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Capital Market Return Assumptions

Wilshire Consulting Investment Research

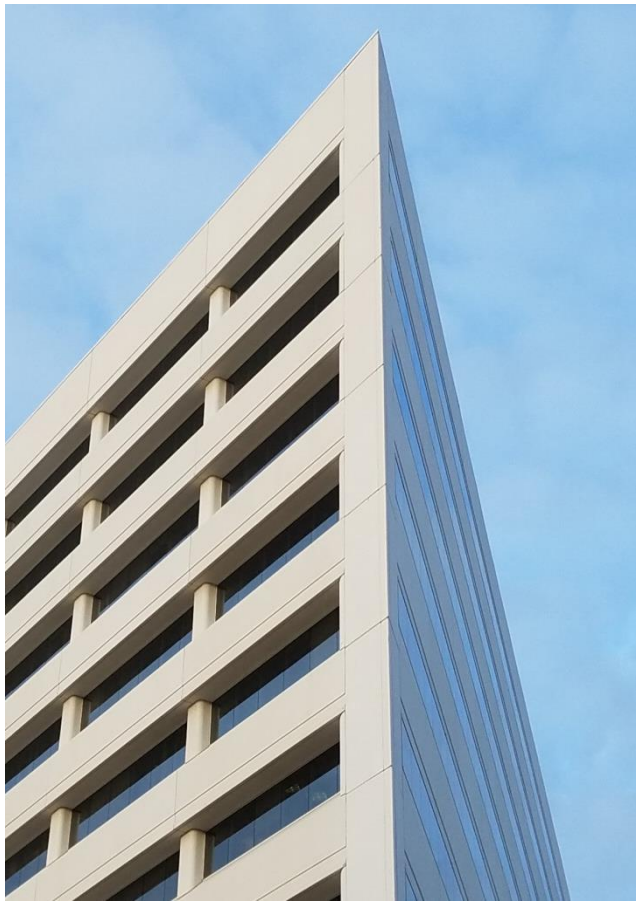
January 31, 2019

Wilshire Consulting

INTRODUCTION

- Traditional Asset Allocation Process
  - Forecasting asset class return, risk and correlation assumptions is the first step in the asset allocation process
  - Long-term estimates (10+ years)
  - Combines historical data with forward-looking analysis
  - Assumptions are updated quarterly

- Economic Highlights of 2019
  - Economic growth accelerated from a year earlier; real GDP expanded 3.0% for the four quarters ending September
  - Inflation maintained its recent pace with CPI up 1.9%; 10-year breakeven inflation rate was down at 1.70%
  - Treasury yields moved higher across all maturities while the curve inverted in the short-to-intermediate range



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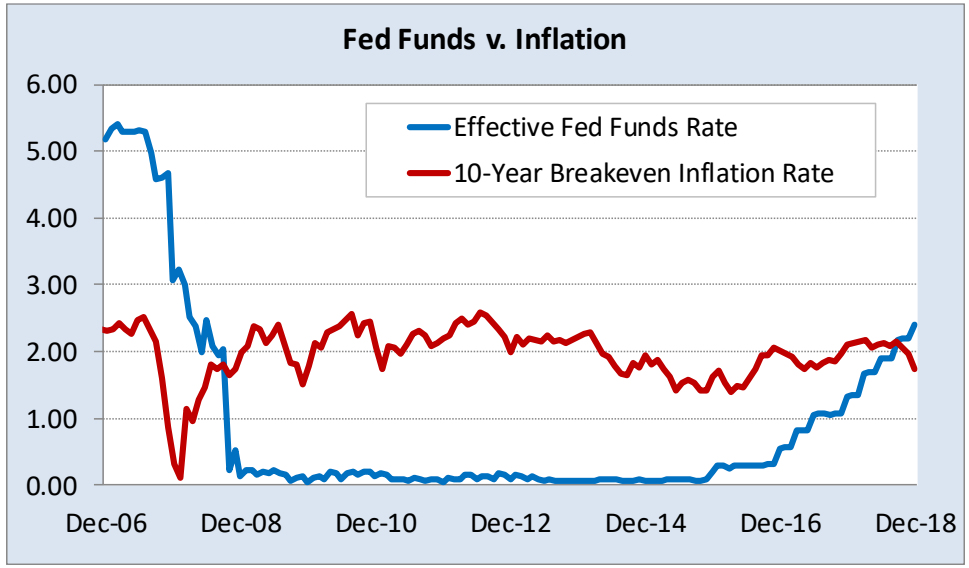
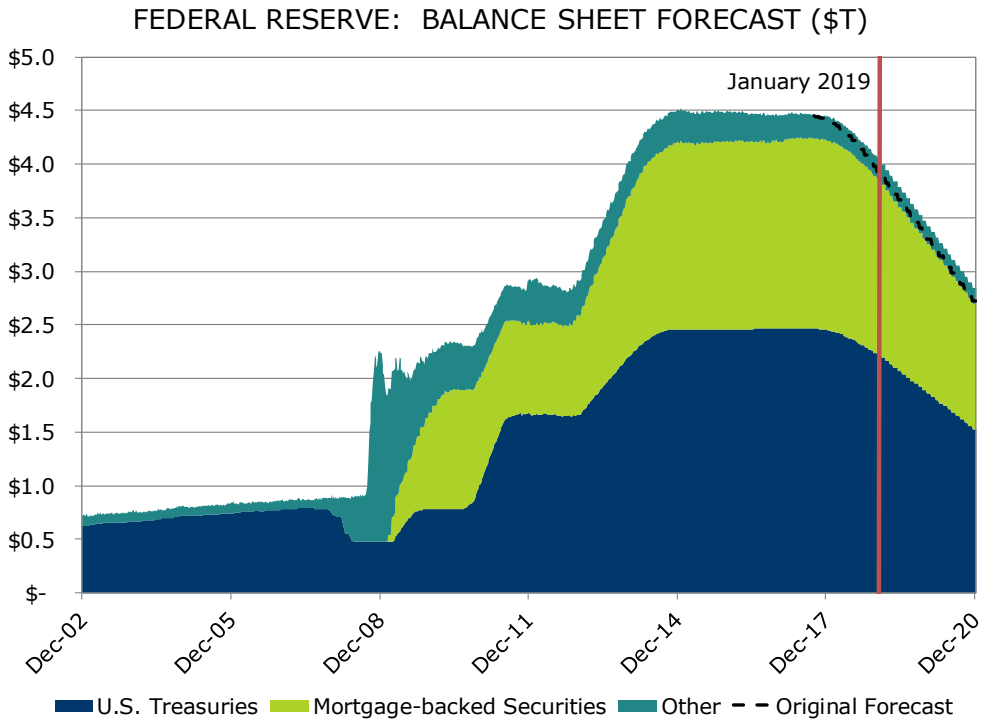
U.S. MONETARY POLICY

- Nominal discount rate moved above expected inflation during 2018 for the first time since the global financial crisis
- Investors can once again earn a positive real return from cash, ending a decade-long period of financial repression





Data source: Federal Reserve

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INFLATION ASSUMPTION

- Market-based inflation forecast
  - TIPS are used to forecast inflation
  - Subtract TIPS YTM from nominal Treasury YTM with same maturity

- As of year-end 2018:
  - 10-year Treasury yield = 2.69%
  - 10-year TIPS yield = 0.98%
  - Difference is 10-year “breakeven inflation rate” = 1.71%

- Wilshire utilizes the 1.71% “breakeven inflation rate” to arrive at a rounded 1.70% 10-year inflation forecast

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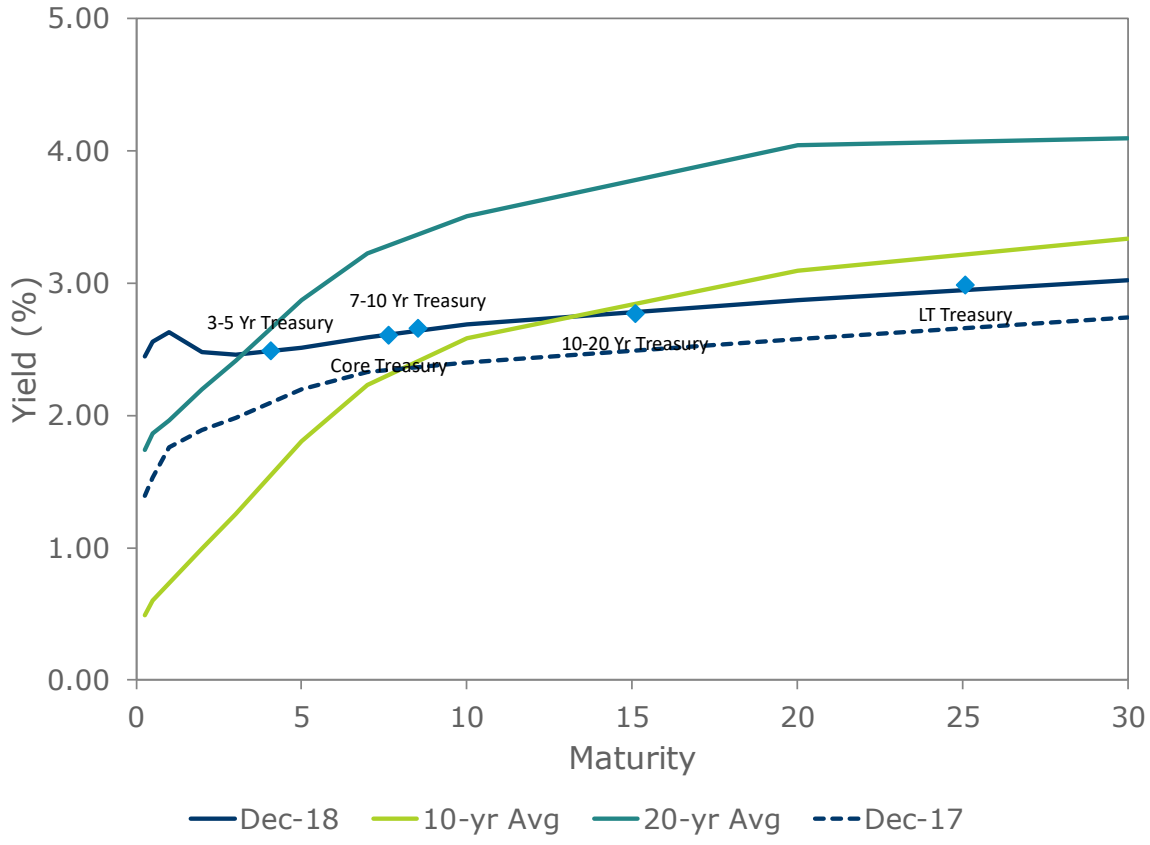
FIXED INCOME: YIELD CURVE

- U.S. Interest Rate Environment: December 2018 vs. December 2017, 10-Year & 20-Year Averages



Data sources: Bloomberg Index Services Limited, U.S. Department of Treasury

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FIXED INCOME MODEL FRAMEWORK

- Three components comprise fixed income returns:
  - Yield to Maturity
  - Annual Roll-down Return (“Roll”)
  - Return on principal from our “view” on interest rates/yield changes and appropriate spread factors

- Our fixed income return assumptions build off of key inputs:
  - Inflation assumption
  - Current observed yield and spread levels
  - Historical spread and real yield levels; forward yield curve

- Current observed maturity and credit risk premiums are normalized to historical levels over our forecast period to calculate fixed income return assumptions

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FIXED INCOME: CORE AND TREASURY BONDS

- Fixed income forecasts reflect a rising rate environment over the forecasting horizon
  - Increases are largely based on the 10-year forward Treasury curve and historical real yield observations

- Short & Intermediate Fixed income forecasts are aided by rising reinvestment rate (versus their current yields)
  - U.S. Core Bonds = 3.85% vs. Dec 2018 yield of 3.28%
  - Treasuries = 3.00% vs. Dec 2018 yield of 2.62%
  - TIPS = 3.00% vs. Dec 2018 yield of 2.66% (Barclays Capital 7-10 Treasury Index)

- Long term fixed income forecasts relatively close to current yields as decreased principal from rising rate environment offset by higher reinvestment rates
  - U.S. Long Term Core Bonds = 4.25% vs. Dec 2018 yield of 4.06%
  - Long Term Treasuries = 3.00% vs. Dec 2018 yield of 2.99%

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HIGH YIELD BONDS & EMERGING MARKET DEBT

- Wilshire utilizes a high yield bond model to forecast returns, which accounts for credit yield spreads, defaults, recoveries & appreciation/depreciation of principal

- Model Inputs:
  - Initial yield spread of 5.41%, widening to historical average of 6%
  - Annual default rate of 4.25% over the forecast period
  - A 40% recovery rate

- Wilshire forecasts 5.90% return for high yield bonds

- Wilshire forecasts 5.40% return for emerging market debt

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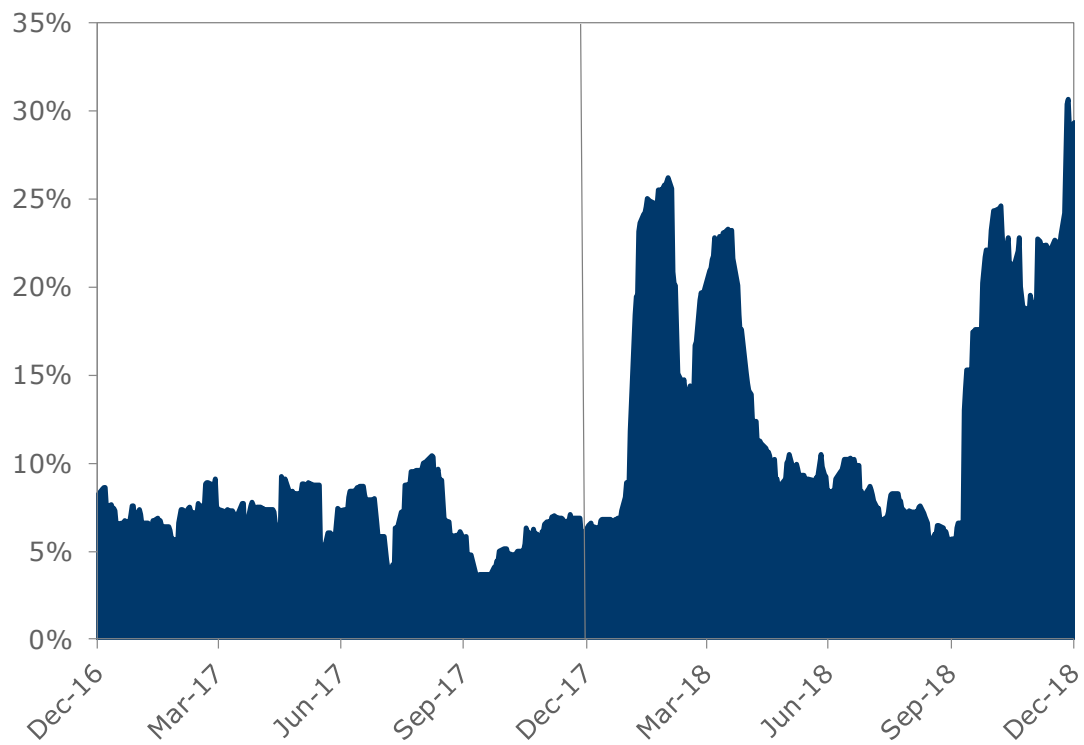
EQUITY VOLATILITY IN 2018

- Volatility returned to the equity markets after a tranquil 2017
- Investor concerns included monetary tightening, global trade and future economic growth

Since 1980	Year	Annual Volatility	Largest Drawdown	Number of Days Down: 1%	2%	3%	4%	Worst Down Day
Universe Statistics	Max Risk	40.56%	-48.54%	71	42	24	17	-17.23%
	Avg	15.48%	-13.97%	28.2	7.7	2.3	1.0	-4.00%
	Med	13.33%	-9.95%	23.0	4.0	1.0	0.0	-3.34%
	Min Risk	6.96%	-2.74%	3	0	0	0	-1.36%
2017	**Level**	**6.96%**	**-2.75%**	**4**	**0**	**0**	**0**	**-1.85%**
	Rank	**1**	**2**	**2**	**1**	**1**	**1**	**7**
2018	**Level**	**16.86%**	**-20.18%**	**32**	**15**	**5**	**1**	**-4.02%**
	Rank	**29**	**31**	**25**	**33**	**32**	**27**	**27**

The "Rank" statistics reflect ordinal rankings among 39 annual observations (i.e. ranks shown are X of 39)

Wilshire 5000 Index: 20-Day Rolling Risk



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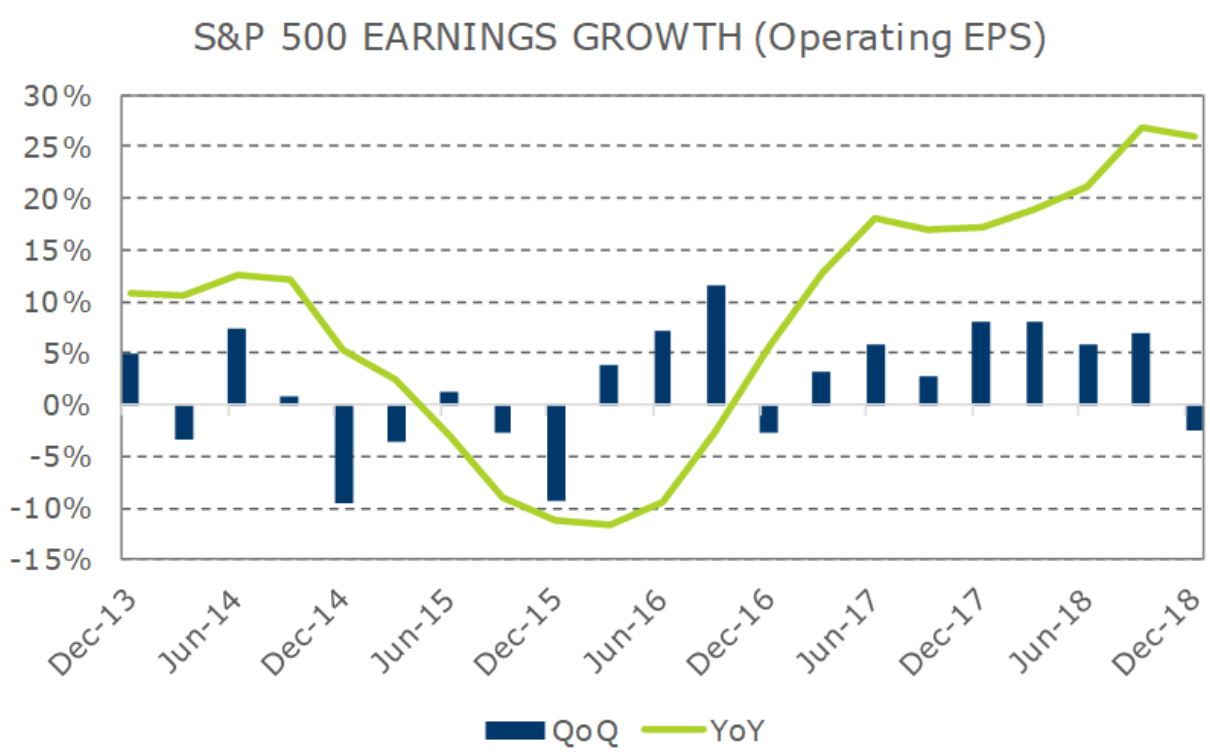
U.S. CORPORATE EARNINGS

- EPS growth remained strong in 2018; Operating earnings rose 26.1%
- U.S. equities were down, however, with the Wilshire 5000 Total Market Index down -5.3%, suffering steep losses during the fourth quarter (-14.3%)



Data sources: S&P Dow Jones Indices

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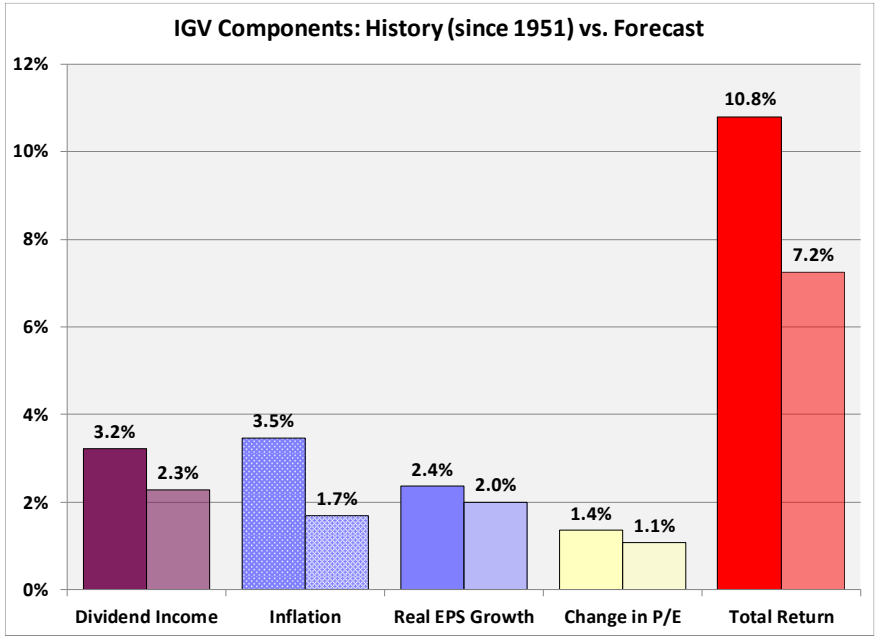
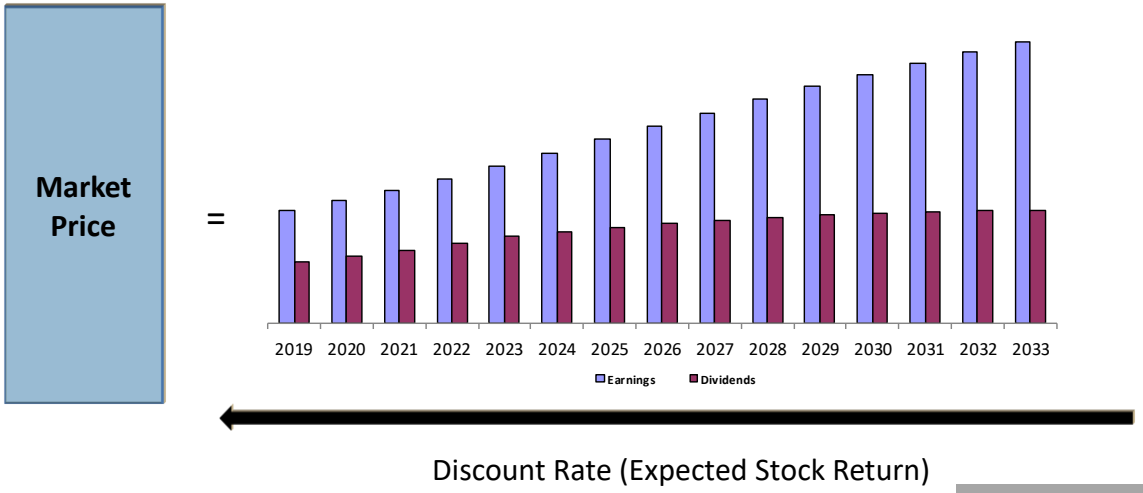
U.S. STOCKS: MODEL FORECASTING

- Income, Growth, Valuation (IGV) Model



- Dividend Discount Model (DDM)
  - Year-end 2018 S&P 500 Index price of 2,507
  - Base earnings level of $157 per share
  - Earnings-per-share growth of 8.75% during the next five years, dropping incrementally to 3.75% from years six through 15
  - 55% dividend payout ratio over the next five years



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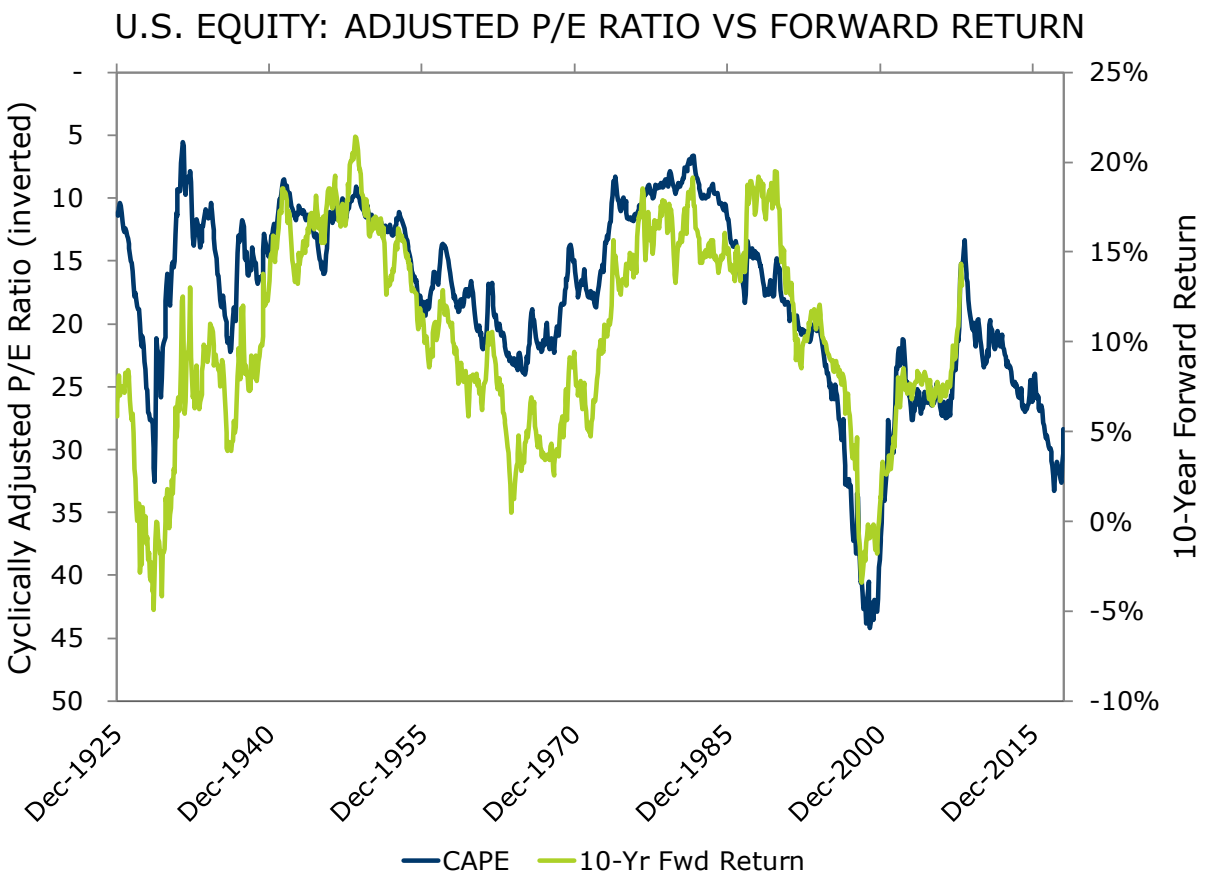
CYCLICALLY ADJUSTED P/E

- CAPE ratio's cyclical nature of smoothing historical earnings provides additional and valuable insights into anchoring long-term return prospects
- Strong relationship between the raw CAPE ratio and 10-year forward equity returns



Data sources: Robert J. Shiller, Wilshire Compass

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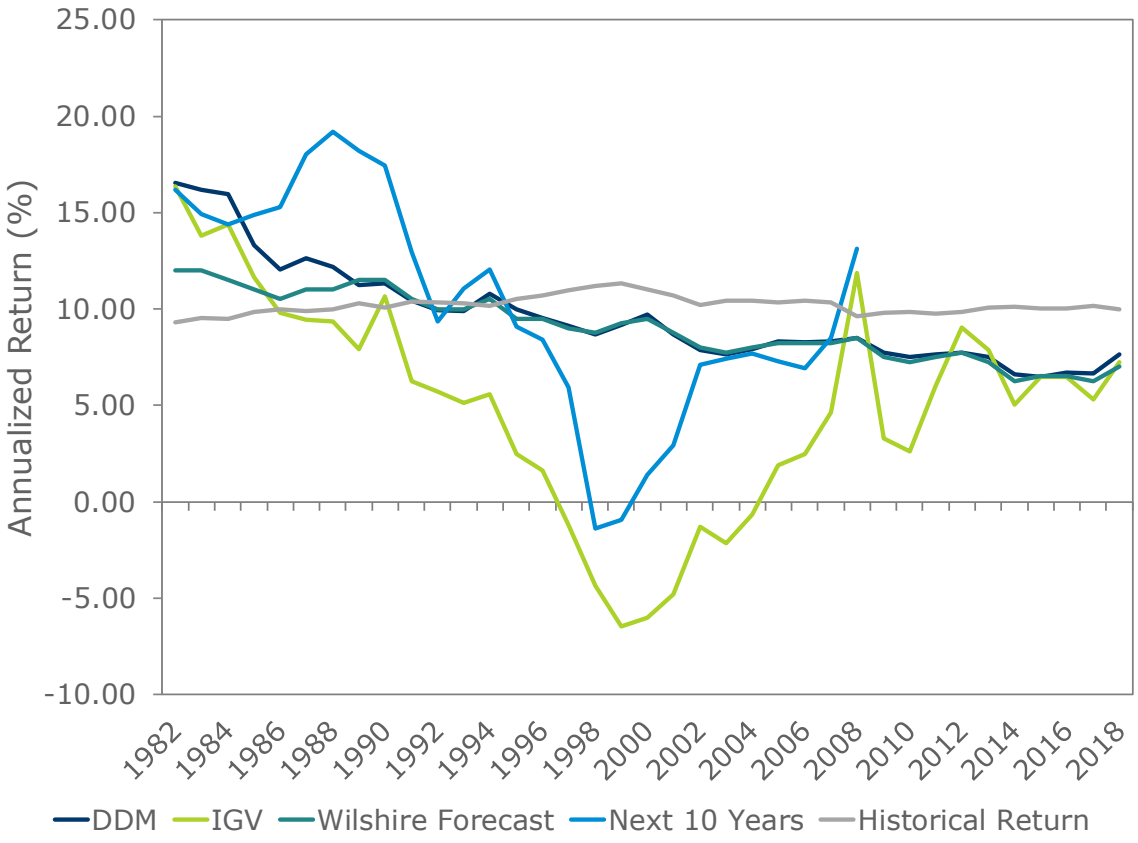
U.S. STOCKS: MODEL FORECASTING

- Wilshire's forecast for U.S. Stocks is 7.00%
  - IGV: 7.3%
  - DDM: 7.4%
  - CAPE signal ranges from 5.25% to 6.75%
- IGV and CAPE offer valuable information during periods of large fluctuations in price multiples



Data sources: Wilshire Compass℠

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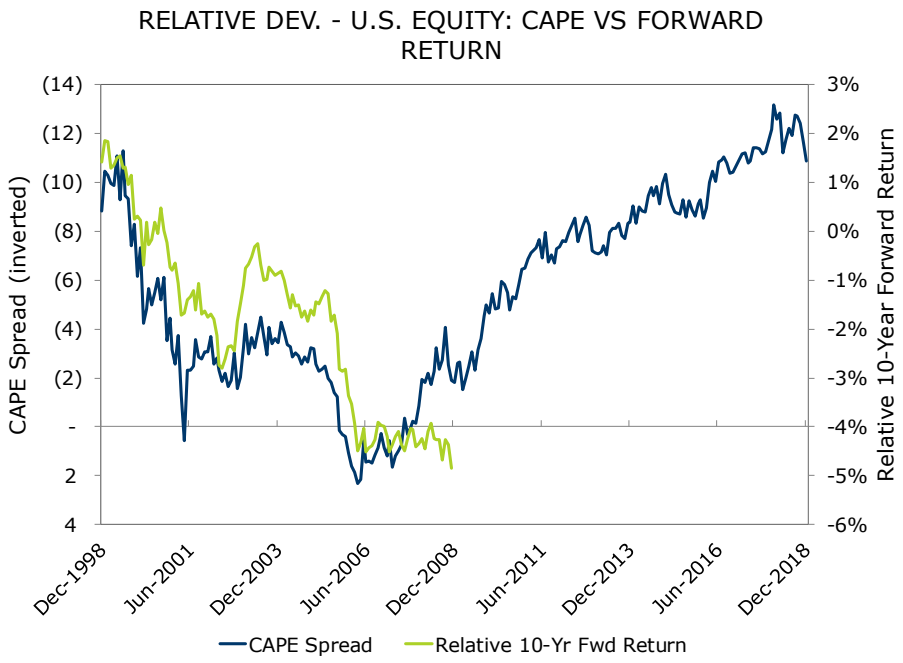
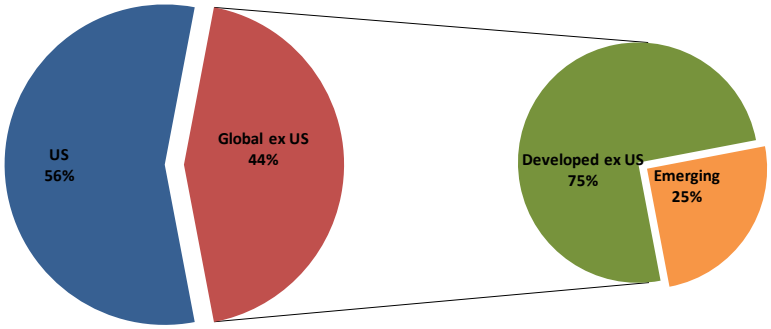
GLOBAL MARKET STOCKS

- CAPE model serves as a valuable indicator of relative return prospects across regions
- Current pricing points to relatively attractive non-U.S. valuations, which lead us to project a 0.5% return premium for non-U.S. stocks
- Market-weighted blends of Wilshire's equity return and risk assumptions results in a 7.45% and 7.75% return forecast for Global and Global ex-U.S. Equity, respectively



Global & Global ex US Equity Market Breakdown



Data sources: MSCI, Wilshire Compass, Wilshire Atlas[SM]

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PRIVATE MARKETS

- Expected return based on Wilshire private market models as well as historical relative relationships
  - Buyouts = 8.65%
  - Venture Capital = 9.45%
  - Mezzanine Debt= 7.75%
  - Distressed Debt = 8.00%
  - Non-US Buyouts = 9.40%

- Wilshire forecasts 10.05% return for private markets portfolio
  - 70% buyouts | 20% venture capital | 5% mezzanine debt | 5% distressed debt

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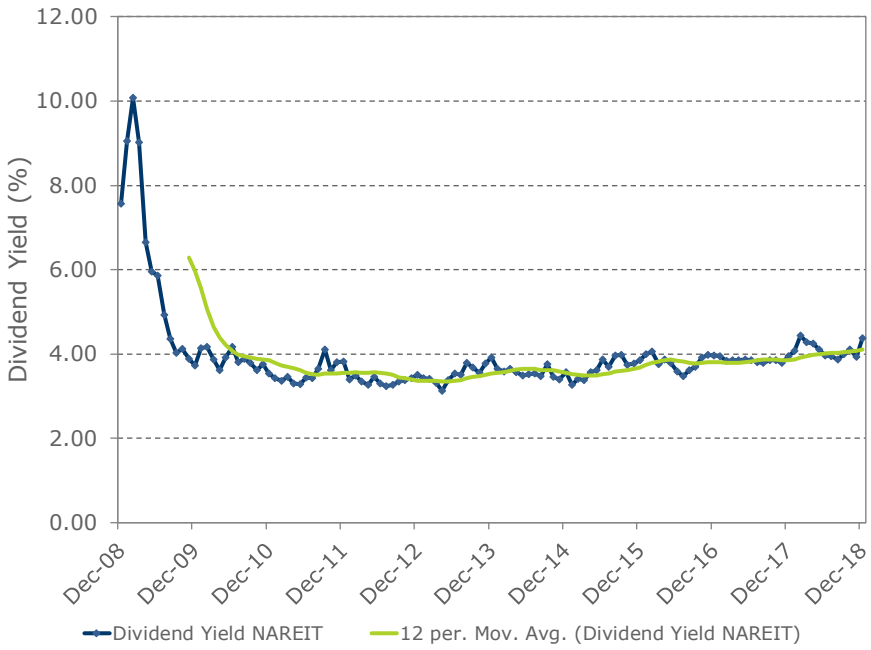
REAL ESTATE SECURITIES

- REIT assumption based on dividend yield + dividend growth
  - Yields have moderated since the credit crisis, equaling 4.37% at year-end
  - Expected growth equals 75% of Wilshire's 1.70% inflation forecast (1.28%)



- Wilshire forecasts 5.65% return for U.S. & non-U.S. RE securities
- Wilshire forecasts 6.65% return for private real estate
  - 70% Core / 15% Value-added / 15% Opportunistic

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WILSHIRE'S RETURN AND RISK ASSUMPTIONS

	TOTAL RETURN			RISK		
	DEC. 2017	**DEC. 2018**	CHANGE	DEC. 2017	**DEC. 2018**	CHANGE
INVESTMENT CATEGORIES						
US STOCK	6.25 %	**7.00 %**	0.75 %	17.00 %	**17.00 %**	0.00 %
DEV EX-US STOCK (USD)	6.25	**7.50**	1.25	18.00	**18.00**	0.00
EMERGING MARKET STOCK	6.25	**7.50**	1.25	26.00	**26.00**	0.00
GLOBAL STOCK	6.45	**7.45**	1.00	17.15	**17.05**	-0.10
PRIVATE EQUITY	8.75	**10.05**	1.30	28.00	**28.00**	0.00
CASH EQUIVALENTS	1.75	**2.65**	0.90	1.25	**1.25**	0.00
CORE BOND	3.55	**3.85**	0.30	5.15	**5.15**	0.00
LT CORE BOND	3.60	**4.25**	0.65	9.85	**9.85**	0.00
US TIPS	2.95	**3.00**	0.05	6.00	**6.00**	0.00
HIGH YIELD BOND	4.95	**5.90**	0.95	10.00	**10.00**	0.00
NON-US BOND (HDG)	1.30	**1.25**	-0.05	3.50	**3.50**	0.00
US RE SECURITIES	5.40	**5.65**	0.25	17.00	**17.00**	0.00
PRIVATE REAL ESTATE	6.90	**6.65**	-0.25	14.00	**14.00**	0.00
COMMODITIES	3.70	**4.35**	0.65	15.00	**15.00**	0.00
REAL ASSET BASKET	6.60	**6.40**	-0.20	8.40	**8.75**	0.35
INFLATION	1.95	**1.70**	-0.25	1.75	**1.75**	0.00
TOTAL RETURNS MINUS INFLATION						
U.S. STOCKS	4.30	**5.30**	1.00			
U.S. BONDS	1.60	**2.15**	0.55			
CASH EQUIVALENTS	-0.20	**0.95**	1.15			
STOCKS MINUS BONDS	2.70	**3.15**	0.45			
BONDS MINUS CASH	1.80	**1.20**	-0.60			

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APPENDIX

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WILSHIRE STANDARD ASSUMPTIONS

	EQUITY						FIXED INCOME						REAL ASSETS					
													REAL ESTATE					
	US STOCK	DEV EX-US STOCK	EMG MRKT STOCK	GLOBAL EX-US STOCK	GLOBAL STOCK	PRIVATE EQUITY	CASH	CORE BOND	LT CORE BOND	US TIPS	HIGH YIELD	NON-US BOND (HDG)	US RES	GLOBAL RES	PRIVATE RE	CMDTY	REAL ASSETS	US CPI
EXPECTED COMPOUND RETURN (%)	7.00	7.50	7.50	7.75	7.45	10.05	2.65	3.85	4.25	3.00	5.90	1.25	5.65	5.85	6.65	4.35	6.40	1.70
EXPECTED ARITHMETIC RETURN (%)	8.30	8.95	10.45	9.35	8.75	13.35	2.65	4.00	4.70	3.15	6.35	1.30	7.00	7.00	7.55	5.40	6.75	1.70
EXPECTED RISK (%)	17.00	18.00	26.00	18.80	17.05	28.00	1.25	5.15	9.85	6.00	10.00	3.50	17.00	15.80	14.00	15.00	8.75	1.75
CASH YIELD (%)	2.15	3.50	2.50	3.25	2.65	0.00	2.65	4.05	5.00	3.55	8.95	1.80	4.40	4.40	2.70	2.65	3.00	0.00
CORRELATIONS																		
US STOCK	1.00																	
DEV EX-US STOCK (USD)	0.81	1.00																
EMERGING MARKET STOCK	0.74	0.74	1.00															
GLOBAL EX-US STOCK	0.83	0.96	0.86	1.00														
GLOBAL STOCK	0.94	0.92	0.82	0.94	1.00													
PRIVATE EQUITY	0.74	0.64	0.62	0.67	0.74	1.00												
CASH EQUIVALENTS	-0.05	-0.09	-0.05	-0.08	-0.07	0.00	1.00											
CORE BOND	0.28	0.13	0.00	0.09	0.20	0.31	0.19	1.00										
LT CORE BOND	0.31	0.16	0.01	0.12	0.23	0.32	0.11	0.93	1.00									
US TIPS	-0.05	0.00	0.15	0.05	0.00	-0.03	0.20	0.60	0.47	1.00								
HIGH YIELD BOND	0.54	0.39	0.49	0.45	0.51	0.34	-0.10	0.25	0.32	0.05	1.00							
NON-US BOND (HDG)	0.16	0.25	-0.01	0.18	0.18	0.26	0.10	0.67	0.66	0.39	0.26	1.00						
US RE SECURITIES	0.59	0.47	0.44	0.49	0.56	0.50	-0.05	0.17	0.23	0.10	0.56	0.05	1.00					
GLOBAL RE SECURITIES	0.65	0.59	0.56	0.62	0.66	0.58	-0.05	0.17	0.22	0.11	0.62	0.03	0.94	1.00				
PRIVATE REAL ESTATE	0.54	0.44	0.44	0.47	0.52	0.51	-0.05	0.19	0.25	0.09	0.57	0.05	0.77	0.76	1.00			
COMMODITIES	0.25	0.34	0.39	0.38	0.32	0.27	0.00	-0.02	-0.02	0.25	0.29	-0.10	0.25	0.28	0.25	1.00		
REAL ASSET BASKET	0.42	0.43	0.50	0.48	0.47	0.43	0.01	0.24	0.25	0.41	0.53	0.06	0.65	0.69	0.69	0.59	1.00	
INFLATION (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	-0.08	0.05	0.03	0.05	0.44	0.26	1.00

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WILSHIRE ALTERNATIVE INVESTMENT ASSUMPTIONS

	BASKET WEIGHT	EXPECTED RETURN (%)	EXPECTED RISK (%)
PRIVATE EQUITY			
BUYOUTS	50%	8.65	30.00
VENTURE CAPITAL	20%	9.45	44.00
DISTRESSED DEBT	5%	8.00	20.00
MEZZANINE DEBT	5%	7.75	20.00
NON-US BUYOUTS	20%	9.40	32.00
PRIVATE EQUITY BASKET		10.05	28.00
PRIVATE REAL ESTATE			
CORE	70%	5.40	12.00
VALUE ADDED	15%	8.40	17.50
OPPORTUNISITC	15%	9.40	25.00
PRIVATE REAL ESTATE BASKET		6.65	14.00
PUBLIC REAL ASSETS			
GLOBAL REAL ESTATE	15%	5.85	15.80
U.S. TIPS	50%	3.00	6.00
COMMODITIES	20%	4.35	15.00
* MDSTRM ENERGY INFR.	15%	8.40	19.00
PUBLIC REAL ASSETS BASKET		4.95	7.60
PRIVATE REAL ASSETS			
PRIVATE REAL ESTATE	35%	6.65	14.00
TIMBER	35%	6.70	15.00
OIL & GAS	30%	8.35	18.00
PRIVATE REAL ASSETS BASKET		7.70	11.25
HEDGE FUNDS			
EQUITY MARKET NEUTRAL	10%	4.75	4.50
EVENT DRIVEN	25%	6.40	7.00
EQUITY LONG/SHORT	35%	6.90	9.75
GLOBAL MACRO	5%	6.20	6.75
RELATIVE VALUE	25%	5.75	5.75
HEDGE FUND BASKET		6.30	6.60

* PREVIOUSLY MLPs

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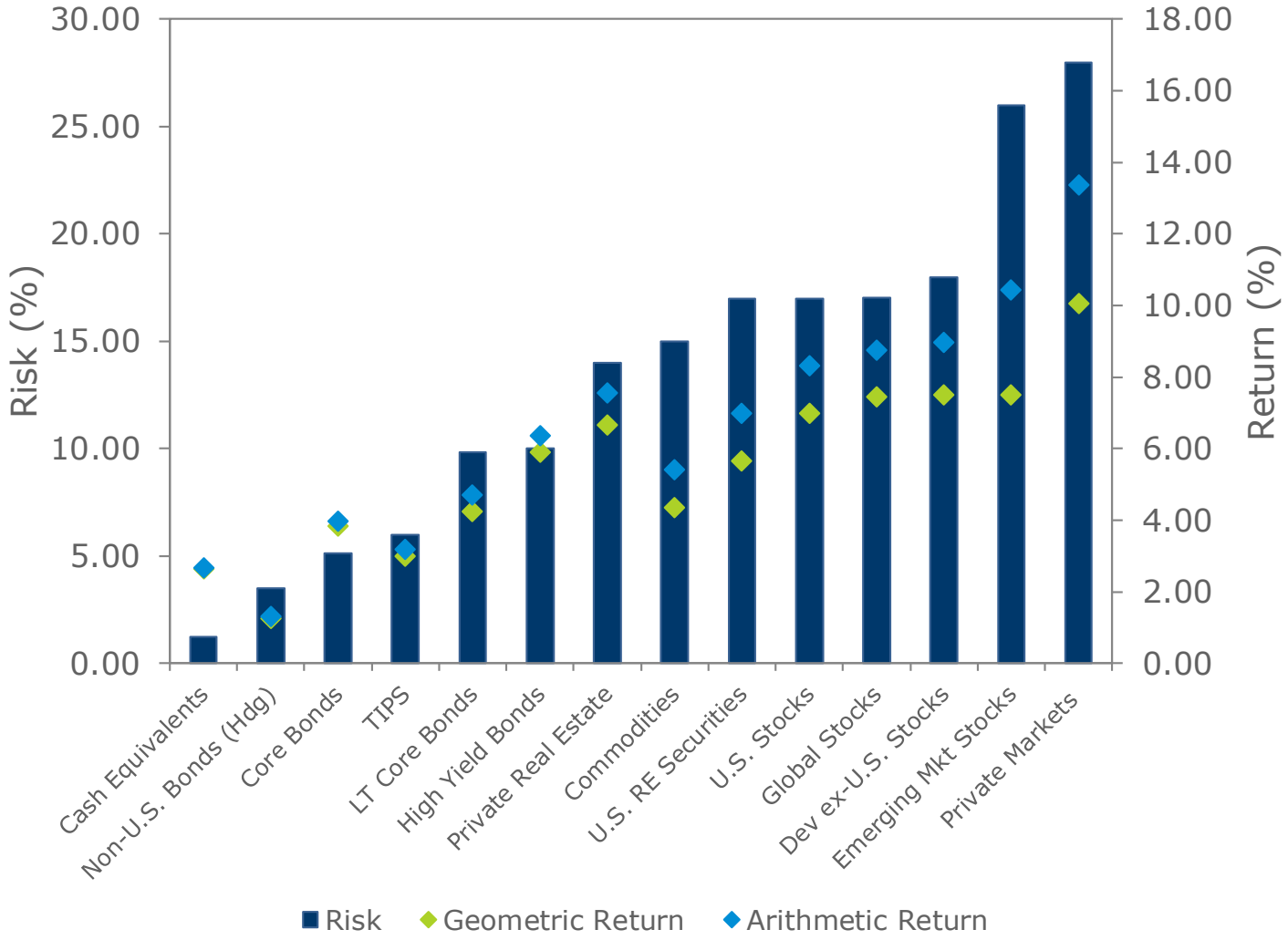
WILSHIRE'S RETURN AND RISK ASSUMPTIONS



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HISTORICAL RETURNS VS. WILSHIRE FORWARD-LOOKING ASSUMPTIONS

	HISTORICAL RETURNS (%)					WILSHIRE DEC. 2018 Asset Class Forecasts	
	1802 - 2018 *	1926 - 2018	Inflationary 1970-1979	Bull Market 1980-1999	Lost Decade 2000-2009	10-Year	30-Year
TOTAL RETURNS							
STOCKS	8.2	10.0	5.9	17.8	-1.0	7.0	7.7
BONDS	4.8	5.4	7.2	10.0	6.3	3.9	4.8
T-BILLS	4.1	3.4	6.4	7.2	3.0	2.7	3.1
INFLATION	1.5	2.9	7.4	4.0	2.5	1.7	2.3
RETURNS MINUS INFLATION							
STOCKS	6.7	7.1	-1.5	13.8	-3.5	5.3	5.5
BONDS	3.4	2.5	-0.2	6.0	3.8	2.2	2.6
T-BILLS	2.6	0.5	-1.0	3.1	0.5	1.0	0.8
STOCKS MINUS BONDS	3.3	4.6	-1.3	7.8	-7.3	3.2	2.9

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DEVELOPED MARKET EX-U.S. STOCKS

- Wilshire's approach to non-U.S. markets begins with our belief that, in the long run, global equity markets will exhibit geometric return parity
- Monitor relative valuation levels across regional markets to serve as a possible signal to add/deduct a return premium/discount to our non-U.S. equity forecasts
- Based on current metrics such as relative price-to-earnings and yield levels, Wilshire believes that a 50 basis point premium is warranted
- Return parity is otherwise well supported by historical results

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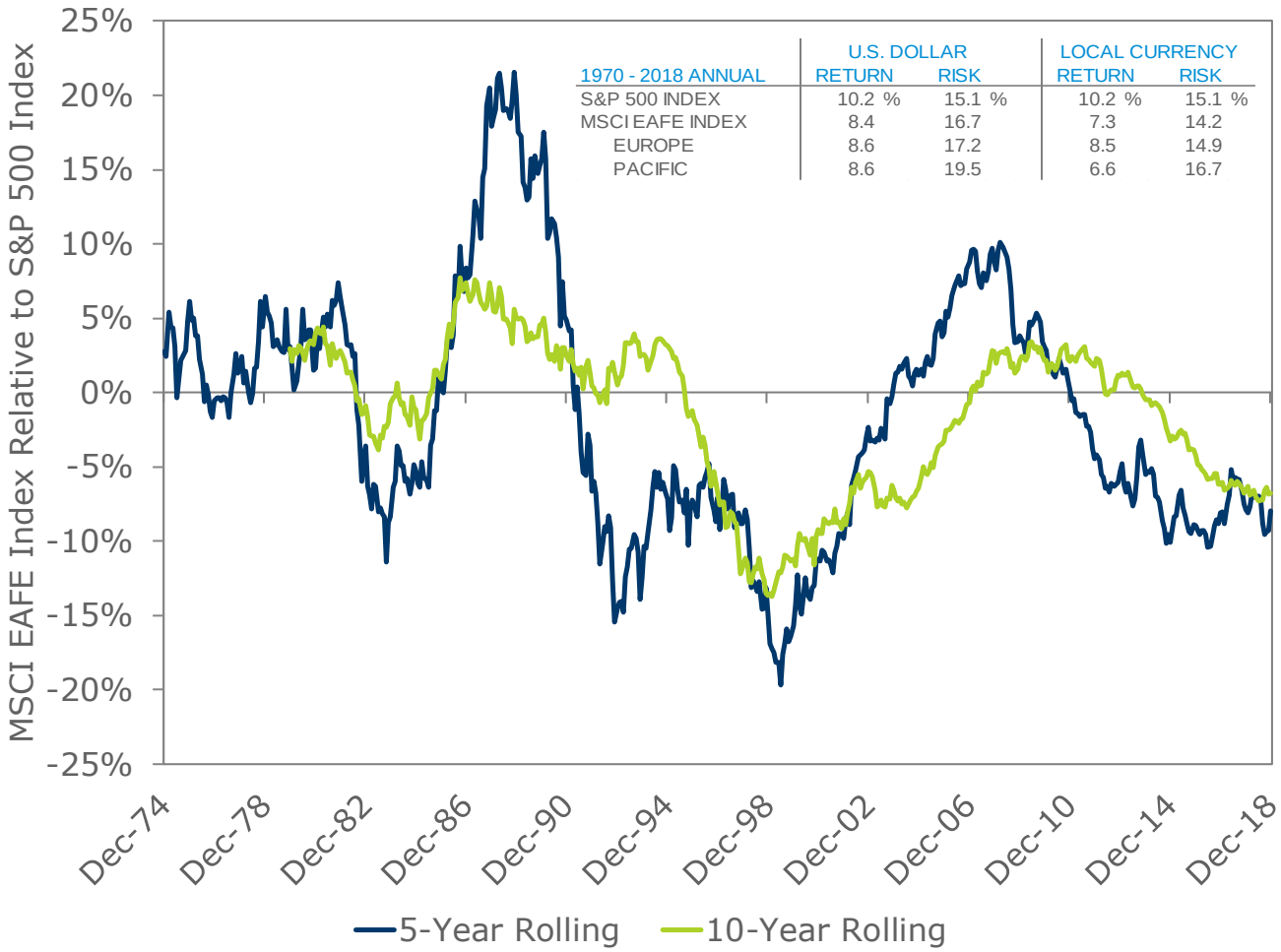
DEVELOPED MARKET EX-U.S. STOCKS



1970 - 2018 ANNUAL	U.S. DOLLAR RETURN	U.S. DOLLAR RISK	LOCAL CURRENCY RETURN	LOCAL CURRENCY RISK
S&P 500 INDEX	10.2 %	15.1 %	10.2 %	15.1 %
MSCI EAFE INDEX	8.4	16.7	7.3	14.2
EUROPE	8.6	17.2	8.5	14.9
PACIFIC	8.6	19.5	6.6	16.7

Data sources: Wilshire Compass

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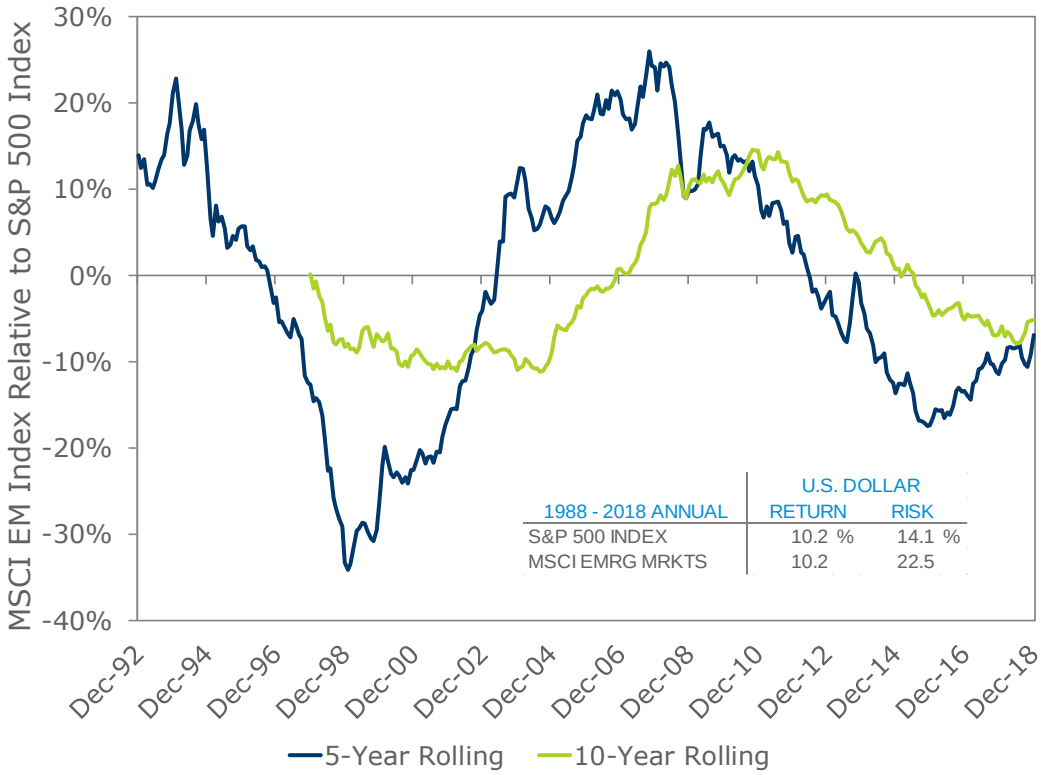
EMERGING MARKET STOCKS

- Similar approach to emerging markets:
  - Begin with belief in return parity
  - Monitor relative valuations for additional signals

- Current valuation levels suggest a return premium, currently 50 basis points



1988 - 2018 ANNUAL	U.S. DOLLAR RETURN	U.S. DOLLAR RISK
S&P 500 INDEX	10.2 %	14.1 %
MSCI EMRG MRKTS	10.2	22.5

Data sources: Wilshire Compass

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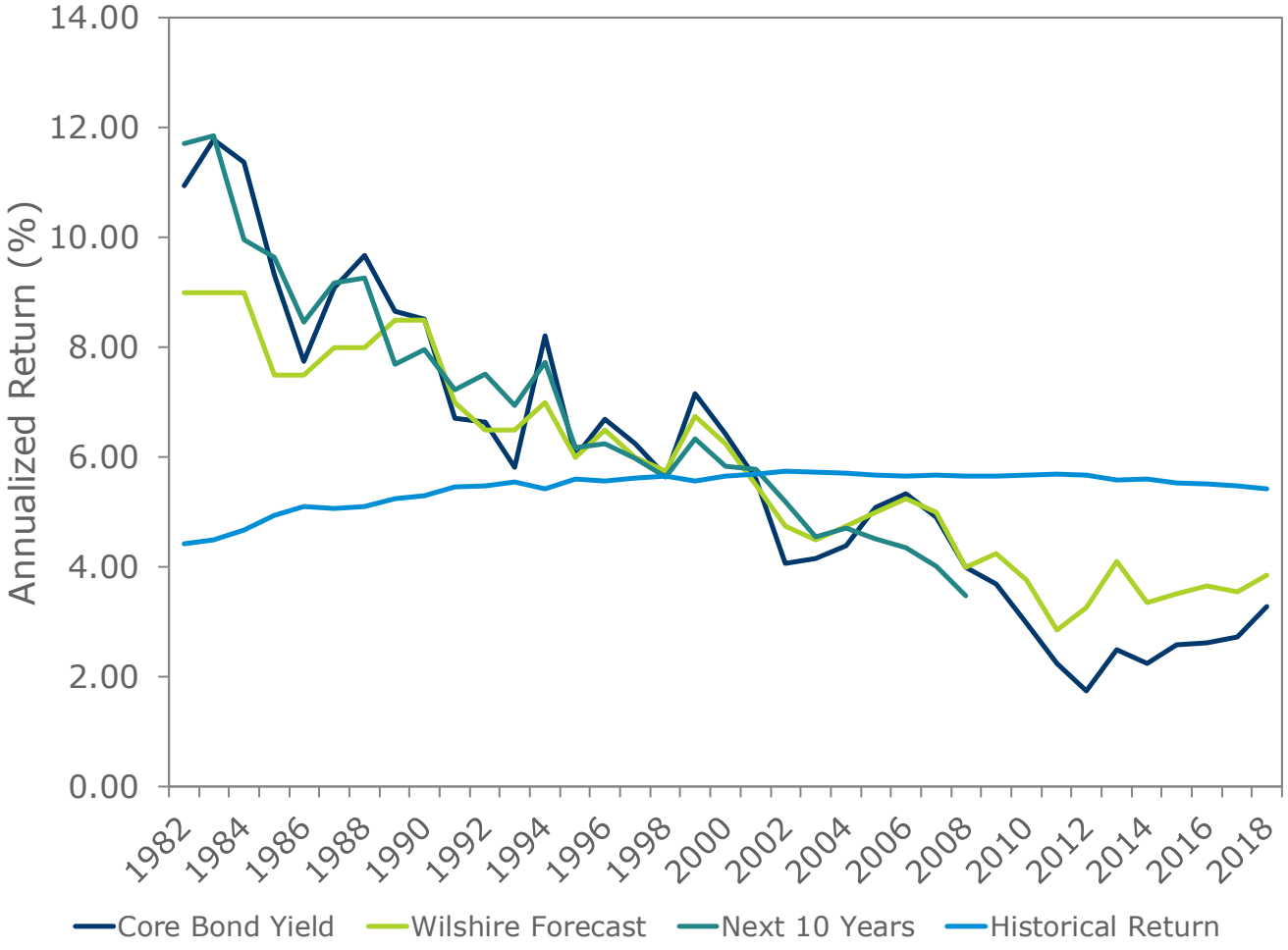
U.S. CORE BONDS

- Wilshire Forecast vs. Current Yield, Historical Return and Actual Following 10-Year Return



Data sources: Bloomberg Index Services Limited, Wilshire Compass

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COMMODITIES

- Historical Returns vs. Wilshire Methodology (10-Year Rolling)

- Wilshire forecasts 4.35% return for commodity futures
  - 1.70% inflation expectation plus 2.65% collateral yield (cash)

Data sources: Wilshire Compass

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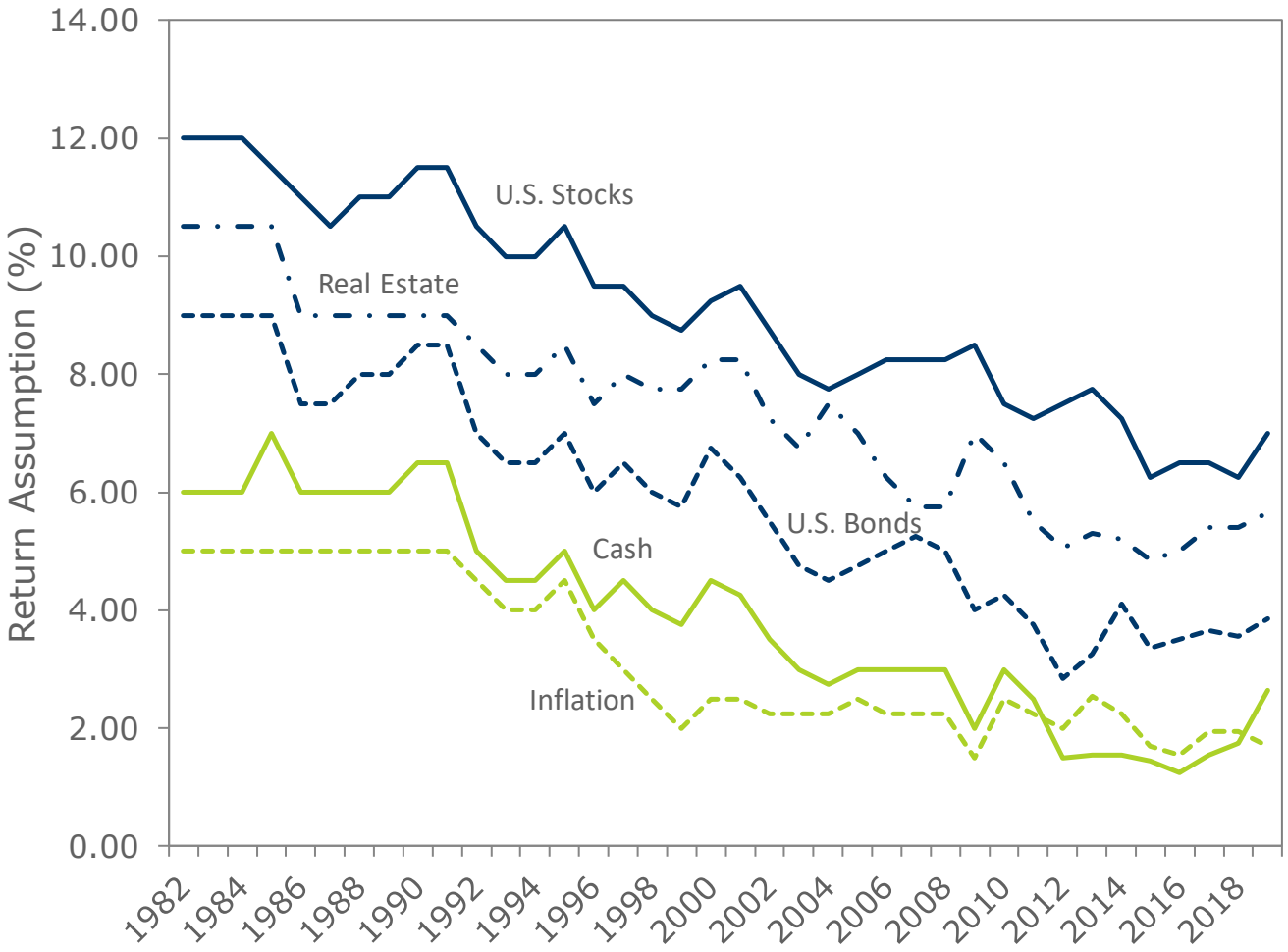
WILSHIRE FORECASTS OVER TIME



Data sources: Wilshire Consulting

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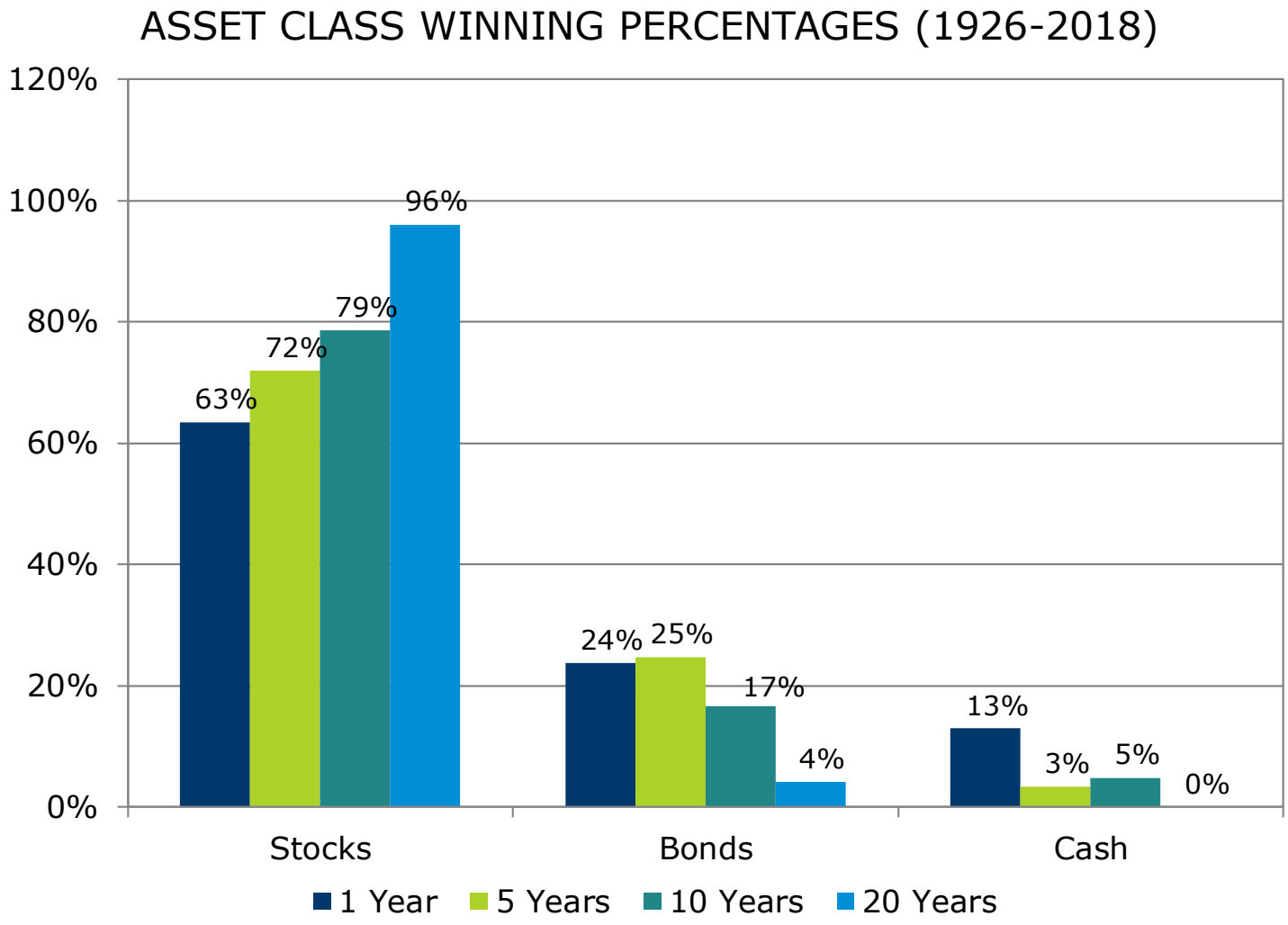
HISTORICAL RELATIVE PERFORMANCE



Data sources: Wilshire Consulting

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HISTORICAL 1-YEAR ROLLING RETURNS (1926 TO 2018)

YEAR	S&P 500 INDEX	BOND INDEX	T-BILLS	CPI	YEAR	S&P 500 INDEX	BOND INDEX	T-BILLS	CPI
1926	11.6	7.4	3.3	-1.5	1973	-14.8	2.3	6.9	8.7
1927	37.5	7.4	3.1	-2.1	1974	-26.4	0.2	8.2	12.4
1928	43.6	2.8	3.5	-1.0	1975	37.2	12.3	5.8	7.0
1929	-8.4	3.3	4.7	0.2	1976	24.1	15.6	5.0	4.9
1930	-24.9	8.0	2.4	-6.0	1977	-7.3	3.0	5.4	6.7
1931	-43.4	-1.9	1.1	-9.5	1978	6.4	1.4	7.5	9.0
1932	-8.2	10.8	1.0	-10.3	1979	18.5	1.9	10.3	13.3
1933	54.0	10.4	0.3	0.5	1980	32.2	2.7	11.8	12.5
1934	-1.4	13.8	0.2	2.0	1981	-4.9	6.3	14.5	8.9
1935	47.7	9.6	0.1	3.0	1982	21.1	32.6	11.1	3.8
1936	33.9	6.7	0.2	1.2	1983	22.4	8.4	8.8	3.8
1937	-35.0	2.8	0.3	3.1	1984	6.1	15.2	9.9	4.0
1938	31.1	6.1	0.0	-2.8	1985	32.1	22.1	7.7	3.8
1939	-0.4	4.0	0.0	-0.5	1986	18.6	15.3	6.1	1.1
1940	-9.8	3.4	0.0	1.0	1987	5.2	2.8	5.4	4.4
1941	-11.6	2.7	0.0	9.7	1988	16.8	7.9	6.7	4.4
1942	20.4	2.6	0.3	9.3	1989	31.5	14.5	9.0	4.6
1943	25.9	2.8	0.4	3.2	1990	-3.2	9.0	8.3	6.1
1944	19.7	4.7	0.3	2.1	1991	30.6	16.0	6.4	3.1
1945	36.4	4.1	0.3	2.3	1992	7.7	7.4	3.9	2.9
1946	-8.1	1.7	0.4	18.2	1993	10.0	9.8	3.2	2.8
1947	5.7	-2.3	0.5	9.0	1994	1.3	-2.9	4.2	2.7
1948	5.5	4.1	0.8	2.7	1995	37.5	18.5	6.1	2.5
1949	18.8	3.3	1.1	-1.8	1996	23.1	3.6	5.4	3.3
1950	31.7	2.1	1.2	5.8	1997	33.3	9.7	5.5	1.7
1951	24.0	-2.7	1.5	5.9	1998	28.8	8.7	5.4	1.6
1952	18.4	3.5	1.7	0.9	1999	21.0	-0.8	4.6	2.7
1953	-1.0	3.4	1.8	0.6	2000	-9.1	11.6	6.2	3.4
1954	52.6	5.4	0.9	-0.5	2001	-11.9	8.4	4.4	1.6
1955	31.6	0.5	1.6	0.4	2002	-22.1	10.3	1.8	2.4
1956	6.6	-6.8	2.5	2.9	2003	28.7	4.1	1.2	1.9
1957	-10.8	8.7	3.2	3.0	2004	10.9	4.3	1.3	3.3
1958	43.4	-2.2	1.5	1.8	2005	4.9	2.4	3.1	3.4
1959	12.0	-1.0	3.0	1.5	2006	15.8	4.3	4.8	2.5
1960	0.5	9.1	2.7	1.5	2007	5.5	7.0	5.0	4.1
1961	26.9	4.8	2.1	0.7	2008	-37.0	5.2	2.0	0.1
1962	-8.7	8.0	2.7	1.2	2009	26.5	5.9	0.2	2.7
1963	22.8	2.2	3.1	1.7	2010	15.1	6.5	0.1	1.5
1964	16.5	4.8	3.5	1.2	2011	2.1	7.8	0.1	3.0
1965	12.5	-0.5	3.9	1.9	2012	16.0	4.2	0.1	1.7
1966	-10.1	0.2	4.8	3.4	2013	32.4	-2.0	0.1	1.5
1967	24.0	-5.0	4.2	3.0	2014	13.7	6.0	0.0	0.8
1968	11.1	2.6	5.2	4.7	2015	1.4	0.6	0.1	0.7
1969	-8.5	-8.1	6.6	6.1	2016	12.0	2.7	0.3	2.1
1970	4.0	18.4	6.5	5.5	2017	21.8	3.5	0.9	2.1
1971	14.3	11.0	4.4	3.4	2018	-4.4	0.0	1.9	1.9
1972	19.0	7.3	3.8	3.5					
					Winning Percentage:	**63.4%**	**23.7%**	**12.9%**	

Data sources: Wilshire Consulting

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HISTORICAL 5-YEAR ROLLING RETURNS (1926 TO 2018)

YEAR	S&P 500 INDEX	BOND INDEX	T-BILLS	CPI
1926-30	8.7	5.8	3.4	-2.1
1927-31	-5.1	3.9	3.0	-3.7
1928-32	-12.5	4.5	2.5	-5.4
1929-33	-11.2	6.0	1.9	-5.1
1930-34	-9.9	8.1	1.0	-4.8
1931-35	3.1	8.4	0.5	-3.0
1932-36	22.5	10.3	0.3	-0.8
1933-37	14.3	8.6	0.2	2.0
1934-38	10.7	7.8	0.1	1.3
1935-39	10.9	5.8	0.1	0.8
1936-40	0.5	4.6	0.1	0.4
1937-41	-7.5	3.8	0.1	2.0
1938-42	4.6	3.8	0.1	3.2
1939-43	3.8	3.1	0.1	4.5
1940-44	7.7	3.3	0.2	5.0
1941-45	17.0	3.4	0.3	5.3
1942-46	17.9	3.2	0.3	6.8
1943-47	14.8	2.2	0.4	6.8
1944-48	10.9	2.4	0.5	6.7
1945-49	10.7	2.2	0.6	5.8
1946-50	9.9	1.8	0.8	6.6
1947-51	16.7	0.9	1.0	4.3
1948-52	19.4	2.0	1.3	2.7
1949-53	17.9	1.9	1.5	2.2
1950-54	23.9	2.3	1.4	2.5
1951-55	23.9	2.0	1.5	1.4
1952-56	20.2	1.1	1.7	0.8
1953-57	13.6	2.1	2.0	1.3
1954-58	22.3	1.0	1.9	1.5
1955-59	15.0	-0.3	2.3	1.9
1956-60	8.9	1.4	2.6	2.1
1957-61	12.8	3.8	2.5	1.7
1958-62	13.3	3.6	2.4	1.3
1959-63	9.8	4.5	2.7	1.3
1960-64	10.7	5.7	2.8	1.2
1961-65	13.2	3.8	3.1	1.3
1962-66	5.7	2.9	3.6	1.9
1963-67	12.4	0.3	3.9	2.2
1964-68	10.2	0.4	4.3	2.8
1965-69	5.0	-2.2	4.9	3.8
1966-70	3.4	1.2	5.4	4.5
1967-71	8.4	3.3	5.4	4.5
1968-72	7.5	5.8	5.3	4.6
1969-73	2.0	5.8	5.6	5.4
1970-74	-2.4	7.6	6.0	6.6
1971-75	3.2	6.5	5.8	6.9
1972-76	4.9	7.4	5.9	7.2
1973-77	-0.2	6.5	6.3	7.9
1974-78	4.3	6.3	6.4	8.0
1975-79	14.8	6.7	6.8	8.1
1976-80	13.9	4.8	8.0	9.2
1977-81	8.0	3.1	9.9	10.1
1978-82	13.9	8.4	11.0	9.5
1979-83	17.2	9.8	11.3	8.4
1980-84	14.6	12.6	11.2	6.5
1981-85	14.6	16.5	10.4	4.8
1982-86	19.7	18.4	8.7	3.3
1983-87	16.4	12.5	7.6	3.4
1984-88	15.4	12.4	7.1	3.5
1985-89	20.4	12.3	7.0	3.7
1986-90	13.2	9.8	7.1	4.1
1987-91	15.4	9.9	7.1	4.5
1988-92	15.9	10.9	6.8	4.2
1989-93	14.5	11.3	6.1	3.9
1990-94	8.7	7.7	5.2	3.5
1991-95	16.6	9.5	4.8	2.8
1992-96	15.2	7.0	4.6	2.8
1993-97	20.2	7.5	4.9	2.6
1994-98	24.1	7.3	5.3	2.4
1995-99	28.6	7.7	5.4	2.4
1996-00	18.3	6.5	5.4	2.5
1997-01	10.7	7.4	5.2	2.2
1998-02	-0.6	7.5	4.5	2.3
1999-03	-0.6	6.6	3.6	2.4
2000-04	-2.3	7.7	3.0	2.5
2001-05	0.5	5.9	2.4	2.5
2002-06	6.2	5.1	2.4	2.7
2003-07	12.8	4.4	3.1	3.0
2004-08	-2.2	4.6	3.2	2.7
2005-09	0.4	5.0	3.0	2.6
2006-10	2.3	5.8	2.4	2.2
2007-11	-0.3	6.5	1.5	2.3
2008-12	1.7	5.9	0.5	1.8
2009-13	17.9	4.4	0.1	2.1
2010-14	15.4	4.5	0.1	1.7
2011-15	12.6	3.2	0.1	1.5
2012-16	14.7	2.2	0.1	1.4
2013-17	15.8	2.1	0.3	1.4
2014-18	8.5	2.5	0.6	1.5
Winning Percentage:	**71.9%**	**24.7%**	**3.4%**	

Data sources: Wilshire Consulting

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HISTORICAL 10-YEAR ROLLING RETURNS (1926 TO 2018)

YEAR	S&P 500 INDEX	BOND INDEX	T-BILLS	CPI	YEAR	S&P 500 INDEX	BOND INDEX	T-BILLS	CPI
1926-35	5.9	7.1	2.0	-2.6	1968-77	3.6	6.2	5.8	6.2
1927-36	7.8	7.0	1.7	-2.3	1969-78	3.2	6.1	6.0	6.7
1928-37	0.0	6.5	1.4	-1.8	1970-79	5.9	7.2	6.4	7.4
1929-38	-0.9	6.9	1.0	-2.0	1971-80	8.4	5.6	6.9	8.1
1930-39	-0.1	6.9	0.6	-2.0	1972-81	6.4	5.2	7.9	8.6
1931-40	1.8	6.5	0.3	-1.3	1973-82	6.6	7.4	8.6	8.7
1932-41	6.4	7.0	0.2	0.6	1974-83	10.6	8.1	8.8	8.2
1933-42	9.4	6.2	0.1	2.6	1975-84	14.7	9.6	9.0	7.3
1934-43	7.2	5.4	0.1	2.9	1976-85	14.2	10.5	9.2	7.0
1935-44	9.3	4.5	0.2	2.9	1977-86	13.7	10.5	9.3	6.6
1936-45	8.4	4.0	0.2	2.8	1978-87	15.2	10.4	9.3	6.4
1937-46	4.4	3.5	0.2	4.4	1979-88	16.3	11.1	9.2	5.9
1938-47	9.6	3.0	0.2	5.0	1980-89	17.5	12.4	9.1	5.1
1939-48	7.3	2.8	0.3	5.6	1981-90	13.9	13.1	8.7	4.5
1940-49	9.2	2.7	0.4	5.4	1982-91	17.5	14.1	7.9	3.9
1941-50	13.4	2.6	0.5	5.9	1983-92	16.2	11.7	7.2	3.8
1942-51	17.3	2.0	0.7	5.5	1984-93	14.9	11.9	6.6	3.7
1943-52	17.1	2.1	0.8	4.7	1985-94	14.4	10.0	6.1	3.6
1944-53	14.3	2.2	1.0	4.4	1986-95	14.9	9.6	5.9	3.5
1945-54	17.1	2.2	1.0	4.2	1987-96	15.3	8.5	5.8	3.7
1946-55	16.7	1.9	1.1	4.0	1988-97	18.0	9.2	5.9	3.4
1947-56	18.4	1.0	1.3	2.5	1989-98	19.2	9.3	5.7	3.1
1948-57	16.4	2.1	1.6	2.0	1990-99	18.2	7.7	5.3	2.9
1949-58	20.1	1.4	1.7	1.9	1991-00	17.5	8.0	5.1	2.7
1950-59	19.4	1.0	1.9	2.2	1992-01	12.9	7.2	4.9	2.5
1951-60	16.2	1.7	2.0	1.8	1993-02	9.3	7.5	4.7	2.5
1952-61	16.4	2.4	2.1	1.3	1994-03	11.1	6.9	4.5	2.4
1953-62	13.4	2.9	2.2	1.3	1995-04	12.1	7.7	4.2	2.4
1954-63	15.9	2.7	2.3	1.4	1996-05	9.1	6.2	3.9	2.5
1955-64	12.8	2.7	2.6	1.6	1997-06	8.4	6.2	3.8	2.4
1956-65	11.1	2.6	2.8	1.7	1998-07	5.9	6.0	3.8	2.7
1957-66	9.2	3.3	3.0	1.8	1999-08	-1.4	5.6	3.4	2.5
1958-67	12.9	1.9	3.1	1.8	2000-09	-1.0	6.3	3.0	2.5
1959-68	10.0	2.4	3.5	2.1	2001-10	1.4	5.8	2.4	2.3
1960-69	7.8	1.7	3.9	2.5	2002-11	2.9	5.8	2.0	2.5
1961-70	8.2	2.5	4.3	2.9	2003-12	7.1	5.2	1.8	2.4
1962-71	7.1	3.1	4.5	3.2	2004-13	7.4	4.5	1.7	2.4
1963-72	9.9	3.0	4.6	3.4	2005-14	7.7	4.7	1.5	2.1
1964-73	6.0	3.0	5.0	4.1	2006-15	7.3	4.5	1.2	1.9
1965-74	1.2	2.6	5.4	5.2	2007-16	6.9	4.3	0.8	1.8
1966-75	3.3	3.8	5.6	5.7	2008-17	8.5	4.0	0.4	1.6
1967-76	6.7	5.3	5.7	5.9	2009-18	13.1	3.5	0.4	1.8
					Winning Percentage:	**78.6%**	**16.7%**	**4.8%**	

Data sources: Wilshire Consulting

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