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COMPONENTS OF MARKET RETURNS Revisiting Occam's Razor

What drives market returns? One approach to answering this question is to break down the sources of return into individual components that can then be separately analyzed and forecast. These parts can then be assembled to represent the total returns of investment securities. In this piece, we'll review this "building blocks" model and discuss how investors may use this approach for further research and analysis. In the 2015 paper "Occam's Razor Redux: Establishing Reasonable Expectations for Financial Market Returns," authors John C. Bogle and Michael W. Nolan describe models for developing capital market expectations, which have proved to be a useful guide to the future.¹ Bogle was inspired by Keynes' concepts of enterprise and speculation. "Enterprise" (or investment) refers to the actual business results of a corporation, whereas "speculation" is the changing price investors are willing to pay for a dollar of earnings. In decomposing returns, Bogle noted the following return composition for the U.S. equity markets (using the S&P 500 index):



Exhibit 1: Investment returns and speculative returns 1871-2015

Source: "Occam's Razor Redux: Establishing Reasonable Expectations for Financial Market Returns", John C. Bogle and Michael W. Nolan, Journal of Portfolio Management Fall 2015

Bogle notes that speculative returns are most difficult to forecast in the near term and average near zero in the long term. Bogle and Nolan then go on to further define investment return as the initial dividend yield (i.e., income) plus subsequent earnings growth of the stock market. Speculative return is outlined as the expansion/contraction of the price-to-earnings (P/E) multiple. We applied these definitions to the S&P 500 and have plotted the returns below. (Note: We have applied a five-year smoothing when plotting five-year forward returns and the return components.²)



Exhibit 2: Total return attribution

Source: Bloomberg, Columbia Threadneedle Investments as of June 30, 2019. **Past performance does not guarantee future results.** Indices shown are unmanaged and do not reflect the impact of fees. It is not possible to invest directly in an index.

While speculative returns have recently been growing as a percentage of total return, the bulk of U.S. equity returns still comes from enterprise return (e.g., actual business results). Speculative returns have been more volatile compared with enterprise returns, as previously noted. In the runup to the dot-com bubble in 2000, equity returns fell sharply to zero. Enterprise returns fell to near zero levels, while the sharp price drops pushed speculative returns past the zero mark. Over the next decade, valuations continued to detract from equity returns until 2009-10, after the depths of the Global Financial Crisis. Since the crisis, growth has been positive in the U.S., as can be seen in the enterprise returns. Within enterprise returns, earnings growth is the most volatile component and has recently contributed significantly to the overall total return.

¹ The Journal of Portfolio Management Fall 2015

 $^{^{2}}$ All five year numbers are computed using average annual returns. Thus, a 6% equity return forecast is what an investor can expect each year, on average, for the next five years (e.g., the next five years of returns are expected to average out to 6%).

While speculative return is difficult to decompose, enterprise return lends itself to the process more readily, with business results classified by earnings, inflation and income. Enterprise returns for stocks can be broken up into two components: return from income (e.g., dividends) and return on earnings growth. The first component, income return, can be considered "carry" returns from the stock. Carry refers to the return (or cost) of holding the asset. In this case, by holding the stock, the investor may expect to receive a dividend payment (if the stock pays dividends). The second component, earnings growth return, captures the changes in the cash flow growth of the security. As a company's earnings rise, its stock price appreciates in value. Note: we calculate nominal earnings growth by including inflation.



Exhibit 3: Enterprise returns attribution

Source: Bloomberg, Columbia Threadneedle Investments as of June 30, 2019. **Past performance does not guarantee future results.** Indices shown are unmanaged and do not reflect the impact of fees. It is not possible to invest directly in an index.

We use this decomposition of returns in much of our investment analysis at Columbia Threadneedle Investments, including our bi-annual five-year forecasts for our capital markets assumptions. Using this decomposition of returns, we can analyze and forecast each component to arrive at a nominal total return for an asset class. For example, in forecasting earnings growth of the U.S. equity market, we compute a separate forecast for U.S. GDP growth and estimate how this would translate to growth in corporate earnings. For some components of enterprise return, mean reversion is estimated and long-term averages can be used as a forecast (e.g., dividend yield percentages tend to stay constant). Understanding what drives equity returns may be difficult, but Bogle and Nolan argue for an Occam's Razor approach (i.e., keep it simple and don't over-complicate your assumptions). Their simple model has, so far, held up and has proven to be useful in understanding equity return attribution. We use this approach to describe what has contributed to returns and as an integral input into our forecast efforts. This "building blocks" approach can be extended to other asset classes, such as fixed income and commodities.

In extending the building blocks approach to other markets, we can explore the concepts of enterprise return and speculative return and understand how these might apply to other instruments. In the case of equities, valuation could be measured by P/E levels and tended to be mean reverting. When analyzing government bonds, for example, expected valuation return can be forecast with an expectation of yield changes. By splitting enterprise returns into performance obtained from carry and cash flow growth, we can extend this approach to other markets. For example, with government bonds, "carry" refers to the yield return plus any effects from rolldown (roll) or costs. Since government bonds (especially U.S. Treasuries) are considered safe and default-free, there is no expected change in cash flow, so the second component of enterprise returns is zero. However, for riskier bonds, which have a probability of defaulting, there is a chance that cash flows may change. This estimated loss from default makes up the return (loss) for cashflow growth for risky bonds. As seen below, return from bond yield is a major component for fixed income total returns.



Exhibit 4: U.S. Treasuries total return forecast components

Source: Bloomberg, Columbia Threadneedle Investments as of June 30, 2019. **Past performance does not guarantee future results.** Indices shown are unmanaged and do not reflect the impact of fees. It is not possible to invest directly in an index.

Exhibit 5: Asset class return expectation calculations

Asset class	Enterprise returns	Valuation Returns
Stocks	Payout yield (D/P + buybacks net of new issues) + E[EPS growth]	Ε[ΔΡ/Ε]
Government bonds	Yield + Roll	E[ΔYield]
Corporate credit bonds	Yield + Roll + E[default losses]	E[ΔYield]
TIPS	Yield	E[inflation surprise]
Commodity futures	Roll + Collateral rate	E[∆Price]

Source: Columbia Threadneedle Investments; E[x] signifies expectations. D/P refers to dividend/price.

The building block approach to understanding market performance allows for greater insight into the drivers of returns. By applying a consistent framework across markets, we can compare the individual components of returns for each market, allowing for further insights. In our work at Columbia Threadneedle, we use this building blocks approach to help guide our Capital Markets Assumptions. Rather than a single total return forecast, we can forecast the individual components of market returns and aggregate these components to arrive at a total return forecast with higher conviction. BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg").

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