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Debt source choices and stock market performance of Russian firms during the financial crisis

Denis Davydov, Sami Vähämaa *

Department of Accounting and Finance, University of Vaasa, P.O. Box 700, FI-65101 Vaasa, Finland

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ABSTRACT

This paper examines the relationship between stock returns and the sources of corporate debt during the financial crisis of 2008. In particular, using data on large-capitalization Russian firms, we investigate whether dependence on either bank debt or bonds affected stock returns during the credit crunch. Our results indicate that the firms which rely entirely on bank debt significantly outperformed the firms with public debt amidst the crisis. This finding suggests that bank debt may be particularly valuable in harsh times. However, we also document that the stock prices of the bank dependent firms recovered more slowly in the post-crisis period.

1. Introduction

It has been argued that the financial crisis of 2008 spread to emerging economies to a large extent through the debt markets. Increased risk aversion of investors and tightened terms of foreign borrowing caused significant liquidity shocks on capital markets of many emerging countries. While there is a direct linkage between shocks on capital suppliers and the impact of these shocks on their borrowers (see e.g. Chava and Purnanandam, 2011), there is relatively little empirical evidence that focuses on the relationship between the borrower's stock market performance and different debt capital suppliers. The recent economic crisis reemphasized the importance of this relationship. If firms are able to quickly readjust their debt financing, they should be able to minimize the effect of external economic shocks by relying on the debt source that provides a higher degree of financial flexibility. In this paper, we examine the association between stock

* Corresponding author. Tel.: +358 29 449 8455.
E-mail addresses: denis.davydov@uva.fi (D. Davydov), sami.vahamaa@uva.fi (S. Vähämaa).

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returns and the sources of corporate debt capital during the financial crisis of 2008. In particular, using data on large publicly traded Russian firms, we investigate whether the choice between bank debt and public debt in form of bonds affected stock returns during the credit crunch.

There are at least three theories that point out why firms should care about their debt source choices. First, asymmetry of information between investors and shareholders might limit the firm's choice between financing sources (Boyd and Prescott, 1986; Johnson, 1997; Leland and Pyle, 1977; Rajan, 1992). Second, monitoring function of banks may reduce agency problems that arise within a company, which potentially positively affect firm performance (Diamond, 1984, 1991). Finally, it has been argued that renegotiation feature of debt capital is of particular importance in harsh times (Chemmanur and Fulghieri, 1994; Gertner and Scharfstein, 1991; Rajan and Winton, 1995). The empirical evidence on the effects of different sources of debt financing on firm performance is somewhat mixed. While the studies by Haan and Hinloopen (2003), Shirasu and Xu (2007), and Cantillo and Wright (2000) provide evidence of a positive association between bank-based debt financing and firm performance, Arikawa (2008) and Weinstein and Yafeh (1998) document, on the other hand, that market-based debt financing may be more beneficial in terms of financial flexibility and growth opportunities.

The existing empirical literature on the implications of debt source choices on firm performance during periods of market stress is scarce and concentrates mostly on only one side of the debt market-banks. Khawaja and Mian (2008), Paravisini (2008), Kroszner et al. (2007), Ongena et al. (2003) examine the relationship between bank health and the performance of the borrowing firm. In general, these studies find a close relationship between the performance of banks and the borrowing firms during credit crunches or liquidity shocks. However, only a few studies try to compare the performance of bank dependent firms to firms that rely on other sources of debt capital. One of these exceptions is Kang and Stulz (2000), who show that bank dependent firms performed worse than similar companies that used other means of financing during the banking crisis in Japan in 1990–1993. More recently, Chava and Purnanandam (2011) examine the variation in stock returns across firms with access to public debt markets and bank dependent firms during bank loans contraction in the U.S. in 1998. They document that firms that relied mostly on bank debt experienced larger valuation losses than firms that had access to bond markets. In this paper, we aim to contribute to the above literature by focusing on the association between debt source choices and stock market performance of Russian firms during the financial crisis of 2008.

There are a number of reasons why the Russian market serves as an interesting setting for examining the impact of different debt capital suppliers on stock market performance during the crisis. First, unlike the crisis of the 1990s for Japanese firms, the financial crisis of 2008 originated from the U.S. sub-prime mortgage sector, and thereby is completely exogenous to the Russian economy. At the same time, high reliance on natural resources and plummeting of commodities' prices during the crisis as well as high integration with the western economies,[1] Russia was hit hard by the crisis. In fact, the Russian capital market was among the worst performers worldwide during the fourth quarter of 2008. Second, although firms still mostly rely on bank debt, Russian financial system sharply differs from the traditional bank-oriented economies such as Japan and Germany, while also being different from the U.S. and U.K. systems on the other hand. The financial system in Russia is characterized by a concentrated banking sector and a more constrained availability of external equity and debt capital than in most developed markets.[2] Nevertheless, there is evidence that at least the weak form of stock market efficiency holds in Russia. Previous studies show that there are no predictable profitable trading strategies on the Russian capital market (see e.g. Abrosimova et al., 2005; Hall and Urga, 2002). Moreover, Buklemishev and Maliutina (1998) study the development of the Russian stock market and argue that the effect of information on stock quotes in Russia depends significantly on the level of the market development. Given the previous evidence of market efficiency and the recent rapid development and growth of the Russian stock market, we can argue that our analysis should not be affected by any market-specific inefficiency.

The empirical findings reported in this paper demonstrate that debt source choices may affect the firm's stock market performance during period of market stress. We document that there was significant variation in the cross-section of stock returns of large Russian firms during the financial crisis of 2008. We

[1] Central Bank of Russia owned about 100 billion U.S. dollars of mortgage-backed securities.

[2] A more detailed discussion of the Russian stock market and banking system is provided in Goriaev and Zabotkin (2006) and Anzoategui et al. (2012).