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ADVISOR SYMPOSIUM

MARCH 12–14, 2018

THE ISLAND HOTEL

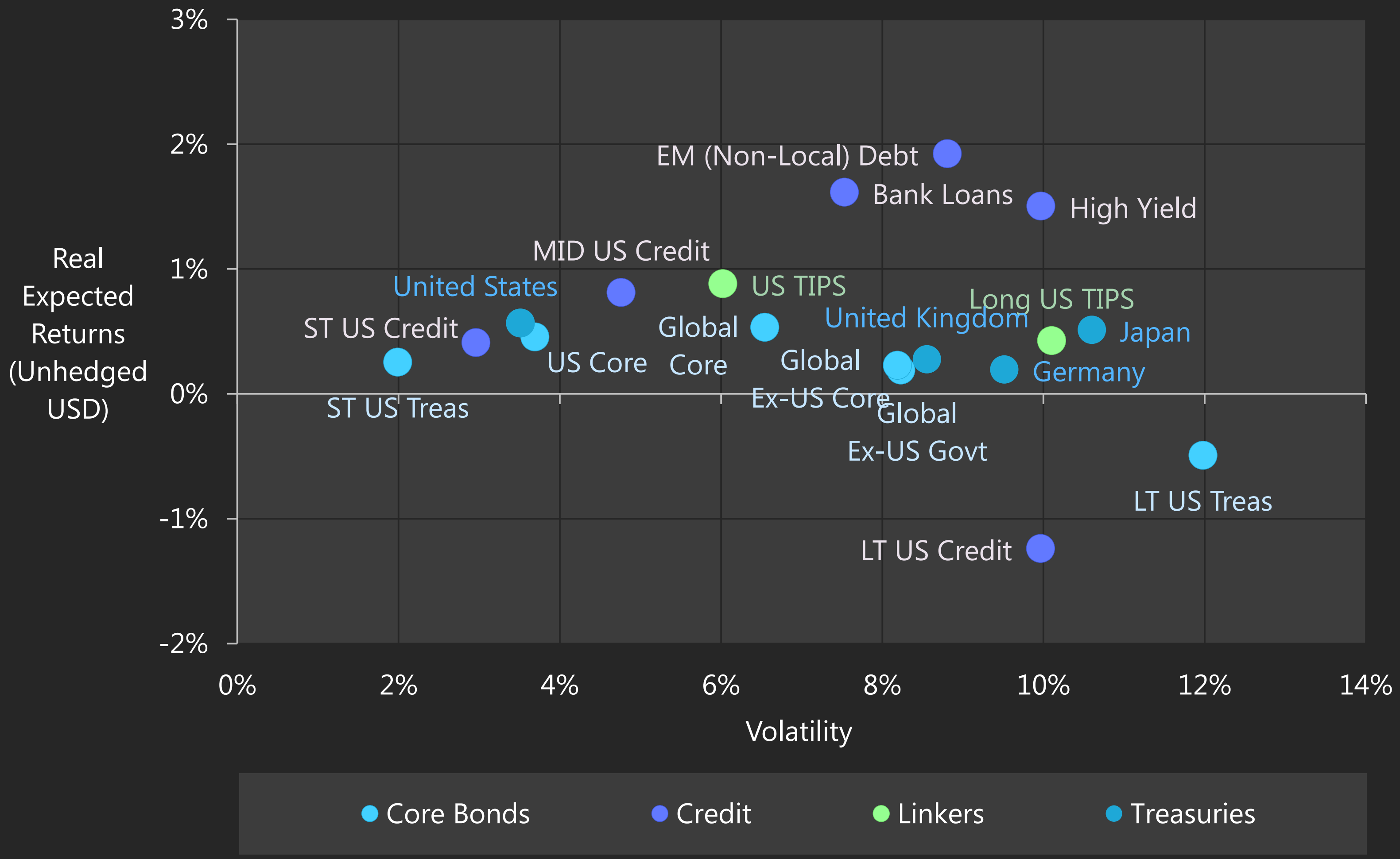
NEWPORT BEACH

Capital Markets Expectations

Asset Class Expected Returns

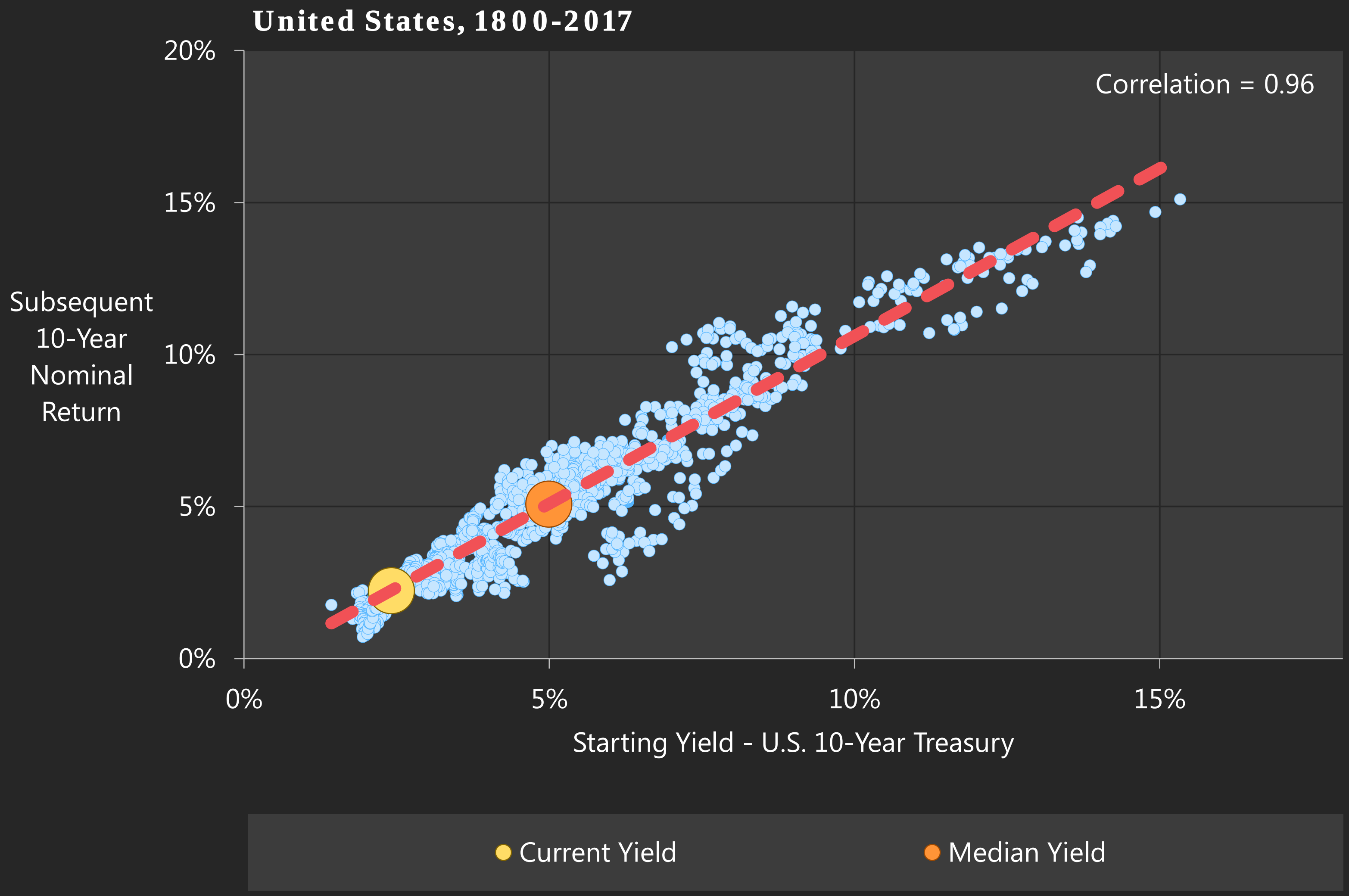
Why Are Expected Mainstream Asset Returns Paltry?

Bonds: Long-Term Return Expectations



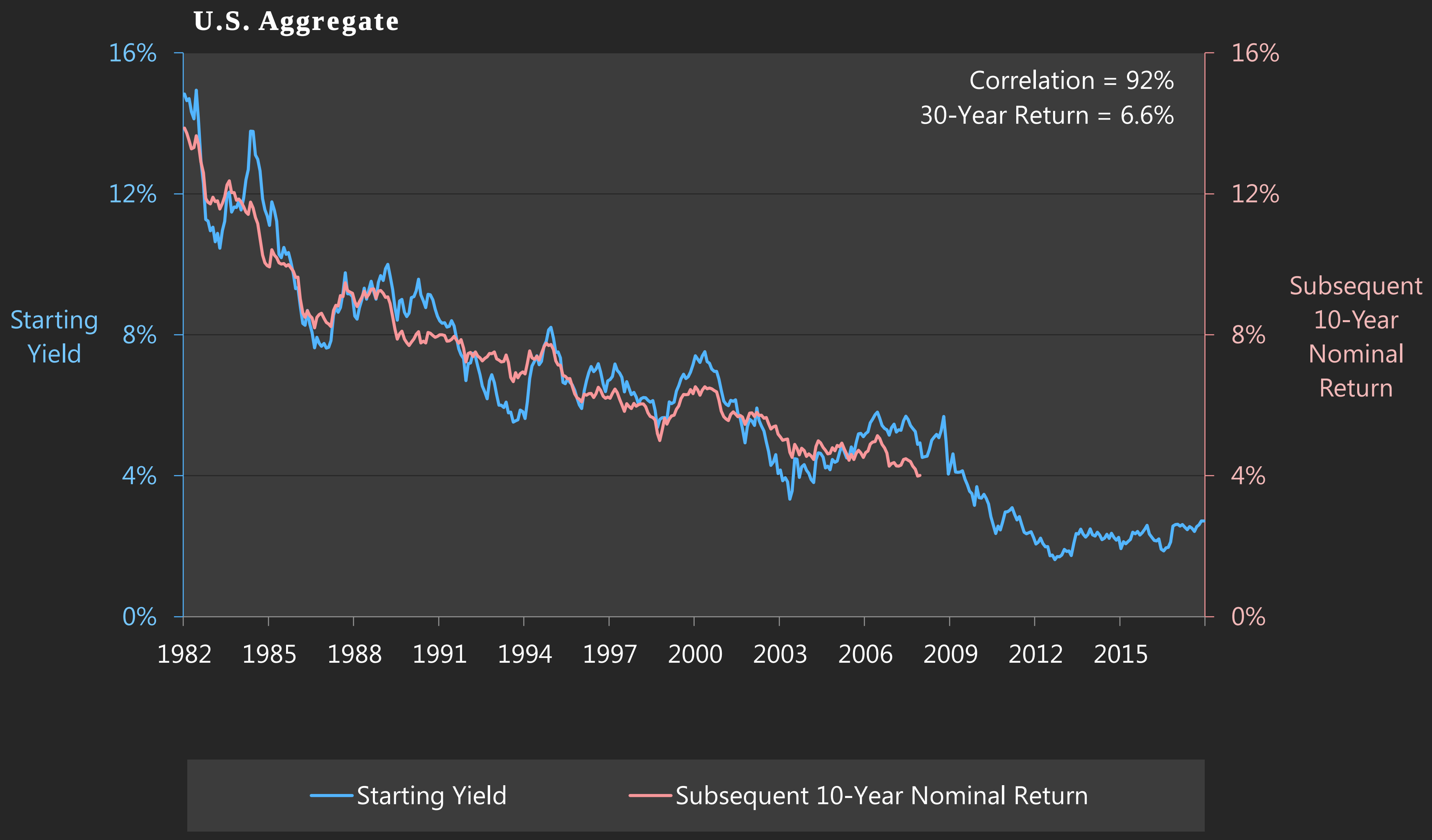
Source: Research Affiliates, LLC, based on data from MSCI Inc., Bloomberg, and Barclays. The country-specific Treasury indices are represented by the Barclays US Treasury 5-7 Year, Barclays Germany Treasury 5-7 Year, Barclays Japan Treasury 5-7 Year, and Barclays UK Treasury 5-7 Year. For more information, please visit http://www.researchaffiliates.com/en_us/asset-allocation.html. As of December 31, 2017.

Bonds: Future Returns Follow Starting Yields



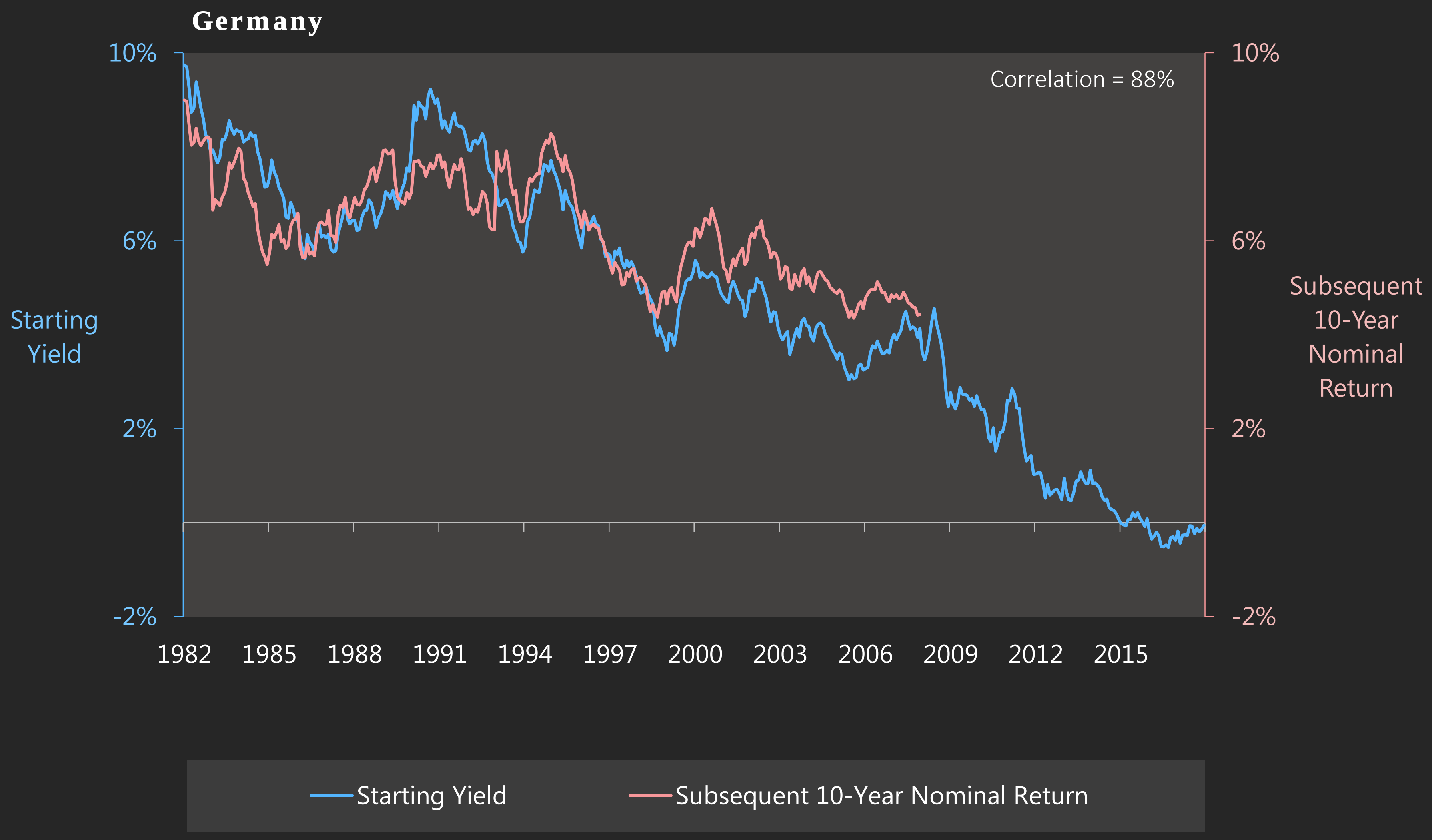
Source: Research Affiliates, LLC, based on data from Ibbotson and Bloomberg. As of December 31, 2017.

Bonds: Future Returns Follow Starting Yields



Source: Research Affiliates, LLC, based on data from Barclays. The yield-to-worst and total returns are of the Barclays Aggregate Index. As of December 31, 2017.

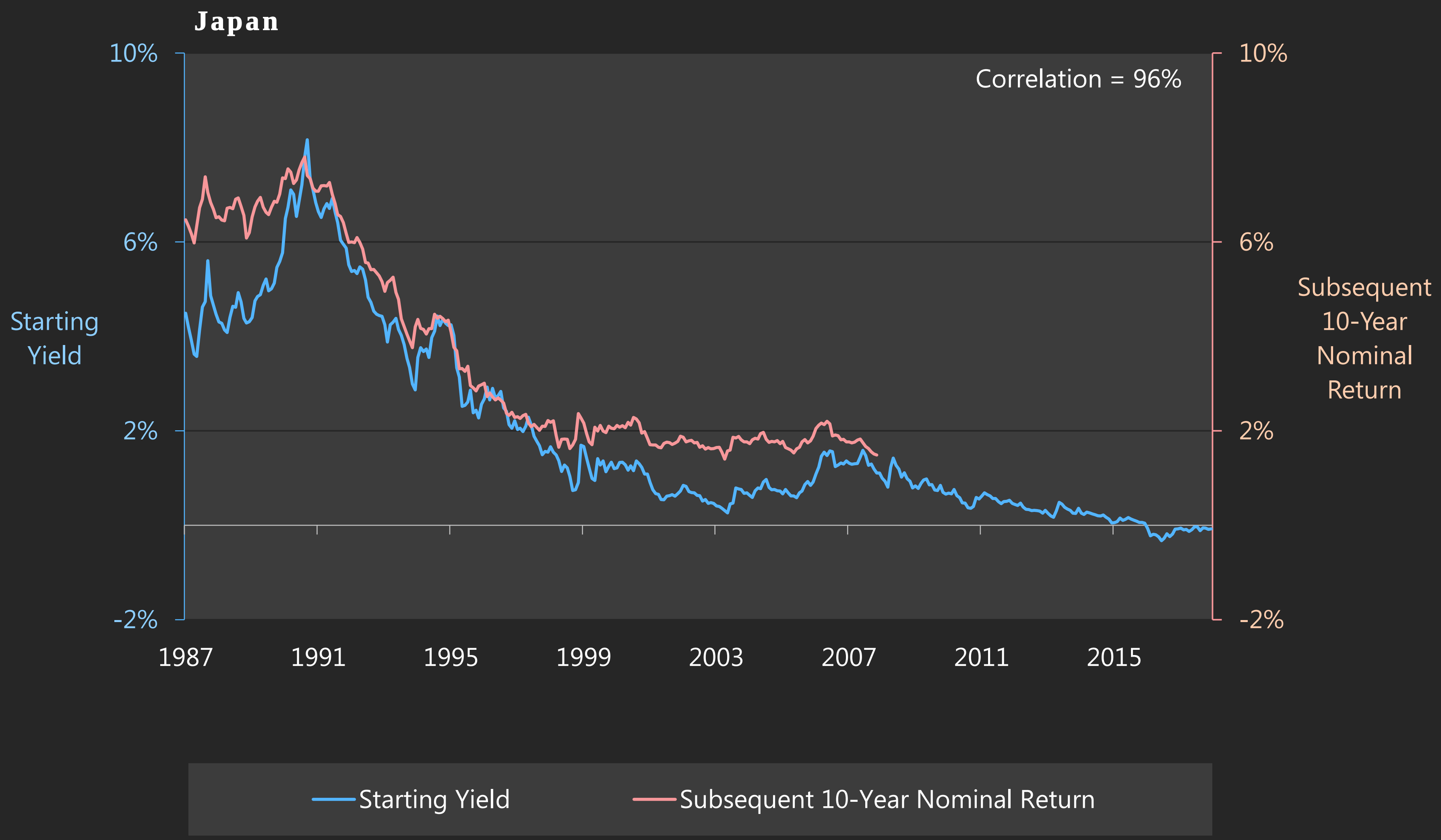
Bonds: Future Returns Follow Starting Yields



Source: Research Affiliates, LLC, based on data from Barclays. All returns are denominated in local currencies.

The index is represented by the Barclays Germany Global Treasury 5-7 Year. As of December 31, 2017.

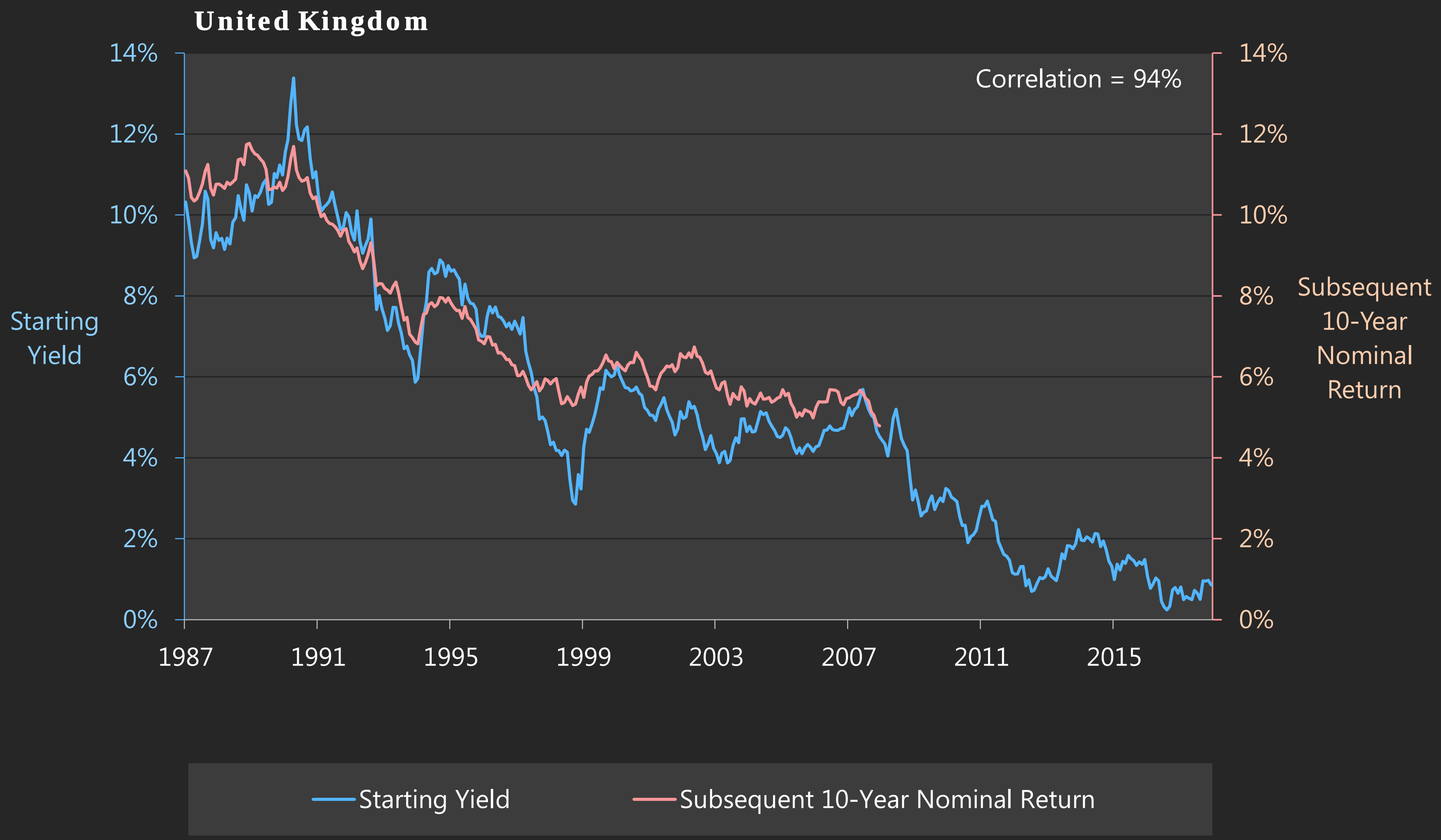
Bonds: Future Returns Follow Starting Yields



Source: Research Affiliates, LLC, based on data from Barclays. All returns are denominated in local currencies.

The index is represented by the Barclays Japan Global Treasury 5-7 Year (January 1987). As of December 31, 2017.

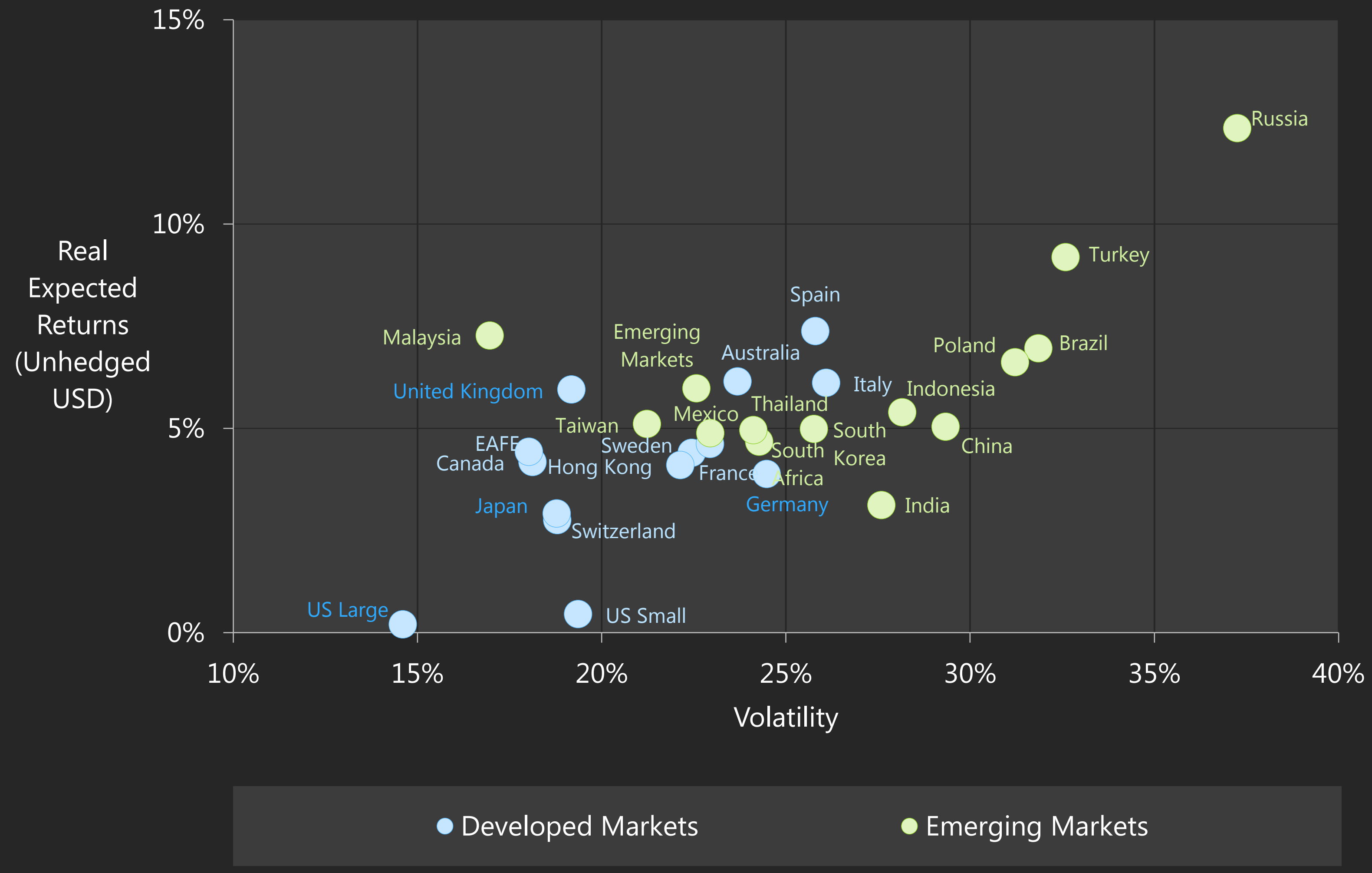
Bonds: Future Returns Follow Starting Yields



Source: Research Affiliates, LLC, based on data from Barclays and Bloomberg. All returns are denominated in local currencies.
The index and inception date is Barclays UK Treasury 5-7 Year (January 1987). As of December 31, 2017.

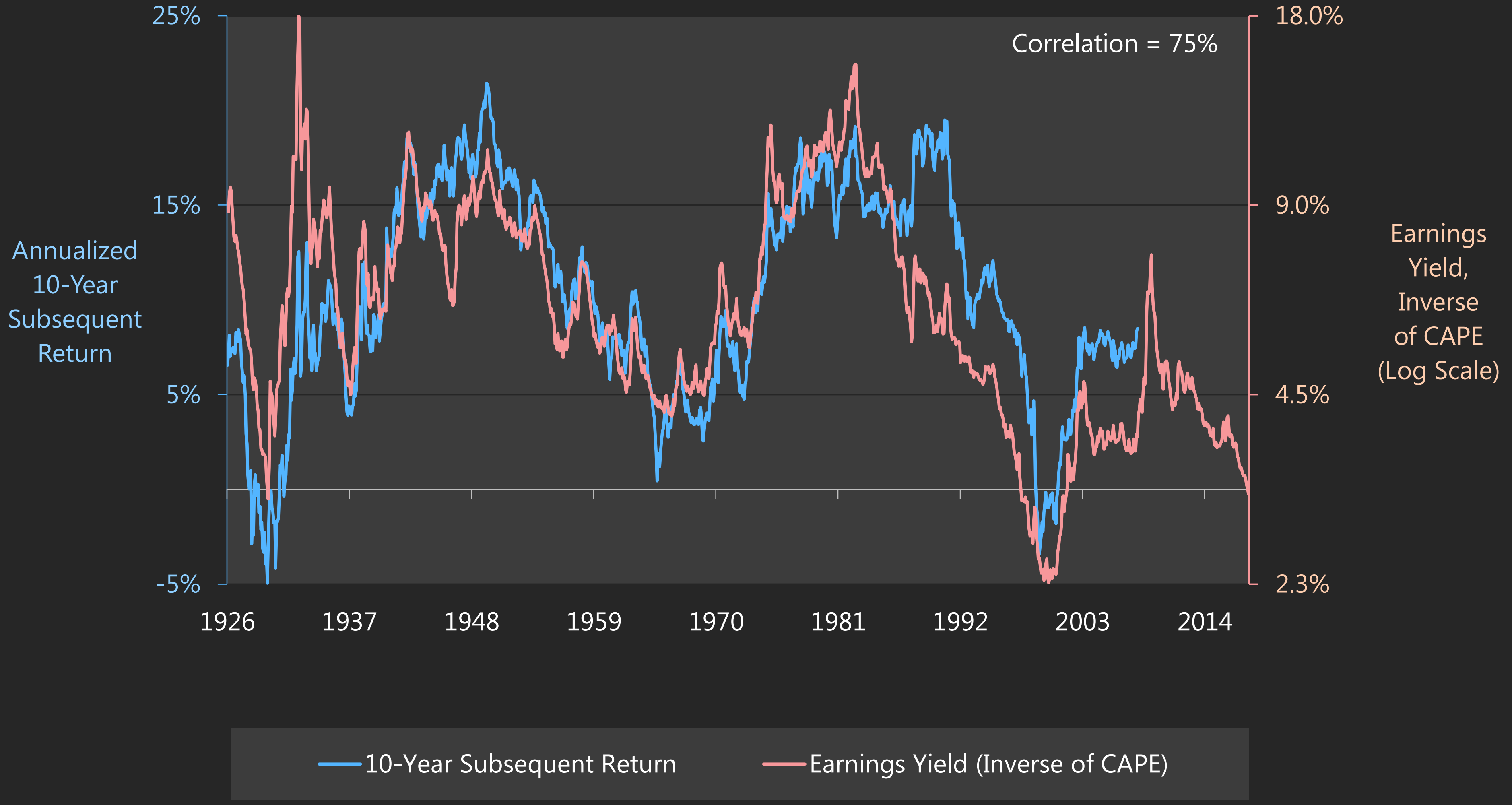
Mainstream Equities

Equities: Long-Term Return Expectations



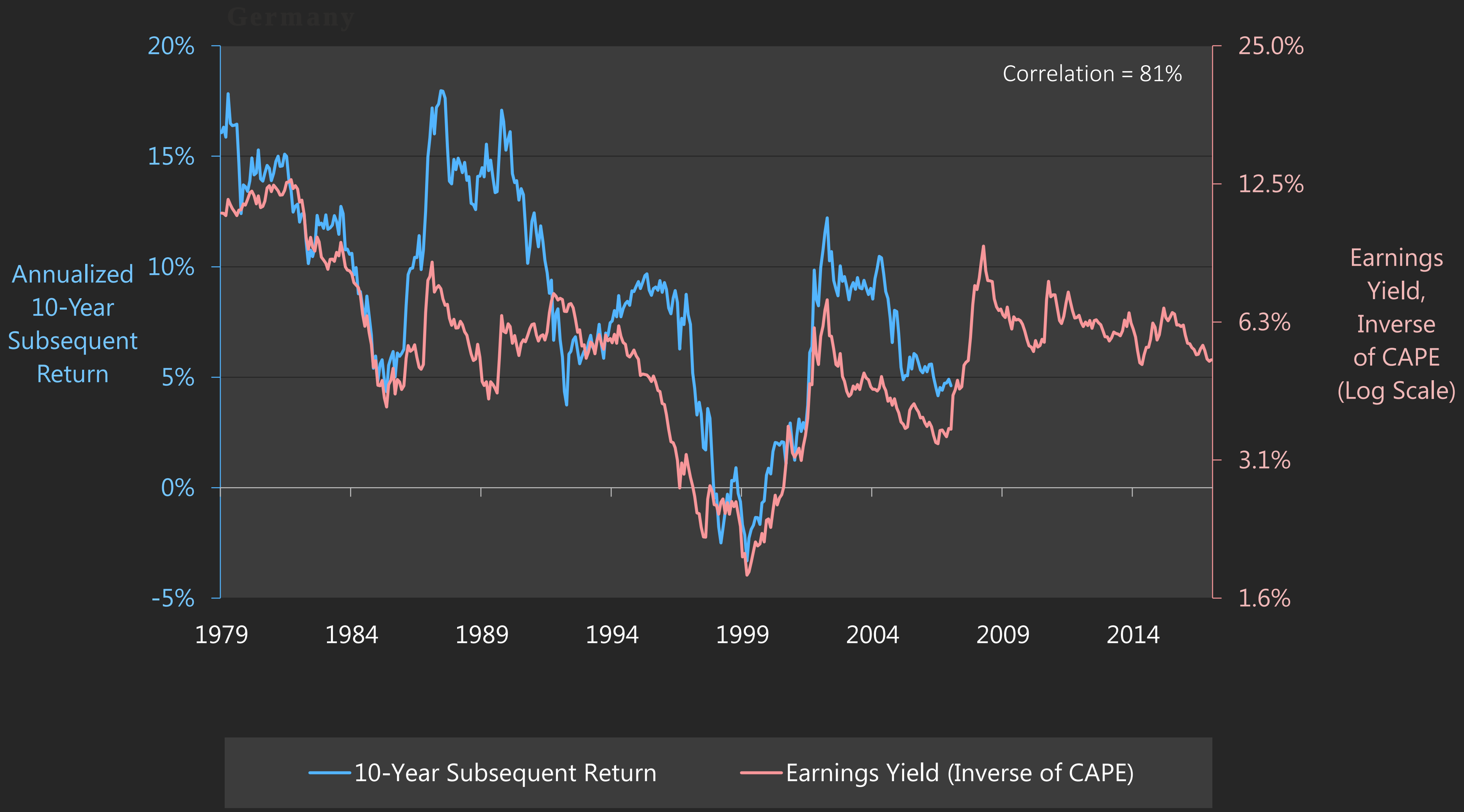
Source: Research Affiliates, LLC, based on data from Ibbotson, Shiller, Bloomberg, MSCI, and FactSet. The bolded country indices are represented by the S&P 500, MSCI Germany, MSCI Japan, and MSCI UK. For more information, please visit http://www.researchaffiliates.com/en_us/asset-allocation.html. As of December 31, 2017.

Equities: Future Returns Follow Starting Earnings Yields



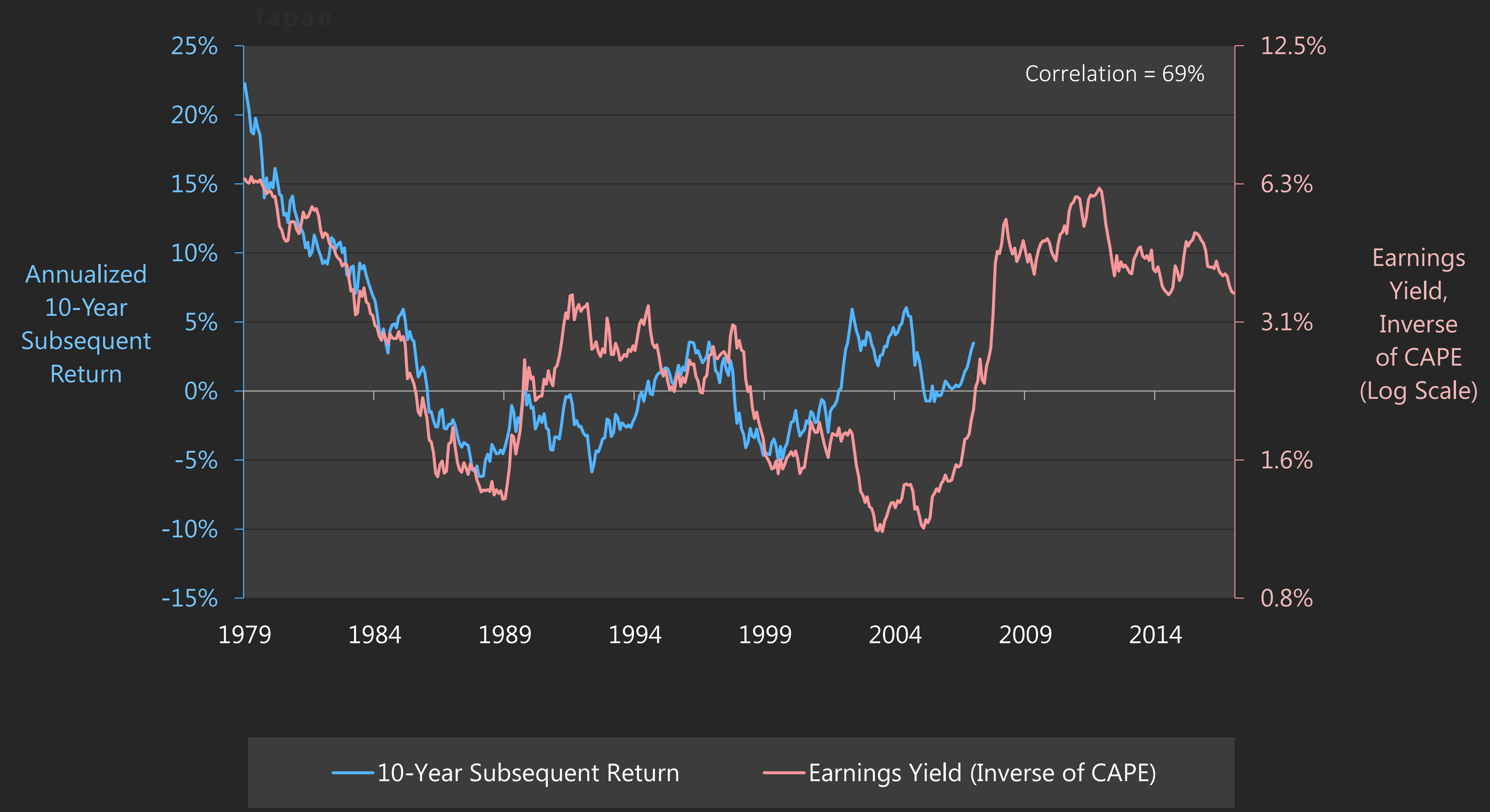
Source: Research Affiliates, LLC, based on data from Bloomberg and Shiller. The index and inception date is the S&P 500 (January 1926). Earnings yield is computed as the inverse of the CAPE ratio. For more information, please visit http://www.researchaffiliates.com/en_us/asset-allocation.html. As of December 31, 2017.

Equities: Future Returns Follow Starting Earnings Yields



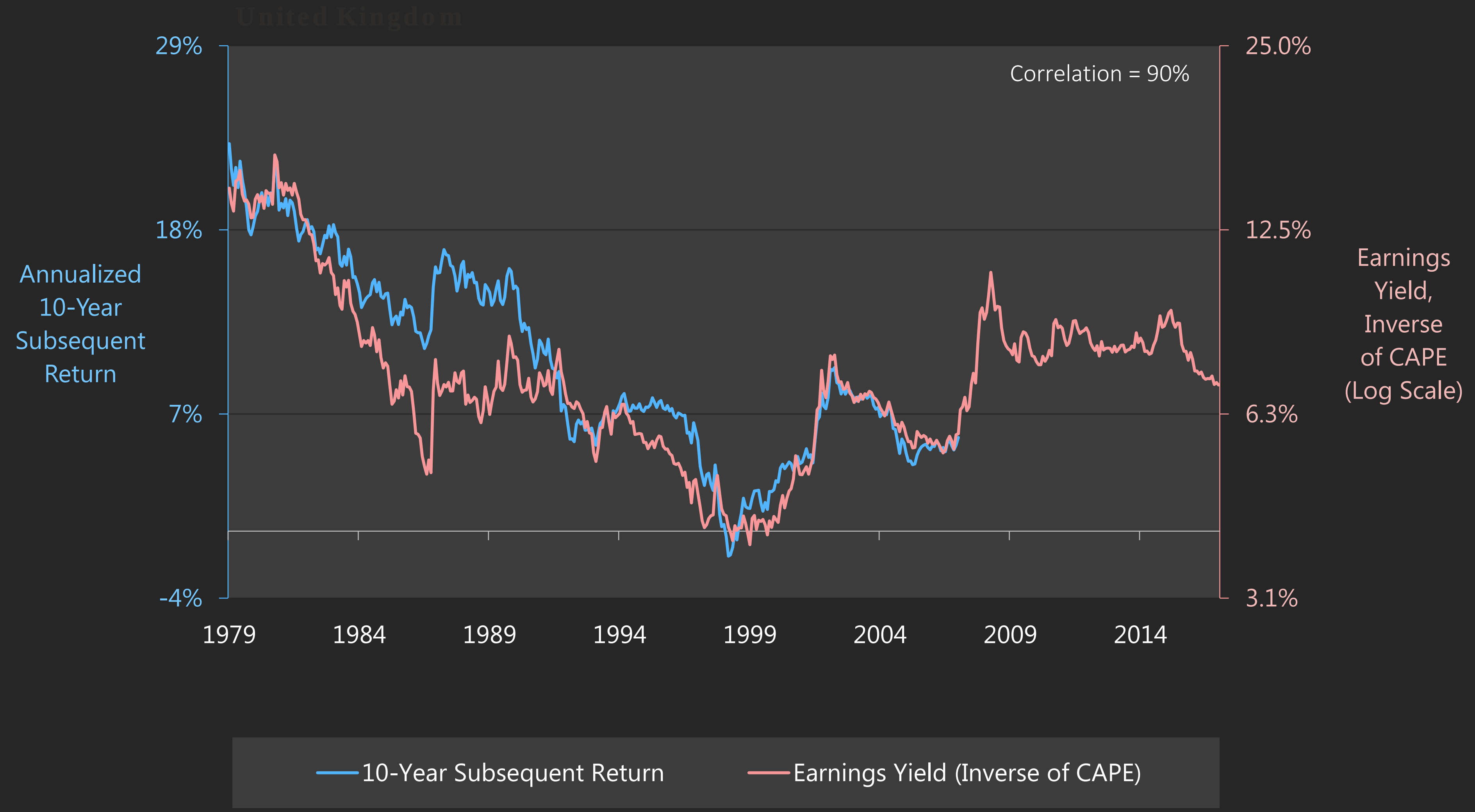
Source: Research Affiliates, LLC, based on data from Bloomberg and MSCI. The index and inception date is the MSCI Germany (January 1969). Earnings yield is computed as the inverse of the CAPE ratio. For more information, please visit http://www.researchaffiliates.com/en_us/asset-allocation.html. As of December 31, 2017.

Equities: Future Returns Follow Starting Earnings Yields



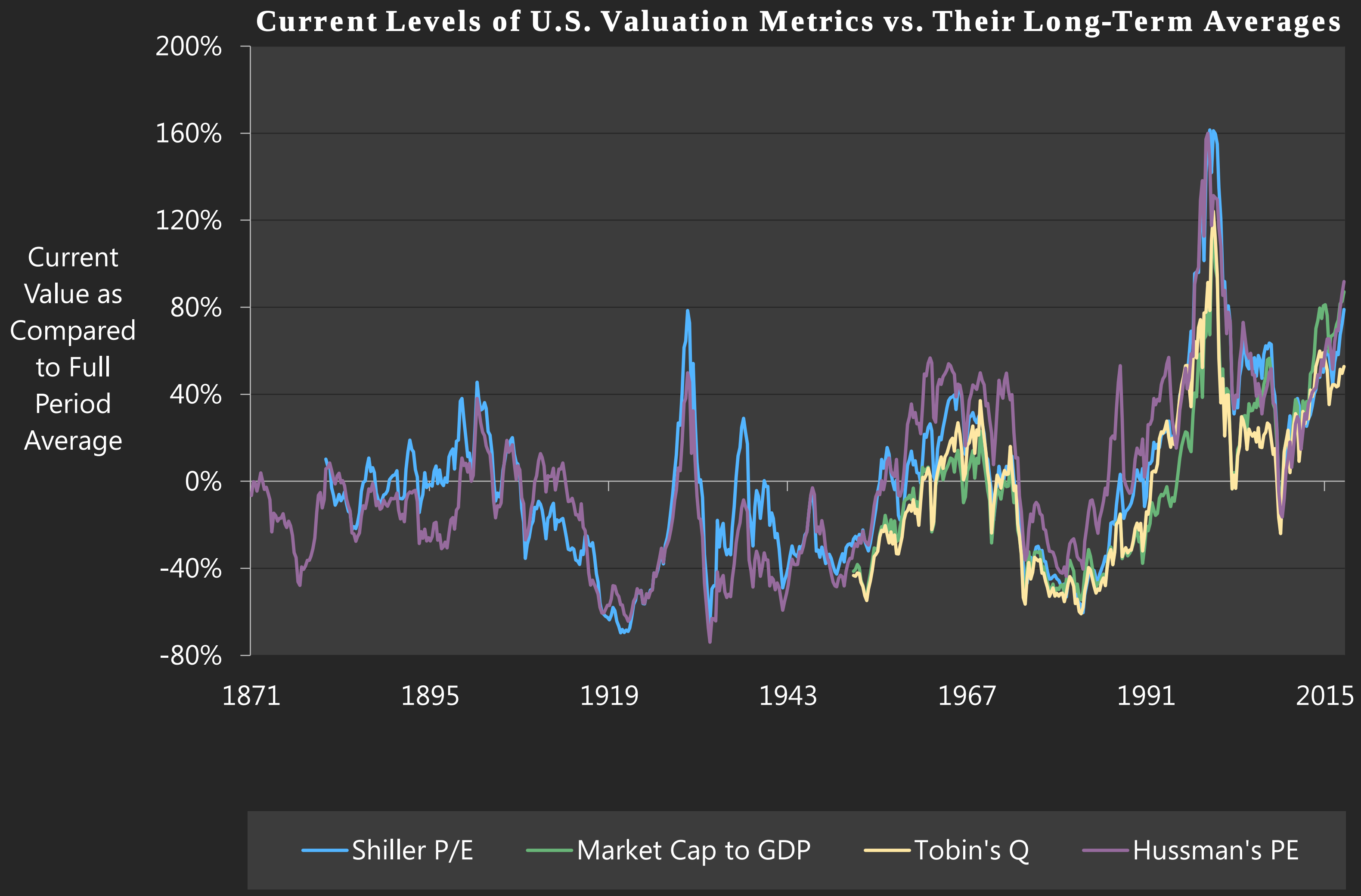
Source: Research Affiliates, LLC, based on data from Bloomberg and MSCI. The index and inception date is the MSCI Japan (January 1969). Earnings yield is computed as the inverse of the CAPE ratio. For more information, please visit http://www.researchaffiliates.com/en_us/asset-allocation.html. As of December 31, 2017.

Equities: Future Returns Follow Starting Earnings Yields



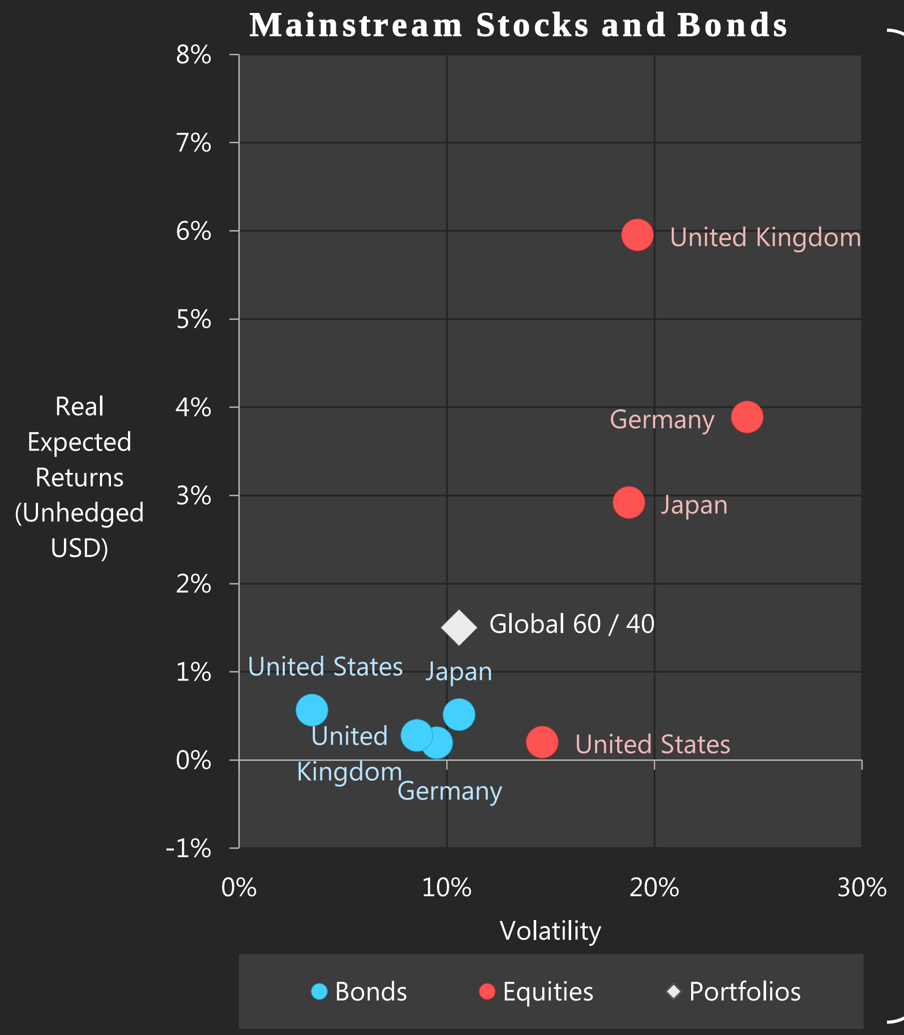
Source: Research Affiliates, LLC, based on data from Bloomberg and MSCI. All returns are denominated in local currencies. The index and inception date is the MSCI UK (January 1969). Earnings yield is computed as the inverse of the CAPE ratio. For more information, please visit http://www.researchaffiliates.com/en_us/asset-allocation.html. As of December 31, 2017.

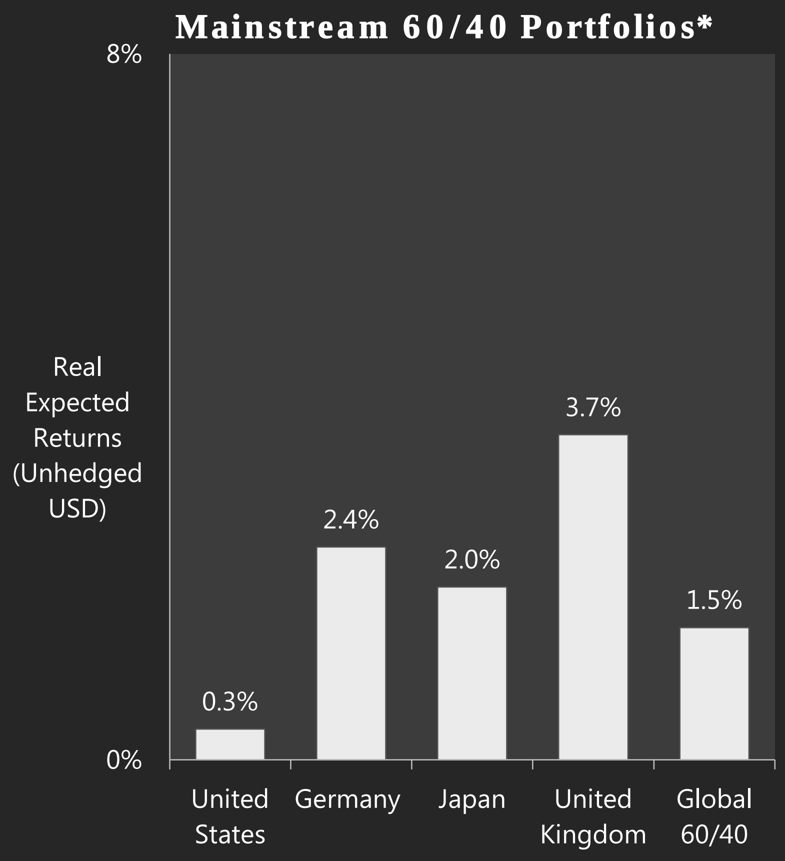
Common Valuation Metrics Imply Overvaluation



Source: Research Affiliates, LLC, based on data from Robert Shiller and the Federal Reserve Economic Data (FRED). As of December 31, 2017.

Mainstream Asset Classes Offer Less Than Most Investors Expect





*60/40 portfolios are represented as 60% core equity index and 40% Treasury 5-7 Year bond index for each specific country. For the US, the Barclays Aggregate is used in lieu of the 5-7 Year Treasury. Source: Research Affiliates, LLC, based on data from Ibbotson, Shiller, Bloomberg, FactSet, MSCI Inc., and Barclays. As of December 31, 2017.

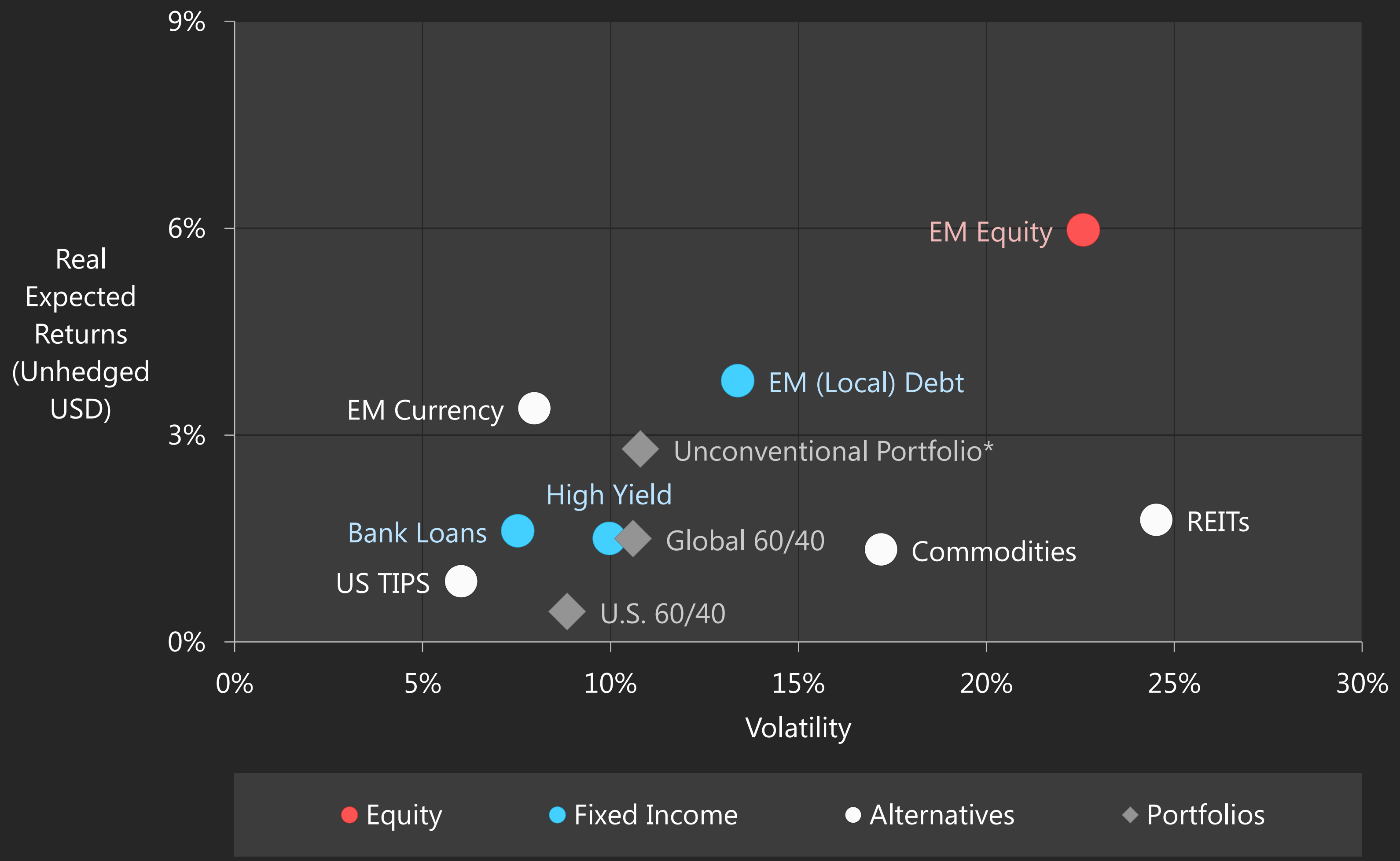
What Can Investors Do?

1. Consider ***other*** asset classes	2. Unlock excess returns ***within*** asset classes	3. Rebalance ***across*** asset classes
» Mainstream stocks and bonds are not the only choices	» The traditional approach is to seek alpha through active managers	» A buy-and-hold approach leads to overweighting recent winners
» Uncomfortable assets can be priced to offer better returns	» Fundamental indices add value in a simple, transparent, low-cost way	» Tactical over-rebalancing can profit from extremes of valuation

Consider Other Asset Classes

The First Path to Improving Return Potential

Unconventional Assets Mostly Priced to Offer Better Returns



*Unconventional Portfolio is an equal-weighted portfolio of the following asset classes: EM Equity, EM Currency, EM Local Debt, Bank Loans, US TIPS, High Yield, REITs, and Commodities. US 60/40 is represented as 60% in S&P 500 and 40% in Barclays U.S. Aggregate. Global 60/40 is represented as 60% in MSCI World and 40% in Citigroup WGBI. As of December 31, 2017. Source: Research Affiliates, LLC, based on data from Shiller, Bloomberg, and FactSet.

Unlock Excess Returns Within Asset Classes

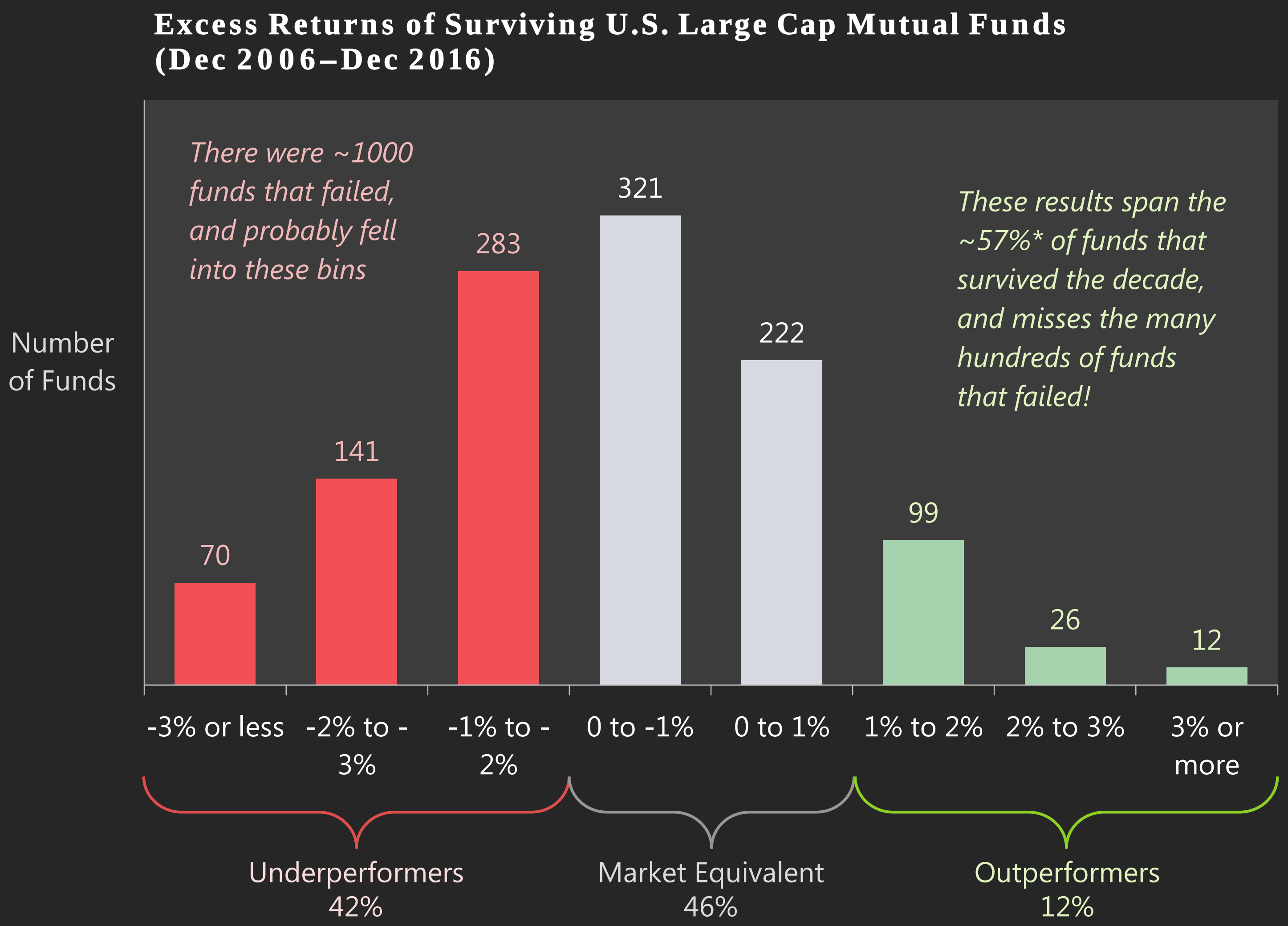
The Second Path to Improving Return Potential

Investor Beliefs Drive Implementation Choices

Unlocking Excess Return

	Traditional Indexing	Fundamental Index™	Active Management
Philosophy	Prices closely *reflect* intrinsic value	Prices *deviate* from intrinsic value	Prices *deviate* from intrinsic value
Achilles' Heel	Cannot deliver excess returns in inefficient markets	Cannot win in strong momentum and growth dominated markets	Cannot (collectively) beat the market and utterly reliant on manager skill

Active Management:
Excess Returns Are Difficult to Achieve



* Morningstar Research shows 43% of core equity funds at end-2005 no longer exist at end-2015. Source: Research Affiliates, LLC, based on Lipper data for US large capitalization mutual funds. Mutual fund returns are net of fees. Chart has been recreated but based on Burton G. Malkiel, 2005, “Reflections on the Efficient Market Hypothesis: 30 Years Later,” The Financial Review, p. 40.

Fundamental Index: Weight by Any Measure of Company Size Except Market Capitalization

- Sales
- Cash Flow
- Dividends
- Book Value

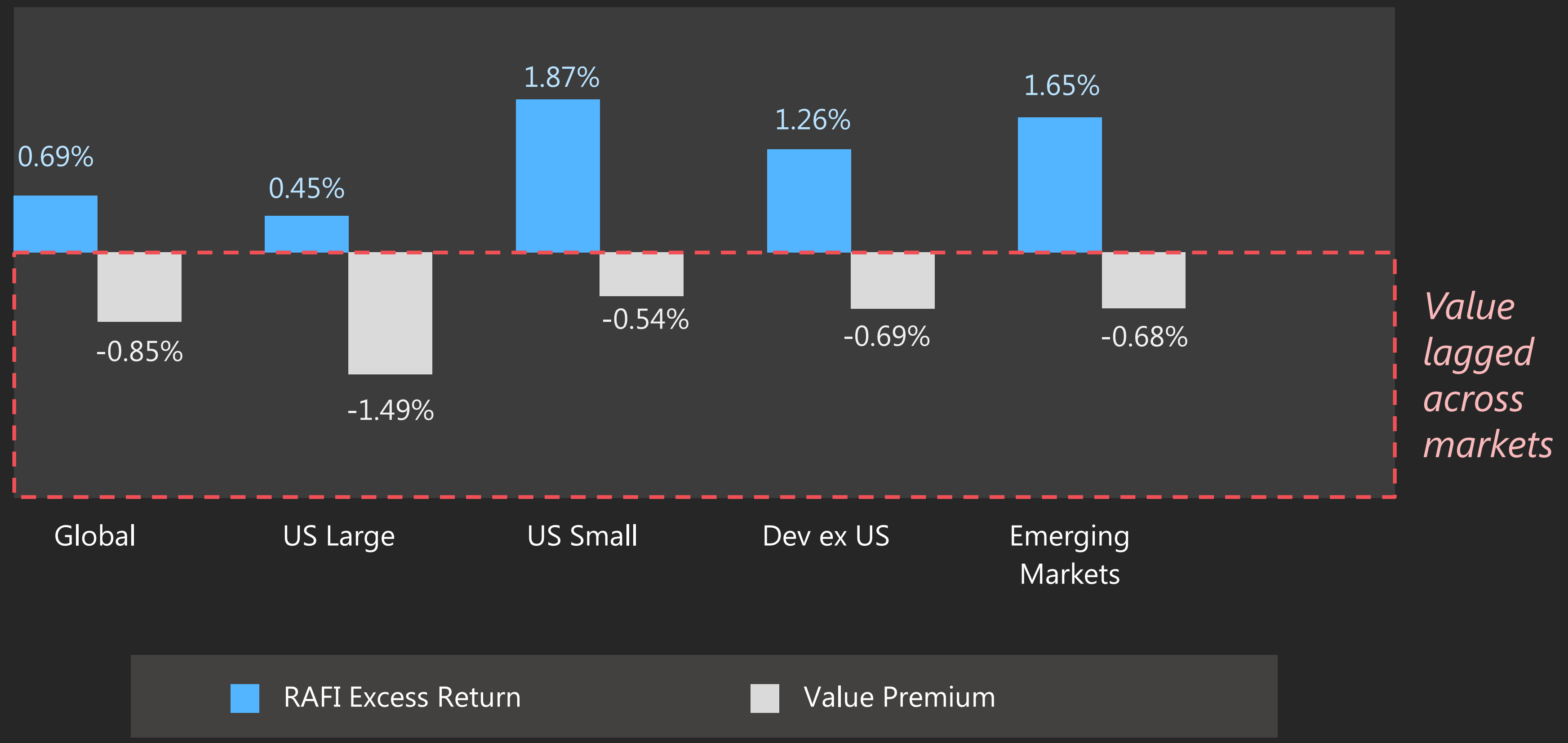
Outperformance vs. Cap-weighted Benchmark

Benefits

- Low turnover & trading costs
- High capacity
- Broad economic representation

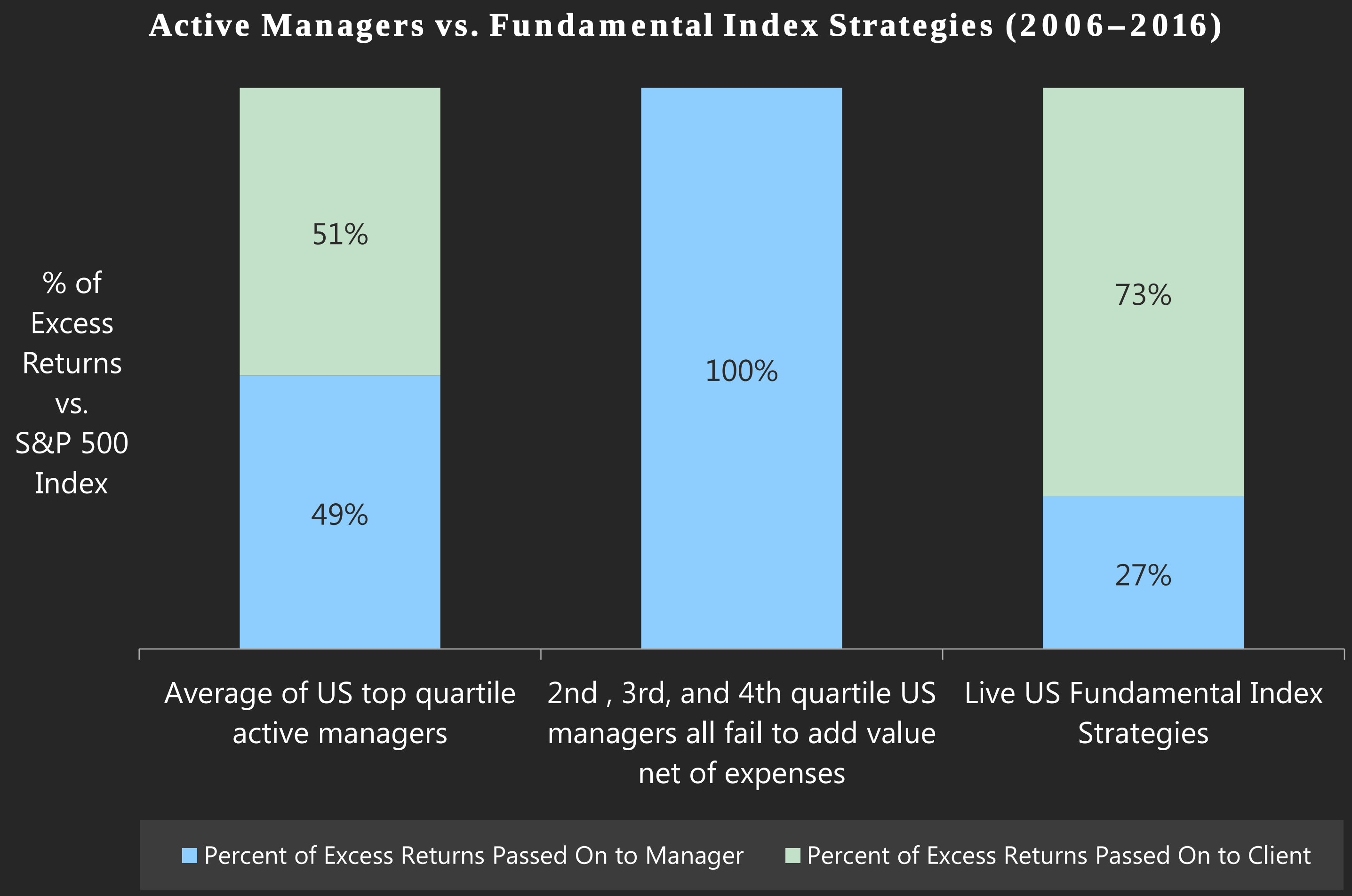
RAFI™ Delivers Excess Returns

RAFI Excess Returns vs. Value Premium (Trailing 10 Yrs, Dec 2017)



Source: Research Affiliates, LLC, based on data from Factset. Returns prior to index inception dates are simulated. Please see important information at the end of this presentation regarding simulated data. The Value Premium for each region is calculated by taking the cap-weighted value index and subtracting the cap-weighted core index. For example, for the Global Value Premium, the formula is the MSCI ACWI Value Gross Index minus the MSCI ACWI Gross Index.

Excess Returns Should Accrue to the Investor



Active Managers excess returns calculated by using the average gross return of the top quarter of funds in the Lipper U.S. Large Cap Core, U.S. Large Cap Growth, and U.S. Large Cap Value database minus the return of the S&P 500 Index for the period 1/1/2007–12/31/2016. Fees are represented by the average current expense ratio charged by active managers in the top 25th percentile ranking. The Fundamental Index strategy represents the average excess returns, before fees, of the PowerShares FTSE RAFI US 1000 (PRF) ETF minus the S&P 500 and the PIMCO RAE Fundamental PLUS Fund Institutional Class (PXTIX) minus the S&P 500 for the period 1/1/2007–12/31/2016. Fees are represented by the average expense ratio of the two funds.

Source: Research Affiliates based on data from eVestment Alliance and Factset.

Rebalance Across Asset Classes

The Last Path to Improving Return Potential

Mean Reversion is Unreliably Reliable

Asset Class Rankings (as of Dec 2017)

	Three-Year Incremental Returns							Ann. Return
	1998 - 2000	2001 - 2003	2004 - 2006	2007 - 2009	2010 - 2012	2013 - 2015	2016 - 2017	1998 - 2017
Highest Performing	41.5% US Stocks	68.3% REITS	89.7% REITS	24.6% EM LC Debt	64.4% REITS	52.6% US Stocks	36.4% US Stocks	8.7% REITS
	35.8% EM LC Debt	48.3% Long TIPS	35.2% Commodities	20.7% Long TIPS	50.7% Long TIPS	34.2% REITS	25.9% HY Bonds	7.2% US Stocks
	21.4% Long TIPS	33.9% HY Bonds	34.9% EW Seven	19.2% US Core Bonds	40.0% HY Bonds	5.2% HY Bonds	19.4% REITS	7.0% Long TIPS
	20.3% US Core Bonds	33.1% EM LC Debt	34.7% US Stocks	19.0% HY Bonds	36.3% US Stocks	4.4% US Core Bonds	19.0% EW Seven	6.8% HY Bonds
	19.6% EW Seven	31.5% EW Seven	33.0% EM LC Debt	4.2% EW Seven	31.1% EW Seven	0.3% EW Seven	15.5% EM LC Debt	6.4% EW Seven
	19.6% Commodities	25.6% Commodities	27.7% HY Bonds	-11.1% Commodities	19.7% US Core Bonds	-10.7% Long TIPS	15.4% Long TIPS	5.9% EM LC Debt
	-1.8% HY Bonds	24.5% US Core Bonds	15.6% Long TIPS	-15.9% US Stocks	7.7% EM LC Debt	-15.9% EM LC Debt	13.7% Commodities	5.0% US Core Bonds
Lowest Performing	-4.4% REITS	-11.7% US Stocks	11.5% US Core Bonds	-34.4% REITS	0.2% Commodities	-43.4% Commodities	6.3% US Core Bonds	0.8% Commodities

The seven asset classes consist of US stocks (S&P 500), US core bonds (Barclays US Aggregate), Long TIPS (Barclays US 10-year plus Treasury Inflation Protected Notes), High yield bonds (Barclays US Aggregate Credit Corporate HY), REITs (FTSE NAREIT All REITs), EM local debt (JPMorgan Emerging Local Markets ELMI Plus Gross), and commodities (Bloomberg Commodity Index). Source: Research Affiliates, LLC, based on data from FactSet. As of December 31, 2017.

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