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Credit market conditions and the impact of access to the public debt market on corporate leverage ☆

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ABSTRACT

This study examines the role played by credit ratings in explaining corporate capital structure choice during a period characterised by a major adverse loan supply shock. Recent literature has argued that supply-side factors are potentially as important as demand-side forces in determining corporate leverage. This is based on the premise that debt markets are segmented and that those firms that have access to the private debt markets do not necessarily have access to the public debt markets. The question of access to debt finance has become a major issue for public policy makers in several developed economies during the 2007–2009 financial crisis. The UK economy has been subjected to a period of severe tightening of credit market conditions resulting in a significant reduction in the availability of bank credit to the corporate sector. An important question is whether the contraction in the flow of bank credit to firms has affected firms equally or whether firms with access to alternative sources of debt finance have been able to mitigate the effect of adverse changes to the cost and availability of bank credit. To investigate this issue, this study employs data over a 20 year period that includes two recessions and three noticeable periods of credit market tightening. Despite the fact that a severe recession has accompanied the 2007–2009 financial crisis we argue that the underlying forces driving the weakness in bank lending to the corporate sector are mainly supply side rather than demand side factors. In this study we use the possession of a credit rating as an indicator of access to the public debt markets. Our results provide support for the notion that having a rating is associated with higher leverage ratios, even after controlling for demand-side leverage determinants and macroeconomic conditions. More importantly, the study finds that the impact on leverage of having a credit rating varies over our sample period with the effect being greatest in those years when credit market conditions were tightest. The results are robust to the use of an alternative measure for public debt market access, different proxies for measuring the tightness of the credit markets, alternative econometric specifications and various sub-periods within our overall sample period.

1. Introduction

The seminal work of Modigliani and Miller (1958) assumes that in the absence of market imperfections supply of capital is perfectly elastic and capital structure decision of a firm depends entirely on its demand-side considerations (Lemmon & Roberts, 2007). The key assumption is that firms can borrow as much as they wish at the same cost of capital and a firm's capital structure is purely a function of firm's characteristics, such as, size, profitability, asset tangibility, and growth opportunities, that influence its demand for debt. In the real world market frictions, such as information asymmetry, imply that the supply of capital is inelastic and firms can be rationed by their lenders in terms of both pricing and debt availability. Most of the previous empirical literature concentrates on the demand-side determinants of capital structure while paying little attention to the supply of capital (see Frank & Goyal, 2007; Rajan & Zingales, 1995). Recently researchers have recognised the importance of the supply-side factors as a potential driver of the capital structure decision. For example, Faulkender and Petersen (2006) argue that in the presence of information asymmetry firms that can access the public debt capital markets face less financial constraints and are able to borrow more. Conversely, they suggest that firms that desire to raise funds but are constrained by lack of access to capital markets might be significantly under-levered.

The importance of supply side factors has come to the fore since the onset of the current financial crisis in the latter half of 2007. During the last three years, banks have attempted to repair their balance sheets

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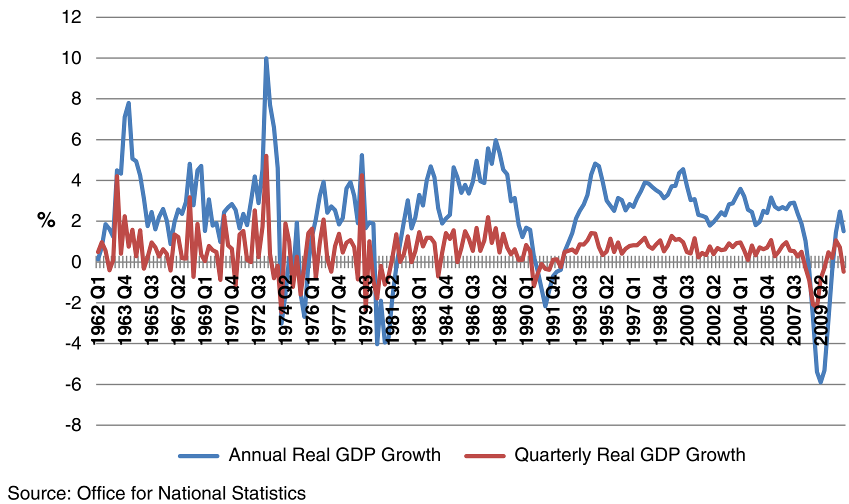

Fig. 1. Real GDP growth 1962–2010.

and consequently have significantly cut back on their lending commitments to the corporate sector.[1] The Bank of England's (BOE) credit conditions surveys have reported that between the fourth quarter of 2007 through to the end of 2008 financial market turbulence reduced significantly UK banks' capacity to extend credit to the corporate sector.[2] The credit conditions surveys report that during this period there was a significant tightening of price and non-price terms on loans to the corporate sector. Banks widened their spreads and raised the fees and commissions they charged on loans to firms. In addition banks imposed stricter covenants, raised collateral requirements and reduced maximum credit lines. This has made raising bank loan finance extremely difficult for creditworthy firms since the fourth quarter of 2007 and consequently has limited the availability of debt-based finance for firms that are heavily reliant on banks for their debt capital. Post the financial crisis the future level of bank lending could be subject to greater restrictions as the new Basel capital requirements, which will more than double the core Tier 1 capital ratio from 2% to 4.5%, come into force. Some have argued that the Basel guidelines do not go far enough. For example, David Miles, an external member of the Bank of England monetary policy committee, has suggested a target capital ratio of between 15 and 20% (Mallaby, 2011). Kernan, Wade, and Watters (2010) argue that the forthcoming Basel III requirements will increase the amount of capital banks need to hold to support their corporate lending operations which will hike lending costs and lead to a reduction in lending capacity within the banking system. They anticipate that this will be likely to result in "*a longer term structural impetus for rising bond issuance over bank loans*" (Kernan et al., 2010, page 9).

The drying up of the flow of bank credit could have serious consequences for the UK economy's ability to pull itself out of recession and therefore prolonging the economic downturn slowing down economic recovery. The problem is potentially more acute in the UK because banks have traditionally been the main source of capital for the private sector with 76% of debt being currently provided by banks (Kernan et al., 2010). The situation is however likely to change according to Kernan et al. (2010) who point out that since the events of September 2008, corporate bond issuance by U.K. businesses with a credit rating had increased by £22.1 billion, while U.K. financial institutions have reduced their net lending (both in sterling and foreign currencies) to U.K. companies by £59.1 billion. Kernan et al. (2010) suggest that this makes corporate bond issuance the main provider of new debt financing on a net basis since the third-quarter of 2008. Bacon, Grout, and O'Donovan (2009) survey chief financial officers and treasurers of UK firms and find that the possession of a credit rating and the resulting access to public debt markets it offers has become especially important during the 2007–2009 financial crisis. Recent trends in lending data from the Bank of England (2009d) points to rated firms raising capital market debt to pay back bank loans and issuing bonds rather accessing new bank loan facilities. The BOE suggest that access to the debt capital markets has enabled rated firms "*to mitigate the impact of a shortening in the maturity of bank lending available since the onset of the financial crisis*" (Bank of England, 2009d). The BOE in its August 2009 Trends in Lending report suggested that while companies with bond market access had turned to arm's length sources of finance, smaller businesses without access still remained severely financially constrained. Bacon et al. (2009) report that many firms that did not have a rating during the crisis were seeking to obtain one.

A credit rating by providing access to the public debt markets can offer considerable benefits to a firm. Not only does it widen the investor base and improves debt pricing but also provides an opportunity to enter foreign bond markets and gain international visibility, thereby reducing the reliance on local banks. Faulkender and Petersen (2006), Mitto and Zhang (2008), Kisgen (2009) find that companies with a rating have access to broader sources of debt finance, and as a result have higher leverage ratios compared to unrated firms. There is also evidence that rated companies suffer less during adverse economic conditions. For example, Chava and Purnanandam (2009) find that in the US, bank-dependent firms suffered larger valuation losses and greater subsequent decline in their capital expenditure during and after the Russian crisis of 1998 as compared to their rated counterparts. Similarly, Campello, Giambona, Graham, and Harvey (2009a) find that the majority of US firms have been adversely affected by the 2008 credit supply shock but the impact has been greatest for financially constrained firms.

Adverse economic conditions and distortions in the supply of capital can severely affect firms' leverage and especially those firms that do not have access to alternative sources of finance, such as the public debt markets. The last two decades provide periods when the macroeconomic environment was stable and turbulent together with periods that experienced significant movements in credit market conditions. This study investigates the role played by access to public debt markets over a twenty year period during which there were three episodes of credit market tightening with the most recent being the severest. Significantly, the second of these periods (2000–2003) of tight credit was not associated with an economic downturn whereas the first (1991–1992) and the third period (2007–2009) were. Although we

[1] Balance sheet repairs may also take the form of injection of new equity capital and selling assets.

[2] See Bank of England, 2007a,b and 2008a,b,c,d "Credit Conditions Survey".