

June 2017 Investment Publications Highlights

The Long-Run Drivers of Stock Returns: Total Payouts and the Real Economy

Philip U. Straehl and Roger G. Ibbotson, *Financial Analysts Journal*, CFA Institute, vol 73, no 3 (May 2017, ahead of print), <https://doi.org/10.2469/faj.v73.n3.4>

The authors argue that dividends and buybacks are the key drivers of long-term equity returns, and that when estimating expected equity returns investors should incorporate the buyback yield into traditional dividend discount models to achieve better results. They also highlight the cyclically adjusted total yield (CATY) as an alternative valuation metric to the cyclically adjusted price-earnings ratio (CAPE).

The authors analyze US equity returns from 1871 to 2014 and find that total payouts account for more than two-thirds of historical real total returns. Although dividends increase the income return, buybacks contribute to total returns by increasing investors' ownership stakes. Since 1970, buybacks have lifted the total payout yield for US equity investors from 3% to 4.3%, demonstrating the important role buybacks play in equity returns.

The authors find a close relationship between long-run growth in total payouts and real GDP growth. Their results indicate that total payouts and GDP grew at roughly the same annualized rate from 1901 to 2014 and that the total payout per share grew in line with GDP per capita from 1872 to 1914.

Buybacks have increasingly grown in importance over the last several decades, with the current buyback yield now larger than the dividend yield

for US stocks. But a key equity model—the dividend discount model—fails to incorporate buybacks and thus limits its usefulness. By the authors' appraisal, this model underestimates expected returns by 1.48 percentage points. The authors suggest adding buybacks into the model to more accurately forecast expected returns.

Using total yields, the authors find the CATY, which is calculated by taking the ten-year average of the real total payout per share, predicts changes in expected US equity returns as well as the CAPE ratio using data from 1881 to 2014. The metric is a better predictor than CAPE from 1970 onwards, when buybacks become an increasingly important part of total payouts. With this finding, the authors argue that CATY is a viable alternative to CAPE.

Portfolio Allocations Using Fundamental Ratios: Are Profitability Measures More Effective in Selecting Firms and Sectors?

J. Christopher Hughen and Jack Strauss, *The Journal of Portfolio Management*, vol 43, no 3 (Spring 2017): 87–101

The authors consider whether a portfolio allocation strategy based on forecasted profitability metrics can deliver superior performance relative to a buy-and-hold benchmark. They find that long/short portfolios based on sector and firm profitability metrics generate superior payoffs, alphas, Sharpe ratios, and returns.

The study assesses three measures of profitability above net income on the income statement—earnings before interest, taxes, depreciation, and amortization divided by enterprise value (EBITDA/EV), gross profit (GP), and operating profit (OP)—as well as a composite (COM) of these variables.

Since profitability measures above net income are higher up on the income statement, they tend to be more persistent than net income because they are less likely to be manipulated by one-time gains or losses. In theory, the persistent nature of these variables should make them strong indicators of future sector and firm cash flows and returns. Therefore, a portfolio allocation strategy based on sector and firm EBITDA/EV, GP, OP, and COM ratios should outperform an equal-weighted benchmark.

To test this theory, out-of-sample sector forecasts based on S&P 500 constituent data from first quarter 1980 to fourth quarter 2014 are used to construct a long/short portfolio that weights sectors and firms by profitability measures. The authors' find that a long/short portfolio generates alphas between 11.5% and 13.0%—as well as superior payoffs, better Sharpe ratios (greater than 50% higher), and consistently higher returns relative to an equal-weighted S&P 500 Index.

Furthermore, these profitability measures tend to be stronger indicators of future sector and firm returns than more traditional measures, such as net income. For example, average out-of-sample R-squares across all sectors are relatively high for EBITDA/EV, GP, and COM (75% to 89%), making them much better

predictors of subsequent returns than net income (-16.2%). These results suggest that profitability measures above net income contain valuable information about future returns, making them useful indicators in portfolio allocation decisions.

A Practitioner's Defense of Return Predictability

Blair Hull and Xiao Qiao, *The Journal of Portfolio Management*, vol 43, no 3 (Spring 2017): 60–76

The authors investigate whether investors can profit from market timing. They find that returns can be predicted in the medium term, but investors need to be acutely aware of markets and able to act immediately to outperform.

Using past research, the authors identify 20 variables (including bond yield, the Consumer Price Index, and the Baltic Dry Index) that have been linked to equity performance. The authors analyze each variable individually to determine its strength at predicting returns over different time periods. They find that some predictors work better in the short run, and others are better over longer time horizons.

The study combines variables to create three model portfolios, each of which is compared to a buy-and-hold strategy.

- ◆ The first portfolio, called the “kitchen sink” model because it includes 16 variables, performs similarly to the buy-and-hold strategy.
- ◆ To remove some of the noise from the kitchen sink model, the second portfolio, “the correlation model,” relies on those variables with the highest predictive power. This

portfolio outperforms the buy-and-hold strategy by better signaling the two large drawdowns in 2002 and 2008.

- ◆ To account for look-ahead bias, the authors create a third portfolio, the “real-time correlation-screening” model, which includes variables only as they are discovered. This model performs on par with the correlation model. From a risk-return perspective, the latter two models had a Sharpe ratio twice that of the kitchen sink model and four times the buy-and-hold strategy.

Despite this outperformance, implementation is not easy. An investor would need to constantly monitor markets and act immediately as information becomes available. In addition, investors need to separate emotion from investment decisions, selling during booms and buying in market downturns. Investors must maintain faith in the portfolio and continue to trade even if it is losing money. Taxes, transaction costs, and other implementation difficulties with market timing add to the potential challenges. ■

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