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LEVERAGED PREFERRED FINANCING

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Introduction

With the relatively high cost of raising capital funds for corporations, some financing innovations that capture the tax benefits under the current tax laws have appeared on the corporate scene in recent years. Leveraged preferred financing, akin to leveraged leasing, that allows the maximum benefit to be derived from the tax benefits available, has become a popular means of raising the required capital funds.

In this paper, a general explanation of the leveraged preferred arrangement is given along with a model of the benefits. This is followed by the example of a leveraged preferred arrangement by a major public utility company which involved $50 million.

The Leveraged Preferred Arrangement

The leveraged preferred arrangement is depicted in Figure 1. There are three principal participants: 1) an issuer of preferred stock, 2) a group of investors acting as equity participants and beneficial owners of an owner trust, and 3) a group of institutional lenders to purchase the debt position in the transaction. These participants are brought together by means of two trust arrangements: 1) an owner trust established by the equity participants for the purpose of acquiring the preferred stock and issuing the debt (trust secured notes), and 2) a lender trust established, for the benefit of the lenders, to hold the preferred stock as collateral for the debt portion of the transaction.

Upon the closing of a leveraged preferred financing, the trust arrangements are crystallized into contractual obligations by the formation of a new corporation: the preferred corporation. Formed on the basis of the capital put up by the equity participants, it issues debt instruments to the lenders. The issuing corporation writes redeemable preferred stock for purchase by the new preferred corporation. The loans to the preferred corporation are secured by the preferred stock and an assignment of all payments thereon.

On an ongoing basis, the issuer makes dividend payments on its preferred stock to the Owner Trustee, which then, in turn, makes debt service payments to the lenders. Any excess cash flow is passed on to the equity participants. The advantage for the equity holders is that they not only receive the tax deduction from the interest on the debt, but also realize the full 85% dividend exclusion on the preferred stock. Thus, even when the preferred corporation acts essentially as a pass-through, with most or all of the payments received from the issuer of the preferred stock going out to the lenders, the after-tax cash flows of the equity participants are enhanced by the tax advantages of the arrangement.

Getting the Most from the Arrangement

The return on the equity position can be modelled in a straight-forward way, under the simplifying assumption that all of the cash flows within the arrangement are perpetuities.

Let:

r_e = return on the equity position;

r_p = dividend rate on the preferred stock;

r_d = coupon rate on the bonds;

θ = corporate income tax rate paid by the equity participants;

P = par value of the preferred stock issue (i.e., the amount received by the issuer of the preferred stock);

B = face value of the bonds (i.e., the amount advanced by the debt participants);

α = (P-B)/P = the proportion of the total financing advanced by the equity participants.

The after-tax cash flow received by the equity participants, CF_e, taking into account the 85% dividends-received exclusion, is

(1) $CF_e = (1 - .15\theta)r_p P - (1 - \theta)r_d B.$

Since the amount advanced by the debt participants, B, is equal to $(1 - \alpha)P$, and the amount advanced by the equity participants is αP, equation (1) can be transformed into an expression of the return to the equity position as follows:

(2) $r_e = \dfrac{(1 - .15\theta)r_p P - (1 - \theta)r_d(1-\alpha)P}{\alpha P}$

This reduces and rearranges to:

(3) $r_e = 1/\alpha \left[(1-.15\theta)r_p - (1-\theta)r_d\right] + (1 - \theta)r_d.$

The value enclosed in the brackets is the after-tax spread between the returns from the preferred stock and the interest paid on the debt.

This spread is enhanced by leverage. The last term in equation (3) captures the remainder of the tax advantages generated by the arrangement, which do not vary with leverage.

Table 1 provides an illustration of the return to the equity position for various equity participation levels (α) with the assumption made, for purposes of illustration, that the market rate on debt is 16%, the rate on preferred stock dividends is 12%, and the corporate tax rate is 46%. Even with such a large spread between the rates on debt and preferred, an attractive return on equity is achievable, due to the tax advantages of the arrangement. For example, with 25% of the funding advanced by the equity participants, the rate of return is 18.8% after tax.

Constraints on the Level of Equity Participation

Due to the separate legal status of the preferred corporation, the arrangement must be made in such a way that the funds flowing into the preferred corporation are likely to be sufficient to meet the debt-support obligations. Due to the dividend exclusion on preferred stock held by corporations, the market rate of return on preferred stock (before taxes) is below the market rate on bonds of equivalent risk. Therefore, there is a minimum level of equity participation in the leveraged preferred arrangement, below which there will be insufficient cash inflow. It is necessary that $r_p P$ (the amount received from preferred dividends) be equal to or greater than $r_d B$ (the amount paid in interest on debt in the same period). Since B equals $(1 - \alpha)P$, the constraint can be stated as

$$(4) \quad r_p P \geq r_d (1 - \alpha)P.$$

This reduces and rearranges to

$$(5) \quad \alpha \geq 1 - (r_p / r_d)$$

The proportion of the total financing provided by equity must be at least equal to one minus the ratio of the preferred dividend rate to the coupon rate on the bonds.

In the example used for Table 1, the minimum α is 25%. It is clear from the table that this is also the level of α which provides the highest possible return to the equity participants. To the extent that it exceeds the market rate of return for an investment of equivalent risk, there would be a possibility for the equity participants to pass on part of the excess to the other participants in the leveraged preferred arrangement, by means of a lower-than-market yield on the preferred and a higher-than-market yield on the debt.

It is worth noting that the constrained optimum solution (from the viewpoint of equity) for the level of equity participation results in the preferred corporation being a pass-through, with the amount coming in from preferred dividends just being enough to cover debt support payments.

An Example of Leveraged Preferred Issue

In April 1982, a leveraged preferred financing arrangement was constructed around a $50 million par value issue of 12.31% cumulative redeemable preferred stock by a major public utility company which used the proceeds to finance its ongoing construction program. The Preferred Corporation was formed to buy the issue of preferred stock, and subsequently placed two issues of debt: $32.1 million of 16.75% senior secured notes due in 1998 and $4.5 million of 17% subordinated secured notes due in 1992. Thus, the annual payments (through 1992) were 16.78% of the total of $36.6 million raised from debt participants. The remaining $13.4 million was provided by the equity participants. Therefore, α was 26.8% when the minimum that would have met the constraint was 26.6%. This was as close to the optimum as could be achieved, with amounts rounded to the

nearest $100,000 for transactional convenience.

As in any typical leveraged preferred arrangement, there is a preponderance of non-taxpaying institutions among the debt participants, while the equity participants are of the high-tax-bracket variety. Thus, the arrangement allows for the maximum advantage to be taken of the tax deductions, while much of the interest payments made by the preferred corporation are received as non-taxed income by the lenders.

The issuer of the leveraged preferred stock indemnified the equity participants in the event of a future change in tax laws which would render the tax benefits unavailable. Further considerations for the equity participants were that, due to the multiple equity participants and the trust structure, neither the preferred stock nor the trust debt and its interest were reflected on the financial statements of the equity participants.

With this leveraged preferred arrangement, the company was able to issue preferred stock at approximately 50-75 basis points below market. Their risk exposure due to the indemnification clause was limited by the option to redeem the preferred stock in the event that indemnification expenses increased the cost of the preferred by 50 basis points or more.

The after-tax spread of 2.40% (with a 46% tax rate) contributed to equity participants an overall yield of 17.04% after tax. The debt participants incurred a higher level of risk and consequently higher return in this arrangement than what might be associated with the first-mortgage bonds used to finance the same construction, but they also participated in tax benefits through the leveraged preferred financing arrangement.

Summary

Leveraged preferred financing, a newcomer to the realms of corporate finance, provides a useful vehicle for getting the most out of available tax benefits. For a capital outlay that is a relatively small proportion of the

total preferred financing involved, the equity participants in the preferred corporation get the 85% tax exclusion for the dividends from the entire issue. In addition, the equity participants also get the tax deduction from the interest paid by the preferred corporation to its lenders. Thus, even when the dividend rate on the preferred is well below the interest on bonded debt, the arrangement can be beneficial.

In a private placement of the securities involved in a leveraged preferred financing arrangement, the tax benefits can be shared with the issuer of the preferred stock and with the lenders, by negotiating a lower-than-market yield on the preferred, and a higher-than-market yield to the lenders.

In the ideal arrangement, the equity participants would be in the highest tax bracket, while the debt participants would be institutions which pay no tax (or which provide for long-term deferral of tax). Then the private sector would gain the greatest possible benefit from the dividend exclusion of pre-ferred stock dividends, the interest paid out by the preferred corporation would generate substantial tax shields, but the interest received by the lenders would be untaxed.

Figure 1.

<u>Leverage Preferred Arrangement</u>
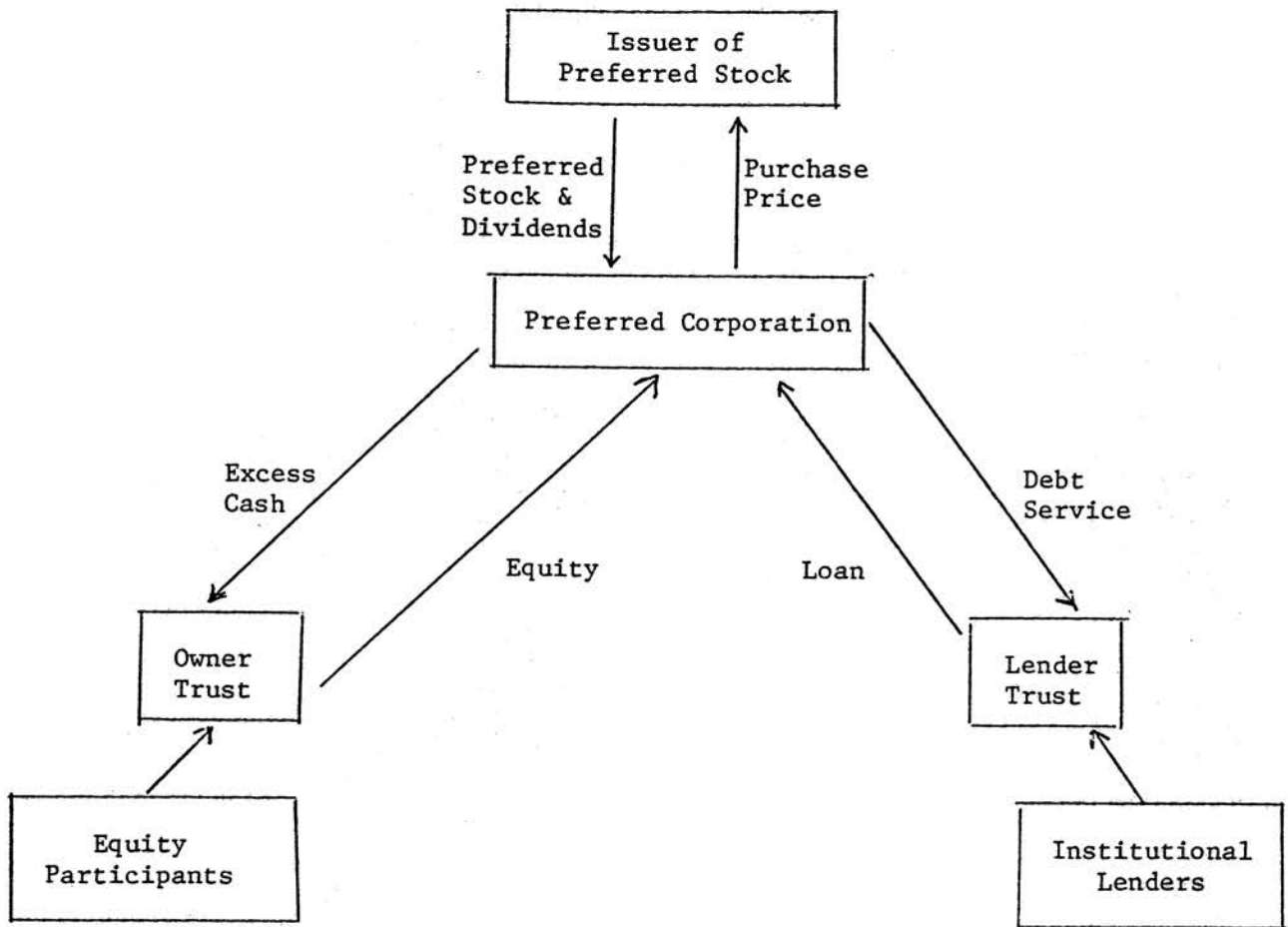
Table 1. After-Tax Rate of Return to the Equity Position
for Various Levels of Equity Participation*

Level of Equity Participation (α)	After-Tax Return on Equity (r_e)
.05	59.28%
.10	33.96%
.15	25.52%
.20	21.26%
.25	18.77%
.30	17.08%
.35	15.87%
.40	14.97%
.45	14.27%
.50	13.70%

* For purposes of this illustration, equation (3) was used to calculate
the return to equity, r_e, and the following values were assumed for the
dividend on preferred, r_p, the interest rate on debt, r_d ,and the income
tax rate, θ.

$$r_p = 12\%$$

$$r_d = 16\%$$

$$\theta = 46\%$$

The minimum level of equity participation that would meet the constraints
is $\alpha \geqslant 1 - (r_p/r_d) = 1 - (.12/.16) = .25$. It is also the point at which the
highest return on equity, 18.77%, is possible.

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