INTERNATIONAL FACTOR PORTFOLIO: COMPLEMENTING PREMIUMS

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A portfolio of small-cap companies-particularly small value companies-would be expected to outperform a portfolio of larger companies over the long run.

This is a well-known anomaly among investment professionals and academics. It's commonly referred to as the "size premium."

Sounds easy enough to beat the market, then, right?

Unfortunately, there are two parts to that first sentence that introduces challenges: "expected to outperform" and "over the long run."

Expectations are no guarantee, and no one knows how long "the long run" will be. Consider the data for developed ex-U.S. equities, where small caps have handily outperformed <u>large caps</u> in recent years. Over rolling three-year periods back to 1990, the size premium was negative a not-so-insignificant one-third of the time.¹

There's a solution for investors: diversify factor exposures to those that typically perform well when others you are exposed to are doing less well. A factor that pairs particularly well with size is <u>quality</u>.

Inverse Correlation: Quality and Size Factors

The size premium tends to perform best in " $\underline{risk-on}$ " markets, when investors bid up riskier small-cap companies that are more closely tied to the whims of the $\underline{business\ cycl}$ \underline{e} .

Quality tends to performs well during market turbulence, when investors favor companies with high profits and strong balance sheets that are better positioned to withstand a slowdown-just the time when smaller companies are underperforming. Over the past 30 years, the correlation of these two factors in developed ex-U.S. markets has been -0.43.

Fama-French Developed International Factor Premiums





Source: Kenneth French Data Library. Returns for the period 7/31/1990–4/30/2019. Time frame selected based on data availability. SMB = Small minus big, which measures the returns of small companies minus the returns of big companies. RMW = Robust minus weak, which measures the returns of companies with robust profitability minus the returns of companies with weak profitability.

WisdomTree International Quality and Size Indexes

The <u>WisdomTree International SmallCap Dividend Index</u> weights small-cap companies on an annual basis by their cash <u>dividends</u> paid. Positive tilts to both size (0.47) and value (0.13) are evident in regressions on the Fama-French Five-Factor Model.

The <u>WisdomTree International Quality Dividend Growth Index</u> selects 300 companies based on a combination of trailing three-year profitability and future growth expectations. Constituents are weighted by cash dividends paid, tilting the Index toward larger companies that pay greater cash dividends. Again, the factor loadings below help confirm our intuition that the Index offers a high exposure to the quality factor (0.27).

What happens when we blend the two strategies? A hypothetical 50-50 blending resulted in positive and more balanced factor loadings to both size (0.17) and quality (0.17). A similarly constructed portfolio could mitigate the pronounced swings in performance that can result from concentrating on either of these individual factors while still harvesting the outperformance that can come from both.

	Fama-French Factor Loadings				
Index/Blend	Beta (Mkt-RF)	Size (SMB)	Value (HML)	Quality (RMW)	Investment (CMA)
WisdomTree International SmallCap Dividend Index	1.02	0.47	0.13	0.08	-0.31
WisdomTree International Quality Dividend Growth Index	1.08	-0.14	-0.41	0.27	0.25
WisdomTree Hypothetical International Small Quality Blend	1.05	0.17	-0.14	0.17	-0.03

Sources: WisdomTree, Zephyr StyleADVISOR. Returns for the period 11/30/2013–4/30/2019. Time frame selected based on data availability. The WisdomTree Hypothetical International Small Quality Blend is a 50%-50% blend of the WisdomTree International SmallCap Dividend Index and the WisdomTree International Quality Dividend Growth Index rebalanced annually. Please refer to our glossary for definitions for beta, size, value, quality, and investment. You cannot invest directly in an index Past performance is not indicative of future results.

For definitions of terms in the chart, please visit our glossary.

Conclusion: Multifactor with a 50% Hedge Baseline



Many asset allocators spend their time thinking about their equity exposures and then figure currency exposures will be a wash in the long run. While we don't know if the currency exposure will be a headwind or tailwind going forward, our research has shown that taking on currency risk within broad international equity allocations has consistently increased risk.

We would advise at least a 50% currency-hedged approach to help mitigate the currency risk of international investing—this way, investors can be shielded from a significant drag if the dollar has a prolonged period of strengthening but have some tailwind of currency returns if the dollar weakens.

From within the WisdomTree family of international equity offerings, we favor a blending of the WisdomTree International Hedged Quality Dividend Growth Fund (IHDG) and the WisdomTree International SmallCap Dividend Fund (DLS) to provide both balanced factor exposures as well as mitigate currency risks with a 50% aggregate hedge ratio. IHDG was designed to track the WisdomTree International Hedged Quality Dividend Growth Index after fees and expenses, which adds a currency hedge to the equity basket of the unhedged WisdomTree International Quality Dividend Growth Index.

Since the inception of IHDG in May 2014, a hypothetical 50-50 blended portfolio of these two funds outperformed the MSCI EAFE Index by 350 <u>basis points (bps)</u> annualized, with just under 100 bps of lower risk.

Annualized Summary Statistics	MSCI EAFE Index	Hypothetical WisdomTree Portfolio
Return	1.27%	4.77%
Risk	12.02%	11.08%
Sharpe Ratio	0.04	0.36

Sources: WisdomTree, Zephyr StyleADVISOR. For the period 5/31/2014–5/31/2019. The inception date for IHDG was 5/7/14. The Hypothetical WisdomTree Portfolio is a 50%-50% blend of IHDG and DLS rebalanced annually. You cannot invest directly in an index. Past performance is not indicative of future returns.

 1 Source: Kenneth French Data Library. Returns for the period 6/30/1990-4/30/2019. Measured using rolling three-year returns with quarterly observations.

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DEFINITIONS

<u>Small caps</u>: new or relatively young companies that typically have a market capitalization between \$200 million to \$2 billion.

<u>Value</u>: 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.

<u>Size</u>: Characterized by smaller companies rather than larger companies by market capitalization. This term is also related to the Size Factor, which associates smaller market-cap stocks with excess returns vs the market over time.

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.

Quality: Characterized by higher efficiency and profitability. Typical measures include earnings, return on equity, return on assets, operating profitability as well as others. This term is also related to the Quality Factor, which associates these stock characteristics with excess returns vs the market over tim.

<u>Correlation</u>: Statistical measure of how two sets of returns move in relation to each other. Correlation coefficients range from -1 to 1. A correlation of 1 means the two subjects of analysis move in lockstep with each other. A correlation of -1 means the two subjects of analysis have moved in exactly the opposite direction.

<u>Risk-on/risk-off</u>: refers to changes in investment activity in response to perceived risk. During periods when risk is perceived as low, investors tend to engage in higher-risk investments. When risk is perceived as high, investors tend to gravitate toward lower-risk investments.

Business cycle: The continuous lifecycle of the economy, which consists of periods of economic expansion, peaks, contractions, and troughs befor.

Dividend: A portion of corporate profits paid out to shareholders.

<u>Risk</u>: Also standard deviation, which measures the spread of actual returns around an average return during a specific period. Higher risk indicates greater potential for returns to be farther away from this average.

Basis point : 1/100th of 1 percent.

