MEASURING VALUE ON DRAFT DAY

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"In human behavior there was always uncertainty and risk. The goal of the Oakland front office was simply to minimize the risk. Their solution wasn't perfect, it was just better than the hoary alternative, rendering decisions by gut feeling."

-Michael Lewis, Moneyball¹

Happy September! For many of us, there is one great solace to the end of summer and passage to colder weather: Football is BACK.

It is that time of year when people imagine they are the Billy Beane² of their fantasy football leagues—a cold, calculated, quantitatively driven general manager (GM). These GMs feed on the so-called "suckers" who overvalue certain types of players, such as:

- Talented but unproven rookies over an established but perhaps past-his-prime veteran (growth vs. value)
- Someone from their favorite team or perhaps a rookie from their alma mater (home bias)
- Someone who they had on their team last year and now feel inclined to keep (the <u>endowment effect</u>)

In parentheses, we make some lighthearted analogies between the cognitive and behavioral biases of portfolio managers and a fantasy football team owner on draft day.

Many psychologists and behavioral economists have identified these as some of the common human tendencies that can cause suboptimal decision-making. But even when we know about these biases, it is extremely difficult to mitigate them.

Establishing Rules

For most investors, a U.S. <u>large-cap</u> core equity investment vehicle tends to meet two main criteria:

- Capture a broad, diverse cross-section of the available market-cap universe
- Use a low-fee³, cost-conscious vehicle

These two criteria typically point toward <u>passive</u> indexing within the ETF wrapper—it's one-click <u>diversification</u> in a tax-efficient, and generally less expensive, fund.

These are the exact criteria that WisdomTree had in mind when launching the <u>WisdomTree U.S. LargeCap Fund (EPS)</u> in 2007—and we recently doubled down on the low-fee criteria by reducing the expense ratio for EPS from 28 <u>basis points (bps)</u> to 8 bps this past spring.



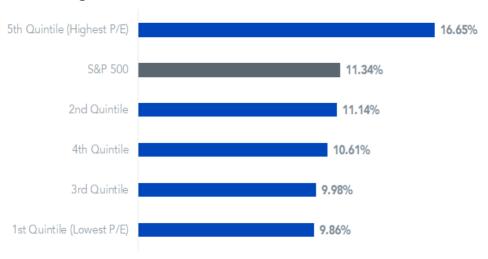
The goal was to offer a Fund that could anchor a portfolio while also offering the opportunity to outperform traditional market cap-weighted indexes with its rules-based investing approach.

By screening on an intuitive characteristic—profitability—the Fund maintains a broad and inclusive exposure to large-cap U.S. equities at lower multiples than major market cap-weighted indexes. Instead of owning more of a security because of a portfolio manager's intuition, this Fund follows rules that make its investment process consistent and objective.

But the last few years have not been overly kind to the value stocks targeted by EPS. The past five years, particularly, have been a time when "expensive" higher-<u>valuation</u> stocks have led the market higher, while lower valuation ratio stocks lagged. With its value-tilted strategy, EPS has faced a challenging backdrop, causing it to underperform the <u>S&P 5</u> <u>00 Index</u> by 86 bps annualized.⁴ For standardized performance of EPS, click <u>here</u>.

Sorting the S&P 500 into <u>price-to-earnings (P/E) ratio</u> quintiles, the highest P/E ratio stocks had the best performance at 16.65% annualized, over 500 bps ahead of the S&P 500. Every other quintile underperformed the market.

5-Year Average Annual Return



0.00% 2.00% 4.00% 6.00% 8.00% 10.00%12.00%14.00%16.00%18.00%

Sources: WisdomTree, FactSet. Data from 7/31/14–7/31/19. Past performance is not indicative of future returns. You cannot invest directly in an index.

WisdomTree employs an earnings-weighted process to allocate toward a company's *earnings streams*. That naturally tilts weight away from those stocks with the highest P/E ratios and toward stocks with the lowest P/E ratios. EPS had an underweight of about 8% to this high P/E quintile and an overweight of about 10% to the lowest P/E quintile.

This investment process is consistently repeated at each annual Fund <u>rebalance</u>, without any emotional or cognitive biases creeping into the investment process. Over time, this process is designed to mitigate <u>valuation risks</u>, particularly during a late-cycle, melt-up environment.

As of 7/31/19, the trailing P/E ratio of EPS was 16.0x, almost four turns lower than the 19.9x for the S&P 500 Index.⁵

The Longer-Term Picture

EPS can offer many attractive characteristics: broad-based exposure, a proven track record of success versus its active and



passive peers, and a consistent approach that does not seek to chase the latest fads or risk the loss of a star portfolio manager.

Despite value's headwind, EPS has had some impressive real-time returns. The table below shows rolling quarterly observations of returns over 1-year, 3-year, 5-year, and 10-year time frames. If we take the 3-year return, for example, EPS has outperformed the average performance of the Morningstar Large Blend Category 95% of the time (i.e., the base rate), with an average annual excess return of 140 bps.

So, while your friends may be reaching for this year's potential rookie sensation, a few under-loved and undervalued veterans might just do the trick.

EPS vs. Morningstar Large Blend Category				
	Observations	Outperform	Base Rate	Avg. Ann. Excess Return
1yr	46	33	72%	1.17%
3yr	38	36	95%	1.40%
5yr	30	30	100%	1.44%
10yr	10	10	100%	1.35%

Sources: WisdomTree, Zephyr StyleADVISOR, Morningstar. Data as of 6/30/19. Inception date of EPS was 2/23/2007. First quarterly observation began 4/1/2007. Performance based on NAV returns of funds and total return of benchmarks.

Observations = number of rolling quarterly periods of returns. Outperform = count of the number of rolling quarterly periods of returns where the Fund outperformed the average return of the Large Blend Category. Base Rate =

Outperform/Observations. Avg. Ann. Excess Return = Average Annual Excess Return. This is the average of the annualized excess returns between the Fund and the large blend category at each observation. Past performance is not indicative of future results.

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¹Pg. 136.

²General Manager of the Oakland Athletics, from the book *Moneyball* by Michael Lewis.

³Ordinary brokerage commissions apply.

⁴Sources: WisdomTree, Zephyr StyleADVISOR. Returns from 7/31/14–7/31/19. Fund returns based on net asset value. Index returns based on total returns.

⁵Sources: WisdomTree, FactSet.

WisdomTree BLOG ARTICLE

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You cannot invest directly in an index.



DEFINITIONS

Growth: Characterized by higher price levels relative to fundamentals, such as dividends or earnings. Price levels are higher because investors are willing to pay more due to their expectations of future improvements in these fundamentals.

Value: Characterized by lower price levels relative to fundamentals, such as earnings or dividends. Prices are lower because investors are less certain of the performance of these fundamentals in the future. This term is also related to the Value Factor, which associates these stock characteristics with excess returns vs the market over tim.

Home Bias: A term in behavioral finance referring to the tendency for investors to have a preference for domestic market investments.

Endowment Effect: An emotional bias that causes an individual to value an asset already owned more than if they did not own it.

Large-Capitalization (Large-Cap): A term used by the investment community to refer to companies with a market capitalization value of more than \$10 billion. Large cap is an abbreviation of the term "large market capitalization". Market capitalization is calculated by multiplying the number of a company's shares outstanding by its stock price per share.

Market Capitalization: Market cap = share prices x number of shares outstanding. Firms with the highest values receive the highest weights in approaches designed to weight firms by market cap.

Passive: Indexes that take a rules-based approach with regular rebalancing schedules that are not changed due to market conditions.

Diversification: A risk management strategy that mixes a wide variety of investments within a portfolio.

Valuation: Refers to metrics that relate financial statistics for equities to their price levels to determine if certain attributes, such as earnings or dividends, are cheap or expensive.

S&P 500 Index: Market capitalization-weighted benchmark of 500 stocks selected by the Standard and Poor's Index Committee designed to represent the performance of the leading industries in the United States economy.

Price-to-earnings (P/E) ratio: Share price divided by earnings per share. Lower numbers indicate an ability to access greater amounts of earnings per dollar invested.

Rebalance: An index is created by applying a certain set of selection and weighting rules at a certain frequency. WisdomTree rebalances, or re-applies its rules based selection and weighting process on an annual basis.

Valuation risk: The risk of buying or over-weighting a particular stock that has appreciated significantly in price relative to its dividends, earnings or any other fundamental metric.

