THE FUNDAMENTAL PROBLEM FOR INDEXES

Matt Wagner - Associate Director, Research 12/19/2019

Enthusiasm for market cap-weighted indexing rests on market efficiency.

In short, if investors believe they can't consistently profit from the inefficient pricing of securities, they should aim to earn the market average return at the lowest possible cost.

But from time to time, systemic asset bubbles or excesses in individual company valuations can challenge that efficiency.

This raises a question for investors: should indexes screen on fundamentals for inclusion, and by extension, for weighting?

The financial media was buzzing recently over an MSCI decision (and about-face) to include a little-known Hong Kong-listed company, ArtGo, in its MSCI China Index. ArtGo rallied 3,800% this year, in part because of MSCI's inclusion, resulting in a frothy 85 times sales valuation.

The Wall Street Journal had the most scathing assessment.

In a column titled "Index Funds Need Better Gatekeepers," Jacky Wong wrote that "a simple smell test would be enough to rule out the likes of ArtGo-a dowdy company whose shares had risen by a factor of 40 in a year despite no profits and declining sales."

Market efficiency often makes broad, passive indexing a sensible approach for investing across markets and regions. But there can be risks to cap-weighted indexes, as Ms. Wong rightly points out.

ArtGo is a high-profile example of what can happen to a negative earner that eventually has expectations come back to reality. After MSCI reversed its inclusion decision, its stock plunged 98% in a single morning.

Fundamental Indexing

A section of Jeremy Siegel's *Stocks for the Long Run*, titled "The Pitfalls of Capitalization-Weighted Indexing," argued there could be valuation risks for capweighted indexes, like the S&P 500 Index, in part driven by their increasing popularity:

If a firm's mere entry into the S&P 500 causes the price of its stock to rise, due to the anticipated buying by index funds, index funds will hold a number of overpriced stocks that will depress future returns.²

This is exactly the type of buying that was going on with ArtGo.

Professor Siegel's preferred solution for this pitfall was fundamentally weighted indexes. These indexes have a high correlation to market cap-weighted indexes but tend to skew weight toward value stocks. Each constituent is weighted by fundamentals like di vidends, earnings, cash flows or book value, instead of market capitalization.

WisdomTree launched some of the earliest fundamentally weighted indexes in emerging markets in 2007.

For this market, WisdomTree opted for weighting by cash dividends, which offered a uniform and unambiguous measure of value across countries.

The tables below show the quintile returns for the MSCI Emerging Markets Small Cap Index



by dividend yield and earnings yield. This index has about 11% of its weight in negative-earning companies, relative to just about 3.5% for the broader MSCI Emerging Markets Index-making a fundamental screen possibly more important for lower-quality small-caps.

Over the full decade there has been a clear relationship between both higher-dividend yields and earnings yields (lower price-to-earnings) and higher-quintile returns.

WisdomTree's dividend-weighted small cap Index tended to have greater weight in the top three quintiles. Equally important, the Index tilted away from the categories of non-dividend payers and negative earners that had negative returns over the period.

10-Year Returns by Quintile: MSCI Emerging Markets Small Cap Index

Earnings Yield Quintiles		
1st Quintile	7.37%	
2nd Quintile	6.21%	
3rd Quintile	4.77%	
4th Quintile	5.15%	
5th Quintile	1.42%	
Negative Earners	-6.13%	
Total	2.99%	

Dividend Yield Quintiles		
1st Quintile	9.33%	
2nd Quintile	7.50%	
3rd Quintile	5.54%	
4th Quintile	4.15%	
5th Quintile	1.35%	
No Dividends	-2.77%	
Total	2.99%	

Sources: WisdomTree, FactSet, 11/30/09–11/29/19. Index returns based on annualized total returns. You cannot invest directly in an index. Weights subject to change.

Dividend-weighting has tended to naturally tilt the <u>WisdomTree Emerging Markets SmallCap Dividend Index (WTEMSC)</u> away from negative earners-companies that pay higher cash dividends tend to also be more profitable. But in 2018, an explicit positive-earnings screen was added to the Index methodology as an additional check on avoiding negative earners.

As a result, the Index has a modest 1.3% weight in negative earners, discounted valuations and a significant improvement in aggregate return-on-equity relative to the cap-weighted benchmark.

Since inception in 2007, WTEMSC has outperformed the MSCI index by over 300 basis points annualized, with over 200 fewer basis points of volatility.

Characteristics	WisdomTree Emerging Markets SmallCap Dividend Index	MSCI Emerging Markets Small Cap Index
Valuation & Other Characteristics		
Constituents	1,007	1,655
Negative Earners (%)	1.34%	11.22%
Price/Earnings (Trailing)	9.39	12.36
Price/Book	1.12	1.30
Dividend Yield	5.34%	2.84%
Return on Equity	11.38%	7.59%
Risk/Return (Since Inception)		
Return	4.14%	1.01%
Standard Deviation	20.94%	23.12%
Sharpe Ratio	0.16	0.01
Information Ratio	0.58	0.00
Beta	0.88	1.00
Correlation	0.97	1.00

Sources: WisdomTree, FactSet, as of 11/29/19. Since inception returns based on annualized index total returns from 8/1/07 to 11/29/19. You cannot invest directly in an index. Weight subject to change.

Conclusion

The ArtGo example highlights an important question for index-based investing, about whether indexes should have rules that account for fundamentals, like earnings or dividends.



WisdomTree's emerging market small-cap index offers an example of how a fundamentally weighted index can be constructed with a sufficiently broad universe (\sim 1,000 constituents) and maintain a high correlation to the market-cap weighted universe (correlation of 0.97), while avoiding some of the more speculative parts of the market that have been shown to detract from long-term returns.

For standardized performance and the most recent month-end performance click $\underline{\text{here}}$ NOTE, this material is intended for electronic use only. Individuals who intend to print and physically deliver to an investor must print the monthly performance report to accompany this blog.

For more investing insights, check out our <a>Economic & Market Outlook

View the online version of this article here.



¹Jacky Wong, "Index Funds Need Better Gatekeepers," *The Wall Street Journal*, November 22, 2019.

²Jeremy J. Siegel, *Stocks for the Long Run*, McGraw-Hill Education, 2014, 370

IMPORTANT INFORMATION

U.S. investors only: Click <u>here</u> to obtain a WisdomTree ETF prospectus which contains investment objectives, risks, charges, expenses, and other information; read and consider carefully before investing.

There are risks involved with investing, including possible loss of principal. Foreign investing involves currency, political and economic risk. Funds focusing on a single country, sector and/or funds that emphasize investments in smaller companies may experience greater price volatility. Investments in emerging markets, currency, fixed income and alternative investments include additional risks. Please see prospectus for discussion of risks.

Past performance is not indicative of future results. This material contains the opinions of the author, which are subject to change, and should not to be considered or interpreted as a recommendation to participate in any particular trading strategy, or deemed to be an offer or sale of any investment product and it should not be relied on as such. There is no guarantee that any strategies discussed will work under all market conditions. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This material should not be relied upon as research or investment advice regarding any security in particular. The user of this information assumes the entire risk of any use made of the information provided herein. Neither WisdomTree nor its affiliates, nor Foreside Fund Services, LLC, or its affiliates provide tax or legal advice. Investors seeking tax or legal advice should consult their tax or legal advisor. Unless expressly stated otherwise the opinions, interpretations or findings expressed herein do not necessarily represent the views of WisdomTree or any of its affiliates.

The MSCI information may only be used for your internal use, may not be reproduced or re-disseminated in any form and may not be used as a basis for or component of any financial instruments or products or indexes. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each entity involved in compiling, computing or creating any MSCI information (collectively, the "MSCI Parties") expressly disclaims all warranties. With respect to this information, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including loss profits) or any other damages (www.msci.com)

Jonathan Steinberg, Jeremy Schwartz, Rick Harper, Christopher Gannatti, Bradley Krom, Tripp Zimmerman, Michael Barrer, Anita Rausch, Kevin Flanagan, Brendan Loftus, Joseph Tenaglia, Jeff Weniger, Matt Wagner, Alejandro Saltiel, Ryan Krystopowicz, Jianing Wu, and Brian Manby are registered representatives of Foreside Fund Services, LLC.

WisdomTree Funds are distributed by Foreside Fund Services, LLC, in the U.S. only. You cannot invest directly in an index.

