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The Importance of Income Part 2: The Rule of 72

Executive Summary

- Lower expected returns across asset classes can increase investors' reliance on equities to meet their return targets. However, current low dividend yields make stocks greatly dependent on price returns, which have been unreliable over the last decade.
- By shifting a portion of risk assets into high-income bonds, investors can increase diversification, reduce dependence on equity beta, and be more certain that investment goals will be met without reducing expected returns.

Most of us have learned the rule of 72 somewhere along the way in our financial careers. Simply stated, divide 72 by your expected annual return and the result will be the approximate time it will take for your investment to double. Historically, the 10% annualized return expectation for equities suggested that an investment would double in just over seven years (72/10).

The problem that most of us face today is that in recent history, we have not generated the 10% per year we had forecast, and it is now taking much longer for investment capital to double in value. This requires investors and pension funds to either contribute more or get less. As can be seen in the charts below, there has been a

Exhibit 1
Historical Returns

Period	Cumulative Price Return	Annualized S&P 500 Return With Dividends Reinvested	Rule of 72 Number of Years to Double
20 years (Oct 1992-Sep 2012)	245%	8.50%	8.5
10 years (Oct 2002-Sep 2012)	77%	8.01%	9.0
7 years (Oct 2005-Sep 2012)	17%	4.48%	16.1
5 years (Oct 2007-Sep 2012)	-6%	1.05%	68.3

Period	Cumulative Price Return	Annualized S&P 500 Return With Dividends Reinvested	Rule of 72 Number of Years to Double
1951-1960	184%	12.25%	5.9
1961-1970	59%	5.39%	13.4
1971-1980	47%	4.82%	14.9
1981-1990	143%	12.78%	5.6
1991-2000	300%	17.46%	4.1
2001-2010	-5%	1.41%	50.9
2011-Sep 2012	15%	10.40%	6.9

Source: Bloomberg, Western Asset, and Robert Shiller (<http://www.econ.yale.edu/~shiller/data.htm>). S&P 500 returns (with dividends reinvested) from 1951-1983 were estimated using data from Robert Shiller.

deceleration in the growth rate for equities with 20-year returns at a solid 8.5% per annum (8.5 years to double), but five-year returns (through September 30, 2012) at only 1.05% per annum (68.3 years to double).

Unfortunately, these data provide little insight into what equity returns will be in the future. We do know that the factors that drove equity prices higher in the '80s and '90s included demographics, globalization, technological revolution, mergers and acquisitions, and the democratization of the capital markets. We must assess whether or not those tailwinds remain, or if there are headwinds that may potentially limit gains.

What the data do tell us is that lower equity returns can devastate our broader return assumptions. At 60% of an overall asset allocation, a decade of low equity returns can and has (from 2001-2010) significantly reduced funded levels for pension funds and reduced the wealth of individual investors. At the same time, fixed-income delivered returns equal to or in excess of long-term targets.

**Exhibit 2
Expected Returns**

	Expected Equity Return	Expected Fixed-Income Return	Expected Portfolio Return	Percentage Return From Equities
Allocation	60%	40%		
	10%	6%	8.40%	71%
	9%	5%	7.40%	73%
	8%	4%	6.40%	75%
	7%	3%	5.40%	78%
	6%	2%	4.40%	82%

Source: Western Asset.

Looking forward, the decline in the yield of US Treasuries (UST) and other investment-grade debt that has propelled returns since the onset of the financial crisis has also substantially reduced expectations for future returns. The slow growth that drove yields down has also had an impact on expectations for equity returns. In general, we find that investors' expectations for both fixed-income and equities are lower today than they have been in the past.

**Exhibit 3
Increased Diversification**

	Expected Equity Return	Expected High Income Bonds Return	Expected Fixed-Income Return	Expected Portfolio Return	Percentage Return From Equities
Allocation	50%	20%	30%		
	10%	8%	6%	8.40%	60%
	9%	7%	5%	7.40%	61%
	8%	6%	4%	6.40%	63%
	7%	5%	3%	5.40%	65%
	6%	4%	2%	4.40%	68%

Source: Western Asset.

As investors reduce return expectations, they are potentially increasing their dependence on equity markets to drive portfolio returns, as can be seen in Exhibit 2. Equity returns in the last decade were below average due to the bookend crises of the tech bubble and the financial crisis, while fixed-income returns exceeded expectations due to extraordinary monetary policy. Many market participants believe that the performance in each sector may revert to the mean in the current decade, further widening the disparity in return expectations and further increasing the dependence on equities.

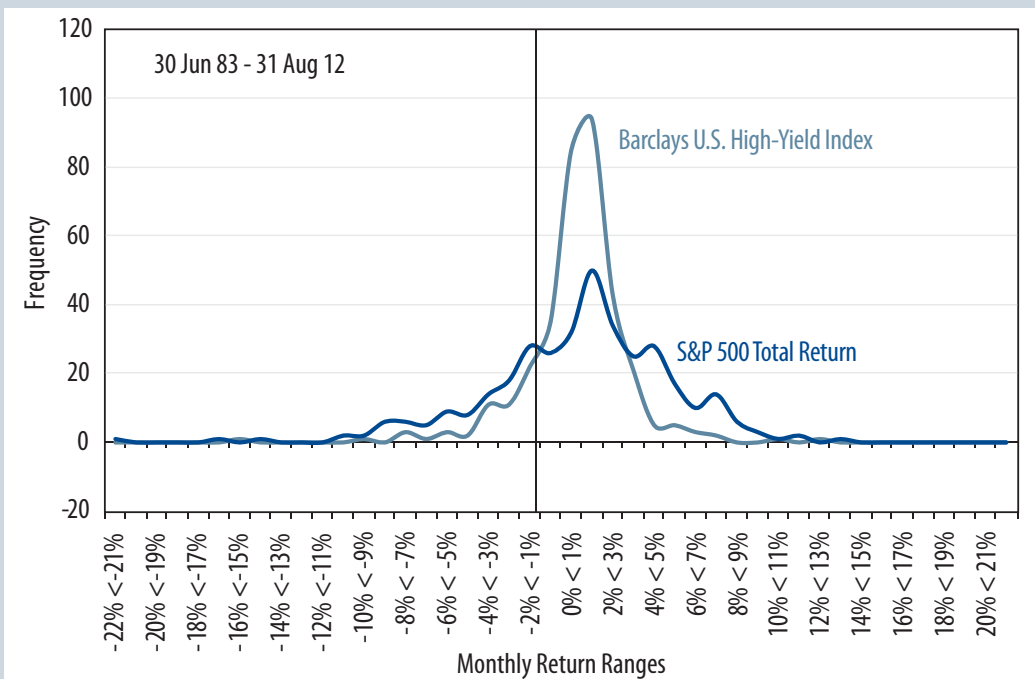
As can be seen in Exhibit 3, increased diversification can reduce the dependence on equity beta without reducing expected returns. Of course actual returns are of ultimate importance, but if diversification is increased, particularly if that diversification comes from income (a high probability contributor to return), path dependency can be reduced, allowing investors, both institutional and individual, greater confidence in their return assumptions.

So what are the implications for investors? While a substantial reliance on equity returns provided an extraordinary benefit to investors in the '80s and '90s, it severely penalized investors in the last decade. Going forward, we believe that investors should reduce the dependence on equity beta to a more modest level. This belief is driven by several factors, including the overall aging of the population, heightened market volatility coupled with increasingly frequent black-swan events, and the enormous fiscal challenges facing developed governments. The aging of the population is of particular import as people increasingly are focused on converting capital to income and emphasizing capital preservation over growth. We explored ways to achieve this reduction in our previous paper on the "Importance of Income," suggesting that investors diversify out of equities and into high-income bonds.

Corporate pension funds have been reducing equity allocations for years in favor of fixed-income-based hedges against their liabilities. Their primary motivation is to reduce the impact of pension fluctuations on earnings. While most investors can't afford merely to hedge their liabilities, the efforts of corporations are instructive. Both a decrease in dependence on equities and an increase in income will generally increase certainty. By contrast, an overdependence on equities quite simply increases volatility.

While offering compelling return expectations relative to UST and investment-grade corporate bonds, equities still offer a relatively low yield. As of September 30, the yield on the S&P 500 was 1.96%, versus the all-time low of 1.11% realized in August of 2000, and the long-term average of 4.45%.

Exhibit 4
High-Yield Versus S&P 500



Source: Barclays, JP Morgan, S&P, Western Asset.

This suggests that achieving higher returns in equities will depend on profit growth, multiple expansions and/or a significant increase in demand for equities. Unlike other pundits, we are not predicting an extended period of underperformance for equities. Rather, we are highlighting the inherent uncertainty in equity return forecasts and are advocating fixed-income-based solutions to increase the probability of achieving targeted returns and reducing the dependence on equity beta for portfolio returns.

As can be seen in Exhibit 4, high-yield bonds, as a proxy for all high-income bonds, have provided a competitive return and more favorable risk/return characteristics than equities. Despite the substantial decline in yields that we have witnessed in recent years, these securities have the potential to perpetuate their performance as:

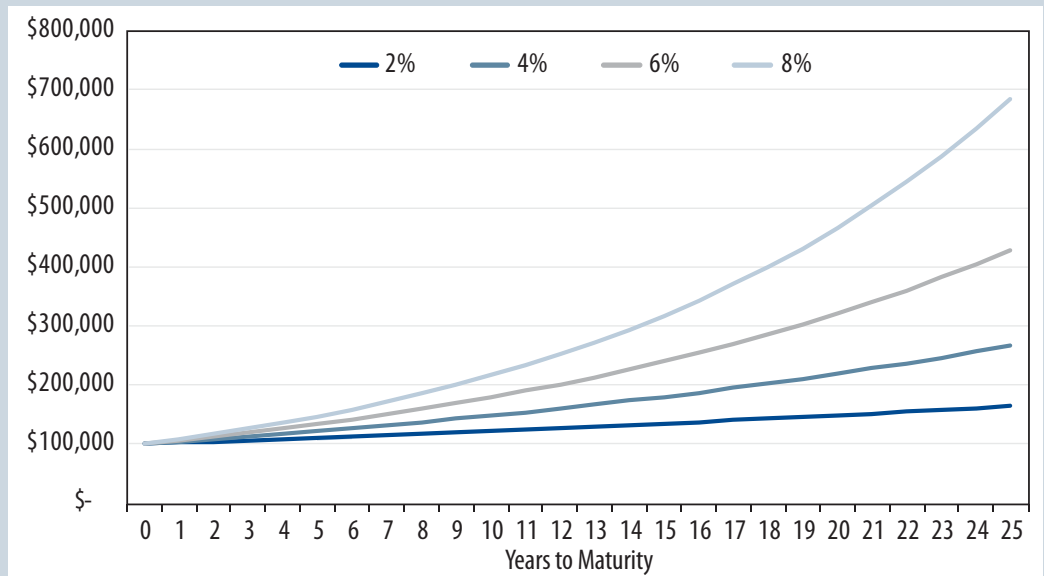
- Current yields remain well above the inflation rate
- Yields are competitive, with intermediate term return expectations for equities (5% to 8% per annum)
- Default rates are well below long-term averages
- Recovery rates are currently higher than long-term averages

These same conditions exist for most high-income bonds, making the strategy attractive despite the fact that the absolute levels of yields are low.

Fixed-Income and the Benefits of Compounding

While equity returns have been unpredictable, fixed-income has provided (and will always provide) exactly that: a fixed amount of income for a specified period of time. As investors seek greater predictability of performance, particularly given the shift from defined benefit plans to defined contribution plans, we believe that it is worth reexamining the role of fixed-income within the broader asset allocation.

Exhibit 5
Growth of \$100,000



Source: Western Asset.

With the advent of target date funds for 401(k) plans, investors' expectations for exponential growth in assets have been reinforced. Target date funds often start with greater than 80% of the assets in equities. This makes

the overall investment extremely path-dependent and excessively reliant on equity returns in both the short and long runs. Fixed-income, notably the higher yielding sectors of the fixed-income markets, can provide a more reliable return over the intermediate and long term and can increase the likelihood of growing the asset value along the desired path.

As they say, a picture is worth a thousand words. Higher returns are what we are all seeking, and Exhibit 5 shows us why. The higher the return, the faster your investment will double (and hopefully double again!). Re-investment of income/gains accelerates the process and leads to exponential rather than arithmetic increases. Bonds facilitate the achievement of this objective by increasing the reliance on income and decreasing the reliance on price performance and equity beta.

Contrary to conventional wisdom, there could actually be a tax disadvantage to owning equities in a tax-deferred account. Long-term gains generated within the structure will be taxed at the investor's top marginal tax rate upon distribution, which may be higher than the long-term capital gains rate that would be charged outside of the structure. Bonds, on the other hand, make full use of the tax deferral as coupon income, the primary driver of fixed-income returns, is taxed at an investor's top marginal rate. This rate will likely be lower when the funds are withdrawn than it was when the capital was contributed.

Conclusion

In summary, we are not suggesting that investors abandon equities. They have and should continue to provide the highest level of return over the long term. What we are advocating is increased use of high-income bonds as part of an investor's risk allocation. For those investors whose reduced return expectations have shifted the burden of returns increasingly to equities (as demonstrated in Exhibit 2), high-income bonds can play a particularly important role.

Allocating capital from equities to high income bonds will accomplish three critical objectives:

- **Increase diversification**
- **Increase income**
- **Reduce dependence on equity beta**

As articulated in our previous paper, "The Importance of Income", high-income bonds can provide:

- **Equity-like returns**
- **A higher probability of achieving an investor's target return**
- **Less volatility and a better risk/reward ratio**

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