

## Back on the balance sheet: The tax effects of contingent claims in commercial banking

Derrick Reagle\*

*Department of Economics, Fordham University, Bronx, NY 10458, United States*

Received 22 January 2003; received in revised form 12 October 2003; accepted 27 January 2005

Available online 1 July 2005

---

### Abstract

Contingent claims separate revenue and cost into two different time periods. Revenue comes in the initial origination process, while the cost comes upon completion of the contract in the event of default. With banks increasing contingent claims in recent years, a higher taxable income leads to a shift in a bank's balance sheet toward tax-free income and tax-shielding liabilities. This provides a valuable case-study of corporate finance theories of tax management. This paper builds a model to illustrate the income features of contingent claims. Call Reports from 1990–1996 are examined, and show significant evidence of increases in leverage associated with contingent claims.

© 2005 Elsevier Inc. All rights reserved.

*JEL classification:* G2; G3

*Keywords:* Contingent claims; Tax shields; Off-balance sheet loans

---

In the last two decades, the way loans are financed by commercial banks has changed drastically. [Boyd and Gertler \(1995\)](#) and [Cantor and Demsetz \(1993\)](#) describe the dramatic shift toward off-balance sheet loans. Off-balance sheet loans are originated by a bank, but funded by another party. Thus the bank no longer has a claim on the borrower and the loan is not reflected on the balance sheet. A major part of these off-balance sheet loans are contingent claims on the bank; i.e., loan guarantees. The structure of contingent claims made by banks changes the timing of cash flows to banks. With contingent claims,

---

\* Tel.: +1 718 817 3866; fax: +1 718 817 3518.

*E-mail address:* reagle@fordham.edu.

costs are incurred in a different period than the revenues are earned, rather than a stream of revenue and expenses each period.

With traditional loans, default may occur at any time of the life of the loan. With many contingent claims (e.g. commitments, letters of credit), however, default can only occur at the maturity date. With loans, revenue comes from many activities performed by the bank: origination of the loan, monitoring, and cost of capital. With contingent claims, income comes predominantly at origination. Since contingent claims change the timing of income and expense for banks, they also may affect the choice of assets and liabilities on the balance sheet due to changes in taxable income.

In this paper, I will show how this change in the timing of income provides a valuable natural experiment to test theories of taxable income, as well as an instrument with which to assess the policy implications of banks moving loans off of the balance sheet. The next section presents the literature and motivates the study of off-balance sheet contingent claims. The Second section presents a model of contingent claims and their consequences in the choice of assets. The Third section analyzes U.S. Call Report data from 1990 to 1996, a period of dramatic increase in contingent claims, and finds empirical support for the model. The Final section summarizes the conclusions of the analysis.

## 1. Introduction

Since Modigliani and Miller (1958) and Miller's (1977) subsequent work detailing the irrelevancy of how investments are financed, much effort has been devoted to finding the optimal corporate debt level. Moreover, since interest paid for debt service is tax deductible, much attention is paid in this area to tax management. DeAngelo and Masulis (1980), in "*Optimal Capital Structure Under Corporate and Personal Taxation*," theoretically determine the optimal capital structure with regards to taxes. This optimal capital structure balances the tax deductibility benefits of debt with bankruptcy costs and competing tax shields.

It has been difficult, however, to find unambiguous empirical evidence of tax management by firms. Recent studies have made progress in isolating the tax effects by examining how changes in the leverage decision, rather than the aggregate level of debt, are associated with changes in tax shields.

One branch of the empirical literature (e.g. MacKie-Mason, 1990) focuses on detecting cross-sectional differences in the marginal tax rate. Shevlin (1990) and Graham (1996) explicitly calculate an expected marginal tax rate in the presence of tax shields to get a simulated marginal tax rate. This simulated marginal tax rate reflects the present-discounted tax cost of earning one more dollar in the present period. Using panel data, Graham (1996) finds that higher marginal tax rates are correlated with greater changes in the proportion of debt financing. This is consistent with the use of debt for tax benefits.

Another branch of analysis uses changes in the tax code as a natural experiment to see how firm financing and asset choices change. Givoly, Hayn, Ofer, and Sarig (1992) study the leverage changes after the *Tax Reform Act of 1986*. Scholes, Wilson, and Wolfson (1990) deal explicitly with tax planning by commercial banks in the context of changing regulations on the deductibility of municipal bond interest.

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات