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Accounting standards and debt covenants: Has the "balance sheet approach" led to a decline in the use of balance sheet covenants?☆

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ABSTRACT

Recent years have seen a sharp decline in the use of balance sheet-based covenants in private debt contracts. I hypothesize that changes in accounting standards can explain part of this decline. Standard setting has shifted towards a "balance sheet approach", which I predict has made the balance sheet less useful for contracting. I measure the effect of the balance sheet approach on specific borrowers using a volatility ratio. I find that borrowers with greater volatility ratios are less likely to have balance sheet-based covenants. This evidence is consistent with reductions in the contracting usefulness of the balance sheet being associated with reductions in balance sheet covenants.

1. Introduction

Recent years have seen striking changes in covenant inclusion in debt contracts. In 1996, financial covenants measured with balance sheet variables—including Leverage, Net Worth, and Current Ratio—were included in more than 80% of private debt contracts.[1] In the intervening years, their use declined sharply, to only 32% of deals by 2007. The same trend is not apparent for other types of financial covenants. For example, covenants measured with income statement ratios—such as Interest Coverage, Fixed Charge Coverage, and Debt-to-Earnings—have been included in between 74% and 82% of deals over the same period, displaying no declining trend in use (see Fig. 1).

This trend in covenant use has been accompanied by a change in the direction of accounting standard setting. Based in large part on the FASB's Conceptual Framework, the objective of standard setting has shifted from the determination of net income (the income statement approach) to the valuation of assets and liabilities (the balance sheet approach). As described in Dichev (2008), the conceptual focus on the balance sheet has been accompanied by a variety of new accounting standards, including changes in accounting for goodwill and asset securitization as well as expanded recognition rules for hedge accounting. There has also been broader adoption of fair value accounting, in which many financial assets and liabilities are recognized on the balance sheet at market price rather than historical cost. Recent

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[1] I define financial covenants as provisions in the debt contract requiring the borrower to maintain a threshold level of an accounting-based measure.

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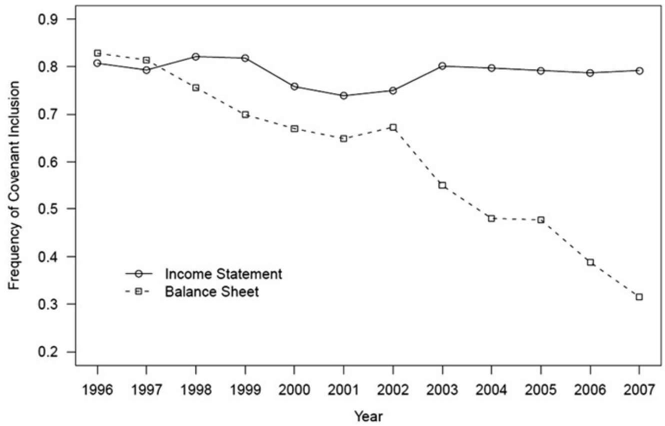

Fig. 1. Financial covenant inclusion by year, 1996–2007. Income statement covenants include interest coverage, fixed charge coverage, and debt-to-earnings. Balance sheet covenants include leverage, net worth, and current ratio.

accounting standards have further solidified the balance sheet approach, and suggest the trend towards fair value accounting is likely gaining momentum.[2]

I hypothesize that this shift in standard setting has potentially compromised the value of the balance sheet for debt contracting. As discussed in Holthausen and Watts (2001), Watts (2003), and Kothari et al. (2010), debt contracting parties rely on a conservative balance sheet, with high thresholds of verifiability, to reflect the lower bound of the liquidation value of net assets. Accounting under the balance sheet approach, however, often features estimates of asset and liability values, as well as discretion in the timing of recognition of value changes. These value estimates—which I term ‘‘balance sheet adjustments’’—have the potential to limit the contracting usefulness of the balance sheet by introducing error and bias into reported asset and liability values. Because balance sheet adjustments provide unreliable signals of the borrower's liquidation value, lenders will, in turn, use balance sheet-based financial covenants less frequently. I therefore hypothesize that this trend in standard setting has contributed to the change in covenant use, and that the magnitude of balance sheet adjustments is negatively associated with the likelihood of a borrower having a balance sheet covenant.

Using a sample of 8,527 private debt agreements issued between 1996 and 2007, I document the decline in balance sheet covenant use. I measure the borrower-specific exposure to balance sheet-based accounting rules using the Volatility Ratio (VR), the ratio of the volatility of changes in book value over the volatility of adjusted net income, which excludes several transient components.[3] VR captures the magnitude of balance sheet adjustments such as marking investments to market and recognizing impairment write-offs. Consistent with my prediction, I find a significant negative relation between VR and inclusion of balance sheet covenants. I do not, however, find a significant relation between VR and inclusion of income statement covenants. The empirical results are robust to a variety of alternative specifications, including use of different measures of balance sheet focus.

Although the subject of this study is accounting standards and how they influence the contracting usefulness of balance sheet information, there are other plausible explanations for the pattern of declining balance sheet covenant use. I find that the asset bases of borrowers are associated with covenant use, as borrowers with more assets in place and fewer operating leases are more likely to have balance sheet covenants. I also find that deals with an ‘‘institutional tranche’’ (i.e. a Term Loan Tranche B or higher), which are more likely to be sold or securitized (Wittenberg-Moerman, 2008), are less likely to have balance sheet covenants. I interpret this as evidence that changes in the syndicated loan market have also affected covenant use. I also examine the association between increased competition in lending and covenant use. Although I find some evidence of covenant loosening by lenders who most aggressively expanded market share over the sample period, the results suggest that competition has not contributed to the change in use of balance sheet covenants. Finally, the association between VR and balance sheet covenant use is robust to these alternative explanations, consistent with the view that changes in accounting standards have contributed to the change in covenant inclusion.

Although there is a strong association between VR and balance sheet covenant inclusion, there is no relation between the ratio and income statement covenant use. I expect that there are two reasons for this. First, ‘‘dirty surplus’’ in US GAAP allows many balance sheet adjustments to temporarily avoid recognition on the income statement; for example, a valuation adjustment on an available-for-sale security is classified as other comprehensive income until the security is sold.[4] Second, when adjustments do articulate through the income statement, earnings in debt covenants is generally

[2] SFAS No. 159 expands the reach of fair value accounting to a broad range of financial assets and liabilities.

[3] I define Adjusted Net Income as net income less special items and non-operating income and expense. The ratio is designed to exclude transient items in the denominator, thus isolating non-contracting useful items in the numerator. This measure is discussed in Section 3.2.

[4] Dirty surplus refers to the articulation of changes in consecutive balance sheets through the income statement. Under ‘‘clean surplus’’ accounting, all changes in balance sheet values appear on the income statement; with a dirty surplus relation, some changes in balance sheet accounts are reported directly in shareholders' equity (as Other Comprehensive Income) and so do not affect the income statement.