A COMPARISON OF OUR EMERGING MARKETS APPROACHES

Jeremy Schwartz - Global Chief Investment Officer 09/17/2018

One of my Twitter followers asked how our new emerging markets multifactor exchange-traded fund (ETF), the <u>WisdomTree Emerging Markets Multifactor Fund (EMMF)</u>, compares with some of our existing emerging market funds in terms of portfolio characteristics, geographies, <u>factor</u> tilts and expected <u>value</u> added.

Let me see if I can address each of these questions in turn.

One of our best-performing Funds since we launched it over a decade ago is the <u>WisdomTree Emerging Markets SmallCap Dividend Fund (DGS)</u>, which has outperformed its <u>cap-weighted</u> benchmark, net of fees, by over 150 <u>basis points (bps)</u> a year for more than a decade. When comparing it with the broad large-cap index, the outperformance is greater than 230 bps.¹

When we look at performance drivers over this period, this emerging market small-cap Fund shifts weight to both the highest <u>dividend</u> segment of the market and toward higher quality-meaning more-profitable stocks. Both tilts have paid off nicely and show one of the biggest risk factors in emerging markets is unprofitable companies that cannot afford dividends.

- The evidence: zero-dividend stocks declined 2.6% per year for over a decade while the highest <u>quintile</u> of <u>dividend-yield</u> stocks in the <u>MSCI Emerging Markets Small Cap Dividend Index (MXEFSC)</u> returned nearly 9.0%. Our Fund allocated about 40% to the highest quintile while the cap-weighted index allocated less than 15%—and this big over-weight was the preponderance of the outperformance. The other significant driver came from the under-weight to the non dividend-payers. This category had a large decline but, in the cap-weighted index, was 18% of the portfolio, while our Fund starts with a requirement to pay a dividend.
- The spread on quality metrics such as <u>return on equity</u> was even higher—with the unprofitable companies losing 4.7% a year while the highest quintile for profitability was returning +7.0% per year. The quality tilt is indirect from the dividend-paying tilt, but one can still see a meaningful shift of almost 7% more to the top quintile and 7% under-weight in negative earners and the bottom quintile combined.



	Attribution Component				Averag	ge Category	Category Performance		
Category	Allocation	Selection	Interaction	Total	DGS	MXEFSC	Active Wgt	DGS	MXEFSC
1st Quintile (Highest Div. Yld.)	2.12%	-0.31%	-0.52%	1.29%	38.93%	14.55%	24.38%	7.95%	8.92%
2nd Quintile	0.56%	-0.86%	-0.52%	-0.82%	25.38%	15.65%	9.73%	4.29%	7.61%
3rd Quintile	-0.02%	-0.21%	-0.18%	-0.41%	16.99%	16.13%	0.85%	5.67%	5.41%
4th Quintile	-0.03%	-0.11%	0.04%	-0.11%	10.97%	15.78%	-4.81%	3.62%	3.34%
5th Quintile (Lowest Div. Yld.)	0.79%	-0.19%	-0.02%	0.59%	4.69%	16.64%	-11.95%	-2.27%	-1.97%
N/A	0.04%	-0.13%	-0.12%	-0.21%	2.79%	3.04%	-0.24%	-9.71%	-7.80%
Zero Div. Yield	1.37%	3.17%	-3.31%	1.23%	0.24%	18.20%	-17.96%	16.35%	-2.58%
Total	4.83%	1.36%	-4.62%	1.56%				2.54%	0.98%

	Attribution Component				Average Category Weight			Category Performance	
Category	Allocation	Selection	Interaction	Total	DGS	MXEFSC	Active Wgt	DGS	MXEFSC
1st Quintile (Highest ROE)	0.35%	-0.26%	-0.03%	0.06%	25.36%	18.72%	6.64%	7.83%	6.95%
2nd Quintile	0.08%	0.37%	0.15%	0.60%	20.43%	17.42%	3.01%	8.29%	5.08%
3rd Quintile	0.00%	0.37%	0.03%	0.40%	20.20%	16.42%	3.78%	6.53%	2.99%
4th Quintile	-0.01%	0.09%	0.00%	0.09%	17.37%	15.65%	1.72%	4.53%	2.44%
5th Quintile (Lowest ROE)	0.06%	-0.13%	0.09%	0.03%	11.77%	13.28%	-1.51%	-0.06%	0.10%
N/A	0.12%	0.10%	-0.21%	0.01%	0.87%	9.02%	-8.15%	-16.23%	-4.98%
Negative Return	0.52%	-0.16%	0.02%	0.38%	4.01%	9.49%	-5.49%	-9.05%	-4.67%
Total	1.11%	0.39%	0.06%	1.56%				2.54%	0.98%

Sources: WisdomTree, FactSet, for the period 11/01/07–8/31/18. Past performance is not indicative of future results. You cannot invest directly in an index.

While we believe this dividend fund methodology works very well, our new multifactor ETF has a different way of calculating value exposure—<u>dividend yield is not one of the value factors; the Fund is more earnings—based</u>, as we described in a recent post. Our new value factor sort is also being applied within sectors instead of at an absolute level.

In our dividend-weighted strategies, if a Utility stock has a persistently higher dividend yield than an Information Technology stock, we will be forever under-weight in Technology and over-weight in Utilities. With the new value grading methodology in our multifactor process, we are scoring stocks within sectors so we will have less bias there in terms of persistent low-valuation sectors.

<u>Quality</u> tilts to more-profitable companies typically come with dividends like we saw above, but there is no accounting for changes in profitability levels and earnings momentum in terms of how that affects profitability ratios. That is something our new multifactor process aims to achieve in a multidimensional quality score.

Also new is <u>momentum</u> as a factor for our approaches—which is largely absent in our dividend Fund methodology; if anything, our methodology is anti-momentum with the valuation-sensitive re-balancing.

The WisdomTree Factor Quilt

Below, we look at what we call the WisdomTree factor quilt—which has good/OK/bad categorizations across each of the four factors in our multifactor process. The market, by definition of the grouping assignments, has one-third allocated across each of the good/OK/bad groupings.

The section below will look at factor expressions, sector tilts, country weights and valuations across our two dividend Funds and this new multifactor Fund.



- We often describe the <u>WisdomTree Emerging Markets High Dividend Fund (DEM)</u> as one of our deepest value-tilted Funds because it sports a <u>price-to-earnings (P/E) ratio</u> below 10x. Using this new definition of value (which has some sector neutrality adjustments baked into it), it has 51% of its weight in "good value" stocks, whereas our new multifactor Fund has even more allocated to good value-stocks-59.51%. Both Funds have a similarly low aggregate P/E ratio, showing that both are expressions of a value tilt.
- On momentum, right now DEM—not by a direct inclusion of momentum in its process but just those stocks showing momentum—actually has the highest tilt to good momentum stocks at 64% of weight in the best momentum stocks, whereas the multifactor Fund has 51%—a large tilt as well.
- While some of the factor tilts are larger, quality was one of lower tilts in EMMF at 38.2%—the high-dividend Fund only has 24% in the good quality stocks on our new quality measure.
- <u>Correlation</u>: EMMF has a strong tilt to less-correlated stocks, with 55% exposure in the lowest-correlation stocks, almost a 30% shift more than the high-dividend Fund, which had only 25.5% there. Small caps were closer to market exposure on the correlation factor, as with several of the other factors.

Fund/Index	Factor Group	Correlation	Momentum	Quality	Value
	Good	33.1%	32.9%	33.3%	33.3%
MSCI Emerging Markets Index	Ok	34.8%	35.4%	33.4%	33.4%
mack	Bad	32.1%	31.7%	33.3%	33.3%
we l =	Good	54.67%	50.50%	38.19%	59.51%
WisdomTree Emerging Markets Multifactor Fund	Ok	31.23%	31.42%	32.45%	26.50%
	Bad	14.10%	18.08%	29.36%	14.00%
	Good	25.5%	64.0%	23.8%	50.8%
WisdomTree Emerging Markets High Dividend Fund	Ok	39.4%	18.1%	32.1%	37.9%
	Bad	35.1%	17.9%	44.0%	11.3%
WisdomTree Emerging Markets SmallCap Dividend Fund	Good	36.2%	40.4%	35.5%	49.4%
	Ok	34.4%	32.2%	32.4%	36.9%
	Bad	29.4%	27.4%	32.1%	13.7%

Sources: WisdomTree, FactSet, as of 8/31/18. Past performance is not indicative of future results. You cannot invest directly in an index

On a sector basis, we can see the new WisdomTree Emerging Markets Multifactor Fund constrains its sector tilts to within 5% bands of the broader $\underline{\mathsf{MSCI}}$ Emerging Markets Inde $\underline{\mathsf{x}}$. Currently, there is a tilt toward Consumer Staples and Health Care and a tilt away from Financials and Information Technology. Neither dividend Fund has the same sector constraint, so there can be large tilts, and the high-dividend fund has a particular focus today on Energy and Materials—a big tilt toward the Commodity sector and away from Information Technology. The small-cap Fund has little Energy, but more Consumer Discretionary and Real Estate and less Financials.

Fund/Index	Energy	Materials	Industrials	Consumer Discretionary	Consumer Staples	Health Care	Financials	Information Technology		Utilities	Real Estate
MSCI Emerging Markets Index	7.65%	7.81%	5.17%	9.27%	6.54%	3.14%	22.98%	27.64%	4.37%	2.43%	3.00%
WisdomTree Emerging Markets Multifactor Fund	5.30%	8.25%	6.52%	7.33%	11.50%	5.87%	17.55%	24.00%	8.09%	4.54%	1.05%
WisdomTree Emerging Markets High Dividend Fund	21.20%	14.61%	3.56%	5.21%	1.66%	0.72%	22.49%	11.77%	11.02%	5.21%	2.55%
WisdomTree Emerging Markets SmallCap Dividend Fund	2.88%	11.52%	14.37%	14.24%	6.78%	3.97%	11.03%	18.95%	1.21%	3.62%	11.44%

Sources: WisdomTree, FactSet, as of 8/31/18. Past performance is not indicative of future results. You cannot invest directly in an index. Subject to change. Sectors are defined by Global Industry Classification Standards (GICS®).



On a country basis, the 5% bands are evident when looking at the top 10 country exposures. The WisdomTree Emerging Markets High Dividend Fund and the WisdomTree Emerging Markets SmallCap Dividend Fund have notable shifts in countries toward Taiwan and South Africa and away from South Korea and India. The new WisdomTree Emerging Markets Multifactor Fund also is over-weight in Taiwan, but at 5% because of its constraint. The Fund is also over-weight in India and under-weight in South Africa.

Country	MSCI Emerging Markets Index	WisdomTree Emerging Markets Multifactor Fund	WisdomTree Emerging Markets High Dividend Fund	WisdomTree Emerging Markets SmallCap Dividend Fund	
China	30.67%	26.39%	22.34%	21.64%	
South Korea	14.76%	9.85%	2.82%	8.54%	
Taiwan	12.25%	17.29%	27.47%	28.03%	
India	9.32%	13.11%	2.64%	3.68%	
South Africa	6.26%	1.47%	10.80%	10.48%	
Brazil	5.79%	6.23%	2.59%	3.79%	
Russia	3.38%	2.28%	14.65%	0.10%	
Mexico	3.11%	2.18%	2.72%	2.78%	
Malaysia	2.48%	5.85%	2.76%	5.53%	
Thailand	2.41%	5.95%	5.57%	6.66%	

Sources: WisdomTree, FactSet, as of 8/31/18. Past performance is not indicative of future results. You cannot invest directly in an index. Subject to change

Rolling all these tilts into valuations, one can see some of the key valuation characteristics across these funds.

Fund/Index	Dividend Yield	Price-to- Earnings (P/E) Ratio	Estimated Price-to- Earnings (P/E) Ratio	Price-to- Book (P/B) Ratio	Price-to- Sales (P/S) Ratio	(p/ce)	Return on Equity (ROE)	Return on Assets (ROA)
MSCI Emerging Markets Index	2.46%	13.4x	11.7x	1.7x	1.2x	8.1x	12.06%	1.95%
WisdomTree Emerging Markets Multifactor Fund	3.42%	10.2x	10.3x	1.3x	0.8x	5.1x	12.20%	1.84%
WisdomTree Emerging Markets High Dividend Fund	5.16%	9.7x	8.5x	1.1x	0.8x	6.1x	11.44%	1.68%
WisdomTree Emerging Markets SmallCap Dividend Fund	4.35%	11.1x	10.5x	1.3x	0.7x	10.4x	12.16%	2.89%

Sources: WisdomTree, FactSet, as of 8/31/18. Performance is historical and does not guarantee future results. Current performance may be lower or higher than quoted. Investment returns and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Performance data for the most recent month-end is available at wisdomtree.com

Please click each respective Funds ticker for the standardized performance of each Fund: EMMF, DEM.

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

Finally, the hardest question concerns what our expected value-added is from our multifactor process. Our new multifactor Funds were designed to be some of the highest <u>a lpha</u>-seeking Funds we created, with higher active share and high tilts. In the past, our small-cap Fund was already among our highest-value-added Funds for over a decade, with over 150 bps plus performance over its cap-weighted benchmark. We think this new multifactor Fund has potential for that type of performance differential—and perhaps even more if the Fund works as well as the research suggests.



 1 Source: WisdomTree, FactSet, for the period 11/1/07-7/31/18. The inception date of the WisdomTree Emerging Markets SmallCap Dividend Fund was 10/30/07.

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DEFINITIONS

<u>Factor</u>: Attributes that based on its fundamentals or share price behavior, are associated with higher return.

<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>Market capitalization-weighting</u>: 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.

Basis point : 1/100th of 1 percent.

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

Quintile: One of the class of values of a variate which divides the members of and batch or sample into equal-sized subgroups of adjacent values or a probability distribution into distributions of equal probability.

<u>Dividend yield</u>: A financial ratio that shows how much a company pays out in dividends each year relative to its share price.

MSCI EM Small Cap Index: Includes small cap representation across 21 Emerging Markets countries. The small cap segment tends to capture more local economic and sector characteristics relative to larger Emerging Markets capitalization segments.

Return on Equity (ROE): Measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

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>Momentum</u>: Characterized by assets with recent price increase trends over time. This term is also associated with the Momentum Factor which associates these stock characteristics with excess return vs the market over time.

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.

<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.

MSCI Emerging Markets Index : a broad market cap-weighted Index showing performance of equities across 23 emerging market countries defined as "emerging markets" by MSCI.

<u>Alpha</u>: Can be discussed as both risk-adjusted excess return relative to a specific benchmark, or absolute excess return relative to a benchmark. It is sometimes more generally referred to as excess returns in general.

