

Dividend Investing in a Low Rate Environment

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April 2019

Executive Summary

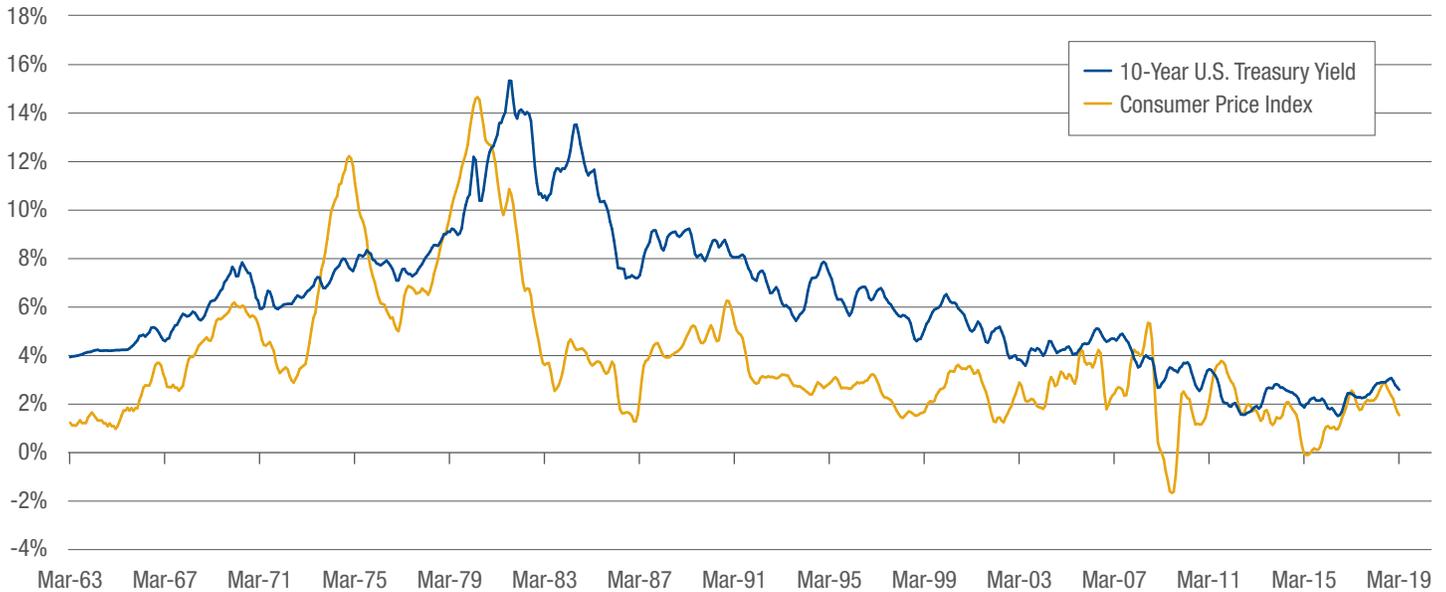
- What worked decades ago—owning bonds yielding several hundred basis points above inflation—has been systematically undone by a secular decline in bond yields.
- Consider investing in dividend-paying stocks. In addition to the potential for capital appreciation, the environment suggests that current dividend yields are quite competitive with certain asset classes traditionally relied on for attractive income.
- Dividend-paying stocks may present a compelling risk-adjusted return option for investors who can accommodate an uptick in volatility (versus fixed income) in order to gain additional yield and capital appreciation.

Introduction

In retrospect, it all seemed so simple: generate enough income by just buying U.S. Treasuries and live off the yield. But, what worked decades ago—owning bonds yielding several hundred basis points above inflation—was systematically undone by a secular decline in bond yields. Fast

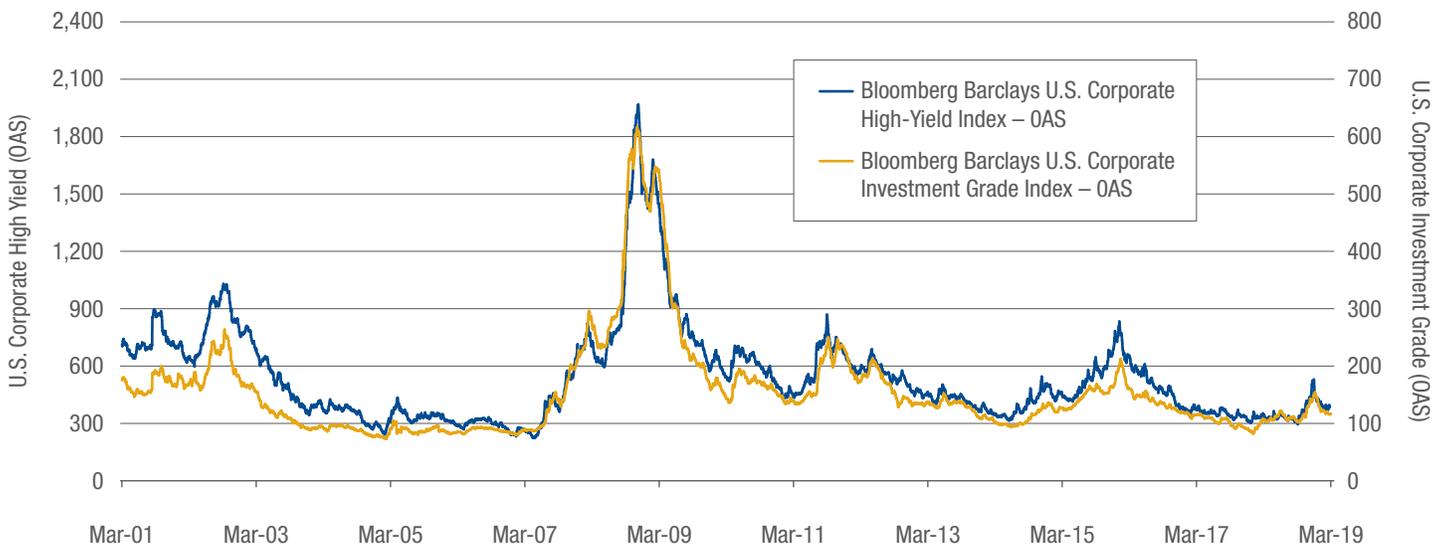
forward to present day, and fixed income yields—from sovereigns to corporates—face the added compression of central bank purchases. Meanwhile, a weaker global economy currently appears incapable of supporting sustained rate increases by monetary policy makers.

Chart 1 | The 10-Year U.S. Treasury Yield’s Relationship with Inflation Has Changed (as of 3/31/19)



Source: Bloomberg

Chart 2 | Corporate Spreads Have Compressed (as of 3/31/19)



Source: Bloomberg

OAS (Option Adjusted Spread) – The flat spread over the Treasury yield curve required to discount a security payment to match its market price. Based on Bloomberg Barclays indices. Standard deviations and average are representing U.S. Corporate High Yield (OAS).

Past performance does not guarantee future results.

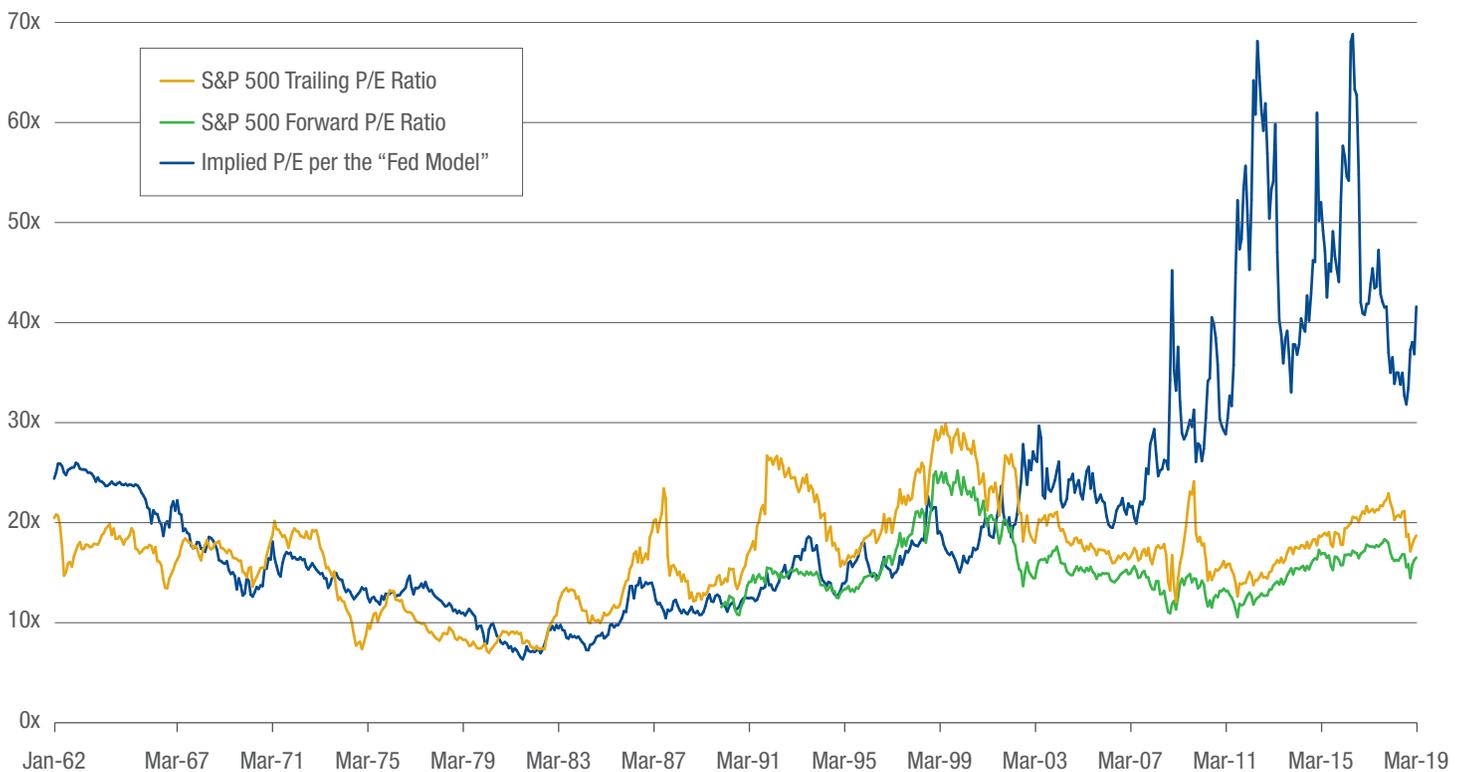
The Fed Model—A Traditional Perspective

Let's first consider the perspective on dividend opportunities provided by the "Fed Model." The Fed Model compares the stock market's earnings yield (earnings per share/price per share, or put differently, the inverse of the widely known price-to-earnings ratio) to the yield on the U.S. 10-Year Treasury (UST).

In a crude sense, the model suggests that when the equity earnings yield surpasses the yield on the 10-Year UST, investors should allocate more heavily to stocks, and vice

versa with a UST allocation (many caveats apply, naturally). Looking at today's conditions, we can see that the degree to which the model favors stocks over bonds would require extreme market movements to course correct. For valuations between stocks and bonds to approach parity, yields on 10-Year USTs would need to rise to approximately 5.4%, or the S&P 500 would have to increase by over 122%, or S&P 500 earnings would have to fall more than 55%. Possible? Yes. Likely? Probably not.

Chart 3 | Will the Dislocation Between Stock and Bond Valuations Correct? (as of 3/31/19)



For the valuations to again converge*:

- The 10-year Treasury yield would need to rise to ~5.4% or,
- The S&P 500 would need to rise by over 122%, or
- The S&P 500 earnings would need to fall more than 55%

Source: Bloomberg and Thornburg Investment Management calculations.

*Based on closing value for 3/31/19

Dividend Growth

Consider that equity dividend income generally grows alongside corporate earnings. Dividend income growth (i.e. dividend increases) is always beneficial, but it becomes even more attractive if inflation surfaces and erodes fixed

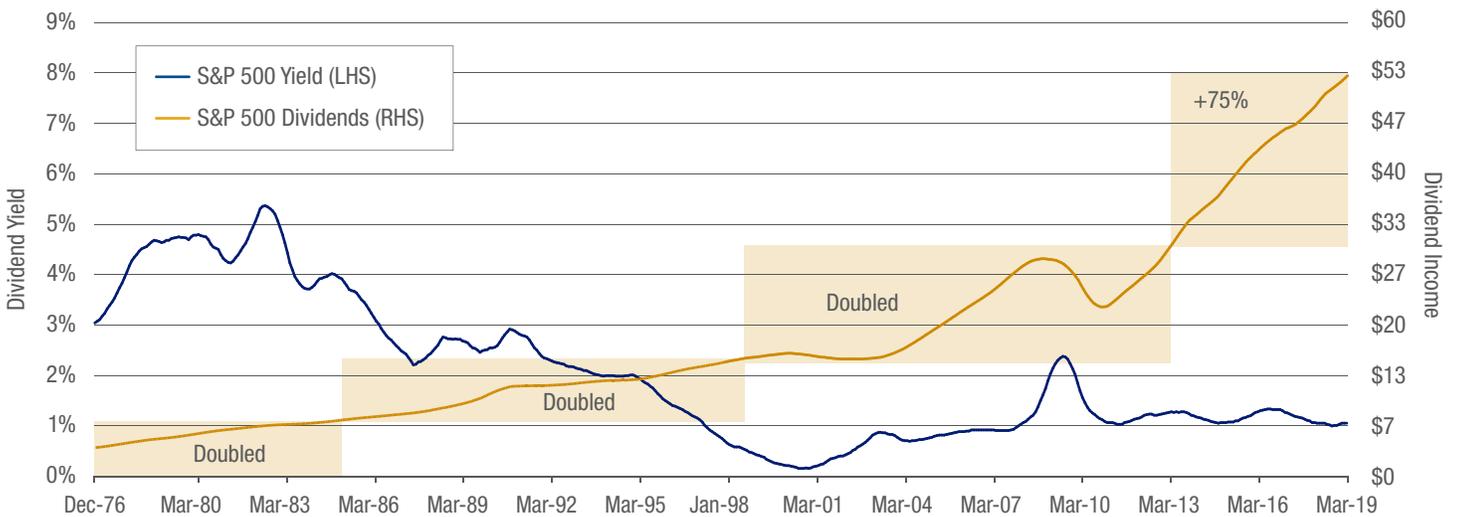
income's purchasing power. Additionally, stocks have historically appreciated over the medium- to long-term, so stock returns can be augmented by both income growth and capital appreciation.

Consider "Yield on Cost"

It's worth considering that, over time, dividend yields have not equated to dividend income. Looking at over four decades of data, we can see that capital appreciation has suppressed dividend yields. Considering "yield on cost" (current income from a stock divided by the stock's origi-

nal cost basis) is therefore valuable, even though nominal yields may decline. For instance, while the S&P 500's dividend yield currently sits at approximately 50% of where it was on January 1, 1977, the dividend income per share has increased over 1,346%.

Chart 3 | A Dividend Yield Is Not the Same as Income (as of 3/31/19)



- Capital appreciation may suppress a stock's current yield.
- Dividend growth increases the "yield on cost."

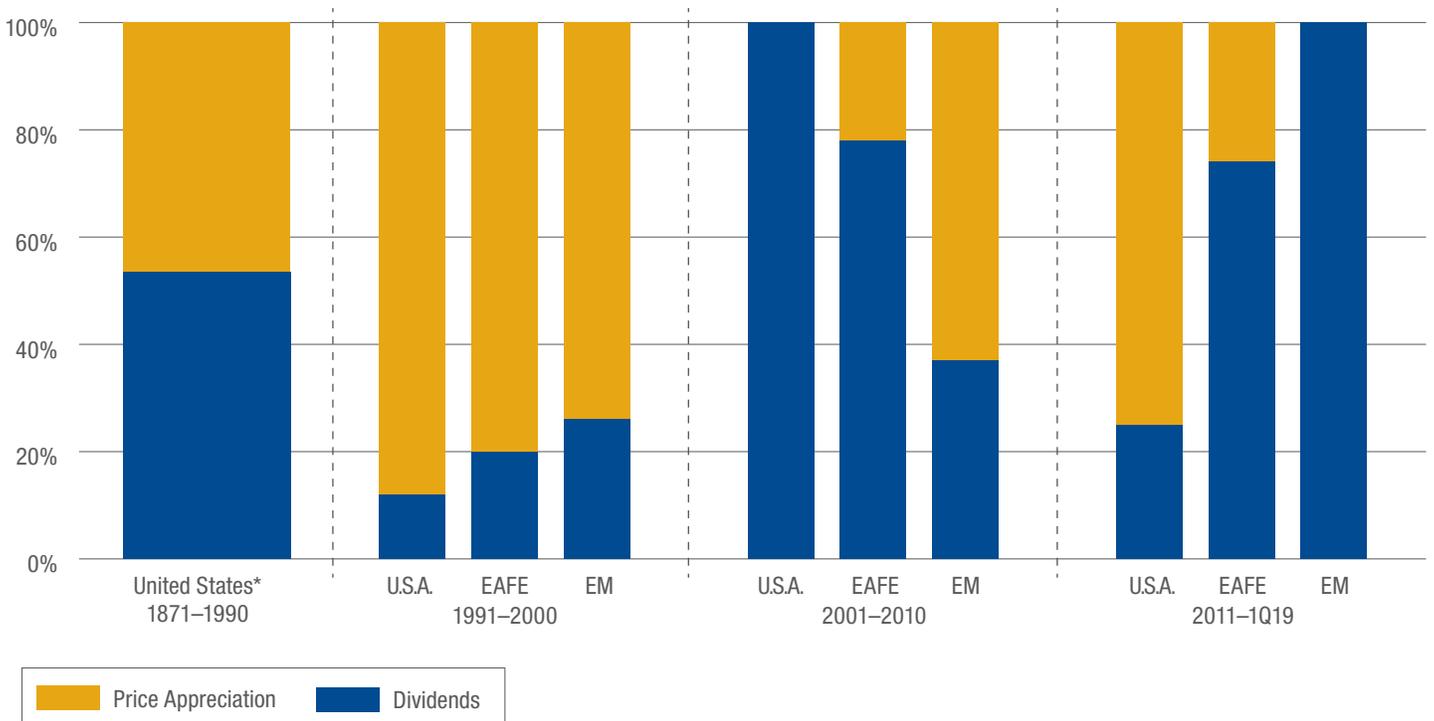
Source: Bloomberg
The yields and the income are trailing 12 months throughout the periods.

Major Drivers of Returns

It is easy to forget that dividends have historically played a large part in driving total return for equities. This lesson is generally less top-of-mind during growth-led markets, such as the prevailing environment post-Global Financial Crisis.

Over time, however, dividends have contributed more than 50% of global equity markets' returns. And, importantly, they tend to do their best work during drawdowns, softening the blow of price declines.

Chart 4 | Contribution to Total Market Return from Dividends and Price Appreciation (as of 3/31/19)



- Income from dividends has contributed over 50% of U.S. equities' total return since the Civil War.
- Data available for international markets shows dividends are of similar importance to global investors.
- Excluding the "Irrational Exuberance" of the 1990s, dividends have proven key to global equity returns.

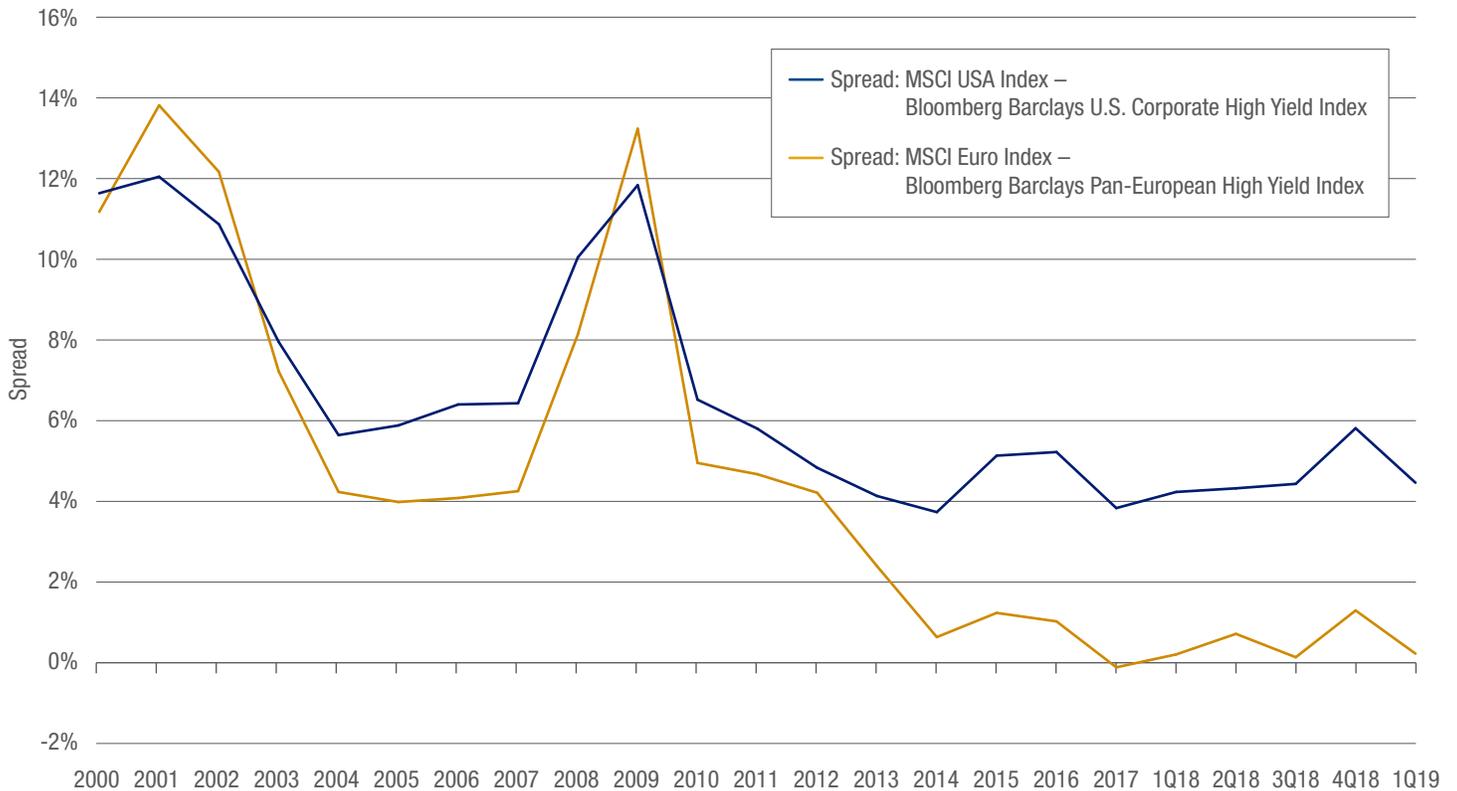
Sources: Data after 1990 is from MSCI indices. U.S. data from 1871–1990 is from "An Analysis of the S&P 500 Index and Cowles's Extensions: Price Indexes and Stock Returns, 1870–1999", Jack W. Wilson and Charles P. Jones, *Journal of Business*, 2002, vol. 75 no 3. Calculated by Thornburg Investment Management. Returns are annualized.

Even More Attractive Abroad

Even without the potential for capital appreciation, however, the environment suggests that current dividend yields are quite competitive with certain asset classes traditionally relied on for attractive income. Take European high yield bonds, for instance. European Central Bank (ECB)

monetary policy has compressed nominal yields on all segments of the eurozone fixed income landscape. The spread between eurozone high yield bonds and the region's overall dividend yield is essentially nil, breaking a long-time historical relationship.

Chart 5 | Equity Yields Can Compete with High Yield Bonds Today (as of 3/31/19)



Flexibility allows a portfolio to take advantage of changing dynamics for bond yields.

Source: Bloomberg, MSCI

Global Exposure

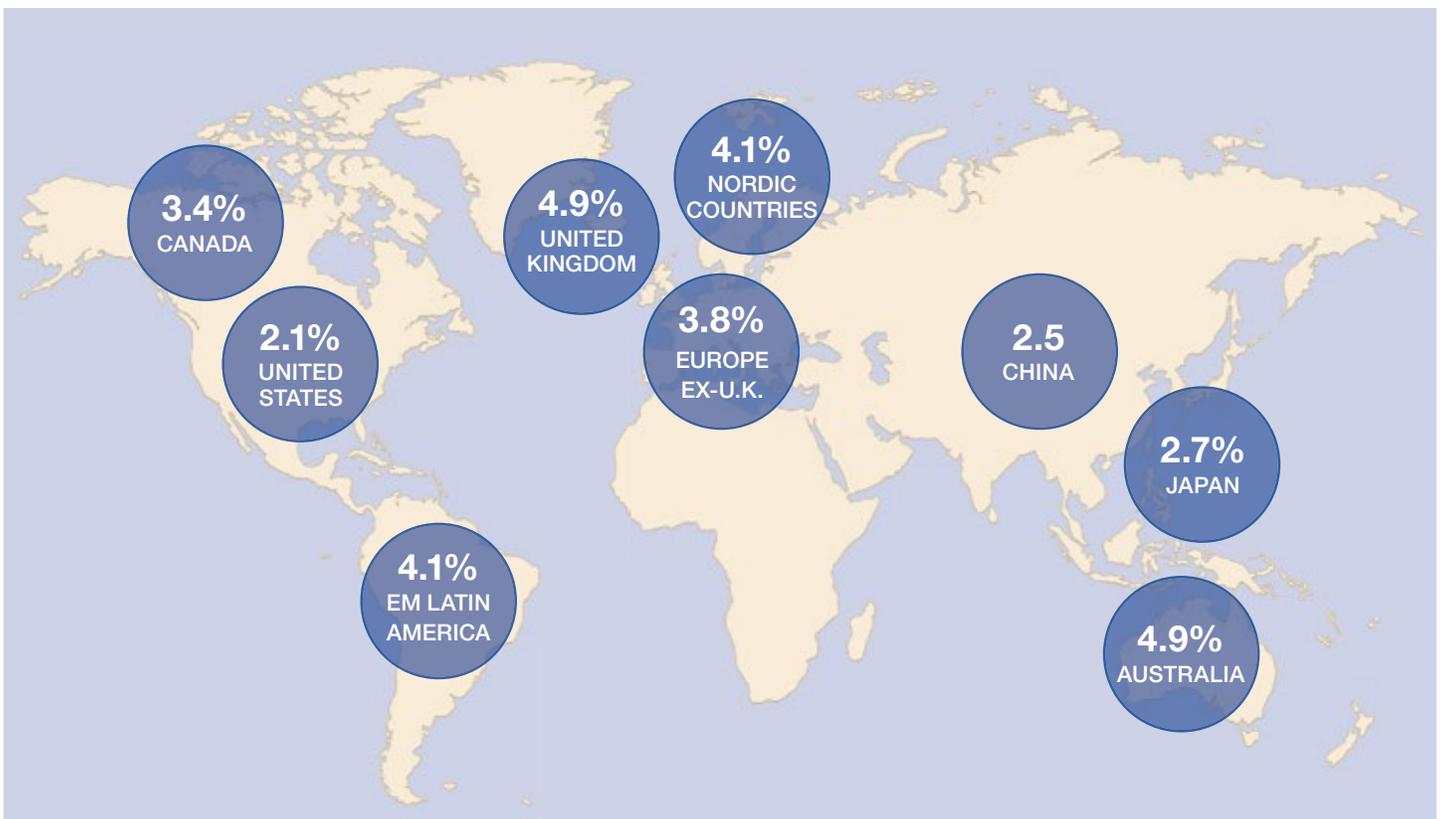
Given the low-yield environment, flexibility in finding income can lead to interesting solutions. In particular, the ability to navigate from fixed income to equity dividend income can provide a manager with a deep pool of targets. This opportunity becomes even more pronounced when the playing field is global.

Broadly speaking, tax policies at corporate and individual levels vary widely from country to country. Thus, a

dividend-paying culture may be more engrained in some foreign countries because of more favorable tax policies. In this way, a global approach to dividend investing does double duty by providing diversification through different geographic exposures and through exposures to different monetary and fiscal policy regimes.

Chart 6 | Global Diversification Can Improve the Portfolio Yield

2019 MSCI Indices Dividend Yield Estimates (as of 3/31/19)



Source: Bloomberg

Diversification does not guarantee a profit or protect against a loss.

Conclusion

Because the global interest rate environment may detract from traditional income sources, alternate income sources should be considered. Equity dividends may present a com-

plementing risk-adjusted return option for investors who can accommodate an uptick in volatility (versus fixed income) in order to gain additional yield and capital appreciation. ■

Important Information

Investments carry risks, including possible loss of principal. Additional risks may be associated with investments outside the United States, especially in emerging markets, including currency fluctuations, illiquidity, volatility, and political and economic risks. Investments in small- and mid-capitalization companies may increase the risk of greater price fluctuations. Portfolios investing in bonds have the same interest rate, inflation, and credit risks that are associated with the underlying bonds. The value of bonds will fluctuate relative to changes in interest rates, decreasing when interest rates rise. Investments in the Funds are not FDIC insured, nor are they bank deposits or guaranteed by a bank or any other entity.

The views expressed are subject to change and do not necessarily reflect the views of Thornburg Investment Management, Inc. This information should not be relied upon as a recommendation or investment advice and is not intended to predict the performance of any investment or market.

U.S. Treasury securities, such as bills, notes and bonds, are negotiable debt obligations of the U.S. government. These debt obligations are backed by the "full faith and credit" of the government and issued at various schedules and maturities. Income from Treasury securities is exempt from state and local, but not federal, taxes.

High yield bonds may offer higher yields in return for more risk exposure.

Following a dividend-focused strategy does not assure or guarantee better performance and cannot eliminate the risk of investment losses.

Basis Point (bp) – A unit equal to 1/100th of 1%. 1% = 100 basis points (bps).

Dividend Yield – A ratio that shows how much a company pays out in dividends each year relative to its share price.

Credit Spread/Quality Spread – The difference between the yields of securities with different credit qualities.

Yield-on-cost – The yield earned on the original cost of an investment and is defined as the yield earned in the period divided by the original cost of the investment. This measure differs from the traditional yield measure, which divides the yield by the current price. In a market where a security has risen in price and the dividend yield has remained consistent or increased, the yield-on-cost will tend to be higher than the current yield.

OAS (Option Adjusted Spread) – The difference between the yield of a fixed income instrument and the duration-matched Treasury yield assuming the instrument had no embedded options (such as an issuer's option to call a bond at a future date). Option-adjusted spreads enable investors to separate out embedded options and better judge the degree to which an instrument's yield compensates them for credit risk, liquidity risk, or other such factors.

The S&P 500 Index is an unmanaged broad measure of the U.S. stock market.

The MSCI Emerging Markets (EM) Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The MSCI Emerging Markets Index consists of the following 24 emerging market country indexes: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

The MSCI EAFE (Europe, Australasia, Far East) Index is an unmanaged index. It is a generally accepted benchmark for major overseas markets. Index weightings represent the relative capitalizations of the major overseas developed markets on a U.S. dollar adjusted basis. The index is calculated with net dividends reinvested in U.S. dollars.

The MSCI USA Index is designed to measure the performance of the large- and mid-cap segments of the U.S. market.

The MSCI Canada Index is designed to measure the performance of the large and mid cap segments of the Canada market. With 91 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Canada.

The MSCI EM (Emerging Markets) Latin America Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of emerging markets in Latin America. The index consists of the following 5 emerging market country indices: Brazil, Chile, Colombia, Mexico, and Peru.

The MSCI China Index captures large- and mid-cap representation across China H shares, B shares, Red chips, P chips, and foreign listings (e.g. ADRs). With 461 constituents, the index covers about 85% of this China equity universe.

The MSCI Japan Index is designed to measure the performance of the large- and mid-cap segments of the Japanese market. With 314 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.

The MSCI Australia Index is designed to measure the performance of the large and mid cap segments of the Australia market. With 69 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Australia.

The MSCI Nordic Countries Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the Nordic region. The index consists of the following 4 developed market country indices: Denmark, Finland, Norway, Sweden.

The MSCI United Kingdom Index is designed to measure the performance of the large and mid cap segments of the UK market. With 109 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the UK.

The MSCI Europe ex-U.K. Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the developed markets in Europe. The MSCI Europe ex-U.K. Index consists of the following 15 developed market country indices: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, and Switzerland.

The MSCI Europe Index is a free float-adjusted market capitalization-weighted index that is designed to measure the equity market performance of the developed markets in Europe. The MSCI Europe Index consists of the following 15 developed market country indices: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

The Bloomberg Barclays U.S. Corporate High-Yield Index measures the market of USD-denominated, non-investment grade, fixed-rate, taxable corporate bonds. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. The index excludes emerging market debt.

The Bloomberg Barclays Pan-European High Yield Index measures the market of non-investment grade, fixed-rate corporate bonds denominated in the following currencies: euro, pounds sterling, Danish krone, Norwegian krone, Swedish krona, and Swiss franc. Inclusion is based on the currency of issue, and not the domicile of the issuer.

The Bloomberg Barclays U.S. Corporate Investment Grade Index is publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered.

P/E – Price/Earnings ratio (P/E ratio) is a valuation ratio of a company's current share price compared to its per-share earnings. P/E equals a company's market value per share divided by earnings per share. Forecasted P/E is not intended to be a forecast of the fund's future performance.

Consumer Price Index (CPI) – Index that measures prices of a fixed basket of goods bought by a typical consumer, including food, transportation, shelter, utilities, clothing, medical care, entertainment and other items. The CPI, published by the Bureau of Labor Statistics in the Department of Labor, is based at 100 in 1982 and is released monthly. It is widely used as a cost-of-living benchmark to adjust Social Security payments and other payment schedules, union contracts and tax brackets. Also known as the cost-of-living index.

The performance of any index is not indicative of the performance of any particular investment. Unless otherwise noted, index returns reflect the reinvestment of income dividends and capital gains, if any, but do not reflect fees, brokerage commissions or other expenses of investing. Investors may not make direct investments into any index.

Before investing, carefully consider the Fund's investment goals, risks, charges, and expenses. For a prospectus or summary prospectus containing this and other information, contact your financial advisor or visit thornburg.com. Read them carefully before investing.