep turmoil period on the public debt market of the peripheral Eurozone countries, residents in GIIPS countries (Greece, Ireland, Italy, Portugal, Spain) significantly increased their purchases of domestic sovereign debt, both in volume and in proportion. Thus, by mid-2012, the share of sovereign debt securities held by the domestic sector was above 60% in Italy and above 70% in Spain, beyond the pre-Euro area levels, in the context of a decline in financial integration in Europe (Raileanu-Szeles and Albu, 2015). On the contrary, home bias in sovereign debt[1] kept decreasing in Germany, moving from around 65% in 2000 to less than 40% by the end of 2014. The causes and consequences of the increase in home bias in sovereign debt in fragile economies were given only scarce attention in the literature on the Euro area sovereign debt crisis. In this paper, we fill this gap by empirically analyzing the role of domestic shocks on home bias and by providing a stylized model backed by our empirical results to derive the potential consequences of the increase in home bias in the Euro area.

In contrast to Andritzky (2012)'s interpretation of the recent increase in home bias in the Eurozone – which emphasizes the role of global factors –, divergent trends among countries sharing a similar currency and their coincidence with the Eurozone sovereign debt crisis suggest that home bias in peripheral countries increased following country-specific shocks affecting sovereign debt sustainability. Brutti and Sauré (2016) highlight that repatriation of assets from foreign to domestic creditors mainly impacted fragile economies and sovereign debt relative to other assets. Van Riet (2014) provides evidence on

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[1] As Acharya et al. (2014), we consider that '*Home bias in government debt is total home sovereign debt as a share of total sovereign debt*' (p. 54). Our definition may differ from the commonly accepted definition, according to which home bias is the propensity of investors to make financial investments in their home countries rather than in foreign markets (home bias in portfolios). For comparability and data availability issues, in most countries, we measure home bias as the share of domestic holdings of general government debt securities, rather than of total sovereign debt.

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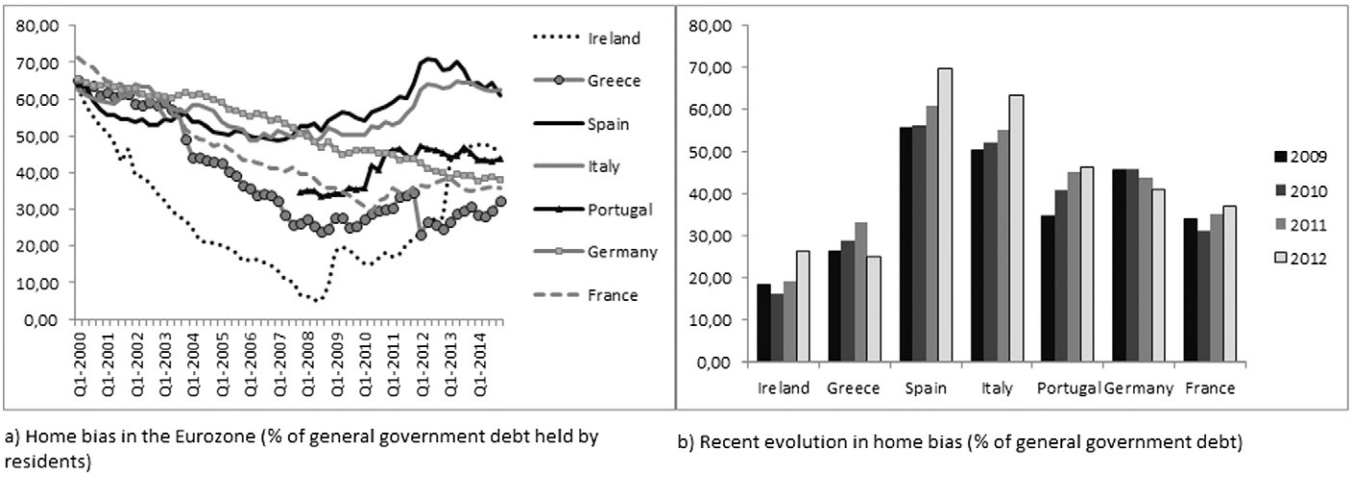

a) Home bias in the Eurozone (% of general government debt held by residents)

b) Recent evolution in home bias (% of general government debt)

Fig. 1. Evolution of home bias — sources: (a, b).
National Central Banks

Euro area national governments' attempts to create a captive domestic investor base on the sovereign bonds market in response to fiscal stress episodes, notably in Ireland, Portugal and Spain. In most of the fragile economies of the zone, the rise in home bias was indeed driven by decreases in foreign purchases of domestic public debt simultaneous with increases in domestic purchases. This supports the idea that in times of sovereign debt stress, incentives to buy domestic sovereign debt increased (or decreased less) for domestic creditors relative to those of foreign creditors, as argued by Battistini et al. (2014). For instance, they mention the expected benefits of complying with financial repression directed at domestic creditors or of holding domestic debt that would be redenominated in local currency in the eventuality of an exit from the Euro area. In the same line, MacDonald et al. (2015) show more generally that the Eurozone countries were mostly responsive to their own domestic shocks in the recent crisis episode. In addition, empirical literature documented the importance of self-fulfilling factors for explaining the Eurozone sovereign debt crisis (De Grauwe and Ji, 2013; Bruneau et al., 2014; Schumacher, 2014). These papers – relying on empirical applications to sovereign debt crises of the theoretical literature on second-generation speculative attack models (Obstfeld, 1996) – showed that peripheral Eurozone economies with relatively good fiscal fundamentals faced strong increases in sovereign bonds spreads, due to episodes of exogenous distrust in international financial markets.[2] These several empirical elements provide motivation for investigating the impact of domestic shocks on the evolution of home bias in sovereign debt and for studying both the impact of fundamental and expectation shocks on the dynamics of home bias, as the latter is expected to respond to domestic probability of default shocks.

Furthermore, while the recent increase in home bias in the Euro area appears to be a consequence of the sovereign debt crisis, it may also have an impact per se on sovereign debt sustainability. Indeed, the literature emphasized three distinct mechanisms through which home bias might affect the probability of default. The first one is that a higher home bias increases the internal cost of default, as it raises the negative impact of default on the domestic economy (Mengus, 2014; Acharya et al., 2014). Indeed, it implies that a higher share of domestic creditors, notably resident banks, is not repaid on their holdings of domestic sovereign bonds following default. The second one is that the cost of taxation for the government decreases in the home bias. Gros (2012) argues that domestic taxpayers are less reluctant to pay taxes for financing sovereign debt when they are holding a higher share of the debt. Therefore, a higher home bias lowers the political cost of taxation for the government. In this view, an increase in home bias in sovereign debt decreases the government's incentives to default ceteris paribus. Gennaioli et al. (2014) provide empirical evidence in favor of this stabilizing effect: they show that the larger the exposure of domestic banks to sovereign bonds, the more costly the default for the domestic economy through its ex post impact on private credit. However, the third effect identified in the theoretical literature advocates a destabilizing impact of increased home bias. Thus, Broner et al. (2014) argue that because of financial frictions, higher purchases of domestic sovereign debt by the resident sector lead to crowding-out effects by disrupting productive investment, and thus lowers growth. Nevertheless, this last effect has not yet been empirically tested in the literature.

Analyzing the relation of home bias to country-specific variables to decipher the causes of its recent increase in the Euro area and investigating its potential consequences for sovereign debt crisis thus seems to matter for better understanding the specific features of the so-called Eurozone crisis. Accordingly, this paper empirically determines the macroeconomic shocks that can prompt home bias in sovereign debt to increase. Using a Bayesian Structural VAR (SVAR) estimation that relies on a new database built from national sources in a sample of seven Eurozone countries in the 2002–2014 period, we show that domestic fundamental shocks and country-specific expectation shocks do contribute to increased home bias in our sample. In addition, we find no evidence in favor of the fact that, everything else being equal, an increase in home bias leads to a decrease in the growth rate in the short-run. In order to go deeper into the understanding of the empirical results and their implications, we then propose a simple model of sovereign debt crisis in a monetary union, the assumptions of which are supported by our empirical results. The model provides microfoundations to explain the recent increase in home bias in the Eurozone and, by modeling the transmission channels of initial probability of default shocks, it enables to derive a simple prediction: an increase in home bias is associated with a change in the government's strategic decision regarding default if, and only if, the destabilizing impact of the initial shock is high enough relative to the potentially stabilizing impact of the increase in home bias. In other words, an increase in home bias during a debt crisis may make default less attractive for national governments, provided that deterioration in fundamentals and in expectations is comparatively not too strong.

The literature on the Eurozone sovereign debt crisis paid rather scarce attention to the increase in home bias in public debt in comparison with the possibly strong consequences it may have for fiscal strategic decisions. Empirically, Battistini et al. (2014) study how home bias responds to yield differentials in the Eurozone. Brutti and Sauré (2016) investigate the impact of experiencing a crisis (defined by a

[2] First models of self-fulfilling sovereign debt crises include Calvo (1988), Cole and Kehoe (2000). This category of models was recently applied to the Eurozone debt crisis (Lorenzoni and Werning, 2013; Corsetti and Dedola, 2011; Aguiar et al., 2014; Blot et al., 2015).