



Do leases expand debt capacity? ☆

James Schallheim ^{a,1}, Kyle Wells ^{b,2}, Ryan J. Whitby ^{c,*}

^a David Eccles School of Business, University of Utah, 1655 Campus Center Dr., Salt Lake City, UT 84112, United States

^b Udvar-Hazy School of Business, Dixie State University, 225 South 700 East, St. George, UT 84770, United States

^c Jon M. Huntsman School of Business, Utah State University, 3500 Old Main Hill, Logan, UT 84322, United States



ARTICLE INFO

Article history:

Received 28 February 2012

Received in revised form 30 August 2013

Accepted 9 September 2013

Available online 14 September 2013

Keywords:

Leasing

Sale-and-leaseback

Capital structure

Debt

ABSTRACT

Theoretically and empirically, debt and leases have been shown to be both substitutes and complements. To explore the relation, we divide our sample into two subsets: those that exhibit a complementary relation (43% increase debt after increasing leases), and those that exhibit a substitutory relation (57% decrease debt after increasing leases). For complement firms, we find a significant negative relation between leasing and the firm's size, marginal tax rate, and z-score, consistent with "complementary" theories. For substitute firms, we find a positive and significant relation between leasing, the marginal tax rate and changes in cash. We also find a significant positive stock market reaction to the announcement of the SLB, which is stronger for the complement subset of firms.

© 2013 Elsevier B.V. All rights reserved.

1. Introduction

Most theoretical models of leasing have assumed that leases substitute for debt in the sense that more leasing should result in less debt because leases use up debt capacity. However, not all theoretical models have made this assumption. The leasing models presented by Lewis and Schallheim (1992) and Eisfeldt and Rampini (2009) predict the possibility that debt and leases can be complements, and that leases can actually increase debt capacity, by utilizing theories based on taxes or bankruptcy costs, respectively. In this paper, we carefully examine firms that exhibit a complementary relation between debt and leases, and contrast them with firms that have a more traditional substitutionary relation between debt and leases.

Ang and Peterson (1984) find that firms that use more leases tend to have, in fact, more debt and label their finding the "leasing puzzle." A body of literature has developed since Ang and Peterson posed this puzzle. The preponderance of evidence in the literature supports debt and leases as substitutes. Bayliss and David Diltz (1986), Beattie et al. (2000), Marston and Harris (1988) and Yan (2006) all find that debt and leases are substitutes, with varying degrees of substitutability. One of the problems with the literature that examines this issue previously is the familiar *ceteris paribus* condition; the assumption that all else remains equal is problematic because almost all leases involve the acquisition of a new asset for the firm. One exception is the sale-and-leaseback (SLB) transaction, in which the assets of the firm do not change because of the leasing transaction. While firms can make changes to their asset base following a SLB, the actual sale and leaseback transaction does not result in a change of physical assets and is strictly financial. We employ a large sample of hand-collected SLBs and then observe the firm's actions after the transaction to determine differences between firms that use debt and leases as substitutes or complements. That is, we are able to observe whether firms increase or decrease their debt and categorize our sample firms as either members of the complement subset or substitute subset.

☆ We thank Mike Lemmon for helpful discussions and the seminar participants at the University of Canterbury, Christchurch, New Zealand, the University of Kentucky, and the University of Montana for helpful suggestions.

* Corresponding author. Tel.: +1 435 797 9495.

E-mail addresses: finjs@business.utah.edu (J. Schallheim), kwells@dixie.edu (K. Wells), ryan.whitby@usu.edu (R.J. Whitby).

¹ Tel.: +1 801 581 4434.

² Tel.: +1 435 652 7833.

The following examples of SLB transactions and the subsequent debt changes illustrate the differences. In 1998, Nike, Inc. completed the SLB of a distribution center to TriNet Corporate Realty Trust, Inc. Following the SLB transaction for \$24 million, Nike reduced their long term debt by \$24 million while their total debt decreased by \$36.8 million; this is a clear example of a substitutionary relation. In 1999, Famous Dave's of America, Inc. completed the SLB of three restaurant locations to Franchise Financial Corp. of America. The SLB transaction was for \$5 million. Following this transaction, Famous Dave's long-term debt increased by \$8.4 million while its total debt increased by \$4.1 million (total debt includes issuance less retirements). Thus, while some firms clearly treat debt and leases as substitutes, other firms appear to treat debt and leases as complements. To our knowledge, this study is the first to separate and examine a subgroup of firms that actually increase the firms' debt after a lease transaction.

We begin our analysis by separating firms by whether they increase or decrease debt after a SLB transaction. We find that over 42% of the 392 firms in our sample exhibit a complementary relation. For this group, we find that firms tend to have higher debt ratios, higher market to book ratios, and more capital expenditures than the substitute subset. While many of the SLB transactions we examine involve real estate – about 63% of the overall sample – real estate is not a driving factor between our two subsets. Although it is interesting to note the differences between the two subsets, much of our analysis focuses on the relation between debt and leases within each subset and for the entire sample of SLBs.

When we examine the overall sample, we find some support that debt and leases are substitutes for the average SLB firm. The result, however, is not robust to different definitions of debt. Given the significant proportion of firms in our sample that increase debt after the SLB transaction, this result is not surprising.

In addition to the relation between leasing and debt, we incorporate control variables in our analysis to account for changes in assets, tax effects, and financial constraints. We find that firms in the total sample and both subsets use more leases as size decreases (a proxy for financial constrained firms), z-score decreases (a proxy for financial distressed firms), and cash increases (indicating liquidity and financial slack). Furthermore, our estimate of Investment Grade rated firms, which is an indicator variable if the firm has debt rated BBB- or better, is significant at the 10% level for our entire sample. These results indicate that financing constraints play a role in the SLB decision, which is consistent with the finding in [Faulkender and Petersen \(2006\)](#) that firms that lack an investment grade rating have less access to capital.

For the substitute subset, a dollar of SLBs appears to substitute for approximately \$0.73 of total debt. When examining only the long-term debt in the substitutionary subset, a dollar of leases appears to substitute for approximately \$0.51 of long-term debt. The substitute subset also exhibits a significant decrease in the ratio of capital leases to operating leases, indicating that these firms are motivated to remove debt from their balance sheets.

Analyzing the complement subset allows us to test the impact of taxes and financial constraints as posited by the [Eisfeldt and Rampini \(2009\)](#) and [Lewis and Schallheim \(1992\)](#) theories. According to our analysis of the complement subset, the marginal tax rate is significantly and negatively associated with the amount of the SLB. We also find support for an association between SLBs and financial constraints (z-score) for this subgroup. Furthermore, the complement subset of firms do not display a change in the ratio of capital leases to operating leases, indicating that they are less concerned with accounting leverage ratios than the substitutionary subgroup.

To examine the robustness of our results, we analyze the subsample of SLB firms that do not contain real estate and obtain qualitatively similar results for the total sample and for each subset. We also perform an event study analysis of the market's reaction to the announcement of the SLB transactions and find an overall positive return of 1.61%. The stock market reaction is stronger for the complement subset than for the substitute group.

One of the main takeaways from our analysis concerns the results for the complementary subset. Within the group of firms that increase debt after the SLB transaction, there is an increasing relation among leasing and firm size, Altman's z-score, and the marginal tax rate. These results are consistent with the models that predict leases can increase debt capacity for firms that are financially constrained or have limited ability to use tax shields.

This paper is organized as follows: [Section 2](#) describes the theoretical and empirical literature related to leasing and SLBs, [Section 3](#) discusses our testable hypotheses, [Section 4](#) describes our sample of SLB transactions, and [Section 5](#) presents our results. We state our conclusions in [Section 6](#).

2. Literature related to leasing and sale-and-leasebacks

2.1. Leasing theory

Under the assumption of perfect capital markets, [Modigliani and Miller \(1958\)](#) show that the method of financing is irrelevant to the total value of the firm given the investment opportunity set. The notion that debt and leases are substitutes can be traced to the theoretical model of Myers, Dill, and Bautista ([Myers et al., 1976](#)), who present a model of lease or buy (borrow). Even in the presence of corporate taxes, the choice between debt and leases can be irrelevant given common tax rates and no other market imperfections. In the MDB model, leasing can be advantageous to both parties of a transaction if the tax rates between lessor and lessee differ.³ The MDB model has a parameter, λ , which represents the substitution between debt and leases. The values for λ

³ The common notion that a low tax rate firm benefits from leasing to a high tax rate firm is not unconditionally true. It is true under normal contracting terms, but it is possible to devise situations in which the opposite holds. However, the conditions for a high tax rate lessee benefiting from a low tax rate lessor are quite unusual and not likely to arise very often in practice.

Download English Version:

<https://daneshyari.com/en/article/5093608>

Download Persian Version:

<https://daneshyari.com/article/5093608>

[Daneshyari.com](https://daneshyari.com)