

Total Public Equity Benchmark

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Proposed Total Public Equity Benchmark

- Current total equity benchmark is 67% MSCI All Country World Index (ACWI) and 33% of the US component
- Proposed changes to total equity benchmark:
 - From ACWI to ACWI Investible Market Index (IMI) to include small cap
 - Lower home country bias from 33% to 25%
- Total equity benchmark would be 75% MSCI ACWI IMI and 25% of the US component
- Global Core and Global Sector proposed benchmark changes:
 - Eliminate 33% home country bias to reflect total equity benchmark change to 25% home country bias and to balance small/mid cap being US only

Total Equity Benchmark

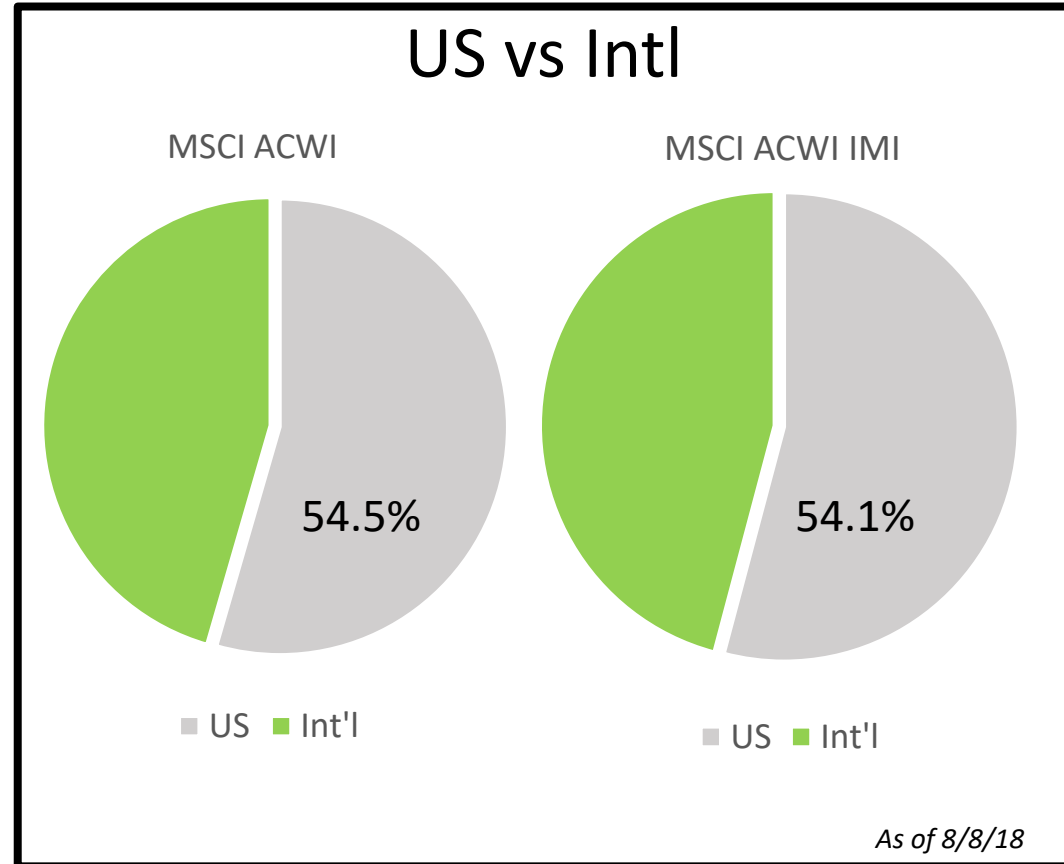
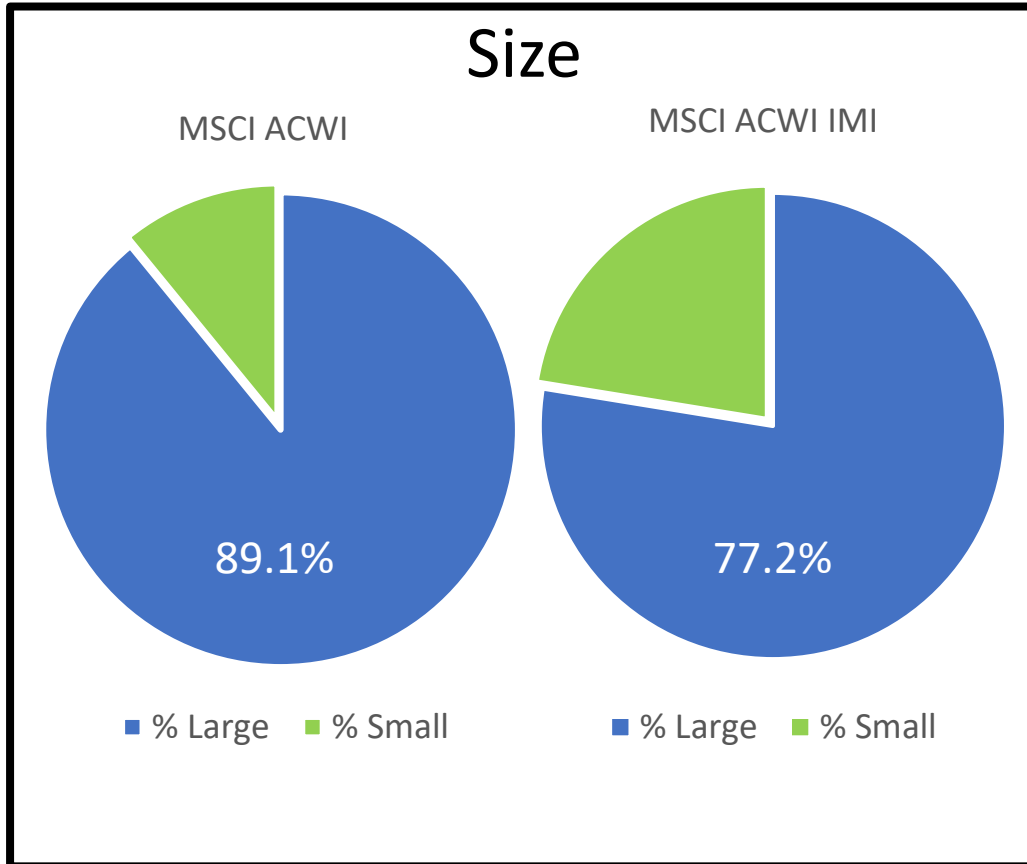
MSCI All Country World IMI Index

MSCI ACWI IMI Index					
MSCI World Index			MSCI Emerging Markets Index		
Developed Markets			Emerging Markets		
Americas	Europe & Middle East	Pacific	Americas	Europe, Middle East & Africa	Asia
United States	Austria	Australia	Brazil	Czech Republic	China
Canada	Belgium	Hong Kong	Chile	Egypt	India
	Denmark	Japan	Colombia	Greece	Indonesia
	Finland	New Zealand	Mexico	Hungary	Korea
	France	Singapore	Peru	Poland	Malaysia
	Germany			Qatar	Pakistan
	Ireland			Russia	Philippines
	Israel			South Africa	Taiwan
	Italy			Turkey	Thailand
	Netherlands			United Arab Emirates	
	Norway				
	Portugal				
	Spain				
	Sweden				
	Switzerland				
	United Kingdom				

- Morgan Stanley Capital International (MSCI) All Country World Index (ACWI)
 - Market leading index provider for global equity benchmarks
- MSCI ACWI IMI Index (incl. Small cap)
 - Covers approx. 99% of global equity investment opportunity set
 - ~8,800 companies
- MSCI ACWI Index
 - Covers approx. 85% of global equity investment opportunity set.
 - ~2700 companies

MSCI ACWI IMI vs MSCI ACWI

Small cap weighting significant difference, US weighting similar



Evolution of International Investing

1990s

Typical initial allocation +/- 10% to International Stocks

2000s

Typical allocation increased to +/- 20%

Today

Split between those that are fully global and those with a home country bias

Home Country Bias Considerations

- Rationale for a home country bias
 - Risk of unfair treatment investing in a foreign country
 - Currency risk and hedging difficulties
 - Diversification benefit may be diminishing

Home Country Bias

Examples

100% global index (no home country bias)

- ~54% US / ~46% Intl

75% global index + extra 25% of US component

- ~66% US / ~34% Intl

67% global index + extra 33% of US component

- ~69% US / ~31% Intl

Understanding Total Equity Benchmark Exposures

- Aggregation of equity portfolios compared to total equity benchmark
- Geographic and size breakdown of benchmark
- Benchmark coverage by internal management

Current vs Proposed Benchmark

	MSCI ACWI 33% HC (Current)	MSCI ACWI IMI HC 25% (Proposed)	Change
US	69.5%	65.6%	-3.9%
Large Cap	68.0%	56.2%	-11.8%
SMID Cap	1.5%	9.4%	7.9%
Ex US Total	30.5%	34.4%	3.9%
Large Cap	24.0%	23.1%	-0.8%
SMID Cap	6.5%	11.3%	4.7%
Developed Intl	22.9%	26.1%	3.2%
Large Cap	19.4%	18.8%	-0.7%
SMID Cap	3.5%	7.3%	3.8%
Emerging Mkts	7.6%	8.3%	0.7%
Large Cap	4.5%	4.4%	-0.2%
SMID Cap	3.0%	4.0%	0.9%

Internal Exposures to Total Equity Benchmark Components

	<u>ACWI IMI 25%</u>	<u>Internal Exposures</u>
US Total	65.6%	
Large Cap	56.2%	Global Equity
SMID Cap	9.4%	Small/Mid
Developed Intl	26.1%	
Large Cap	18.8%	Global Equity
SMID Cap	7.3%	
Emerging Mkts	8.3%	
Large Cap	4.4%	Global Equity (partial)
SMID Cap	4.0%	

Neutral Component Weights

MSCI ACWI IMI proposed benchmark adjusted to 25% HC bias

- 80% large cap / 20% SMID and 66% US / 26% Dev Intl / 8% EM

Components internal managed

- S&P Global 1200 large cap index
 - S&P Global 1200 has some midcap, but S&P mid cap index has even a little more large cap (~1%)
 - S&P Global 1200 has too much Dev Intl large cap (~1%) so all else the same, HC bias can be adjusted to compensate
 - S&P Global 1200 has too little EM large cap (~2%) so supplement with extra large EM
- S&P 1000 US Small/Mid cap index
 - Noted above crossover of large exposure in S&P 1000 and smid exposure in S&P Global 1200 (~1%)
 - A little too much midcap and too little small cap (~.25%) but not practical to offset

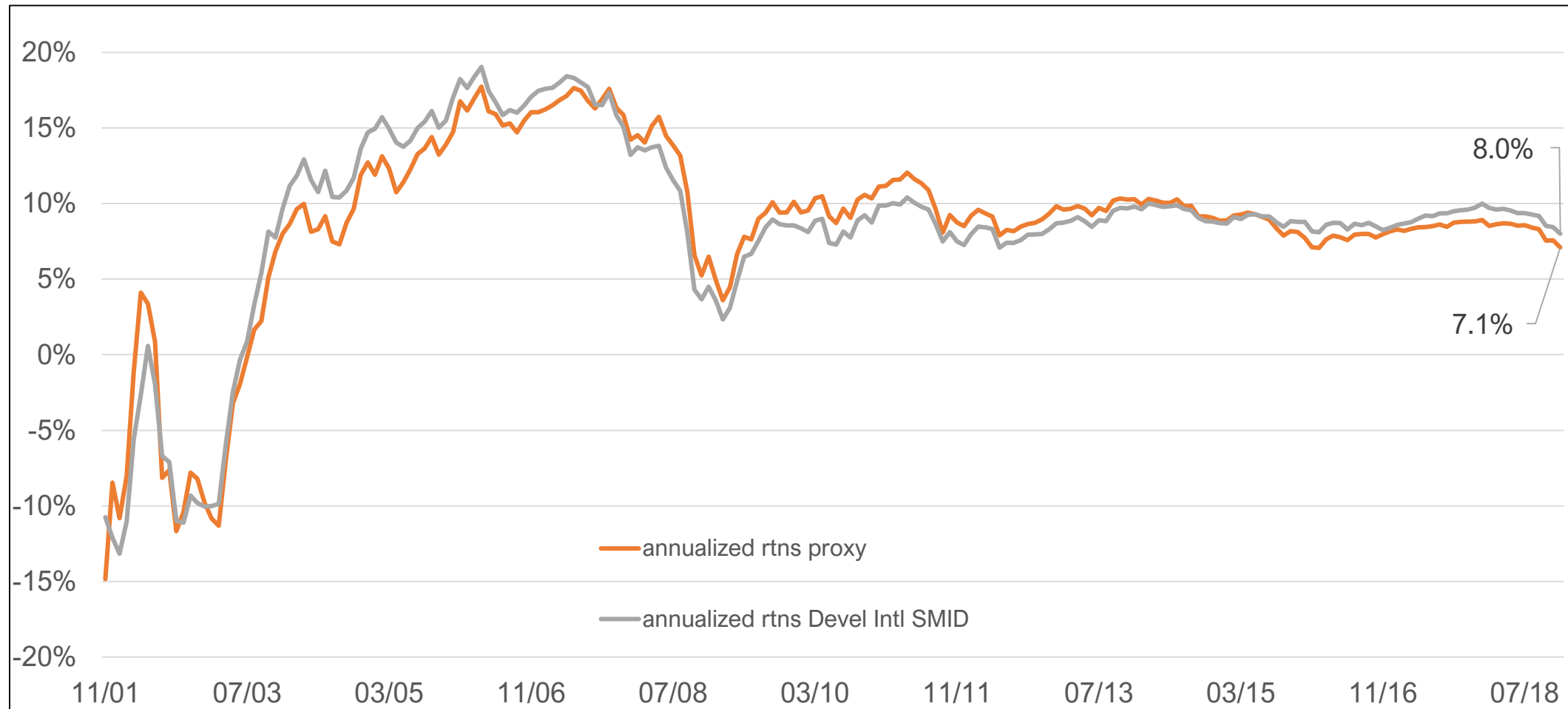
Components not internally managed

- Dev Intl SMID 6% weight can be provided through index exposure or via a proxy
 - Proxy would add ~6% extra to US SMID, and shift US large to Dev Intl large (via lowering HC bias)
- EM large cap 2% additional weight
- EM SMID 4% weight (Can use EM all cap of 3% and EM small of 3% to accomplish both EM)

Reallocation of Developed International SMID

	MSCI ACWI IMI 25% HC Bias Benchmark	Reallocation of Devel Intl SMID	Adjusted Benchmark (new target for neutral wghts)
US	65.6%		65.6%
Large Cap	56.2%	-5.6%	50.6%
Smid Cap	9.4%	5.6%	15.0%
Developed Intl	26.1%		26.1%
Large Cap	18.8%	5.6%	24.4%
Smid Cap	7.3%	-5.6%	1.7%

Annualized Returns of Internal Proxy for Developed International SMID



			Portfolio	US Sleeve (if at Neutral)	Global Core + Sectors	SMID Cap	Emerging Mkts- All Cap	Emerging Mkts- Small Cap	Total Equity										
			Index reference	S&P 500	S&P 1200 (0% HC bias)	S&P 1000	MSCI Emerging Mkts IMI	MSCI Emerging Mkts Small Cap											
			Neutral Wgt	6.9%	71.8%	16.2%	1.90%	3.2%	100%										
			ACWI- as is	ACWI IMI 75%, US 25%	Target for neutral wghts	Exposure	Contr to total	Exposure	Contr to total	Exposure	Contr to total	Exposure	Contr to total	Exposure	Contr to total	Neutral Composite Exposure	Diff b/t Composite & ACWI		
US	54.1%	65.6%	65.6%	100%	6.9%	59.2%	42.5%	100%	16.2%			65.6%	0.00%	US					
Lg Cap (>\$8b)	46.4%	56.2%	50.6%	98.7%	6.8%	58.4%	41.9%	11.4%	1.8%			50.6%	0.00%	Lg Cap					
Mid Cap (\$2-8b)	5.0%	6.0%	9.64%	1.3%	0.1%	0.8%	0.5%	57.0%	9.2%			9.9%	0.22%	Mid Cap					
Small Cap (<\$2b)	2.8%	3.3%	5.3%	0.0%	0.0%	0.0%	0.0%	31.6%	5.1%			5.1%	-0.21%	Small Cap					
SMID	7.7%	9.4%	15.0%	1.3%	0.1%	0.8%	0.6%	88.6%	14.3%			15.0%	0.00%	SMID					
Ex US Total	45.9%	34.4%	34.4%			40.8%	29.3%			100%	1.9%	34.4%	0.00%	Ex US Total					
Lg Cap	30.8%	23.1%	28.7%			38.2%	27.5%			67.6%	1.3%	28.7%	0.02%	Lg Cap					
Smid Cap	15.0%	11.3%	5.7%			2.6%	1.9%			32.4%	0.6%	5.7%	-0.02%	Smid Cap					
Developed Intl	34.8%	26.1%	26.1%			36.3%	26.1%					26.1%	-0.01%	Developed					
Lg Cap	25.0%	18.8%	24.4%			33.9%	24.3%					24.3%	-0.01%	Lg Cap					
Smid Cap	9.8%	7.3%	1.7%			2.4%	1.7%					1.7%	0.00%	Smid Cap					
Emerging Mkts	11.1%	8.3%	8.3%			4.6%	3.3%			100%	1.9%	8.3%	0.00%	Em. Mkts					
Lg Cap	5.8%	4.4%	4.4%			4.3%	3.1%			67.6%	1.3%	4.4%	0.03%	Lg Cap					
Smid Cap	5.3%	4.0%	4.0%			0.2%	0.2%			32.4%	0.6%	3.9%	-0.02%	Smid Cap					
Total Lg Cap	77.2%	79.4%	79.4%		6.8%	96.6%	69.4%		1.8%		1.3%	79.4%	0.02%	Total Lg Cap					
Total Smid Cap	22.8%	20.6%	20.6%		0.1%	3.4%	2.4%		14.3%		0.6%	20.6%	-0.02%	Total SmidCap					