OFF-BALANCE-SHEET FINANCING, BOOK-TAX DIFFERENCES AND FIRM ATTRIBUTES

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OFF-BALANCE-SHEET FINANCING, BOOK-TAX DIFFERENCES AND FIRM ATTRIBUTES

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Abstract: Prior research has reported a growing gap between book income and taxable income in the 1990s but the causes for this gap are not fully understood. A relatively unexplored potential cause of the increasing book-tax gap is the growth in off-balance financing over the same period. In this study, I first investigate whether off-balance-sheet financing arising from synthetic leases and securitization explains variation in book-tax differences. I find a positive and significant relation between off-balance-sheet financing and book-tax differences. The approximate magnitude of the effect of off-balance-sheet financing on book-tax differences is between 1-2 percent for the securitizations and 40 percent for synthetic leases. I next examine whether off-balance-sheet financing affects the relation between book-tax differences and various firm attributes documented in prior literature, such as earnings persistence, analyst forecast errors, and audit fees. I find some evidence that lower earnings persistence is associated with positive temporary book-tax differences arising from off-balance-sheet financing. I do not find a significant association between forecast errors and book-tax differences arising from off-balancesheet financing. I find that there is a positive relation between audit fees and off-balancesheet financing. However, I find no evidence that off-balance-sheet financing drives the positive association between audit fees and book-tax differences.



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CHAPTER I

INTRODUCTION

Book-tax differences are the gap between the book income reported on a company's income statement and the taxable income on its tax return. Prior research has documented an increasing gap between book income and taxable income in the 1990s (e.g., Mills et al. 2002; Plesko 2002 and 2004). Although the causes for the gap are not fully known, tax shelters and upwards earnings management are often assumed to be the major causes (e.g., Desai 2003; Seidman 2010). Some research suggests that off-balance-sheet financing could also contribute to the growing gap (Mills et al. 2002; Mills and Newberry 2005). However, there is a paucity of empirical evidence on the relation between off-balance-sheet financing and book-tax differences. This study first examines whether off-balance-sheet financing explains variation in book-tax differences. Following prior research (e.g., Mills and Newberry 2005), I focus on two types of off-balance-sheet

¹ Mills and Newberry (2005) find that credit-constrained firms use off-balance-sheet financing to lower borrowing costs and to enhance balance sheet presentation. They use the difference in interest expense per financial statements and corporate tax returns to proxy for a firm's off-balance-sheet and hybrid financing. Thus, their study does not directly test the effect of off-balance-sheet financing on book-tax income differences.



financing that can generate book-tax differences, synthetic leases and securitizations, and refer to them collectively as off-balance-sheet financing.

After establishing the relation between off-balance-sheet financing and book-tax differences, I further examine whether the association between book-tax differences and firm attributes documented in prior literature varies with off-balance-sheet financing.

Understanding the source of book-tax differences is important because recent inquiries suggest the effect of book-tax differences on future firm performance and on financial statement users depends on the source of such differences (e.g., Ayers et al. 2010; Blaylock et al. 2012; Hanlon et al. 2012).

Prior research has studied the implications of book-tax differences for earnings persistence (Hanlon 2005; Blaylock et al. 2012), analyst forecast errors (Weber 2009), and audit risk (Hanlon et al. 2012). These studies suggest that the association between book-tax differences and these attributes is driven primarily by accrual quality (e.g., Blaylock et al. 2012; Hanlon et al. 2012). I argue that off-balance-sheet financing such as synthetic leases and securitizations may also be an important contributing factor in driving these relations for firms with such financing structures for the following reasons. First, prior research finds that the use of off-balance-sheet financing is associated with future financial, operating, and credit risks (Barth et al. 2011; Dhaliwal et al. 2011). Consequently, the related book-tax differences can reflect these risks and thus have implications for future firm performance. For example, the lessee firm in a synthetic lease bears the risk of loss when the value of leased

² Examining off-balance-sheet financing that creates book-tax differences may raise the question of why I do not directly investigate the underlying financing transactions. My analysis is in the spirit of Blaylock et al. (2012) who argue that book-tax differences offer "a useful aggregate or summary measure of firms' accounting choices" (101). Instead of analyzing voluminous synthetic leases and securitizations, financial statement users could gather information and formulate judgments about firm risk and future performance using this easy and less time-consuming method. In addition, the effect of off-balance-sheet financing on firm future performance may not be easily discernible from the disclosures in financial statements. For example, Raedy et al. (2011) show that investors ignore the detailed disclosures in the tax footnotes due to complexity.

property drops below the guaranteed residual value at the end of lease term. Second, off-balance-sheet synthetic leases and securitizations introduce operating and information complexity, which may impact analyst forecasts and audit risk. For example, analysts may not fully appreciate the implications of off-balance-sheet financing for future firm performance due to increased firm complexity, and auditors may view clients with these structures as risky. Finally, book-tax differences arising from off-balance-sheet financing may reflect balance sheet and real earnings management, which is possibly more detrimental to a firm's future performance than accrual management. The negative effect of real-transaction based management may result from its adverse impact on optimal business operations. Thus, my second research question examines how these off-balance-sheet structures affect the relation among book-tax differences and earnings persistence, forecast errors, and audit fees.

To address the first research question, I use a cross-sectional Ordinary Least Squares (OLS) model to test the relation between book-tax differences and off-balance-sheet financing. The model controls for other sources of book-tax differences including accrual earnings management and tax avoidance. It also includes other potential confounding factors used in prior research such as in studies by Manzon and Plesko (2002) and Frank et al. (2009). I use four samples including three securitization samples and one synthetic lease sample and test the relation between off-balance-sheet financing and three types of book-tax differences (total, temporary, or permanent). I find a significant and positive relation between off-balance-sheet financing and total book-tax differences for all samples. The size of the effect is greater for synthetic leases than for securitizations. For temporary book-tax differences, I find the coefficient on off-balance-sheet financing is significantly positive only



for the synthetic lease sample. For permanent book-tax differences, I also find the coefficient on off-balance-sheet financing is significant for two of the four samples.

To examine the second question, I develop three hypotheses. For each hypothesis, I construct two samples. One sample, "Matched", is based on a one-for-one match for all firmyears with off-balance-sheet financing. The matching is implemented based on two-digit SIC industry, year, and firm size. The second sample, "S&P", is based on S&P 500 firms. For this sample, I compare firms in the S&P 500 with off-balance-sheet financing for a particular year with S&P 500 firms that do not have such financing over the sample period. Following prior research, I employ three OLS regression models to test whether off-balance-sheet financing affects the relation between book-tax differences and three firm attributes. First, I test whether earnings persistence is lower for firm-years with positive book-tax differences arising from off-balance-sheet financing. I find that for firm-years with positive temporary book-tax differences, book-tax differences arising from synthetic leases are associated with lower earnings persistence. I also find a negative association between earning persistence and book-tax differences arising from off-balance-sheet financing based on a securitization and lease combined sample for firm-years with positive temporary book-tax differences. This evidence provides some support for my first hypothesis. Additionally, I find a negative relation between earnings persistence and book-tax differences arising from synthetic leases for firm-years with positive permanent book-tax differences. However, I do not find a significant relation between earnings persistence and book-tax differences arising from securitizations.

Second, I examine whether analyst forecast errors are greater for firm-years with book-tax differences arising from off-balance-sheet financing. I construct my model



following Weber (2009), who finds a positive relation between forecast and book-tax differences. For all samples, I find that the relation between forecast errors and book-tax differences is not significantly more pronounced for firms with off-balance-sheet financing than for firms without such structures. Further, the findings show an insignificant association between forecast errors and book-tax differences arising from likely accrual management or tax avoidance. This result suggests that the positive relation between book-tax differences and forecast errors is not driven by any particular source of book-tax differences.

Finally, I examine the effect of off-balance-sheet financing on the relation between audit fees and book-tax differences. Consistent with Hanlon et al. (2012), I find a positive association between audit fees and book-tax differences. In addition, the findings show that audit fees on average increase for firms with off-balance-sheet financing, suggesting auditors incorporate the complexity and risks associated with off-balance-sheet financing in their pricing decisions. However, I do not find that audit fees increase with book-tax differences arising from off-balance-sheet financing. These findings suggest that the positive association between audit fees and book-tax differences is not driven by off-balance-sheet financing.

This study is important in several ways. First, it contributes to the book-tax differences literature by directly examining the effects of off-balance-sheet financing on book-tax differences. While prior research investigates various sources of book-tax differences and uses book-tax differences to proxy for accrual management or tax avoidance, only one study suggests that the difference in interest expenses between financial accounting and tax reporting may be associated with off-balance-sheet financing (Mills and Newberry 2005). My study extends prior literature by including off-balance-sheet financing as a potential source of book-tax differences. I find evidence that book-tax differences increase



with off-balance-sheet securitization and synthetic leases. Additionally, I add to prior research by separately examining the effects of synthetic leases and securitization on booktax differences using publicly available data. Findings from this study can help researchers quantify the effect of these specific types of off-balance-sheet financing on book-tax differences.

Second, I extend prior research on the relation between book-tax differences and firm attributes by investigating whether book-tax differences arising from off-balance-sheet financing affect this relationship. Specifically, this study adds to our understanding of the economic implications of book-tax differences. For example, Hanlon (2005) finds a negative association between book-tax differences and earnings persistence. Blaylock et al. (2012) attribute Hanlon's findings to possible accrual earnings management. I offer evidence to show that book-tax differences arising from off-balance-sheet financing may also lead to lower earnings persistence. Further, my study contributes to the auditing literature. In particular, I offer evidence suggesting that off-balance-sheet financing is incorporated into audit fee pricing.

The final contribution of this study is to add to the emerging stream of literature on accounting issues related to off-balance-sheet financing. It directly answers the call by Hanlon and Heitzman (2010) for more evidence on the taxation of financial securities including tax implications of leases and securitizations. Prior research examines the determinants of synthetic leasing, their impact on the future cost of debt, and how synthetic leases affect firm voluntary disclosure (Altamuro 2006; Zechman 2010). I add to this literature by offering evidence on the economic consequences of off-balance-sheet financing on earnings persistence, through its effect on book-tax differences.



The paper proceeds as follows. Chapter II describes the background of synthetic leases and securitization. Chapter III reviews relevant literature. Chapter IV develops the research question and testable hypotheses. Chapter V discusses sample selection and research design. Chapter VI reports empirical findings and Chapter VII concludes.



CHAPTER II

BACKGROUND ON OFF-BALANCE-SHEET FINANCING

2.1. Synthetic lease

There are a number of forms of off-balance-sheet financing, such as R&D limited partnerships, operating leases, asset securitizations, and synthetic leases. But only a few of these types may contribute to book-tax differences. Following prior research (Mills and Newberry 2005), I examine two types of off-balance-sheet financing that can generate book-tax differences, synthetic leases and securitizations, and refer to them as off-balance-sheet financing.

Synthetic leases were a popular form of off-balance-sheet financing in the 1990s and early 2000s.³ It is estimated that the total amount of synthetic lease financing was well over 100 billion in the mid-1990s (Pollert and Glickman 2002). In a typical synthetic lease, a bankruptcy-remote special purpose vehicle (SPV) is set up to acquire or construct

³ Firms that employed synthetic leases include Cisco, 3Com, U.S. Airways, and Health South (MacDonald 2002).



a property (e.g., office building) and lease it to a firm (lessee) as an operating lease.⁴ The lessee finances through 97% debt from a lender or group of lenders (typically financial institutions) and 3% equity from outside investors (Little 2002). The lessee makes periodic rent payments consisting of interest and a minimal return to equity holders. The interest-only feature of the debt payment makes synthetic leases attractive to creditconstrained firms because they can defer cash outlay. The borrowing rate is normally charged at a small margin over the London InterBank Offered Rate (LIBOR), and thus the borrowing costs are generally lower than conventional mortgage financing, because the SPV is isolated from bankruptcy of the lessee (Altamuro 2006). The lease term also includes a residual value guarantee of the asset provided by the lessee that typically equals 85% of the original property value (Graff 2001). In addition, some covenants of the synthetic lease loans contain a cross-default provision, which means a default on any of the lessee's debt would trigger a default on other obligations. A synthetic lease is usually short-term with an initial term no more than seven years. At the end of the lease term, the lessee has three options: refinance and renew the lease, purchase the asset at a predetermined price, or sell the asset and pay off the debt (Brown 2002). Consequently, the lessee receives the benefits of potential asset appreciation but also bears the downside risk if the value of the asset declines below the residual value guarantee.

⁶ Because LIBOR is a variable rate, firms often engage in hedging transactions such as interest rate swaps to offset the interest rate risk associated with synthetic leases.



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⁴ The SPV is a legal entity such as a trust or limited liability corporation with limited activities, so that it is isolated from the lessee's potential bankruptcy and the probability of entering bankruptcy itself is extremely low.

⁵ Under EITF 90-15, if the owner of the SPV has made a residual equity investment (a minimum of 3%) in the SPV, the lessee can avoid consolidation of the SPV on its financial statements. To avoid consolidation of the SPV, the lessee typically structures the synthetic lease to have a 3% outside equity investment at risk throughout the lease term (Phillips and Little 2002).

Prior to 2003, the lessee typically recorded the lease as an operating lease for financial reporting and kept the leased asset and related debt off the balance sheet. For tax purposes, the tax rules allow the lessee to report the lease as a capital lease. This is because the lessee usually assumes the majority of the risks and rewards of the leased property by guaranteeing most of the SPV debt at the termination of the lease. Thus, the lessee was able to report the arrangement as a capital lease and deduct depreciation on its tax returns because of the perceived ownership of the leased property (Brown 2002). Due to the different treatment of synthetic leases between financial reporting and tax rules, the lessee benefited from keeping related debt off the balance sheet and reporting lower depreciation expense and higher earnings on its financial reports compared to its tax returns (Ratner 1996). Besides the tax depreciation deductions, the lessee also benefited from an improvement in financial ratios, such as return on assets and leverage. The different treatments of synthetic leases between accounting and tax purposes generated a temporary book-tax difference. Appendix A illustrates how a typical synthetic lease is structured, and Appendix B shows some examples of footnote disclosures on synthetic leases.

⁷ A temporary difference is created because the differences in recognition and measurement requirements between the financial accounting and the tax law. Even if the lessee has not recorded an asset and liability for financial reporting purposes, it shall record a deferred tax asset (DTA) and deferred tax liability (DTL) for the future tax consequences related to the depreciation of the property and the amortization of the debt, respectively. A net DTA or DTL generally will arise because the methods of depreciating the property are different from those for amortizing the debt. The DTA and DTL will reverse eventually if the property is held for the full term of the lease (Deloitte 2011).

2.2. Securitization

Securitization is a form of financing in which a firm (the originator) sells a pool of financial assets (e.g., loans, leases, and receivables) to a bankruptcy-remote SPV that receives cash from outside investors by issuing debt securities backed by the transferred assets. The debt securities such as commercial paper and notes, are typically known as asset-backed securities (ABS). The cash flow from the transferred assets is used to pay the investors. Financial institutions are often involved as intermediaries to coordinate the securitization process. In a typical securitization, the originator usually retains some interest in the securitized assets. This interest is often referred to as retained interest. Because retained interest is typically the most subordinate tranche of the ABS, the originator retains most of the economic risk (Moody's 2003). Additionally, the upside gain is limited because the originator can only profit from excess cash flow from the securitized assets after other claims are satisfied (Moody's 2003).

Securitization has become an important form of financing for U.S. corporations, and its usage has increased substantially since the 1990s. For example, the outstanding principal amount of ABS in the U.S was \$154 billion in 1993 (Bond Market Association 2011), but this amount surged to \$1.2 trillion in 2001, and continued to grow to nearly \$3 trillion in 2007 (Bond Market Association 2011). Although the financial industry is a major player in the securitization market, some nonfinancial industries such as manufacturing, retail, and real estate also use securitizations. Moreover, there are legitimate reasons for firms to use securitizations, including expanding funding sources,

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⁸ Tranche is the portion or slice of asset-backed securities. Each tranche has a different level of credit protection and different investment return based on its seniority. The most senior tranche has priority on the cash flow generated by the securitized assets (Kothari 2006).

lowering borrowing costs, improving capital structure, managing the balance sheet, and enhancing credit ratings (Kothari 2006).

Book-tax differences can arise from securitizations due to the different treatment between financial accounting and tax rules. Under Statement of Financial Accounting Standards (SFAS) No. 125 and 140, securitizations can be treated as either a sale or secured borrowing, depending on how much control the originator retains over the transferred assets. However, some firms structure securitization transactions to meet the sales accounting requirements even though they retain considerable risk (Dechow et al. 2010). By recording a securitization as a sale for financial accounting purposes, a firm can not only recognize an up-front gain from the sale but can also avoid reporting the interest expense associated with the SPV, leading to higher earnings and improved financial ratios. On the other hand, the firm may structure securitizations as debt financing for tax purposes (Mangefrida and Beeman 1998; Roever and Fabozzi 2003). As a result, the originator can deduct the interest expense on its tax return and defer the upfront tax on the gains for income taxes purposes (Rosenblatt et al. 2005). Consequently, temporary book-tax differences can arise from securitizations as the gains are recorded upfront for financial reporting purposes, and are recorded as realized over the life of the securitizations for tax reporting purposes. Appendix C shows some examples of footnote disclosures on asset securitizations.



CHAPTER III

LITERATURE REVIEW

3.1. Sources of book-tax differences

Book-tax differences arise for various reasons including tax avoidance, earnings management, and mechanical differences between financial accounting and tax rules. Prior research suggests that book-tax differences increase with tax-avoiding activities, resulting in higher book income compared to taxable income. For example, Mills (1998) finds that book-tax differences are positively related to IRS audit adjustments. Desai (2003) argues that the widening book-tax income gap in the 1990s was largely due to increased tax-sheltering activities of U.S. firms. Wilson (2009) documents that tax-shelter firms exhibit large positive book-tax differences which would decrease by an average of 102% if the effect of the shelter were removed. Similarly, Lisowsky (2010) shows that total book-tax differences are significantly and positively associated with his sample of tax shelters.



In addition, prior research shows that book-tax differences could arise from earnings management. For example, Badertscher et al. (2009) find that firms that restated earnings typically employ book-tax non-conforming earnings management, suggesting that positive book-tax differences are created when only book income is managed upward.

Moreover, as the underlying objectives of U.S. GAAP and tax law differ, mechanical applications of the financial accounting and tax rules can generate differences between book and tax income. For instance, income from municipal bond investments, dividends received deductions, and depreciation are treated differently between financial accounting and tax rules. A recent study by Seidman (2010) suggests that changes in accounting principles such as goodwill impairment also contribute to book-tax differences. However, even the application of accounting rules involves managerial discretion and firms may choose to exploit the differences between the two systems. One example is off-balance-sheet financing using synthetic leases and securitization. Mills et al. (2002) show that the book-tax income gap increased steadily in the 1990s while firms reported more assets and liabilities in aggregate on their tax returns than on their financial statements. They suggest that off-balance-sheet financing is a major cause for the increase in book-tax differences. Mills and Newberry (2005) find that credit-constrained firms are more likely to use off-balance-sheet financing such as synthetic leases and securitization. They measure off-balance-sheet financing using the differences in interest expense between financial reporting and tax reporting based on confidential tax returns. However, they do not directly examine the relation between off-balance-sheet financing



and book-tax income differences. One objective of this study is to quantify the effects of off-balance-sheet financing on book-tax-differences.

3.2. Book-tax differences and firm attributes

Prior studies have examined the implications of book-tax differences for a number of firm characteristics. One strand of the literature investigates the relation between booktax differences and earnings attributes and demonstrates that book-tax differences provide useful information for estimating future firm performance. First, book-tax differences are associated with earnings growth and persistence. For example, Lev and Nissim (2004) report that total book-tax differences can predict subsequent five-year earnings growth. In particular, they show that firms with a higher ratio of tax income to book income (smaller book-tax differences) exhibit higher earnings growth. Hanlon (2005) finds that firms with large temporary book-tax differences exhibit lower earnings and cash flow persistence than firms with small temporary book-tax differences. Jackson (2011) divides book-tax differences into temporary and permanent components and separately examines their relation with future earnings. Consistent with Hanlon's findings, he shows that temporary book-tax differences predict future changes in pretax earnings and permanent book-tax differences explain future changes in tax expense. Further, Blaylock et al. (2012) attribute the findings in Hanlon (2005) to temporary book-tax differences arising from accrual earnings management which are associated with lower earnings and accrual persistence as compared to those arising from tax avoidance.

Another stream of studies has examined the capital market implications of booktax differences. For the equity market, prior research investigates the relation between



book-tax differences and analyst forecasts. Weber (2009) extends the work by Lev and Nissim (2004) and studies the effect of book-tax differences on analysts' earnings forecasts. He finds that forecast errors increase with total book-tax differences, which suggests that analysts fail to incorporate the information contained in book-tax differences into forecasted earnings. He also shows that investors exhibit expectation errors similar to those of analysts. Weber (2009) raises the question of whether the negative implication of book-tax differences for forecast errors depends on the source of such differences.

Hanlon et al. (2012) examine whether auditors incorporate the information risk reflected in book-tax differences in pricing decisions. They show that the absolute value of total book-tax differences is associated with higher audit fees which proxy for audit risk and auditor effort. Specifically, they find that a 10% increase in the absolute value of book-tax differences results in an average increase of \$29,000 in audit fees for firms in the top book-tax differences group. They report that audit fees also increase with both the temporary and non-temporary components of book-tax differences, and the coefficient on non-temporary book-tax differences is greater than that on either total or temporary book-tax differences. They attribute these findings to book-tax differences arising from potential accrual earnings management and from potential issues such as firm complexity and earnings quality concern related to tax accruals. However, their study does not examine whether book-tax differences created by off-balance-sheet financing also affect audit fees.



CHAPTER IV

RESEARCH QUESTION AND HYPOTHESIS DEVELOPMENT

4.1. Off-balance-sheet financing and book-tax differences

As discussed in Chapter II, both synthetic leases and securitizations can create book-tax differences. However, no empirical study has directly examined the effect of off-balance-sheet financing on book-tax differences. It is important to include off-balance-sheet financing as a specific source of book-tax differences in empirical research because it often correlates with two other sources of those differences: tax avoidance and earnings management. First, complex tax planning often involves the use of off-balance-sheet structures. For example, Enron used SPVs to inflate the depreciation basis of one of its office buildings and recorded higher depreciation on its tax returns than on its financial statements (Desai 2005). Additionally, firms can manage earnings through off-balance-sheet financing structures. Feng et al. (2009) find that firms create SPVs for financial reporting and tax purposes, and that SPVs created for financial reporting purposes are positively associated with earnings management. Dyreng et al. (2011) find



that both off-balance-sheet structures and operations in tax havens are associated with earnings management. For example, a firm may manage earnings by manipulating fair value estimates in securitizations as documented in Dechow et al. (2010). Managers can also time securitizations at the end of fiscal period to manage earnings as shown in Dechow and Shakespeare (2009). In addition, managers can boost earnings by substituting capital investment with synthetic leases, which may merely delay such expenditure. Note that in these examples, managers choose to engage in real transactions for earnings management purposes.

Although prior research investigates the determinants of book-tax differences, it has not systematically examined the effects of all three sources. Therefore, it is important to examine whether off-balance-sheet financing explains the cross-sectional variation in book-tax differences. The above discussion leads to the following research question:

*RQ: What is the effect of off-balance-sheet synthetic leases and securitizations on book-tax differences?

4.2. Off-balance-sheet financing, book-tax differences, and earnings persistence

Book-tax differences provide information regarding a firm's future performance. However, the implication of book-tax differences for future earnings depends on the source of the differences. For example, Blaylock et al. (2012) find that the effect of book-tax differences on earnings persistence varies with the source of such differences. Specifically, they show that firms with large positive and temporary book-tax differences arising from accrual earnings management have lower earnings persistence than other firms whose book-tax differences are caused by tax avoidance. They attribute their



findings to the fact that temporary book-tax differences signal future reversal of accrual management in the current period.

In the same spirit, I argue that book-tax differences arising from off-balance-sheet financing may also reflect lower earnings persistence. For example, Ge (2006) finds that off-balance-sheet operating lease financing is associated with lower future operating performance. She suggests that the negative relation may be explained by diminishing marginal returns from capital investments in operating leases. However, one explanation that Ge did not explore is that synthetic leases introduce added uncertainty to a firm's future operation. For example, the lessee firm faces a downside risk from the decline in asset value at the end of the lease. If the asset value drops below the guaranteed residual amount, the firm would bear the loss and record an impairment charge to earnings. Furthermore, for firms that do not use derivatives to hedge the interest rate risk associated with synthetic leases, the variable interest introduces potential volatility to future earnings. Thus, I expect that the book-tax differences arising from synthetic leases signals lower persistence in earnings.

Similarly, book-tax differences arising from securitizations may reflect lower earnings persistence for the following reasons. First, sales accounting allows a firm to accelerate income from securitizations as compared to secured borrowing accounting. If firm growth slows, future earnings from securitizations will decrease (Ryan 2002). Second, substantial subjective judgments are used in securitization, which could result in volatility in earnings due to unexpected prepayments, credit losses, and interest rate movements (Rosenblatt et al. 2005). Moreover, as firms keep a retained interest in the securitized assets which are typically most subordinate, they bear the risk of first loss



from securitization when there are defaults on the payment for the securitized assets (Moody's 2003). Empirical evidence shows that securitization gains are less reliable if firms securitize more assets (Niu and Richardson 2006). Prior research also suggests that managers use securitizations for opportunistic gains (Dechow and Shakespeare 2009; Dechow et al. 2010). For example, Dechow and Shakespeare (2009) document that managers time securitization transactions at quarter-end to manage earnings.

Additionally, managers can manipulate earnings from securitizations using discount rates in calculating the fair value of retained interest (Dechow et al. 2010). Because firm growth may eventually decline and managerial opportunistic behavior only works in the short run, real economic performance surfaces in future years, and earnings from these transactions exhibit lower persistence.

Phillips et al. (2003) predict that large positive book-tax differences provide information about earnings management because managers have more discretion under GAAP than under tax law. Consistent with their conjecture, they show that deferred tax expense helps detect earnings management after controlling for discretionary accruals. Consequently, I focus my investigation on firms with positive book-tax differences. As prior research finds positive book-tax differences reflect lower earnings persistence (Hanlon 2005; Blaylock et al. 2012), I state my first hypothesis as follows (in alternative form):

H1: For firm-years with positive book-tax differences, earnings persistence is negatively associated with the use of synthetic leases and securitizations.

⁹ Although some firms may structure off-balance-sheet financing for the "benefits" of managing earnings and avoiding tax, there are also other incentives to engage in these transactions including lowering borrowing costs, managing the balance sheet, and enhancing credit ratings.



4.3. Off-balance-sheet financing, book-tax differences, and analyst forecast errors

Synthetic leases and securitizations can create information asymmetry between a firm and the users of its financial statements because of inherent complexity, uncertainty, and inadequate disclosure. If the users are uncertain about the true value of the off-balance-sheet assets and liabilities, it would be challenging for them to gauge their effect on future earnings. For example, Comprix et al. (2011) study the effect of book-tax differences on divergence of opinion among equity investors. They report that firms with higher total book-tax differences exhibit higher information uncertainty, and that the permanent component of book-tax income differences is more positively associated with their measures of uncertainty than the temporary component.

Although financial analysts are considered sophisticated users of financial statements, empirical evidence suggests that they may not see through the implications of obscure off-balance-sheet obligations for future earnings. Prior research finds that analysts fail to incorporate changes in off-balance-sheet pension information into their forecasted earnings (Picconi 2006), and that forecast dispersion is higher for banks with asset securitizations than non-securitizing banks (Cheng et al. 2011). A recent study finds that forecast errors increase with the magnitude of book-tax differences, suggesting that analyst forecasts fail to fully reflect information contained in book-tax differences (Weber 2009). As Weber (2009) does not examine which source of book-tax differences results in forecast errors, the next natural step is to investigate whether analysts fully appreciate the implication of book-tax differences arising from off-balance-sheet financing for future earnings.

My next hypothesis is stated as follows (in alternative form):



H2: The positive association between forecast errors and book-tax differences is stronger for firms with the use of synthetic leases and securitizations.

4.4. Off-balance-sheet financing, book-tax differences, and audit fees

A recent survey by Heltzer and Shelton (2011) finds that auditors generally link large book-tax differences to higher audit risk. The survey shows that auditors claim to use book-tax differences to evaluate audit risk. Consistent with this field evidence, Hanlon et al. (2012) find that firms with larger book-tax differences incur higher audit fees, a measure of audit risk and auditor effort. They report that the positive relation between audit fees and book-tax differences is mainly due to book-tax differences associated with accrual earnings management, suggesting that the source of book-tax differences matters to auditors in assessing audit risk. They suggest that other factors such as firm complexity could also help explain the results.

To the extent that auditors are able to discern the source of book-tax differences, I expect higher audit fees for firms with book-tax differences arising from off-balance-sheet financing. This is because book-tax differences arising from synthetic leases and securitization may signal increased operating uncertainty and firm risk. First, the structure of these transactions is typically complex and involves multiple parties including SPVs, financial institutions, and outside investors (Little 2002; Ryan 2002). The use of derivatives by some firms to hedge interest risk associated with synthetic leases and securitizations further increases firm complexity. Additionally, management can use securitizations and synthetic leases for opportunistic incentives. For synthetic leases, because the risk of a lessee firm default is not insignificant (Graff 2001), managers have incentives to manage earnings to avoid covenant violation due to the



cross-default provision under synthetic leases. For example, Dechow et al. (2011) show that off-balance-sheet operating leases are positively associated with the likelihood of earnings misstatement. Specifically, they find high usage of operating leases during misstatement periods. For securitizations, audit risk or auditor effort is expected to be higher than for other routine transactions in non-financial firms, because securitization requires considerable management judgment and estimation. Recent empirical evidence suggests that firms manage earnings from securitizations by manipulating fair value estimations (Dechow et al. 2010). Thus, I expect that auditors are cautious about the assumptions made by management in determining gains from securitizations and price the associated risk accordingly.

Moreover, off-balance-sheet transactions can create uncertainty about a firm's underlying economic performance and opacity in its financial reporting, both of which can result in information asymmetry between the firm and its auditor. Prior literature suggests that the disclosure of off-balance-sheet transactions is often viewed as insufficient, low quality, or absent (CFA Institute 2008; Chandra et al. 2006; Ernst & Young 2008; FASB 2008). The paucity of information about off-balance-sheet financing may be due to a desire for opaque reporting (e.g., Zechman 2010), but it may also be due to lack of available information. Accordingly, audit risk or auditor effort is expected to increase if the auditor cannot fully discern the effects of these transactions on financial statements. In order to control the detection risks associated with auditing the off-balance-sheet financing transactions, auditors will have to either increase the inherent risk

¹⁰ In a comment letter on FASB's *Disclosures about Transfers of Financial Assets and Interests in Variable Interest Entities*, Ernst & Young (2008) indicates that firms may not meet some disclosure requirements because information is not centralized or available in the financial reporting system. Moreover, even if a firm has raw information about securitizations to meet the enhanced disclosure requirements, compilation of such data can be difficult.

of the client or audit effort, both leading to higher audit fees. A recent study shows that auditors are wary of off-balance-sheet operating leases and pension obligations, and audit fees increase with the magnitude of these off-balance-sheet obligations (Krishnan and Sengupta 2011). Therefore, book-tax differences arising from off-balance-sheet financing are expected to result in higher audit fees.¹¹

The above discussion leads to my final hypothesis (in alternative form):

H3: The positive association between audit fees and book-tax differences is stronger for firms which use synthetic leases or securitizations.

¹¹ One recent study based on the banking industry suggests that auditors did not appear to price the risk associated with securitization until the recent global financial crisis (Zhang et al. 2011).



CHAPTER V

SAMPLE SELECTION AND RESEARCH DESIGN

5.1 Sample selection

To examine my hypotheses, I use two test samples. I construct a matched sample (*Matched*). Each firm-year observation with securitization gains (or synthetic leases) is matched with a control firm-year which does not have securitizations or synthetic leases. ¹² I use firm-years with securitization gains as a measure of off-balance-sheet financing for my study because book-tax differences arise from securitizations only when gains are recorded on financial statements but not on tax returns. The matching is implemented based on two-digit SIC, year, and size. Separately, I also construct a test sample based on S&P 500 companies (*S&P*). For this sample, I first identify firm-years in the *Matched* sample with securitization gains (or synthetic leases) which are also in S&P 500. I then match these firm-years with firm-years from other S&P 500 firms which do

¹² If a firm reports a securitization or synthetic lease in any given year during my sample period, I then exclude it from the control group.



not report any securitization or synthetic lease for the entire sample period. For both the *Matched* and *S&P* samples, I require the entity to be a corporation and exclude financial institutions, utilities, and companies incorporated outside the United States because of their unique regulatory, tax and financial reporting characteristics.

The sample period is 1994-2002 for synthetic leases and 1991-2006 for securitizations. The 10k filings that I use to collect off-balance-sheet information start with 1993 because most of the 10k filings in the Edgar database became available in electronic format after 1993. In January 2003, the FASB issued *Financial Interpretation No. 46 (FIN 46)* which requires most entities to consolidate synthetic lease SPVs and thus considerably restricts a firm's ability to keep synthetic lease debt off its balance sheet. To avoid the effect of *FIN 46*, my synthetic lease sample period ends at 2002. The sample period for securitization samples stops at 2006 to avoid potential confounding factors related to the recent financial crisis.

I obtain the synthetic lease data from the DealScan database and from 10K filings in the directEdgar database. I search the filings with the key words "synthetic leas*" or "(residual w/10 guarantee) w/30 (operating leas* or rent*)." I then read the filings to determine the accounting treatment of the lease. I collect securitization data from 10K filings in the directEdgar database. I search directEdgar with key words "securitiz*", "sell receivabl*", or "sale of receivable*". Then I read each filing to determine whether the firm uses securitization, its accounting treatment, and the size of securitization gains.

For the test of H2, I gather analyst forecast data from the I/B/E/S detail file. For the test of H3, I collect audit fee data from the AuditAnalytics database. The sample

¹³ The securitization sample starts with 1991 because firms reported their 1991 securitization activities in their 1993 filings.



period for the audit fee tests starts in 2000 because of the availability of audit fee data in AuditAnalytics. I construct other variables in the models using data from Compustat and CRSP and exclude firm-years that do not have sufficient data for my tests. In the empirical analysis, I conduct tests using both the *S&P* sample and the matched sample.

5.2 Off-balance-sheet financing and book-tax differences

My research question examines the effect of off-balance-sheet financing on booktax differences. Following prior literature (e.g., Manzon and Plesko 2002; Frank et al. 2009), I investigate this question by estimating the following pooled cross-sectional OLS regression:

$$BTD_{t} = \beta_{0} + \beta_{1}OBSF_{t} + \beta_{2}CashETR_{t} + \beta_{3}DISACC_{t} + \beta_{4}Growth_{t} + \beta_{5}\Delta NOL_{t} + \beta_{6}LOSS_{t} + \beta_{7}FOREIGN_{t} + \beta_{8}NPPE_{t} + \beta_{9}Intang_{t} + \beta_{10}Equity_{t} + \beta_{11}MI_{t} + \beta_{12}LAGBTD_{t} + \varepsilon$$

$$(1)$$

where *BTD* is measured using total, temporary, or permanent book-tax differences. Total book-tax difference (*BTD*) is book income minus estimated tax income scaled by lagged assets. Book income is pre-tax income. Estimated taxable income equals the sum of the current federal tax expense and the current foreign tax expense divided by the 35% maximum federal statutory rate and less the change in NOL carryforwards. Temporary book-tax difference (*TEMP*) is the sum of U.S and foreign deferred tax divided by the 35% statutory rate and then scaled by lagged assets. Permanent book-tax difference (*PERM*) equals *BTD* less *TEMP*. *OBSF* captures a firm's off-balance-sheet financing. It is measured either as a dummy variable (*OBS*) with a value of one if a firm-year has any securitization gain or synthetic lease, and zero otherwise, or as the amount of



CashETR is the long-run cash effective tax rate measured as the sum of cash taxes paid over the previous 5 years divided by the sum of pretax income over the previous 5 years (I use 3 years if 5 years of data are unavailable). ¹⁴ Dyreng et al. (2008) argue that taxavoiding firms are able to maintain a low tax rate over a long period of time. This measure has been used as a broad measure of tax avoidance in prior studies (e.g., Ayers et al. 2010; Kim et al. 2011; Blaylock et al. 2012; Hanlon et al. 2012). As a lower CashETR suggests higher tax avoidance, I expect a negative sign on CashETR. DISACC is discretionary accruals measured as the residual from the modified Jones model, estimated by year and industry (two-digit SIC) with lagged return-on-assets as an additional regressor. To the extent that accrual management generates higher book income than tax income, I expect a positive sign on DISACC when BTD is measured by total book-tax differences.

Following prior research, I include a set of control variables to account for the mechanical differences between the accounting and tax rules (e.g., Manzon and Plesko 2002; Frank et al. 2009). *Growth* is measured by change in net sales. As growth firms are likely to heavily invest in tax-favored assets, I expect that *Growth* is positively associated with *BTD*. $\triangle NOL$ is the change in net operating loss carryforwards. To the extent firms with increased *NOL* are less likely to avoid tax, I expect to find a negative association with *BTD*. *Loss* is an indicator variable which equals one if a firm reports negative pretax

¹⁴ As off-balance-sheet financing may decrease cash effective tax rates, *CashETR* potentially offsets the effect of off-balance-sheet financing on *BTD* when both cash effective tax rates and off-balance-sheet financing are independent variables. To overcome this potential problem, I also use an alternative measure of *CashETR* by regressing *CashETR* on off-balance-sheet financing and taking the residual as a proxy for tax avoidance. The residual, *CashETR_Alt*, thus represents *CashETR* not generated by off-balance-sheet financing.



income and zero otherwise. Since loss firms have less incentive to avoid tax than profitable firms, I expect *Loss* to be negatively associated with *BTD*. *NPPE* is the ratio of net property, plant, and equipment to gross property, plant, and equipment. It is included to control for the difference in depreciation rules between financial and tax reporting, and I expect it to be positively associated with *BTD*. *Intang* is goodwill and other intangibles and is included to control for differences in accounting for goodwill and other intangible assets between the financial and tax rules. *Equity* is income or loss attributable to the equity method, and *MI* is income or loss attributable to minority interests. These two variables are included to account for differences between the financial and tax rules on equity interests in less than 100 percent-owned entities. *LAGBTD* is the lagged book-tax differences. I also include *Year* and *Industry* dummies to control for year and industry effect.

5.3 Test of H1

I test *H1* using firm-years with positive total (temporary or permanent) book-tax differences. Consistent with prior research (Hanlon 2005; Blaylock et al. 2012), I specify the following OLS regression by adding the off-balance-sheet financing variables to test the effect of off-balance-sheet financing on the relation between book-tax differences and earnings persistence:

Lead_PTBI =
$$\beta_0 + \beta_1 OBS + \beta_2 TaxAvoid + \beta_3 AEM + \beta_4 PTBI + \beta_5 PTBI*OBS + \beta_6 PTBI_t*TaxAvoid + \beta_7 PTBI*AEM + \varepsilon$$
 (2)

where *Lead_PTBI* is next year pre-tax book income deflated by current year assets. *PTBI* is pre-tax book income deflated by lagged assets. *OBS* is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero



otherwise. TaxAvoid is an indicator variable which equals one for firm-year observations within the positive book-tax differences group and with CashETRs in the lowest quintile of all firm-years in the sample and without synthetic leases or securitizations, and zero otherwise. AEM is an indicator variable which equals one for firm-year observations within the positive book-tax differences group, with modified Jones model discretionary accruals in the top quintile of all firm-years, not in the TaxAvoid subsample and without synthetic leases or securitizations, and zero otherwise. If off-balance-sheet financing is the likely predominant source of book-tax differences, such book-tax differences group may signal inefficient investment or uncertainty about future earnings, both of which could reduce the persistence of earnings. Therefore, I expect a negative sign on PTBI*OBS. The coefficient on PTBI (β_4) stands for the earnings persistence for firmyears with positive book-tax differences that are not considered as off-balance-sheet financing, earnings management, or tax avoidance firms. Consistent with Blaylock et al. (2012), I expect a negative coefficient on PTBI*AEM as earnings are expected to be less persistent for firm-years with positive book-tax differences resulting from accrual management than for firm-years without earnings management.

5.4 Test of H2

H2 predicts that the association between forecast errors and book-tax differences is more pronounced when synthetic leases or securitizations are the likely predominant source of such differences. To test this hypothesis, I adopt the OLS model in Weber (2009) and add the sources of book-tax differences to allow book-tax differences to interact with off-balance-sheet financing. The model is specified as follows:

$$FE_{t+1} = \beta_0 + \beta_1 TB_t + \beta_2 AEM_t + \beta_3 TaxAvoid_t + \beta_4 OBS_t + \beta_5 TB_t *OBS_t + \beta_6 TB_t *AEM_t + \beta_7 TB_t *TaxAvoid_t + \beta_8 SIZE_t + \beta_9 MB_t + \beta_{10} \Delta FOL_{t+1} + \beta_{11} PYFE_t + \varepsilon$$
(3)

where FE is a firm's actual earnings in year t + 1 minus the consensus forecasted earnings deflated by month 1 stock price. Consistent with Weber (2009), I measure booktax differences (TB) as decile rank of the ratio of net tax income to net book income scaled to vary between zero and one. AEM is an indicator variable which equals one for firm-years in the top quintile of the modified Jones model discretionary accruals of all firm-years, without synthetic leases or securitizations, and not in the TaxAvoid subsample, and zero otherwise. TaxAvoid is an indicator variable which equals one for firm-years in the lowest CashETRs quintile of all firm-years in the sample and without synthetic leases or securitizations, and zero otherwise. OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. The coefficient on the interaction $TB*OBS(\beta_5)$ thus represents the incremental association between forecast errors and book-tax differences for firm-years with versus those without off-balance-sheet synthetic leases or securitizations. To the extent that book-tax differences arising from off-balance-sheet financing reflect information uncertainty associated with future earnings, I expect forecast errors to be larger and thus a positive sign for β_5 .

Following prior literature (Teoh and Wong 2002; Richardson et al. 2004; Weber 2009), I also include a number of control variables. To control for the relation between size and forecast errors as documented in prior research, I include firm size (*SIZE*) measured as the natural log of market capitalization at the end of year *t*. Following Brown (2001), I control for growth firms using the market-to-book ratio (*MB*) calculated as the



ratio of market capitalization to book value of common equity. To control for potential analyst optimistic bias, I include ΔFOL measured as the change in the number of analysts who make earnings forecasts for a particular firm from year t to year t+1, divided by the number from year t. I include prior year forecast errors (*PYFE*) to control for the serial correlation in forecast errors as suggested in prior research (Abarbanell and Bernard 1992; Teoh and Wong 2002). *PYFE* is the actual earnings minus the median individual forecasted earnings from mid-year of year t, deflated by stock price. I also include *Year* and *Industry* dummies to control for year and industry effects.

5.5 Test of H3

Based on prior literature (e.g., Simunic 1980; Larcker and Richardson 2004; Hanlon et al. 2012), I specify the following OLS model to test whether off-balance-sheet financing affects the relation between audit fees and book-tax differences:

$$AUDFEE_{t} = \beta_{0} + \beta_{1}Ln(BTD)_{t} + \beta_{2}OBS_{t} + \beta_{3}TaxAvoid_{t} + \beta_{4}ACC_{t} + \beta_{5}Ln(BTD)_{t}*OBS_{t} + \beta_{6}Ln(BTD)_{t}*TaxAvoid_{t} + \beta_{7}Ln(BTD)_{t}*ACC_{t} + \beta_{i}\sum Controls_{t} + \varepsilon$$
(4)

where AUDFEE is the natural log of audit-related fees. Ln(BTD) is the natural log of the absolute value of total (temporary or permanent) book-tax differences. OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. TaxAvoid is an indicator variable which equals one for firm-years in the lowest CashETRs quintile of all firm-years in the sample and without synthetic leases or securitizations, and zero otherwise. ACC is an indicator variable which equals one for firm-years in the top quintile of total accruals scaled by lagged assets of all firm-years, without synthetic leases or securitizations, and not in the TaxAvoid subsample, and zero otherwise. The coefficient on Ln(BTD)*OBS (β_5)



represents the association between audit fees and book-tax differences for firm-years with versus those without off-balance-sheet synthetic leases or securitizations. If auditors perceive book-tax differences resulting from off-balance-sheet financing as a "red flag", then I expect β_5 to be positive. Consistent with Hanlon et al. (2012), I predict a positive sign for Ln(BTD)*ACC as book-tax differences arising from accrual management convey negative information about earnings quality to auditors.

Based on prior studies (e.g., Simunic 1980; Palmrose 1986; Maher et al. 1992; Craswell et al. 1995; Larcker and Richardson 2004; Hanlon et al. 2012), I include a set of control variables which proxy for cross-sectional differences in auditor and client size, audit complexity, and client risk. As audit fees increase with audit complexity and the auditor's and client's size, I include three measures to proxy for their effect: BigN, ln(ASSETS), and FOREIGN. BigN is a dummy variable with a value of one if the firm is audited by a Big 5 (including Arthur Anderson) accounting firm for a particular year, and zero otherwise. *ln(ASSETS)* is the natural log of total assets and *FOREIGN* is the ratio of foreign income to total pretax book income. I include inventory (INV) and receivables (REC), both scaled by lagged assets, to control for the risk with auditing particular financial statement accounts. To control for audit risk associated with financial distress, I include three variables: PROFIT as measured by operating income to assets; LOSS, a dummy variable which equals 1 if income before extraordinary items and discontinued operations is negative in the current or prior fiscal year, and *OPINION*, which equals 1 if an audit opinion other than an unqualified opinion is given in the current year. I also include Year and Industry dummies to control for year and industry effect.



CHAPTER VI

EMPIRICAL RESULTS

6. 1 The off-balance-sheet financing sample

Table 1 reports summary statistics for firms with off-balance-sheet financing. Panel A shows characteristics of firms with securitization gains. The mean (median) value of *Assets* for the sample is \$26,815 (\$3,572) million, suggesting the firms are relatively large as compared to the overall Compustat universe mean (median) of \$4,269 (\$134.8) million during the same period. However, firm size in my sample is smaller than that reported in Dechow et al. (2010), whose sample includes a large proportion of financial firms. The amount of securitization gains varies significantly with a mean (median) value of \$87.22 (\$19.45) million. When scaled by lagged assets, the mean (median) of securitization gains is 4 (0.4) percent of lagged assets. On average, the sample firms are profitable with a median *ROA* of 3.3 percent, which is higher than the median *ROA* (1.5%) of the Compustat population. Firm growth as measured by change in sales indicates that sample firm-years have a moderate rate of growth with a mean



(median) of 16 (8.8) percent. Additionally, the sample firm-years have a relatively higher debt ratio with a median long-term debt to asset of 25.4 percent, as compared to 11.6 percent for the Compustat population for the same period.

Panel B of Table 1 presents summary information about synthetic lease firms. The mean (median) value of a synthetic lease facility in the sample is \$205 (\$100) million or 11.4 (4.7) percent of lagged assets. The actual lease amount of a firm is quite large, with a mean (median) value of \$153 (\$78) million, or 10.7 (5.2) percent of lagged assets. The mean and median size of these firms is larger than that of the Compustat universe, with mean (median) *Assets* of \$7,571 (\$1,274) million. In addition, these firms have a moderate level of debt, with a mean (median) long-term debt to asset ratio of 23.9 (21.9) percent. Further, the average sample firm is more profitable than the average Compustat firm, with a median *ROA* of 3.5 percent of lagged assets. When compared to the securitization firms, the synthetic lease firms on average are smaller and less profitable and have lower growth rates and lower levels of long-term debt.

6.2 Results of research question

6.2.1 Descriptive statistics

I use three securitizations samples and one synthetic lease sample to examine my research question. ¹⁵ The first sample contains only firm-years with securitization gains. The second sample consists of firm-years in which securitizations are accounted for as



¹⁵ I partition securitization firms into these three samples because in a securitization book-tax differences are generated only when a securitization gain is recorded on book but not on tax return. If a firm accounts for its securitizations as secured borrowing or report net securitization losses, it should not report any net securitization gains for the fiscal year. Thus, I do not expect book-tax differences arise from securitizations for firm-years with net securitization losses or secured borrowing. In the matched sample approach, there is a possibility that a control firm has securitizations but does not disclose in its financial reporting. By comparing firm-years with securitization gain with those with securitization loss or secured borrowings, I can have a clean test on the effect of securitization on book-tax differences.

sales accounting. Thus, this sample contains firm-years with either securitization gains or losses. The third sample includes any firm-year with at least one securitization. In this sample, firms may account for a securitization either as sales accounting (with a gain or loss) or as secured borrowing (no gains or losses). The last sample (*Lease*) consists of any firm-year in my sample period with at least one synthetic lease and control firm-years. For each synthetic lease firm-year in this sample, I match it with a control firm-year that does not have synthetic leases or securitizations. The matching is implemented based on industry (two-digit SIC), year, and firm size.

Summary statistics for the variables used in the research question model are presented in Table 2. Panel A is based on firm-years with securitization gains. It shows a moderate level of total book-tax differences (*BTD*), with a mean (median) of 1.5 (1.3) percent of lagged assets. Panel B is based on firm-years with securitization gains and losses, which are accounted for as sales accounting. It suggests that firm-years with securitization gains (46.5%) are slightly fewer than firm-years with securitization losses (53.5%). Panel C is based on firm-years with securitizations accounted for as either sales accounting or secured borrowing. It reports that firm-years with securitization gains are about 33 percent of all securitization firm-years. For all three securitization samples, the median *BTD* is about 1 percent of lagged assets, which is between the size of book-tax differences of the small and large positive book-tax difference groups reported in Blaylock et al. (2012). The median effective cash tax rate (*CashETR*) is between 22.2 and 26.2 percent, which is below the top statutory tax rate of 35 percent, indicating that these firms are successful in avoiding taxes. Note that *CashETR* is lowest in Panel A as each firm-year in this sample reports securitization gains. This lower *CashETR* for



securitization gain years is consistent with my expectation as securitization can decrease cash effective tax rates. The mean and median discretional accruals (*DISACC*) are less than 1 percent of lagged assets, which are comparable to those reported in Blaylock et al. (2012). Additionally, firms report profits in most of the sample years with loss years in less than 15 percent of all firm-years.

Panel D of Table 2 presents summary information about the *Lease* sample. The median *BTD* is 1.4 percent of lagged assets, which is similar to that of the securitization samples. Both the mean and median values of permanent book-tax differences (*PERM*) are larger than those of temporary book-tax differences (*TEMP*). While the mean *DISACC* is similar to that in the securitization samples, the median *DISACC* is slightly higher for the lease sample. Firm-years with a loss account for 20 percent of the sample, which is slightly more than in the securitization samples. The median value of *Growth* is 6 percent, which is comparable with the securitization samples.

Table 3 reports Pearson correlations among variables for my research question.

As expected, the correlation between off-balance-sheet financing (*Secu_Gain* or *OBS*) and *BTD* is significantly positive for all samples. Panel B suggests that securitization (*OBS*) is positively correlated with *PERM*. Panels C and D show that the correlation between off-balance-sheet financing (securitization or synthetic lease) and *TEMP* is significantly positive. For all samples, *BTD* is significantly and positively correlated with *TEMP* and *PERM* but the correlation is higher for *PERM*.

6.2.2 Main findings

Table 4 presents the results for my research question based on the above four



samples. Panel A shows findings for the model with total book-tax difference as the dependent variable. Consistent with my conjecture, Secu Gain or OBS is positively related to total book-tax difference (BTD) for the securitization samples (p-value < 0.05). *OBS* is also positively associated with *BTD* for the lease sample (p-value < 0.01). Further, the coefficient on OBS is much greater for the lease sample (0.392) than for the securitization samples (between 0.01 and 0.02). This result suggests that synthetic leases seem to have a larger effect on book-tax differences than securitizations. For control variables, DISACC is significantly and positively associated with BTD (p-value < 0.01), indicating that accruals increase with book-tax differences. Consistent with my expectation, the coefficient on CashETR is significantly and negatively associated with BTD, but for only one of the securitization samples. Additionally, the coefficient on $\triangle NOL$ is negative and significant across all samples, suggesting that firms with net operating loss carryforwards have less incentive to avoid tax compared to firms without net operating losses. The findings also show a positive association between the presence of foreign operations and intangible assets and BTD for some samples. Contrary to my expectation, LOSS is positively related to BTD for all samples. This positive sign may be due to the presence of both LOSS and $\triangle NOL$ in the model. As net operating loss carryforwards from prior year can result in a loss in current year, the effect of LOSS on *BTD* may be offset by ΔNOL .

Panel B of Table 4 presents findings with temporary book-tax difference as the dependent variable. Unlike the results in Panel A, *Secu_Gain* is not significant at conventional level and *OBS* is significantly and positively associated with temporary book-tax difference (*TEMP*) only for the lease sample. For control variables, *DISACC*



remains significant and positive for all but the one securitization sample, but the coefficient is smaller than that reported in Panel A. *CashETR* exhibits the expected negative sign and is significant for the lease and one securitization sample. *LAGTEMP* is significant throughout all samples. Overall, the adjusted R-squared in Panel B is smaller than that in Panel A.

Panel C of Table 4 shows findings with permanent book-tax difference as the dependent variable. *Secu_Gain* is positively associated with permanent book-tax difference (*PERM*) (p-value < 0.1) and *OBS* is significant only for the lease sample (p-value < 0.01). The significant association between off-balance-sheet financing and permanent book-tax differences seems surprising at first given that securitizations and synthetic leases are expected to generate only temporary book-tax differences. However, one has to acknowledge that the measure of permanent book-tax differences, *PERM*, is not perfect. It includes permanent differences, tax accruals (e.g., tax contingency reserves), and tax credits (reduce current tax expenses). Blouin and Tuna (2009) note that interest and potential penalties related to timing differences between book and tax income are often reported in tax contingency reserves in the pre-FIN 48 periods. Based on their calculation of tax reserve, a decrease cash tax paid in the current year increases tax reserve. It is possible that securitization and synthetic leases may increase *PERM* through their effects on tax reserve. Similar to the result in Panel A, *DISACC* is positive and significant across samples.

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¹⁷ First, securitizations and synthetic leases may reduce cash tax paid for earlier years of the securitization (lease) due to the differences between financial and tax reporting rules. Additionally, the interest on the timing differences could be substantial given the size of the gains (or leases) and the life of securitized (or leased) asset.



¹⁶ Blouin and Tuna (2009) measure change in tax reserve using current tax expense to subtract cash tax paid, estimated tax benefit from stock options, and change in income taxes payable.

6.3 Results of H1

6.3.1 Descriptive statistics

Table 5 presents descriptive statistics related to H1 for firms with positive total (temporary or permanent) book-tax differences. Panels A through C of Table 5 report summary information using the securitization matched sample. The number of securitization firms is slightly smaller than the number of control firms in each of the samples. The summary statistics are qualitatively similar across the three samples. Firms in the positive temporary book-tax differences sample, on average, are larger than firms in the other two samples. Panels D through F report descriptive statistics for the securitization S&P samples. In the three sample partitions, securitization firms account for about 2 to 3 percent of the total firm-years in the sample. Similarly, firms in the positive temporary book-tax differences sample have larger size than firms in the other two samples, while other statistics are similar across samples. Panels G through I show summary statistics for the lease matched sample. The sample size is generally larger than the securitization matched sample. Pre-tax book income (PTBI) is slightly larger and effective cash tax rate (CashETR) is slightly smaller in the positive total book-tax differences sample than in the other two samples. Panels J through L present summary statistics for the lease S&P sample. Firm-years with synthetic leases account for about 6 to 7 percent of the sample. Panels M through O report summary statistics for the securitization and lease combined matched sample. Panels P through R report summary statistics for the securitization and lease combined *S&P* samples.

Note that firm size in terms of median assets in all the matched samples is larger than that in Blaylock et al. (2012), suggesting firms using off-balance-sheet financing



tend to be medium to large size. In all sample partitions, the mean (median) *PTBI* is above 8 (7) percent of lagged assets indicating that on average the sample firms are profitable. Similar to the positive *BTD* groups reported in Blaylock et al. (2012), the mean and median discretionary accruals (*DISACC*) are positive in all sample partitions. *CashETR* is similar across sample partitions with a median value ranging from 24.2 to 27.1 percent.

6.3.2 Main findings

In this subsection, I examine the effect of off-balance-sheet financing on earnings persistence through book-tax differences. As prior research (e.g., Hanlon 2005, Blaylock et al. 2012) investigates firms with positive temporary book-tax differences, my main focus is on samples based on temporary book-tax differences. Panel A of Table 6 reports results using the securitization samples. Columns (1) through (3) are based on the securitization matched samples and Columns (4) through (6) are based on the securitization S&P sample. Similar to prior studies (e.g., Hanlon 2005, Blaylock et al. 2012), the coefficient on PTBI is significant and positive in all sample partitions. The coefficient on the off-balance-sheet financing dummy (OBS) is not significant across the sample partitions. Further, the coefficient on the interaction between earnings and securitization (PTBI*OBS) is not significant across sample partitions. This result is inconsistent with H1, suggesting that earnings persistence is not significantly lower for firm-years with book-tax differences arising from securitizations than for firm-years in the Control subsample. The insignificant coefficient on OBS and PTBI*OBS indicates



that securitizations have no significant effect on earnings persistence. ¹⁸ Consistent with prior research, I find that *PTBI*AEM* is significantly negative for two of the *S&P* samples.

Panel B of Table 6 reports results for the synthetic lease samples. Columns (1) through (3) are based on the matched samples and Columns (4) through (6) are based on the *S&P* samples. Similar to findings for securitizations, the coefficient on *PTBI* is significant and positive in all sample partitions. The coefficient on interaction *PTBI*OBS* is significant and negative for the matched and *S&P* samples with positive temporary book-tax differences. This finding offers support to H1, suggesting that earnings are less persistent for firms with positive book-tax differences likely arising from synthetic leases. I also find that for firm-years with positive permanent book-tax differences, *PTBI*OBS* is significantly negative for the matched sample. Additionally, similar to the finding in Blaylock et al. (2002), the coefficient on *PTBI*AEM* is significant and negative for the lease *S&P* samples. I also find that the coefficient on *PTBI*TaxAvoid* is significant and negative in the matched sample with positive temporary book-tax differences and in all lease *S&P* samples. This finding suggests that, for synthetic lease firms, each of the three sources of book-tax differences could contribute to lower earnings persistence as compared to book-tax differences arising from other sources.

Panel C of Table 6 presents results using the securitization and lease combined samples. Columns (1) through (3) are based on the combined matched sample and

¹⁸ Prior research (e.g., Dechow et al. 2010) shows that firms have incentives to engage in securitizations for the purpose of earnings management. Given this empirical evidence, earnings persistence is expected to be negatively associated with securitizations. However, there exists much difference in samples used in prior study and my study. The sample in Dechow et al. (2010) mainly consists of financial service firms while my sample excludes financial firms. Further, 76 percent of firm-years in their sample report a gain while in my study only 46.5 percent firm-years have a gain in the sample with only securitization gains and losses.



Columns (4) through (6) are based on the combined S&P sample. Similar to the results reported in Panels A and B, the coefficient on PTBI is significant in all sample partitions. In the S&P sample with positive temporary book-tax differences, I find that the coefficient on PTBI*OBS is negative (p-value < 0.05). For this sample, PTBI*AEM is significant while PTBI*TaxAvoid is not significant at conventional levels. This finding is consistent with Blaylock et al. (2012), who show that earnings are less persistent for firms with positive temporary book-tax differences resulting from earnings management as compared to tax avoidance. In the other sample partitions, the coefficient on PTBI*OBS is not significant.

In summary, the findings from Table 6 suggest that earnings exhibit lower persistence for firms with positive temporary book-tax differences likely arising from synthetic leases but not from securitizations.

6.4 Results of H2

6.4.1 Descriptive statistics

Table 7 reports summary statistics for the dependent and independent variables in the OLS regression. Panels A and B present summary data for the securitization matched and S&P sample, respectively. Panels C and D present summary statistics for the lease matched and S&P samples, respectively. Panels E and F report summary information for the securitization and lease combined control and S&P sample, respectively. Consistent with forecast optimism reported in prior research (e.g., Bradshaw et al. 2001), the mean forecast errors (FE) is negative. The mean net tax income to net book income (TB) is close to its median for all samples. The market to book ratio (TB) is higher in the lease



samples than in the securitization sample, indicating that firms with synthetic leases have higher growth opportunity than firms with securitizations.

Table 8 reports the Pearson correlation matrix. Consistent with prior studies, FE is positively correlated with MB (Brown 2001), SIZE (Richardson et al. 2004), and change in analysts following (ΔFOL) (Teoh and Wong 2002) in the majority of the samples, and is positively correlated with PYFE (Abarbanell and Bernard 1992) in all samples. Similar to Weber's (2009) findings, FE is positively correlated with TB but only for the S&P samples. For all samples, FE is not significantly correlated with OBS. Additionally, FE is not significantly correlated with CBS. Additionally, CBS is not significantly correlated with CBS.

6.4.2 Main findings

H2 predicts that forecast errors are larger for firms with book-tax differences arising from off-balance-sheet financing. Table 9 presents the results for H2. Consistent with Webber (2009), the coefficient on *TB* is significant and positive in the *S&P* samples. This suggests that analysts fail to fully reflect information contained in book-tax differences in their forecasted earnings. All control variables have expected signs with *SIZE* and *MB* being significant for only half of the samples. The interaction between book-tax differences and off-balance-sheet financing (*TB*OBS*) is not significant across samples. Further, *TB*AEM* and *TB*TaxAvoid* are also insignificant across samples except for *TB*TaxAvoid* in the lease matched sample. This result suggests that the documented forecast errors related to book-tax differences are not due to any particular source of such differences. In other words, analysts seem to ignore the information in book-tax differences no matter what the source of such differences may be. This finding is



surprising given that recent empirical evidence (e.g., Blaylock et al. 2012) suggests that different sources of book-tax differences may have different implications for future earnings.

In summary, the findings in Table 9 shows that the relation between forecast errors and book-tax differences is not significantly more pronounced when firms engage off-balance-sheet financing. It appears that the systematic BTD-related forecast errors as documented in Webber (2009) are not driven by any particular source of book-tax differences.

6.5 Results of H3

6.5.1 Descriptive statistics

Table 10 presents descriptive statistics for dependent and independent variables in H3. The mean (median) value of ASSETS is above 7.51 (7.35) which is higher than that in Hanlon et al. (2012) and the overall Compustat population mean (median) of 5.22 (5.45). Consequently, the median audit fees for the combined matched and S&P samples are about \$990,700 and \$2,575,000, respectively. These numbers are much larger than the median audit fees (\$191,000) reported in Hanlon et al. (2012). Consistent with the size of the sample firms, Table 10 shows that a much higher percentage of firms is audited by BigN firms (>97%), and a very low proportion of firms has an audit opinion other than an unqualified opinion (<1%), as compared to 79 percent and 39 percent in Hanlon et al. (2012), respectively.

Table 11 reports Pearson correlations among the dependent and independent variables. Panels A through F show that total book-tax difference (*ABSBTD*) is



significantly correlated with both temporary and permanent book-tax differences (ABSTEMP and ABSPERM, respectively). Consistent with Hanlon et al. (2012), audit fees (AUDFEE) are positively and significantly correlated with ABSBTD, ABSTEMP and ABSPERM in all samples. In addition, AUDFEE is positively and significantly correlated with AEM. However, OBS is not positively and significantly correlated with AUDFEE for all samples. Further, for half of the samples, TaxAvoidance is negatively correlated with AUDFEE. Not surprisingly, In(ASSETS), receivables (REC), and BigN are positively correlated with AUDFEE. However, inventory (INV) is shown negatively correlated with AUDFEE for four out of the six sample partitions.

6.5.2 Main findings

H3 predicts that the association between audit fees and book-tax differences increases with the use of off-balance-sheet financing. Panel A of Table 12 presents findings for H3 based on total book-tax differences. Consistent with Hanlon et al. (2012), the coefficient on ABSBTD is significant and positive for all but the lease samples, confirming the positive association between audit fees and book-tax differences. For the lease S&P and combined S&P samples, the coefficient on the interaction ABSBTD*OBS is significantly negative with a value of -0.07 (p-value < 0.1). For other samples, the coefficient on ABSBTD*OBS is insignificant. The coefficient on OBS is significantly positive for the combined S&P sample with a value of 0.33 (p-value < 0.1). The sum of coefficients OBS + ABSBTD*OBS is also positive (p-value < 0.1), suggesting that audit fees on average increase for firms with off-balance-sheet financing based on the combined S&P sample. Taken together, the results suggest that the positive association



between audit fees and book-tax differences is not mainly driven by off-balance-sheet financing.

Panel B of Table 12 reports findings of H3 using temporary book-tax differences. I find that the coefficient on TEMP is significant and positive for the securitization matched sample. For the lease S&P sample, I find that the coefficient on ABSTEMP*OBS is significantly negative with a value of -0.116 (p-value <0.05) while OBS is significantly positive with a value of 0.367 (p-value <0.01). The sum of coefficients OBS + ABSTEMP*OBS is positive and significant (p-value < 0.05), indicating a positive association between audit fees and off-balance-sheet financing. For other samples, the coefficients on TEMP*OBS and OBS are not significant.

Panel C of Table 12 shows the findings of H3 using permanent book-tax differences. Consistent with Hanlon et al. (2012), I find that the coefficient on PERM is significant and positive, except in the lease matched sample. Similar to the evidence provided by Panels A and B, the coefficient on PERM*OBS is significantly negative (p-value < 0.05), while OBS is significantly positive with a much larger value (p-value < 0.05) for the securitization matched and lease S&P samples. Again, the sum of coefficients OBS + ABSPERM*OBS is significantly positive (p-value < 0.05).

Based on the evidence above, it appears that off-balance-sheet financing is priced in audit fees but does not affect the positive relation between audit fees and book-tax differences. A possible explanation is that auditors, unlike outside parties such as security analysts, have a much broader access to a company's financial and nonfinancial information. Auditors are more aware of whether a company engages in off-balance-sheet transactions than outside parties (at lease after the first year). Consequently, auditors are



likely to evaluate the implications of these transactions on financial statements and incorporate the information into their audit fee decisions. Due to the complexity and potential risks associated with these transactions, auditors may charge a higher fee for a company with securitizations or synthetic leases than they would for other clients, given that all other factors are equal. However, information contained in book-tax differences may or may not be relevant in this decision making as the auditor can assess the financial statement impact of these off-balance-sheet transactions from direct sources.

Unlike Hanlon et al. (2012), I do not find that the positive association between audit fees and book-tax differences is stronger for firms with high accruals. The control variables have expected signs and are significant in the majority of the samples, with two exceptions: *BigN* is insignificant, and *INV* is either insignificant or negative. ¹⁹

Overall, I do not find evidence to support the prediction in H3. The association between audit fees and book-tax differences does not appear to be driven by off-balance-sheet financing.

6.6 Additional analyses

6.6.1 Ranked securitization gains

For H2 and H3, I use a dummy variable to proxy for securitizations or synthetic leases. As the magnitude of securitization gains contains more information compared to the dummy variable, I construct a variable based on ranked securitization gains, *OBSrank*, to re-run those tests. *OBSrank* is the quintile rank securitization gains scaled by lagged assets.

¹⁹ Note that *OPINION* is dropped from regression for the lease S&P samples due to its limited variation.



Table 13 reports findings for H2 using OBSrank. The results are very close to the findings reported in Columns (1) and (2) of Table 9. Net tax income to net book income (TB) is significant for the S&P sample but the interaction TB*OBSrank is not significant at conventional levels.

Table 14 presents results for H3 using *OBSrank* for the three types of book-tax differences. The variable which measures book-tax differences (*ABSBTD*, *ABSTEMP*, and *ABSPERM*) is positive and significant except for one sample. Panel C shows that the coefficient on the interaction *ABSPERM*OBSrank* is significant and negative for the *S&P* sample. Similar to the findings in Table 12, the coefficient on *OBSrank* is positive (p-value <0.05) and larger than that on *ABSPERM*OBSrank* for the *S&P* sample, again suggesting that audit fees increase with off-balance-sheet financing but not through book-tax differences.

6.6.2 Alternative measure of *CashETR*

CashETR can potentially offset the effect of off-balance-sheet financing on book-tax differences when both cash effective tax rates and off-balance-sheet financing are independent variables in model (1). To overcome this potential problem, I construct an alternative measure of CashETR (CashETR_Alt) by regressing cash effective tax rates on off-balance-sheet financing and using the residual as a proxy for tax avoidance. The residual thus represents CashETRs not generated by off-balance-sheet financing. Table 15 reports findings based on this alternative measure CashETR. The findings are qualitatively similar to those based on CashETR in Table 4 for my research question.



6.6.3 Alternative measure of accruals

Following Weber (2009), I also use an alternative accrual measure in the forecast error tests.²⁰ The result (untabulated) based on this alternative accrual measure does not change my inference made for H2.

6.6.4 Scaling effect

I use lagged assets as scalar for the research question and H1. Alternatively, I use average assets to replace lagged assets as scalar. The findings do not qualitatively change using this alternative scalar.

 $^{^{20}}$ This accrual measure is calculated as (ΔCurrent Assets - ΔCash) - (ΔCurrent Liabilities - ΔDebt included in current liabilities) - ΔDeferred Tax Liability – Depreciation, scaled by average assets.



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CHAPTER VII

CONCLUSION

This paper first investigates whether off-balance-sheet financing affects book-tax differences after controlling for other sources of book-tax differences. Using samples of securitizations and synthetic leases, I find a positive and significant relation between off-balance-sheet financing and book-tax differences. The magnitude of the effect of off-balance-sheet financing on book-tax differences is approximately between 1-2 percent for securitizations and 40 percent for synthetic leases. Prior studies (e.g., Mills et al. 2002; Plesko 2002 and 2004) find an increasing gap between book income and taxable income in the 1990s, and researchers conjecture that off-balance-sheet financing could be a contributing factor of this increased gap (Mills et al. 2002). My findings offer empirical evidence to support this conjecture, showing that off-balance-sheet financing is positively associated with book-tax differences. Additionally, I quantify the magnitude of the effect of off-balance-sheet financing on book-tax differences.



Next, I test three hypotheses on the effect of off-balance-sheet financing on the relation between book-tax differences and firm attributes, including earnings persistence, analyst forecast errors, and audit fees. For the first hypothesis, I find evidence suggesting that lower earnings persistence is associated with positive temporary book-tax differences arising from synthetic leases and securitizations. This result further explains the negative association between earnings persistence and book-tax differences shown by Hanlon (2005) and Blaylock et al. (2012). It also complements the findings in Blaylock et al. (2012) who suggest that book-tax differences likely arising from upward earnings management contribute to the negative association between earnings persistence and book-tax differences. The results from my study indicate that for firms with off-balance-sheet financing such as synthetic leases and securitizations, positive book-tax differences may be associated with lower future earnings.

For my second hypothesis, I examine the relation between analyst forecast errors and book-tax differences arising from off-balance-sheet financing. Similar to Weber (2009), I find evidence that book-tax differences are positively related to forecast errors. However, I do not find a significant association between forecast errors and book-tax differences arising from off-balance-sheet financing. Further, my findings indicate no significant relation between forecast errors and book-tax differences arising from earnings management or tax avoidance. It appears that analysts' failure to incorporate information contained in book-tax differences is not driven by any particular source of such differences.

In my final hypothesis, I examine the effect of off-balance-sheet financing on the relation between audit fees and book-tax differences. I find that the positive association



between these variables is not driven by off-balance-sheet financing. As auditors may be aware of a firm's use of off-balance-sheet financing from other sources, book-tax differences by themselves do not appear to provide additional information about off-balance-sheet securitizations or synthetic leases for audit fee decisions.

This study is important in several ways. First, prior literature suggests book-tax differences could result from earnings management, tax avoidance, or off-balance-sheet financing activities (e.g., Mills 1998; Phillips et al. 2003; Dhaliwal et al. 2004; Mills and Newberry 2005; Wilson 2009). However, extant literature has not directly tested the implication of off-balance-sheet financing for book-tax differences or systematically examined how these potentially correlated sources affect such differences. Findings from this study may shed light on the effect of off-balance-sheet financing on book-tax differences. Additionally, my study also contributes to literature on the economic consequences of off-balance-sheet financing by providing evidence of the effect of off-balance-sheet financing on relation between earnings persistence and book-tax differences. Finally, my study adds to the existing literature on accounting issues related to balance-sheet financing. Specifically, I provide evidence to answer Hanlon and Heitzman's (2010) call for research on the tax implications of complex financial instruments.



REFERENCES

- Abarbanell, J., and V. Bernard. 1992. Tests of analysts' overreaction/underreaction to earnings information as an explanation for anomalous stock price behavior.

 **Journal of Finance 47 (3): 1181-207.
- Altamuro, J. L. M. 2006. The determinants of synthetic lease financing and the impact on the cost of future debt. Working paper, Ohio State University.
- Ayers, B., S. Laplante, and S. McGuire. 2010. Credit ratings and taxes: The effect of book-tax differences on ratings changes. *Contemporary Accounting Research* 27 (2): 359-402.
- Badertscher, B., J. Phillips, M. Pincus, and S. Rego. 2009. Earnings management strategies: to conform or not to conform. *The Accounting Review* 84 (1): 63-98.
- Blaylock, B., T. Shevlin, and R. Wilson. 2012. Tax avoidance, large positive book-tax differences, and earnings persistence. *The Accounting Review* 87 (1): 97-120.
- Blouin, J., and I. Tuna. 2009. Tax contingencies: Cushioning the blow to earnings?

 Working paper, University of Pennsylvania.



- Bond Market Association. 2011. http://www.sifma.org/research/statistics.aspx
- Brown, I. J. 2002. Synthetic lease off balance sheet financing before and after (?) Enron.

 The Practical Tax Lawyer 17(1): 19-23.
- Brown, L. 2001. A temporal analysis of earnings surprises: Profits and losses. *Journal of Accounting Research* 39 (2): 221-41.
- CFA Institute. 2008. Comment letter to Proposed FASB Staff Position. No. FAS 140-e and FIN46(R)-e, Disclosure about transfers of financial assets and interests in variable interest entities.
- Chandra, U., M. Ettredge, and S. Mary. 2006. Enron-era disclosure of off-balance-sheet entities. *Accounting Horizons* 20: 231-252.
- Cheng, M., D. Dhaliwal, and M. Neamtiu. 2011. Asset securitization, securitization recourse, and information uncertainty. *The Accounting Review* 86(2): 541-568.
- Comprix, J., Graham, R. and J. Moore. 2011. Empirical Evidence on the Impact of Book-Tax Differences on Divergence of Opinion among Investors. *Journal of the American Taxation Association* 33(1): 51-78.
- Craswell, A. T., J. R. Francis, and S. L. Taylor. 1995. Auditor Brand Name Reputations and Industry Specializations. *Journal of Accounting and Economics* 20: 297-322.
- Dechow, P. M., W. Ge, C. R. Larson; and R. G. Sloan. 2011. Predicting Material Accounting Misstatements. *Contemporary Accounting Research* 28: 17-82.
- Dechow, P. M., L. Myers, and C. Shakespeare. 2010. Fair value accounting and gains from asset securitizations: A convenient earnings management tool with compensation side-benefits. *Journal of Accounting and Economics* 49 (1-2): 2-25.



- Dechow, P. M., and C. Shakespeare. 2009. Do managers time securitizations for their accounting benefits? *The Accounting Review* 84 (1): 99-132.
- Deloitte. 2011. A roadmap to accounting for income taxes.
- Desai, M.A. 2003. The divergence between book and tax income. *Tax Policy and the Economy* 17: 169-206.
- Desai, M. A. 2005. The degradation of reported corporate profits. *Journal of Economic Perspectives* 19 (4): 171-192.
- Dhaliwal, D., C. Gleason, and L. Mills. 2004. Last-chance earnings management: using the tax expense to meet analysts' forecasts. *Contemporary Accounting Research* 21(2): 431-459.
- Dhaliwal, D., H. S. Lee, and M. Neamtiu. 2011. The impact of operating leases on firm financial and operating risk. *Journal of Accounting, Auditing and Finance*, 26: 151-197.
- Dyreng, S. D., M. Hanlon, and E. Maydew. 2008. Long-run corporate tax avoidance. *The Accounting Review* 83 (1): 61-82.
- Dyreng, S. D., M. Hanlon, and E. Maydew. 2011. Where *do* firms *manage* earnings? Working paper, Duke University.
- Ernst & Young. 2008. Comment letter to Proposed FSP FAS 140-e and FIN 46(R)-e

 Disclosures about Transfers of Financial Assets and Interests in Variable Interest

 Entities.
- Feng, M., J. D. Gramlich, and S. Gupta. 2009. Special purpose entities: empirical evidence on determinants and earnings management. *The Accounting Review* 84 (6): 1833-76.



- Financial Accounting Standards Board (FASB). 2008. Disclosure about transfers of financial assets and interests in variable interest entities. Proposed FASB Staff Position No. FAS 140-e and FIN 46(R)-e. Norwalk, CT: FASB.
- Frank, M., L. Lynch and S. Rego. 2009. Tax reporting aggressiveness and its relation to aggressive financial reporting. *The Accounting Review* 84: 467-496.
- Ge, W. 2006. Off-Balance-Sheet Activities, Earnings Persistence and Stock Prices:Evidence from Operating Leases. Working paper, University of Washington.
- Graff, R. A. 2001. Off-balance-sheet corporate finance with synthetic leases: shortcomings and how to avoid them with synthetic debt. *Journal of Real Estate Research* 22(2): 213-41.
- Hanlon, M. 2005. The persistence and pricing of earnings, accruals, and cash flows when firms have large book-tax differences. *The Accounting Review* 80 (1): 137-66.
- Hanlon, M., and S. Heitzman. 2010. A review of tax research. *Journal of Accounting and Economics* 50 (2-3): 127-178.
- Hanlon, M., G. Krishnan, and L. Mills. 2012. Audit fees and book-tax differences. *The Journal of the American Taxation Association* 34 (1): 55-86.
- Heltzer, W., and S. Shelton. 2011. Book-Tax Differences and Audit Risk: Evidence from the United States. Working paper, DePaul University.
- Jackson, M. 2011. Book-tax differences and earnings growth. Working paper, University of Nevada, Reno
- Kim, J. B., Y. H. Li, and L. Zhang. 2011. Corporate tax avoidance and stock price crash risk: Firm-level analysis. *Journal of Financial Economics* 100 (3): 639-662.



- Kothari, V. 2006. Securitization: The financial instrument of the future. John Wiley & Sons (Asia), Singapore.
- Krishnan, G., and P. Sengupta. 2011. How do auditors perceive recognized vs. disclosed lease and pension obligations? Evidence from fees and going-concern opinions. *International Journal of Auditing* 15: 127-149.
- Larcker, D., and S. Richardson. 2004. Fees paid to audit firms, accrual choices and corporate governance. Journal of Accounting Research 42 (June): 625-658.
- Lev, B., and D. Nissim. 2004. Taxable income, future earnings, and equity values. *The Accounting Review* 79 (4): 1039-74.
- Lisowsky, P. 2010. Seeking shelter: Empirically modeling tax shelters using financial statement information. *The Accounting Review* 85 (5): 1693-1720.
- Little, N. R. 2002. Overview of Synthetic Leasing. In N. Little (ed.) *Synthetic Lease*Financing: Keeping Debt off the Balance Sheet (pp. 1-24). Chicago: American

 Bar Association.
- MacDonald, E. 2002. False front. Forbes. http://www.forbes.com/forbes/2002/1014/096.html
- Maher, M., W. P. Tiessen, R. Colson, and A. J. Broman. 1992. Competition and Audit Fees. *The Accounting Review* 67: 199-211.
- Mangefrida, D. and E. R. Beeman. 1998. Recent IRS securitization ruling signals analytical shift in distinguishing between sales and financings. *The Investment Lawyer* 5: 1-4.
- Manzon, G., and G. Plesko. 2002. The relation between financial and tax reporting measures of income. *Tax Law Review* 55 (2): 175.



- Mills, L. 1998. Book-tax differences and Internal Revenue Service adjustments. *Journal of Accounting Research* 36 (2): 343-356.
- Mills, L., and K.J. Newberry. 2005. Firms' off-balance-sheet and hybrid debt financing:

 Evidence from their book-tax reporting differences. *Journal of Accounting*Research 43 (2): 251-82.
- Mills, L., K.J. Newberry, and W. Trautman. 2002. Trends in Book-Tax Income and Balance Sheet Differences. *Tax Notes* 96 (8), 1109-1124.
- Moody's. 2003. Demystifying securitization for investors.
- Niu, F., and G. Richardson. 2006. Are securitization in-substance sales or secured borrowings: Capital market evidence. *Contemporary Accounting Research* 23 (4): 1105-1133.
- Palmrose, Z. 1986. Audit fees and auditor size: Further evidence. *Journal of Accounting Research* 24: 97-110.
- Phillips, H. M. and N. R. Little. 2002. Accounting Considerations. In N. Little (ed.)

 Synthetic Lease Financing: Keeping Debt off the Balance Sheet (pp. 25-44).

 Chicago: American Bar Association.
- Phillips, J., M. Pincus and S. Rego. 2003. Earnings management: new evidence based on deferred tax expense. *The Accounting Review* 78 (2): 491-521.
- Picconi, Marc. (2006). The perils of pensions: does pension accounting lead investors and analysts astray? *Accounting Review* 81(4): 925-955.
- Plesko, G. A. 2002. Reconciling corporation book and tax net income, tax years 1996-1998. *SOI Bulletin* (Spring): 1-16.



- Plesko, G. A. 2004. Corporate tax avoidance and the properties of corporate earnings.

 National Tax Journal 57(3): 729-737.
- Pollert, W., and E. Glickman. 2002. Synthetic leases under fire. Strategic Finance 84(4):
- Raedy, J., J. Seidman and D. Shackelford. 2011. Is there information content in the tax footnote? Working paper, University of North Carolina at Chapel Hill and University of Texas at Austin.
- Ratner, A. 1996. Synthetic leasing: Too good to be ignored. *National Real Estate Investor* 38(8): 103-104.
- Richardson, S., S. Teoh, and P. Wysocki. 2004. The walk-down to beatable analyst forecasts: The role of equity issuance and insider trading incentives.

 *Contemporary Accounting Research 21 (4): 885-924.
- Roever, W. A. and F. J. Fabozzi. 2003. A Primer on Securitization. *Journal of Structured* and Project Finance 9(2): 5-16.
- Rosenblatt, M., J. Johnson, and J. Mountain. 2005. Securitization Accounting, 7th edition.
- Ryan, S. G. 2002. Financial Instruments and Institutions: Accounting and Disclosure Rules. John Wiley & Sons, Hoboken, New Jersey.
- Seidman, J. 2010. Interpreting fluctuations in the book-tax income gap as tax sheltering: alternative explanations. Working Paper, University of Texas.
- Simunic, D. 1980. The pricing of audit services: Theory and evidence. *Journal of Accounting Research* 18(1): 161-190.
- Teoh, S. H., and T. J. Wong. 2002. Why new issues and high-accrual firms underperform: The role of analysts' credulity. *Review of Financial Studies* 15 (3): 869-900.



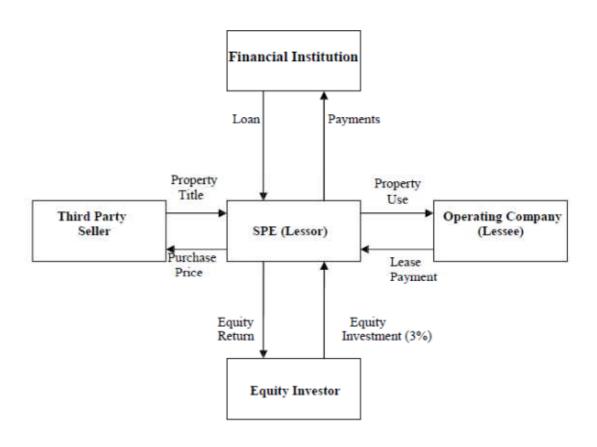
- Weber, D. 2009. Do analysts and investors fully appreciate the implications of book-tax differences for future earnings? *Contemporary Accounting Research* 26 (4): 1175-1206.
- Wilson, R. 2009. An examination of corporate tax shelter participants. *The Accounting Review* 84 (3): 969-999.
- Zechman, S.C. 2010. The relation between voluntary disclosure and financial reporting: evidence from synthetic leases. *Journal of Accounting Research* 48 (3): 725 -765.
- Zhang, Y.Y., G. Monroe, D. Gasbarro, G. Cullen, and G. Shailer. 2011. Asset securitizations and audit effort. Working paper, University of New South Wales.



APPENDICES

Appendix A. The structure of a typical synthetic lease

This appendix illustrates a typical synthetic lease structure - adapted from Little (2002).





APPENDIX B. Examples of synthetic lease disclosures

Ebay (2001 10-K)

On March 1, 2000, we entered into a five-year lease for general office facilities located in San Jose, California. This five-year lease is commonly referred to as a synthetic lease because it represents a form of off-balance sheet financing under which an unrelated third-party funds 100% of the costs of the acquisition of the property and leases the asset to us as lessee. Under our lease structure, upon termination or expiration, at our option, we must either purchase the property from the lessor for a predetermined amount or sell the real property to a third-party.

Payments under our lease are based on the \$126.4 million cost of the property funded by the third-party and are adjusted as the London Interbank Offering Rate ("LIBOR") fluctuates. Under the terms of the lease agreement, the lease terminates on March 1, 2005, unless extended to September 1, 2006. At any time prior to the final 12 months of the lease term, we may, at our option, purchase the property for approximately \$126.4 million. If we elect not to purchase the property, we will undertake to sell the facility to one or more third parties and have guaranteed to the lessor a residual value equal to approximately 88% of the \$126.4 million cost of the property. We may also be liable to the lessor for the entire amount of \$126.4 million if we default on any of certain lease obligations and financial covenants. If this payment were made, we would then receive title to the property. At December 31, 2001, we had not made a decision with respect to the option we will pursue at the end of the lease term, although it is likely that we will decide to continue to occupy the property. Management believes that the contingent liability relating to the residual value guarantee will not have a material adverse effect on our financial condition or results of operations.

If our lease were terminated, and we became obligated to pay the purchase price of the land and buildings, we would show the cost as an asset on our balance sheet and our restricted cash and investments position would be reduced by the amount of the purchase price. Currently, we reflect rent payments as an expense on our statement of income. In the event we were required to purchase the land and buildings, our rent expense would cease and we would subsequently record depreciation expense for the buildings over their estimated useful lives.

AT&T Wireless Services (2003 10-K)

As a result of the adoption of FIN 46, AT&T Wireless Services consolidated these entities at their carrying values effective April 1, 2003. Additionally, AT&T Wireless Services has determined it has a significant variable interest and is deemed to be the primary beneficiary in an entity that holds assets and liabilities associated with synthetic leases. As a result, upon adoption, AT&T Wireless Services consolidated the assets and liabilities associated with two synthetic leases that were previously disclosed as off-balance sheet arrangements.



1. Saks Inc (2000 10-K)

All accounts receivable generated by the Company's proprietary credit cards are sold to wholly owned special purpose subsidiaries of the Company. The special purpose subsidiaries transfer the receivables, with limited recourse, to either a credit card related trust or a bank conduit facility in exchange for cash and subordinated certificates representing undivided interests in the pool of receivables. These facilities subsequently issue certificates of beneficial interest, also representing undivided interests in the pool of receivables, to investors. At January 29, 2000, the funding capacity consisted of approximately \$1.3 billion of which \$897.2 million were fixed rate certificates and \$400.0 million were variable rate certificates...Gains on sales of accounts receivable included within net finance charge income were \$19,500, \$36,400 and \$15,000 in 1999, 1998 and 1997 respectively.

2. J. Crew Group Inc (2000 10-K)

In October 1997, the Company entered into an agreement to securitize certain customer installment receivables of Popular Club Plan, Inc. on a revolving basis. The Company had no obligation to reimburse the trust or the purchasers of beneficial interests for credit losses. The transactions were accounted for as a sale in accordance with the provisions of SFAS No. 125 "Accounting for Transfers and Servicing of Financial Assets and Extinguishment of Liabilities." Under SFAS No. 125, no servicing asset or liability was recorded as fees charged were expected to cover related expenses.

At January 31, 1998, \$46,000,000 of accounts receivable had been sold pursuant to this agreement. The sale of receivables resulted in a gain of \$1,472,000 during the year ended January 31, 1998. Finance charge income, including the gain on sale, was \$5,325,000 and \$8,294,000 for fiscal years 1998 and 1997.



APPENDIX D. Variable definitions

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MI	Income or loss attributable to minority interests (item 49).
LAGBTD	The lagged <i>BTD</i> .
LAGTEMP	The lagged <i>TEMP</i> .
LAGPERM	The lagged <i>PERM</i> .
PTBI	Pre-tax book income (item 170) deflated by lagged assets (item
T 4 · 1	6).
TaxAvoid	An indicator variable which equals one for firm-year observations within the positive total (temporary or permanent)
	book-tax differences group and with <i>CashETRs</i> in the lowest
	quintile of all firm-years in the sample and not in the OBS
	subsample, and zero otherwise.
AEM	An indicator variable which equals one for firm-year
7121/1	observations within the positive total (temporary or permanent)
	book-tax differences group and with modified Jones model
	discretionary accruals in the top quintile of all firm-years and
	not in the <i>OBS</i> or <i>TaxAvoid</i> subsample, and zero otherwise.
PTBI*OBS	The interaction between <i>PTBI</i> and <i>OBS</i> .
PTBI*TaxAvoid	The interaction between <i>PTBI</i> and <i>TaxAvoid</i> .
PTBI*AEM	The interaction between <i>PTBI</i> and <i>AEM</i> .
TB	Decile rank of the ratio of net tax income to net book income
	scaled to vary between zero and one. Net tax income is
	measured as $(TAX/STR) * (1 - STR)$, where STR is the top U.S.
	statutory corporate tax rate and <i>TAX</i> is current tax expense. <i>TAX</i>
	is measured as the sum of current federal (COMPUSTAT item 63) and foreign (item 64) income taxes, or, when either of these
	amounts is missing, as total income tax expense (item 16) less
	deferred tax expense (item 50). Net book income is earnings
	before extraordinary items (item 18).
TaxAvoid	An indicator variable which equals one for firm-year
	observations with <i>CashETRs</i> in the lowest quintile of all firm-
	years in the sample and not in the <i>OBS</i> subsample, and zero
	otherwise.
AEM	An indicator variable which equals one for firm-year
	observations with modified Jones model discretionary accruals
	in the top quintile of all firm-years and not in the OBS or
	TaxAvoid subsample, and zero otherwise.
TB*OBS	The interaction between <i>TB</i> and <i>OBS</i> .
TB*AEM	The interaction between <i>TB</i> and <i>AEM</i> .
TB*TaxAvoid	The interaction between TB and TaxAvoid.
SIZE	The natural log of market capitalization (CAP) measured at year
	end (item 199 × item 54).
MB	The ratio of <i>CAP</i> to book value of common equity (item 216).
ΔFOL	The change in the number of analysts who make earnings
	forecasts for a particular firm from year t to year $t + 1$, divided



	by the number from year <i>t</i> .
PYFE	The actual earnings minus the median individual forecasted
1112	earnings from mid-year of year t, deflated by stock price.
	jeun er
ABSBTD	The natural log of the absolute value of total book-tax
	differences.
ABSTEMP	The natural log of the absolute value of temporary book-tax
	differences.
ABSPERM	The natural log of the absolute value of permanent book-tax
	differences.
ACC	An indicator variable which equals one for firm-years in the top
	quintile of total accruals scaled by lagged assets, without
	synthetic leases or securitizations, and not in the <i>TaxAvoid</i>
	subsample, and zero otherwise. Total accruals are the difference
	between earnings (item 18) and cash flows from operations
	(item 308) scaled by lagged assets (item 6).
TaxAvoid	An indicator variable which equals one for firm-years in the
	lowest CashETRs quintile in the sample, without synthetic
	leases or securitizations, and not in the ACC subsample, and
	zero otherwise.
BigN	A dummy variable with a value of one if the firm is audited by a
	Big 5 (including Arthur Anderson) accounting firm in the
	current fiscal year, and zero otherwise.
Ln(ASSETS)	The natural log of total assets (item 6).
FOREIGN	The ratio of foreign pre-tax income (item 273) to total pre-tax
(120222)	income (item 170).
ABSBTD (ABSTEMP,	The interaction between ABSBTD (ABSTEMP or ABSPERM)
ABSPERM)*OBS	and OBS.
ABSBTD (ABSTEMP,	The interaction between <i>ABSBTD</i> (<i>ABSTEMP</i> or <i>ABSPERM</i>)
ABSPERM)*AEM	and AEM.
ABSBTD (ABSTEMP,	The interaction between <i>ABSBTD</i> (<i>ABSTEMP</i> or <i>ABSPERM</i>)
ABSPERM)*TaxAvoid	and TaxAvoid.
INV	The total value of inventory (item 3) scaled by assets (item 6).
REC	The total value of receivables (item 2) scaled by assets (item 6).
PROFIT	Firm profit which is measured by operating income (item 178)
TKOTT	scaled by assets (item 6).
LOSS	A dummy variable which equals 1 if income before
LOSS	extraordinary items and discontinued operations (item 18 - item
	66) is negative in the current or prior fiscal year, and 0
	otherwise.
OPINION	A dummy variable which equals 1 if an audit opinion other than
OI IIVIOIV	an unqualified opinion is given in the current year, and 0
	otherwise.
OBSrank	The quintile rank securitization gains scaled by lagged assets.
ODSIUIIK	The quiline rank securitization gains scaled by lagged assets.



CashETR_Alt	The residual from the regression in which <i>CashETR</i> is regressed
	on Secu_Gain.



TABLE 1

Descriptive Statistics of Firms with Securitization Gains or Synthetic Leases

Panel A: Securitization firms with securitization gains

				Lower					
Variable	N	Mean	Std. Dev.	Quartile	Median	Upper Quartile			
Assets	292	26,815	92,602	1,359	3,572	14,019			
Gains	292	87.22	240.405	6.35	19.45	57.2			
Gains/Assets	292	0.04	0.181	0.001	0.004	0.02			
ROA	292	0.039	0.069	0.009	0.033	0.066			
Growth	292	0.16	0.491	0.009	0.088	0.184			
Long-term Debt	292	0.272	0.206	0.144	0.254	0.362			

Panel B: Synthetic lease firms

				Lower		Upper
variable	N	Mean	Std. Dev.	Quartile	Median	Quartile
Facility	111	205.45	376.128	59.8	100	197
Lease Amount	200	153.322	291.876	42	78	157.98
Assets	367	7,571	31,858	630	1,274	4,615
ROA	367	0.018	0.139	-0.017	0.035	0.084
Growth	367	0.111	0.494	-0.032	0.067	0.219
Long-term Debt	367	0.239	0.217	0.048	0.219	0.34

This table reports firm properties for firms engaged in off-balance-sheet financing. Panel A presents summary information for firms with securitization gains and Panel B presents information for firms with synthetic leases. *Assets* is total assets (Compustat item data6). *Gains* is the amount of securitization gains. *Gains/Assets* is securitization gains scaled by lagged assets. *ROA* is return on assets, measured by net income scaled by lagged assets. *Growth* is change in net sales divided by lagged net sales. *Long-term Debt* is long-term debt scaled by lagged assets. *Facility* is the size of a synthetic lease facility. *Lease Amount* is the size of a synthetic lease.



TABLE 2

Descriptive Statistics for Research Question

Panel A: Firms with only securitization gains

Variable	N	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
BTD	292	0.015	0.075	-0.009	0.013	0.036
TEMP	292	0.006	0.031	-0.007	0	0.021
PERM	292	0.009	0.074	-0.002	0.004	0.022
Secu_Gain	292	0.039	0.184	0.001	0.004	0.018
LOSS	292	0.11	0.313	0	0	0
Growth	292	0.16	0.491	0.009	0.088	0.184
ΔNOL	292	0.007	0.069	0	0	0
NPPE	292	0.576	0.141	0.469	0.556	0.682
Intang	292	0.216	0.312	0.022	0.089	0.339
MI	292	0	0.002	0	0	0
FOREIGN	292	-0.268	5.674	0	0	0.215
Equity	292	0	0.004	0	0	0
DISACC	292	0.005	0.112	-0.025	0.005	0.035
CashETR	277	0.137	0.904	0.081	0.222	0.324

Panel B: Firms with securitization gains or losses

Variable	N	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
BTD	551	0.005	0.081	-0.012	0.011	0.034
TEMP	551	0.004	0.032	-0.008	0.003	0.017
PERM	542	0.001	0.077	-0.006	0.003	0.02
OBS	551	0.465	0.499	0	0	1
LOSS	551	0.138	0.345	0	0	0
Growth	551	0.132	0.554	-0.013	0.064	0.181
ΔNOL	551	0.005	0.055	0	0	0
NPPE	551	0.561	0.141	0.46	0.549	0.662
Intang	551	0.267	0.353	0.031	0.136	0.395
MI	551	0	0.002	0	0	0
FOREIGN	551	-0.04	4.539	0	0	0.209
Equity	551	0.001	0.004	0	0	0
DISACC	551	-0.001	0.107	-0.035	0.002	0.037
CashETR	551	0.223	0.86	0.144	0.262	0.348



Panel C: Firms with securitization gains, losses or securitizations as secured borrowing

Variable	N	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
BTD	746	0.007	0.052	-0.011	0.01	0.033
TEMP	746	0.003	0.026	-0.009	0.002	0.016
PERM	745	0.004	0.044	-0.005	0.004	0.019
OBS	746	0.327	0.469	0	0	1
LOSS	746	0.143	0.351	0	0	0
Growth	746	0.129	0.458	-0.013	0.061	0.181
ΔNOL	746	0.005	0.038	0	0	0
NPPE	743	0.557	0.139	0.459	0.548	0.659
Intang	746	0.283	0.356	0.031	0.156	0.413
MI	746	0.001	0.004	0	0	0
FOREIGN	746	0.176	1.815	0	0	0.256
Equity	746	0	0.004	0	0	0
DISACC	746	-0.008	0.094	-0.039	0	0.031
CashETR	746	0.253	0.165	0.143	0.255	0.348

Panel D: Lease firm sample

Variable	N	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
BTD	700	0.002	0.128	-0.027	0.014	0.049
TEMP	730	0	0.06	-0.006	0	0.016
PERM	700	0.002	0.125	-0.014	0.007	0.036
OBS	730	0.503	0.5	0	1	1
LOSS	730	0.2	0.4	0	0	0
Growth	730	0.11	0.429	-0.048	0.06	0.22
ΔNOL	730	0.018	0.085	0	0	0
NPPE	723	0.564	0.156	0.457	0.557	0.663
Intang	730	0.194	0.226	0	0.113	0.313
MI	730	0	0.003	0	0	0
FOREIGN	730	-1.024	25.32	0	0	0.113
Equity	730	0	0.009	0	0	0
DISACC	726	0	0.112	-0.036	0.017	0.057
CashETR	730	0.249	0.178	0.118	0.255	0.35

This table presents summary statistics for variables related to the research question.

BTD is the total book-tax difference, which equals book income less estimated taxable income scaled by average book assets (item 6). Book income is pretax income (item 170). Estimated taxable income is calculated by summing the current federal tax expense (item 63) and current foreign tax expense (item 64) and dividing by the 35% statutory tax rate (STR) and then subtracting the change in NOL carryforwards (item 52). If current the federal tax expense is missing, the total current tax expense is calculated by subtracting deferred taxes (item 50), state income taxes (item 173), and other income taxes (item 211) from the total income taxes (item 16). TEMP is temporary book-tax difference, which is the sum of U.S (item 269) and foreign (item 270) deferred tax divided by the 35% statutory rate and then scaled by lagged total assets (item 6). PERM is permanent book-tax difference which equals BTD less BTD. Secu_Gain is the value of securitization gains scaled by lagged assets. OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. Loss is an indicator variable which equals one if a firm reports negative pretax income and zero otherwise (item 170 - item 17).



Growth is the change in net sales (item 12) scaled by lagged assets. ANOL is the change in net operating loss carryforwards (item 52) scaled by lagged assets. NPPE is the ratio of net property, plant and equipment (item8) to gross property, plant and equipment (item 7). Intang is sum of goodwill (item 204) and other intangibles (item 33) scaled by lagged assets. MI is income or loss attributable to minority interests (item 49) scaled by lagged assets. Foreign is the amount of foreign pretax earnings (item 273) scaled by total pretax earnings (item 170). Equity is income or loss attributable to the equity method (item 55) scaled by lagged assets. DISACC is discretionary accruals measured as the residual from the modified Jones model. CashETR is the five-year effective cash tax rate, which equals sum of cash taxes paid (item 317) over the previous 5 years divided by the sum of pretax income (item 170 - item 17) over the previous 5 years (or 3 years if 5 years of data are unavailable).



TABLE 3

Pearson Correlations for Research Question

Panel A: Firms with only securitization gains

-	BTD	TEMP	PERM	Secu_Gain	LOSS	Growth	NOL	NPPE	Intang	MI	FOREIGN	Equity	DISACC
BTD	1												
TEMP	0.23*	1											
PERM	0.91*	-0.18*	1										
Secu_Gain	0.08*	-0.04	0.09	1									
LOSS	-0.13*	-0.13*	-0.08	0.21*	1								
Growth	0.18*	0.04	0.17*	0.02	-0.12	1							
NOL	0.68*	-0.1	0.73*	0.06	0.14*	0.1*	1						
NPPE	-0.02	0.06	-0.05	-0.13*	-0.04*	0.17*	-0.01	1					
Intang	0.04	0.04	0.03	0.14*	0	-0.03	0.01	0.04	1				
MI	-0.03	0.11*	-0.07	-0.02	0.09	-0.05	-0.02	0.02	0.05	1			
FOREIGN	0.37	-0.11*	0.42*	0.01	0	0.02	0.35*	-0.15*	-0.06	-0.08	1		
Equity	-0.14*	0.01	-0.14*	0.01	-0.17*	0	-0.17*	-0.04	-0.01	0	-0.02	1	
DISACC	0.15*	0.01	0.14*	0.03	-0.1*	-0.09	-0.14*	0.03	-0.18*	-0.01	0.03	0	1
CashETR	-0.12*	0.01	0.15*	0.05	0	0.05	0.1*	-0.12*	-0.02	-0.13*	0.18*	0.07	0.02

^{*} Indicate statistical significance at the 0.1 level.



Panel B: Firms with securitization gains or losses

	BTD	TEMP	PERM	OBS	LOSS	Growth	NOL	NPPE	Intang	MI	FOREIGN	Equity	DISACC
BTD	1												
TEMP	0.31*	1											
PERM	0.92*	-0.08*	1										
OBS	0.11*	0.04	0.09*	1									
LOSS	-0.27*	-0.11*	-0.22*	-0.07	1								
Growth	0.11*	0.08*	0.08*	0.05	-0.10*	1							
NOL	0.46*	-0.06	0.51*	-0.01	0.09*	0.07*	1						
NPPE	0.01	0.06	-0.01	0.05	0.05	0.11*	-0.02	1					
Intang	-0.01	0.05	-0.03	-0.20*	-0.02	0.15*	0.04	-0.02	1				
MI	0.01	0.02	0.02	-0.01	0.00	0.01	-0.03	0.04	0.01	1			
FOREIGN	0.23*	-0.06	0.26*	-0.06	-0.00	0.01	0.29*	-0.11*	-0.01	-0.03	1		
Equity	0.01	0.08	-0.02	-0.07	-0.14*	-0.02	-0.09*	-0.05	0.05	-0.03	0.00	1	
DISACC	0.34*	0.11*	0.31*	0.09*	-0.21*	0.00	-0.09*	0.01	-0.15*	0.00	0.01	0.03	1
CashETR	0.03	-0.03*	0.04	-0.09*	0.02	0.03	0.04	-0.06	0.07	-0.06	0.13*	0.03	-0.02

^{*} Indicate statistical significance at the 0.1 level.

Panel C: Firms with securitization gains, losses or securitizations as secured borrowing

	BTD	TEMP	PERM	OBS	LOSS	Growth	NOL	NPPE	Intang	MI	FOREIGN	Equity	DISACC
BTD	1												
TEMP	0.53*	1											
PERM	0.87*	0.04	1										
OBS	0.08*	0.08*	0.04	1									
LOSS	-0.29*	-0.28*	-0.18*	-0.11*	1								
Growth	0.07*	0.05	0.05	0.02	-0.14*	1							
NOL	0.29*	-0.08*	0.39*	-0.05	0.18*	0.05	1						
NPPE	-0.03	0.01	-0.03	0.07*	0.07*	0.1*	0.04	1					
Intang	0.12*	0.13*	0.06*	-0.13*	-0.09*	0.17*	0.05	-0.02	1				
MI	0.09*	0.01	0.1*	-0.04	-0.05	0.02	-0.01	0.04	-0.01	1			
FOREIGN	0.01	0.03	-0.01	-0.03	-0.06	0.01	-0.02	-0.05	0.03	0.00	1		
Equity	0.11*	0.14*	0.04	-0.08*	-0.12*	0.02	-0.05	-0.01	0.03	-0.03	0.04	1	
DISACC	0.26*	0.16*	0.21*	0.07*	-0.22*	0.04	-0.11*	-0.03	-0.11*	0.01	-0.03	0.05	1
CashETR	-0.06	-0.16*	0.02	-0.11*	0.03	0.01	0.06*	-0.08*	-0.06*	-0.06	0.05	-0.01	-0.01

^{*} Indicate statistical significance at the 0.1 level.



Panel D: Lease firm sample

	BTD	TEMP	PERM	OBS	LOSS	Growth	NOL	NPPE	Intang	MI	FOREIGN	Equity	DISACC
BTD	1												
TEMP	0.29*	1											
PERM	0.88*	-0.19*	1										
OBS	0.04*	0.02*	-0.05	1									
LOSS	-0.37*	-0.02*	-0.37*	-0.01	1								
Growth	0.05	-0.11*	0.11*	0.00	-0.22*	1							
NOL	0.36*	-0.04*	0.39*	-0.04	0.24*	0.01	1						
NPPE	0.04*	-0.02	0.06*	0.00	-0.04*	0.16*	0.07	1					
Intang	0.04	0.05	0.01	0.03	-0.08*	0.08*	0.01*	0.06	1				
MI	-0.01	-0.09*	0.04*	-0.01	-0.06*	0.04	-0.01	0.08*	0.02	1			
FOREIGN	0.01	-0.01	0.01	-0.02	0.02	0.04	0.01	0.02	0.03	-0.05	1		
Equity	0.06*	-0.01	0.07*	0.04	-0.18*	0.02	-0.08*	-0.06	-0.01	0.06	0.05	1	
DISACC	0.61*	0.23*	0.51*	-0.03	-0.33*	-0.02	-0.02*	0.00	-0.03	-0.01	0.04	0.02	1
CashETR	-0.03*	-0.01	-0.03*	-0.05	0.15*	-0.06*	-0.01	-0.18*	-0.01	-0.06*	0.01	0.05	0.06

^{*} Indicate statistical significance at the 0.1 level.

This table presents Pearson correlation coefficients among dependent and independent variables. *BTD* is the total book-tax difference, which equals book income less estimated taxable income scaled by average book assets (item 6). Book income is pretax income (item 170). Estimated taxable income is calculated by summing the current federal tax expense (item 63) and current foreign tax expense (item 64) and dividing by the 35% statutory tax rate (STR) and then subtracting the change in NOL carryforwards (item 52). If current the federal tax expense is missing, the total current tax expense is calculated by subtracting deferred taxes (item 50), state income taxes (item 173), and other income taxes (item 211) from the total income taxes (item 16). *TEMP* is temporary book-tax difference, which is the sum of U.S (item 269) and foreign (item 270) deferred tax divided by the 35% statutory rate and then scaled by lagged total assets (item 6). *PERM* is permanent book-tax difference which equals *BTD* less *BTD*. *Secu_Gain* is the value of securitization gains scaled by lagged assets. *OBS* is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. *Loss* is an indicator variable which equals one if a firm reports negative pretax income and zero otherwise (item 170 - item 17). *Growth* is the change in net sales (item 12) scaled by lagged assets. *ANOL* is the change in net operating loss carryforwards (item 52) scaled by lagged assets. *NPPE* is the ratio of net property, plant and equipment (item 8) to gross property, plant and equipment (item 7). *Intang* is sum of goodwill (item 204) and other intangibles (item 33) scaled by lagged assets. *MI* is income or loss attributable to minority interests (item 49) scaled by lagged assets. *Foreign* is the amount of foreign pretax earnings (item 273) scaled by total pretax earnings (item 170). *Equity* is income or loss attributable to the equity method (item 55) scaled by lagged assets. *DISACC* i



TABLE 4

Regression Analysis of the Effect of Off-Balance-Sheet Financing on Book-Tax Differences

Panel A: The Effect of Off-Balance-Sheet Financing on Total Book-Tax Differences

(Dependent variable = BTD)

	(1)	(2)	(3)	(4)
		Gain Firms vs.	Gain Firms vs. Loss or Secured	
Variable	Gain Firms Only	Loss Firms	Borrowing Firms	Lease
Secu_Gain	0.018**	LOSS I II IIIS	Borrowing 1 trins	Lease
Secu_Gain	(0.008)			
OBS	(0.000)	0.010**	0.006**	0.392***
		(0.005)	(0.003)	(0.056)
CashETR	0.005	0.002	-0.019*	-0.013
	(0.003)	(0.002)	(0.010)	(0.020)
DISACC	0.188***	0.233***	0.126***	0.547***
	(0.043)	(0.058)	(0.032)	(0.078)
Growth	0.018	0.003	-0.003	-0.046**
	(0.011)	(0.007)	(0.004)	(0.023)
ΔNOL	-0.048***	-0.046***	-0.039***	-0.087***
	(0.011)	(0.011)	(0.007)	(0.012)
LOSS	0.843***	0.698***	0.530***	0.718***
	(0.111)	(0.160)	(0.156)	(0.057)
FOREIGN	0.001**	0.002**	0.000	-0.000
	(0.000)	(0.001)	(0.001)	(0.000)
NPPE	-0.021	0.010	-0.016	-0.017
	(0.023)	(0.025)	(0.013)	(0.026)
Intang	0.021***	0.006	0.018***	0.017
	(0.007)	(0.009)	(0.005)	(0.015)
Equity	-0.354	0.561	1.115**	0.216
	(1.322)	(0.951)	(0.487)	(0.257)
MI	2.439***	1.020	0.923***	-0.926
	(0.789)	(0.789)	(0.284)	(0.989)
LAGBTD	0.084	0.180***	0.105***	0.041
	(0.054)	(0.063)	(0.033)	(0.026)
Intercept	0.017	-0.007	0.022*	-0.358***
	(0.021)	(0.017)	(0.012)	(0.055)
Observations	276	541	698	578
Adj. R-squared	0.693	0.456	0.301	0.608

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.



Panel B: The Effect of Off-Balance-Sheet Financing on Temporary Book-Tax Differences

(Dependent variable = TEMP)

	(1)	(2)	(3)	(4)
	G : E:	C · F:	Gain Firms vs.	
V 1-1 -	Gain Firms	Gain Firms vs.	Loss or Secured	T
Variable	Only	Loss Firms	Borrowing Firms	Lease
Secu_Gain	0.002			
o n a	(0.007)	0.000	0.002	0.064444
OBS		0.002	0.003	0.064***
a 1.555		(0.002)	(0.002)	(0.017)
CashETR	0.002	-0.002	-0.019***	-0.015*
	(0.002)	(0.004)	(0.006)	(0.008)
DISACC	0.009	0.039**	0.030***	0.085***
	(0.019)	(0.016)	(0.011)	(0.023)
Growth	0.001	0.009**	-0.001	-0.016**
	(0.004)	(0.004)	(0.003)	(0.006)
ΔNOL	-0.006	-0.004	-0.016***	0.003
	(0.029)	(0.004)	(0.003)	(0.005)
LOSS	-0.012	-0.099***	-0.011	-0.000
	(0.011)	(0.038)	(0.021)	(0.027)
FOREIGN	-0.001***	0.001	0.000	0.002
	(0.000)	(0.000)	(0.000)	(0.003)
NPPE	0.002	0.002	-0.001	0.009
	(0.013)	(0.010)	(0.007)	(0.011)
Intang	0.009	0.013***	0.011***	-0.000
	(0.007)	(0.004)	(0.003)	(0.007)
Equity	-0.133	-0.515	0.706**	0.548
1	(0.750)	(0.676)	(0.290)	(0.409)
MI	2.203*	-0.780	-0.092	-0.384
	(1.223)	(0.491)	(0.188)	(0.913)
<i>LAGTEMP</i>	0.178***	0.183***	0.183***	0.166***
	(0.060)	(0.051)	(0.042)	(0.046)
Intercept	0.019	0.003	0.009	-0.045**
	(0.016)	(0.008)	(0.007)	(0.018)
Observations	276	463	698	599
Adj. R-squared	0.027	0.100	0.165	0.095

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.



Panel C: The Effect of Off-Balance-Sheet Financing on Permanent Book-Tax Differences

(Dependent variable = PERM)

	(1)	(2)	(3) Gain Firms vs.	(4)
		Gain Firms vs.	Loss or Secured	
Variable	Gain Firms Only	Loss Firms	Borrowing Firms	Lease
Secu_Gain	0.016*			
	(0.008)			
OBS		-0.000	0.003	0.310***
		(0.003)	(0.003)	(0.064)
CashETR	0.003	-0.005	0.002	-0.006
	(0.003)	(0.008)	(0.009)	(0.021)
DISACC	0.175***	0.106***	0.094***	0.440***
	(0.042)	(0.033)	(0.027)	(0.088)
Growth	0.015	0.008	-0.002	-0.024
	(0.012)	(0.005)	(0.004)	(0.019)
ΔNOL	0.837***	-0.015*	-0.023***	-0.095***
	(0.108)	(0.008)	(0.006)	(0.013)
LOSS	-0.033**	0.779***	0.540***	0.743***
	(0.014)	(0.104)	(0.155)	(0.069)
FOREIGN	0.002***	-0.001*	-0.000	-0.000**
	(0.000)	(0.000)	(0.000)	(0.000)
NPPE	-0.020	-0.007	-0.014	-0.008
	(0.019)	(0.010)	(0.012)	(0.029)
Intang	0.011*	-0.000	0.007	0.008
	(0.006)	(0.005)	(0.005)	(0.016)
Equity	-0.118	0.250	0.391	0.280
•	(0.848)	(0.805)	(0.404)	(0.274)
MI	0.395	1.589*	0.994***	0.952
	(1.080)	(0.947)	(0.186)	(1.349)
<i>LAGPERM</i>	0.143**	0.108**	0.098**	0.043
	(0.064)	(0.046)	(0.038)	(0.029)
Intercept	-0.001	0.006	0.012	-0.274***
	(0.011)	(0.010)	(0.009)	(0.061)
Observations	276	453	697	578
Adj. R-squared	0.743	0.408	0.282	0.552

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.

This table presents the result of OLS regression of the effect of off-balance-sheet financing on book-tax differences. Column (1) contains firm-years with only securitization gains. Column (2) consists of firm-years in which securitization gains or losses are reported. Column (3) includes any firm-year with securitization, either accounted for as sales accounting (with gains or losses) or as secured borrowing. Column (4) consists of firm-years with at least one synthetic lease and a matched control group which does not have synthetic leases or securitizations. The matching is implemented based on industry (two-digit SIC), year, and firm size.

In panel A, the dependent variable, *BTD*, is the total book-tax difference, which equals book income less estimated taxable income scaled by average book assets (COMPUSTAT item 6). Book income is pretax income (item 170). Estimated taxable income is calculated by summing the current federal tax expense (item 63) and current foreign tax expense (item 64) and dividing by the 35% statutory tax rate (STR) and then subtracting the change in NOL



carryforwards (item 52). If current the federal tax expense is missing, the total current tax expense is calculated by subtracting deferred taxes (item 50), state income taxes (item 173), and other income taxes (item 211) from the total income taxes (item 16). In panel B, the dependent variable, TEMP, is temporary book-tax difference, which is the sum of U.S (item 269) and foreign (item 270) deferred tax divided by the 35% statutory rate and then scaled by lagged total assets (item 6). In panel C, the dependent variable, PERM, is permanent book-tax difference which equals BTD less TEMP. LAGBTD, LAGTEMP, and LAGPERM are the lagged BTD, TEMP, and PERM, respectively. Secu_Gain is the value of securitization gains scaled by lagged assets. OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. CashETR is the five-year effective cash tax rate, which equals sum of cash taxes paid (item 317) over the previous 5 years divided by the sum of pretax income (item 170 - item 17) over the previous 5 years (or 3 years if 5 years of data are unavailable). DISACC is discretionary accruals measured as the residual from the modified Jones model. Growth is the change in net sales (item 12) scaled by lagged assets. $\triangle NOL$ is the change in net operating loss carryforwards (item 52) scaled by lagged assets. Loss is an indicator variable which equals one if a firm reports negative pretax income and zero otherwise (item 170 - item 17). Foreign is the amount of foreign pretax earnings (item 273) scaled by total pretax earnings (item 170). NPPE is the ratio of net property, plant and equipment (item8) to gross property, plant and equipment (item 7). Intang is sum of goodwill (item 204) and other intangibles (item 33) scaled by lagged assets. Equity is income or loss attributable to the equity method (item 55) scaled by lagged assets. MI is income or loss attributable to minority interests (item 49) scaled by lagged assets. For each regression, I control for year and industry effects and winsorize all continuous variables at 1 percent and 99 percent.



TABLE 5

Descriptive Statistics for H1

Panel A: Securitization firms with positive total book-tax differences - matched sample (n=319)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.081	0.077	0.032	0.075	0.113
PTBI	0.093	0.07	0.046	0.08	0.117
OBS	0.489	0.501	0	0	1
DISACC	0.01	0.088	-0.024	0.008	0.039
CashETR	0.239	0.156	0.141	0.25	0.318
Assets	10,076	25,082	1,304	2,852	10,905

Panel B: Securitization firms with positive temporary book-tax differences - matched sample (n=224)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.073	0.081	0.024	0.067	0.107
PTBI	0.083	0.078	0.036	0.075	0.113
OBS	0.481	0.5	0	0	1
DISACC	0.004	0.089	-0.025	0.005	0.039
CashETR	0.229	0.153	0.121	0.25	0.318
Assets	11,647	29,415	1,614	3,113	11,885

Panel C: Securitization firms with positive permanent book-tax differences - matched sample (n=336)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.074	0.088	0.023	0.07	0.117
PTBI	0.084	0.082	0.032	0.076	0.122
OBS	0.48	0.5	0	0	1
DISACC	0.006	0.09	-0.026	0.008	0.041
CashETR	0.245	0.163	0.127	0.254	0.33
Assets	11,030	31,655	1,131	2,585	10,526



Panel D: Securitization firms with positive total book-tax differences - S&P sample (n=2,743)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.132	0.104	0.067	0.123	0.187
PTBI	0.13	0.082	0.072	0.12	0.175
OBS	0.026	0.158	0	0	0
DISACC	0.013	0.048	-0.011	0.013	0.038
CashETR	0.265	0.125	0.19	0.269	0.337
Assets	11,549	19,857	2,492	5,134	13,065

Panel E: Securitization firms with positive temporary book-tax differences - S&P sample (n=1,873)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.096	0.096	0.038	0.096	0.157
PTBI	0.114	0.094	0.062	0.11	0.164
OBS	0.068	0.252	0	0	0
DISACC	0.013	0.063	-0.013	0.016	0.046
CashETR	0.252	0.124	0.18	0.265	0.328
Assets	11,736	20,501	2,469	5,157	12,961

Panel F: Securitization firms with positive permanent book-tax differences - S&P sample (n=2826)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.133	0.104	0.067	0.123	0.188
PTBI	0.131	0.083	0.073	0.12	0.176
OBS	0.024	0.153	0	0	0
DISACC	0.013	0.049	-0.012	0.013	0.038
CashETR	0.267	0.125	0.192	0.27	0.339
Assets	11,603	20,869	2,475	5,008	12,947

Panel G: Lease firms with positive total book-tax differences - matched sample (n=365)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.071	0.134	0.01	0.071	0.148
PTBI	0.104	0.106	0.038	0.087	0.163
OBS	0.515	0.5	0	1	1
DISACC	0.019	0.077	-0.023	0.015	0.061
CashETR	0.236	0.154	0.128	0.248	0.324
Assets	4,256	10,365	445	1,093	3,317



Panel H: Lease firms with positive temporary book-tax differences - matched sample (n=227)

Variable	Mean	Std. Dev.	Std. Dev. Lower Quartile		Upper Quartile	
Lead_PTBI	0.069	0.128	0.01	0.076	0.156	
PTBI	0.09	0.116	0.028	0.085	0.164	
OBS	0.639	0.481	0	1	1	
DISACC	0.009	0.075	-0.036	0.012	0.049	
CashETR	0.239	0.152	0.136	0.242	0.325	
Assets	4,650	11,572	517	1,162	3,317	

Panel I: Lease firms with positive permanent book-tax differences - matched sample (n=382)

Variable	Mean	Std. Dev.	Lower Quartile Median		Upper Quartile	
Lead_PTBI	0.069	0.13	0.001	0.064	0.143	
PTBI	0.091	0.122	0.02	0.02 0.08		
OBS	0.493	0.501	0	0	1	
DISACC	0.018	0.077	-0.025	0.017	0.06	
CashETR	0.251	0.167	0.14	0.255	0.329	
Assets	4,567	11,989	469	1,162	3,299	

Panel J: Lease firms with positive total book-tax differences - S&P sample (n=1,111)

Variable	Mean	Mean Std. Dev. Low		Median	Upper Quartile
Lead_PTBI	0.112	0.101	0.046	0.106	0.171
PTBI	0.135	0.097	0.071	0.123	0.183
OBS	0.061	0.24	0	0	0
DISACC	0.02	0.06	-0.011	0.02	0.049
CashETR	0.253	0.119	0.184	0.265	0.33
Assets	11,063	25,487	1,881	4,383	10,905

Panel K: Lease firms with positive temporary book-tax differences - S&P sample (n=957)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.096	0.096	0.038	0.096	0.157
PTBI	0.114	0.094	0.062	0.11	0.164
OBS	0.068	0.252	0	0	0
DISACC	0.013	0.063	-0.013	0.016	0.046
CashETR	0.252	0.124	0.18	0.265	0.328
Assets	12,242	27,386	2,086	4,898	12,660



Panel L: Lease firms with positive permanent book-tax differences - S&P sample (n=1,155)

Variable	Mean	Std. Dev.	Lower Quartile	ower Quartile Median	
Lead_PTBI	0.117	0.105	0.049	0.111	0.175
PTBI	0.138	0.105	0.072	0.072 0.126	
OBS	0.058	0.234	0	0	0
DISACC	0.019	0.064	-0.012	0.019	0.049
CashETR	0.258	0.115	0.19 0.271		0.337
Assets	10,604	26,507	1,703	4,024	10,376

Panel M: Combined firms with positive total book-tax differences - matched sample (n=694)

Variable	Mean	Std. Dev.	Lower Quartile	ower Quartile Median	
Lead_PTBI	0.075	0.125	0.025	0.075	0.136
PTBI	0.099	0.092	0.04	0.085	0.146
OBS	0.501	0.5	0	1	1
DISACC	0.016	0.08	-0.02	0.015	0.055
CashETR	0.238	0.158	0.128	0.248	0.32
Assets	7,726	19,658	728	1,965	7,199

Panel N: Combined firms with positive temporary book-tax differences - matched sample (n=433)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.078	0.098	0.024	0.076	0.127
PTBI	0.091	0.094	0.037	0.037 0.083	
OBS	0.58	0.494	0	1	1
DISACC	0.009	0.074	-0.022	0.011	0.047
CashETR	0.228	0.146	0.123 0.246		0.31
Assets	10,130	24,059	941	2,548	10,582

Panel O: Combined firms with positive permanent book-tax differences - matched sample (n=546)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.08	0.116	0.021	0.079	0.14
PTBI	0.099	0.102	0.036	0.088	0.157
OBS	0.551	0.498	0	1	1
DISACC	0.012	0.078	-0.023	0.013	0.052
CashETR	0.243	0.158	0.14 0.251		0.321
Assets	9,957	27,702	864	2,299	8,530



Panel P: Combined firms with positive total book-tax differences - S&P sample (n=2939)

Variable	Mean	Std. Dev.	Lower Quartile	ower Quartile Median	
Lead_PTBI	0.128	0.104	0.063	0.12	0.184
PTBI	0.131	0.085	0.071	0.119	0.176
OBS	0.04	0.196	0	0	0
DISACC	0.013	0.049	-0.012	0.011	0.036
CashETR	0.26	0.128	0.184 0.265		0.333
Assets	11,523	22,164	2,265	4,838	12,660

Panel Q: Combined firms with positive temporary book-tax differences - S&P sample (n=1863)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
Lead_PTBI	0.108	0.094	0.048	0.101	0.161
PTBI	0.111	0.084	0.06	0.103	0.157
OBS	0.056	0.23	0	0	0
DISACC	0.009	0.05	-0.015	0.008	0.033
CashETR	0.258	0.138	0.175	0.263	0.334
Assets	13,079	25,686	2,526	5,796	14,280

Panel R: Combined firms with positive permanent book-tax differences - S&P sample (n=2330)

Variable	Mean	Std. Dev. Lower Quartile		Median	Upper Quartile	
Lead_PTBI	0.135	0.102	0.069	0.124	0.189	
PTBI	0.13	0.081	0.072	0.12	0.175	
OBS	0.025	0.156	0	0	0	
DISACC	0.013	0.046	-0.011	0.011	0.034	
CashETR	0.265	0.128	0.189	0.267	0.338	
Assets	11,929	22,000	2,463	5,074	13,071	

This table reports summary statistics for variables related to my first hypothesis. *Lead_PTBI* is pre-tax book income (item 170) of next year deflated by current year assets (item 6). *PTBI* is pre-tax book income (item 170) deflated by lagged assets (item 6). *OBS* is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. *DISACC* is discretionary accruals measured as the residual from the modified Jones model. *CashETR* is the five-year effective cash tax rate, which equals sum of cash taxes paid (item 317) over the previous 5 years divided by the sum of pretax income (item 170 - item 17) over the previous 5 years (or 3 years if 5 years of data are unavailable). *Assets* is current year total assets (item 6).



TABLE 6

Regressions of Future Pretax Earnings on Current Pretax Earnings

 $Lead_PTBI = \beta_0 + \beta_1 OBS + \beta_2 TaxAvoid + \beta_3 AEM + \beta_4 PTBI + \beta_5 PTBI* OBS + \beta_6 PTBI_t* TaxAvoid + \beta_7 PTBI* AEM + \varepsilon$

Panel A: Partitions Based on Securitization Sample

	(1) PBTD	(2) PTEMP	(3) PPERM	(4) PBTD	(5)	(6)
Variable	Matched	Matched	Matched	S&P	PTEMP S&P	PPERM S&P
OBS	-0.004	-0.007	0.000	0.001	-0.005	-0.003
	(0.013)	(0.014)	(0.013)	(0.016)	(0.016)	(0.015)
<i>TaxAvoid</i>	0.014	0.050	-0.056*	0.012	0.011	0.010
	(0.071)	(0.044)	(0.030)	(0.007)	(0.008)	(0.007)
AEM	-0.018	-0.005	-0.022	0.007	-0.011	0.003
	(0.021)	(0.019)	(0.024)	(0.009)	(0.008)	(0.008)
PTBI	0.771***	0.840***	0.778***	0.998***	0.895***	0.993***
	(0.129)	(0.093)	(0.111)	(0.026)	(0.029)	(0.025)
PTBI*OBS	0.045	-0.062	-0.031	-0.108	-0.190	-0.077
	(0.144)	(0.139)	(0.128)	(0.224)	(0.248)	(0.212)
PTBI*TaxAvoid	-0.018	-0.326	0.787**	-0.115	-0.148*	-0.130*
	(0.786)	(0.431)	(0.376)	(0.072)	(0.082)	(0.067)
PTBI*AEM	0.076	-0.098	0.022	-0.146**	-0.041	-0.129**
	(0.191)	(0.169)	(0.270)	(0.068)	(0.063)	(0.066)
Intercept	0.011	0.009	0.013	0.005	0.018***	0.007**
	(0.012)	(0.012)	(0.011)	(0.004)	(0.004)	(0.003)
N	317	224	336	2,743	1,873	2,826
Adj. R-squared	0.520	0.582	0.530	0.551	0.551	0.557

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.



Panel B: Partitions Based on Lease Sample

	(1) PBTD	(2) PTEMP	(3) PPERM	(4) PBTD	(5)	(6)
Variable	Matched	Matched	Matched	S&P	PTEMP S&P	PPERM S&P
OBS	0.020	0.037	0.021	0.003	0.011	-0.003
	(0.021)	(0.024)	(0.019)	(0.013)	(0.010)	(0.014)
<i>TaxAvoid</i>	0.020	0.051*	0.004	0.005	0.012	-0.013
	(0.028)	(0.028)	(0.027)	(0.011)	(0.010)	(0.010)
AEM	-0.006	0.021	0.021	0.008	0.002	0.003
	(0.037)	(0.041)	(0.032)	(0.013)	(0.011)	(0.013)
PTBI	0.924***	1.041***	0.885***	0.786***	0.814***	0.716***
	(0.102)	(0.123)	(0.091)	(0.039)	(0.040)	(0.053)
PTBI*OBS	-0.188	-0.295*	-0.257*	-0.057	-0.152*	-0.031
	(0.146)	(0.163)	(0.134)	(0.110)	(0.083)	(0.134)
PTBI*TaxAvoid	-0.481	-1.287***	-0.265	-0.252***	-0.307***	-0.145*
	(0.303)	(0.244)	(0.245)	(0.088)	(0.093)	(0.086)
PTBI*AEM	-0.166	-0.376	-0.459	-0.231**	-0.217**	-0.198**
	(0.405)	(0.261)	(0.361)	(0.097)	(0.089)	(0.097)
Intercept	-0.022	-0.033*	-0.010	0.014**	0.009	0.028***
	(0.018)	(0.020)	(0.017)	(0.005)	(0.006)	(0.007)
N	365	227	382	1,111	957	1,155
Adj. R-squared	0.374	0.493	0.356	0.46	0.472	0.441

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.



Panel C: Partitions Based on Securitization and Lease Combined Sample

Variable	(1) PBTD Matched	(2) PTEMP Matched	(3) PPERM Matched	(4) PBTD S&P	(5) PTEMP S&P	(6) PPERM S&P
OBS	-0.000	-0.010	0.000	0.001	0.001	0.002
	(0.012)	(0.013)	(0.013)	(0.009)	(0.008)	(0.010)
TaxAvoid	0.008	0.029	-0.004	0.012*	0.013*	0.004
	(0.022)	(0.023)	(0.025)	(0.007)	(0.007)	(0.006)
AEM	-0.048**	-0.037*	0.004	0.016*	0.005	0.010
	(0.022)	(0.021)	(0.029)	(0.009)	(0.008)	(0.009)
PTBI	0.843***	0.769***	0.793***	0.955***	0.856***	0.921***
	(0.075)	(0.093)	(0.082)	(0.025)	(0.031)	(0.024)
PTBI*OBS	-0.100	-0.046	-0.136	-0.118	-0.193**	-0.161
	(0.106)	(0.124)	(0.114)	(0.097)	(0.092)	(0.128)
PTBI*TaxAvoid	-0.368	-0.821***	-0.189	-0.128**	-0.104	-0.114*
	(0.241)	(0.298)	(0.264)	(0.063)	(0.076)	(0.059)
PTBI*AEM	0.304*	0.179	-0.519	-0.203***	-0.153**	-0.196***
	(0.180)	(0.188)	(0.379)	(0.072)	(0.070)	(0.070)
Intercept	0.003	0.017*	0.012	0.007**	0.016***	0.016***
	(0.009)	(0.009)	(0.011)	(0.003)	(0.004)	(0.003)
N	694	433	546	2,939	1,863	3,085
Adj. R-squared	0.436	0.481	0.367	0.516	0.509	0.519

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.

This table presents regression analysis of the effect of off-balance-sheet financing on the relation between book-tax differences and earnings persistence. For each panel of this table, Column (1) uses the *Matched* sample based on firm-years with positive total book-tax differences; Column (2) uses the *Matched* sample based on firm-years with positive temporary book-tax differences; Column (3) uses the *Matched* sample based on firm-years with positive permanent book-tax differences; Column (4) uses the *S&P* sample based on firm-years with positive total book-tax differences; Column (5) uses the *S&P* sample based on firm-years with positive temporary book-tax differences, and Column (6) uses the *S&P* sample based on firm-years with positive permanent book-tax differences.

The dependent variable, $Lead_PTBI$, is pre-tax book income (item 170) of next year deflated by current year assets (item 6). OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. TaxAvoid is an indicator variable which equals one for firm-year observations within the positive book-tax differences group and with CashETRs in the lowest quintile of all firm-years in the sample and not in the OBS subsample, and zero otherwise. AEM is an indicator variable which equals one for firm-year observations within the total (temporary or permanent) book-tax differences group and with modified Jones model discretionary accruals in the top quintile of all firm-years and not in the OBS or TaxAvoid subsample, and zero otherwise. PTBI is pre-tax book income (item 170) deflated by lagged assets (item 6). $PTBI^*OBS$ is the interaction between PTBI and OBS. $PTBI^*TaxAvoid$ is the interaction between PTBI and TaxAvoid. TaxAvoid is the interaction between TaxAvoid is the interaction between



TABLE 7

Descriptive Statistics for H2

Panel A: Securitization matched sample (n=367)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
FE	-0.007	0.031	-0.018	-0.002	0.006
OBS	0.518	0.5	0	1	1
TB	0.511	0.362	0.25	0.5	0.75
AEM	0.095	0.294	0	0	0
TaxAvoid	0.046	0.21	0	0	0
PYFE	-0.008	0.038	-0.015	-0.002	0.006
ΔFOL	-0.002	0.246	-0.143	0	0.118
MB	1.188	1.107	0.478	0.766	1.526
SIZE	7.999	1.554	7.04	7.911	9.128

Panel B: Securitization S&P sample (n=3208)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
FE	-0.007	0.03	-0.012	-0.001	0.003
OBS	0.033	0.18	0	0	0
TB	0.501	0.355	0.25	0.5	0.75
AEM	0.192	0.394	0	0	0
TaxAvoid	0.14	0.347	0	0	0
PYFE	-0.007	0.027	-0.013	-0.001	0.003
ΔFOL	-0.011	0.186	-0.13	0	0.1
MB	4.133	3.747	2.054	3.059	4.723
SIZE	8.802	1.182	8.003	8.769	9.536

Panel C: Lease matched sample (n=305)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
FE	-0.014	0.089	-0.018	-0.003	0.003
OBS	0.59	0.493	0	1	1
TB	0.503	0.367	0.25	0.5	0.75
AEM	0.085	0.28	0	0	0
TaxAvoid	0.052	0.223	0	0	0
PYFE	-0.006	0.035	-0.006	-0.001	0.001
ΔFOL	0.013	0.302	-0.179	0	0.154
MB	3.229	5.037	1.519	2.495	4.682
SIZE	7.629	1.453	6.508	7.595	8.668

Panel D: Lease S&P sample (n=1056)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
FE	-0.008	0.019	-0.014	-0.003	0.001
OBS	0.026	0.158	0	0	0
TB	0.501	0.321	0.222	0.556	0.778
AEM	0.191	0.394	0	0	0
TaxAvoid	0.123	0.329	0	0	0
PYFE	-0.003	0.012	-0.004	0	0.001
ΔFOL	0.013	0.202	-0.125	0	0.125
MB	5.614	4.865	2.731	4.044	6.785
SIZE	8.948	1.132	8.11	8.747	9.571

Panel E: Combined matched sample (n=672)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
FE	-0.011	0.064	-0.018	-0.002	0.004
OBS	0.551	0.498	0	1	1
TB	0.501	0.358	0.25	0.5	0.75
AEM	0.08	0.272	0	0	0
TaxAvoid	0.048	0.213	0	0	0
PYFE	-0.007	0.036	-0.01	-0.001	0.003
ΔFOL	0.005	0.273	-0.167	0	0.133
MB	2.114	3.633	0.649	1.428	2.859
SIZE	7.831	1.519	6.785	7.799	8.93

Panel F: Combined S&P sample (n=3394)

Variable	Mean	Std. Dev.	Lower Quartile	Median	Upper Quartile
FE	-0.007	0.03	-0.013	-0.001	0.003
OBS	0.037	0.189	0	0	0
TB	0.501	0.354	0.25	0.5	0.75
AEM	0.192	0.394	0	0	0
TaxAvoid	0.138	0.345	0	0	0
PYFE	-0.006	0.027	-0.012	-0.001	0.002
ΔFOL	-0.01	0.188	-0.132	0	0.1
MB	4.166	3.792	2.075	3.07	4.798
SIZE	8.785	1.179	7.981	8.744	9.519

This table presents summary statistics for variables related to H2. FE is a firm's actual earnings in year t+1 minus the consensus forecasted earnings deflated by stock price. OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. TB is decile rank of the ratio of net tax income to net book income scaled to vary between zero and one. Net tax income is measured as (TAX/STR) * (1 - STR), where STR is the top U.S. statutory corporate tax rate and TAX is current tax expense. TAX is measured as



the sum of current federal (COMPUSTAT item 63) and foreign (item 64) income taxes, or, when either of these amounts is missing, as total income tax expense (item 16) less deferred tax expense (item 50). Net book income is earnings before extraordinary items (item 18). TaxAvoid is an indicator variable which equals one for firm-year observations within the positive book-tax differences group and with CashETRs in the lowest quintile of all firm-years in the sample and not in the OBS subsample, and zero otherwise. AEM is an indicator variable which equals one for firm-year observations within the total (temporary or permanent) book-tax differences group and with modified Jones model discretionary accruals in the top quintile of all firm-years and not in the OBS or TaxAvoid subsample, and zero otherwise. PYFE is the actual earnings minus the median individual forecasted earnings from mid-year of year t, deflated by stock price. ΔFOL is the change in the number of analysts who make earnings forecasts for a particular firm from year t to year t + 1, divided by the number from year t. MB is the ratio of CAP to book value of common equity (item 216). SIZE is the natural log of market capitalization (CAP) measured at year end (item 199 × item 54).



TABLE 8
Pearson Correlations for H2

Panel A: Securitization matched sample

	FE	OBS	ТВ	AEM	TaxAvoid	PYFE	ΔFOL	MB
FE	1							
OBS	0.01	1						
TB	0.01	-0.04	1					
AEM	0.01	-0.34*	-0.09*	1				
<i>TaxAvoid</i>	-0.03	-0.23*	-0.06	-0.07	1			
PYFE	0.25*	0.04	0.09*	-0.07	-0.05	1		
ΔFOL	0.08	-0.03	0.04	-0.06	-0.02	0.15*	1	
MB	0.1*	-0.07	0.13*	-0.1*	-0.04	0.14*	0.1*	1
SIZE	0.11*	0.1*	-0.04	0.35*	-0.14*	0.22*	-0.02	0.15*

Panel B: Lease matched sample

	FE	OBS	ТВ	AEM	TaxAvoid	PYFE	ΔFOL	MB
FE	1							
OBS	0.01	1						
TB	0.03	-0.14*	1					
AEM	-0.08	-0.37*	0.07	1				
<i>TaxAvoid</i>	0.01	-0.28*	-0.05	-0.07*	1			
PYFE	0.11*	-0.05	0.06	0.03	0.04*	1		
ΔFOL	0.15*	0.03	0.16*	-0.03	-0.01	0	1	
MB	0.05	0.06	0.09	-0.13*	0.01	0.12*	-0.05	1
SIZE	0.17*	0.03	0.15*	0.3*	-0.02	0.08	0.09	0.21*

Panel C: Securitization S&P sample

	FE	OBS	TB	AEM	TaxAvoid	PYFE	ΔFOL	MB
FE	1							
OBS	0.01	1						
TB	0.07*	0	1					
AEM	0.03	-0.09*	-0.06*	1				
TaxAvoid	0.03	-0.08*	-0.24*	-0.2*	1			
PYFE	0.23*	0.03	0.09*	-0.01	0.03*	1		
ΔFOL	0.09*	0	0.01	-0.02	0.06*	0.05*	1	
MB	0.07*	-0.05*	0.05*	-0.04*	0.03*	0.08*	0.08*	1
SIZE	0.11*	-0.01	0.05	0.47*	-0.05*	0.18*	0.07*	0.39*



Panel D: Lease S&P sample

	FE	OBS	TB	AEM	TaxAvoid	PYFE	ΔFOL	MB
FE	1							
OBS	0.02	1						
TB	0.08*	-0.03	1					
AEM	-0.05	-0.08*	-0.04	1				
<i>TaxAvoid</i>	-0.08*	-0.06*	-0.29*	-0.18*	1			
PYFE	0.18*	-0.02	-0.04	0	0.05*	1		
ΔFOL	0.06*	-0.03	0.01	0.02	0.06*	0	1	
MB	0.06*	0.04	-0.02	0.01	0.04	0.01	0.02	1
SIZE	0.03*	0.04	-0.09*	-0.04	0.06*	0	-0.05	0.41*

Panel E: Combined matched sample

	FE	OBS	TB	AEM	TaxAvoid	PYFE	ΔFOL	MB
FE	1							
OBS	0.01	1						
TB	0.02	-0.1*	1					
AEM	-0.06	-0.33*	-0.03	1				
TaxAvoid	0.01	-0.25*	-0.08*	-0.07*	1			
PYFE	0.13*	0	0.07*	-0.03	0.01	1		
ΔFOL	0.12*	0	0.09*	-0.05	-0.02	0.07*	1	
MB	0.04	0.05	0.06	-0.05	0.02	0.11*	-0.01	1
SIZE	0.14*	0.06	0.06	0.32*	-0.08*	0.15*	0.03	0.12*

Panel F: Combined S&P sample

	FE	OBS	ТВ	AEM	TaxAvoid	PYFE	ΔFOL	MB
FE	1							
OBS	0.01	1						
TB	0.06*	-0.01	1					
AEM	0.03	-0.1*	-0.05*	1				
TaxAvoid	0.02	-0.08*	-0.24*	-0.2*	1			
PYFE	0.23*	0.03	0.09*	-0.02	0.03*	1		
ΔFOL	0.09*	0	0.01	-0.03*	0.06*	0.05*	1	
MB	0.07*	-0.03*	0.05*	-0.04*	0.03*	0.08*	0.08*	1
SIZE	0.11*	0.01	0.04*	0.46*	-0.04*	0.17*	0.06*	0.38*

This table presents Pearson correlation coefficients among variables for H2. * Indicate statistical significance at the 0.1 level.

FE is a firm's actual earnings in year t + 1 minus the consensus forecasted earnings deflated by stock price. OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. TB is decile rank of the ratio of net tax income to net book income scaled to vary between zero and one.



Net tax income is measured as (TAX/STR) * (1 - STR), where STR is the top U.S. statutory corporate tax rate and TAX is current tax expense. TAX is measured as the sum of current federal (COMPUSTAT item 63) and foreign (item 64) income taxes, or, when either of these amounts is missing, as total income tax expense (item 16) less deferred tax expense (item 50). Net book income is earnings before extraordinary items (item 18). TaxAvoid is an indicator variable which equals one for firm-year observations within the positive book-tax differences group and with CashETRs in the lowest quintile of all firm-years in the sample and not in the OBS subsample, and zero otherwise. AEM is an indicator variable which equals one for firm-year observations within the total (temporary or permanent) book-tax differences group and with modified Jones model discretionary accruals in the top quintile of all firm-years and not in the OBS or TaxAvoid subsample, and zero otherwise. PYFE is the actual earnings minus the median individual forecasted earnings from mid-year of year t, deflated by stock price. ΔFOL is the change in the number of analysts who make earnings forecasts for a particular firm from year t to year t + 1, divided by the number from year t. MB is the ratio of CAP to book value of common equity (item 216). SIZE is the natural log of market capitalization (CAP) measured at year end (item 199 × item 54).



TABLE 9

Regression of Off-Balance-Sheet Financing on the Relation between Book-Tax Differences and Forecast Errors

 $FE_{t+1} = \beta_0 + \beta_1 TB_t + \beta_2 AEM_t + \beta_3 TaxAvoid_t + \beta_4 OBS_t + \beta_5 TB_t *OBS_t + \beta_6 TB_t *AEM_t + \beta_7 TB_t *TaxAvoid_t + \beta_8 SIZE_t + \beta_9 MB_t + \beta_{10} \Delta FOL_{t+1} + \beta_{11} PYFE_t + \varepsilon$

Variable	(1) Securitization Matched	(2) Securitization S&P	(3) Lease Matched	(4) Lease S&P	(5) Combined Matched	(6) Combined <i>S&P</i>
TB	0.004	0.007***	-0.002	0.005**	0.001	0.006***
	(0.009)	(0.002)	(0.015)	(0.002)	(0.009)	(0.002)
AEM	-0.002	0.002	-0.127	-0.002	-0.058	0.001
	(0.011)	(0.003)	(0.132)	(0.004)	(0.049)	(0.003)
TaxAvoid	0.006	0.003	0.008	-0.003	0.005	0.002
	(0.012)	(0.002)	(0.017)	(0.003)	(0.009)	(0.002)
OBS	0.005	0.005	-0.001	0.001	0.004	0.005
	(0.007)	(0.007)	(0.012)	(0.006)	(0.007)	(0.006)
TB*OBS	-0.007	-0.007	-0.024	-0.002	-0.017	-0.007
	(0.011)	(0.010)	(0.028)	(0.009)	(0.015)	(0.009)
TB*AEM	0.013	-0.003	0.133	-0.002	0.069	-0.002
	(0.015)	(0.005)	(0.158)	(0.006)	(0.062)	(0.005)
TB*TaxAvoid	-0.030	-0.003	-0.046*	-0.008	-0.005	-0.002
	(0.037)	(0.004)	(0.024)	(0.008)	(0.018)	(0.004)
SIZE	0.002	0.001*	0.009	0.000	0.007**	0.001*
	(0.001)	(0.001)	(0.006)	(0.000)	(0.003)	(0.001)
MB	0.002	0.000***	0.000	0.000**	0.000	0.000***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ΔFOL	0.015**	0.011***	0.040*	0.006*	0.030**	0.011***
	(0.007)	(0.003)	(0.022)	(0.003)	(0.012)	(0.003)
PYFE	0.145*	0.209***	0.259	0.268***	0.134**	0.211***
	(0.085)	(0.061)	(0.223)	(0.078)	(0.064)	(0.060)
Intercept	0.006	-0.017***	-0.097**	-0.006	-0.068**	-0.031***
	(0.017)	(0.006)	(0.048)	(0.005)	(0.027)	(0.007)
N A 1' B	335	3,152	305	1,056	640	3,338
Adj. R- squared	0.155	0.101	0.138	0.100	0.091	0.102

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.

This table presents the result of OLS regression of sources of book-tax differences on the relation between such differences and forecast errors. The dependent variable, FE, is a firm's actual earnings in year t + 1 minus the consensus forecasted earnings deflated by stock price. TB is decile rank of the ratio of net tax income to net book



income scaled to vary between zero and one. Net tax income is measured as (TAX/STR) * (1 - STR), where STR is the top U.S. statutory corporate tax rate and TAX is current tax expense. TAX is measured as the sum of current federal (item 63) and foreign (item 64) income taxes, or, when either of these amounts is missing, as total income tax expense (item 16) less deferred tax expense (item 50). Net book income is earnings before extraordinary items (item 18). TaxAvoid is an indicator variable which equals one for firm-year observations within the positive booktax differences group and with CashETRs in the lowest quintile of all firm-years in the sample and not in the OBS subsample, and zero otherwise. AEM is an indicator variable which equals one for firm-year observations within the total (temporary or permanent) book-tax differences group and with modified Jones model discretionary accruals in the top quintile of all firm-years and not in the OBS or TaxAvoid subsample, and zero otherwise. OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. TB*OBS, TB*AEM, and TB*TaxAvoid are the interactions between TB and OBS, TB and AEM, and TB and TaxAvoid, respectively. PYFE is the actual earnings minus the median individual forecasted earnings from mid-year of year t, deflated by stock price. ΔFOL is the change in the number of analysts who make earnings forecasts for a particular firm from year t to year t + 1, divided by the number from year t. MB is the ratio of CAP to book value of common equity (item 216). SIZE is the natural log of market capitalization (CAP) measured at year end (item 199 × item 54). For all regressions, I control for year and industry effects and winsorize all continuous variables at 1 percent and 99 percent.



TABLE 10

Descriptive Statistics for H3

Panel A: Securitization matched sample

				Lower					
Variable	N	Mean	Std. Dev.	Quartile	Median	Quartile			
AUDFEE	265	0.592	1.289	-0.342	0.489	1.526			
ABSBTD	265	4.495	1.672	3.494	4.546	5.525			
TEMP	259	3.127	1.748	2.01	3.073	4.253			
PERM	265	4.234	1.814	3.071	4.348	5.437			
OBS	265	0.472	0.5	0	0	1			
ACC	265	0.042	0.2	0	0	0			
<i>TaxAvoid</i>	265	0.03	0.171	0	0	0			
OPINION	265	0.992	0.087	1	1	1			
FOREIGN	265	-0.222	5.973	0	0	0.329			
ln(ASSETS)	265	8.26	1.391	7.383	7.963	9.297			
INV	265	0.184	0.157	0.066	0.143	0.274			
REC	265	0.149	0.126	0.053	0.126	0.207			
LOSS	265	0.208	0.406	0	0	0			
PROFIT	265	0.089	0.067	0.049	0.079	0.111			
BigN	265	0.966	0.181	1	1	1			

Panel B: Lease matched sample

				Lower		Upper
Variable	N	Mean	Std. Dev.	Quartile	Median	Quartile
AUDFEE	418	-0.307	1.124	-1.094	-0.351	0.412
ABSBTD	421	4.019	1.95	2.724	3.989	5.362
TEMP	370	2.778	1.842	1.662	2.857	3.858
PERM	421	3.945	1.939	2.646	3.899	5.241
OBS	421	0.508	0.501	0	1	1
ACC	421	0.09	0.287	0	0	0
TaxAvoid	421	0.067	0.249	0	0	0
OPINION	421	0.007	0.084	0	0	0
<i>FOREIGN</i>	421	-0.301	10.61	0	0	0.224
ln(ASSETS)	421	7.513	1.511	6.517	7.353	8.459
INV	420	0.106	0.136	0.005	0.052	0.145
REC	420	0.157	0.166	0.058	0.124	0.215
LOSS	421	0.356	0.479	0	0	1
PROFIT	420	0.071	0.143	0.024	0.072	0.134
BigN	421	0.981	0.137	1	1	1



Panel C: Securitization S&P sample

				Lower		Upper
Variable	N	Mean	Std. Dev.	Quartile	Median	Quartile
AUDFEE	1,898	1.034	1.064	0.336	1.034	1.755
ABSBTD	1,898	5.162	1.582	4.205	5.172	6.269
TEMP	1,847	3.737	1.596	2.773	3.825	4.82
PERM	1,897	5.176	1.616	4.281	5.201	6.222
OBS	1,898	0.037	0.189	0	0	0
ACC	1,898	0.192	0.394	0	0	0
<i>TaxAvoid</i>	1,898	0.149	0.356	0	0	0
OPINION	1,898	0.002	0.046	0	0	0
FOREIGN	1,898	0.247	0.487	0	0.127	0.46
ln(ASSETS)	1,898	8.909	1.084	8.035	8.835	9.692
INV	1,898	0.112	0.111	0.025	0.084	0.161
REC	1,898	0.138	0.089	0.073	0.127	0.185
LOSS	1,898	0.181	0.385	0	0	0
PROFIT	1,898	0.126	0.084	0.07	0.117	0.175
BigN	1,898	0.987	0.114	1	1	1

Panel D: Lease S&P sample

				Lower				
Variable	N	Mean	Std. Dev.	Quartile	Median	Upper Quartile		
AUDFEE	737	0.333	0.953	-0.33	0.319	0.962		
ABSBTD	737	4.888	1.502	3.816	4.89	6		
TEMP	712	3.384	1.687	2.356	3.516	4.493		
PERM	736	4.803	1.69	3.839	4.878	5.879		
OBS	737	0.102	0.303	0	0	0		
ACC	737	0.174	0.379	0	0	0		
<i>TaxAvoid</i>	737	0.132	0.338	0	0	0		
OPINION	737	0	0	0	0	0		
FOREIGN	737	0.204	0.507	0	0.078	0.415		
ln(ASSETS)	737	8.452	1.167	7.606	8.331	9.311		
INV	737	0.108	0.105	0.02	0.083	0.157		
REC	737	0.135	0.082	0.069	0.126	0.182		
LOSS	737	0.246	0.431	0	0	0		
PROFIT	737	0.12	0.104	0.056	0.115	0.179		
BigN	737	0.991	0.097	1	1	1		



Panel E: Securitization and lease combined matched sample

				Lower		Upper
Variable	N	Mean	Std. Dev.	Quartile	Median	Quartile
AUDFEE	370	-0.285	1.007	-1	-0.285	0.412
ABSBTD	370	4.09	1.732	2.821	4.037	5.358
TEMP	328	2.82	1.687	1.703	2.889	3.854
PERM	370	3.967	1.79	2.713	3.936	5.208
OBS	370	0.524	0.5	0	1	1
ACC	370	0.089	0.285	0	0	0
TaxAvoid	370	0.062	0.242	0	0	0
OPINION	370	0.008	0.09	0	0	0
FOREIGN	370	0.179	0.455	0	0	0.224
ln(ASSETS)	370	7.549	1.363	6.556	7.412	8.477
INV	370	0.108	0.133	0.007	0.055	0.148
REC	370	0.146	0.111	0.058	0.121	0.211
LOSS	370	0.346	0.476	0	0	1
PROFIT	370	0.075	0.098	0.027	0.075	0.132
BigN	370	0.984	0.126	1	1	1

Panel F: Securitization and lease combined S&P sample

				Lower					
Variable	N	Mean	Std. Dev.	Quartile	Median	Quartile			
AUDFEE	2,047	0.936	1.024	0.209	0.956	1.649			
ABSBTD	2,047	5.151	1.487	4.176	5.161	6.238			
TEMP	1,979	3.663	1.599	2.714	3.748	4.727			
PERM	2,046	5.13	1.601	4.244	5.196	6.195			
OBS	2,047	0.071	0.257	0	0	0			
ACC	2,047	0.188	0.39	0	0	0			
TaxAvoid	2,047	0.14	0.347	0	0	0			
OPINION	2,047	0.001	0.038	0	0	0			
FOREIGN	2,047	0.239	0.488	0	0.114	0.449			
ln(ASSETS)	2,047	8.81	1.092	7.958	8.751	9.621			
INV	2,047	0.11	0.109	0.023	0.082	0.16			
REC	2,047	0.137	0.088	0.072	0.125	0.185			
LOSS	2,047	0.201	0.401	0	0	0			
PROFIT	2,047	0.123	0.088	0.066	0.114	0.175			
BigN	2,047	0.988	0.108	1	1	1			

This table presents summary statistics for variables related to H3. AUDFEE is the natural log of audit-related fees. ABSBTD is the natural log of the absolute value of total book-tax differences. ABSTEMP is the natural log of the absolute value of temporary book-tax differences. ABSPERM is the natural log of the absolute value of permanent book-tax differences. OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. ACC is an indicator variable which equals one for firm-years in the top quintile of total accruals scaled by lagged assets, without synthetic leases or securitizations, and not in the TaxAvoid subsample, and zero otherwise. TaxAvoid is an indicator variable which equals one for firm-years in the lowest CashETRs quintile in the sample, without synthetic leases or securitizations, and not in the ACC subsample,



and zero otherwise. *OPINION* is a dummy variable which equals 1 if an audit opinion other than an unqualified opinion is given in the current year, and 0 otherwise. *FOREIGN* is the ratio of foreign pre-tax income (item 273) to total pre-tax income (item 170). *In(ASSETS)* is the natural log of total assets (item 6). *INV* is the total value of inventory (item 3) scaled by assets (item 6). *REC* is the total value of receivables (item 2) scaled by assets (item 6). *LOSS* is a dummy variable which equals 1 if income before extraordinary items and discontinued operations (item 18 - item 66) is negative in the current or prior fiscal year, and 0 otherwise. *PROFIT* is firm profit which is measured by operating income (item 178) scaled by assets (item 6). *BigN* is a dummy variable with a value of one if the firm is audited by a Big 5 (including Arthur Anderson) accounting firm in the current fiscal year, and zero otherwise.



TABLE 11
Pearson Correlations for H3

Panel A: Securitization matched sample

	AUDFEE	ABSBTD	ABSTEMP	ABSPERM	OBS	ACC	TaxAvoid	OPINION	FOREIGN	ln(ASSETS)	INV	REC	LOSS	PROFIT
AUDFEE	1													
ABSBTD	0.64*	1												
ABSTEMP	0.65*	0.79*	1											
ABSPERM	0.66*	0.83*	0.76*	1										
OBS	0.08	0.11*	0.05	0.07	1									
ACC	0.35*	0.37*	0.38*	0.34*	-0.3*	1								
TaxAvoid	-0.05	-0.08	-0.1*	-0.04	-0.21*	-0.07	1							
OPINION	0.1	0.05	0.03	0.03	-0.09	0.03	0.02	1						
FOREIGN	-0.01	-0.09	-0.04	-0.09	-0.09	0.03	0.02	0	1					
ln(ASSETS)	0.76*	0.72*	0.77*	0.69*	0.08	0.37*	-0.16*	0	0.02	1				
INV	-0.5*	-0.36*	-0.37*	-0.38*	-0.06	-0.17*	-0.05	-0.08	0.04	-0.43*	1			
REC	0.36*	0.11*	0.11*	0.15*	0.17*	0.06	-0.1	-0.01	0.01	0.33*	-0.18*	1		
LOSS	0.09	0.12*	0.05	0.1*	0.24*	0.1*	-0.02	-0.06	-0.15*	-0.07	-0.12*	0.04	1	
PROFIT	-0.3*	-0.24*	-0.19*	-0.25*	-0.2*	-0.2*	-0.04*	0.07	0.06	-0.17*	0.29**	-0.15*	-0.53*	1
BigN	0.05*	0.08	0.16*	0.05	0.05	0.06	0.04	-0.02	-0.02	0.12*	0.02	-0.03	-0.06	-0.02

^{*} Indicate statistical significance at the 0.1 level.



Panel B: Securitization S&P sample

	AUDFEE	ABSBTD	ABSTEMP	ABSPERM	OBS	ACC	TaxAvoid	OPINION	FOREIGN	ln(ASSETS)	INV	REC	LOSS	PROFIT
AUDFEE	1													
ABSBTD	0.48*	1												
TEMP	0.41*	0.64*	1											
PERM	0.51*	0.75*	0.57*	1										
OBS	0.03	-0.01	-0.01	-0.03	1									
ACC	0.36*	0.43*	0.45*	0.42*	-0.1*	1								
<i>TaxAvoid</i>	-0.06*	0.01	-0.04*	0.01	-0.08*	-0.2*	1							
OPINION	0	0	-0.01	0.01	0.11*	0.04	-0.02	1						
FOREIGN	0.18*	-0.04*	-0.1*	0.01	-0.02	-0.03	0.01*	-0.02	1					
ln(ASSETS)	0.65*	0.63*	0.64*	0.63*	-0.01	0.61*	-0.13*	0.02	-0.01	1				
INV	-0.19*	-0.25*	-0.21*	-0.21*	0.02	-0.18*	-0.12	0.05*	-0.02	-0.19*	1			
REC	0.15*	-0.1*	-0.1*	-0.06*	0.11*	-0.15*	-0.02	0.01	0.12*	-0.1*	0.13*	1		
LOSS	0.02	0.11*	0.07*	0.05*	0.05*	0.13*	0	0.04*	-0.19*	-0.03	-0.16*	-0.1*	1	
PROFIT	-0.11*	-0.06*	-0.08*	0.01	-0.1*	-0.09*	-0.02	-0.05*	0.1*	-0.09*	0.16*	0.13*	-0.47*	1
BigN	0.07*	0.06*	0.06*	0.05*	0.02	0.06*	-0.04*	0.01	0.02	0.11*	-0.04	-0.03	-0.01	-0.06*

^{*} Indicate statistical significance at the 0.1 level.

Panel C: Lease matched sample

	AUDFEE	ABSBTD	ABSTEMP	ABSPERM	OBS	ACC	TaxAvoid	OPINION	FOREIGN	ln(ASSETS)	INV	REC	LOSS	PROFIT
AUDFEE	1													
ABSBTD	0.61*	1												
ABSTEMP	0.58*	0.75*	1											
ABSPERM	0.61*	0.83*	0.7*	1										
OBS	0.03	0.07	0.13*	0.08*	1									
ACC	0.32*	0.26*	0.2*	0.31*	-0.32*	1								
TaxAvoid	-0.08*	0	-0.02	0	-0.27*	-0.08*	1							
OPINION	0.01	-0.05	-0.02	-0.08	-0.03	-0.03	-0.02	1						
FOREIGN	0.04	0.01	0.01	0.01	0.05	0.01	0.01	0	1					
ln(ASSETS)	0.8*	0.68*	0.68*	0.67*	0.1*	0.37*	-0.07	-0.02	0.04	1				
INV	-0.01	-0.09*	-0.04	-0.05	-0.06	-0.04	-0.13*	0.07	0.04	0.03	1			
REC	0.06	-0.11*	-0.14*	-0.15*	-0.08	-0.09*	-0.04	0.05	-0.03	-0.07	-0.05	1		
LOSS	-0.03	0.14*	0.12*	0.11*	0.05	-0.01	0.04	-0.06	-0.08	-0.17*	-0.16*	-0.05	1	
PROFIT	0.05	-0.13*	-0.11*	-0.05	-0.04	0.04	-0.05	0.06	-0.01	0.12*	0.13*	0.15*	-0.53*	1
BigN	0.13*	0.05	0.06	0.05	0	0.04	-0.1*	0.01	-0.01	0.11*	0.02	0.05	-0.08	0.02

^{*} Indicate statistical significance at the 0.1 level.



Panel D: Lease S&P sample

	AUDFEE	ABSBTD	ABSTEMP	ABSPERM	OBS	ACC	TaxAvoid	FOREIGN	ln(ASSETS)	INV	REC	LOSS	PROFIT
AUDFEE	1												
ABSBTD	0.46*	1											
ABSTEMP	0.41*	0.64*	1										
ABSPERM	0.47*	0.76*	0.57*	1									
OBS	0.02	0.02	0.07*	0.03	1								
ACC	0.39*	0.43*	0.43*	0.41*	-0.15*	1							
TaxAvoid	-0.18*	-0.04	-0.13*	-0.03	-0.13*	-0.18*	1						
FOREIGN	0.11*	-0.02	-0.05	0.04	-0.01	-0.03	-0.03*	1					
ln(ASSETS)	0.69*	0.63*	0.61*	0.59*	0.06	0.57*	-0.2*	0	1				
INV	-0.12*	-0.23*	-0.15*	-0.14*	-0.04	-0.16*	-0.11	-0.01	-0.13*	1			
REC	0.13*	-0.16*	-0.17*	-0.12*	-0.11*	-0.13*	0	0.09*	-0.13*	0.16*	1		
LOSS	0	0.15*	0.11*	0.11*	0.03	0.1*	0.12*	-0.22*	-0.12*	-0.17*	-0.17*	1	
PROFIT	-0.02	-0.06*	-0.03	-0.03	-0.08*	-0.06	-0.12*	0.14*	0.05	0.18*	0.23*	-0.56*	1
$_BigN$	0.04	0.06*	0.05	0.04	0.03	0.05	0	0.01	0.06*	-0.08*	-0.05	0.02	-0.06

^{*} Indicate statistical significance at the 0.1 level.

Panel E: Combined matched sample

	AUDFEE	ABSBTD	ABSTEMP	ABSPERM	OBS	ACC	TaxAvoid	OPINION	FOREIGN	ln(ASSETS)	INV	REC	LOSS	PROFIT
AUDFEE	1													
ABSBTD	0.55*	1												
ABSTEMP	0.5*	0.7*	1											
ABSPERM	0.55*	0.81*	0.65*	1										
OBS	-0.02	0.05	0.08	0.05	1									
ACC	0.28*	0.21*	0.19*	0.27*	-0.33*	1								
TaxAvoid	-0.05	0.03	0.01	0.03	-0.27*	-0.08	1							
OPINION	0.02	-0.07	-0.03	-0.09*	-0.04	-0.03	-0.02	1						
FOREIGN	0.15*	-0.01	-0.08	0.01	-0.11*	0.04	0.09*	0	1					
ln(ASSETS)	0.76*	0.63*	0.61*	0.62*	0.08	0.36*	-0.06	-0.02	0.05	1				
INV	-0.01	-0.1*	-0.08	-0.06	-0.09*	-0.03	-0.13*	0.07	-0.03	0.03	1			
REC	0.06	-0.18*	-0.23*	-0.25*	-0.14*	-0.11*	-0.03	0.08	0.06	-0.16*	0.02	1		
LOSS	-0.04	0.13*	0.12*	0.1*	0.07	-0.05	0.03*	-0.07	-0.19*	-0.2*	-0.15*	-0.08	1	
PROFIT	0.03	-0.17*	-0.07	-0.11*	-0.02	0.08	-0.09*	0.1*	0.08	0.16*	0.12*	0.13*	-0.65*	1
BigN	0.14*	0.02	0.04	0.02	-0.04	0.04	-0.14	0.01	0.05	0.12*	0.04	0.03	-0.09*	0.1*

^{*} Indicate statistical significance at the 0.1 level.



Panel F: Combined S&P sample

•	AUDFEE	ABSBTD	ABSTEMP	ABSPERM	OBS	ACC	TaxAvoid	OPINION	FOREIGN	ln(ASSETS)	INV	REC	LOSS	PROFIT
AUDFEE	1													
ABSBTD	0.45*	1												
ABSTEMP	0.38*	0.62*	1											
ABSPERM	0.48*	0.76*	0.54*	1										
OBS	-0.04*	-0.03	0	-0.04	1									
ACC	0.34*	0.41*	0.42*	0.4*	-0.13*	1								
<i>TaxAvoid</i>	-0.09*	0.01	-0.06*	0.01	-0.11*	-0.19*	1							
OPINION	-0.05*	-0.04*	-0.02	-0.02	0.09*	0.01	-0.02	1						
FOREIGN	0.18*	-0.03	-0.09*	0.02	-0.03	-0.02	0.01	-0.02	1					
ln(ASSETS)	0.64*	0.6*	0.62*	0.59*	-0.01	0.58*	-0.15*	0.01	-0.01	1				
INV	-0.16*	-0.24*	-0.17*	-0.19*	0.01	-0.17*	-0.11*	0.07*	-0.02	-0.16*	1			
REC	0.14*	-0.11*	-0.13*	-0.08*	0.03	-0.14*	-0.01	0.02	0.1*	-0.1*	0.12*	1		
LOSS	-0.04*	0.11*	0.06*	0.05*	0.05*	0.1*	0.04*	0.01	-0.2*	-0.09*	-0.13*	-0.11*	1	
PROFIT	-0.06*	-0.06*	-0.05*	0.01	-0.09*	-0.07*	-0.05*	-0.03	0.11*	-0.05*	0.14*	0.14*	-0.48*	1
BigN	0.06*	0.04*	0.05*	0.04*	0.03	0.05*	-0.03	0	0.02	0.09*	-0.04*	-0.03	0.01	-0.07*

This table presents Pearson correlation coefficients among variables for H3. * Indicate statistical significance at the 0.1 level.

AUDFEE is the natural log of audit-related fees. ABSBTD is the natural log of the absolute value of total book-tax differences. ABSTEMP is the natural log of the absolute value of permanent book-tax differences. OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. ACC is an indicator variable which equals one for firm-years in the top quintile of total accruals scaled by lagged assets, without synthetic leases or securitizations, and not in the TaxAvoid subsample, and zero otherwise. TaxAvoid is an indicator variable which equals one for firm-years in the lowest CashETRs quintile in the sample, without synthetic leases or securitizations, and not in the ACC subsample, and zero otherwise. OPINION is a dummy variable which equals 1 if an audit opinion other than an unqualified opinion is given in the current year, and 0 otherwise. FOREIGN is the ratio of foreign pre-tax income (item 273) to total pre-tax income (item 170). In(ASSETS) is the natural log of total assets (item 6). INV is the total value of inventory (item 3) scaled by assets (item 6). REC is the total value of receivables (item 2) scaled by assets (item 6). LOSS is a dummy variable which equals 1 if income before extraordinary items and discontinued operations (item 18 - item 66) is negative in the current or prior fiscal year, and 0 otherwise. PROFIT is firm profit which is measured by operating income (item 178) scaled by assets (item 6). BigN is a dummy variable with a value of one if the firm is audited by a Big 5 (including Arthur Anderson) accounting firm in the current fiscal year, and zero otherwise.



TABLE 12 Regression of Off-Balance-Sheet Financing on the Relation between Book-Tax Differences and Audit Fees

Panel A: Log of absolute value of total book-tax differences

 $AUDFEE_{t} = \beta_{0} + \beta_{1}ABSBTD_{t} + \beta_{2}OBS_{t} + \beta_{3}TaxAvoid_{t} + \beta_{4}ACC_{t} + \beta_{5}ABSBTD_{t}*OBS_{t} + \beta_{6}ABSBTD_{t}*TaxAvoid_{t} + \beta_{7}ABSBTD_{t}*ACC_{t} + \beta_{j}\sum Controls_{t} + \varepsilon$

Variable	(1) Securitization Matched	(2) Securitization S&P	(3) Lease Matched	(4) Lease <i>S&P</i>	(5) Combined Matched	(6) Combined <i>S&P</i>
ABSBTD	0.154***	0.083***	0.072	0.049	0.075*	0.092***
	(0.056)	(0.014)	(0.044)	(0.031)	(0.043)	(0.015)
OBS	0.407	-0.184	0.036	0.278	-0.011	0.330*
	(0.272)	(0.316)	(0.177)	(0.209)	(0.172)	(0.187)
TaxAvoid	0.995*	0.146	-0.162	0.048	0.030	0.150
	(0.576)	(0.162)	(0.331)	(0.216)	(0.402)	(0.155)
ACC	0.764	0.241	0.056	0.603*	0.067	0.434**
	(0.729)	(0.161)	(0.321)	(0.329)	(0.324)	(0.179)
ABSBTD*OBS	-0.089	0.042	-0.047	-0.071*	-0.034	-0.070*
	(0.064)	(0.057)	(0.046)	(0.043)	(0.046)	(0.036)
ABSBTD*TaxAvoid	-0.183	-0.045	-0.010	-0.048	-0.044	-0.049*
	(0.121)	(0.030)	(0.087)	(0.045)	(0.100)	(0.030)
ABSBTD*ACC	-0.104	-0.050**	-0.033	-0.117**	-0.030	-0.088***
	(0.128)	(0.025)	(0.065)	(0.055)	(0.065)	(0.028)
OPINION	0.836***	-0.851***	0.446***	,	0.412***	-0.932***
	(0.120)	(0.136)	(0.139)		(0.138)	(0.158)
FOREIGN	0.165***	0.311***	0.201***	0.222***	0.246***	0.309***
	(0.051)	(0.038)	(0.069)	(0.062)	(0.070)	(0.036)
n(ASSETS)	0.485***	0.526***	0.570***	0.591***	0.553***	0.534***
	(0.052)	(0.021)	(0.037)	(0.032)	(0.039)	(0.019)
NV	-1.437***	-0.510***	-0.144	-0.271	-0.142	-0.441***
	(0.314)	(0.150)	(0.266)	(0.244)	(0.249)	(0.142)
REC	1.647***	2.598***	1.741***	3.091***	1.794***	2.613***
	(0.411)	(0.212)	(0.270)	(0.334)	(0.289)	(0.197)
LOSS	0.222*	0.168***	0.208**	0.301***	0.232**	0.188***
	(0.115)	(0.044)	(0.088)	(0.068)	(0.090)	(0.040)
PROFIT	-1.513*	-0.969***	-0.687*	-0.563*	-0.479	-0.831***
	(0.801)	(0.204)	(0.408)	(0.290)	(0.450)	(0.183)
BigN	-0.130	0.100	0.300	-0.064	0.290	0.148
	(0.216)	(0.130)	(0.255)	(0.356)	(0.243)	(0.129)
Intercept	-4.718***	-4.773***	-5.314***	-5.106***	-5.377***	-4.046***
	(0.613)	(0.221)	(0.359)	(0.432)	(0.357)	(0.210)
N	241	1,862	375	737	370	2,047
Adj. R-squared	0.749	0.635	0.652	0.580	0.649	0.642



Panel B: Log of absolute value of temporary book-tax differences

 $AUDFEE_{t} = \beta_{0} + \beta_{1}ABSTEMP_{t} + \beta_{2}OBS_{t} + \beta_{3}TaxAvoid_{t} + \beta_{4}ACC_{t} + \beta_{5}ABSTEMP_{t}*OBS_{t} + \beta_{6}ABSTEMP_{t}*TaxAvoid_{t} + \beta_{7}ABSTEMP_{t}*ACC_{t} + \beta_{j}\sum Controls_{t} + \varepsilon$

Variable	(1) Securitization Matched	(2) Securitization S&P	(3) Lease Matched	(4) Lease S&P	(5) Combined Matched	(6) Combined S&P
ABSTEMP	0.196***	0.021	0.034	-0.015	0.071	0.024
	(0.069)	(0.014)	(0.048)	(0.024)	(0.048)	(0.015)
OBS	0.312	-0.077	-0.037	0.367**	0.007	0.195
020	(0.212)	(0.270)	(0.132)	(0.169)	(0.136)	(0.160)
TaxAvoid	0.614**	0.092	-0.398**	-0.102	-0.301	0.078
1 43/11/014	(0.247)	(0.113)	(0.194)	(0.167)	(0.261)	(0.106)
ACC	1.107***	0.038	0.153	0.070	0.237	0.071
arce.	(0.406)	(0.150)	(0.261)	(0.237)	(0.271)	(0.149)
ABSTEMP*OBS	-0.085	0.032	-0.036	-0.116***	-0.060	-0.057
IDSTEINT CDS	(0.073)	(0.064)	(0.050)	(0.043)	(0.051)	(0.040)
ABSTEMP*TaxAvoid	-0.136	-0.045	0.082	-0.016	0.006	-0.044
ABSTEMI TUXAVOIU	(0.092)	(0.030)	(0.087)	(0.049)	(0.110)	(0.029)
ABSTEMP*ACC	-0.204*	-0.019	-0.081	-0.028	-0.117	-0.032
ADSTEMI ACC	(0.108)	(0.029)	(0.076)	(0.050)	(0.078)	(0.032)
OPINION	0.829***	-1.059***	0.415***	(0.030)	0.376***	-1.078***
OI INION	(0.111)	(0.184)	(0.124)		(0.120)	(0.189)
FOREIGN	0.167***	0.305***	0.124)	0.207***	0.276***	0.318***
TOREION	(0.053)	(0.038)	(0.079)	(0.062)	(0.082)	(0.037)
ln(ASSETS)	0.446***	0.568***	0.594***	0.635***	0.577***	0.569***
m(ASSE1S)					- 1	
INV	(0.054) -1.502***	(0.021) -0.609***	(0.032) -0.150	(0.030) -0.435*	(0.034) -0.164	(0.020) -0.631***
IINV						
n E C	(0.307)	(0.149)	(0.271)	(0.240)	(0.259)	(0.141)
REC	1.664***	2.556***	1.707***	2.998***	1.765***	2.505***
7 OGG	(0.422)	(0.218)	(0.278)	(0.342)	(0.304)	(0.203)
LOSS	0.214*	0.210***	0.171*	0.316***	0.188**	0.235***
DD OFF	(0.115)	(0.044)	(0.089)	(0.068)	(0.090)	(0.041)
PROFIT	-1.597**	-0.975***	-0.817*	-0.301	-0.565	-0.740***
	(0.793)	(0.208)	(0.421)	(0.286)	(0.449)	(0.187)
BigN	-0.266	0.085	0.307	-0.095	0.278	0.085
	(0.291)	(0.130)	(0.308)	(0.359)	(0.306)	(0.132)
Intercept	-4.131***	-4.595***	-5.280***	-5.150***	-5.318***	-4.853***
	(0.616)	(0.223)	(0.385)	(0.442)	(0.411)	(0.215)
N	235	1,811	333	712	328	1,979
Adj. R-squared	0.754	0.611	0.668	0.590	0.674	0.640



Panel C: Log of absolute value of permanent book-tax differences

 $AUDFEE_{t} = \beta_{0} + \beta_{1}ABSPERM_{t} + \beta_{2}OBS_{t} + \beta_{3}TaxAvoid_{t} + \beta_{4}ACC_{t} + \beta_{5}ABSPERM_{t}*OBS_{t} + \beta_{6}ABSPERM_{t}*TaxAvoid_{t} + \beta_{7}ABSPERM_{t}*ACC_{t} + \beta_{j}\sum Controls_{t} + \varepsilon$

Variable	(1) Securitization Matched	(2) Securitization S&P	(3) Lease Matched	(4) Lease <i>S&P</i>	(5) Combined Matched	(6) Combined S&P
ABSPERM	0.184***	0.083***	0.069	0.069***	0.084**	0.103***
	(0.049)	(0.014)	(0.043)	(0.025)	(0.039)	(0.015)
OBS	0.509**	-0.316	-0.020	0.430**	-0.011	0.288
	(0.222)	(0.256)	(0.163)	(0.216)	(0.154)	(0.176)
TaxAvoid	1.173***	0.194	-0.548*	0.072	-0.390	0.267
	(0.412)	(0.163)	(0.331)	(0.217)	(0.401)	(0.165)
ACC	1.487**	0.134	0.450	0.425	-0.066	0.328*
	(0.736)	(0.171)	(0.414)	(0.347)	(0.537)	(0.178)
ABSPERM*OBS	-0.115**	0.074	-0.032	-0.097**	-0.035	-0.058*
	(0.056)	(0.046)	(0.044)	(0.043)	(0.042)	(0.034)
ABSPERM*TaxAvoid	-0.236**	-0.053*	0.085	-0.054	0.052	-0.071**
	(0.095)	(0.030)	(0.099)	(0.045)	(0.112)	(0.031)
ABSPERM*ACC	-0.241*	-0.032	-0.116	-0.088	-0.006	-0.072**
	(0.133)	(0.026)	(0.080)	(0.057)	(0.103)	(0.028)
OPINION	0.878***	-0.874***	0.457***	()	0.434***	-0.925***
	(0.103)	(0.110)	(0.129)		(0.121)	(0.148)
FOREIGN	0.149***	0.302***	0.196**	0.201***	0.247***	0.299***
	(0.051)	(0.038)	(0.077)	(0.061)	(0.072)	(0.036)
ln(ASSETS)	0.496***	0.520***	0.564***	0.563***	0.535***	0.520***
,	(0.046)	(0.021)	(0.034)	(0.031)	(0.035)	(0.020)
INV	-1.342***	-0.543***	-0.133	-0.316	-0.162	-0.462***
	(0.316)	(0.147)	(0.275)	(0.238)	(0.247)	(0.140)
REC	1.396***	2.571***	1.805***	2.999***	1.900***	2.558***
	(0.397)	(0.209)	(0.280)	(0.329)	(0.289)	(0.193)
LOSS	0.226**	0.166***	0.157*	0.288***	0.220**	0.189***
	(0.113)	(0.043)	(0.089)	(0.068)	(0.090)	(0.040)
PROFIT	-1.453*	-1.045***	-0.804**	-0.445	-0.517	-0.887***
	(0.766)	(0.205)	(0.408)	(0.293)	(0.422)	(0.185)
BigN	-0.114	0.096	0.328	-0.084	0.284	0.094
	(0.197)	(0.128)	(0.286)	(0.359)	(0.233)	(0.131)
Intercept	-4.912***	-4.686***	-5.273***	-4.931***	-5.277***	-4.852***
1	(0.571)	(0.222)	(0.373)	(0.437)	(0.335)	(0.210)
N	241	1,861	333	736	370	2,046
Adj. R-squared	0.765	0.628	0.686	0.574	0.654	0.642

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.

This table presents the OLS regression result of the effect of off-balance-sheet financing on the relation between audit fees and book-tax differences. *AUDFEE* is the natural log of audit-related fees. In Panel A, *ABSBTD* is the natural log of the absolute value of total book-tax differences. *ABSBTD*OBS*, *ABSBTD*ACC*, and *ABSBTD*TaxAvoid* are the interactions between *ABSBTD* and *OBS*, *ABSBTD* and *ACC*, and *ABSBTD* and *TaxAvoid*, respectively. In Panel B, *ABSTEMP* is the natural log of the absolute value of temporary book-tax



differences. ABSTEMP*OBS, ABSTEMP*ACC, and ABSTEMP*TaxAvoid are the interactions between ABSTEMP and OBS, ABSTEMP and ACC, and ABSTEMP and TaxAvoid, respectively. In Panel C, ABSPERM is the natural log of the absolute value of permanent book-tax differences. ABSPERM*OBS, ABSPERM*ACC, and ABSPERM*TaxAvoid are the interactions between ABSPERM and OBS, ABSPERM and ACC, and ABSPERM and TaxAvoid, respectively.

OBS is an indicator variable which equals one if a firm reports a securitization gain (or synthetic lease) for a year, and zero otherwise. ACC is an indicator variable which equals one for firm-years in the top quintile of total accruals scaled by lagged assets, without synthetic leases or securitizations, and not in the TaxAvoid subsample, and zero otherwise. TaxAvoid is an indicator variable which equals one for firm-years in the lowest CashETRs quintile in the sample, without synthetic leases or securitizations, and not in the ACC subsample, and zero otherwise. OPINION is a dummy variable which equals 1 if an audit opinion other than an unqualified opinion is given in the current year, and 0 otherwise. FOREIGN is the ratio of foreign pre-tax income (item 273) to total pre-tax income (item 170). In(ASSETS) is the natural log of total assets (item 6). INV is the total value of inventory (item 3) scaled by assets (item 6). REC is the total value of receivables (item 2) scaled by assets (item 6). LOSS is a dummy variable which equals 1 if income before extraordinary items and discontinued operations (item 18 - item 66) is negative in the current or prior fiscal year, and 0 otherwise. PROFIT is firm profit which is measured by operating income (item 178) scaled by assets (item 6). BigN is a dummy variable with a value of one if the firm is audited by a Big 5 (including Arthur Anderson) accounting firm in the current fiscal year, and zero otherwise. For each regression, I control for year and industry effects and winsorize all continuous variables at 1 percent and 99 percent.



TABLE 13

Regression of Ranked Securitization Gains on the Relation between Book-Tax Differences and Forecast Errors

 $FE_{t+1} = \beta_0 + \beta_1 TB_t + \beta_2 AEM_t + \beta_3 TaxAvoid_t + \beta_4 OBSrank_t + \beta_5 TB_t *OBSrank_t + \beta_6 TB_t *AEM_t + \beta_7 TB_t *TaxAvoid_t + \beta_8 SIZE_t + \beta_9 MB_t + \beta_{10} \Delta FOL_{t+1} + \beta_{11} PYFE_t + \varepsilon$

	(1)	(2)
Variable	Securitization Matched	Securitization S&P
TB	0.005	0.008**
	(0.011)	(0.004)
AEM	-0.002	0.002
	(0.010)	(0.003)
TaxAvoid	0.006	0.003
	(0.011)	(0.002)
OBSrank	0.002	0.001
	(0.002)	(0.002)
TB*OBSrank	-0.002	-0.002
	(0.003)	(0.003)
TB*AEM	0.014	-0.003
	(0.015)	(0.005)
TB*TaxAvoid	-0.029	-0.003
	(0.036)	(0.004)
SIZE	0.002	0.001*
	(0.001)	(0.001)
MB	0.002*	0.000***
	(0.001)	(0.000)
ΔFOL	0.015**	0.011***
	(0.007)	(0.003)
PYFE	0.146*	0.209***
	(0.084)	(0.061)
Intercept	0.005	-0.018***
	(0.017)	(0.007)
Observations	335	3,152
Adj. R-squared	0.165	0.109

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.

This table presents the result of OLS regression of sources of securitization gains on the relation between such differences and forecast errors based on ranked securitization gains. The dependent variable, FE, is a firm's actual earnings in year t+1 minus the consensus forecasted earnings deflated by stock price. TB is decile rank of the ratio of net tax income to net book income scaled to vary between zero and one. Net tax income is measured as (TAX/STR) * (1 - STR), where STR is the top U.S. statutory corporate tax rate and TAX is current tax expense. TAX is measured as the sum of current federal (item 63) and foreign (item 64) income taxes, or, when either of



these amounts is missing, as total income tax expense (item 16) less deferred tax expense (item 50). Net book income is earnings before extraordinary items (item 18). TaxAvoid is an indicator variable which equals one for firm-year observations within the positive book-tax differences group and with CashETRs in the lowest quintile of all firm-years in the sample and not in the OBS subsample, and zero otherwise. AEM is an indicator variable which equals one for firm-year observations within the total (temporary or permanent) book-tax differences group and with modified Jones model discretionary accruals in the top quintile of all firm-years and not in the OBS or TaxAvoid subsample, and zero otherwise. OBSrank is the quintile rank of scaled securitization gains. TB*OBSrank, TB*AEM, and TB*TaxAvoid are the interactions between TB and OBSrank, TB and AEM, and TB and TaxAvoid, respectively. PYFE is the actual earnings minus the median individual forecasted earnings from mid-year of year t, deflated by stock price. ΔFOL is the change in the number of analysts who make earnings forecasts for a particular firm from year t to year t + 1, divided by the number from year t. MB is the ratio of CAP to book value of common equity (item 216). SIZE is the natural log of market capitalization (CAP) measured at year end (item 199 × item 54). For all regressions, I control for year and industry effects and winsorize all continuous variables at 1 percent and 99 percent.



TABLE 14

Regression of Ranked Securitization Gains on the Relation between Book-Tax Differences and Audit Fees

Panel A: Log of absolute value of total book-tax differences

 $AUDFEE_{t} = \beta_{0} + \beta_{1}ABSBTD_{t} + \beta_{2}OBSrank_{t} + \beta_{3}TaxAvoid_{t} + \beta_{4}ACC_{t} + \beta_{5}ABSBTD_{t}*OBSrank_{t} \\ + \beta_{6}ABSBTD_{t}*TaxAvoid_{t} + \beta_{7}ABSBTD_{t}*ACC_{t} + \beta_{j}\sum Controls_{t} + \varepsilon$

	(1)	(2)
Variable	Securitization Matched	Securitization S&P
ABSBTD	0.142**	0.055***
	(0.066)	(0.020)
OBSrank	0.066	-0.055
	(0.071)	(0.080)
TaxAvoid	1.031*	0.118
	(0.578)	(0.163)
ACC	-0.015	1.012***
	(0.036)	(0.019)
ABSBTD*OBSrank	-0.014	0.013
	(0.017)	(0.014)
ABSBTD*TaxAvoid	-0.180	-0.038
	(0.123)	(0.030)
ABSBTD*ACC	0.028	-0.016**
	(0.036)	(0.008)
OPINION	0.757***	-0.777***
	(0.130)	(0.160)
FOREIGN	0.169***	0.311***
	(0.052)	(0.039)
Ln(ASSETS)	0.497***	0.548***
,	(0.058)	(0.025)
INV	-1.568***	-0.588***
	(0.319)	(0.150)
REC	1.701***	2.526***
	(0.416)	(0.206)
LOSS	0.350***	0.265***
	(0.095)	(0.040)
PROFIT	-0.563*	-0.969***
	(0.290)	(0.204)
BigN	-0.086	0.135
	(0.224)	(0.138)
Intercept	-4.833***	-5.015***
•	(0.619)	(0.240)
Observations	241	1,862
Adj. R-squared	0.745	0.630

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.



Panel B: Log of absolute value of temporary book-tax differences

 $AUDFEE_{t} = \beta_{0} + \beta_{1}ABSTEMP_{t} + \beta_{2}OBSrank_{t} + \beta_{3}TaxAvoid_{t} + \beta_{4}ACC_{t} + \beta_{5}ABSTEMP_{t}*OBSrank_{t} \\ + \beta_{6}ABSTEMP_{t}*TaxAvoid_{t} + \beta_{7}ABSTEMP_{t}*ACC_{t} + \beta_{j}\sum Controls_{t} + \varepsilon$

	(1)	(2)
Variable	Securitization Matched	Securitization S&P
ABSTEMP	0.219***	0.018
	(0.083)	(0.024)
OBSrank	0.077	-0.043
	(0.055)	(0.075)
TaxAvoid	0.583**	0.075
	(0.237)	(0.113)
ACC	1.086***	0.099
	(0.404)	(0.158)
ABSTEMP*OBSrank	-0.024	0.010
	(0.020)	(0.018)
ABSTEMP*TaxAvoid	-0.131	-0.044
	(0.089)	(0.029)
ABSTEMP*ACC	-0.202*	-0.032
	(0.106)	(0.030)
OPINION	0.824***	0.498
	(0.118)	(1.212)
FOREIGN	0.167***	0.326***
	(0.054)	(0.039)
Ln(ASSETS)	0.444***	0.589***
	(0.055)	(0.021)
INV	-1.502***	-0.695***
	(0.306)	(0.151)
REC	1.664***	2.777***
	(0.420)	(0.223)
LOSS	0.222*	0.250***
	(0.114)	(0.046)
PROFIT	-1.646**	-1.056***
	(0.805)	(0.208)
BigN	-0.251	0.053
3	(0.290)	(0.127)
Intercept	-4.161***	-4.926***
	(0.635)	(0.243)
Observations	235	1,847
Adj. R-squared	0.750	0.645

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.



Panel C: Log of absolute value of permanent book-tax differences

 $AUDFEE_{t} = \beta_{0} + \beta_{1}ABSPERM_{t} + \beta_{2}OBSrank_{t} + \beta_{3}TaxAvoid_{t} + \beta_{4}ACC_{t} + \beta_{5}ABSPERM_{t}*OBSrank_{t} + \beta_{6}ABSPERM_{t}*TaxAvoid_{t} + \beta_{7}ABSPERM_{t}*ACC_{t} + \beta_{j}\sum Controls_{t} + \varepsilon$

	(1)	(2)
Variable	Securitization Matched	Securitization S&P
ABSPERM	0.066***	0.211***
	(0.021)	(0.060)
OBSrank	-0.099	0.127**
	(0.074)	(0.060)
TaxAvoid	0.170	1.131***
	(0.161)	(0.406)
ACC	0.001	1.443*
	(0.180)	(0.739)
ABSPERM*OBSrank	0.020	-0.031**
	(0.013)	(0.015)
ABSPERM*TaxAvoid	-0.051*	-0.231**
	(0.030)	(0.094)
ABSPERM*ACC	-0.012	-0.234*
	(0.028)	(0.133)
OPINION	0.189	0.867***
	(0.898)	(0.111)
FOREIGN	0.320***	0.145***
	(0.039)	(0.052)
Ln(ASSETS)	0.540***	0.491***
,	(0.022)	(0.047)
INV	-0.616***	-1.339***
	(0.147)	(0.312)
REC	2.777***	1.393***
	(0.213)	(0.399)
LOSS	0.203***	0.235**
	(0.045)	(0.112)
PROFIT	-1.136***	-1.489*
	(0.205)	(0.772)
BigN	0.069	-0.104
	(0.126)	(0.198)
Intercept	-4.774***	-4.936***
•	(0.241)	(0.593)
Observations	1,897	241
Adj. R-squared	0.653	0.754

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.

This table presents the OLS regression result of the effect of securitization gains on the relation between audit fees and book-tax differences using securitization gains. *AUDFEE* is the natural log of audit-related fees. In Panel A, *ABSBTD* is the natural log of the absolute value of total book-tax differences. *ABSBTD*OBSrank*, *ABSBTD*ACC*, and *ABSBTD*TaxAvoid* are the interactions between *ABSBTD* and *OBSrank*, *ABSBTD* and *ACC*, and *ABSBTD* and *TaxAvoid*, respectively. In Panel B, *ABSTEMP* is the natural log of the absolute value of temporary book-tax



differences. ABSTEMP*OBSrank ABSTEMP*ACC, and ABSTEMP*TaxAvoid are the interactions between ABSTEMP and OBSrank, ABSTEMP and ACC and ABSTEMP and TaxAvoid, respectively. In Panel C, ABSPERM is the natural log of the absolute value of permanent book-tax differences. ABSPERM OBSrank, ABSPERM*ACC, and ABSPERM*TaxAvoid are the interactions between ABSPERM and OBSrank ABSPERM and ACC, and ABSPERM and TaxAvoid, respectively. OBSrank is the quintile rank of scaled securitization gains. ACC is an indicator variable which equals one for firm-years in the top quintile of total accruals scaled by lagged assets, without synthetic leases or securitizations, and not in the TaxAvoid subsample, and zero otherwise. TaxAvoid is an indicator variable which equals one for firm-years in the lowest CashETRs quintile in the sample, without synthetic leases or securitizations, and not in the ACC subsample, and zero otherwise. OPINION is a dummy variable which equals 1 if an audit opinion other than an unqualified opinion is given in the current year, and 0 otherwise. FOREIGN is the ratio of foreign pre-tax income (item 273) to total pre-tax income (item 170). In(ASSETS) is the natural log of total assets (item 6). INV is the total value of inventory (item 3) scaled by assets (item 6). REC is the total value of receivables (item 2) scaled by assets (item 6). LOSS is a dummy variable which equals 1 if income before extraordinary items and discontinued operations (item 18 - item 66) is negative in the current or prior fiscal year, and 0 otherwise. PROFIT is firm profit which is measured by operating income (item 178) scaled by assets (item 6). BigN is a dummy variable with a value of one if the firm is audited by a Big 5 (including Arthur Anderson) accounting firm in the current fiscal year, and zero otherwise. For each regression, I control for year and industry effects and winsorize all continuous variables at 1 percent and 99 percent.



TABLE 15

Regression Analysis of the Effect of Off-Balance-Sheet Financing on Book-Tax Differences with Alternative Cash Effective Tax Rates

	(1)	(2)	(3)
Variable	BTD	TEMP	PERM
Secu_Gain	0.017**	0.000	0.015*
	(0.008)	(0.006)	(0.008)
CashETR_Alt	-0.010	-0.021	0.012
	(0.017)	(0.013)	(0.016)
DISACC	0.186***	0.008	0.172***
	(0.043)	(0.021)	(0.042)
Growth	0.018	0.001	0.015
	(0.011)	(0.004)	(0.012)
NOL	0.844***	-0.006	0.837***
	(0.112)	(0.030)	(0.108)
LOSS	-0.045***	-0.010	-0.030**
	(0.011)	(0.011)	(0.014)
FOREIGN	0.001***	-0.001***	0.002***
	(0.000)	(0.000)	(0.000)
NPPE	-0.024	-0.002	-0.020
	(0.023)	(0.013)	(0.018)
Intang	0.021***	0.010	0.011*
	(0.007)	(0.008)	(0.007)
Equity	-0.282	-0.189	0.045
	(1.473)	(0.813)	(0.850)
MI	1.938**	1.589	0.445
	(0.893)	(1.252)	(1.059)
LAGBTD	0.084		
	(0.052)		
LAGTEMP		0.168***	
		(0.062)	
LAGPERM			0.146**
			(0.065)
Intercept	0.025	0.025	-0.000
	(0.019)	(0.015)	(0.009)
Observations	276	276	273
Adj. R-squared	0.690	0.027	0.753

Adj. R-squared 0.690 0.027 0.753

Robust standard errors are in parentheses. *, **, *** Indicate statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.



This table presents the result of OLS regression of the effect of off-balance-sheet financing on book-tax differences based on an alternative measure of cash effective tax rates. In Column (1), the dependent variable, BTD, is the total book-tax difference, which equals book income less estimated taxable income scaled by average book assets (COMPUSTAT item 6). Book income is pretax income (item 170). Estimated taxable income is calculated by summing the current federal tax expense (item 63) and current foreign tax expense (item 64) and dividing by the 35% statutory tax rate (STR) and then subtracting the change in NOL carryforwards (item 52). If current the federal tax expense is missing, the total current tax expense is calculated by subtracting deferred taxes (item 50), state income taxes (item 173), and other income taxes (item 211) from the total income taxes (item 16). In Column (2), the dependent variable, TEMP, is temporary book-tax difference, which is the sum of U.S (item 269) and foreign (item 270) deferred tax divided by the 35% statutory rate and then scaled by lagged total assets (item 6). In Column (3), the dependent variable, *PERM*, is permanent book-tax difference which equals *BTD* less *TEMP*. *LAGBTD*, LAGTEMP, and LAGPERM are the lagged BTD, TEMP, and PERM, respectively. Secu_Gain is the value of securitization gains scaled by lagged assets. CashETR_Alt is the residual from the regression in which CashETR is regressed on Secu_Gain. CashETR is the five-year effective cash tax rate, which equals sum of cash taxes paid (item 317) over the previous 5 years divided by the sum of pretax income (item 170 - item 17) over the previous 5 years (or 3 years if 5 years of data are unavailable). DISACC is discretionary accruals measured as the residual from the modified Jones model. Growth is the change in net sales (item 12) scaled by lagged assets. $\triangle NOL$ is the change in net operating loss carryforwards (item 52) scaled by lagged assets. Loss is an indicator variable which equals one if a firm reports negative pretax income and zero otherwise (item 170 - item 17). Foreign is the amount of foreign pretax earnings (item 273) scaled by total pretax earnings (item 170). NPPE is the ratio of net property, plant and equipment (item8) to gross property, plant and equipment (item 7). Intang is sum of goodwill (item 204) and other intangibles (item 33) scaled by lagged assets. Equity is income or loss attributable to the equity method (item 55) scaled by lagged assets. MI is income or loss attributable to minority interests (item 49) scaled by lagged assets. For each regression, I control for year and industry effects and winsorize all continuous variables at 1 percent and 99 percent.



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