

ORIGINAL RESEARCH FOR INQUISITIVE INVESTORS



Income as the Source of Long-Term Returns



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I. Introduction

During the last two decades of the twentieth century, the investing world saw declining dividend and bond yields, with prices generally moving higher for both equities and bonds. In the early years of this century, investors seemed to belittle the importance of income as a component of returns, focusing primarily on the potential for capital gains.

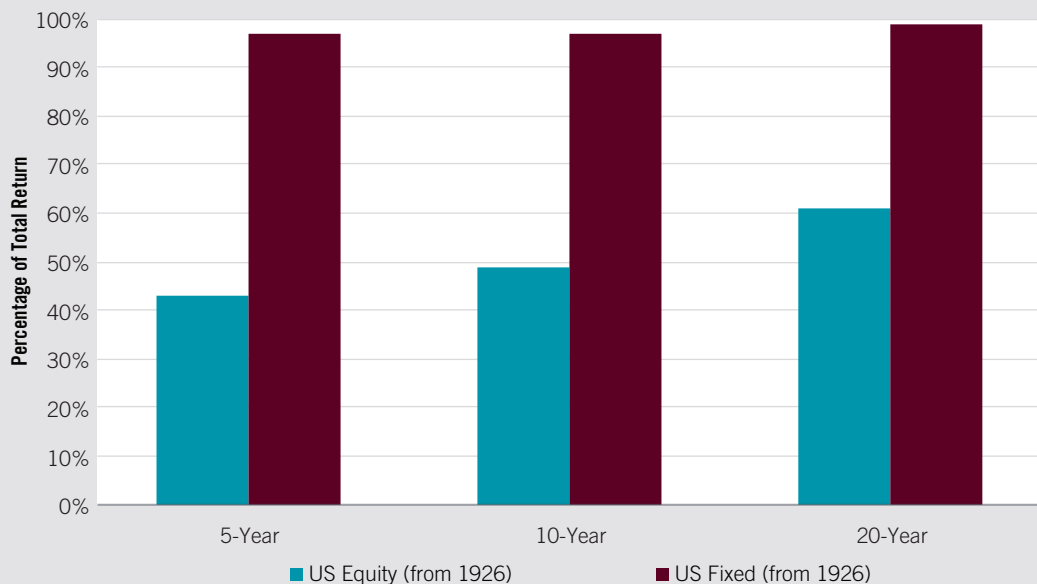
In 2004, the Brandes Institute published “Examining the Income Component of Total Returns,” in conjunction with Professor Elroy Dimson of the London Business School. This analyzed public market data as far back as 1926 to evaluate the impact income had on total returns. Our paper was a reminder for investors that investing is not all about capital gains and losses, but that long-term success depended substantially on the income component.

Since that original study, bond yields globally continued to decline and equity dividend yields moved above bond yields in a number of countries. We published one update in 2012, comparing U.S. stocks and bonds with gold, as well as with their counterparts in the U.K. (“The Key to Long-term Success: the Income Component of Returns”). In this 2015 paper, we update the long-term data for U.S. financial markets (see Exhibit 1), confirming our findings in earlier studies; we also broaden the research into global equity markets.

Dividend income accounted for more than 60% of U.S. equity returns over rolling 20-year periods.

Exhibit 1: Dividend Income Accounted for More than 60% of U.S. Equity Returns Over Rolling 20-Year Periods, 1926–2014

Average Income Component of Total Return Percentages from 5-, 10-, and 20-Year Rolling Data, U.S. Equity and Fixed Income



Source: Brandes Institute, based on data from Ibbotson Associates, Global Financial Data, Inc. and Factset, as of December 31, 2014. Past performance is not a guarantee of future results.

Income continued to be a significant component of returns for U.S. financial assets for all long-term periods.

Based on the updated data through 2014, income continued to be a significant component of returns for U.S. financial assets for all long-term periods.

From the analysis of the longest-term data, from 1926 to 2014, our research found:

- The income component of fixed income returns generally represented more than 9/10th of returns for periods as short as five years.
- The income component of equity returns reached equality with the capital appreciation component around the 10-year horizon, and then became increasingly dominant as time horizons were extended further.

We now take a broader global perspective in the rest of this research, comparing U.S. equities to developed, non-U.S. equities (as measured by the MSCI EAFE Index).

II. Taking a Long-Term View

One factor that has historically led some investors to underestimate the impact of income has been a reluctance to consider a true long-term horizon. References to long-term investment performance often tend to cite 3- or 5-year asset class returns. We challenge this definition of a long-term horizon for two reasons. First, individuals and institutions may be investing for retirement purposes or with liability needs that have a horizon of 20 years or more. Second, the characteristics of investment returns may change significantly if long term is redefined from five years to 20 years or more. While our data would allow even longer horizons than 20 years, we consider that length of period to be a reasonable practical maximum for most institutional and individual investors.

For reference, all return series measure accumulated returns assuming an initial hypothetical investment of \$100.¹ The primary method of analysis measures results over a period using rolling windows (e.g., five or 20 years) from the starting date of the series, then advances one year and repeats the process until the whole data set is included.² These results are then averaged across the whole period. This analytical approach allows us to gain insight into the relative importance of the capital appreciation and income components within the total return series. The accompanying charts include data provided by Ibbotson Associates, Global Financial Data, Inc., and FactSet.

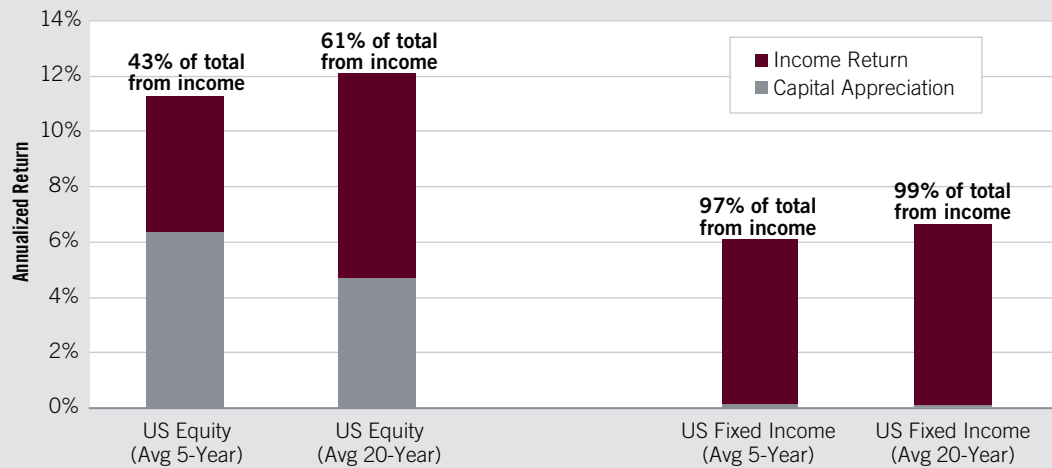
III. The Importance of Income: The Historical Perspective

The debate over the relative importance of income versus capital price changes is a classic case of “tortoise vs. hare.” In today’s information-saturated world, investors tend to focus on financial items that tend to change rapidly (i.e., prices) rather than those that may be more stable, such as dividends. But our earlier studies showed clearly that over the long term, income dominated capital price movements as a source of returns, even for equities. For fixed income, income accounted for substantially *all* of returns over the long term. These findings are updated in Exhibit 2 on the next page, and our prior conclusions remain intact.

¹ We used two return series: a total return series that included reinvested dividends and capital appreciation and one that was capital appreciation only. We calculated the income component of returns by subtracting the capital appreciation only series from the total return series. Neither series reflects considerations for taxes, fees or other expenses. Hypothetical examples are used for illustrative purposes only and do not represent any specific investment. Actual results will vary.

² Returns for rolling windows are annualized returns for a series of overlapping, smaller time periods within a single, larger time period. For example, the 20-year time period from 12/31/82 through 12/31/02 consists of 16 five-year segments. The first segment is the five-year period 12/31/82–12/31/87, the next segment is the five-year period 12/31/83–12/31/88, and so on.

Exhibit 2: Income and Capital Components of Annualized Returns Over 5- and 20-Year Rolling Periods, 1926–2014, U.S. Equity and Fixed Income



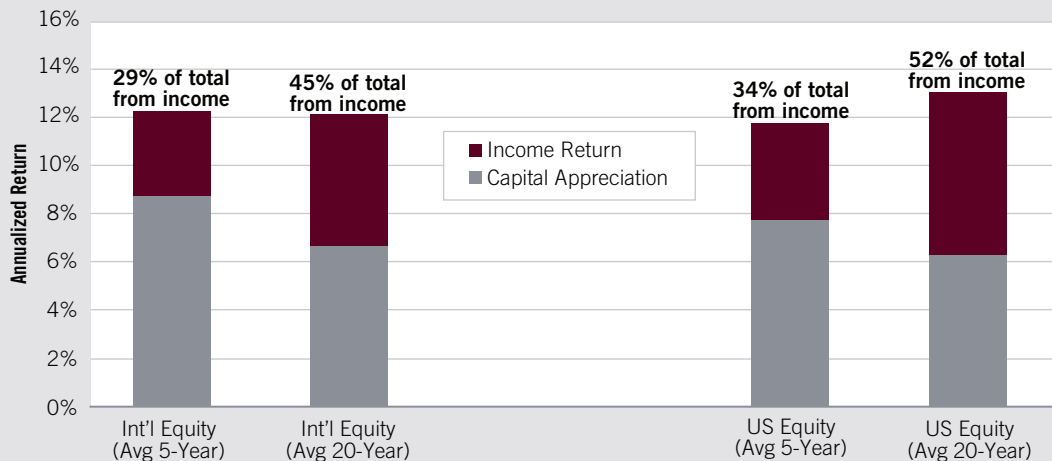
Source: Brandes Institute, based on data from Ibbotson Associates, Global Financial Data, Inc. and Factset, as of December 31, 2014. Past performance is not a guarantee of future results.

The data from this extended 89-year period confirms the dominance of the income component for bonds, even for periods as short as five years, with over 90% of returns attributable to income as opposed to capital appreciation.

The message for U.S. equities in Exhibit 2 is that income was significant over periods as short as five years (accounting for 43% of returns), and became dominant over longer periods such as 20 years, representing over 60% of returns.

We note, however, that dividend yields on U.S. equities were generally higher in the early part of that 89-year period than in more recent decades. In Exhibit 3, we analyze the income component for equities worldwide since 1970, a period that may be more relevant to today’s investing environment.

Exhibit 3: Income and Capital Appreciation Components of Annualized Returns Over 5- and 20-Year Rolling Periods, 1970–2014, U.S. and International Equity



Source: Brandes Institute, based on data from Ibbotson Associates, Global Financial Data, Inc. and Factset, as of December 31, 2014. Past performance is not a guarantee of future results.

International equities show the same pattern regarding the importance of the income component.

Compared with the 1926–2014 data, the income component of U.S. equity returns is lower for the 45-year period since 1970. For example the 20-year average income component since 1970 was 52%, compared to 61% for the full 89 years. Nevertheless, the pattern is similar: for periods as short as five years, the income component was material, while for longer periods (in this case 20 years), it became dominant.

International equities show the same pattern regarding the importance of the income component. The numbers are somewhat lower than those from the United States, with the 20-year average income component of returns at 45%, versus 52% for the United States. However, international equity yields have been higher than U.S. yields since 1998, so we caution against any future projection that the income component for U.S. equities will stay higher than its international equivalent.

The international equity dividends used in this study are shown gross of any withholding taxes. The actual amount withheld from foreign dividends (if any) and non-recoverable by U.S. investors depends on the specific tax situation of the taxpayer and the domicile of the corporation paying the dividend.

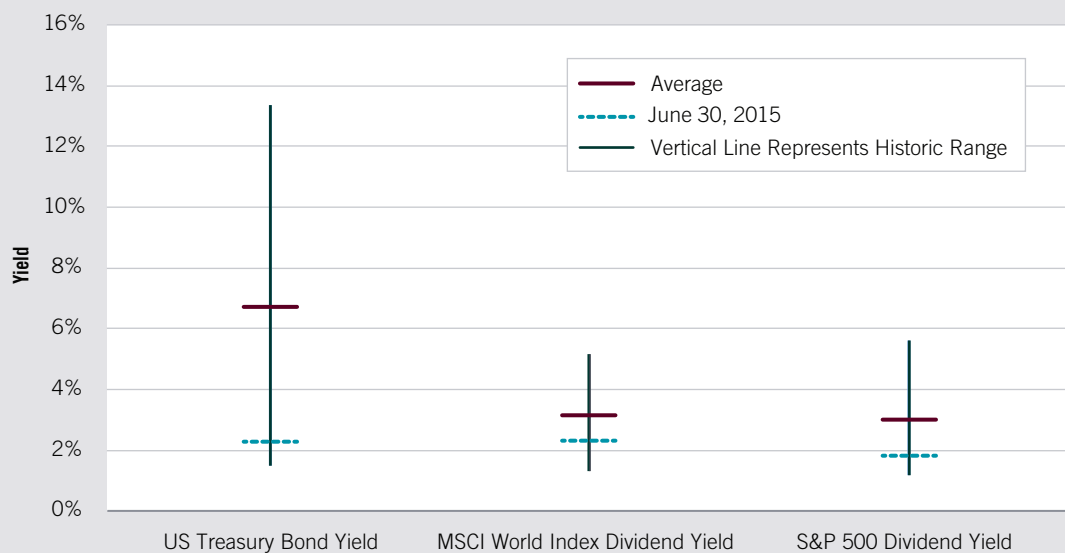
IV. Implications of a Low Yield Environment

The situation in today’s capital markets is seen as unusual, given that bond yields are at historic lows, not just in the United States, but in most developed markets worldwide. Should this change our expectations of the future importance of the income component of returns?

We note that the unusually low yield environment is more pronounced for bonds relative to equities. While bond yields have continued to fall this century, a combination of increasing dividends and volatile stock prices mean that equity dividend yields have stayed closer to their long-term averages. Exhibit 4 shows that in mid-2015, dividend yields (whether U.S. or global) were less than one percent below their long-term average levels. However bond yields were more than four percentage points lower than their long-term average.

Exhibit 4: Bond and Dividend Yields Compared to Historic Averages and Ranges

Dec 31, 1970 to June 30, 2015



Source: Brandes Institute, based on data from Ibbotson Associates, Global Financial Data, Inc., Factset, and the Financial Times as of June 30, 2015. Past performance is not a guarantee of future results.

Expectations of the future importance of dividend income as a component of long-term equity returns should not change.

The yield gap – or the spread between dividend yields and bond yields – in many world markets has moved from negative to positive in recent years. That negative spread, known as the “reverse yield gap,” had been a prevalent feature of the investing environment since the 1960s, and a defining characteristic of the financial landscape in which many of today’s investors gained their experience. We note that the change to a positive yield gap has largely been a function of declining bond yields rather than rising equity dividend yields.

We would therefore deduce that expectations of the future importance of dividend income as a component of long-term equity returns should not change in light of today’s low bond-yield environment.

For bond markets, the long-term evidence shows that substantially all of long-term returns were generated by income, not price change. Given that bond yields are close to historic lows, we believe this relationship will persist. For that assumption to fail, bond yields would need to fall further over an extended period of years, boosting prices and thus diminishing income’s role in total returns. In our opinion, this scenario is unlikely.

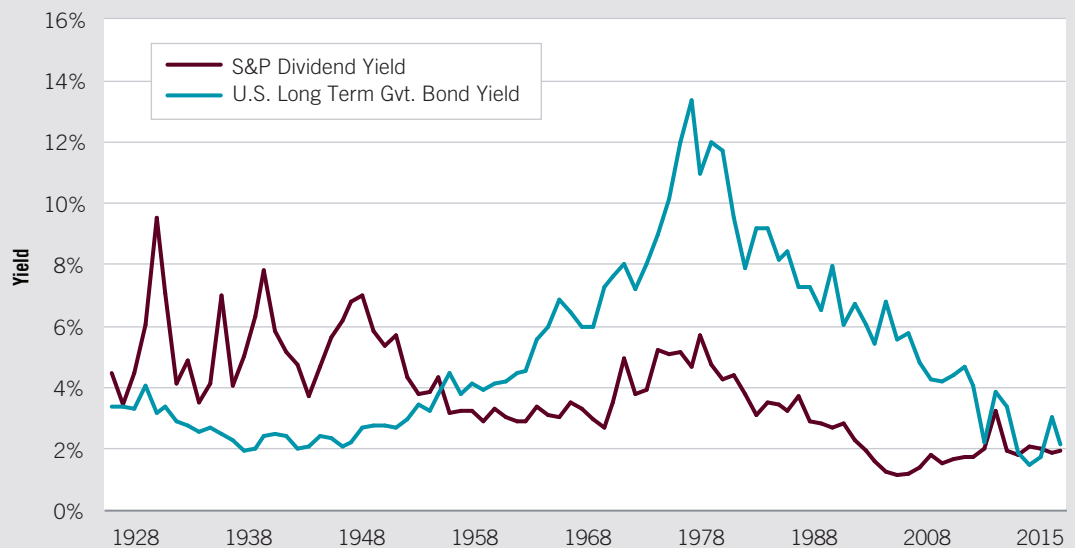
V. The Dividend Yield Gap

The yield gap between equities and bonds provides a good example of enduring long-term trends. Prior to the 1960s, government bond yields were generally *lower* than dividend yields on equities, attributed to the notion that equities were riskier and hence should provide a higher yield. In the late 1950s, bond yields started to rise. In hindsight, this was the start of the bond bear market that lasted until the early 1980s. While bond yields rose, the dividend yield on equities stayed relatively steady over the following decades, with any increases much more muted than those of bond yields.

This reversal of the yield gap was generally attributed to the argument that equities provided growth in both capital and income, and hence investors could be satisfied with a lower yield at the outset, given the potential for long-term appreciation. The reverse yield gap could be said to have underpinned the evolution of the asset management industry toward equities.

Exhibit 5: The U.S. Dividend Yield Gap, Jan. 1, 1926 to June 30, 2015

The Gap Between U.S. Stock and Bond Yields Closed Substantially in Recent Years



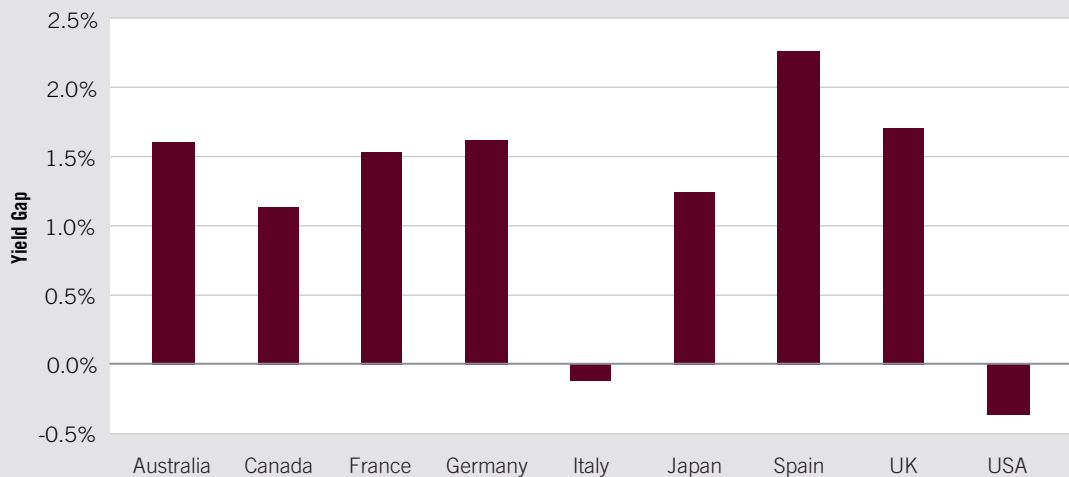
Source: Brandes Institute, based on data from Ibbotson Associates, Global Financial Data, Inc and Factset, as of June 30, 2015. Past performance is not a guarantee of future results.

Since the financial crisis of 2008, the drop in bond yields has helped narrow the reverse yield gap in the United States, and by 2011 it had eliminated this phenomenon, one that had prevailed since the 1950s. Exhibit 5 shows this, as well as the re-emergence of the reverse yield gap in the United States during the past two years, albeit with much smaller magnitude than was typical in the prior decades.

The 50-year era of reverse yield gaps was prevalent across developed markets, and its elimination by 2011 occurred worldwide. Since then, however, the United States has moved out of step. Bond yields continued downward in most major non-U.S. markets (notably in Japan and the larger European countries), but stabilized in the United States. As a result, in contrast to the U.S. experience, yield gaps remained positive in many major non-U.S. markets as of June 30, 2015.

Exhibit 6: Yield Gaps* Around the World

(As of June 30, 2015)



Source: Brandes Institute via Factset, as of June 30, 2015. Past performance is not a guarantee of future results.

*The yield gap is defined as the dividend yield on domestic stocks minus the yield on government bonds.

So one interpretation of Exhibit 6 could be “buy international stocks.”

Mathematically, a direct cause of the U.S. yield gap reversal has been the strong U.S. equity market rally in recent years, which held dividend yields down even when dividends themselves were rising. The reverse yield gap in the United States in mid-2015 suggests one of two things:

- 1. International stocks may be cheap relative to their U.S. counterparts.** Think back to the start of the “equity era” in the 1960s when high equity-dividend yields relative to bond yields helped propel extended bull markets. Given the focus of this research on the importance of dividend income, it is worth noting that non-U.S. dividend yields have been higher than their U.S. counterparts since 1998, after having generally been lower in the last decades of the twentieth century. So one interpretation of Exhibit 6 could be “buy international stocks.”
- 2. A more pessimistic interpretation would be that the positive yield gap overseas reflects the potential for disinflation and low growth.** In this scenario, the existence of a reverse yield gap in the United States argues for a market belief that U.S. stocks would not struggle in such an economic scenario (or at least not suffer as much as their European and Asian counterparts). We find this logic dubious.

VI. The Stability of Dividend Income

The prior sections of this research show the importance of dividend income for long-term investors. We now look at the question of whether being a “dividend-oriented” investor required giving up potential for capital returns. The short answer is “No.”

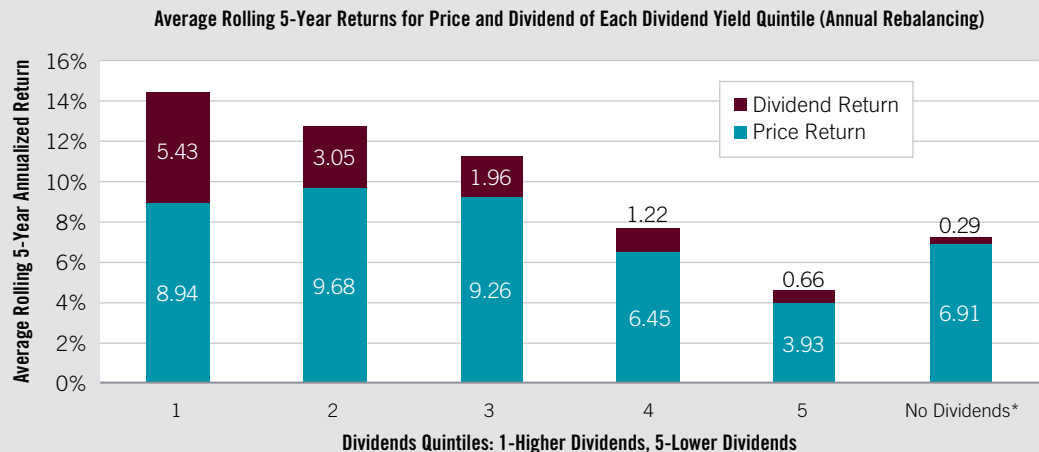
We examined the largest 50% of stocks by market capitalization in the Worldscope database of developed market stocks going back to June 1981. We then divided the dividend-paying stocks in this universe into quintiles by dividend yield, rebalancing annually. We used a separate category for stocks that did not pay dividends, so that they did not default into the fifth quintile. We then calculated 5-year annualized rolling average returns over the measurement period (June 1981 to June 2015).

The message in Exhibit 7 is clear: higher dividend-paying stocks delivered higher total returns. While this was partly due to the dividend return, it is also notable that on a price-only basis, the top three quintiles of dividend-paying stocks had higher price *and* total returns than quintiles 4 and 5, as well as the non-dividend-paying stocks.

Higher dividend-paying stocks delivered higher total returns.

Exhibit 7: Higher Dividend-Paying Stocks Delivered Higher Total Returns Global Stocks, May 29, 1981–June 30, 2015

There Was No “Trade-Off” Between Capital and Income



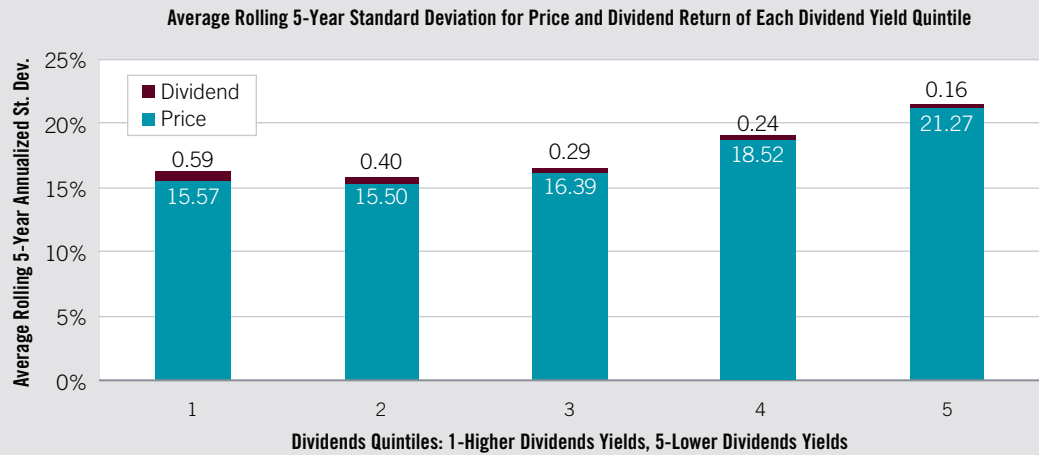
*These are stocks that paid no dividends at the start of each period measured. Some of these stocks subsequently paid dividends later during those measurement periods hence there can be a dividend return component even for the “No Dividend” bar.

Source: Brandes Institute, Worldscope via Factset, as of June 30, 2015. Past performance is not a guarantee of future results. The largest 50% of developed market stocks by market capitalization.

We have stressed the long-term nature of this research. However, many investors still have concerns over short-term price volatility. Did a focus on higher yielding stocks cause exposure to extreme stock price fluctuations? Again, the answer from our research is “No.”

In Exhibit 8, we look at volatility of both stock prices and dividends within the quintile universe. Volatility of stock price returns was lowest for the highest dividend yield stocks, and increased steadily as dividend yields declined. So investors in the top quintiles received both higher returns (Exhibit 7) and lower volatility (Exhibit 8).

**Exhibit 8: Higher Dividend Stocks Tended to Experience Lower Price Volatility
Global Stocks, May 29, 1981–June 30, 2015**



Source: Brandes Institute, Worldscope via Factset, as of June 30, 2015. Past performance is not a guarantee of future results. The largest 50% of developed market stocks by market capitalization.

We have long held that paying excessive attention to short-term price movements is a behavioral error that can lead investors to make bad investment decisions. The data in this research suggests that investors might do much better to focus on their portfolio’s income stream as it develops over time. Exhibit 8 shows that the volatility of that dividend income stream was a very small fraction (under one-twentieth) of the volatility of stock price movements. To the extent that volatility causes investors to worry, switching attention from price volatility to dividend volatility might ease that worry substantially.

Income has served as a significant component of returns.

VII. Summary and Conclusion

Based on our review of 89 years of U.S. investment returns across equity and fixed income, the importance of income’s contribution to total returns is clear.

- Fixed income returns were dominated by their income component for all time horizons longer than five years.
- For U.S. equities, the income component was significant for time horizons as short as five years, and dominant for horizons of 20 years and longer.

We believe this research illustrates that the industry acceptance of five years as a long-term investment horizon underestimates the potential of reinvesting and compounding income. By reinvesting the income contribution of investment returns, investors can leverage the power of compound interest. Investors should not let recent market experience distort their perspective, and particularly should avoid preconceptions that income is less important than capital gains in its contribution to total equity returns. Income has served as a significant component of returns, and the combination of reinvested income and capital appreciation historically has presented the best option for long-term investors to realize optimal returns.

When comparing non-U.S. developed market equities to U.S. equities over the shorter 45-year period of 1970–2014 for which data was available, we concluded that:

- The pattern for the income component of non-U.S. equity was similar to its U.S. counterpart, albeit somewhat lower (29% for 5-year time horizons, and 45% for 20-year horizons).
- A contributing factor to the lower non-U.S. number was that U.S. dividend yields were higher than non-U.S. dividend yields for extended periods until 1998, but we note that since then the situation has reversed.
- Yield gaps (the difference between equity and government bond yields) had been negative worldwide until the 2008 financial crisis, when falling bond yields turned the yield gaps positive in most major markets, including the United States.
- Since then, the U.S. yield gap turned negative again, but this did not occur in most other markets.

This analysis suggests that dividend-paying international stocks may offer a significant opportunity now.

We then examined the characteristics of higher dividend-paying stocks worldwide.

- Higher dividend-paying stocks produced higher total returns than those with low or no dividends.
- This was partly due to the dividend component of return, but even when dividends were excluded, their price-only returns remained higher than low-dividend stocks.
- Volatility of returns was lowest for the highest dividend stocks, and increased steadily as dividends declined.
- The volatility of the dividend streams themselves was a very small fraction (under one-twentieth) of the volatility of stock price movements.

We conclude by emphasizing four key elements of our analysis:

- 1. Income provided a substantial part of long-term returns.**
- 2. For the first time since our data began in 1970, major non-U.S. equity markets had dividend yields that were both higher than U.S. yields and higher than their local bond yields; this suggests an opportunity in dividend-paying international stocks.**
- 3. Worldwide, stocks with the highest dividend returns³ had the highest total returns and the lowest volatility.**
- 4. For investors who focus primarily on their income stream, the volatility of the income from dividends was a small fraction of the volatility of stock prices.**

The message is clear: the combination of the power of the income component to drive returns, aligned with today's market environment, may provide potentially attractive opportunities for long-term investors who own a globally diversified portfolio of dividend-paying stocks.

Worldwide, stocks with the highest dividend returns³ had the highest total returns and the lowest volatility.

³As measured by the top three quintiles of dividend paying stocks

Appendix/Data Sources:

U.S. Equity

S&P 500 Index (1976–2015 – 500 largest U.S. stocks in market value; 1957–1976 – 90 largest stocks, U.S. market value, 1926–1957 – through Ibbotson Associates)

U.S. Fixed Income

Long-term government bonds (1977–present – 10-year year Bond Series, Wall Street Journal; 1926–1976, Center for Research in Security Prices (CRSP) through Ibbotson Associates)

International (Non-U.S.) Equity

MSCI EAFE Index (1970–2015)

Yield Gaps

All bond yields are 10-year maturity government bonds, sourced from www.bloomberg.com

Dividend yields for Australia, Germany, France, Italy and Spain are for MSCI country specific indices, sourced from FactSet

Dividend yield for the U.S. is for the S&P 500 Index sourced from www.bloomberg.com

Dividend yields for the UK and Japan are for the FTSE 100 Index and FTSE Japan Index respectively, sourced from the Financial Times

Dividend yield for Canada is for the S&P/TSX Index, sourced from Factset

The S&P 500 Index with gross dividends measures equity performance of 500 leading companies in industries of the U.S. economy.

The FTSE 100 Index with gross dividends measures equity performance of 100 leading companies listed in the United Kingdom.

The FTSE Japan Index with gross dividends measures equity market performance in Japan.

The S&P/TSX Composite Index with gross dividends measures equity market performance in Canada.

The MSCI World Index with net dividends measures equity market performance of developed markets.

The MSCI EAFE (Europe, Australasia, Far East) Index with net dividends measures equity market performance of developed markets in Europe, Australasia, and the Far East.

The MSCI Indices with gross dividends for Australia, Germany, France, Italy and Spain measure equity market performance in each of those countries respectively.

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Standard deviation: The dispersion of a portfolio's returns over a given period from the portfolio's mean return over the same period. Calculated as the square root of variance.

Yield: Annual income from the investment (dividend, interest, etc.) divided by the current market price of the investment.

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Whereas Treasuries are backed by the full faith and credit of the U.S. Government with respect to the timely payment of principal and interest, the declaration and payment of stock dividends are solely at the discretion of the issuer and are subject to change at any time.

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Rolling periods represent a series of overlapping, smaller time periods within a single, longer-term time period. For example, over a 20-year period, there is one 20-year rolling period, eleven 10-year rolling periods, sixteen 5-year rolling periods, and so forth.

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