

# OPTIONS OUT OF THIS COUNTRY – INTERNATIONAL INDEXES & TRENDS

March 2017

# OVERVIEW

- I. MSCI Indexes
- II. Globalization of Equity Investing
- III. Trends in Risk & Return
- IV. Growing Product Ecosystem

# MSCI INDEXES

MSCI ACWI & FRONTIER MARKETS INDEX										
MSCI ACWI INDEX						MSCI EMERGING & FRONTIER MARKETS INDEX				
MSCI WORLD INDEX			MSCI EMERGING MARKETS INDEX			MSCI FRONTIER MARKETS INDEX				
DEVELOPED MARKETS			EMERGING MARKETS			FRONTIER MARKETS				
Americas	Europe & Middle East	Pacific	Americas	Europe, Middle East & Africa	Asia	Americas	Europe & CIS	Africa	Middle East	Asia
Canada United States	Austria Belgium Denmark Finland France Germany Ireland Israel Italy Netherlands Norway Portugal Spain Sweden Switzerland United Kingdom	Australia Hong Kong Japan New Zealand Singapore	Brazil Chile Colombia Mexico Peru	Czech Republic Egypt Greece Hungary Poland Qatar Russia South Africa Turkey United Arab Emirates	China India Indonesia Korea Malaysia Philippines Taiwan Thailand	Argentina	Croatia Estonia Lithuania Kazakhstan Romania Serbia Slovenia	Kenya Mauritius Morocco Nigeria Tunisia WAEMU <sup>2</sup>	Bahrain Jordan Kuwait Lebanon Oman	Bangladesh Pakistan <sup>3</sup> Sri Lanka Vietnam
MSCI STANDALONE MARKET INDEXES <sup>1</sup>										
				Saudi Arabia		Jamaica Trinidad & Tobago	Bosnia Herzegovina Bulgaria Ukraine	Botswana Ghana Zimbabwe	Palestine	

<sup>1</sup> The MSCI Standalone Market Indexes are not included in the MSCI Emerging Markets Index or MSCI Frontier Markets Index. However, these indexes use either the Emerging Markets or the Frontier Markets methodological criteria concerning size and liquidity.

<sup>2</sup> The West African Economic and Monetary Union (WAEMU) consists of the following countries: Benin, Burkina Faso, Ivory Coast, Guinea-Bissau, Mali, Niger, Senegal and Togo. Currently the MSCI WAEMU Indexes include securities classified in Senegal, Ivory Coast and Burkina Faso.

<sup>3</sup> Pakistan will be reclassified from Frontier Markets to Emerging Markets effective May, 2017.

# ASSETS BENCHMARKED TO MSCI INDEXES

- Over **\$ 10 Trillion** in assets are benchmarked to MSCI Indexes
- More than **\$ 2 trillion** in assets are benchmarked to each of the 2 major MSCI index families (ACWI & World) and nearly \$1.9 trillion on EAFE

- Main index families include assets tracking only that specific index and all size, style and factor versions of it
- USA: Assets tracking all versions of the MSCI USA/USEI index families
- Europe: Assets tracking all versions of regional indexes in Europe e.g: MSCI Europe, MSCI EMU, MSCI Eastern Europe, MSCI pan-Europe etc. It excludes all single country indexes
- Asia: Assets tracking all versions of regional indexes in Asia such as MSCI Asia Pacific, Pacific, Far-East, Asia Pacific ex-Japan, Golden Dragon etc. The total excludes all single country indexes
- Other: Includes mainly single country indexes, Frontier Market index family



## AUM Tracking MSCI Indexes as of June 2016

	Active	Passive	Total
Institutional	5,678,624	1,359,338	7,037,963
Retail	2,838,265	154,678	2,992,943
ETF		439,747	439,747
<b>Total</b>	<b>8,516,889</b>	<b>1,953,763</b>	<b>10,470,653</b>

## AUM Tracking MSCI Indexes as of June 2015

	Active	Passive	Total
<b>TOTAL</b>	<b>8,516,889</b>	<b>1,953,763</b>	<b>10,470,653</b>
<i>ACWI</i>	<i>2,347,469</i>	<i>374,648</i>	<i>2,722,116</i>
<i>EAFE</i>	<i>1,468,771</i>	<i>422,992</i>	<i>1,891,763</i>
<i>EM</i>	<i>1,344,077</i>	<i>275,222</i>	<i>1,619,299</i>
<i>World</i>	<i>2,105,938</i>	<i>417,105</i>	<i>2,523,043</i>
<i>USA</i>	<i>349,492</i>	<i>211,766</i>	<i>561,258</i>
<i>Europe</i>	<i>539,079</i>	<i>83,584</i>	<i>622,662</i>
<i>Asia</i>	<i>233,423</i>	<i>17,575</i>	<i>250,998</i>
<i>Other</i>	<i>128,641</i>	<i>150,873</i>	<i>279,514</i>

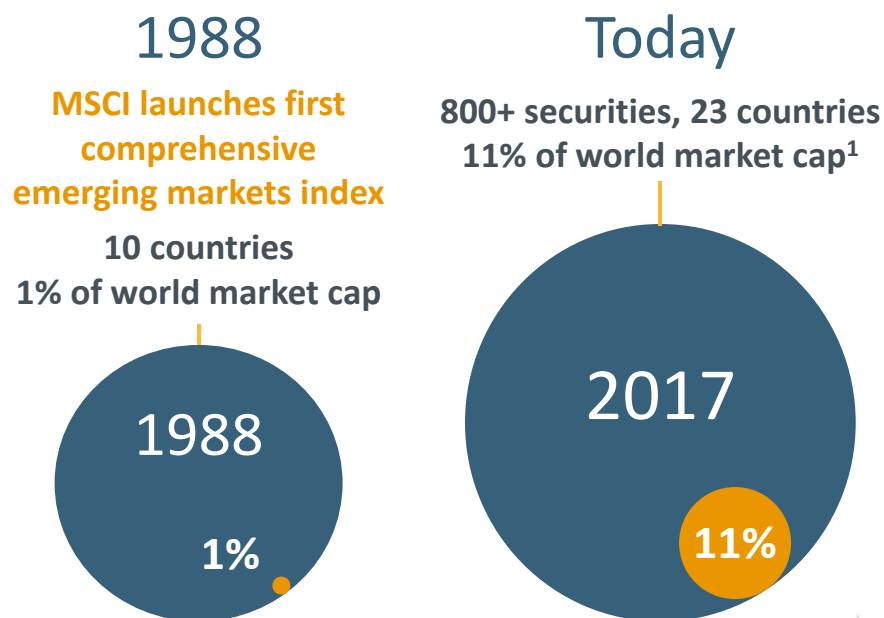
As of June 30, 2016, as reported on Sept 30, 2016 by eVestment, Morningstar and Bloomberg.  
 The institutional/retail split is based on eVestment and Morningstar database classification.  
 Data excludes futures and options

# GLOBAL MARKETS TODAY

#	COUNTRY	Weight in ACWI	#	COUNTRY	Weight in ACWI
1	USA	53.44%	24	MEXICO	0.37%
2	JAPAN	7.91%	25	FINLAND	0.30%
3	UNITED KINGDOM	5.86%	26	INDONESIA	0.27%
4	CANADA	3.29%	27	MALAYSIA	0.26%
5	FRANCE	3.22%	28	THAILAND	0.25%
6	GERMANY	3.03%	29	NORWAY	0.22%
7	CHINA	2.89%	30	ISRAEL	0.22%
8	SWITZERLAND	2.85%	31	IRELAND	0.15%
9	AUSTRALIA	2.44%	32	PHILIPPINES	0.13%
10	KOREA	1.59%	33	POLAND	0.13%
11	TAIWAN	1.31%	34	CHILE	0.13%
12	HONG KONG	1.10%	35	TURKEY	0.11%
13	NETHERLANDS	1.07%	36	QATAR	0.09%
14	SPAIN	1.02%	37	UNITED ARAB EMIRATES	0.09%
15	SWEDEN	0.95%	38	AUSTRIA	0.07%
16	INDIA	0.89%	39	NEW ZEALAND	0.06%
17	BRAZIL	0.87%	40	COLOMBIA	0.05%
18	SOUTH AFRICA	0.75%	41	PORTUGAL	0.05%
19	ITALY	0.64%	42	PERU	0.04%
20	DENMARK	0.54%	43	GREECE	0.03%
21	RUSSIA	0.46%	44	HUNGARY	0.03%
22	SINGAPORE	0.42%	45	CZECH REPUBLIC	0.02%
23	BELGIUM	0.37%	46	EGYPT	0.01%

As of January 31, 2017

# EMERGING MARKETS OVER 30 YEARS



### The Emerging Markets

MSCI reviews & identifies countries on the basis of:

- ✓ Economic development
- ✓ Size
- ✓ Liquidity
- ✓ Market accessibility
- ✓ Extensive discussions with investment community

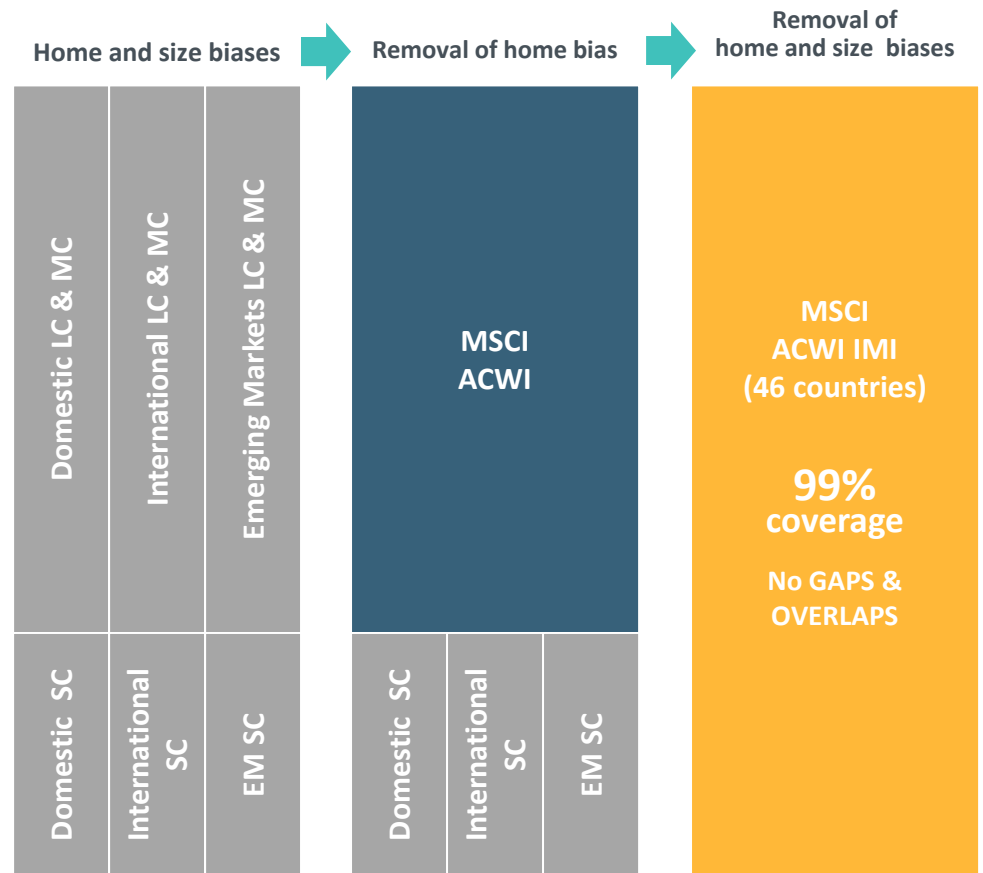
ASIA	EMEA	AMERICAS
China, India, Indonesia, Korea, Malaysia, Philippines, Taiwan, Thailand	Czech Republic, Egypt, Greece, Hungary, Poland, Qatar, Russia, South Africa, Turkey, UAE	Brazil, Chile, Colombia, Mexico, Peru

More than **\$1.5 trillion** AUM tracking the broad MSCI Emerging Markets Indexes<sup>(2)</sup>

(1) As of April 30, 2016  
 (2) As of December 31, 2015, as reported on March 30, 2016 by eVestment, Morningstar and Bloomberg.  
 Includes the MSCI EM, MSCI EM IMI, MSCI EM Small Cap, MSCI EM Large Cap, MSCI EM Mid Cap Indexes.

# GLOBALIZATION OF EQUITY POLICY BENCHMARKS

- Recent years have seen increased **adoption of global equity policy** benchmarks in contrast to the traditional segmentation between domestic/non-domestic and other fixed regional buckets
- Some institutional investors believe that **ignoring small cap and emerging markets could have significant implications** for long term portfolio performance
- An increasing number of investors are now adopting MSCI's global benchmark: **MSCI ACWI IMI**



# ALLOCATIONS TO EMERGING MARKETS

## INTEGRATED

### Investment Rationale:

- Comprehensive capture of global opportunity set
- Minimize market timing

### Benchmarks:

- MSCI ACWI Index

## DEDICATED

### Investment Rationale:

- Flexibility in strategic over and underweight allocation

### Benchmarks:

- MSCI Emerging Markets Index
- MSCI Emerging Markets 100% Hedged USD Index

## PICKING THE WINNERS

### Investment Rationale:

- High conviction allocation backed by active view on specific theme

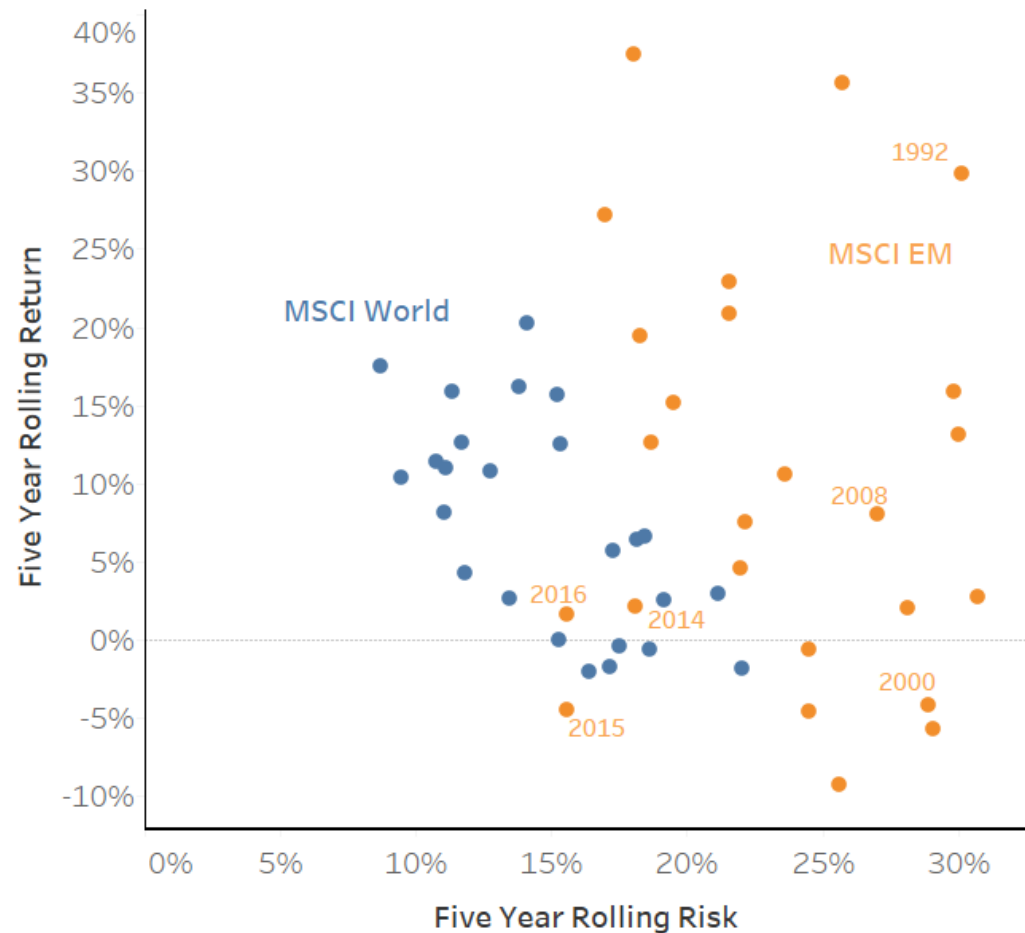
### Benchmarks:

- MSCI Single Country Indexes
- MSCI Factor Indexes



# CONVERGING RISK AND RETURN PROFILES

- Risk and return profile of EM historically distinct from DM
- Pattern of convergence in last five years
- Sixty percent of return dispersion in EM is a firm's country of membership
- Implies opportunity for country selection within EM

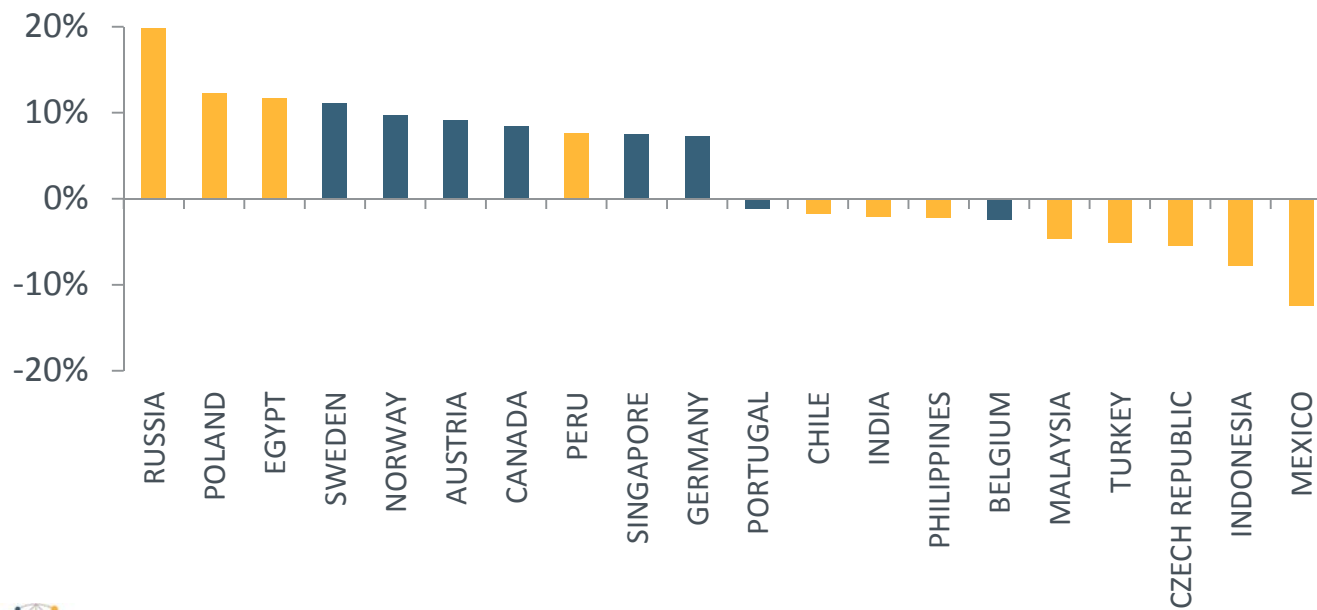


Points represent rolling, end-of-year annualized return and standard deviation.  
Data covers December 1992 to December 2016

# RETURN DIFFERENCES BETWEEN COUNTRIES

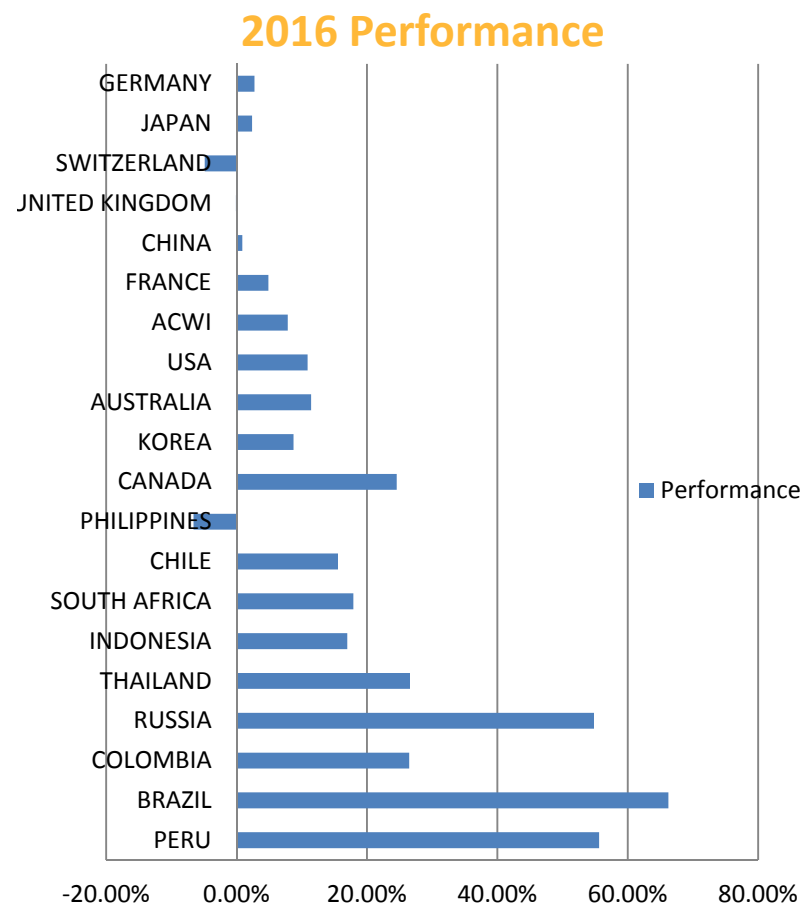
- Many EM equity markets declined following 2016 US elections
- Wide dispersion: Russia's PMI increased throughout 2016; Egyptian market recovered following November currency flotation

**Top and Bottom Ten Country Return (Nov 2016 – Jan 2017)**



# SINGLE COUNTRY INDEXES

- The performance of individual countries can vary year over year, so picking the right country can be critical.
- Investors use single country ETFs to tilt portfolio exposure to specific countries and regions. These offer investors access to specific countries in a simple and a low-cost way.
- The MSCI single country indexes are part of the Global Equity Index family and reflect the full breadth of investment opportunities within each equity market by market capitalization size, by value and growth investment styles and by sectors and industries.
- MSCI's **Monthly Country Index** reports run a deep dive into the risk & return characteristics of the top 10 countries by their YTD performance.
- **Example** - Brazil was the biggest gainer among all EM countries in 2016.



# RISING CURRENCY RISK IN EQUITY PORTFOLIOS

- Likelihood that currency affects equity returns much higher than a decade ago
- Twenty-five percent of volatility in MSCI Emerging Markets due to currency

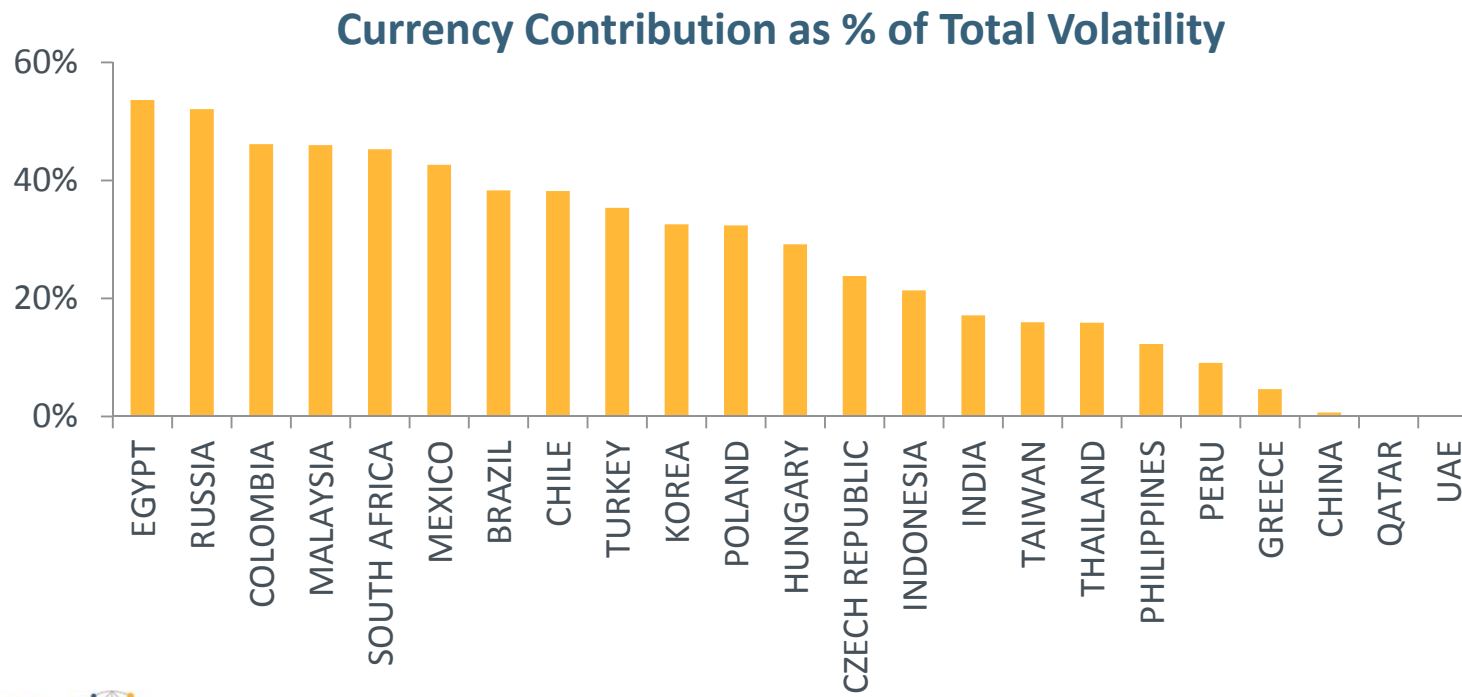
Currency Contribution as % of Total Volatility



*Developed represented by MSCI World; Emerging represented by MSCI EM*

# CURRENCY RISK WITHIN EMERGING MARKETS

- Currency effects in single countries more pronounced than in broad market
- Hedged indexes remove currency volatility while preserving equity characteristics



# GROWING ECOSYSTEM OF INTL. INDEX LINKED PRODUCTS

## OPTIONS on ETFs

- 230+ US listed ETFs with nearly \$300bn in AUM
- 850+ ETFs globally with over \$500bn in AUM
- Large, liquid EEM and EFA options market in US across multiple xchgs

## INDEX OPTIONS

- MXEA and MXEF options listed on CBOE in April '15
- Cash settled, European expiry, tax-advantaged, larger multiplier than ETF option

## INDEX FUTURES

- Over 175 MSCI index based futures listed across futures exchanges globally
- 93,000 ADV in MSCI EM futures on ICE in Q416
- 21,000 ADV in MSCI EAFE futures on ICE in Q416

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