

## MIPS, QUIPS AND TOPRS: OLD WINE IN NEW BOTTLES

by Arun Khanna and  
John J. McConnell,  
Purdue University

**M**onthly Income Preferred Stock (MIPS), Quarterly Income Preferred Stock (QUIPS), and Trust Originated Preferred Stock (TOPRS) all carry the title of preferred stock. As in the case of other forms of preferred stock, if the issuer fails to make a promised periodic payment, investors cannot force the issuer into bankruptcy. Unlike conventional preferred stock, however, when the promised periodic payments are made, these new securities are deductible by the issuer for tax purposes. In short, MIPS, QUIPS and TOPRS appear to have the tax advantages of debt without the potential for bankruptcy with its attendant costs.

Sounds like a good idea for corporate issuers. And between October of 1993—when Texaco, Inc. issued the first of this kind of security—and the end of 1997, at least 285 other corporate issuers came to that conclusion. In the aggregate, these issuers have raised in excess of \$27 billion with the issuance of this novel hybrid security.

But the novelty of MIPS, QUIPS and TOPRS may be more apparent than real. That is not to say that the issuers of MIPS, QUIPS, and TOPRS have been duped in any way. As we will describe in more detail later, MIPS, QUIPS, and TOPRS do present the promise of the tax advantages of debt coupled with the financial flexibility of preferred stock. But there is another security—namely, “income bonds”—that has offered these same advantages for at least the past 100 years. With an income bond, the issuer is obligated to pay interest if, but only if, the company’s before-tax earnings exceed the interest payments that are due. And, if the interest payments are made, they are fully deductible for tax purposes. If the interest is not earned

and, therefore, not paid, investors cannot force the issuer into bankruptcy.

As described in an article called “The Income Bond Puzzle,” which appeared in a predecessor to this journal, income bonds were issued in the U. S. as early as 1873 and continued to be issued during the late 1800s in the course of various railroad reorganizations.<sup>1</sup> Income bonds saw another brief flurry of activity during the 1930s, but have been essentially dormant for the past 60 years. The puzzle in the income bond puzzle is that a security that appears to combine the virtues of debt and preferred stock, and appears to dominate both, was nearly totally ignored by the corporate sector for 60 years. The recent volcanic eruption of MIPS, QUIPS, and TOPRS adds a further twist to the puzzle. These securities appear to offer nothing new. Why are they so popular while income bonds are ignored? The puzzle surrounding the dormancy of income bonds and the popularity of MIPS, QUIPS and TOPRS is actually a smaller part of a larger question: What are the forces that fuel evolution in the design of financial instruments?

In this article, we do not fully answer either of these questions. Our ambitions are more modest.<sup>2</sup> We describe MIPS, QUIPS, and TOPRS in greater detail and review their features in the context of capital structure theory. We also provide data on the number and dollar amounts of MIPS, QUIPS, and TOPRS issued by quarter and by industrial sector. Finally, we examine the stock price reaction of the issuer to the company’s announcement of its intention to issue this novel security. In addressing these smaller questions, we attempt to shed light on the larger issues surrounding the process of financial innovation.

1. John J. McConnell and Gary G. Schlarbaum, (1982), “The Income Puzzle,” *Chase Financial Quarterly*, Vol. 1 No. 4 (1982).

2. Several very interesting and accessible articles on that topic have appeared in this journal. These include John Finnerty, “An Overview of Corporate Securities Innovation,” *Journal of Applied Corporate Finance*, Vol. 4 No. 4 (1992); Merton

Miller, (1992), “Financial Innovation: Achievements and Prospects”, *Journal of Applied Corporate Finance*, Vol. 4 No. 4; and Peter Tufano, (1995), “Securities Innovations: A Historical and Functional Perspective,” *Journal of Applied Corporate Finance*, Vol. 5 No. 1.

## CAPITAL STRUCTURE THEORY AND TAX-DEDUCTIBLE PREFERRED STOCK

MIPS, QUIPS and TOPrS are often referred to as tax-deductible preferred stock.<sup>3</sup> When viewed through the lens of traditional capital structure theory, the tax deductibility of the periodic payments provides MIPS, QUIPS and TOPrS with a tax advantage relative to traditional preferred stock. Relative to debt, however, these new forms of preferred do not have a tax advantage; but they do have an advantage in that the issuer cannot be forced into bankruptcy when a promised payment is not made.

According to traditional capital structure theory, the tax deductibility of interest payments on debt encourages value-maximizing firms to increase their use of debt financing. Offsetting the value of the tax shield created by the deductibility of interest payments is the increased probability of default and bankruptcy with their attendant costs. Thus, the use of "too much" debt can actually reduce the value of the firm.

That's where tax-deductible preferreds come into the picture. With tax-deductible preferred stock, the company reaps the tax benefits of ordinary debt financing without increasing the probability of bankruptcy.<sup>4</sup>

### THE STRUCTURE OF TAX-DEDUCTIBLE PREFERRED STOCK ISSUES

The issuance of a tax-deductible preferred stock is almost, but not quite, as simple as issuing an ordinary bond or preferred stock. To issue a tax-deductible preferred stock, a parent company creates a special purpose Delaware Business Trust, a Limited Partnership (LP), or an offshore corporate subsidiary (os) (we henceforth refer to all three as "special purpose structures"). Once created, the special purpose structure issues preferred stock to public investors. At the same time, the proceeds of the preferred stock issue are used to purchase bonds issued by the parent company. Both transactions occur at market prices, and the yield on the bonds must be great enough to meet the dividends promised on the preferred stock.

However, the payment of interest on the bonds can be deferred at the election of the issuer. In the typical structure, the length of time the interest payments can be deferred is limited by the terms of the bond indenture. A common maximum period for deferral is five years. If a promised interest payment on the bond is deferred, the investor—in this case, the special purpose structure—cannot force the company into bankruptcy until the promised interest payments have been deferred up to the maximum deferral period. Once that time period is reached, the bonds are then in default.

Other features that distinguish one bond from another can also be built into a specific bond. For example, the bond may or may not be callable; the bonds may or may not have a sinking fund provision; interest may be payable monthly or quarterly (or over any other time period) and so on.

Although the bond is not in default when deferral occurs, deferral is not a free lunch. First, deferred interest payments are "cumulative" and earn interest at a compound rate. Second, when a deferral of interest occurs, the bond indenture prohibits payouts to any class of securities that is subordinate to or on equal footing with the bonds underlying the special purpose structure.

In general, the provisions of the preferred stock issued by the special purpose structure mimic those of the bond issue. In any case, because the special purpose structure has no consequential source of earnings other than the bond issue, deferral of dividends on the preferred goes hand-in-glove with deferral of interest on the bonds. The final ingredient, and the one that makes all of this work, is that the income received by the special purpose trust is not taxable.

A specific example is useful in illustrating the major components of a tax-deductible preferred stock. The key features of the TOPrS issued by RJR Nabisco in June 1995 are shown in Table 1. This security was issued by RJR Nabisco to retire its then outstanding ordinary preferred stock. As shown, the aggregate face amounts and annual coupon rates of \$1,225 million and 10% are the same for the bond and the preferred stock; interest and dividend payments are due and payable quarterly; both the bond and the

3. In 1997, two new versions of tax-deductible preferred stock have emerged: FRAPS (by Merrill Lynch) and TRUPS (by Goldman Sachs).

4. Excellent discussions of traditional capital structure theory and its more modern alternatives are available in Michael J. Barclay, Clifford W. Smith and Ross L. Watts, (1995), "The Determinants of Corporate Leverage and Dividend Policies",

*Journal of Applied Corporate Finance*, Vol. 7 No. 4; and Stewart C. Myers, (1993), "Still Searching for Optimal Capital Structure", *Journal of Applied Corporate Finance*, Vol. 6 No. 1; and David J. Denis, (1995), "The Benefits of High Leverage: Lessons from Kroger's Leveraged Recap and Safeway's LBO", *Journal of Applied Corporate Finance*, Vol. 7 No. 4.

Tax-deductible preferreds got off to a modest beginning in 1993 and 1994. Significant growth began in 1995. In 1996, the number of issuers far surpassed that in 1995 and 1997 far outstripped 1996.

**TABLE 1 ■ TOPS ISSUED BY RJR NABISCO IN JUNE 1995**

I. Parent Company Bond Issue		II. Preferred Stock Issue	
Borrower	RJR Nabisco Holdings Corp.	Issuer	RJR Nabisco Holdings Capital Trust I
Lender	RJR Nabisco Holdings Capital Trust I		
Aggregate Amount	\$1,225 million	Aggregate Amount	\$1,225 million
		Stated Value	\$25 per security
Mandatory Retirement	49 years	Mandatory Redemption	49 years
Interest Rate	10% per annum	Dividend Rate	10% per annum
Interest Payment	Interest is due and payable quarterly. The parent company has the option to defer interest payments for up to 20 quarters. If an interest payment is deferred dividends to common and preferred shareholders are prohibited.	Dividend Payment	Dividend is due and payable quarterly. The trust has the option to defer dividend payments for up to 20 quarters.
Call Option	The borrower is entitled to repay the loan at any time after 3 years, at its face amount plus accrued and unpaid interest.	Call Option	The issuer is entitled to redeem the securities after 3 years.
		Listing	NYSE

**TABLE 2 ■ NUMBER AND DOLLAR AMOUNT OF TAX-DEDUCTIBLE PREFERRED STOCKS ISSUED**

Time Period	Number of Issues	Aggregate Amount Raised (\$)	Maximum Issue Size (\$)	Minimum Issue Size (\$)
1st Quarter, 1995	2	550 million	450 million	100 million
2nd Quarter, 1995	9	2,360 million	1,225 million	75 million
3rd Quarter, 1995	15	1,910 million	600 million	60 million
4th Quarter, 1995	14	1,840 million	500 million	60 million
1st Quarter, 1996	11	1,690 million	500 million	75 million
2nd Quarter, 1996	18	3,195 million	800 million	150 million
3rd Quarter, 1996	17	2,275 million	600 million	48 million
4th Quarter, 1996	22	3,140 million	1,000 million	17 million
1st Quarter, 1997	41	2,150 million	500 million	11 million
2nd Quarter, 1997	43	2,130 million	400 million	10 million
3rd Quarter, 1997	42	2,020 million	120 million	10 million
4th Quarter, 1997	36	2,030 million	430 million	10 million
<b>Years</b>	<b>Financial Institutions</b>	<b>Industrials</b>	<b>Communications</b>	<b>Utilities</b>
1995	3 (\$375 million)	15 (\$3,200 million)	6 (\$1,360 million)	16 (\$1,725 million)
1996	18 (\$4,150 million)	28 (\$1,900 million)	8 (\$2,880 million)	14 (\$1,370 million)
1997	106 (\$3,100 million)	29 (\$1,855 million)	10 (\$1,050 million)	17 (\$2,325 million)

\*Financial Institutions includes firms in the 2 digit SIC codes 60 to 64, Communications includes firms in SIC code 47 and 48, Utilities includes firms in the SIC code 49 and Industrials includes firms in SIC codes 28 to 30 and other unclassified firms.

preferred stock are due to mature in 49 years; and both can be called by the issuer after three years. At the election of the parent, interest payments on the bond can be deferred for up to 20 quarters. Deferred interest payments cumulate and earn compound interest at a rate of 10% per year. Deferred dividend payments on the preferred are treated identically.

## ISSUES AND ISSUERS

Table 2 presents the number and dollar amounts of tax-deductible preferreds issued by quarter over the period 1995-1997. Tax-deductible preferreds got off to a modest beginning in 1993 and 1994. Significant growth began in 1995. In 1996, the number of issuers far surpassed that in 1995 and 1997 far outstripped 1996. In terms of the aggregate dollar amount issued, 1996 surpassed the other years with a total of \$10.3 billion. By industrial sector, financial institutions were the largest issuers by number of issues and dollar amount raised.

## TAXES

Extension of the RJR Nabisco example can illustrate the corporate tax savings generated by a tax-deductible preferred relative to an ordinary preferred stock. To calculate the annual tax savings, we use RJR Nabisco's 1995 marginal tax rate of 35%. To calculate the present value of the tax savings, we use a discount rate of 10%. We further assume that the bond issue will be rolled over upon maturity such that the TOPrS will generate a perpetual tax saving. Based on these assumptions, the present value of the tax shield is  $(0.35 \times 0.10 \times \$1,225,000,000) / 0.10 = \$429$  million.

If, in fact, market participants expect the hypothesized tax savings to be realized, the present value of these savings should have been capitalized into RJR's stock price when the market first became aware of the impending tax-deductible preferred stock issue. As of June 1, 1995, the aggregate market value of RJR's common stock was \$7,765 million. In comparison with that aggregate value, the present value of the calculated tax saving (\$429 million) is 5.52%.

Why might market participants not expect the full value of the tax shield to be realized?

First, as Merton Miller demonstrated in his 1977 article "Debt and Taxes," the net tax benefit of corporate financing decisions depends not only on the tax regime confronted by the issuer, but also on the tax regime confronted by the holders of the securities.<sup>5</sup> With ordinary preferred stock, corporate investors are eligible for a dividend received deduction such that 70% of total preferred dividends received are exempt from income taxes. With tax-deductible preferreds this tax exemption is not available. For individual investors, the tax treatment is the same for both types of preferreds.

Second, beginning with the earliest issues of tax-deductible preferreds, issuers have been concerned as to tax treatment of trust preferreds. For example, in January 1996, PacTel announced that it was postponing its planned offering of a \$500 million TOPrS because of a treasury proposal that would have disallowed tax deductions for trust-preferred securities with maturities of longer than 40 years. These concerns were largely resolved in April 1996 by the decisions of two congressional tax-writing committees.

## AN EVENT STUDY OF TAX-DEDUCTIBLE PREFERRED STOCK ISSUES

The RJR Nabisco example illustrates the hypothetical value gain associated with the issuance of a tax-deductible preferred stock. Whether those hypothesized gains are realized is an empirical question.

To answer that question, we compiled a sample of publicly traded companies that announced the issuance of a tax-deductible preferred stock any time during 1995 or 1996. Our sample contains 60 companies.<sup>6</sup> To estimate the market-value effect of the issuance of these securities, we calculate the stock return of the issuer over the three-day interval beginning one day before the announcement and extending through one day after the announcement of its intention to issue a tax-deductible preferred stock. We then adjusted these returns for overall market movements over the same three-day intervals.

The average market-adjusted stock return for the 60 issues over this 3-day interval was +0.39%

5. Merton Miller, (1977), "Debt and Taxes", *Journal of Finance*, 2, 32, 261-275

6. We conducted a search for all public announcement of tax-deductible preferred stock during the years 1995 and 1996, which yielded a sample of 98 issues.

The requirement that the issuer be publicly traded reduced the sample further to 60 issues.

**Cases in which a tax-deductible preferred are issued to retire an existing ordinary preferred represent a natural experiment in which the stock price change reflects only the expected tax savings associated with the tax-deductible preferred.**

with a t-statistic of 2.06. This t-statistic indicates that this average increase in stock prices is statistically significant at the 0.05 level, but the absolute magnitude of stock price increase (0.39%) appears to be rather modest.<sup>7</sup>

But there may be a good reason for this. In the RJR Nabisco example, the TOPrS were issued to replace an existing ordinary preferred stock issue. In cases like these, the issuer is not changing its investment decisions or altering its probability of default. In these cases, the stock price reaction should reflect only the value of the tax shield generated by the transaction. In most cases, however, the proceeds from the preferred stock issuance are used for purposes other than the retirement of an ordinary preferred including such uses as retirement of debt, expansion of property, plant and equipment, working capital investment, acquisitions, and general corporate purposes. In such cases, the stock price reaction reflects the value associated with the intended use of the funds.<sup>8</sup>

Cases in which a tax-deductible preferred are issued to retire an existing ordinary preferred represent a natural experiment in which the stock price change reflects *only* the expected tax savings associated with the tax-deductible preferred. Of our sample of 60 issues, in only 6 cases were the proceeds used primarily for the retirement of an ordinary preferred stock. The average market-adjusted stock return over the 3-day period surrounding the announcement of these six preferred issues was +1.61% (with a t-statistic of 2.14). Furthermore, for five of the six companies, the 3-day market-adjusted stock price change was positive.

By way of comparison, for each of the six companies we calculated the present value of the theoretical tax shield provided by the transaction and divided that number by the market value of the company's common stock. The average of these values was + 1.36%—a number not too different from the calculated stock price reaction. Although this actual gain in market value is consistent with the predicted effect, the sample size is very small and so we caution readers to season these results with a grain (or two) of salt.

## WHERE DO WE STAND?

Tax-deductible preferreds have been extremely popular among corporate issuers. Presumably a large part of their appeal has been their promise of combining the tax savings of debt with the financial flexibility of preferred stock. The results of our empirical experiment support this popular appeal. However, we are still left with the puzzle as to why tax-deductible preferreds are so popular, while income bonds have been nearly shunned by corporate issuers for 60 years?

One possible explanation might lie in the origins of income bonds. These bonds were first issued in large numbers to refinance bankrupt railroads, most of which never recovered from their financial woes. According to Wall Street lore, ever since their inception income bonds have been "tainted" (in the words of an anonymous banker) with "the smell of death."<sup>9</sup> Although such a hypothesis seems implausible to most economists (as Nobel laureate Merton Miller responded to this argument, "pecunia non olet"), history is full of securities that rose sharply, fell just as suddenly out of favor, and then disappeared—only to be revived in somewhat altered form. Perhaps it just took investment bankers 60 years to identify a suitable substitute alternative to income bonds.

Another explanation is that a reasonable alternative did exist. An argument can be made that the high yield (or junk) bonds that were popular during the late 1970s and much of the 1980s offered many of the attributes of income bonds and/or tax-deductible preferreds. How so? One view is that it was widely understood among sophisticated junk bond investors that default on junk bond interest would not lead to outright bankruptcy. Rather, investors would agree to restructure the borrowers debt obligations out of court or through a low-cost prepackaged bankruptcy.<sup>10</sup> If so, junk bonds would have offered the interest tax deduction of ordinary debt without the potential burden of a drawn-out bankruptcy.

However, once junk bonds fell into disrepute during the 1980s as a result of various congress-

7. The market model methodology is used for calculating abnormal returns. This methodology involves estimating the normal return, as the portion of the return that is related to the variation in the market return multiplied by the individual company's beta. The normal return for a company's common stock over the 3-day event period is then subtracted from the stock's raw return to arrive at an estimate of the abnormal return over the event period.

8. For example, when the funds are used to retire debt, the transaction does not have a tax saving component—or at least not in theory.

9. As quoted by Merton Miller, (1977), see note 4.

10. See John J. McConnell and Henri Servaes, (1991), "The Economics of Prepackaged Bankruptcy", *Journal of Applied Corporate Finance*, Vol. 4 No. 2.

sional inquiries, the prosecution of Michael Milken and the demise of Drexel Burnham, it was necessary for bankers to devise yet another device that allowed corporate issuers to secure the benefits of tax-deductible interest payments while controlling the potential for costly bankruptcy. Tax-deductible

preferred were invented to fill that void. Alternatively, there may of course be other more general explanations for the way in which financial securities evolve and the evolution of tax-deductible preferreds might well be explained by that more general theory.

■ JOHN J. McCONNELL

is the Emanuel T. Weiler Professor of Management at the Purdue University's Krannert Graduate School of Management.

■ ARUN KHANNA

is a Ph.D. student of finance at the Purdue University's Krannert Graduate School of Management.