Comments on "Corporate bond use in Asia and the United States"

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1. Introduction

Gregory Duffee and Peter Hördahl examine the use of corporate bond financing by firms in the United States and Asia with a view to understanding both the decision to issue corporate bonds and the magnitude of bond financing conditional on having bond debt. Many economists consider the low use of corporate bonds by Asian firms as an infrastructure problem arising from poor institutions. The lack of access to corporate bond markets makes it difficult for firms in Asia to switch to non-bank sources and renders them more vulnerable to bank credit supply shocks. The major strength of the Duffee-Hördahl paper is its focus on understanding the infrastructure problem, since policies that aim to strengthen bond market infrastructure and stimulate corporate bond supply are rooted in the idea that access to corporate bonds would dampen the effect of macroeconomic fluctuations on real activity.

Duffee and Hördahl break new ground by constructing measures of the bond and bank leverage of firms in the United States and Asia and by decomposing cross-regional differences in bond leverage into those due to (i) cross-regional differences in the probability of a firm using bonds, conditional on firm characteristics, (ii) cross-regional differences in the amount of bonds a firm has, conditional on firm characteristics, and (iii) cross-regional differences that arise due to variations in the types of firms that operate in Asia and the United States. Thus, the empirical setup in the Duffee-Hördahl paper can decompose differences in bond leverage into those due to bond infrastructure (markets and institutions) and those due to firm characteristics.

Their conclusion is that fewer Asian firms than US firms have corporate debt. Many Asian firms do not access corporate bond markets and the differences are stark for small firms – Asian small firms are much less likely to have corporate debt than US small firms. And, even among firms that do use corporate debt, bond leverage is lower in Asia than in the United States. They point out that firms in Asia largely rely on bank debt to fund external financing needs, while US firms rely on both bank loans and public debt.

2. Comments

Although Duffee and Hördahl document several useful stylised facts about the use of corporate bonds in Asia and the United States, they cannot make causal inferences about the effect of supply-side frictions on the debt structure of firms. It is somewhat

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challenging to tease out the supply-side effects from demand considerations. Thus, even as we find that firms in Asia use less public debt than those in the United States, we do not know whether it reflects difficulties in issuing corporate debt (due to supply-side frictions) or simply firms' desire not to issue public debt even though they could (due to demand-side considerations).

The demand-side explanations for the low use of corporate bonds by Asian firms deserve serious consideration. It is plausible that Asian firms prefer bank loans because of the advantages banks offer. Banks have superior monitoring ability and can produce information at a lower cost as they have access to a firm's transaction accounts. Banks are also good at keeping proprietary information confidential. Furthermore, banks can resolve distress more efficiently and have greater flexibility in renegotiating contracts with borrowers.

Duffee and Hördahl's approach to disentangling the supply and demand considerations is to control for firm characteristics that drive demand for bond leverage. This approach to dealing with differences in demand is insufficient in convincing the reader that the variation in the use of public debt (or the mix of public and bank debt) is caused by, not simply correlated with, variations in supply-side frictions (i.e. infrastructure problems). Do the types of industries and, thus, the kinds of assets that back up the debt differ across countries? Do institutions that affect both the demand for and supply of public debt differ across markets, either because of the development of the financial market or because liquidation costs in bankruptcy differ across jurisdictions?

The literature has made some progress on this issue by focusing on shocks to supply frictions, which are otherwise uncorrelated with demand for corporate bonds. An example of such shocks would be changes to bankruptcy laws or improvements in information architecture that exogenously change the monitoring and screening costs of bondholders or their recovery in default. These shocks, however, have complex redistributive effects that are often hard to disentangle. Vig (2013), for example, examines how firms altered their debt structures in response to a strengthening of creditor rights in India. The securitisation reform strengthened the rights of secured creditors, thereby increasing secured debt capacity and lowering the cost of borrowing. It also exposed firms to the threat of premature liquidation. Thus, the change in bond infrastructure has mixed welfare implications. It could affect both the supply of and the demand for credit.

In a recent paper, Goyal, Urban and Zhao (2019) examine changes to the information environment of firms that accompany the exogenous addition of their stocks to equity indexes. They show that the improvement in the information environment results in an increase in public debt issuances and improves the ratio of bond-to-bank financing. Goyal, Urban and Zhao also find that the effect of index membership on public debt issuances is larger in markets with weaker bond infrastructure. Thus, there is support for the Duffee-Hördahl argument that information frictions prevent firms from accessing corporate bond markets and increase their reliance on bank financing.

Duffee and Hördahl also present results from a second empirical approach where they examine incremental financing through bank loans or bonds in response to financing deficits in a setting similar to those in Shyam-Sunder and Myers (1999) and Frank and Goyal (2003). As these other papers show, it is important to ensure that the cash flow identity holds in the sample.

Importantly, it would seem that changes in working capital are a part of cash flow from operations. If so, then I am not surprised that firms turn to banks to offset variations in cash flow from operations. We know that firms engage in the matching of maturities and often finance short-term working capital needs with bank loans. If much of the variation in cash flow from operations is driven by working capital needs, then bank financing would be highly sensitive to fluctuations in operating cash flows. This would be true for both Asian and US firms, and the evidence is not strong enough to justify Duffee and Hördahl's conclusion that "firms with substantial corporate debt primarily adjust their bank debt as demand for cash varies". One would expect firms to do so since short-term liabilities should fund variations in short-term assets. Thus, I disagree somewhat with the paper's implicit conclusion that improving access to bond markets may not improve welfare since firms rely on bank financing to adjust variations in cash flows. What I find more interesting is the evidence on how fixed assets are financed and the greater reliance on corporate debt in the United States than on bank debt in Asia. Here, it would be useful to perform a cross-sectional analysis to understand which types of US firms are financing long-term assets via bank debt.

The broader point of this discussion is that we need to directly confront the issue of bond infrastructure problems as an explanation for the low corporate bond use in Asia. We need to understand what the supply-side frictions are and if corporate bond use is cross-sectionally related to the strength of these frictions. I would also encourage Duffee and Hördahl to document bond issuance costs and provide more information on measures of frictions that restrict access to bond markets in Asia.

In summary, the bond infrastructure problems such as differences in accounting standards, information disclosure rules, bankruptcy laws, corporate governance and secondary market trading platforms do indeed matter in determining the supply of corporate bonds. The evidence in Duffee and Hördahl's paper supports the notion that reducing these frictions would result in a greater issuance of publicly traded bonds to finance long-term assets. Given this evidence, policymakers should aim to reduce debt supply frictions and provide firms with greater flexibility in substituting bank loans with public debt. This would dampen the adverse consequences of macroeconomic shocks on corporate investment, growth and employment.

References

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