World Gold Council
Gold in a Time of Turbulence

Presented by John Reade | 5/06/2017

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World Gold Council: Research & Strategy

Who we are and what we do

- Eight full-time Research and Strategy Professionals
  - London – 3 Research; Strategy & Head of Research
  - US - 2 Investment Research
  - Mumbai 1 Research
  - Shanghai 1 Research

- Products
  - Gold Demand Trends: Quarterly Supply & Demand
  - Gold Investor: Four times a year
  - Strategy Twice Monthly, when I start it (June)
  - Market Updates Sporadic

- Free to all: Sign up on www.gold.org

We’ve been here before…

… in many ways, we’ve never left.

Turbulence and Gold

- Gold was one of the best performing assets through the financial crisis
  - Below $700/oz. at the start of 2007
  - Above $1100/oz. at the end of 2009
- S&P500 fell by 21% over the same period
- But as the chart on the next slide shows:
  - Gold was volatile over the period
  - Fell from above $1000 per ounce to below $700/oz. after the failure of Lehman
  - Volatility was extremely higher – realised and especially actual.

Turbulence and Gold

Gold Price, January 2007 to December 2009

US$/oz

Source: Bloomberg

More Turbulence and Gold

- From 2009, gold traded steadily higher, fears of inflation from QE
  - Topped out above $1900/oz. in September 2011
  - Declined through 2012 and then fell sharply in 2013
- US Debt-ceiling crisis
  - Fears of US default due to political stalemate
  - Resolution saw gold top-out and then weaken
- But demonstrated that politics has the potential to drive gold higher
  - Especially if it risks Financial Stability

Turbulence and Gold

Gold Price, January 2009 to December 2013

Source: Bloomberg

Fast forward to the present

The Present

Gold Price, from 2007

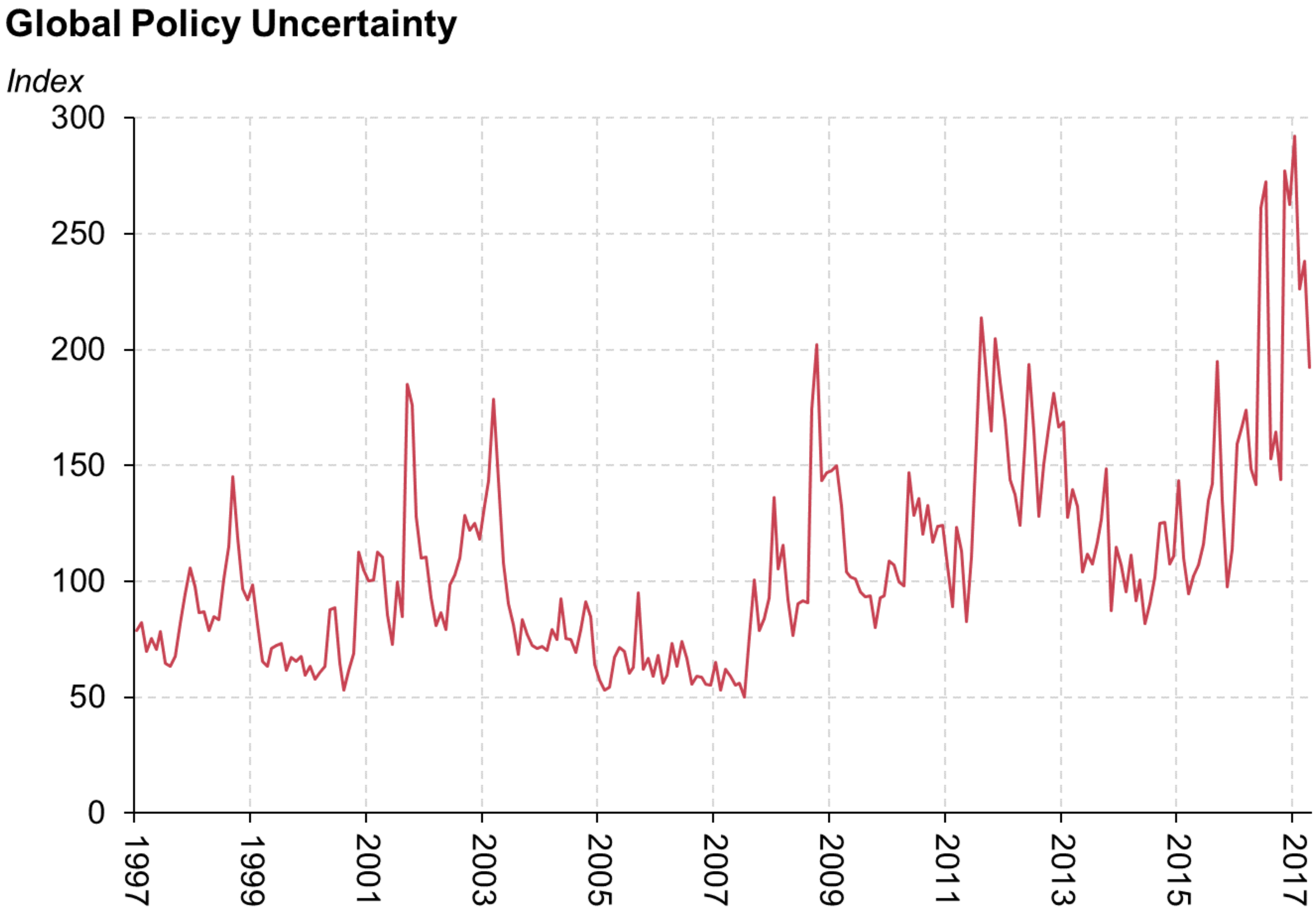
US$/oz

Source: Bloomberg

Are we living in a turbulent age?

- Politics has become less predictable
  - Brexit
  - Election of President Trump
  - Populist parties more popular in Italy, France Netherlands, Austria, etc.
  - North Korea tensions & Middle East conflicts
- Post Financial Crisis Malaise
  - Summers's Secular Stagnation
  - Balance Sheet Recession and Tepid Recovery
- Concerns that asset markets are overvalued

Economic Worries Higher than during Crisis

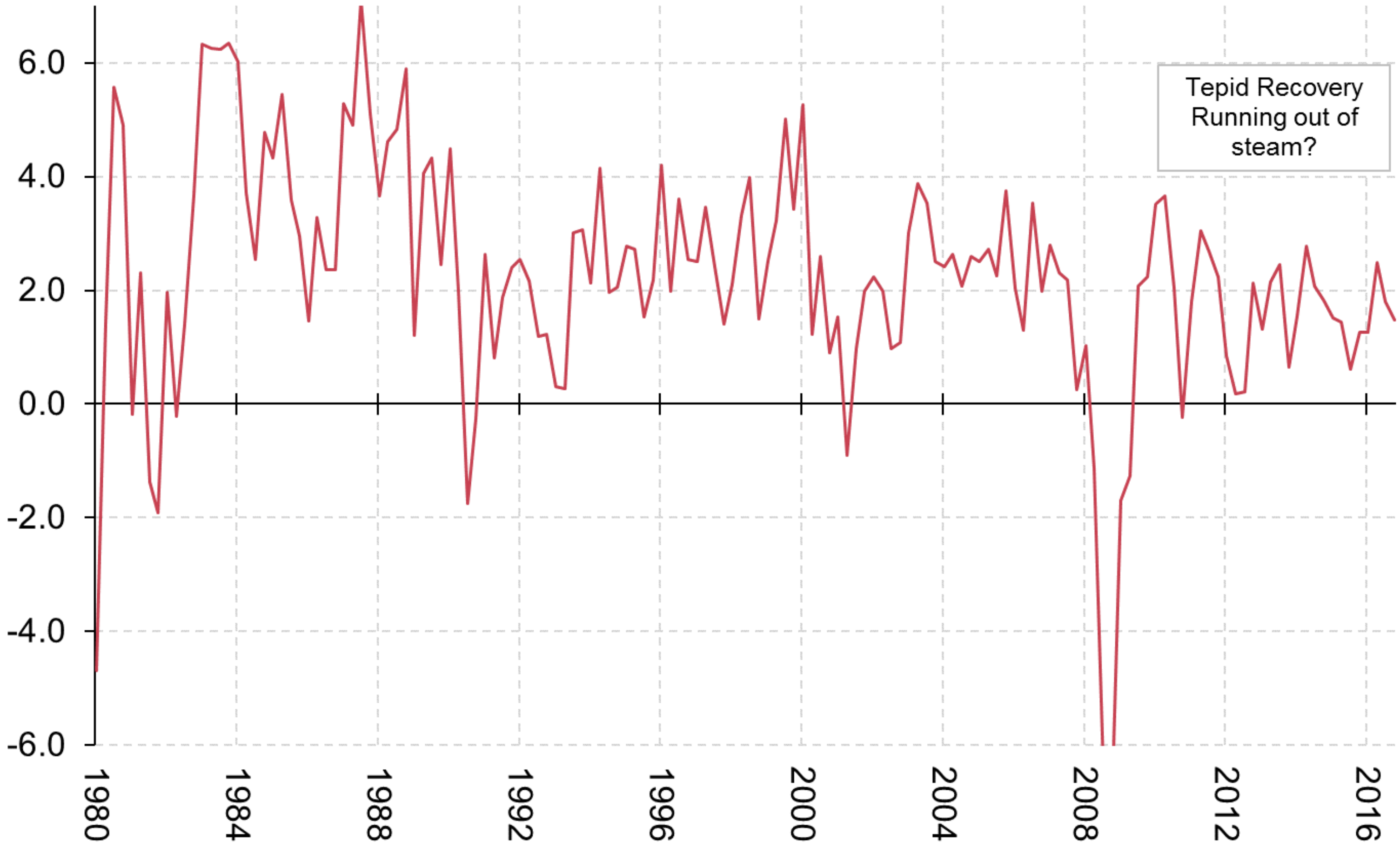


Source: www.PolicyUncertainty.com

Sluggish post-crisis recovery

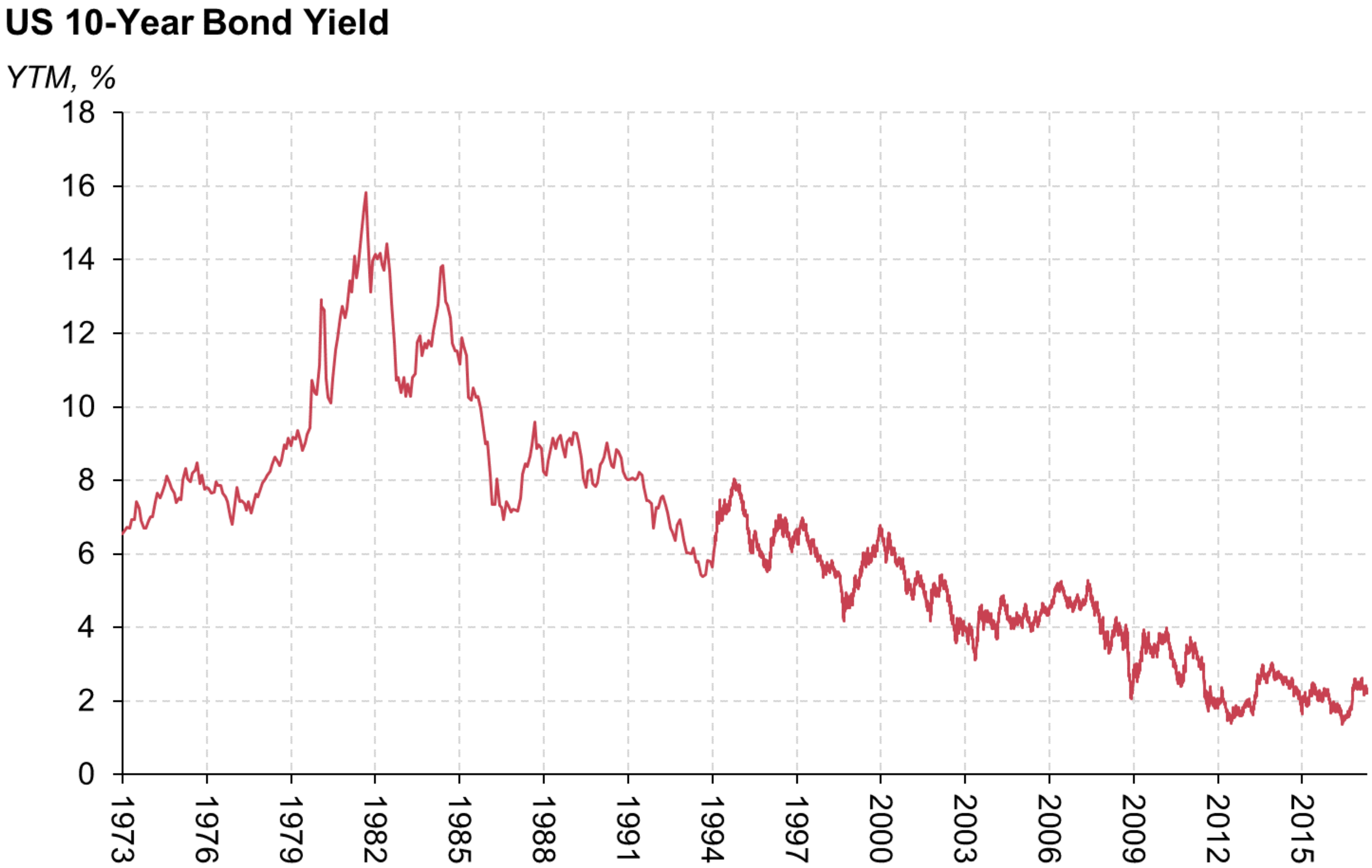
G-8 Real Gross Domestic Product Growth

Annual YoY%



Source: Bloomberg

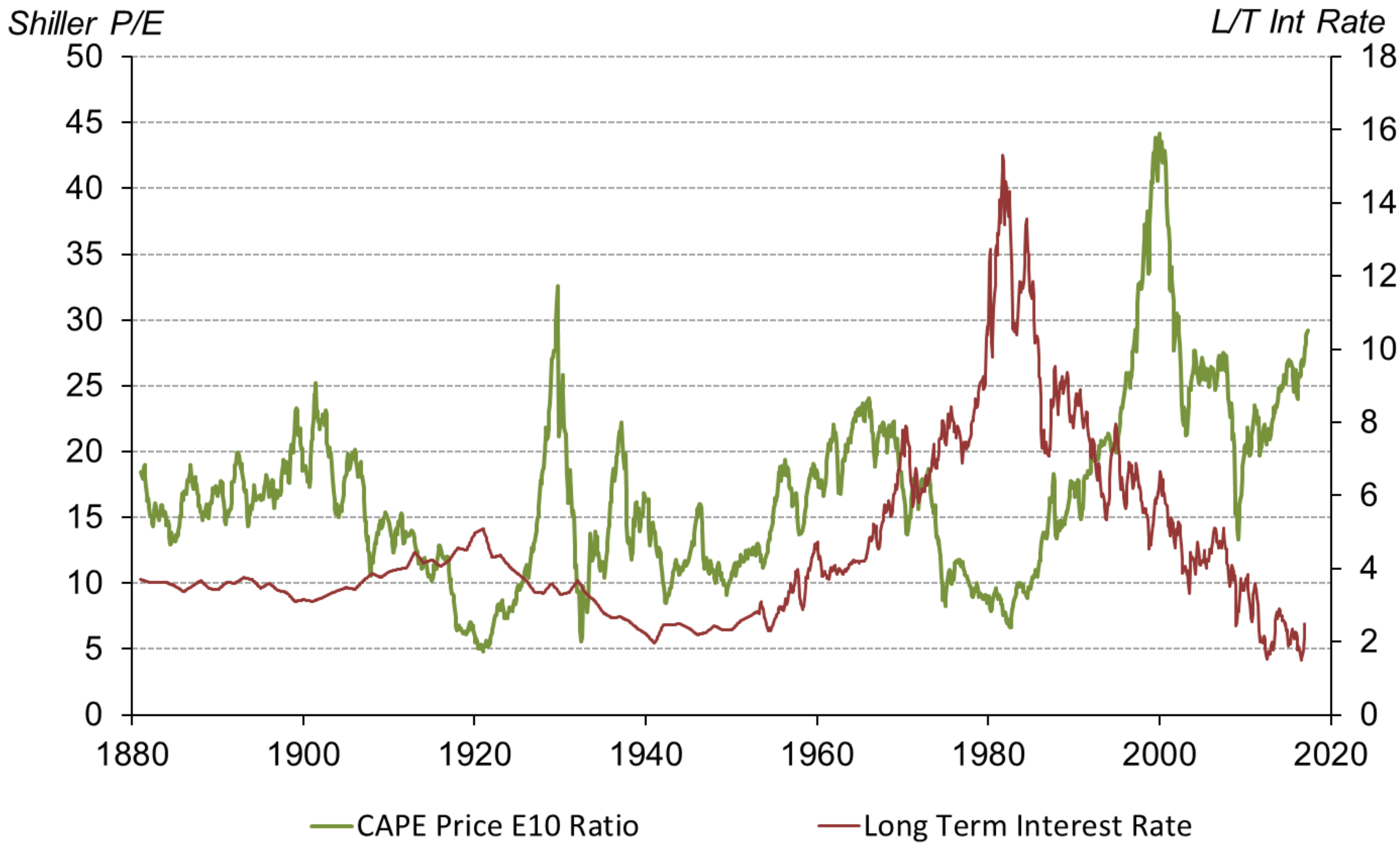
A 36-year Bull Market in US Government Debt



Source: Bloomberg

Equities hardly inexpensive

S&P500 Shiller CAPE P/E10



Source: Robert Shiller; World Gold Council

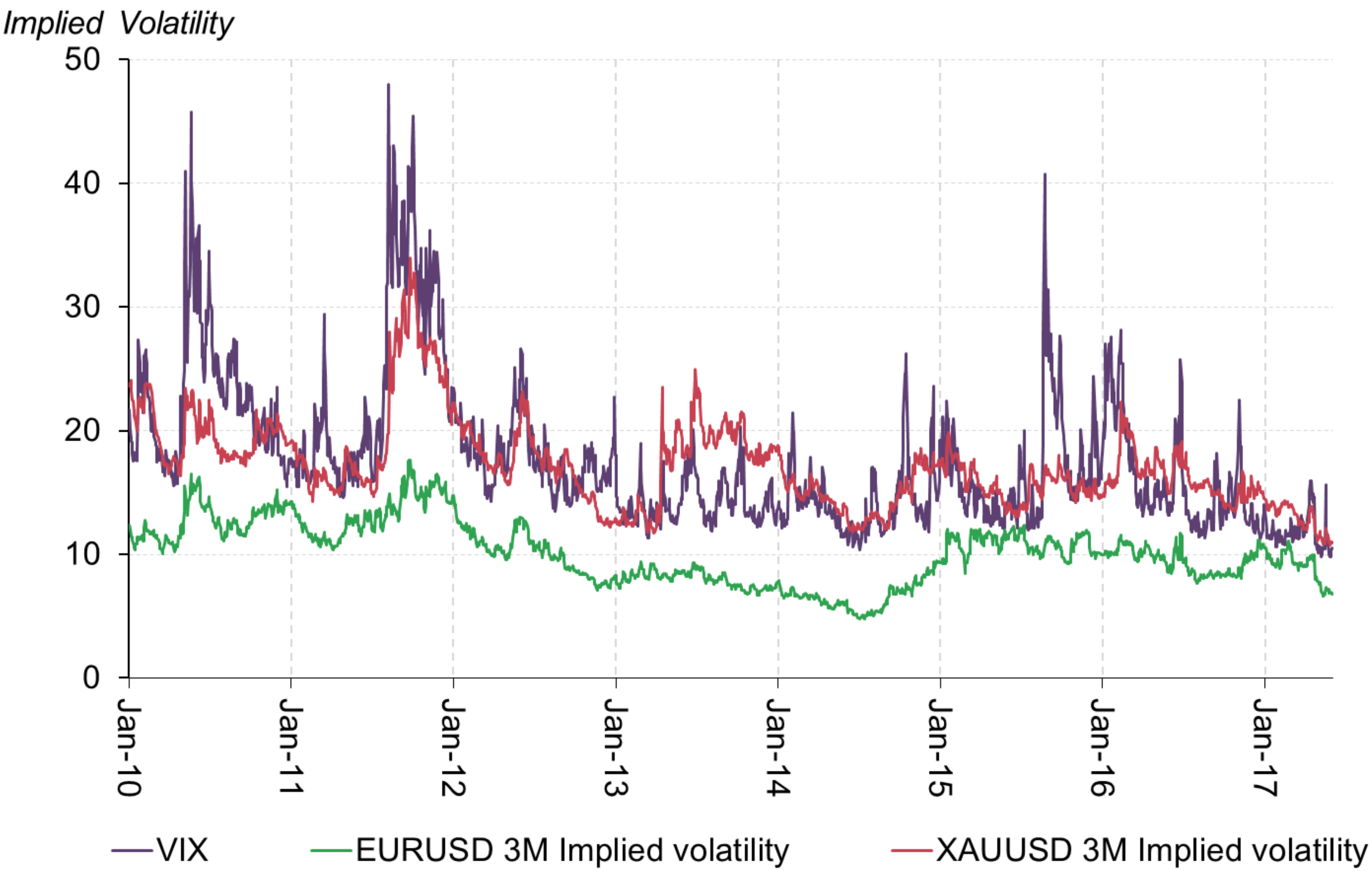
US Dollar strength – how much longer?

US Dollar Effective Exchange Rate

Source: Bank of England; Bloomberg

Low vol may point to higher risk

Cross Asset Volatility from 2010



Source: Bloomberg

Gold is averagely priced

Real and Nominal Gold Price from 1968

US$/oz

Source: Bloomberg

Has gold ever looked more alluring?

- Political shocks and worries abound
- Are we nearing the end of the post-crisis recovery?
- Asset markets looking expensive
- Gold averagely priced after the US dollar has come a long way

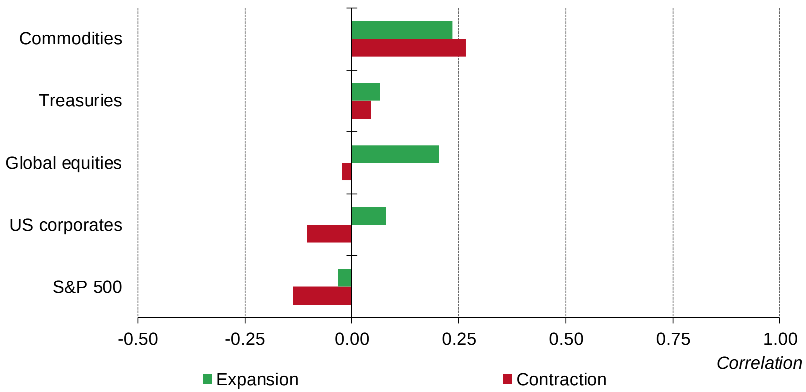
Not just for times of turbulence

Gold is one of the most effective diversifier

- Due to its dual nature as a consumer good and investment, gold's correlation to major asset classes is low in both expansionary and recessionary periods

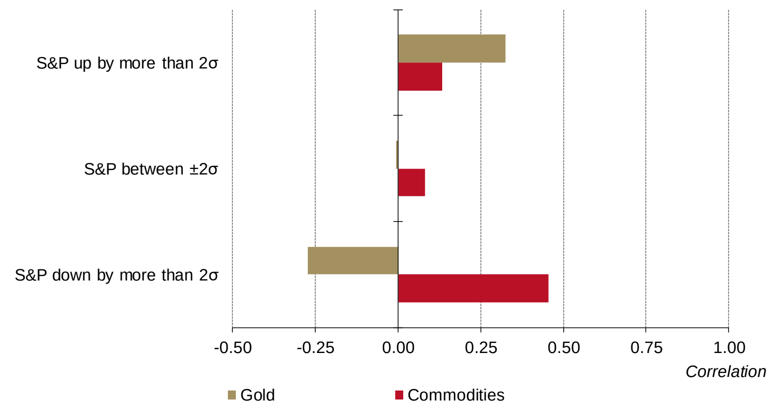
- Its correlation to stocks turns more negative, the stronger the pullback is
- Yet, when stocks rally, gold may also go up

Gold's correlation to major financial assets during US expansions and contractions*



*Based on weekly returns of the S&P 500, MSCI ACWI ex US, JPMorgan US Treasury Index, BarCap Corporate Bond Index, S&P GS Commodity Index and LBMA Gold Price using from January 1987 to February 2017. Business cycles as defined by the National Bureau of Economic Research (NBER).
Source: Bloomberg, NBER, ICE Benchmark Administration, World Gold Council

Correlation of US stocks versus gold and commodities*



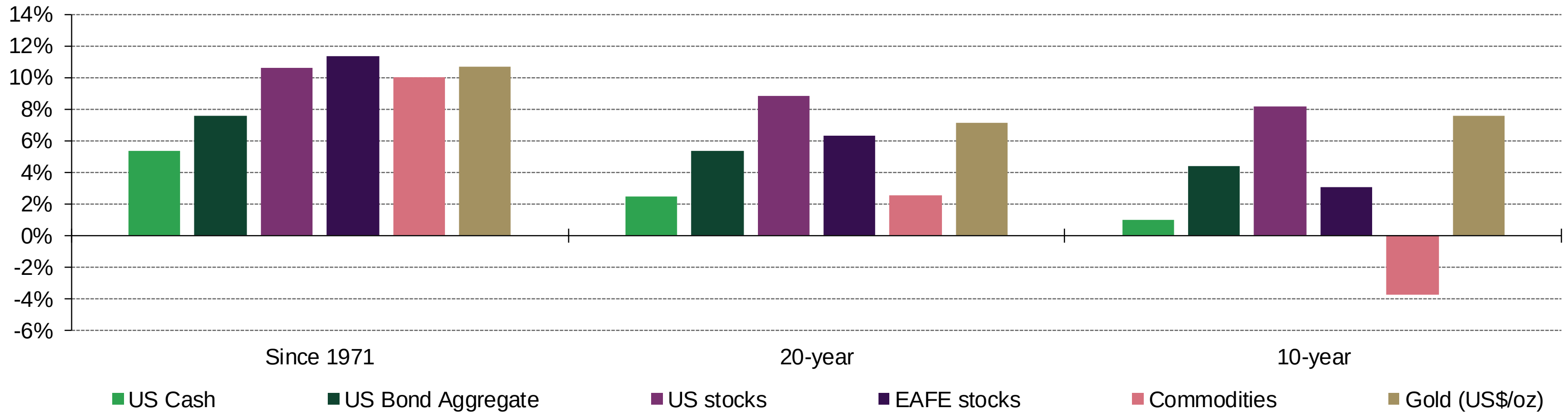
*Based on weekly returns of the S&P 500, LBMA Gold Price and the S&P Goldman Sachs Commodity Index using data between January 1975 and March 2017.
Source: Bloomberg, ICE Benchmark Administration, World Gold Council

Gold provides returns

- Gold can be a **source of return** for investors' portfolios – it is not useful only in periods of higher uncertainty
- Gold has delivered **comparable returns to US stocks over the long run**
- **Income growth increases demand for gold** in the form of jewellery and long-term savings

Gold's long-term performance compared to other financial assets*

Avg. annual return



*Based on total returns indices including MSCI US, MSCI ACWI ex US, JPMorgan 3-month US cash, BarCap US Bond Aggregate, Bloomberg Commodity for the 10- and 20-year average, and S&P Goldman Sachs Commodity since 1971 due to data availability. Gold performance based on the LBMA Gold Price. Data between January 1971 and December 2016.
Source: Bloomberg, NBER, ICE Benchmark Administration, World Gold Council

Gold has outperformed inflation and cash

- **Gold returns have outpaced CPI and short-term bonds** over the long run
- Gold prices tend to sharply **increase in periods of high inflation**
- **Fiat currencies** – including the US dollar – **tend to fall** in value against gold

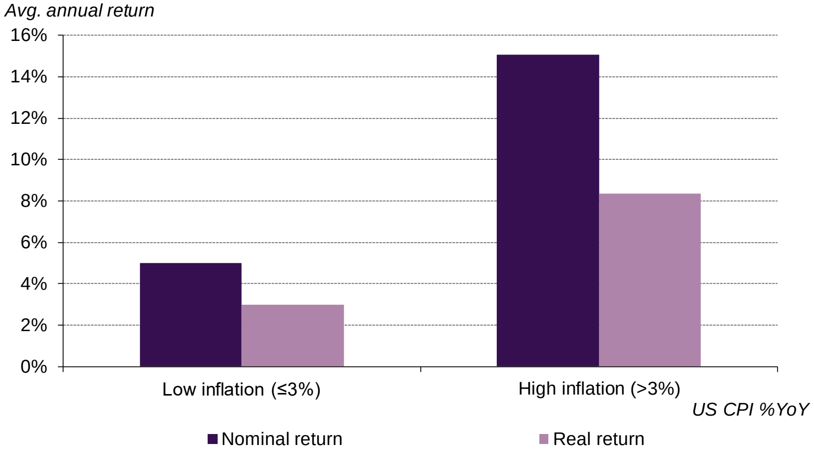
Compounded gold excess returns over various periods of time*

	Gold return in excess of:			
	US inflation	global inflation	US cash	global cash
Since 1971	3.59%	1.88%	2.17%	1.68%
20-year return	3.61%	3.21%	2.84%	4.07%
10-year return	3.99%	3.90%	4.26%	6.38%

*Metrics computed using the LBMA Gold Price, US CPI, OECD global CPI, 3-month US T-Bill and J.P. Morgan's 3-month global cash index. Data betw een January 1971 and December 2016.

Source: Bureau of Labor Statistics, Federal Reserve, ICE Benchmark Administration Ltd, OECD, J.P. Morgan, World Gold Council

Gold returns as a function of annual inflation*

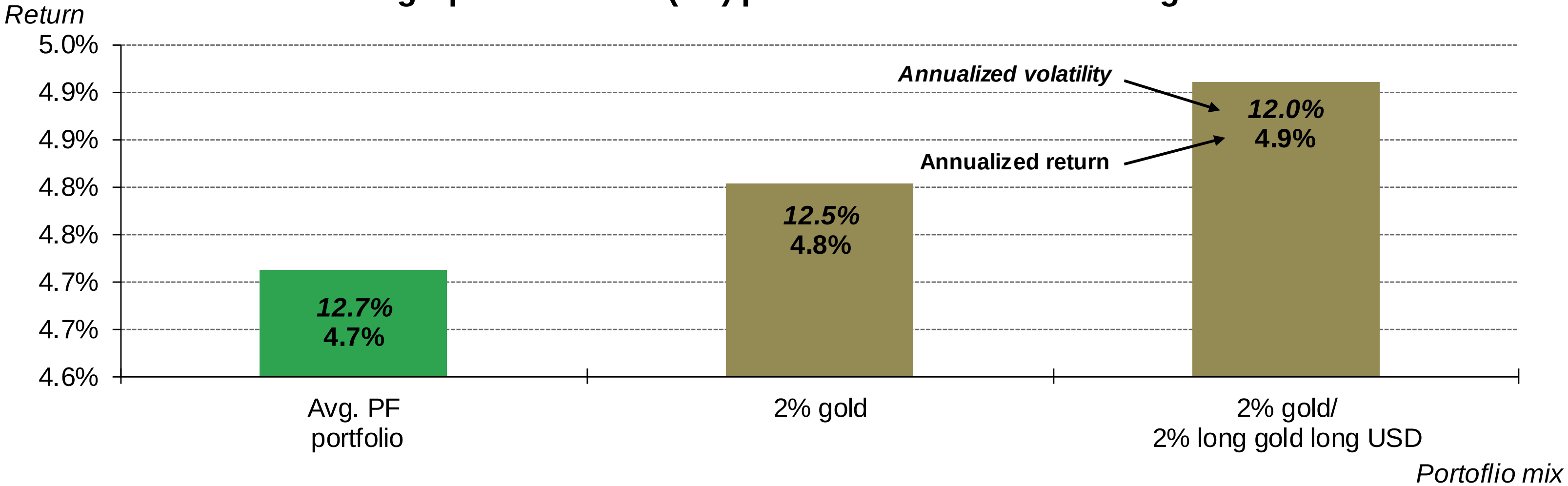


* Inflation computed using annual US CPI year-on-year changes between 1970 and 2015.
** For each year on the sample, real return = (1+nominal return)/(1+inflation)-1.
Source: Bloomberg, Bureau of Labor Statistics, ICE Benchmark Administration, World Gold Council

Gold can improve risk-adjusted returns

- Over the past 10 years, a representative well-diversified US pension fund portfolio* with 50% of its assets in stocks and 25% bonds and 25% in alternative assets would have returned 4.7% per year with an annual volatility of 12.7%
- Proportionally re-allocating 2% of alternative assets to gold could have increased the average return to 4.8% and reduced volatility to 12.5%
- But investors could have done even better. Re-allocating 2% to gold and 2% to a long gold long dollar position from alternatives could have further increased the portfolio's average annual return to 4.9% while reducing volatility to 12%

Performance of an average pension fund (PF) portfolio with and without gold*



*Based on performance between 12/2006-12/2016. The average PF portfolio is based on Willis Tower Watson Global Pension Assets Study 2017 and Global Alternatives Survey 2016. It includes a 50% allocation to stocks (30% Russell 3000, 20% MSCI ACWI ex US), 25% allocation to fixed income (22% Barclays US Aggreggate, 1% Barclays Global Aggregate ex US, 1% JPMorgan EM Global Bond Index, and 2% short-term Treasuries), and 25% alternative assets (9% FTSE REITs Index, 7% HFRI Hedge Fund Index, 7% S&P Private Equity Index, and 2% S&P GS Commodity Index). The allocation to gold comes from proportionally reducing the alternatives bucket.
Source: Bloomberg, ICE Benchmark Administration, Solactive AG, World Gold Council

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