CRE PERSPECTIVE

How Real Estate Debt Affects Asset Allocation

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Real estate leverage generates results not expected or understood by the typical investment professional. It distorts the performance of the bond portfolio and corrupts the carefully planned asset allocation of the total portfolio.

Investors and real estate investment managers commonly use the term "leverage," or mortgage financing, in discussing real estate investment. Known in certain other systems as "gearing," leverage is simply the use of borrowed money in association with the ownership of an asset. In the investment setting, mortgage debt is commonly nonrecourse, meaning that the lender may claim the property following the borrower's default, but may not recover from other assets of the borrower. The borrowing may occur to fund the acquisition, or at a later date, borrowing could provide funds for capital or operating requirements or for distribution to the owners. Both tax exempt and taxable investors use leverage to improve yield and gain control of property for which capital is not otherwise available, and taxable investors may also use debt to multiply tax benefits.

Consumers typically use mortgage financing in the acquisition of a home because of the lack of otherwise available capital for the purchase. Traditionally, homeowners celebrate the day they pay off the mortgage. Many home buyers would pay cash if it were available. (The argument that mortgage debt is desirable because of the tax shelter benefits is specious. It takes a dollar of interest payment—real money—to save $.28 of tax at a 28 percent marginal tax rate. The borrower is still out the other $.72.)

Real estate investment managers acquire property on behalf of institutional and private investors which have allocated a portion of their total portfolio to real estate for three principal reasons: 1). they seek to minimize the impact of volatility of performance of specific asset classes; 2). to hedge against inflation; and 3). to generate attractive levels of current income. These managers may use debt to acquire specific assets or may pledge a group of assets to obtain financing to augment the equity available for real estate investment. If these managers represent only the property component of a portfolio, they are likely to be uninformed about the other components of the institutional portfolio.

Background — The Construction of a Portfolio

A professional portfolio manager carefully constructs the investment portfolio to achieve certain objectives consistent with the needs of the owner of the portfolio. For example, the manager of a pension portfolio strives to assure the payment of accrued benefits to current and future retirees. The manager allocates assets to reflect the ages and years of service of the personnel who will receive pensions. From the individual perspective, a wealthy family may seek capital growth for the next generation, while a retiree may require high current income to cover living costs.

Institutional investors generally recognize asset allocation as being much more important than individual issue selection in achieving portfolio objectives. For example, the selection of an individual stock will be far less significant to the success of the portfolio than will be the decision concerning the proportion of the portfolio allocated to the stock market.

A carefully allocated portfolio typically contains stocks, bonds, and cash equivalents. It may also include real estate, venture capital investments, oil and gas interests, distressed securities, and other asset classes. The stock or equity component may include subsets such as small capitalization stocks and international stocks. The international component may include securities of established firms located in developed countries as well as stocks in new ventures in emerging nations. The opportunities and their combinations are endless.

Each asset class in a portfolio is there for the benefits it imparts. Because each asset class has different characteristics and impacts on the portfolio, the mix of assets chosen to comprise the portfolio represents an optimization designed to achieve the objectives of the investor.

The asset allocation process is technically complex and highly sophisticated. Most institutional investors engage specialized consultants to advise on asset allocation and investment manager selection. This manuscript does not address these issues.

The allocation process views unleveraged real estate as an asset class with unique investment performance characteristics. (This is consistent with the reporting practices of the National Council of Real Estate Investment Fiduciaries

(NCREIF), the recognized leader in the publication of real estate performance data, which reports on real estate as if it carries no debt.)

This manuscript examines the impact of adding debt to the capital structure of otherwise unleveraged real estate. A property can be viewed as a business enterprise appropriately capitalized like any other business with a mixture of debt and equity. Perhaps real estate should be capitalized differently from other enterprises, since unlike a service or manufacturing business, real estate is relatively more dependent on fixed assets (bricks and mortar) and less dependent on working capital and managerial and operating structures.

The Role of Debt

Debt allows the smaller investor to acquire more property than would be possible with equity alone. A dollar of equity can buy a dollar of real estate. A dollar of equity along with three dollars of debt, a typical ratio, will buy four dollars of real estate. If the real estate investment earns more than the debt costs, the leverage is positive and total return of the portfolio is enhanced.

As the savings and loan and the tax shelter industries discovered in the late 1980s, however, debt can cut both ways. Excessive development, financed with mortgage debt, caused supply to overwhelm demand. Rent (the price for the use of space determined by the relationship between the supply and demand curves) fell, and debt went into default. This use of debt was intended to multiply tax benefits by magnifying the amount of depreciable property a dollar of equity could buy. It bore a strong speculative flavor (ultimately disastrous) regarding the property itself but was firmly grounded in the tax environment of the time.

However, debt may be less costly than equity and can therefore enhance the long-term performance of the real estate investment. Consider for example a property leased for 25 years to a company with impeccable credit. If the return on the property is greater than the prevailing interest rate on 25-year mortgages, use of debt may be beneficial. The rental receipts exceed the mortgage interest payments so that the cash flow remaining after interest cost represents a very attractive return on the equity invested in the property. The wisdom of using such financing is difficult to debate. Of course, principal amortization complicates the calculation, but borrowers believe that debt amortization almost always results in an increase in the value of the equity position.

Attacking Conventional Wisdom

A mortgage is a fixed income investment for the investor supplying the mortgage money to the borrower. It fits into that investor's portfolio alongside the bonds and other fixed income investments. As with other fixed income investments, mortgages come in a variety of terms and interest rate structures. A mortgage may require interest only or be amortized partially or completely over its term. The term may be for 25 years or more, or fewer than five years. It may carry a fixed or variable rate for its term, and the rate may involve a spread over any of a number of benchmark rates such as prime, LIBOR, or Treasury instrument rates.

It naturally follows that, if a mortgage loan is a fixed income investment for the supplier of mortgage capital, then it is a "negative" fixed income investment for the mortgage borrower, the party on the other side of the same transaction. After all, a liability for one party (the borrower) is an asset for another (the lender).

The mortgage debt has an impact on the portfolio inverse to that of a fixed income asset. In a deflationary environment with asset values falling, a mortgage obligation does not change in dollar terms. In real terms, it increases in value (to the benefit of the lender and therefor to the detriment of the borrower), magnifying the decline in the real value of the underlying equity. With inflation, the opposite is true.

Likewise, a change in interest rates affects the value of a mortgage. Homeowners demonstrate this in seeking to eliminate high rate mortgage debt in a falling rate environment by refinancing. Conversely they preserve a low rate mortgage when rates are rising. Just as a high rate bond increases in value as rates fall, a high rate mortgage becomes relatively more burdensome to the borrower as cheaper financing becomes available. (Typically, fixed rate residential mortgages are more easily refinanced than similar commercial mortgages in a falling rate environment.)

A More Precise Analysis

A borrower of mortgage financing is more accurately issuing debt. While the U.S. government and large corporations can issue unsecured debt, the typical property owner does not have that credibility or, alternatively, wishes to borrow without exposing other assets to the creditor. The only way to issue debt, therefore, is to secure it with an asset, and real estate by convention serves as collateral.

Looking at debt in this fashion leads one to the conclusion that the desirability of issuing debt is unrelated to the ownership of real estate. The only connection between

real estate and debt is in the customary use of real estate as collateral for the financial activity of issuing debt. In considering the issuing of debt, the investor must analyze this financial activity on its own merits separate from the real estate portfolio.

The typical institutional investor is charged with the prudent management of wealth. This wealth represents insurance policy reserves held on behalf of policy owners; pension reserves working to minimize contributions to the plan while assuring the coverage of future pension liabilities; trust funds left by an individual to cover the needs of surviving family members; and other funds.

It is the role of the institutional investor to manage the wealth of others. It is not appropriate customarily for the institutional investor to expose that wealth to the potential or actual claim of a mortgage lender without fully understanding the impact on the total portfolio. An exception, however, is noted below.

The Real Issue

If the institutional investor considers the issuance of debt, the analysis should be based on an "apples-to-apples" comparison. Matching a real estate asset with a fixed income liability (negative asset) is illogical. To avoid distorting the carefully crafted portfolio, the manager must base the decision to finance real estate on opportunities strictly within the fixed income component of the portfolio. If the manager can issue debt at a rate less than is available in the market for fixed income assets, such issuance may be beneficial. Obviously, instruments with similar terms and interest rate structures must be compared.

For example, if the rate on a 25-year bond is more than the rate on a 25-year mortgage, it may be wise to issue a debt (mortgage) and acquire the corresponding asset (bond), capturing the spread. Credit quality, liquidity, and other considerations bear on the analysis. The manager must also consider both negative and positive reinvestment risk. Specifically, a typical long-term mortgage requires principal amortization, while a bond is interest-only until maturity.

If debt cannot be arranged at a positive spread with corresponding fixed income investments, the investor should not issue the debt. Perhaps the investor should sell bonds (loans to the issuer) from the fixed income portfolio to raise the funds to acquire the real estate. Of course, the investor must face asset allocation considerations very directly in making this shift from bonds to real estate.

If debt is placed on real estate without consideration of the fixed income component of the portfolio, the real impact is to cancel the performance of the bond portfolio to the extent that the mortgage debt has similar characteristics to the bonds. The negative fixed income instrument (mortgage loan) offsets the positive fixed income instrument (bond), with the result being an inadvertent but effective reduction of the bond portfolio. The real estate investment manager who chooses to acquire leveraged real estate for the institutional client has, in effect, multiplied the money handed over by the client and has given the client the performance of real estate to the full extent of the gross real estate value. This concentration of real estate may be higher than the intended allocation by the institutional client to "real estate," and may result in canceling out the performance of a portion of the bond portfolio managed by another investment manager.

The end result is a distortion of a portfolio mix caused by increasing the impact of real estate while reducing the impact of bonds, as compared to the intent of the institutional investor.

To illustrate with a simple example, assume that the portfolio allocation model calls for 55 percent equities (stocks), 35 percent fixed income (bonds), and 10 percent real estate. Further, assume that the real estate investment manager assembles a portfolio of real estate financed with debt equal to 75 percent of its value. To keep the example unrealistically simple, let us further assume that the mortgage debt and the bond portfolio have identical characteristics such as duration and risk. Thus, the 10 percent real estate is matched with debt equal to 30 percent of the portfolio, so that the total real estate value represents 40 percent of the entire investment portfolio.

	Asset Allocation	*Impact Of Debt*	*Effective Allocation*
Stocks	55	0	55
Bonds	35	(30)	5
Real Estate	10	30	40
Total	100	0	100

Of course, the impact on the portfolio will be disguised by burying the effect of the "negative bond" in the reported performance of the real estate portfolio which includes the debt. The investor may remain completely unaware of the ultimate effect on the total portfolio caused by the partial cancellation of the performance of the carefully allocated fixed income portfolio.

An Exception

The investor may be wise to use the maximum possible nonrecourse financing in a certain circumstance. If a component of the portfolio is allocated to very high risk real estate investments, the use of heavy debt and minimal equity in acquiring each asset

may in effect give the investor a "put" to be used if the asset does not perform. The small amount of equity allows the investor to "play" and, if the property works, to realize great returns. On the other hand, if the property fails to meet expectations, the investor can put it to the lender at the amount of the loan, capping the potential loss at the minimal amount of equity invested.

Summary

Mortgage debt must be considered for what it really is—a fixed income liability—which should be associated with the fixed income assets in a portfolio. While real estate serves as collateral, real estate is only incidental to the central activity of issuing debt. If an investor can both lend through the investment in bonds and borrow through the issuance of mortgage debt with a profitable spread, the debt may be useful. In terms of effect on the total portfolio, it is the bond component which is being leveraged. The involvement of real estate as collateral should not confuse the participants as to the real impact on the asset allocation and performance of the portfolio. REI

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