

### 15TH ANNUAL PACIFIC REGION INVESTMENT CONFERENCE

U.S. Dollar Investors and Foreign Investing: Failed Promises or Future Opportunities in Europe?



#### PRESENTED BY:

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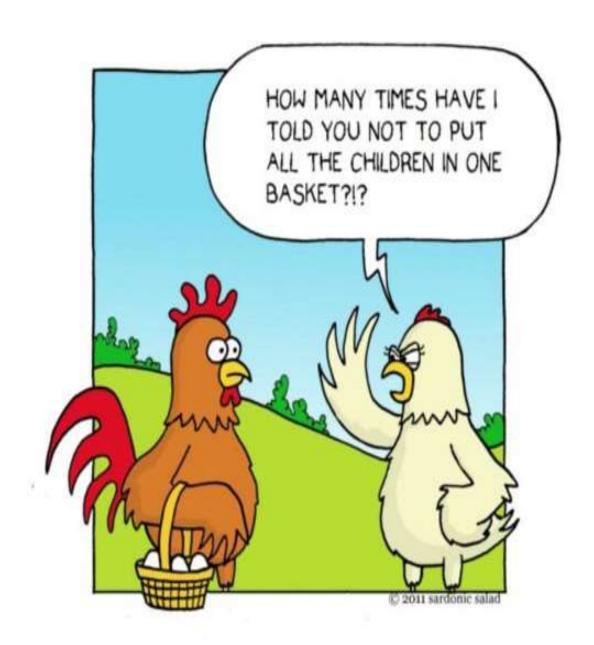
### Purpose of Presentation: To Answer the Question

"Does Investing in Europe Help U.S.-Dollar Based Investors Diversify Their Portfolio?"



### What Is Portfolio Diversification?







## Why Diversify?

#### DON'T PUT ALL YOUR EGGS IN ONE BASKET

### There are Two Types of Risk

- Systematic (Can't be Reduced/Diversified)
- Specific (Can be Reduced/Diversified)

#### Goal:

Reduce Risk to Achieve Similar Level of Return

### **Strategy:**

Adding Low Correlated Assets to a Portfolio Can Reduce Risk

Diversification does not guarantee a profit or protect against a loss in declining markets.



### Math Refresher: Correlation Coefficient

#### GREEK VERSION:

$$\rho_{X,Y} = \operatorname{corr}(X,Y) = \frac{\operatorname{cov}(X,Y)}{\sigma_X \sigma_Y}$$

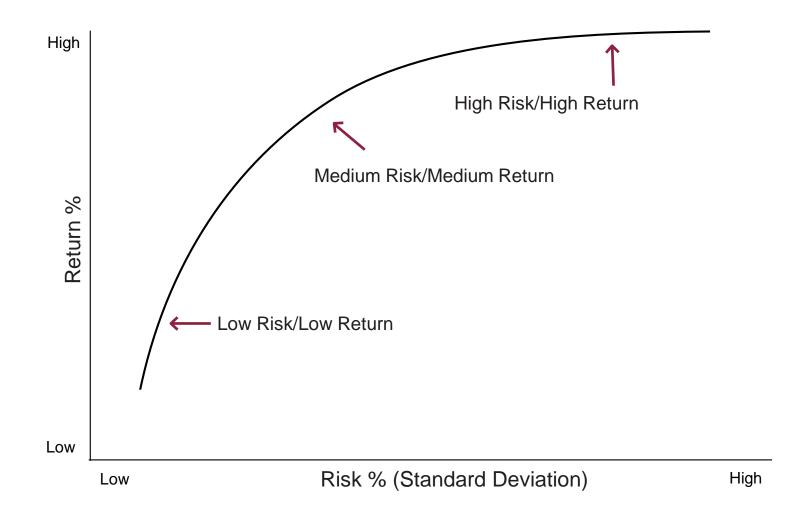
#### PLAIN ENGLISH VERSION:

- If two variables have a correlation coefficient of 1, they move in perfect lockstep. One goes up, so does the other.
- If two variables have a correlation coefficient of 0, they're completely independent. The movement of one has no value for predicting the movement of the other.
- If two variables have a correlation coefficient of -1, they're perfectly negatively correlated. When one goes up, the other goes down.



### The Efficient Frontier

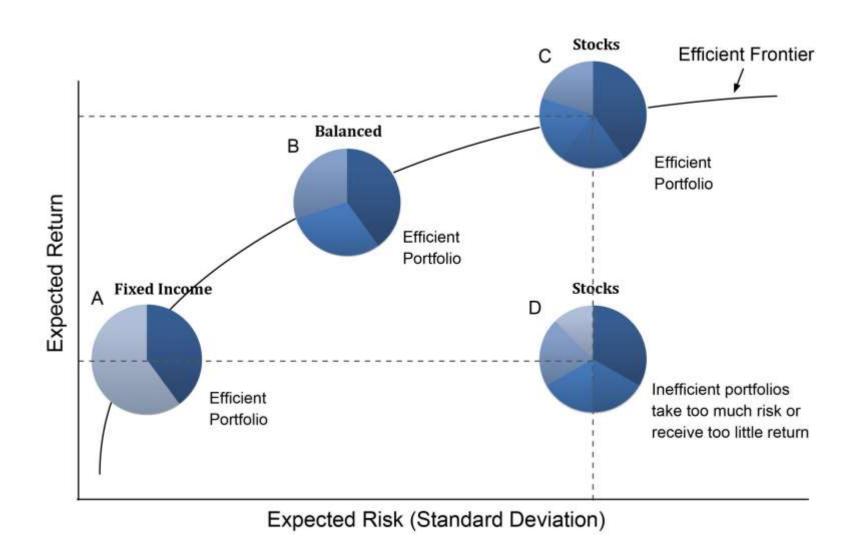
#### RISK & REWARD



Source: Investopedia.com



## Choices Along Efficient Frontier



Source: Renaissance Research



### Market Leadership Changes Every Year

BEST PERFORMING MSCI EQUITY INDICES (IN U.S. DOLLARS)

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EAFE Small Cap 31.3%	Emerging Market 34.5%	Emerging Market Small Cap 32.6%	Emerging Market Small Cap 42.6%	U.S. Small Cap -35.9%	Emerging Market Small Cap 114.3%	U.S. Small Cap 28.0%	U.S. 2.0%	Emerging Market Small Cap 22.6%	U.S. Small Cap 38.3%	U.S. 13.4%
Emerging Market 26.0%	Emerging Market Small Cap 29.5%	Emerging Market 32.6%	Emerging Market 39.8%	U.S. -37.1%	Emerging Market 79.0%	Emerging Market Small Cap 27.5%	U.S. Small Cap -3.0%	EAFE Small Cap 20.4%	U.S. 32.6%	U.S. Small Cap 7.6%
Emerging Market Small Cap 25.0%	EAFE Small Cap 26.7%	EAFE 26.9%	ACWI IMI 11.7%	ACWI IMI -42.0%	EAFE Small Cap 47.3%	EAFE Small Cap 22.4%	ACWI IMI -7.4%	Emerging Market 18.6%	EAFE Small Cap 29.7%	ACWI IMI 4.4%
EAFE 20.7%	EAFE 14.0%	ACWI IMI 21.5%	EAFE 11.6%	EAFE -43.1%	U.S. Small Cap 39.7%	Emerging Market 19.2%	EAFE -11.7%	U.S. Small Cap 18.2%	ACWI IMI 24.2%	Emerging Market Small Cap 1.3%
U.S. Small Cap 19.3%	ACWI IMI 12.1%	EAFE Small Cap 19.7%	U.S. 6.0%	EAFE Small Cap -46.8%	ACWI IMI 37.2%	U.S. 15.5%	EAFE Small Cap -15.7%	EAFE 17.9%	EAFE 23.3%	Emerging Market -1.8%
ACWI IMI 16.9%	U.S. Small Cap 5.7%	U.S. 15.3%	EAFE Small Cap 1.8%	Emerging Market -53.2%	EAFE 32.5%	ACWI IMI 14.9%	Emerging Market -18.2%	ACWI IMI 17.0%	Emerging Market Small Cap 1.4%	EAFE -4.5%
U.S. 10.7%	U.S. 5.7%	U.S. Small Cap 14.7%	U.S. Small Cap -3.0%	Emerging Market Small Cap -58.1%	U.S. 27.1%	EAFE 8.2%	Emerging Market Small Cap -27.0%	U.S. 16.1%	Emerging Market -2.3%	EAFE Small Cap -4.6%

Data ending 12/31/14

Source: MSCI

EAFE Small Cap U.S. Small Cap

Emerging Market ACWI IMI

Emerging Market Small Cap U.S.

EAFE



## What Is the Role Of Currencies In Portfolio Diversification?



## What Influences Currency Rates?

- Central Bank decisions or anticipated changes in monetary policy
- Changes in expected inflation
- Changes in the balance of trade
- Changes in the attractiveness of financial assets
- Geopolitical Issues



#### CURRENCY RISK CAN BE HEDGED USING OPTIONS AND FUTURES

• Investors typically use Forward currency contracts

#### HEDGING ACTS LIKE AN INSURANCE POLICY

#### BENEFITS OF CURRENCY HEDGING

- A currency hedge can limit losses for a portfolio when the U.S. Dollar strengthens.
- Hedging can lower the portfolio volatility

#### DOWNSIDES TO CURRENCY HEDGING

- A currency hedge can limit gains for a portfolio when the U.S. Dollar weakens.
- Hedging is not an exact science
- Hedging involves costs

Source: Renaissance Research



# Currencies: What Does It Cost to Hedge a Portfolio?

Emerging Markets						
Name	Base Currency	Total Return Year-to-Date (%)	Total Return 1-Year (%)	Total Return Annualized 3-Years (%)	Total Return Annualized 5-Years (%)	Total Return Annualized 10-Years (%)
MSCI Emerging Markets (Net, Local)	MSCI Emerging Markets Multiple Currencies	-7.1%	-7.1%	2.1%	1.8%	6.6%
MSCI Emerging Markets 100% Hedged (Net, USD)	U.S. Dollar	-9.1%	-9.8%	-0.8%	-0.9%	5.0%
Cost to Hedge		1.9%	2.7%	2.9%	2.6%	1.6%

Developed Markets						
Name	Base Currency	Total Return Year-to-Date (%)	Total Return 1-Year (%)	Total Return Annualized 3-Years (%)	Total Return Annualized 5-Years (%)	Total Return Annualized 10-Years (%)
MSCI EAFE (Net, Local)	MSCI EAFE Multiple Currencies	-1.0%	0.8%	12.7%	7.7%	3.3%
MSCI EAFE 100% Hedged (Net, USD)	U.S. Dollar	-1.3%	0.3%	12.4%	7.6%	3.9%
Cost to Hedge		0.3%	0.5%	0.3%	0.1%	-0.6%

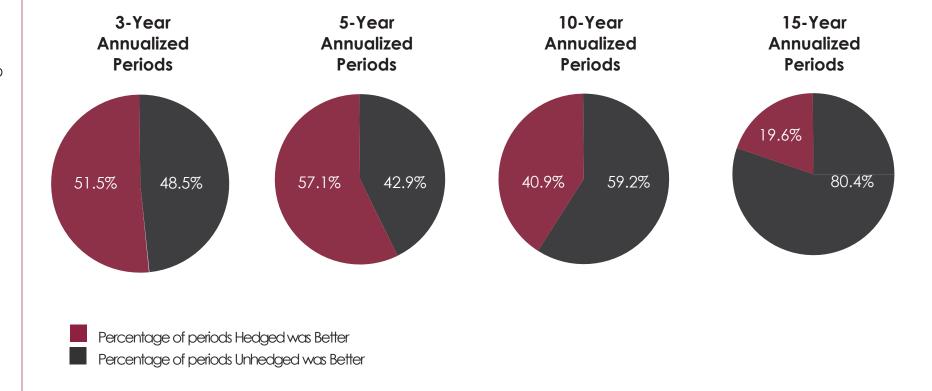
Data ending 9/30/15

Source: Renaissance Research, MSCI



# Performance Comparison of Hedged Returns and Unhedged Returns

MSCI ALL COUNTRY EUROPE INDEX-1988 TO 2015(1)



Data ending 9/30/15

 $^{\mbox{\tiny (1)}}$  Based on quarterly returns from 4/1/88 to 9/30/15.

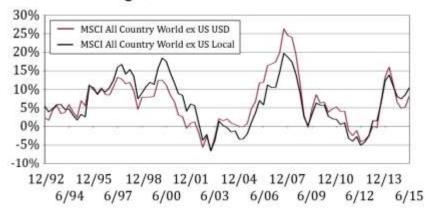
Source: Renaissance Research, MSCI



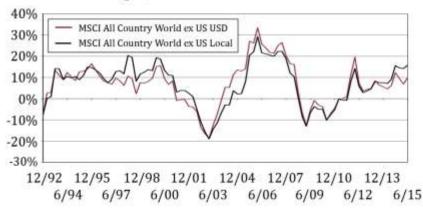
# International Index Returns in U.S. Dollars and Local Currency

1/1/88 TO 6/30/15

Rolling 5-Year Annualized Returns



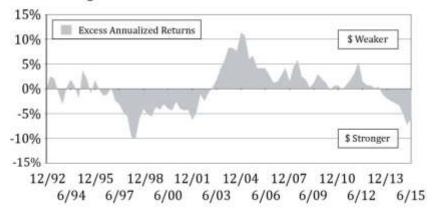
Rolling 3-Year Annualized Returns



Rolling 5-Year USD Excess Return vs. Local



Rolling 3-Year USD Excess Return vs. Local



Data ending 6/30/15



## Summary of Hedging:

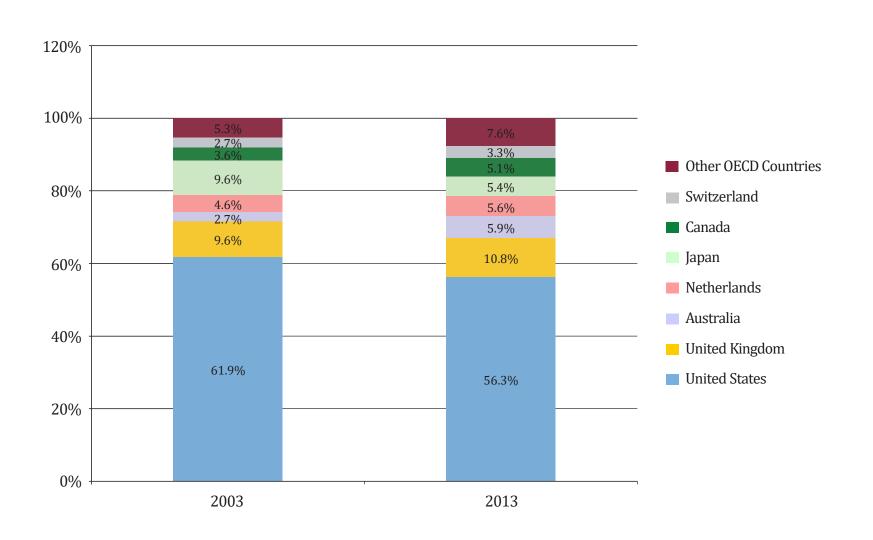
- Hedging can help increase returns and lower volatility in the short/medium term.
- Analysis shows that positive and negative currency effects equal out over long periods of time.
- Most equity managers don't hedge currencies, or if they do, only partially hedge.



## Where Do We Currently Stand In Global Asset Allocation?



## Geographical Distribution of Pension Fund Assets in the OECD<sup>(1)</sup>



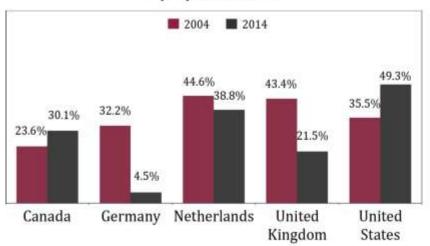
(1) Organisation for Economic Co-Operation and Development (OECD)

Source: OECD, Data as of December 2014

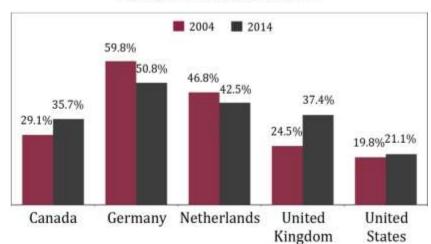


## Pension Asset Allocations Across Various Countries

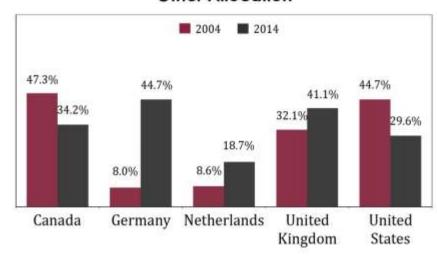
#### **Equity Allocation**



#### **Fixed Income Allocation**



#### Other Allocation



Source: Organisation for Economic Co-Operation and Development (OECD), Data as of May 2015



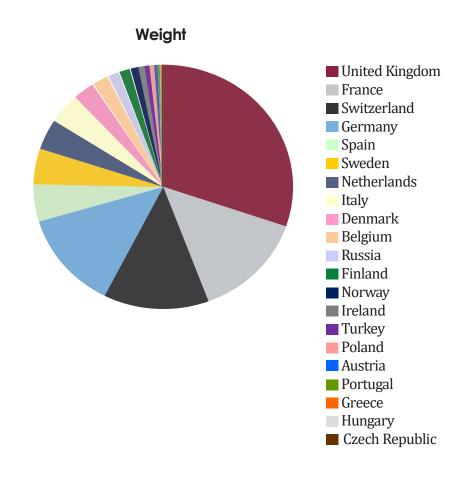
### What To Look For When Investing In Europe



## Opportunity Set For Investing In Europe

AS OF 10/30/15

MSCI All Country Europe	Weight	Number of Companies
United Kingdom	30.4%	347
France	14.1%	166
Switzerland	13.2%	110
Germany	12.9%	159
Spain	4.9%	68
Sweden	4.7%	110
Netherlands	4.1%	47
Italy	4.0%	105
Denmark	2.7%	39
Belgium	2.1%	41
Russia	1.5%	30
Finland	1.4%	38
Norway	1.1%	51
Ireland	0.7%	13
Turkey	0.7%	74
Poland	0.6%	42
Austria	0.4%	27
Portugal	0.3%	15
Greece	0.1%	23
Hungary	0.1%	4
Czech Republic	0.1%	5
Total	100.0%	1,514



Source: FactSet, MSCI

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## Impact On Asset Allocation Decision

	United Kingdom	France	Switzerland	Germany	Russia	Europe
Domestic Sector Concentration						
Domestic Issuer Concentration						
Domestic Liquidity						
Effects of Styles/Countries/Sectors						

#### Potential Impact on Asset Allocation

Low
Moderate
High

Source: Renaissance Research



## European Index Concentration

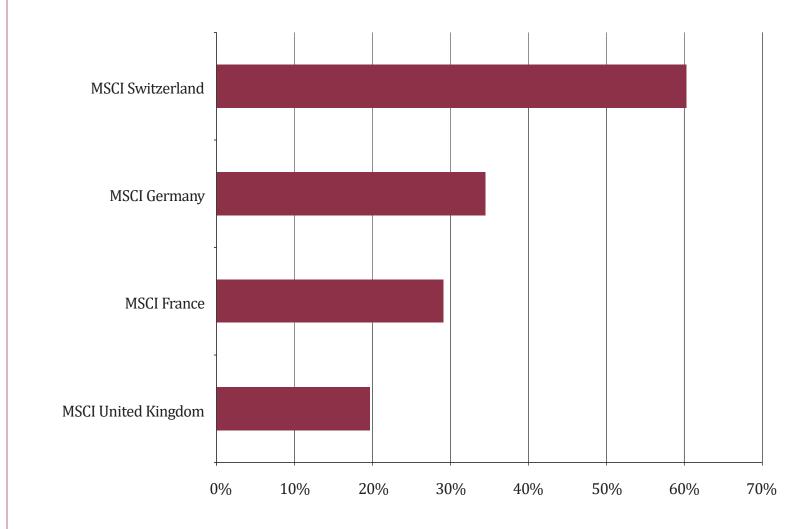
Name	% Index Weight	Name	% Index Weight	Name	% Index Weight
MSCI United Kingdom Investable Market Index	100.0	MSCI France Investable Market Index	100.0	MSCI Switzerland Investable Market Index	100.0
HSBC Holdings	5.2	Sanofi	8.8	Nestle	19.5
British American Tobacco	3.8	Total SA	7.8	Novartis	16.4
BP	3.7	BNP Paribas Class A	4.8	Roche Holding Ltd.	15.1
GlaxoSmithKline	3.6	AXA	3.9	UBS Group	5.8
Royal Dutch Shell Class A	3.4	Moet Hennessy Louis Vuitton	3.9	Compagnie Financiere Richemont	3.5
Number of Securities	348	Number of Securities	166	Number of Securities	110
Percentage in Top 5	19.7	Percentage in Top 5	29.1	Percentage in Top 5	60.2

Name	% Index Weight	Name	% Index Weight
MSCI Germany Investable Market Index	100.0	MSCI All Country Europe Investable Market Index	100.0
Bayer	8.8	Nestle	2.6
Daimler	6.7	Novartis	2.2
Allianz	6.4	Roche Holding Ltd.	2.0
Siemens	6.4	HSBC Holdings	1.6
SAP	6.2	Sanofi	1.2
Number of Securities	159	Number of Securities	1,516
Percentage in Top 5	34.5	Percentage in Top 5	9.5

Data ending 10/31/15



# Percent Weight of Each Index From Its Top 5 Holdings



Data ending 10/31/15



# Different Sector Weights Can Help in Diversification

SECTOR WEIGHT VS. MSCI ALL COUNTRY WORLD EX US INVESTABLE MARKET INDEX

	MSCI United Kingdom	MSCI France	MSCI Switzerland	MSCI Germany	All Country Europe
Energy	5.8	2.3	-5.6	-6.0	0.2
Materials	-1.2	-2.7	-0.1	5.4	-0.3
Industrials	-4.0	5.4	-2.9	1.7	0.0
Consumer Discretionary	-0.2	5.4	-7.4	6.0	-0.5
Consumer Staples	6.5	-0.1	10.9	-6.5	3.3
Health Care	0.1	3.0	25.8	6.1	4.2
Financials	-3.0	-8.8	-7.0	-7.8	-3.7
Information Technology	-5.5	-3.2	-7.0	1.4	-3.4
Telecommunication Services	0.8	-1.7	-3.5	0.9	-0.1
Utilities	0.7	0.3	-3.3	-1.1	0.3

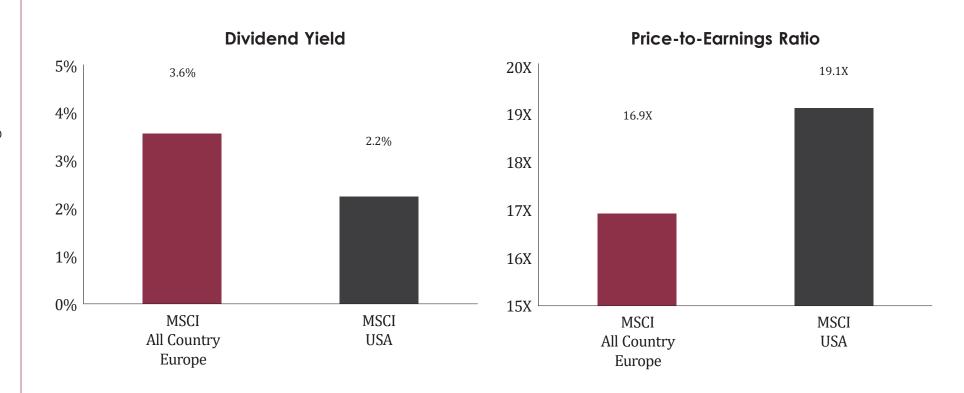


Blue color indicates more than 5% sector weight difference vs. MSCI All Country World ex US Investable Market Index.

Data ending 10/31/15



# Investment Landscape in Europe Attractive Compared to the USA

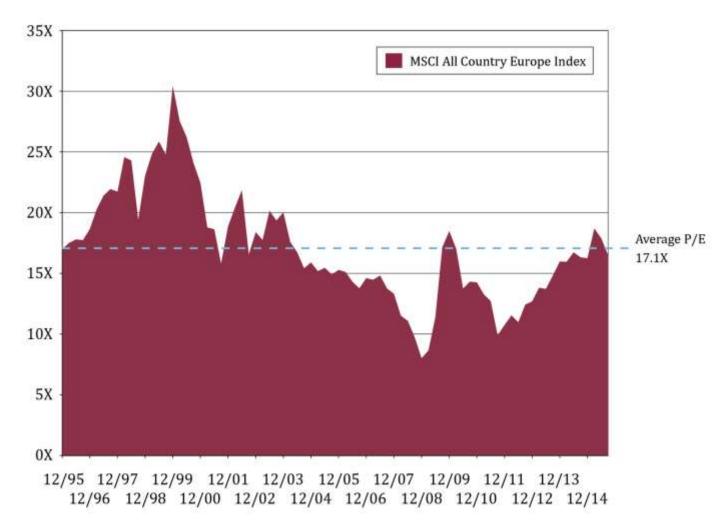


Data as of 9/30/15

Source: FactSet, MSCI



## European Equity Market Valuations About Average Based on Price-to-Earnings Ratio



Data ending 9/30/15
Source: FactSet. MSCI



# Cheapest and Most Expensive Countries in Europe

RANKED BY PREMIUM OR DISCOUNT TO HISTORICAL AVERAGE PRICE-TO-EARNINGS

	MSCI Country Index	Price-to-Cash Earnings Ratio Long-Term Average <sup>(1)</sup>	Price-to-Cash Earnings Ratio 9/30/15	Discount/Premium to Long-Term Average <sup>(1)</sup>
	Russia	7.3X	3.7X	-50%
	Austria	6.3	3.6	-43%
Cheap	Norway	6.5	3.8	-41%
	Greece	9.3	6.2	-33%
	Hungary	6.4	4.7	-27%
	Germany	7.3X	7.7X	5%
	Denmark	11.9	14.3	20%
Expensive	Netherlands	10.0	12.3	23%
	Belgium	9.0	11.6	29%
	Ireland	11.7	15.9	35%

<sup>(1)</sup>Long-term Average: Quarterly data from 12/95 to 9/15



## **Has Investing In Europe Worked?**



## Correlations of Monthly Returns vs. S&P 500

12/31/94 TO 10/31/15

MSCI Country		
Czech Republic	0.4	Lowest Correlation
Turkey	0.5	
Russia	0.5	
Greece	0.5	
Portugal	0.6	
Poland	0.6	
Austria	0.6	
Hungary	0.6	
Italy	0.7	
Norway	0.7	
Finland	0.7	]
Switzerland	0.7	
Denmark	0.7	
Belgium	0.7	
Ireland	0.7	
Spain	0.7	
Sweden	0.8	
France	0.8	
Netherlands	0.8	
Germany	0.8	
United Kingdom	0.8	▼
S&P 500	1.00	Highest Correlation

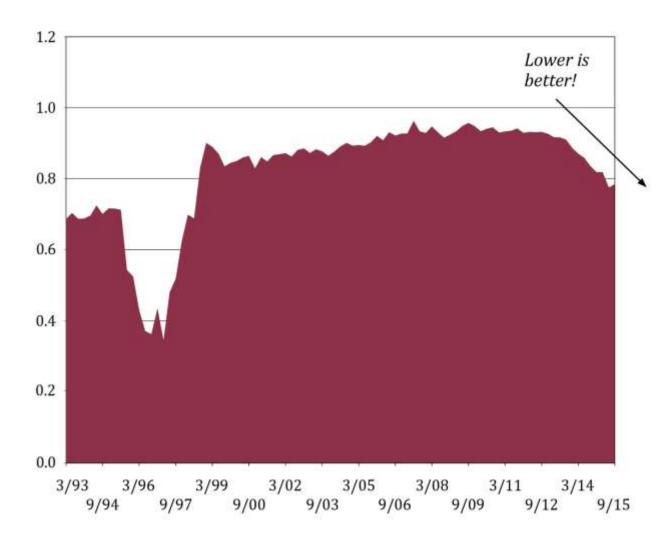
Data ending 10/31/15

Source: Renaissance Research, MSCI



## S&P 500 and MSCI All Country Europe USD

ROLLING 5-YEAR CORRELATIONS (1/1/98 TO 9/30/15)



Data ending 9/30/15



## Currency Effects on Returns and Volatility

S&P 500 and MSCI All Country Europe				Blended Portfolio	Blended Portfolio
Returns					
	S&P 500	MSCI Europe USD	MSCI Europe Local	50/50 S&P 500 & MSCI Europe USD	50/50 S&P 500 & MSCI Europe Local
3 Years	12.4%	5.7%	10.2%	9.2%	11.4%
5 Years	13.3%	4.3%	7.2%	8.9%	10.3%
10 Years	6.8%	3.6%	4.4%	5.4%	5.6%
20 Years	8.1%	6.8%	7.5%	7.6%	7.9%
Annualized Standard Deviation					
	S&P 500	MSCI Europe USD	MSCI Europe Local	50/50 S&P 500 & MSCI Europe USD	50/50 S&P 500 & MSCI Europe Local
3 Years	9.0%	12.2%	10.0%	8.1%	7.2%
5 Years	12.8%	16.3%	12.8%	11.3%	9.9%
10 Years	16.2%	22.0%	16.7%	15.0%	12.9%
20 Years	16.8%	20.9%	18.7%	14.8%	13.9%
Sharpe Ratio					
	S&P 500	MSCI Europe USD	MSCI Europe Local	50/50 S&P 500 & MSCI Europe USD	50/50 S&P 500 & MSCI Europe Local
3 Years	1.4	0.5	1.0	1.1	1.6
5 Years	1.0	0.3	0.6	0.8	1.0
10 Years	0.3	0.1	0.2	0.3	0.3
20 Years	0.3	0.2	0.3	0.4	0.4

Data ending 9/30/15

Source: Renaissance Research, MSCI

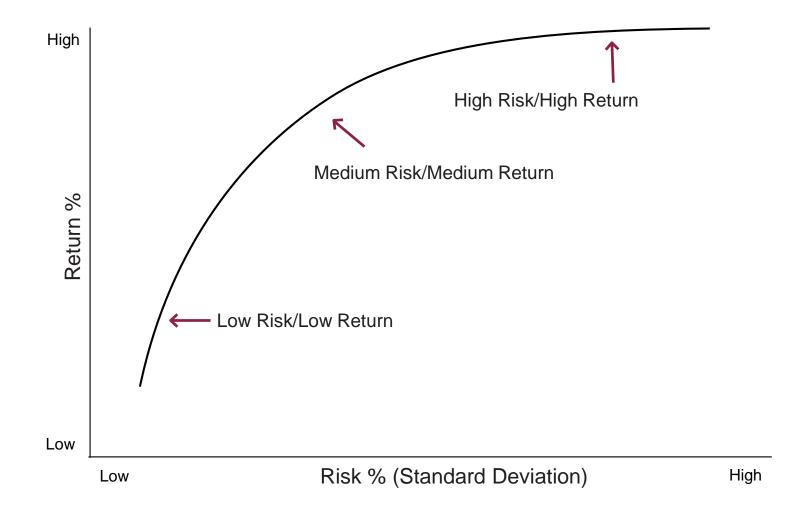


## **Concluding Thoughts**



### The Efficient Frontier

#### RISK & REWARD

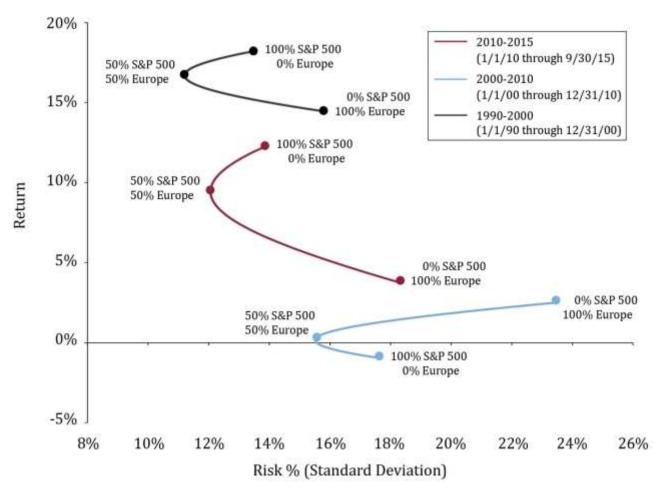


Source: Investopedia.com



# Europe Alone Is Not Enough to Effectively Diversify(1)

QUARTERLY RETURNS OF THE S&P 500 AND MSCI ALL COUNTRY EUROPE INDICES



<sup>(1)</sup> Diversification does not guarantee a profit or protect against a loss in declining markets.

Source: Renaissance Research, MSCI



## Conclusions:

- Portfolio diversification<sup>(1)</sup> has worked in the past and will work in the future.
- Correlations between the U.S. and other countries have been rising over time.
  - Higher correlations in Developed Markets compared to Emerging Markets
- Adding European exposure to U.S. portfolios is not enough.
- International exposure should include Europe, Asia-Pacific and Latin America.

<sup>(1)</sup> Diversification does not guarantee a profit or protect against a loss in declining markets.



### Disclosures

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