Pacific-Basin Finance Journal 20 (2012) 583–599

Contents lists available at SciVerse ScienceDirect

Pacific-Basin Finance Journal

journal homepage: www.elsevier.com/locate/pacfin

What drives the cost of US dollar bond funding for banks?

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ARTICLE INFO

Article history:
Received 13 August 2011
Accepted 23 January 2012
Available online 3 February 2012

Keywords:
Issue spreads
Credit risk
Liquidity premium
Financial crisis

JEL classification:
G01
G10
G15

ABSTRACT

This paper decomposes issue spreads on US dollar-denominated bonds issued by LIBOR panel banks into credit risk and liquidity premium components. We attribute the recent increase in issue spreads to the investor perception that banks are less creditworthy than in the past. Although the behaviour of the credit risk component is well-explained by a structural model of default, this mechanism is nullified by the introduction of government guarantees. The behaviour of the liquidity premium component is partially explained by the bid/ask spread in the secondary market and issue size. Government guarantees also reduce the liquidity component of the issue spread.

1. Introduction

The US bond market is an important source of long-term funding for many banks, both US banks and non-US banks.[1] The global financial crisis has led to a permanent increase in the cost of this funding: the cost of long-term US dollar funds, expressed as a spread over the US swap rate, increased by approximately 100 basis points between mid-2007 and mid-2010. Fig. 1 below displays the yield for three-year

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[1] Many European banks face a structural shortage of US dollar funding to support their US dollar assets due to the absence of a natural US dollar deposit base (McGuire and von Peter, 2009). While this has led to an excessive reliance on short-term wholesale markets for US dollar funding, European banks have also tapped the US bond market to meet their longer-term US dollar funding requirements. Australian banks have also come to rely on the US bond market for medium- to long-term funding, not because of a structural shortage of US dollar funding but as a source of foreign currency funding that can be converted into hedged domestic currency funding via a currency swap (Davies et al., 2010).

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doi:10.1016/j.pacfin.2012.01.003

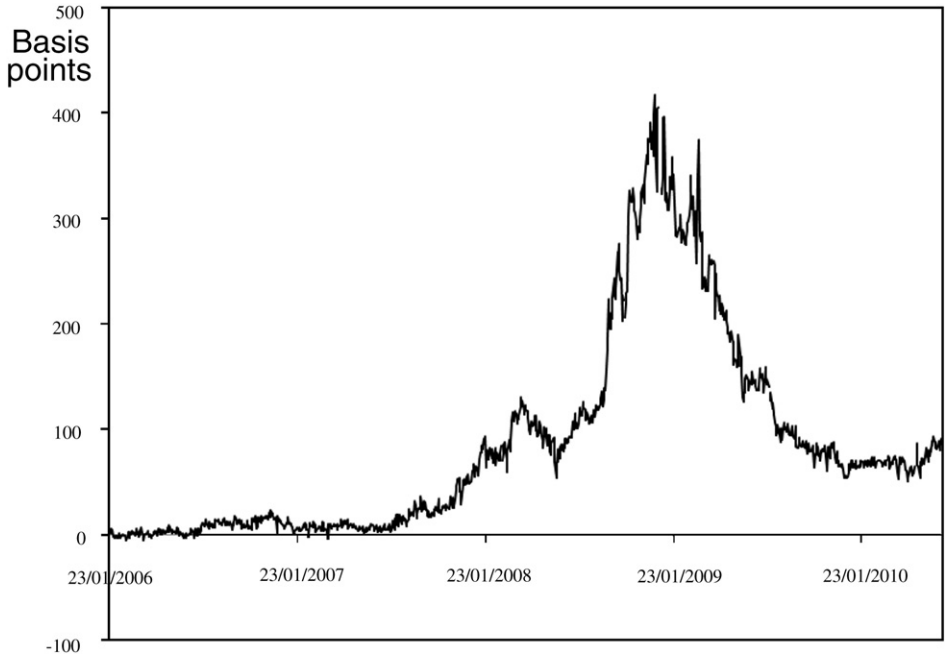

Fig. 1. Spread over swap rate: 3-year bonds issued by AA-rated financial institutions.

US dollar bonds issued by domestic and foreign AA-rated financial institutions expressed as a spread over the swap rate.[2] Prior to August 2007 this yield spread tracked around 0–10 basis points. The spread began rising after August 2007 and increased sharply in late 2008 following the collapse of Lehman Brothers. At times the spread was in excess of 400 basis points. During this time the US bond market was virtually shut to non-sovereign borrowers. The spread remained elevated during early 2009 before declining throughout the remainder of 2009, falling to approximately 80 basis points by the end of October 2009. The spread began rising again in the second quarter of 2010, reaching nearly 100 basis points, principally in response to market concerns over the exposure of banks to the sovereign debt of a number of fiscally-challenged European countries.[3]

Our research seeks an explanation for the behaviour of the spread on US dollar-denominated bonds issued by banks. Understanding the factors driving the widening of the spread on bonds issued by banks in the US dollar market is an important issue for three reasons. First, the academic literature typically decomposes a bond spread into credit risk and liquidity premia (e.g., Longstaff et al., 2005). If this widening of the spread is largely due to a deterioration in liquidity then the recapitalisation of banks and the restoration of their creditworthiness will not necessarily reduce the spread to pre-crisis levels and banks will face a permanent increase in the cost of their long-term US dollar funding.

Second, an increase in the cost of US dollar bond funding for banks will have real economic impacts as higher funding costs will inevitably be passed onto borrowers, making credit more expensive and potentially constraining economic activity and delaying the recovery from the immediate post-crisis recession. The rise in funding costs will also squeeze bank profitability and slow the regeneration of capital levels and the strengthening of bank balance sheets (IMF, 2011).

[2] We use this as a representative spread facing banks raising funds from the US bond market because most major banks have an AA credit rating.

[3] It should be noted that these spread changes have been a global phenomenon and not limited solely to the US dollar bond market. For instance, spreads on sterling-denominated bonds issued by financial institutions also widened abruptly during the financial market turmoil that followed the collapse of Lehman Brothers (Bank of England, 2009).