IAPF ANNUAL INVESTMENT CONFERENCE 2013

Guide to the Markets - Inflation

1Q 2013

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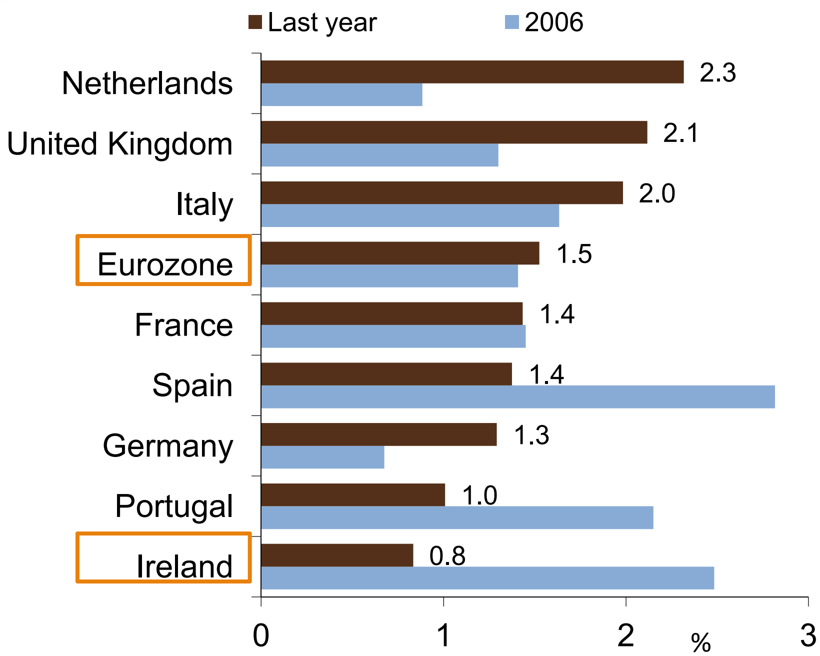
Inflation it not currently a worry in Europe

Core inflation rates



Last data January 2013. Source: Eurostat, J.P. Morgan Asset Management.

- Core eurozone inflation running below ECB's target of 2%
- Current rate for the eurozone is similar to what it was in 2006
- Range is wide across the eurozone — from 0.8% in Ireland to 2.3% in the Netherlands — but this has always been the case
- Real wage growth is negative, so little immediate pressure

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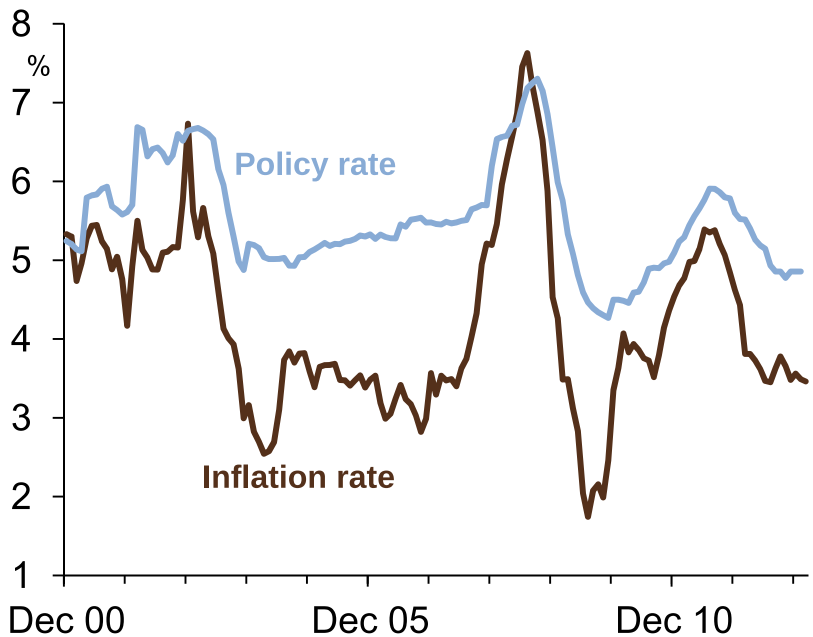
Following worries last year, emerging market inflation is generally falling

Emerging market inflation



Last data February 2013. Source: FactSet, J.P. Morgan Asset Management.

- Inflation peaked before inflicting much damage on emerging market equities
- Bigger problem has been eurozone crisis and risk aversion
- Some countries may still have to focus on inflation like Turkey and Brazil

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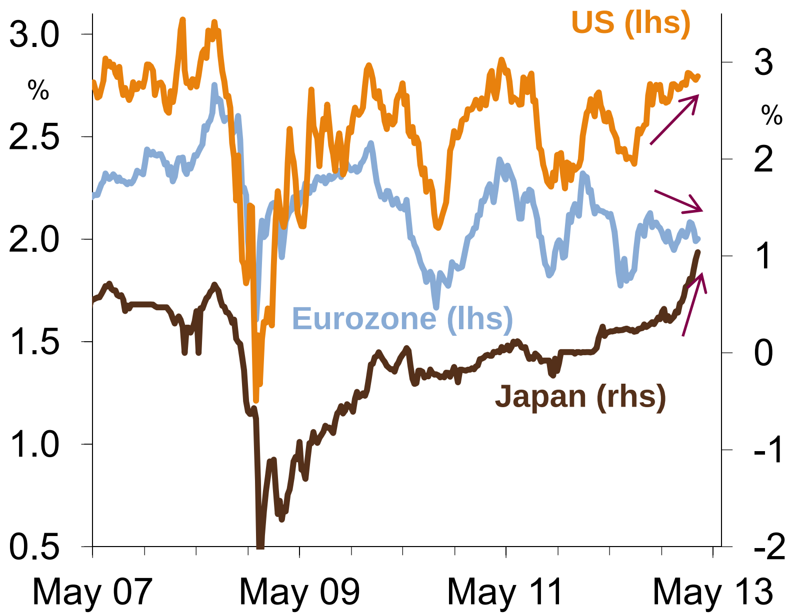
Expectations are rising, however, outside of Europe

Expected inflation rates



Last data 8 March 2013. Note: Ten year zero-coupon inflation swaps. Source: Bloomberg, J.P. Morgan Asset Management.

- Eurozone inflation expectations are falling thanks to weak economic growth
- Inflation forecasts have generally been low despite German worries
- In Japan, however, new BoJ governor and government has dramatically changed the outlook
- Question is whether monetary policy will be enough
- QE3 seems to be pushing up inflation expectations in the US

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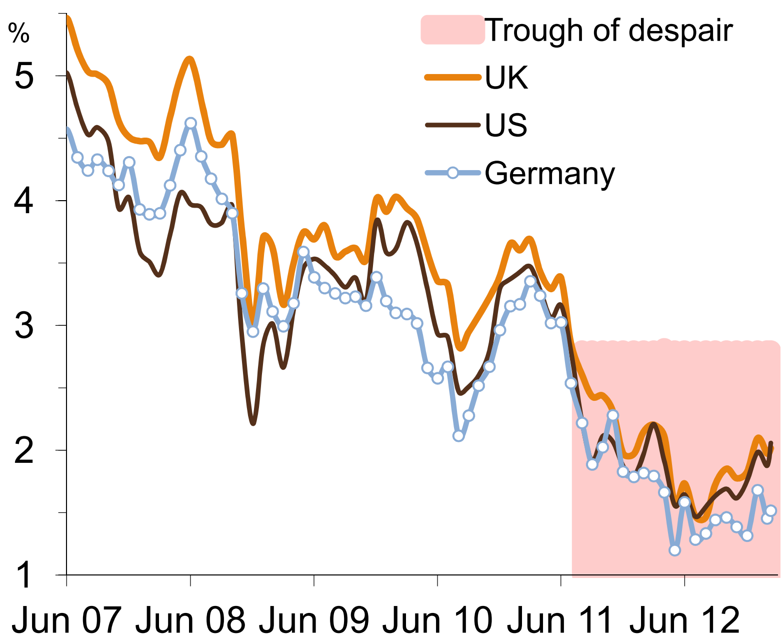
Correlation between markets raises questions about impact of QE

Government Bond Yields (10-year)



Last data 11 March 2013. Source: Bloomberg, J.P. Morgan Asset Management.

- As risk of eurozone breakup declines, yields are moving back up
- Low growth expectations and QE will keep a cap on them, but another 50-100bps feasible
- Germany has lagged even though it's the US and UK that have pursued QE
- Greater risk aversion or difference in inflation expectations?

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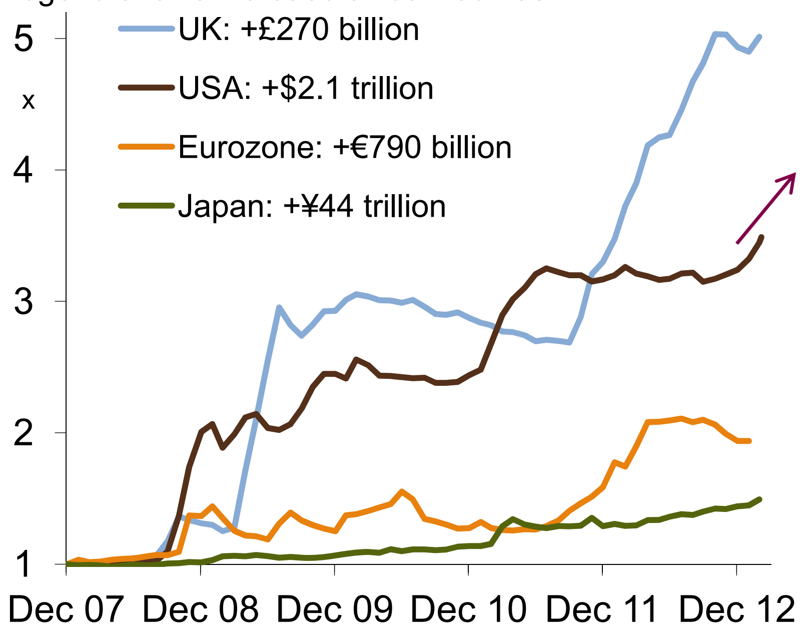
Central bank monetary stimulus is primary risk for inflation

Monetary base*

Legend shows increase since Dec 2007



Last data 20 February 2013 for UK, 6 February 2013 for the US, January 2013 for eurozone and Japan. *The total amount of a currency that is either circulated in the hands of the public or in the commercial bank deposits held in the central bank's reserves. Source: US Federal Reserve, Bank of England, ECB, Bank of Japan, J.P. Morgan Asset Management.

- OMT intervention (if it ever occurs) will be sterilised, unlike QE and LTRO
- Eurozone money supply is falling now due to LTRO repayments
- The Bank of England has paused QE, but US money supply is growing again
- Japan’s getting back in the game, too, but also shows that monetary stimulus alone is not adequate
- Increase since December 2007 has only been 1.4x
- Intervention was necessary to support economies, but now it’s hard to know the true value of assets

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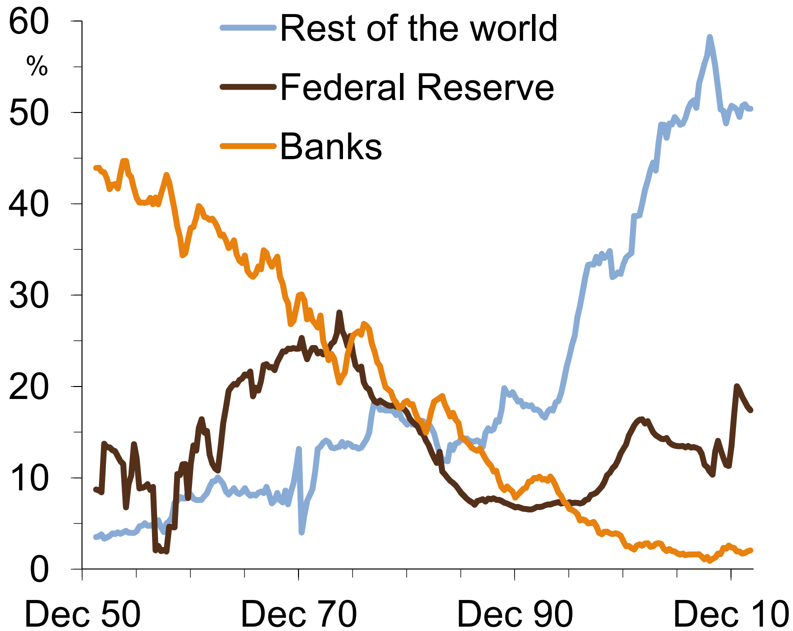
This increase in supply has been met by Fed purchases; it's not clear how much it is affecting the market

Ownership of US Treasuries



Last data September 2012. Note: Rest of world and Federal Reserve holdings are for notes and bonds only. Source: US Treasury, Federal Reserve, J.P. Morgan Asset Management.

- Treasuries currently account for over 50% of the Fed's balance sheet
- This is high for the Fed, but it is not relative to the size of the market
- In the past the Fed has owned nearly 30% of the market while today it is just 17%
- A more important development has been the increasing dominance of foreign ownership
- Will the dollar likely to depreciate, and Treasuries expensive, they may come to regret the allocation

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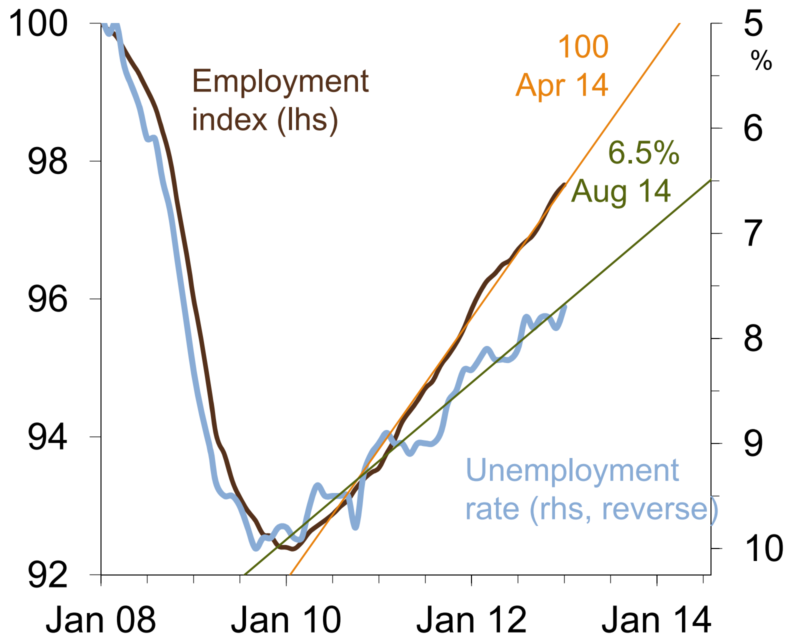
Trigger for slowing QE is unemployment rate hitting 6.5%

US labour market indicators



Last data February 2013. Source: Bloomberg, J.P. Morgan Asset Management.

- At current pace, unemployment rate won't hit Bernanke's 6.5% target till next summer
- If all of sequester's cuts took effect for whole year, though, CBO estimates 1.4 million jobs would be lost

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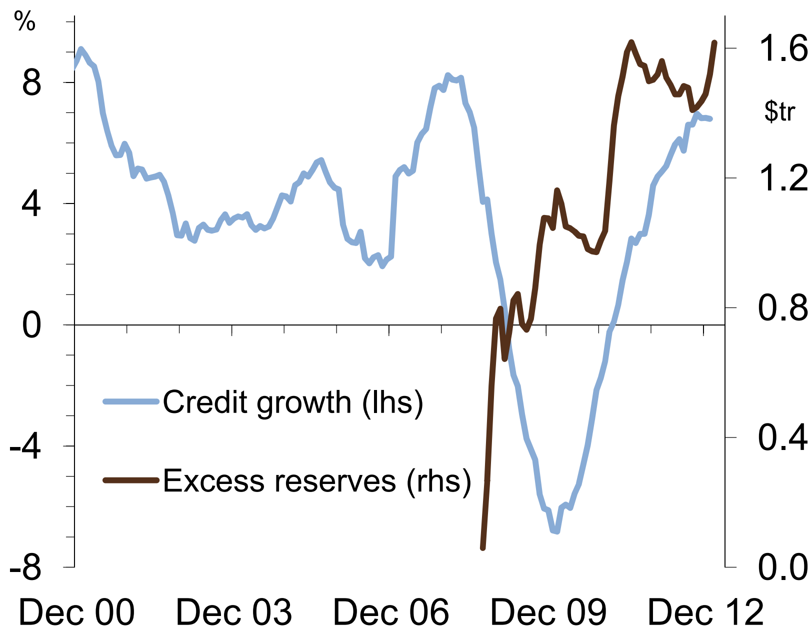
But credit growth could increase domestic pressure sooner

Credit growth and bank reserves



Last data January 2013. Note: Commercial and consumer lending. Source: US Federal Reserve, J.P. Morgan Asset Management.

- One goal of QE is to increase credit growth by providing banks with increased reserves to lend
- Much of the cash has instead been put back with the Fed
- Credit growth has nonetheless recovered
- Risk is that excess cash fuels more leading, increasing inflationary pressures

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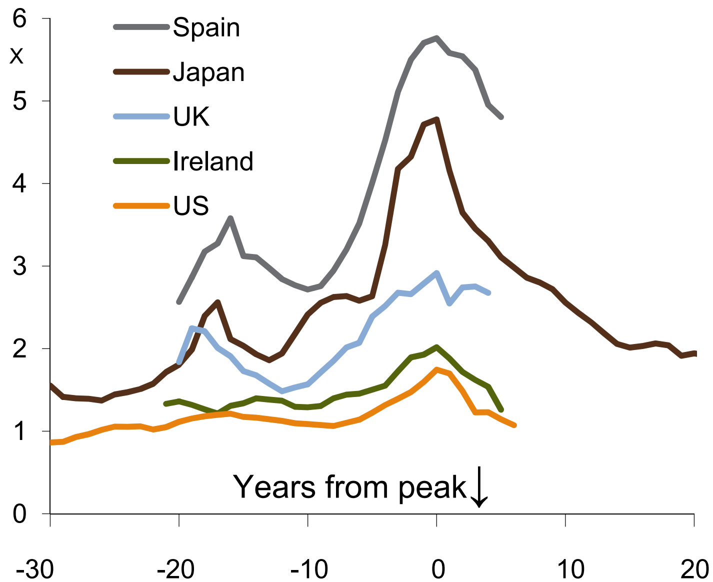
Japan suffered decades of deflation and stagnation partly because its housing bubble was huge

What goes up….

Residential property values* / GDP ratio



*Japan: Land Underlying Buildings and Structures; US: Household Real Estate Assets; UK: Residential Buildings; Spain: Residential Household Wealth; Ireland: Dwellings. Source: OECD, Japan Land and Water Bureau, Ministry of Land, Infrastructure and Transport, Cabinet Office (Government of Japan), US Federal Reserve, S&P/Case-Shiller, OFHEO, UK Office for National Statistics, Bank of Spain, Ireland Central Statistics Office, Permanent TSB/ESRI, J.P. Morgan Asset Management.

- From 1955 to 1973, house prices in Japan increased 13 times, versus just 6 times from 1973 to 1990
- Land under Japan's Imperial Palace worth more than California
- First period (1955-73) was largely matched by GDP growth, but the second wasn't
- US ratio has already returned to pre-bubble level
- Japan took 15 years
- Spain still looks overvalued and UK has hardly adjusted

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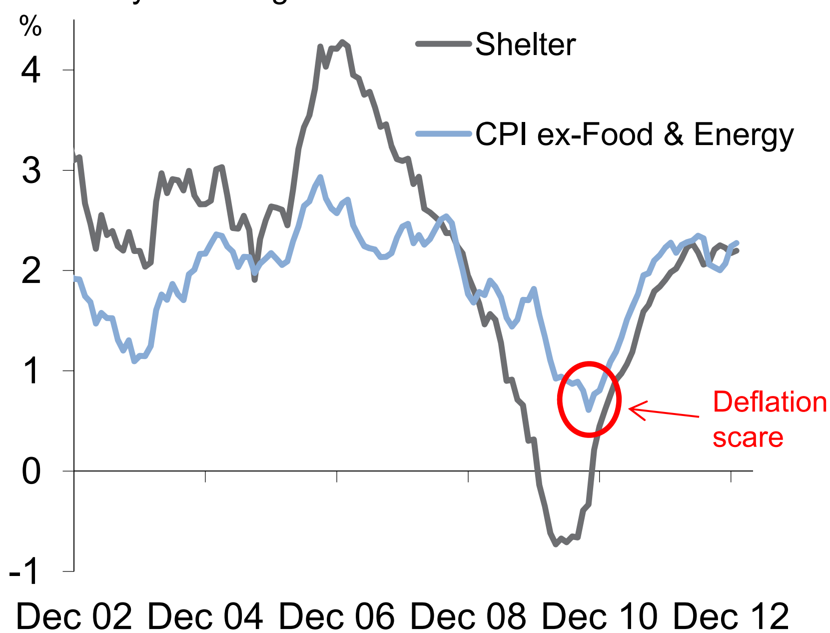
Falling inflation in the US was primarily a function of declining house prices

Non-housing and housing inflation
Year on year change in CPI index



Note: Shelter component includes measure of "owner's equivalent rent". Latest data January 2013. Source: BLS, J.P. Morgan Asset Management.

- Most headlines focused on low core CPI rates which fell to just 0.6% in October 2010
- But most of this is explained by a fall in house prices
- Excluding housing, core prices were rising by 1.4%/year, low but far from deflationary
- In Japan, prices fell almost across the board

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Returns in different inflation environments

Note: Period returns are the arithmetic average of the annual returns for the years specified by category (eg low and rising inflation). High or low inflation distinction is relative to median CPI inflation for the period s1971-2011. * High yield returns based on the period 1984 – 2011. Rising of falling inflation distinction is relative to the previous year CPI inflation rate. Commodities returns are based on GSCI, equities on the S&P 500 total return index, govt bonds are the Barclays Aggregate US Treasury Index, and high yield is the Barclays US Corporate High Yield Index. Source: BLS, Barclays Capital, Robert Shiller, Federal Reserve, Strategas/Ibbotson, J.P. Morgan Asset Management.

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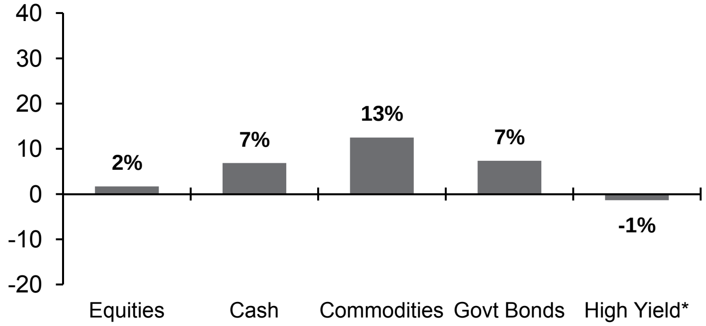
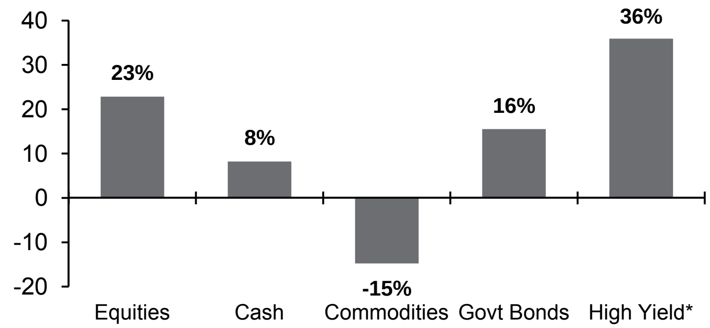
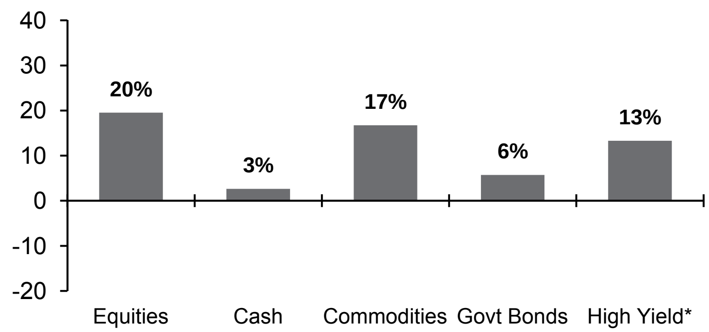
High and rising inflation
Occurred in 14 years since 1972



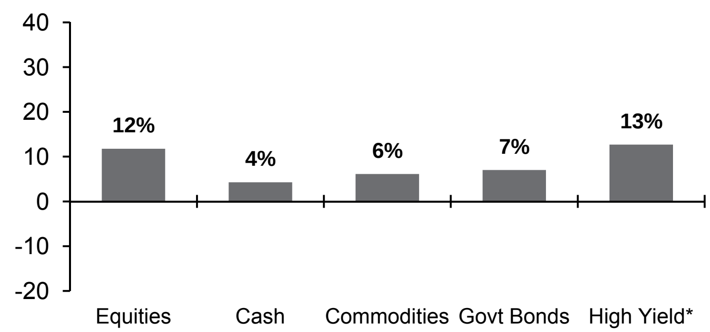
High and falling inflation
Occurred in 6 years since 1972



Low and rising inflation
Occurred in 7 years since 1972

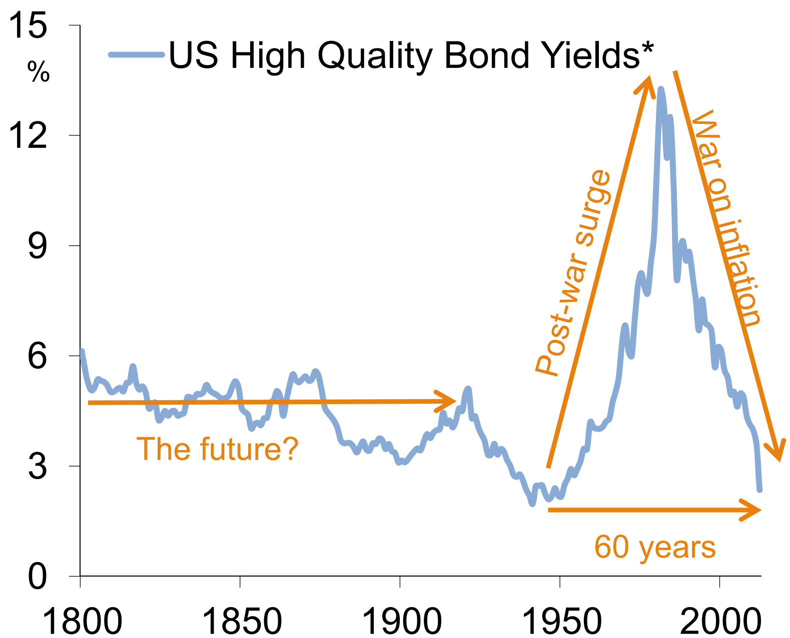


Low and falling inflation
Occurred in 13 years since 1972



The great moderation in government bond yields over the last 30 years is over

US government bond yields



Last data December 2012. *High-grade municipal bond yields used for certain years between 1800 and 1920. Source: Jeremy Siegel, "The real rate of interest from 1800-1990", Homer & Sylla, "A History of Interest Rates", Ibbotson SIBI, Federal Reserve, J.P. Morgan Asset Management.

- Developed market central banks have won their war against inflation over the last 30 years
- Fixed income returns from government debt till now have come from
- High nominal (and real yields)
- Plus price appreciation
- Now neither is likely
- The period prior to the Great Depression may be a more relevant comparison for the future
- Asset allocation models using data from the last 60 years are likely producing inaccurate recommendations

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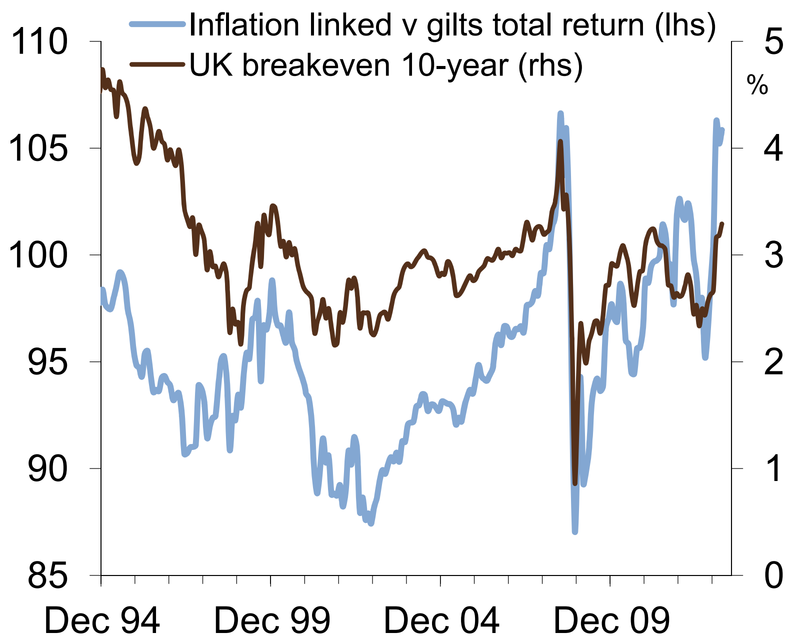
The search for safe haven assets has reduced the appeal of inflation-linked bonds

Relative Returns of Nominal vs Linkers



Latest data 11 March 2013. Source: Bank of America Merrill Lynch, Bloomberg, J.P. Morgan Asset Management.

- Inflation breakevens are rising, so inflation linked bonds should outperform nominal government bonds
- Remember: If inflation exceeds breakeven rate, linkers are the better choice (and vice versa)
- But on an absolute basis, however, linkers and TIPs offer poor absolute returns
  - Inflation: 2.6%
  - Gilts yield: 2.1
  - Linkers yield: -0.7%

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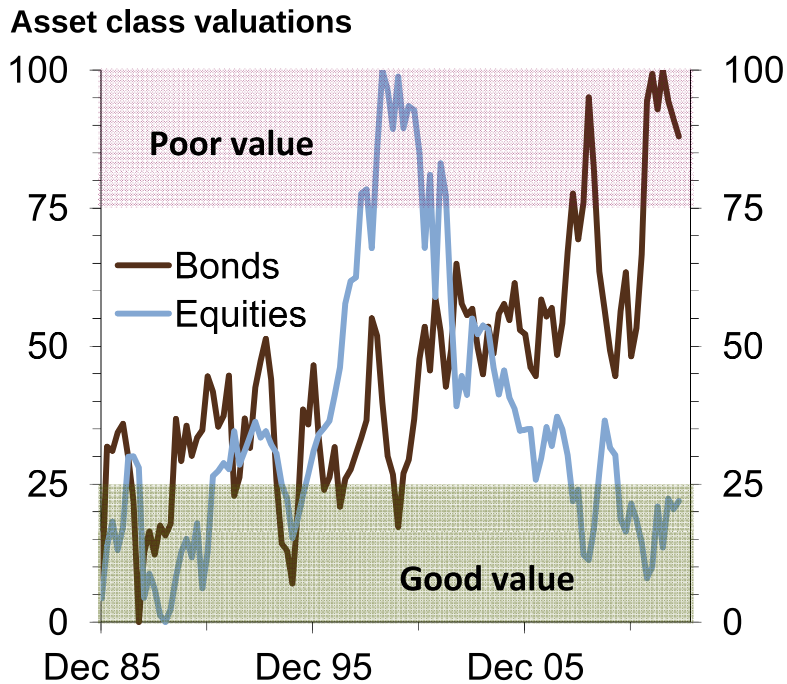
Despite rallies, equities still better value than bonds



Last data 8 March 2013. *Real bonds are US Treasury 10 year less expected core CPI inflation. Equities is forward PE for S&P 500. Source: Barclays, Standard & Poors, IBES, Oxford Economics, Bloomberg, J.P. Morgan Asset Management.

- Government bonds have traditionally offered a 3% real yield
- Today it's 0%
- Equity valuations perhaps overstated because of the tech bubble
- Likely moving into "fair value" region today, but returns still good

Future returns by valuation bucket

Valuation	Bonds	Equities
Good	11.6%	16.6%
Average	6.5	11.2
Poor	2.4	-5.1

Note: Average one-year total returns.

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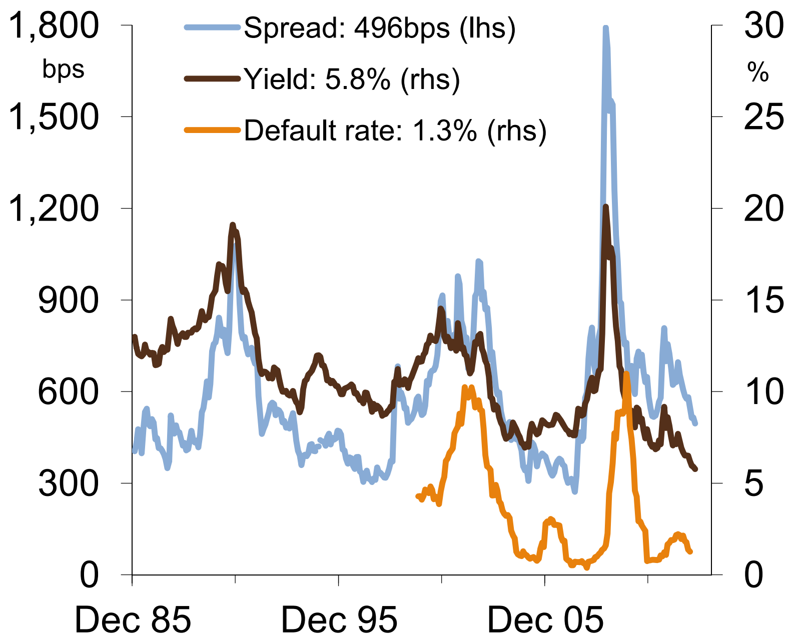
Spread are becoming less meaningful when evaluating high yield debt

High yield debt valuation and default rates



Last data 11 March 2013. Note: US only. Source: Credit Suisse, J.P. Morgan Asset Management.

- Spreads are high relative to expected default rates but that is only because base yields are so low
- Metric has lost its meaning thanks to QE and financial crisis
- Question to ask is what absolute return are you getting for the risk of default
- Default rates this low in the paste would have corresponded with yields 200bps higher than they are today
- That may be enough but it’s not generous

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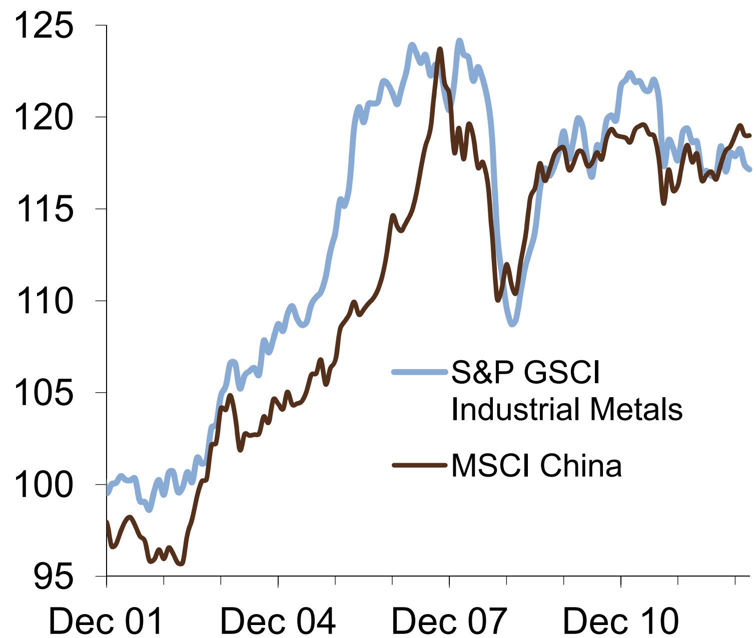
Industrial metal prices likely to continue rising if not at the same rate as before

As goes China…



Last data 11 March 2013. Note: Log values. Source: MSCI, Standard & Poors, J.P. Morgan Asset Management.

- Long-term driver for industrial metal prices is primarily demand from China
- Even slower China growth (~8%) is more than enough to support industrial metal prices
- As China recovers, metal prices should, too
- Volatility, however, will remain and returns will be lower than previously

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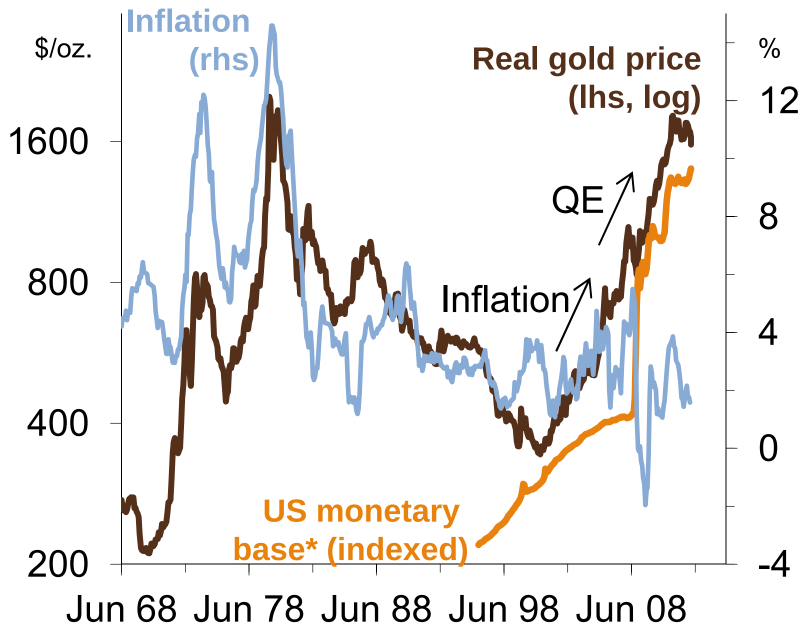
Gold prices reflect QE liquidity, inflation worries, and hedge against eurozone breakup

Gold prices and inflation



Last data 11 March 2013. The total amount of a currency that is either circulated in the hands of the public or in the commercial bank deposits held in the central bank's reserves. Note: Monthly average gold price. Source: Bloomberg, Dow Jones, BLS, US Federal Reserve, J.P. Morgan Asset Management.

- In real terms, gold prices are around 10% below their highs of January 1980 (though closer to 30% below all time daily high on 21 January 1980)
- At the time, inflation was nearly 15%
- Today inflation is 2%
- What happens when QE finally ends and there's no inflation?

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