Valuation Considerations for Preferred Equity Interests

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The valuation of preferred equity interests is often influenced by the market-based yields for comparable publicly traded securities. The yields of publicly traded preferred equity securities are typically correlated with corporate bond yields. Therefore, rising interest rates may create opportunities to transfer preferred equity interests at a valuation discount (compared to the stock's par or stated value). This discussion presents (1) Internal Revenue Code professional guidance with respect to the valuation of preferred equity interests, (2) a summary of the generally accepted procedures for developing the valuation of preferred equity interests, and (3) an illustrative example of a preferred equity interest valuation with consideration to the impact of rising interest rates.

Introduction

Estate planners sometimes recommend the recapitalization of their clients' privately owned company stock into preferred equity interests and common equity interests. Such a recapitalization may allow the preferred equity holder to receive a predictable stream of income while allowing the common equity holder to benefit from the appreciation of the privately owned company.

Since the enactment of Internal Revenue Code Sections 2701 and 2704, such common stock to preferred stock recapitalizations have become less popular. However, there are instances when a privately owned company recapitalization may still be a consideration for estate planning.

This discussion does not provide legal advice or estate planning advice. Rather, the purpose this discussion is to provide an overview of preferred stock from a valuation perspective.

Valuation analysts regularly develop fair market value valuations of preferred stock for gift or estate tax planning and compliance purposes. Additionally, valuation analysts are often engaged to determine a reasonable market yield range for a contemplated recapitalization.

In order to develop a credible valuation analysis of preferred equity, an analyst may consider numerous factors, including the following:

1. The rights and preferences of the subject equity interest
2. Revenue Ruling 83-120 guidance
3. The generally accepted valuation methods applied in the equity security valuation analysis

Characteristics of Preferred Stock

Preferred stock (also referred to herein as preferred shares or preferred equity) is a class of equity ownership that is senior to common stock. Preferred stock is a type of hybrid security that consists of elements of both equity and debt.

Similar to a bond, the holder of preferred stock is promised a fixed stream of income, in the form of

dividends, each year. Unlike most bonds, with maturity at some point in time from inception, preferred stock is typically perpetual.

Preferred stock is typically similar to bonds in that preferred shares are not always given voting power over a company's management actions.

However, preferred stock is a class of equity ownership, and it is at the company's discretion to make preferred share dividend distributions each year. Dissimilar to interest payments promised in debt instruments, preferred dividends are not guaranteed.

In addition, preferred equity is subject to different risks and liquidation preferences relative to the interest payments promised in debt instruments.

In addition to the above-mentioned rights, there are several possible additional features or attributes that can, individually or in combination, be attached to preferred equity stock/unit issuance in order to enhance the value of the said preferred equity stock or unit.

Possible additional preferred stock features include, but are not limited to, the following:

1. Redeemable (callable) at the option of the issuer
2. Cumulative distributions (i.e., required distributions made by the company to its preferred stakeholders)
3. Voting rights, which could be shared pro rata with, or superior to, the common equity, or be fractional
4. The right to vote on a "special resolution" to affect a fundamental corporate change
5. Sinking fund requirements (i.e., money set aside or saved by the issuing company) providing for the redemption of the preferred equity by the issuer
6. Convertibility (i.e., the holder's right to convert the preferred equity shares/units into common or participating shares/units, or into another class), usually exercisable during a specified period of time
7. Option or warrant attached, entitling the holder to purchase common stock at prices, in amounts, and during periods, stipulated (e.g., an option—much like a demand note—for the preferred equity investor to demand a redemption or repurchase of the preferred equity stock)
8. Restriction rights (e.g., restricted from public listing or public selling)
9. Participation rights (e.g., once the basic, fixed dividend is paid, the preferred equity stock may share in further distributions along with the common stock)
10. Exchanging rights (either into bonds of the issuer or into common stock of an affiliated entity)
11. Seniority rights (i.e., a provision making the particular class of stock senior to all other preferred classes)
12. The dividend, rather than being fixed, may be a function of the bank prime rate of interest (for example, adjustable rate or variable rate preferred equity stock)
13. There may be a premium paid on the preferred equity shares/units upon a dissolution of the company

As discussed below, the rights of a specific preferred stock interest may have valuation implications. Revenue Ruling 83-120 provides professional guidance to both taxpayers and valuation analysts related to the valuation of preferred interests.

Revenue Ruling 83-120

In valuing the stock of a closely held corporation for estate and gift tax purposes, the valuation analyst typically considers the guidance provided by Revenue Ruling 59-60. Revenue Ruling 59-60 provides guidance related to the general approaches, methods, and factors to be considered in valuing shares of capital stock.

However, Revenue Ruling 59-60 does not provide specific guidance for the valuation of preferred stock or units. Revenue Ruling 83-120 was promulgated for the purpose of providing additional factors to be considered in valuing the preferred stock of a closely held business.

Preferred Stock Considerations

According to Revenue Ruling 83-120, in general, the important factors to be considered in developing the valuation of preferred stock include the following:

1. Dividend yield
2. Dividend coverage
3. Protection of its liquidation preference

The following discussion provides a summary of each factor, as described in Revenue Ruling 83-120:

- Dividend Yield – Whether the yield of the preferred stock supports a valuation of the stock at par value depends in part on the adequacy of the dividend rate.

  The adequacy of the dividend rate should be determined by comparing its dividend rate with the dividend rate of high-grade publicly traded preferred stock.

  A yield lower than that of high-grade preferred stock indicates a preferred stock value of less than par. If the rate of interest charged by independent creditors to the corporation on loans is higher than the rate such independent creditors charge their most credit worthy borrowers, then the yield on the preferred stock should be correspondingly higher than the yield on high quality preferred stock.

  Ideally, publicly traded preferred stock for companies having a similar business and similar assets with similar liquidation preferences and terms would be identified in order to determine a yield required in arm's-length transactions for closely held preferred stock.

  However, such comparable securities frequently do not exist. Therefore, the guideline publicly traded securities may be selected for comparison with appropriate adjustments made for differing factors.

- Dividend Coverage – The actual dividend rate on a preferred stock can be assumed to be its stated rate if the issuing corporation will be able to pay its stated dividends in a timely manner and will, in fact, pay such dividends.

  The risk that the corporation may be unable to timely pay the stated dividends on the preferred stock can be measured by the coverage of such stated dividends by the corporation's earnings.

  Coverage of the dividends is typically measured by the ratio of:

  1. The sum of pretax and pre-interest earnings to
  2. The sum of the total interest to be paid and the pretax earnings needed to pay the post-tax dividends

  Inadequate coverage exists where a decline in corporate profits would be likely to jeopardize the corporation's ability to pay dividends on the preferred stock. The ratio for the preferred stock in question should be compared with the ratios for high quality preferred stock to determine whether the preferred stock has adequate coverage.

  Prior and prospective earnings history may be important in this determination. Inadequate coverage may indicate that the value of preferred stock is lower than its par value. Moreover, the absence of a provision that preferred dividends are cumulative raises questions concerning whether the stated dividend rate will, in fact, be paid.

  Preferred stock with noncumulative dividend features will normally have a value substantially lower than a cumulative preferred stock with the same characteristics.

- Protection of Liquidation Preference – Whether the issuing corporation will be able to pay the full liquidation preference of the preferred stock at the date of liquidation should be taken into account in determining fair market value.

  This risk can be measured by the protection afforded by the corporation's net assets (or equity). Such protection can be measured by the ratio of the excess of the market value of the company's assets, divided by its liabilities to the aggregate liquidation preference.

  The protection ratio may be compared with the ratios for high quality preferred stock. This comparison may consider the adequacy of coverage.

  Inadequate asset protection exists where any unforeseen business events would be likely to jeopardize the corporation's ability to pay the full liquidation preference to the holders of the preferred stock.

Additionally, Revenue Ruling 83-120 states that the following factors should be considered in the valuation of preferred interests:

- Voting Rights – Another factor to be considered is whether the preferred stock has voting rights and, if so, whether the preferred stock has voting control.
- Covenants – Peculiar covenants or provisions of the preferred stock of a type not ordinarily found in publicly traded preferred stock should be carefully evaluated to determine the effects of such covenants on the value of the preferred stock.

In general, if covenants would inhibit the marketability of the stock or the power of the holder to enforce dividend or liquidation rights, such provisions may reduce the value of the preferred stock by comparison to the value of preferred stock not containing such covenants or provisions.

- Redemption Privilege – Whether the preferred stock contains a redemption privilege is another factor to be considered in developing the value of preferred stock.

  The value of a redemption privilege triggered by death of the preferred shareholder may not exceed the present value of the redemption premium payable at the preferred shareholder's death (i.e., the present value of the excess of the redemption price divided by the fair market value of the preferred stock upon its issuance).

  The value of the redemption privilege may be reduced to reflect any risk that the corporation may not possess the sufficient cash needed to redeem its preferred stock at the stated redemption price.

Revenue Ruling 83-120 also provides guidance related to the effects of the preferred stock on common stock valuation.

Common Stock Considerations

Revenue Ruling 83-120 summarizes the following considerations with rest to common stock valuation:

- Preferred Stock Participation – If the preferred stock has a fixed dividend rate and is nonparticipating, the common stock has the exclusive right to the benefits of future appreciation of the value of the corporation.

  This right is valuable and usually warrants a determination that the common stock has substantial value. The actual value of this right may depend on the corporation's past growth experience, the economic condition of the industry in which the corporation operates, and general economic conditions.

  The factor to be used in capitalizing the corporation's prospective earnings may be determined after an analysis of numerous factors concerning the corporation and economy as a whole (see Revenue Ruling 59-60).

- Voting Rights – A factor to be considered in determining the value of the common stock is whether the preferred stock has voting rights.

  Voting rights of the preferred stock, especially if the preferred stock has voting control, could under certain circumstances increase the value of the preferred stock and reduce the value of the common stock.

  This factor may be reduced in significance where the rights of common stockholders as a class are protected under state law from actions by another class of shareholders, particularly where the common shareholders, as a class, are given the power to disapprove a proposal to allow preferred stock to be converted into common stock.

The issue of preferred stock participation can have material impacts on a common stock valuation analysis. Cash flow that would otherwise be distributed to the common stockholders may be absorbed by the preferred stockholders.

This factor may have liquidity implications for common stockholders and may be considered by the analyst when determining applicable valuation adjustments for lack of marketability.

An analyst should not ignore preferred equity capital when discounting future cash flow. The typical present value discount rate to apply to net cash flow to invested capital is a company's weighted average cost of capital ("WACC").

The WACC represents the weighted average cost of each of the components in a company's actual capital structure (i.e., debt, common shareholders' equity, and preferred shareholders' equity capital).

The basic formula for computing a company's after-tax WACC is presented as follows:

$$\text{WACC} = (K_e \times W_e) + (K_p \times W_p) + (K_d[1—t] \times W_d)$$

where:

K_e	=	Company's cost of equity capital
K_p	=	Company's cost of preferred equity capital
K_d	=	Company's cost of debt capital
W_e	=	Percentage of equity capital in the capital structure
W_p	=	Percentage of preferred equity capital in the capital structure
W_d	=	Percentage of debt capital in the capital structure
t	=	Company's effective corporate income tax rate

When developing a business valuation, an analyst may consider a company's (1) cost of preferred equity capital and (2) percentage of preferred equity in the total capital structure.

Preferred Equity Analysis

The following provides general guidance for valuing preferred equity interests while applying the considerations of Revenue Ruling 83-120. Every valuation is unique and the specific factors applicable to the subject interest should be considered when determining the appropriate methodology for valuing a preferred equity interest.

The following discussion is intended to provide a general (but not necessarily complete) process for analyzing a preferred equity interest.

In estimating the fair market value of a preferred equity, the analyst may consider the following:

1. The rights and preferences of the subject interest
2. The above-mentioned guidance provided by Revenue Ruling 83-120
3. The generally accepted valuation methods applied in equity security valuation analysis

One simple valuation formula for preferred equity stock/unit is expressed as follows:

$$\frac{\textit{Annual Dividend Payments}}{\textit{Required Rate of Return}}$$

This is an example of the dividend discount method ("DDM") applicable for perpetual cash flow.

The DDM considers the cash flow (annual dividend payments) distributed to the investor of the preferred equity stock/unit.

The discount rate (required rate of return) applied in the DDM is a function of market rates of interest. It also contains a risk component arising from the inability to accurately predict future cash flow. The risk may result from such fundamentals as the company's underlying financial condition and earning power.

Consequently, the DDM method is to estimate a market value of the preferred equity stock/unit by applying a required rate of return to the annual dividend payments.

If the preferred equity stock/unit is redeemable and not convertible, its value may be expressed as follows:

$$\sum_{t=1}^{n} \frac{C_t}{(1+k)^t}$$

where:

C_t = Cash flow (including redemption price and dividends) generated in the future period

t = Period when cash flow is generated

k = Required rate of return at which cash flow is to be discounted back to the present

n = Number of periods until redemption

The required rate of return applied to discount the expected cash flow is based on an assessment of the risk through two specific components:

1. Issue-specific risk (i.e., risk inherent in the particular class of preferred equity stock/unit being valued, in particular the specific attributes and characteristics of the stock/unit)
2. Company-specific risk (i.e., risk relating to the issuer itself)

Whether the market required rate of return (usually expressed as a yield on the preferred equity stock/unit) supports a valuation of the preferred

equity stock/unit at its stated face value partly depends on the adequacy of the dividend rate.

Required Market Rate of Return

The required rate of return is determined by comparing the subject dividend rate with that of a high grade, publicly traded guideline preferred equity stock/unit.

If the interest rate charged by arm's-length lenders on the corporation's debt is higher than the rate charged by most creditworthy borrowers (e.g., AAA-rated borrowers), then the required rate of return on the preferred equity stock/unit should correspondingly be higher than the required rate of return on a high quality guideline preferred equity stock/unit.

As stated in Revenue Ruling 83-120, such comparables frequently do not exist. Therefore, the guideline publicly traded securities may be selected for comparison with appropriate adjustments made for differing factors.

In some instances, corporate bonds may be the best guideline publicly traded securities. However, it is important to consider the specific rights and features of the subject preferred equity stock/unit.

Unlike most bonds, with maturity at some point in time from inception, preferred stock is typically perpetual. Due to this, long-dated corporate bonds may be more applicable than short-dated corporate bonds.

All else equal, long-dated corporate bonds typically offer a higher interest rate than short-dated corporate bonds. This higher interest rate is attributable to the additional interest rate volatility exposure that a long-dated bond holder is subject to.

The impact of increasing interest rates is illustrated later in this discussion.

Lack of Marketability Considerations

An adjustment to the required market rate of return may be applicable depending on the specific rights and preferences of the preferred stock/unit.

Preferred equity stocks/units may be subject to an adjustment for lack of marketability if:

1. there is no retraction feature;
2. the holder of the preferred equity stock/unit does not control the subject company;

3. there is no "put" provision for the preferred equity stock/unit in the partners' buy/sell agreement (if any); or
4. there are restrictions on transferability, pursuant to corporate law and/or agreement among the company's partners.

Even if the preferred equity stock/unit is retractable, such feature provides liquidity only if the issuer has the financial capacity to redeem the preferred equity stock/unit when the investor makes such a request.

In estimating the fair market value of a preferred equity interest, the analyst may consider the expected dividend coverage and expected liquidation coverage of the subject interest, as well as other financial coverage and liquidity metrics.

The dividend coverage ratio is typically calculated as follows:

$$\frac{Net\ Income}{Required\ Preferred\ Dividend\ Payout\ Amount}$$

A preferred dividend coverage ratio below one indicates that a company will not be able to cover its annual preferred dividend payout amount. As a company offers additional preferred stock, the net income required to meet the preferred dividend payout amount increases.

When analyzing preferred stock, it may be important to consider the prospective net income of the issuing company. Although a company may

be able to fulfill its preferred dividend payouts now, does not mean the company may be able to fulfill its preferred dividend payouts into perpetuity.

The analyst typically considers the long-term net income expectations of the issuing company.

Impact of Rising Interest Rates

Although preferred stock is not a debt security, interest rates are typically correlated with the required rate of return of preferred stock. The general theory is that preferred stockholders have less of a claim in bankruptcy and, therefore, preferred stock yields are typically higher than more senior debt instruments.

Preferred stock can be viewed as a premium spread over its debt counterparties. A holder of preferred stock is less likely to receive bankruptcy proceedings relative to holders of debt and, therefore, the risk is usually captured in a premium over debt yields in the same company.

Interest rate risk is often present in preferred stock because higher interest payments can:

1. reduce a company's willingness to make optional dividend payments or
2. push a company into bankruptcy because of an inability to make interest payments.

Valuation Example

The following simplified example illustrates:

1. the valuation of a hypothetical preferred equity unit and
2. the potential valuation implications of increasing interest rates.

As of June 1, 2021, an investor John P. Investor considers an investment in a private business called XYZ Company. John P. Investor desires a fixed payment and perpetual investment opportunity in XYZ Company.

Fortunately for John P. Investor, XYZ Company is offering one share of preferred stock with a $100 par value and a fixed stated dividend yield of 5 percent.

John P. Investor calculates the value of the preferred stock using the previously described DDM:

$$Value\ of\ XYZ\ Company\ Preferred\ Stock = \frac{\$5\ per\ share}{Required\ rate\ of\ return\ (required\ dividend\ yield)}$$

One component of John P. Investor's analysis is determining the required rate of return, or yield, to use in discounting the future dividend stream to a present value.

Exhibit 1 represents the impact of the stated dividend yield and required rate of return on the price of preferred stock relative to par value.

The required rate of return is often established by reviewing market rates of return of other similar, but publicly traded, preferred stock securities. The availability of publicly available preferred stock data is often limited.

An alternative to searching for publicly traded preferred stock data is observing corporate bonds of companies comparable to the Subject Company issuing the preferred stock (in this case, XYZ Company).[1]

In order to determine which public company corporate bond yield is the most applicable to the preferred stock of XYZ Company, John P. Investor first assesses the credit quality of the subject preferred interest.

While the subject preferred interest may not be rated by a credit rating agency, the analyst can develop a synthetic credit rating for the equity interest by analyzing certain coverage ratios related to dividends and liquidation.

After an analysis of XYZ Company, John P. Investor identifies that the financial ratios of XYZ Company are most comparable to high quality, AAA-rated companies.

Subsequently, John P. Investor selects publicly traded corporate bonds—that have similar business operations, features, and credit quality as the subject preferred interest.

John P. Investor analyzes the publicly traded corporate bond yields and selects a market yield to maturity, or required rate of return, of 4 percent.[2]

Exhibit 1
Impact on Preferred Stock Value of Dividend Yield and Required Rate of Return

Characteristic	Price of Preferred Stock Relative to Par Value
Stated Dividend Yield > Required Rate of Return	Premium Price Relative to Par Value
Stated Dividend Yield = Required Rate of Return	Price Equal to Par Value
Stated Dividend Yield < Required Rate of Return	Discount Price Relative to Par Value

John P. Investor then reviews the specific rights and features of the preferred interest, in order to determine if a discount or premium should be applied relative to the comparable market yield.

As presented in Exhibit 2, John P. Investor identifies the rights and features of the preferred interest issued by XYZ Company and its effects on an investor's required rate of return.

In this case, John P. Investor identifies an additional risk premium adjustment relative to the subject preferred stock stated dividend yield of 4 percent. Therefore, the required rate of return of the preferred stock held by John P. Investor is 5 percent.

The formula for the value of the preferred stock is presented as follows:

$$Value\ of\ Preferred\ Stock = \frac{\$5}{5\%}$$

$$Value\ of\ Preferred\ Stock = \$100$$

Exhibit 2
John P. Investor Illustrative Example
Analysis of Hypothetical Preferred Stock

Characteristic of XYZ Company Preferred Stock	Effect on the Yield (Risk) of the Preferred Interest
Nonconvertible	Increases required rate of return
Cumulative	Decreases required rate of return
Fixed Dividend Rate	Depends on the market rate of return [a]
Liquidation Preference	Increases required rate of return
Nonparticipating	Increases required rate of return
No Put Option	Increases required rate of return
Nonredeemable	Decreases required rate of return
Nonvoting	Increases required rate of return

[a] Typically, if the market rate of return is greater than the fixed dividend rate, then the required rate of return increases. Likewise, if the market rate of return is less than the fixed dividend rate, then the required rate of return decreases.

As presented above, the value of the preferred stock in this example is equal to the par value of $100 per preferred stock share.

Current Interest Rate Environment

Continuing from the previous example of the preferred stock interest held by John P. Investor, we will look at a hypothetical valuation of the same preferred stock interest, assuming it is observed in a rising interest rate environment.

Although interest rates are currently below long-term historical levels, interest rates have increased during the short term.

Figure 1 presents investment-grade, high-quality market corporate bond spot rate data compiled by the Federal Reserve Economic Data ("FRED") from December 1, 2020, through June 1, 2022.

Let's assume that John P. Investor decides to sell his preferred stock interest in XYZ Company. Since XYZ Company stock is privately traded, John P. Investor performs the same preferred stock analysis as before in order to determine the potential gain (or loss) on his investment.

John P. Investor selects publicly traded corporate bonds—that have similar business operations, features, and credit quality as the subject preferred interest. John P. Investor realizes current broad market interest rates increased over the year leading up to June 2022.

John P. Investor also notices the yield to maturity on comparable companies that were AAA rated with similar rights and provisions is approximately 6 percent. Therefore, John P. Investor determines the new required market rate of return is approximately 5 percent, representing a 1 percent increase from June 2021.

John P. Investor also determines the same 1 percent risk premium adjustment to be applicable. Therefore, John P. Investor determines the applicable preferred rate of return for XYZ Company stock is 6 percent as of June 2022.

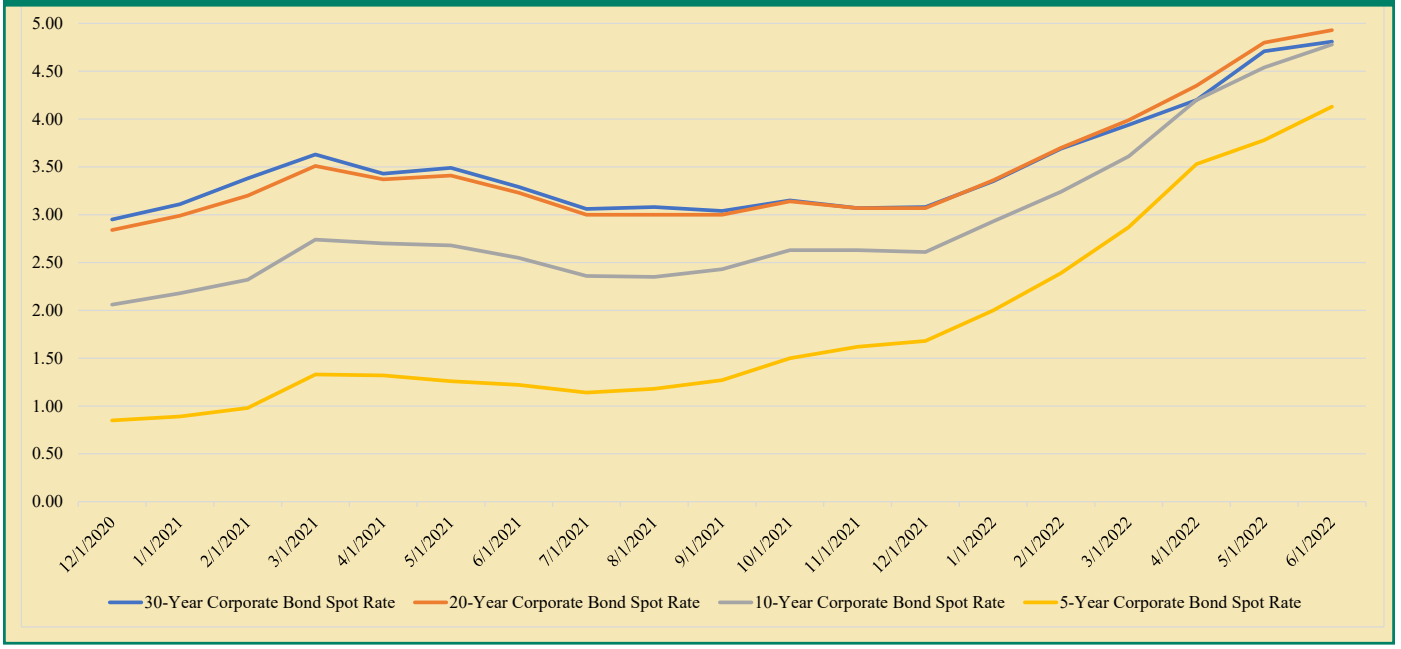
Presented below is the implied valuation of the XYZ Company preferred stock as of June 2022:

$$Preferred\ Stock\ Value = \frac{\$5}{6\ percent\ (the\ required\ rate\ of\ return\ determined\ by\ the\ investor)}$$

$$Value\ of\ Preferred\ Stock = \$83$$

Based on this simplified example, a 1 percent increase in the market required rate of return caused a $17 (or 17 percent) valuation discount relative to the June 2021 value of $100 per share.

Figure 1
Investment-Grade, High-Quality Market Corporate Bond Spot Rate - FRED Data



This valuation example illustrates the impact of broader interest rates on preferred stock.

The analyst valuing a preferred stock may consider (1) the security's rights and features, (2) an analysis of similar companies to the company issuing preferred stock (including similar credit ratings and business operations), and (3) an analysis of the comparable publicly traded preferred stock yields.

Summary and Conclusion

Valuation analysts are often engaged to:

1. provide financial consulting services related to the issuance of preferred equity and
2. develop the fair market value valuation of transferred preferred equity interests.

In the valuation of preferred equity interests for gift or estate tax purposes, the analyst may consider (1) the rights and preferences of the subject interest, (2) the guidance provided in Revenue Ruling 59-60, (3) the guidance provided in Revenue Ruling 83-120, and (4) the generally accepted valuation methods applied in equity security valuation analysis.

One component of any preferred stock analysis is determining the applicable required rate of return for the subject preferred equity interest. Often, comparable publicly traded securities do not exist, and the analyst may apply best judgement and expertise in order to determine the most applicable market rate of return.

The analyst may apply judgment when selecting a discount or premium to apply to the market rate of return. This process requires an understanding of the rights and privileges of the subject preferred equity, as well as an understanding of the risks associated with the subject company.

Notes:

1. Corporate bond yields may be dissimilar to preferred stock yields due to factors such as (1) seniority to preferred stock in the event of bankruptcy or sale of the company and (2) interest payments are legally required to be paid, rather than dividends, which may or may not be agreed by a company's board of directors. For these reasons, preferred stock typically implies a higher yield than its corporate bond counterpart.
2. The yield to maturity is the rate investors will earn when holding a bond until it reaches maturity. The yield to maturity represents the required rate of return of an investment.

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