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Sovereign debt markets in turbulent times: Creditor discrimination and crowding-out effects

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ABSTRACT

In 2007, countries in the euro zone periphery were enjoying stable growth, low deficits, and low spreads. Then the financial crisis erupted and pushed them into deep recessions, raising their deficits and debt levels. By 2010, they were facing severe debt problems. Spreads increased and, surprisingly, so did the share of the debt held by domestic creditors. Credit was reallocated from the private sector to the public sector, reducing investment and deepening the recessions even further. To account for these facts, we propose a simple model of sovereign risk in which debt can be traded in secondary markets. The model has two key ingredients: creditor discrimination and crowding-out effects. Creditor discrimination arises because, in turbulent times, sovereign debt offers a higher expected return to domestic creditors than to foreign ones. This provides incentives for domestic purchases of debt. Crowding-out effects arise because private borrowing is limited by financial frictions. This implies that domestic debt purchases displace productive investment. The model shows that these purchases reduce growth and welfare, and may lead to self-fulfilling crises. It also shows how crowding-out effects can be transmitted to other countries in the euro zone, and how they may be addressed by policies at the European level.

In 2007, Greece, Ireland, Italy, Portugal, and Spain – or "GIIPS" – were enjoying stable growth. On average, their fiscal deficits were low, their public debts were not particularly large and their sovereign spreads were close to zero.[1] The financial crisis that erupted in the summer of 2007 pushed these economies, as it did many others around the world, into deep recessions. Fig. 1 shows how this affected these countries' sovereign debts. During 2008 and 2009, a combination of low growth and large budget deficits led to rapidly increasing debt-to-GDP ratios. This did not seem worrisome at the time, though, as financial markets absorbed this additional debt as they had done in the past. Until late 2009, average spreads were still low and the share of sovereign debt in the hands of domestic residents was below 50% in all GIIPS, and even below 30% in Ireland and Greece.

The situation deteriorated sharply at the end of 2009, leading to severe sovereign debt problems in 2010 in GIIPS. One piece of bad news was that Ireland and Spain, reported much larger budget deficits than previously anticipated. But the most striking development took place in Greece, where the new government revised the fiscal accounts for previous years

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[1] Of course, there was more heterogeneity among GIIPS' economies than this description suggests. In particular, Portugal and Italy had slower growth, Portugal and Greece had larger deficits, and Italy and Greece had larger public debts.

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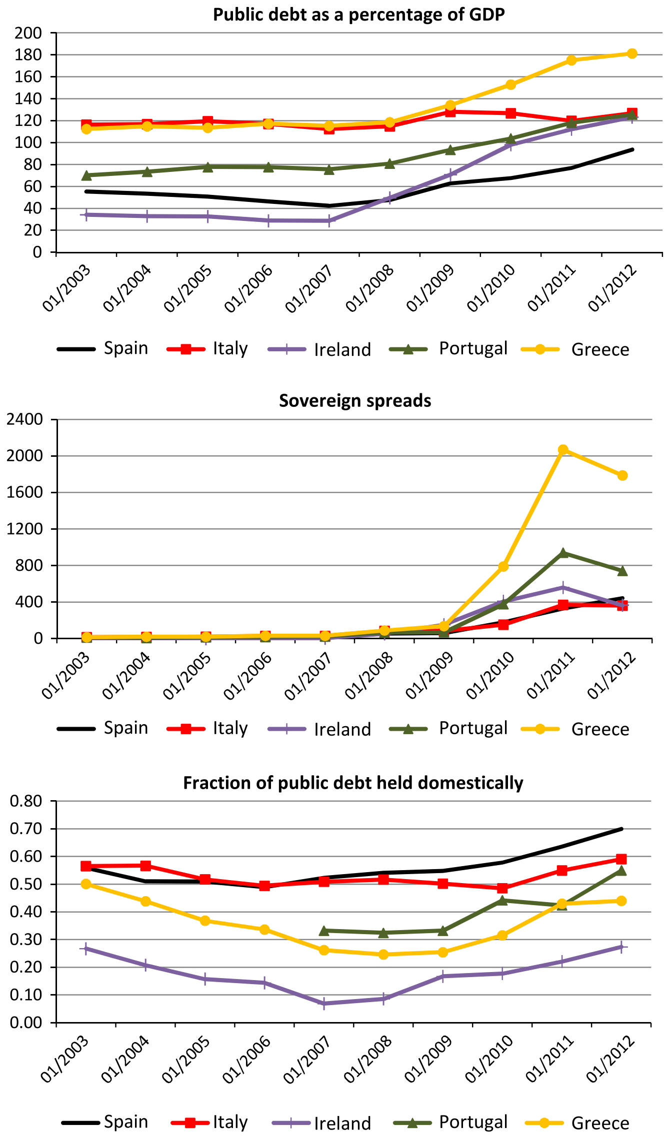

Fig. 1. A bird's eye view of the euro periphery. Data on gross public liabilities comes from the OECD. Data on spreads refers to the spread against the 10-year German Bund and was obtained from Datastream. Data on sovereign bond holdings comes from our sample countries' Central Banks and Merler and Pisani-Ferry (2012).

and found deficits much larger than previously reported. This discovery generated a loss of confidence on the fiscal constraints under which euro countries were supposed to operate.

These events did not slow down the growth of debt, but they did affect how it was absorbed by markets. This is also shown in Fig. 1. Spreads started to rise sharply and, by the end of 2012, all GIIPS had spreads between 400 and 800 basis points, with the exception of Greece whose spread was much higher. A more surprising development was the rise in the share of debt held by these countries' private sectors. By the end of 2012, this share was above 50% in all GIIPS, and even above 70% in Spain and 60% in Italy.[2] Contrary to the standard logic of optimal diversification, private sectors in GIIPS bought a lot of sovereign debt precisely as it became riskier and more correlated with domestic outcomes. As this appetite for debt grew, credit was reallocated from the private sector to the public sector, reducing investment and deepening the recessions even further.

[2] Brutti and Sauré (2013) have emphasized this aspect of the crisis and carefully documented it. Arslanalp and Tsuda (2012) and Merler and Pisani-Ferry (2012) have also noticed this pattern. More generally, Broner et al. (2013) show that periods of financial turbulence are often accompanied by a reduction in gross capital flows, in which foreigners reduce their purchases of domestic assets and domestic residents reduce their purchases of foreign assets.