WHITEPAPER SERIES

February 1, 2020

Bitterroot
CAPITAL ADVISORS

US VS. EMERGING MARKET EQUITIES

Examining the Sources of Valuation Difference

After a decade of US equities' outperformance vs. Emerging Market equities, the valuation gap between US Equities and EM Equities has widened. In this paper, we granularly break down the sources of difference comprising the valuation gap and analyze the implications.

Sid Nadkarni
BCA Chief Investment Officer
sid@bitterrootcapital.com

U S VS. EMERGING MARKET EQUITY MARKETS – DEEP DIVE ON VALUATION

After a decade of significant US equities outperformance vs. emerging market equities (EM), investors are questioning whether US equities are expensive relative to EM and whether EM equities will likely mean revert and outperform the US over the next several years. EM bulls argue that the composition of the MSCI EM index vs. 2010 is vastly different in terms of country exposure and sector weighting (much higher weighting to China and lower weighting to commodity sectors). In this whitepaper, we analyze the valuation differences between the US and EM equity markets and opine on whether the US market actually is expensive relative to EM or whether it is fairly valued on a relative basis.

EM vs. US (S&P 500) Annual Nominal Returns and Current Valuations (as of 12/31/19)

Annualized Returns – S&P 500 vs. MSCI EM (2010-2019) - USD		
S&P 500	**MSCI EM**	**Difference**
13.1%	2.0%	11.1%

Current Valuations (NTM P/E)		
S&P 500	**MSCI EM**	**Difference**
18.4x	12.7x	5.7x

As of 12/31/19, the MSCI EM Index (representative of predominantly large-cap EM equities) is trading at 12.7x next-twelve-months (NTM) earnings (P/E) vs. the S&P 500 at 18.4x. On a relative basis, the MSCI EM is thus trading at a 31% discount to the S&P 500. Over the past twenty years, this discount has ranged between 8% and 50% and has averaged roughly 28%. Over the past 15 years, the discount has ranged between 10% and 35%, averaging 24%. Historically, multiple reasons have contributed to this discount including:

- More consistent earnings growth for the S&P 500 vs. MSCI EM
- Higher political instability among EM nations and fragmented nature of EM vs. single-country US
- Greater shareholder / business friendly climate in the US with regards to capital allocation, corporate governance, and lack of government control / interference in business

Breaking Down MSCI EM's Valuation Discount

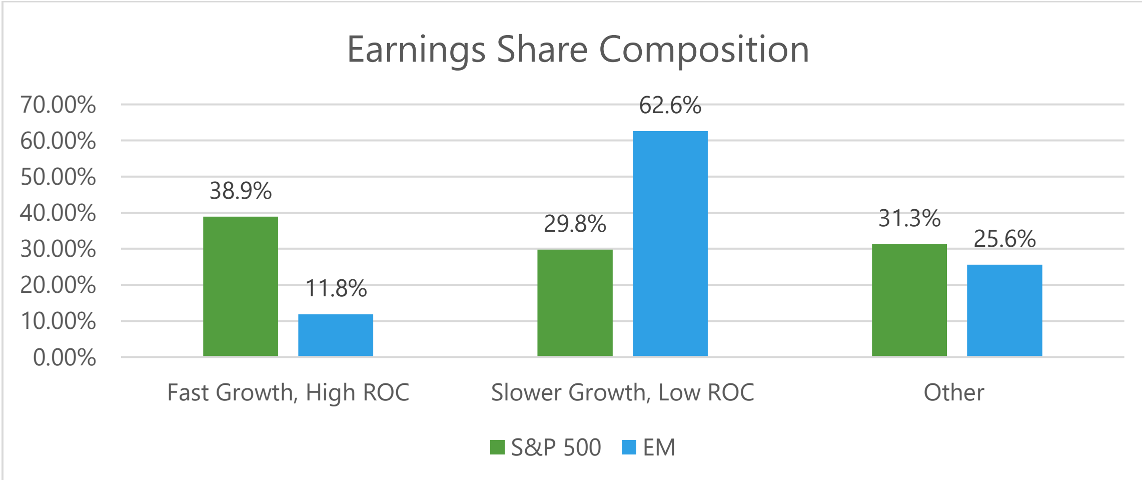
While the MSCI EM trades at a discount to the S&P 500, we postulate that the EM is <u>less cheap</u> vs. the US than it appears on the surface. We attribute the P/E multiple difference to three main factors.

- Structural differences due to significantly different sector weightings between the US and EM
- Idiosyncratic US single-stock and sector outliers (Amazon, US real-estate sector) having a disproportionate accounting earnings effect on valuation
- "True" valuation effect (like for like basis) which we believe is warranted given US Equities' superior quality, predictability of earnings, corporate governance and less dependence on macro / political outcomes.

Sector Weighting Difference (See Appendix for further detail)

- The S&P 500 has a significantly higher weighting to faster-growing, higher-return on capital sectors (technology and healthcare), both in terms of market capitalization and earnings share Conversely, MSCI EM has a much higher-weighting to slower-growth, lower-return on capital sectors such as the financial, energy sector, and materials sectors. <u>If one was to simplistically</u>

characterize sectors as faster growth / higher return on capital vs. slower growth / lower-return on capital, the difference between the S&P 500 and MSCI EM is stark.



- Technology represents 23% of the S&P 500 but only 15% of MSCI EM and is valued at 21.7x in the US vs. 15.8x in MSCI EM. The US technology sector tends to trade at higher multiples as companies are faster-growing, have higher-returns on capital and better competitive moats.
- Healthcare in the US has a higher weighting at 14.1% to this sector vs. 2.8% in EM and is valued at 16x in the US vs. 26x in MSCI EM. Healthcare stocks generally trade at higher multiples given their defensive characteristics coupled better-than-average organic growth prospects.
- Financials, energy and materials comprise 39% of MSCI EM vs. 19%. Financial and energy sectors trade at much lower multiples given their slower-growth, lower return-on-capital, and more highly cyclical characteristics which results in less predictable earnings growth
- If we normalize sector weights by applying S&P 500 sector weights to MSCI EM sector valuations, the valuation difference between S&P 500 and MSCI EM narrows from 5.7x multiple points to 3.4x (see below)

Adjusted Valuations – S&P 500 sector weights applied to MSCI EM		
S&P 500 NTM P/E Multiple	**Adj. MSCI EM NTM P/E applying S&P 500 Sector Weightings**	**Adjusted Multiple Difference**
18.4x	15.0x	3.4x

Idiosyncratic Single-Stock and Sector Outliers - Amazon and US REITS sector further distort comparisons between the US And EM

In addition, to the differing sector weights, the valuation difference between MSCI EM and S&P 500 is distorted by other significant US idiosyncratic outliers (Amazon and US REITS).

- Amazon represents 4.3% of the S&P 500 and is mega-cap consumer discretionary e-commerce stock. While EM has Alibaba (which is comparable in many ways to Amazon), the difference between free-cash flow (true economic earnings) and reported earnings is much different at Amazon. Amazon trades at 67x NTM P/E vs. the S&P 500 market multiple of 18.4x. Amazon's

valuation is deceptive however as its free cash flow profile is far greater than its reported earnings. On free-cash flow, Amazon trades at 25x NTM FCF whereas the S&P trades at roughly 20x FCF. If Amazon was valued on FCF instead of earnings, the S&P 500's multiple would be 0.3x lower.
    - This Amazon "accounting earnings" effect accounts for 0.3x of the 5.7x multiple difference between S&P 500 and MSCI EM (or roughly 5%)
- The real estate sector is relatively small in both S&P 500 and MSCI EM indexes at 2.9% and 3.0% respectively. However, the difference in companies comprising the sector is substantial. The S&P 500 Real Estate is primarily comprised of income-producing REITS whereas MSCI EM is largely comprised of highly-capital intensive real estate property development companies. Additionally, there is a massive difference in valuation. The real estate sector P/E valuation multiple differs significantly at 43x for the S&P 500 vs. 7x for MSCI EM.
    - Much like Amazon however, the S&P real estate P/E multiple is artificially high and its true free cash flow multiple is much lower (closer to 20x). US GAAP accounting standards lead to artificially low reported earnings (due to depreciation accounting) vs. economic free cash flow. The IFRS accounting standards used in MSCI EM do not have this distortion. In actuality, the true valuations of publicly traded real estate in the S&P 500 and MSCI EM are less distorted than the P/E multiple would suggest. If the real estate sector was valued on a true economic cash-flow basis, this would account for 0.4x of the 5.7x multiple difference between the S&P 500 and MSCI EM.
- Taken together, the Amazon and US Real Estate sector outlier effect accounts for 0.7x of the 5.7x multiple difference between S&P 500 and MSCI EM NTM P/E valuation (see below).

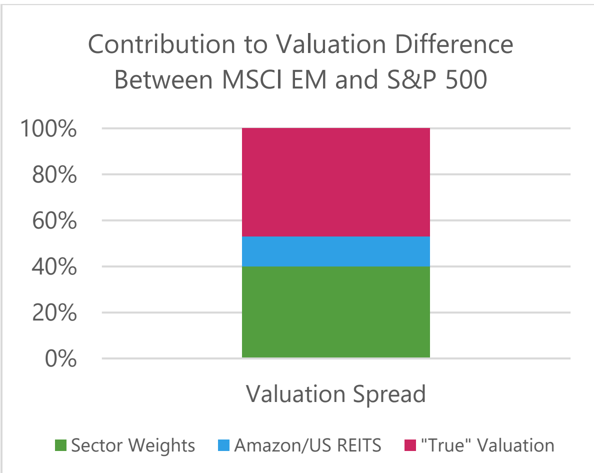
Adjusted Valuations – S&P 500 vs. MSCI EM (Adjusting for sector weight differences and Amazon / REITS)			
S&P 500 NTM P/E Multiple	**S&P 500 NTM P/E adj. for Amazon & REITS effect**	**Adj. MSCI NTM P/E applying S&P 500 Sector Weights**	**Adjusted Multiple Difference**
18.4x	17.7x	15.0x	2.7x

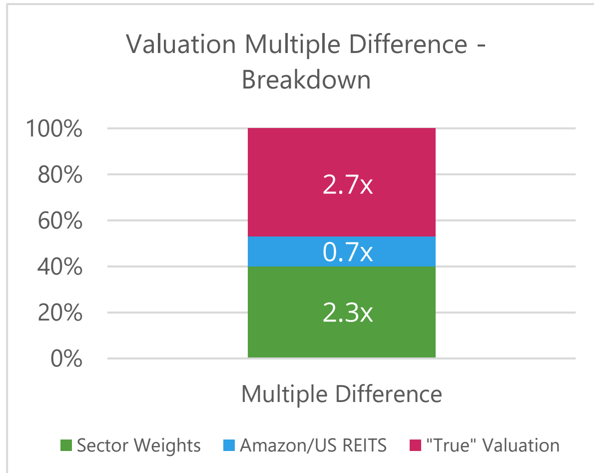
"True" Valuation Difference – Like for Like Basis

- Multiple S&P sectors have significant valuation premiums to their EM counterparts. We detailed the real estate sector difference previously as an example.
- The technology sector is also a prime example of a sector where the US trades at a substantial premium (the US is valued at 21.7x vs. EM at 15.8x). However, this premium is largely explained by the S&Ps much higher weighting to software vs. non-differentiated, commodity hardware companies with EM technology
- The financial sector trades at 13.3x for the S&P vs. 9x for EM. Banks (especially in China) dominate the composition of the EM financials sector. Earnings growth has been slow at these banks, accounting transparency is much more limited and questionable, and leverage levels / reliance on state support is significantly higher. As such, the EM valuation discrepancy seems warranted and explainable.

Conclusion

As described above, the sector weight differential coupled with the limited outliers account for the majority (roughly 53%) of the valuation difference between the S&P 500 and MSCI EM NTM P/E multiples. Pure like-for-like valuation differentials account for 2.7x of the 5.7x difference (roughly 47%). Put another way, adjusted for the effects described above, the "true" discount for MSCI EM vs. the S&P 500 is 15% rather than the 31% detailed at the beginning of this paper. As such, while MSCI EM 's true valuation discount relative to the US is larger than other international markets such as the Stoxx 600 (Europe), <u>we would not describe MSCI EM as being excessively cheap relative to the US, given several advantages possessed by US equities detailed earlier.</u>





Implications

Just because we do not believe MSCI EM is overly cheap vs. the US does not mean EM equities cannot outperform US Equities.

- EM equities dramatically outperformed US equities from 2000-2007 and in 2010 and 2017.
- EM equities have outperformed US equities when there has been a clear expectation of an upward trend in global growth momentum (i.e. global trade and global GDP). This global growth momentum is typically driven by China's growth and can oscillate significantly depending on whether China is adding or pulling back from stimulus measures.
    - Conceptually, this makes sense as EM has much greater exposure to cyclically exposed companies (energy, financials, and materials). These companies' earnings fluctuate significantly with macro-economic conditions given their higher fixed costs.
- However, as seen earlier, EM equities significantly underperformed US equities from 2010-2019 in relatively low (by historical standards) global recovery environment post the financial crisis.

If one believes that we are at an inflection point with a multi-year trajectory of improving global growth, then it stands to reason that EM equities may likely outperform US equities. However, if one believes that the growth cycle is likely later stage or we are in an elongated slower-for-longer global growth environment, US equities may likely outperform given higher exposure to greater secular growth companies.

Appendix A - S&P 500 vs. EM Valuation with Sector Breakout

S&P 500 vs. EM Valuation

	S&P 500			EM		
	Weight	NTM P/E Multiple	Earnings Share	Weight	NTM P/E Multiple	Earnings Share
Technology	23.3%	21.7x	19.5%	15.7%	15.8x	12.5%
Healthcare	14.1%	16.0x	16.1%	2.8%	25.8x	1.4%
Financials	12.9%	13.3x	17.7%	24.1%	9.0x	33.5%
Communication Services	10.6%	17.2x	11.1%	11.1%	19.9x	7.0%
Consumer Discretionary	9.8%	22.3x	8.0%	14.3%	20.1x	8.9%
Consumer Staples	7.1%	20.0x	6.5%	6.3%	21.0x	3.6%
Industrials	9.2%	17.1x	9.8%	5.3%	11.4x	5.8%
Materials	2.6%	17.6x	2.6%	7.4%	11.0x	8.4%
Real Estate	2.9%	43.0x	1.2%	3.0%	7.0x	5.3%
Utilities	3.3%	19.7x	3.0%	2.6%	11.1x	3.0%
Energy	4.4%	17.6x	4.5%	7.5%	8.9x	10.6%
Total Index	**100%**	**18.4x**	**100%**	**100%**	**12.7x**	**100%**