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The cost of firms' debt financing and the global financial crisis

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ABSTRACT

We provide an assessment of the determinants of the risk premium paid by non-financial corporations on long-term bonds. By looking at 5500 issues over the period 2005–2012, we find that in recent years the sovereign debt market turbulence has been a major driver of corporate risk. Compared with the three-year period 2005–2007 before the global financial crisis, in the years 2010–2012 Italian, Spanish and Portuguese firms paid on average between 70 and 120 basis points of additional premium due to the negative spillovers from the sovereign debt crisis, while German firms received a discount of 40 basis points.

1. Introduction

We study the evolution of the risk premium on debt financing faced by non-financial corporations when issuing log-term bonds. We focus on a market measure of the risk of debt issuance: the asset swap (ASW) spread, which is the difference between the bond yield and a corporate risk-free rate.[2] In particular, to identify the actual cost of market funding, we look at the ASW spread on the day of bond placement. In fact, the secondary market pricing of any debt security is a measure of the soundness and

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[2] The ASW spread is the spread over the LIBOR (EURIBOR) which is paid on the floating leg of an asset swap contract in order to make the present value of the floating leg and fixed leg equal. Since we focus on corporate bonds we prefer to rely on the reference corporate market rate as our benchmark. In addition, instead of using *ad hoc* interpolated yield curves of sovereign securities we relied on a publicly provided measure.

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creditworthiness of the issuing institution in that moment, but it does not change the cost borne by firms on already issued bonds. Thus we differentiate from the literature on corporate bonds with respect to two aspects: on the one hand, we do not investigate the timing and the reasons supporting the firms' decision to finance themselves via debt (Cantillo and Wright, 2000; Barry et al., 2009), since we look directly at the gross issuance; on the other hand, we depart from the literature analysing credit spread dynamics in the secondary market (Collin-Dufresne et al., 2001; Elton et al., 2001; Driessen, 2005), since we focus on the actual funding cost faced on the primary market. The papers closest to ours are Morgan and Stiroh (2001), Sironi (2003) and Cardillo and Zaghini (2012) which, relying on market spreads on new bonds, analyse the determinants of the risk premium on bank debt.

Our initial sample consists of 6140 bonds – with maturity longer than 1 year – issued by non-financial corporations in the euro area, the UK and the US over the period 2005–2012. The time span gives us the possibility to examine two different phases of the recent financial turmoil: the turbulent period following the subprime mortgage crisis and the collapse of Lehman Brothers, and the later period of sovereign debt crisis which affected several euro-area economies.

Table 1 shows a common pattern across geographic areas in the development of the issuance activity: the annual amount of new debt, after a weak 2005, more than doubled between 2006 and 2012. The placement volume shows a steady upward path with two peaks in 2009 and 2012. All in all, we have 4324 bonds placed by companies headquartered in the US, 1401 in the euro area and 415 in the UK. About two thirds of the overall euro-area issuance are due to French and German firms with 529 and 368 bonds, respectively.[3] At the firm level, the average issuance of bonds is rather similar across countries, ranging from 4.0 bonds in the UK, to 4.4 in the euro area and 5.1 in the US.

Bearing in mind these main stylised facts, we focus on two characteristics which significantly influence the ability to tap the bond market: firm size and rating class. As for the former, size affects the ability to issue bonds because of the fixed cost associated to the public placement as searching, monitoring and agency costs (Blackwell and Kidwell, 1988). Large firms with bigger issues can cope better with these costs, since they are able to generate significant economies of scale (Denis and Mihov, 2003). In our sample, the share of bonds issued by small firms (first tertile by total assets) ranges from 18.2 to 20.6 per cent, and it is even smaller in volume (from 11 per cent in the US to 12.3 in the UK and 14.5 in euro area).

Regardless of the geographic location, the ASW spread firms pay at issuance is significantly higher for smaller issuers. Companies from the first tertile often pay a premium between two and three times that of firms from the third tertile. In addition, the financial crisis seems to have hit firms of the same size differently across geographic area. During the first phase of the financial turmoil (2007–2008), the ASW spread increases more for large than small companies in the US and euro area, while it is the other way around for the UK. However, from 2009 the difference in the ASW spread paid by small and large firms significantly increases (to reach the maximum in 2012) in each of the three economies (194 bp in euro area, 240 bp in the US and 267 bp in the UK).

By distinguishing between "*Investment Grade*" and "*High Yield*" (henceforth IG and HY), Table 2 reports the pattern of the issuance premium by rating classes. In the period considered, the risk premium increases in all areas and for both rating classes. In the euro area, in 2006, the average ASW spread for IG issues is 6 bp in Germany and 46 bp, 38 bp and 64 bp in Italy, Spain and the GIP group (Greece, Ireland and Portugal), respectively. However, the IG placement in the UK and the US pays an ASW spread (34 bp and 52 bp, respectively) somewhat higher than the euro area average (23 bp). In the same year, risk premia for HY issues are considerably higher: they range from 161 bp in Germany to 321 bp in Spain and the US.

As for the financial crisis period, in the US and the UK, the ASW spread substantially increases for IG issues in the early phase of the distress in the subprime mortgage market (2007 and 2008), and after a peak in 2009, it levels off at a lower level. The pattern is similar for HY placements by firms in the US, while it is more erratic in the UK given the reduced issuance of HY bonds. In the euro area there are sizeable differences across countries: Germany exhibits a development relatively similar to that of US

[3] Nationality and industry group are those of the parent company. Data related to euro area are available for 13 countries (Austria, Belgium, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Netherlands, Portugal and Spain).