



EM Country Screening Methodology

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EXECUTIVE SUMMARY. The TCRS has a 5% allocation to emerging market country equities. Staff uses the Democracy and the Corruption Perceptions rankings to create a combined percentile score of world countries. A 50 percentile cut-off defines the countries that are considered corrupt and autocratic. This TCRS suitable universe (top 50 percentile of combined ranks) is evaluated against the MSCI EM Index countries to create a subset of countries that are considered investable.

EMERGING MARKETS. Emerging markets are broadly defined as nations in the process of rapid growth and industrialization. Often times, these nations are transitioning to an open market economy with a growing working age population. The term itself was coined in the 1980s, by Antoine van Agtmael, as a more positive alternative to the then-popular term “less economically developed country”, or LEDC.

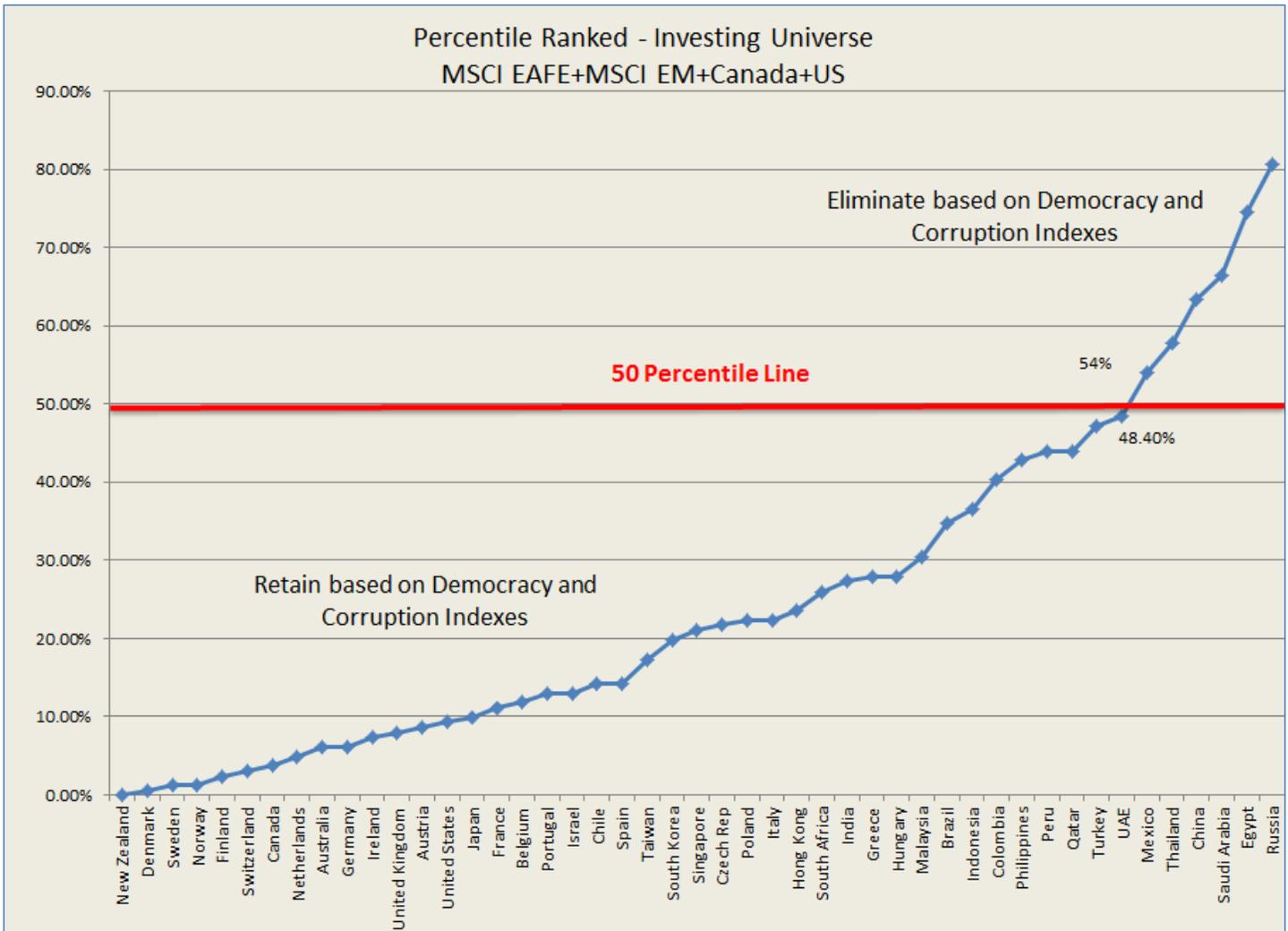
FINDING THE BEST EMERGING MARKETS. Over time many definitions have been developed to represent the best pool of emerging market countries. But ultimately, the status of any emerging market depends on its policy, politics and import/export dynamics at any given time. A growing literature shows that reduced corruption, and greater political stability – all advanced as advantages possessed by democracies – attract foreign investors to democratic governments.

SCREENING METHODOLOGY. To select TCRS investable emerging market countries, we decided to use the “Democracy Index” and the “Corruption Perceptions” rankings as the basis of retaining or eliminating an emerging market country. These indexes are usually updated every year. This dynamic selection approach will keep our selection criteria viable over time. This action can possibly add new emerging market countries or subtract existing emerging market countries from the TCRS portfolio. This study uses the most current 2016 rankings.

ECONOMIST INTELLIGENCE UNIT’S DEMOCRACY INDEX. The 2016 Economist’s magazine democracy index provides a snapshot of the state of democracy worldwide for 167 countries that covers almost the entire population of the world. The overall Democracy index is based on five categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture.

CORRUPTION PERCEPTIONS INDEX. The 2016 Corruption Perceptions Index ranks 176 countries according to their perceived levels of public-sector corruption. The 2016 index draws on different assessments and business opinion surveys carried out by independent and reputable institutions. Perceptions are used because corruption – whether frequency or amount – is to a great extent a hidden activity that is difficult to measure. Over time, perceptions have proved to be a reliable estimate of corruption.

COMBINED PERCENTILE SCORE. Since both the Democracy and the Corruption Perceptions indexes are equally important criteria we decided to combine the two ranks equally. TCRS views the top 50 percentile of the combined rank as a guide to countries that are suitable for new investments. The TCRS investing universe (top 50 percentile of combined ranks) is evaluated against the MSCI EM Index countries to create a subset of countries that are considered investable.



INVESTING UNIVERSE. Taking the countries found in the MSCI EAFE plus the MSCI EM plus Canada and drawing the 50 percentile cut-off line we get the table below.

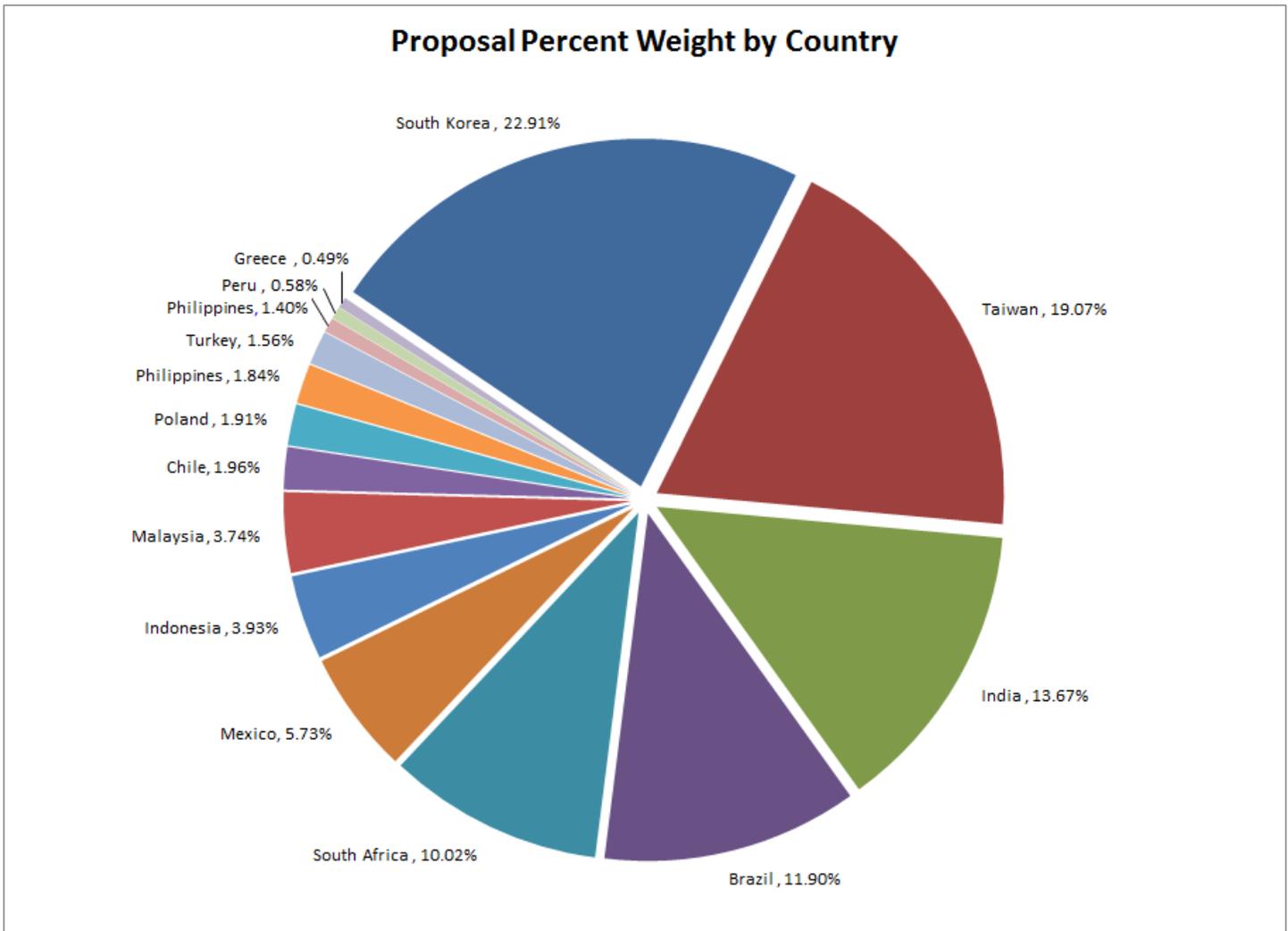
Country	2016	2016	2016	2016	CURRENT TCRS COUNTRY UNIVERSE	EMERGING MARKET COUNTRIES	PROPOSED 2017 EM COUNTRIES FOR THE TCRS UNIVERSE	
	Economist Magazine Democracy Rank	Corruption Perceptions Rank	Combined Score Rank	Combined Score Percentile			MSCI EAFE +Canada+US Countries	MSCI Emerging Market Countries
New Zealand	4	1	5	0.00%	New Zealand		YES	
Denmark	5	1	6	0.60%	Denmark		YES	
Sweden	3	4	7	1.20%	Sweden		YES	
Norway	1	6	7	1.20%	Norway		YES	
Finland	9	3	12	2.40%	Finland		YES	
Switzerland	8	5	13	3.10%	Switzerland		YES	
Canada	6	9	15	3.70%	Canada		YES	
Netherlands	12	8	20	4.90%	Netherlands		YES	
Australia	10	13	23	6.20%	Australia		YES	
Germany	13	10	23	6.20%	Germany		YES	
Ireland	6	19	25	7.40%	Ireland		YES	
United Kingdom	16	10	26	8.00%	United Kingdom		YES	
Austria	14	17	31	8.60%	Austria		YES	
United States	21	18	39	9.30%	United States		YES	
Japan	20	20	40	9.90%	Japan		YES	
France	24	23	47	11.10%	France		YES	
Belgium	35	15	50	11.80%	Belgium		YES	
Portugal	28	29	57	13.00%	Portugal		YES	
Israel	29	28	57	13.00%	Israel		YES	
Chile	34	24	58	14.20%		Chile	YES	YES
Spain	17	41	58	14.20%	Spain		YES	
Taiwan	33	31	64	17.30%		Taiwan	YES	YES
South Korea	24	52	76	19.80%		South Korea	YES	YES
Singapore	70	7	77	21.10%	Singapore		YES	
Czech Rep	31	47	78	21.70%		Czech Rep	YES	NO
Poland	52	29	81	22.30%		Poland	YES	YES
Italy	21	60	81	22.30%	Italy		YES	
Hong Kong	68	15	83	23.60%	Hong Kong		YES	
South Africa	39	64	103	26.00%		South Africa	YES	YES
India	32	79	111	27.30%		India	YES	YES
Greece	44	69	113	27.90%		Greece	YES	YES
Hungary	56	57	113	27.90%		Hungary	YES	NO
Malaysia	65	55	120	30.40%		Malaysia	YES	YES
Brazil	51	79	130	34.70%		Brazil	YES	YES
Indonesia	48	90	138	36.60%		Indonesia	YES	YES
Colombia	57	90	147	40.30%		Colombia	YES	YES
Philippines	50	101	151	42.80%		Philippines	YES	YES
Peru	59	101	160	44.00%		Peru	YES	YES
Qatar	135	31	160	44.00%		Qatar	YES	NO
Turkey	97	75	172	47.20%		Turkey	YES	YES
UAE	147	24	177	48.40%		UAE	YES	NO
Mexico	67	123	190	54.00%		Mexico	NO	
Thailand	100	101	201	57.70%		Thailand	NO	
China	136	79	215	63.30%		China	NO	
Saudi Arabia	159	62	221	66.40%		Saudi Arabia	NO	Standalone EM
Egypt	133	108	241	74.50%		Egypt	NO	
Russia	134	131	265	80.70%		Russia	NO	

SELECTED EMERGING MARKET COUNTRIES. Based on this analysis we included the following emerging market countries for the 2017 TCRS investable EM portfolio. The countries are Brazil, Chile, Colombia, Greece, India, Indonesia, South Korea, Malaysia, Mexico, Peru, Philippines, Poland, South Africa, Taiwan, and Turkey. Thailand has been removed from the 2017 TCRS investable EM portfolio.

MSCI Emerging Market data as of 4/6/2017

#	Country	MSCI Weight	Current TCRS Recalculated Weight	2017 Proposal
TCRS Included Countries within MSCI EM Index				
1	South Korea	14.76%	22.14%	22.91%
2	Taiwan	12.29%	18.43%	19.07%
3	India	8.95%	13.21%	13.67%
4	Brazil	7.67%	11.51%	11.90%
5	South Africa	6.46%	9.68%	10.02%
6	Mexico	3.71%	5.54%	5.73%
7	Indonesia	2.56%	3.80%	3.93%
8	Malaysia	2.43%	3.62%	3.74%
9	Thailand	2.25%	3.35%	-
10	Chile	1.28%	1.90%	1.96%
11	Poland	1.24%	1.85%	1.91%
12	Philippines	1.19%	1.78%	1.84%
13	Turkey	1.00%	1.51%	1.56%
14	Colombia	0.43%	0.65%	0.67%
15	Peru	0.37%	0.56%	0.58%
16	Greece	0.32%	0.48%	0.49%
		66.96%	100.00%	100.00%
TCRS Excluded Countries within MSCI EM Index				
1	China	26.95%		
2	Russia	3.90%		
3	Qatar	0.81%		
4	United Arab Emirates	0.76%		
5	Hungary	0.30%		
6	Czech Republic	0.18%		
7	Egypt	0.13%		
		33.03%		

EXCHANGE TRADED FUNDS AS THE INVESTMENT VEHICLE. A common way to gain exposure to emerging markets countries is through Exchange Traded Funds (ETFs). TCRS may not be able to invest in a country if there is not a viable ETF or mutual fund. Currently as of April 6, 2017 the Czech Republic and Hungary are two such countries and therefore will be excluded from the TCRS EM portfolio. These market factors along with the Democracy and Corruptions Perceptions Index serve as a guide to the suitable investible universe for the TCRS Emerging Market Portfolio and the appropriate benchmark.



Staff recommends removing Thailand from the TCRS EM portfolio. This is the second year in a row where Thailand has performed poorly and recent trends have deteriorated. Mexico fell considerably recently and we recommend holding our position as we monitor the situation. Staff is concerned about incurring unnecessary transaction costs in this circumstance. As a result of Thailand's exclusion, the TCRS MSCI Custom EM Benchmark will change this year. Additionally, we do not recommend adding Qatar & UAE to the portfolio. Both are limited markets and the ETF's are too small for TCRS to gain significant exposure. Currently, we are limited in our South African portfolio allocation as the TCRS percent ownership with reference to the market capitalization is high. For this reason, South Africa will continue to be structurally under-weighted.