Warped World of Bonds

Four forces in flux

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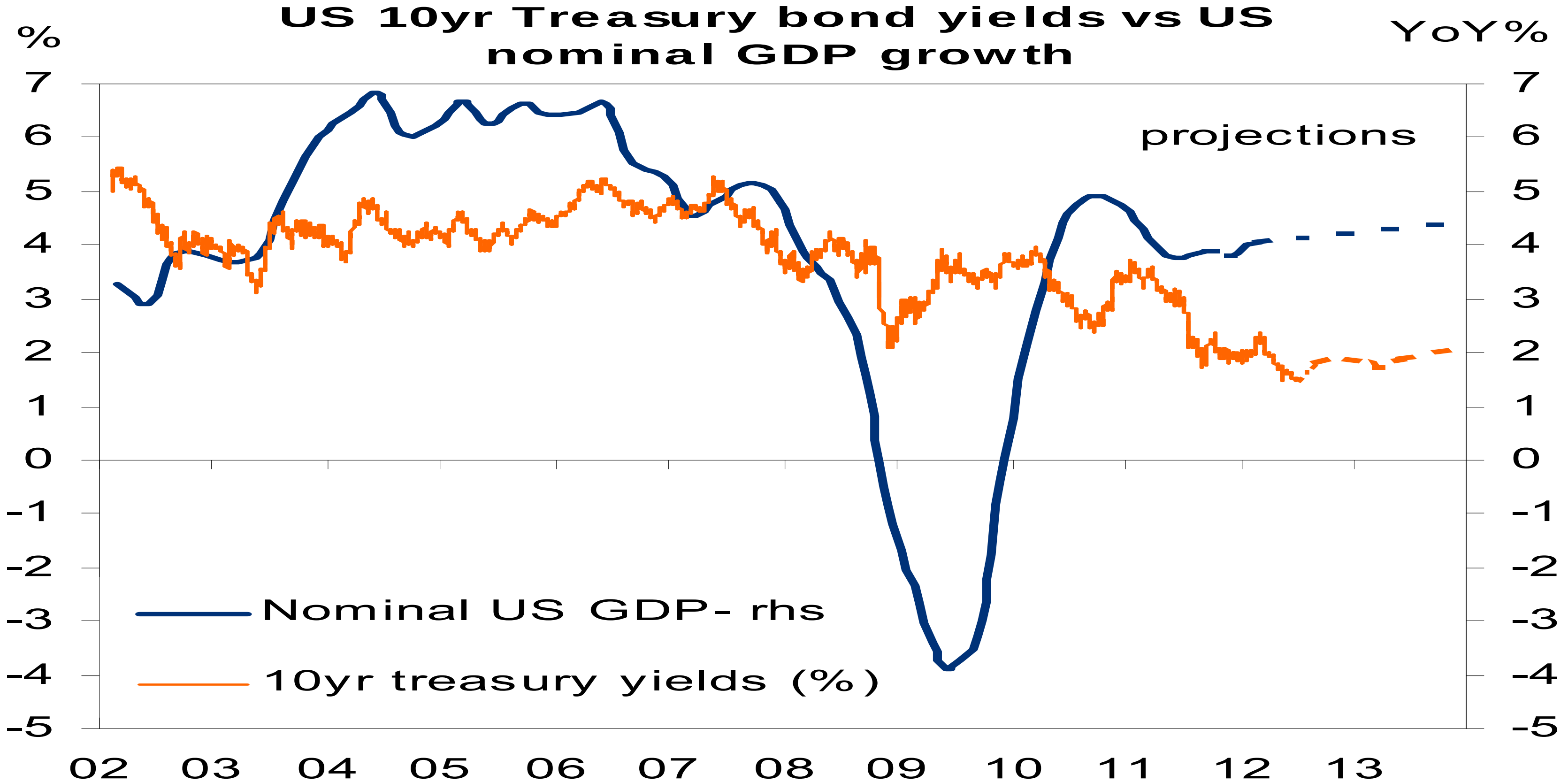
Bond yields – extraordinarily low

High grade government bond markets have seen yields fall way below the levels implied by the growth and inflation outlook…



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‘New Normal’ ? It’s new, but *not* normal

Normal **(n., adj.) the usual, typical, healthy, or expected state or condition, average, regular, orderly**

- **There is talk of a ‘new normal’ for the developed world and markets…**
- **…consisting of low growth, interest rates and investment returns**
- **There is certainly some truth in this**
- **BUT the situation is nowhere near ‘*normal*’**
- **Dictionaries variously define normal as regular, usual, healthy, natural, orderly, ordinary, rational…it is hard to use these descriptions now…**

Structural uncertainty swirls around markets

- Massive and unprecedented government intervention…
- …is leading to huge uncertainty and structural change…
- …which may persist for years
- No-one can predict confidently underlying economic trends: note how interest rates have only recently fallen to record low, even negative, levels
- Asset prices are being deliberately, if legally, manipulated by central banks…
- …generally upwards, to cushion the blow of sustained deleveraging of the public and financial sectors
- BUT is this sustainable?
- Investors have heightened fear extreme events ('tail risks'), including EMU break-up, systemic shocks, deflation or surging inflation: investment returns are not 'normally distributed'

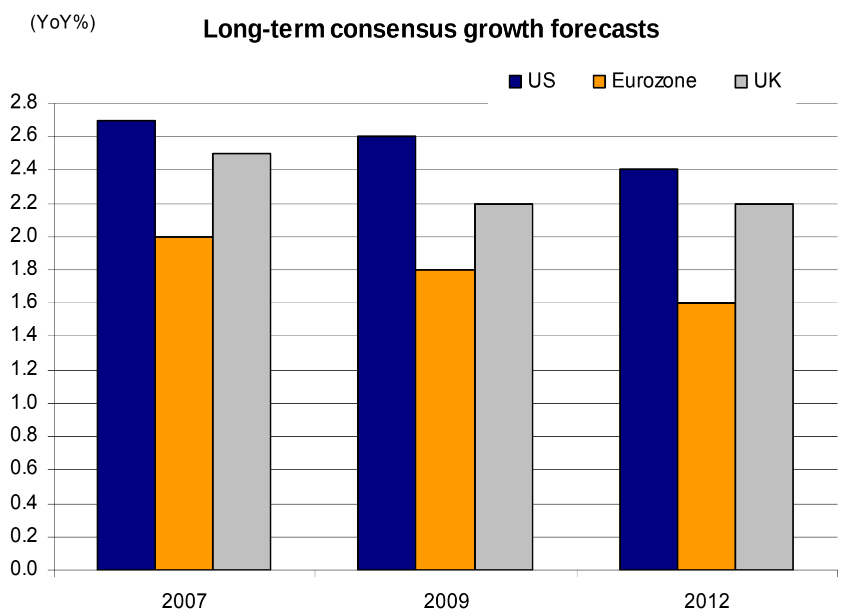
Don’t believe everything a model tells you

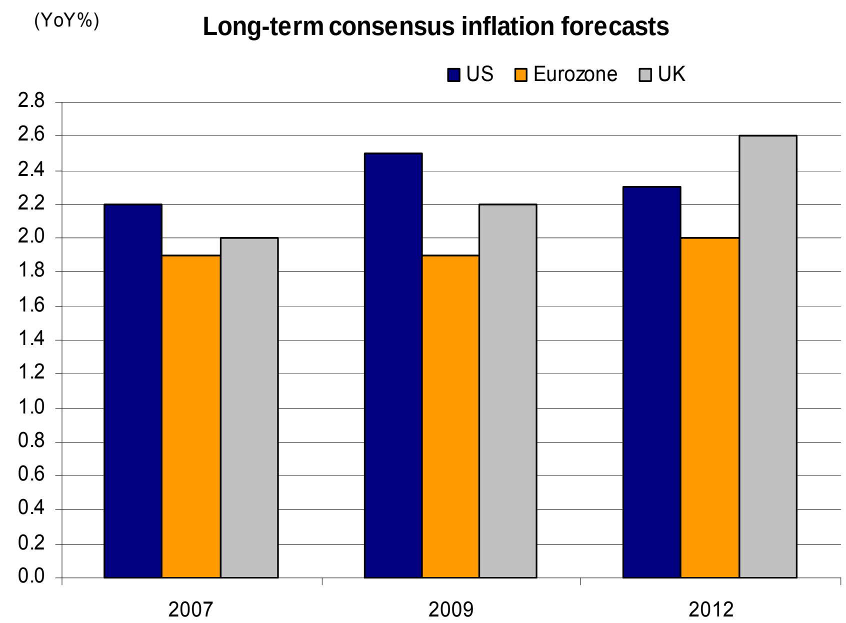
- Economic forecasting has also fallen victim to the crisis
- Conventional macro-economic models are not well suited to forecasting in this environment
- They are reasonably good at tracking the evolution of spending and inflation in the real economy…
- …but are poor at dealing with
  - Supply-side shocks
  - The financial sector
  - Asset prices
  - Balance sheet effects
- Moreover, since models are based on past experience, they are by definition ill-equipped to deal with unprecedented changes

Turning Japanese?

- Long term yields in Europe and the US have fallen well below 2%
- This has raised the question: are they turning Japanese?
- 10 year JGB yields have been below 2% for over a decade, despite massive government debts…
- …but Japan has been flirting with deflation, and nominal growth has been very weak

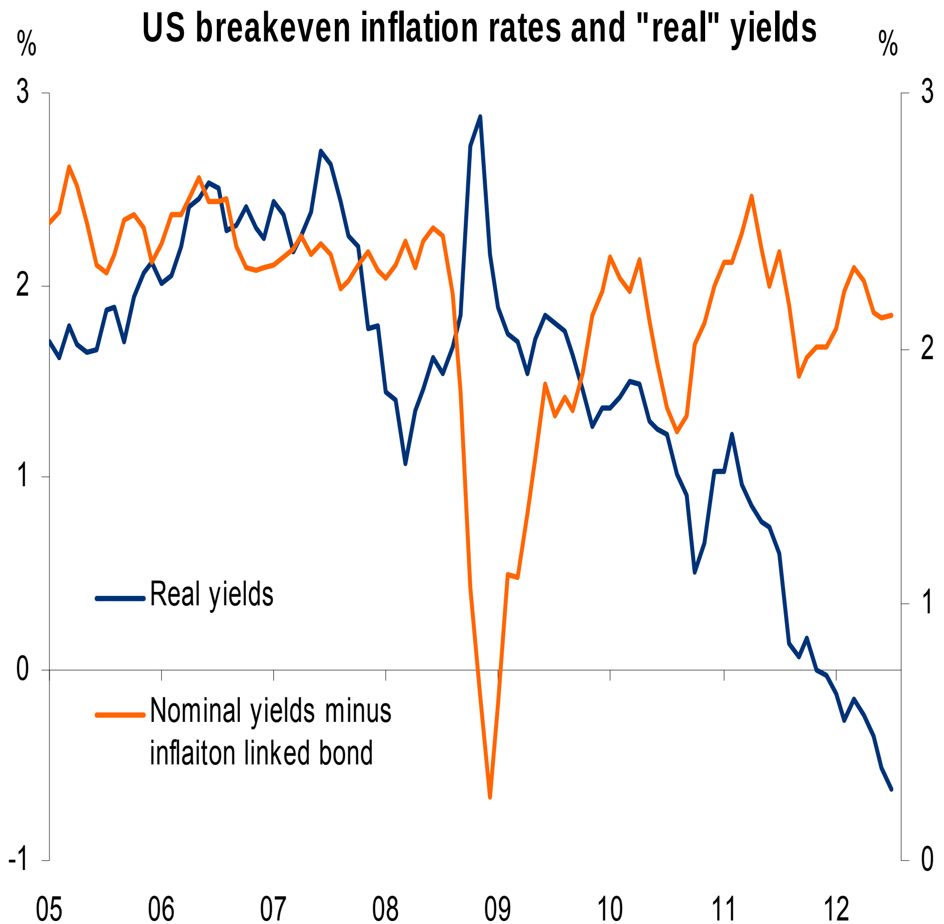
…not according to consensus forecasts





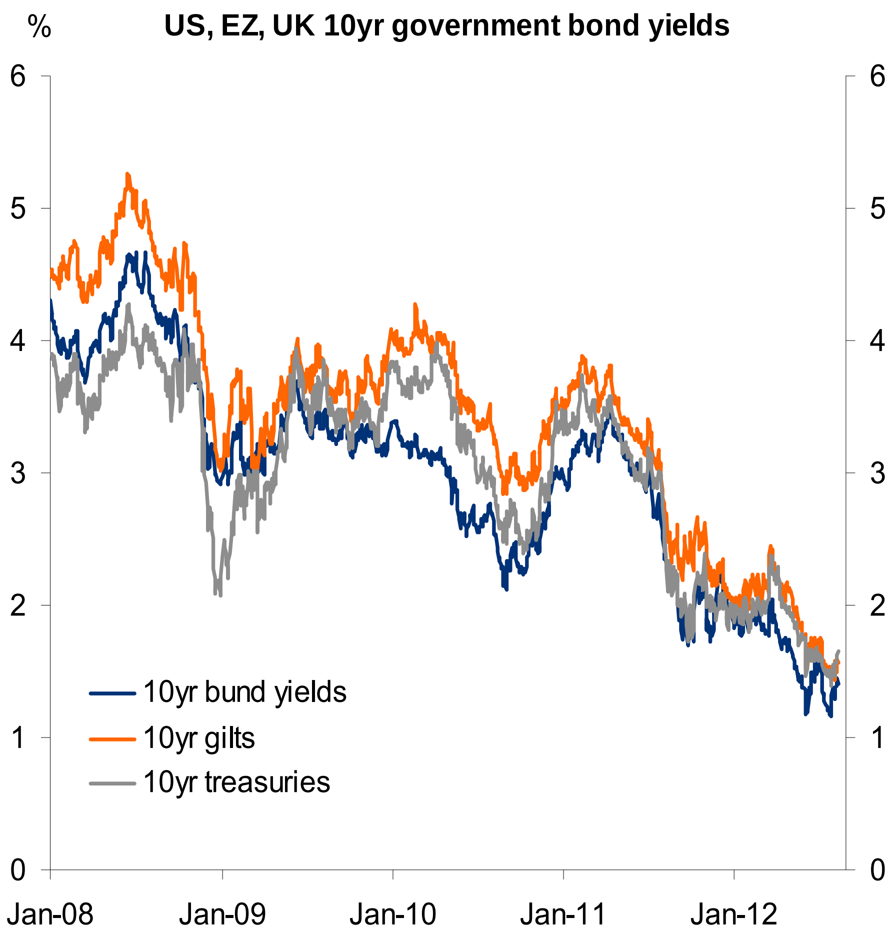
- The sharp fall in bond yields in Europe and the US does not appear to be driven by declining growth or inflation expectations
- Consensus expectations for 10 years ahead show some downgrading of growth expectations since 2007…
- …long term growth expectations have fallen by 0.3% in the US and 0.4% in the Eurozone
- Meanwhile, inflation expectations have actually risen by 0.1% in both cases
- This is hard to reconcile with the 300 basis point decline in 10 year bond yields

Declining 'real' yields – a sign of risk aversion?



- Break-even inflation rates, derived from inflation-linked bonds, also suggest that inflation expectations have remained broadly stable.
- This has pushed 'real' yields into negative territory…
- …although this may be linked less to expected real returns than a growing negative risk premia…
- …so what's behind this?

Four factors in the warped world



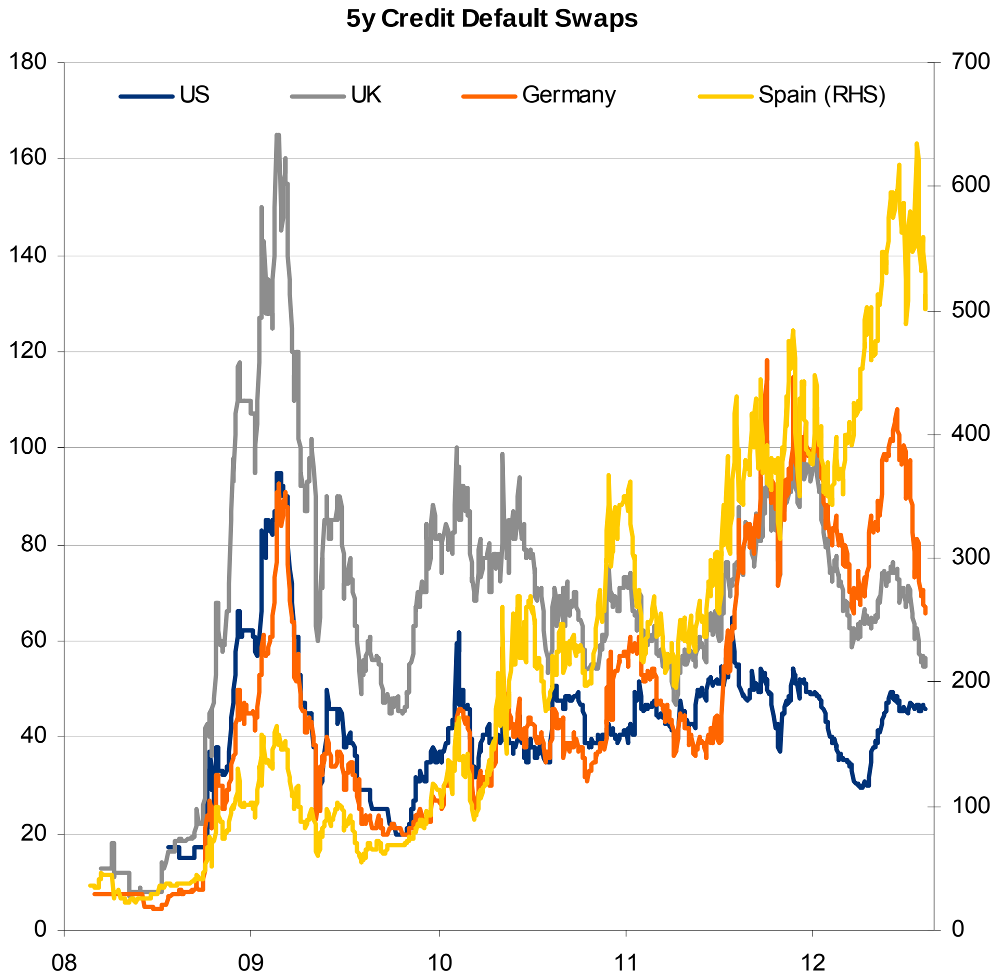
1. **Default risk** - the crisis has confronted investors with the reality that government bonds are not 'risk free'

2. **Unconventional monetary policy** – central banks have been forced to step in with huge bond buying ('QE') and generous liquidity infusions to banks.

3. **Financial repression** – With their solvency under threat, governments have been keen to encourage banks and other financial institutions to keep buying their debt.

4. **Flight to safety** - from the Eurozone's periphery has driven down yields not only in the core Eurozone markets, but also in other markets including the US, UK and high grade EM markets

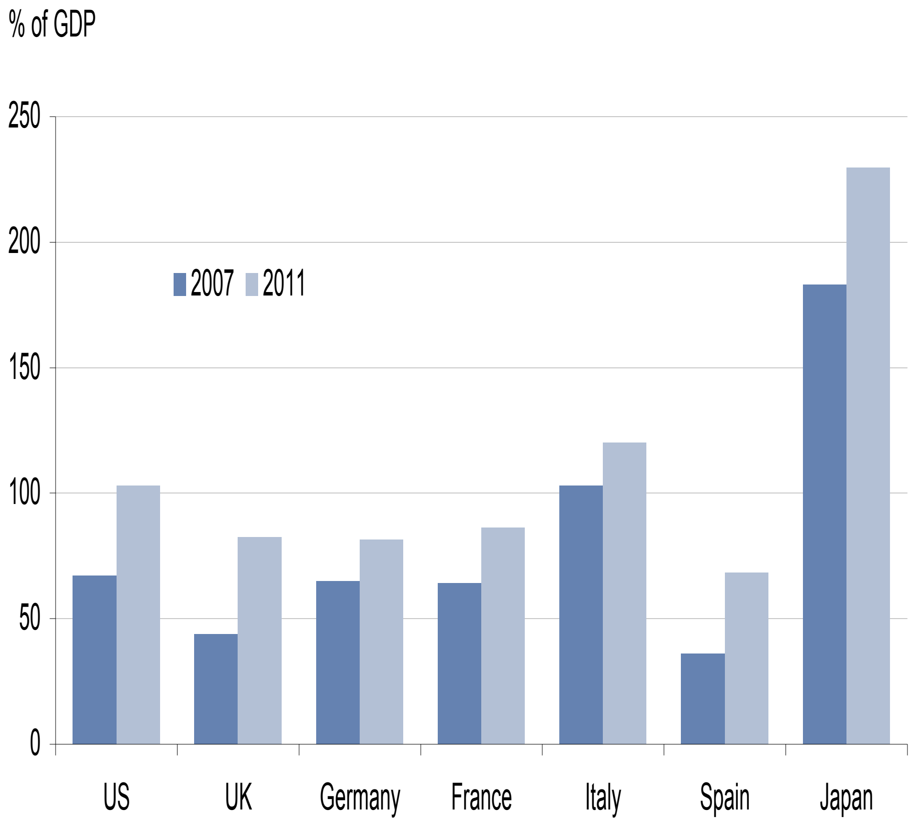
1. Default risk - debt is no longer risk free…



- Credit default swap spreads, which price the risk of default, have ballooned for sovereign bonds since 2008…
- …the financial crisis has confronted investors with the reality that government bonds are not ‘risk free’…
- …challenging the foundations of much of modern portfolio theory
- In truth, government bonds were never risk-free: inflation or currency depreciation are forms of stealth default

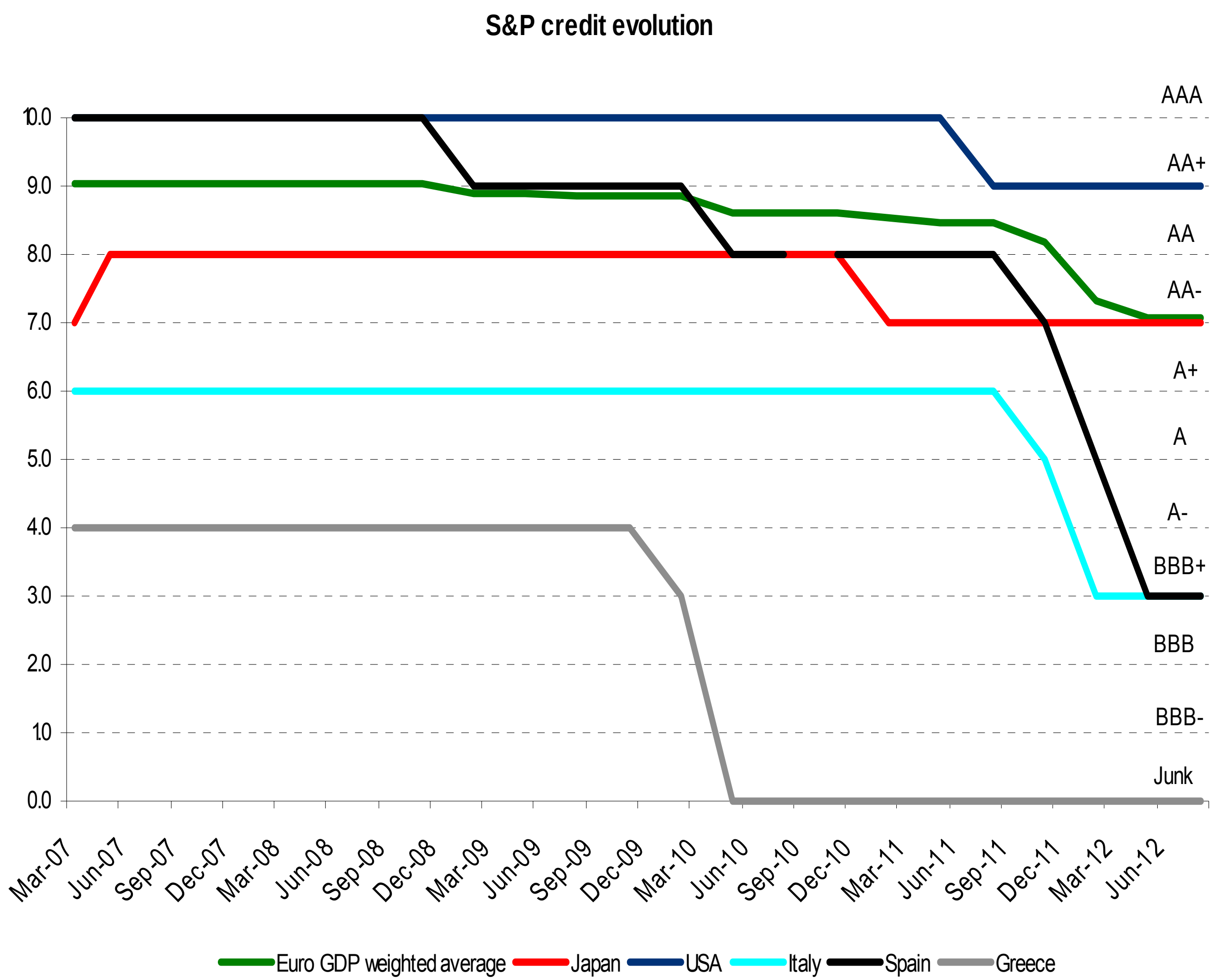
Unprecedented surge in government issuance

Rising Government Bond Issuance
Gross Government Debt as %GDP



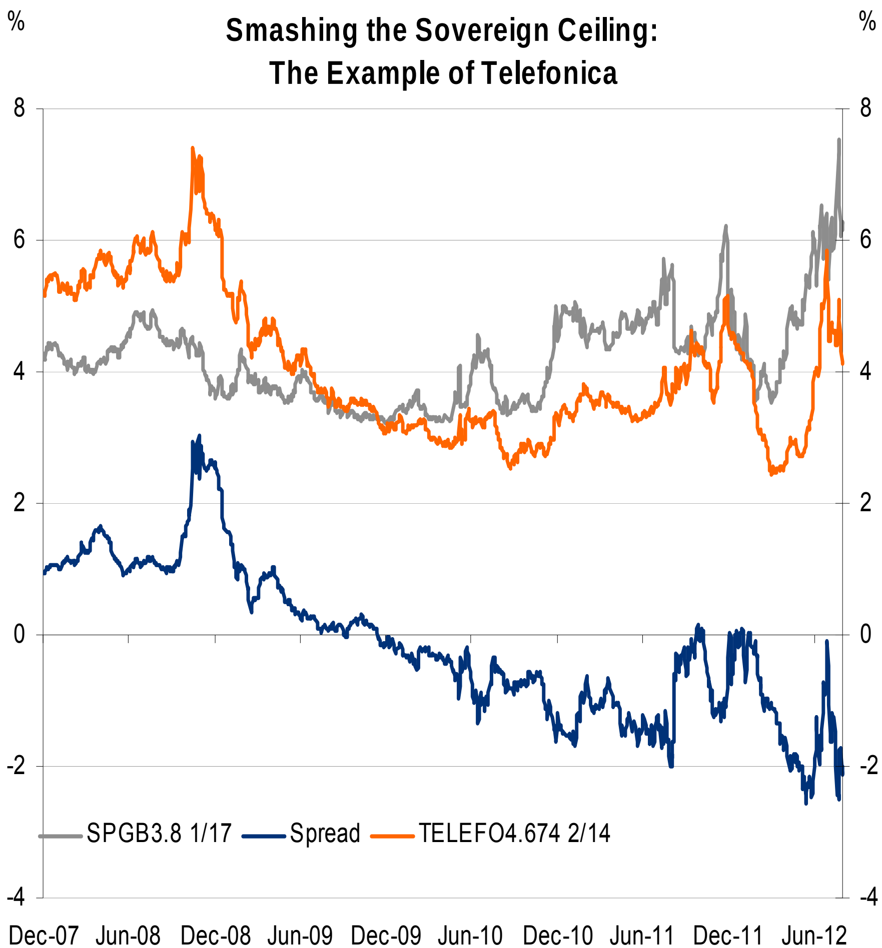
- **The financial crisis, and the 'Great Recession' that followed, led to a huge increase in government debt issuance…**
- **…in itself, this massive increase in supply ought to have put upward pressure on yields, reinforcing the threat to fiscal sustainability**
- **Such concerns have prompted governments in Europe and the US to tighten fiscal policy aggressively…**
- **…with mixed results for bond yields!**

Sovereign credit ratings fall



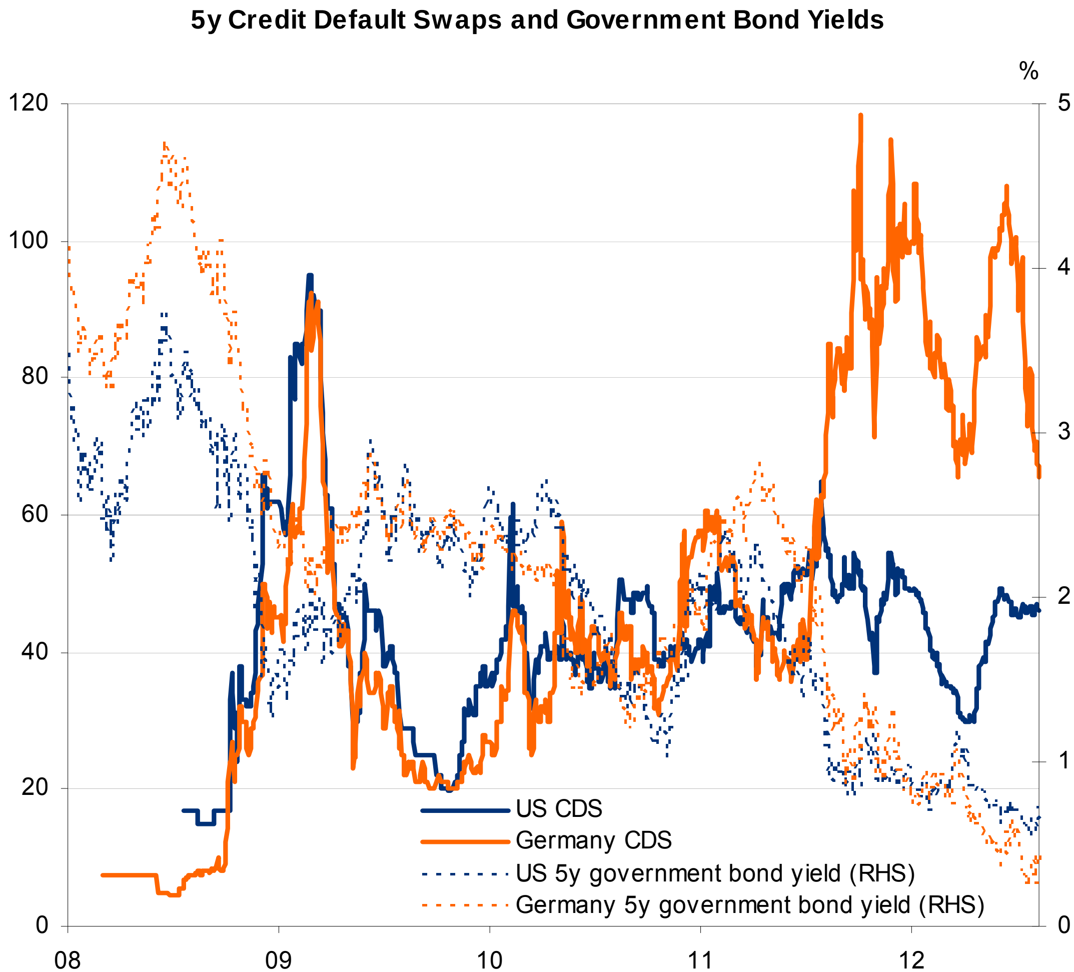
- Credit ratings agencies have been downgrading sovereign debt
- The US lost its cherished AAA rating in August 2011…
- …but since then the pressure has largely been on the Eurozone

Corporates break through the ‘sovereign ceiling’



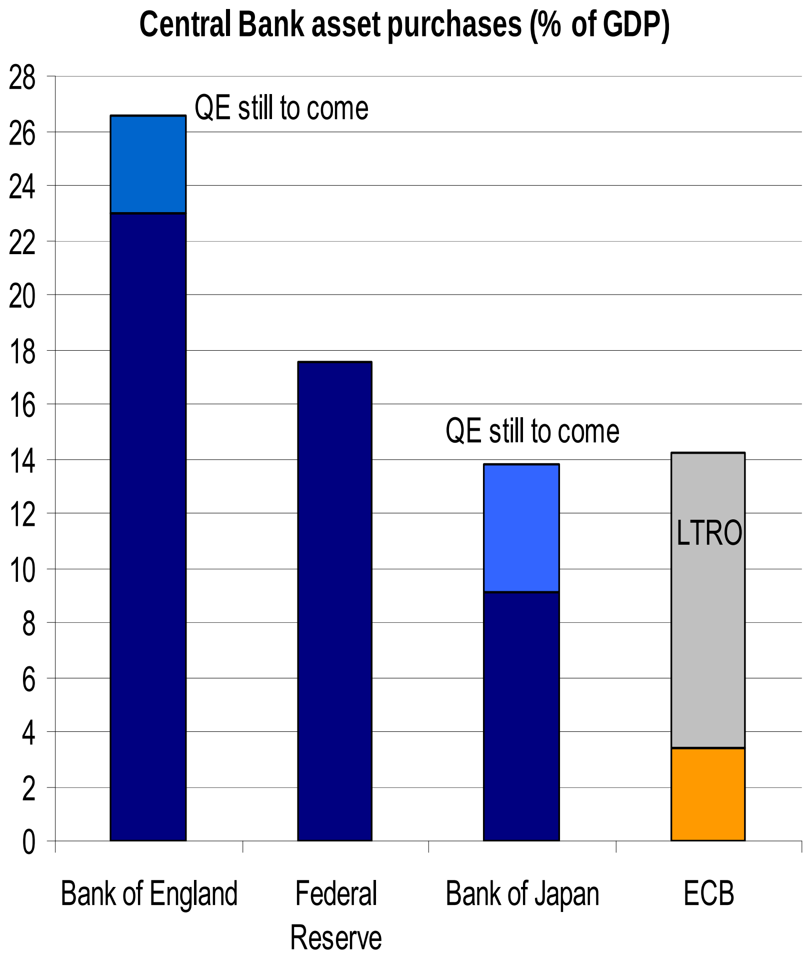
- **Traditionally corporates have been unable to borrow more cheaply than their home country governments: their credit ratings have been subject to a ‘sovereign ceiling’**
- **Now with sovereign ratings under pressure and corporate balance sheets in better shape, many corporates have been able to break through the ceiling…**
- **...especially in the Eurozone’s periphery**
- **Large multinationals, whose health is less dependent on the strength of their home country’s economy, have led the way…**
- **…their ability to borrow more cheaply than banks has boosted bond issuance at the expense of bank lending**

So why are government bond yields falling?



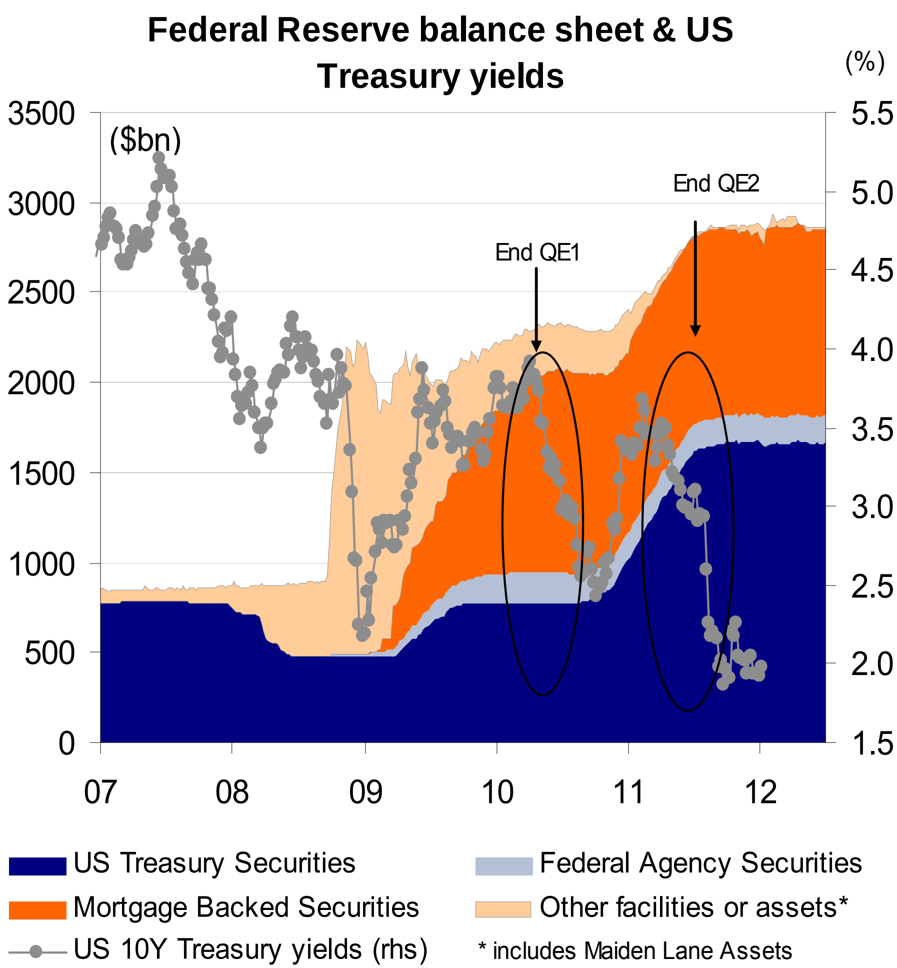
- Outside the Eurozone's periphery, rising concerns about default risk have led to lower, not higher, government bond yields…
- The chart shows how CDS spreads have generally been negatively correlated with the level of yields…
- …clearly other factors are also at work

2. Unconventional monetary policy – buy bonds



- With growth weak official interest rates at rock-bottom, central banks have turned to unconventional measures.
- Yields have been depressed
  - either directly through purchases of debt (quantitative easing or 'QE')
  - or indirectly via purchases on non-government debt or liquidity infusions to banks, which in turn stepped up their purchases of government bonds.

Hard to assess impact of QE – but more to come!



- Big and unprecedented action – but the impact of QE is unclear…
- Some official estimates suggest that it may have reduced 10-year yields by up 100bp
- That said, the second rounds of QE are generally seen to have been less effective.
- Two factors complicate analysis:

1. Investors expectations of QE drove down yields beforehand - the actual start of Treasury purchases in the QE1 and QE2 were accompanied by rising yields
2. While the direct effect of QE may be to drive down yields, if it prompts investors to buy risk assets, portfolio substitution may lead to *higher* government yields.

- Nevertheless, in the absence of better ideas, more QE is likely in the US, Eurozone, Japan and the UK

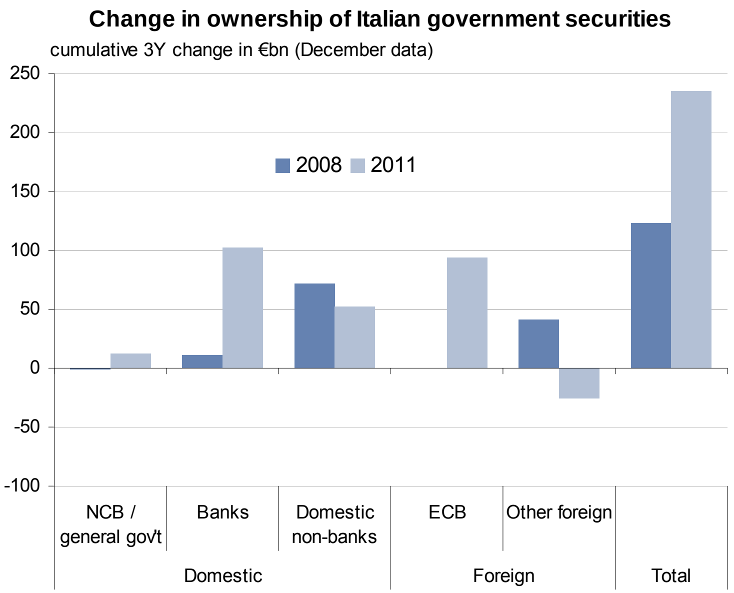
3. Financial Repression - leaning on banks

Government debt: relatively risk free under Basle III

Credit Exposure Type	Percentage Risk Weighting
Cash	0
Short term claims on governments	**0**
Long term claims on governments (>1 year)	**10**
Claims on banks	20
Claims on public sector entities	20
Residential mortgages	50
All other credit exposures	100

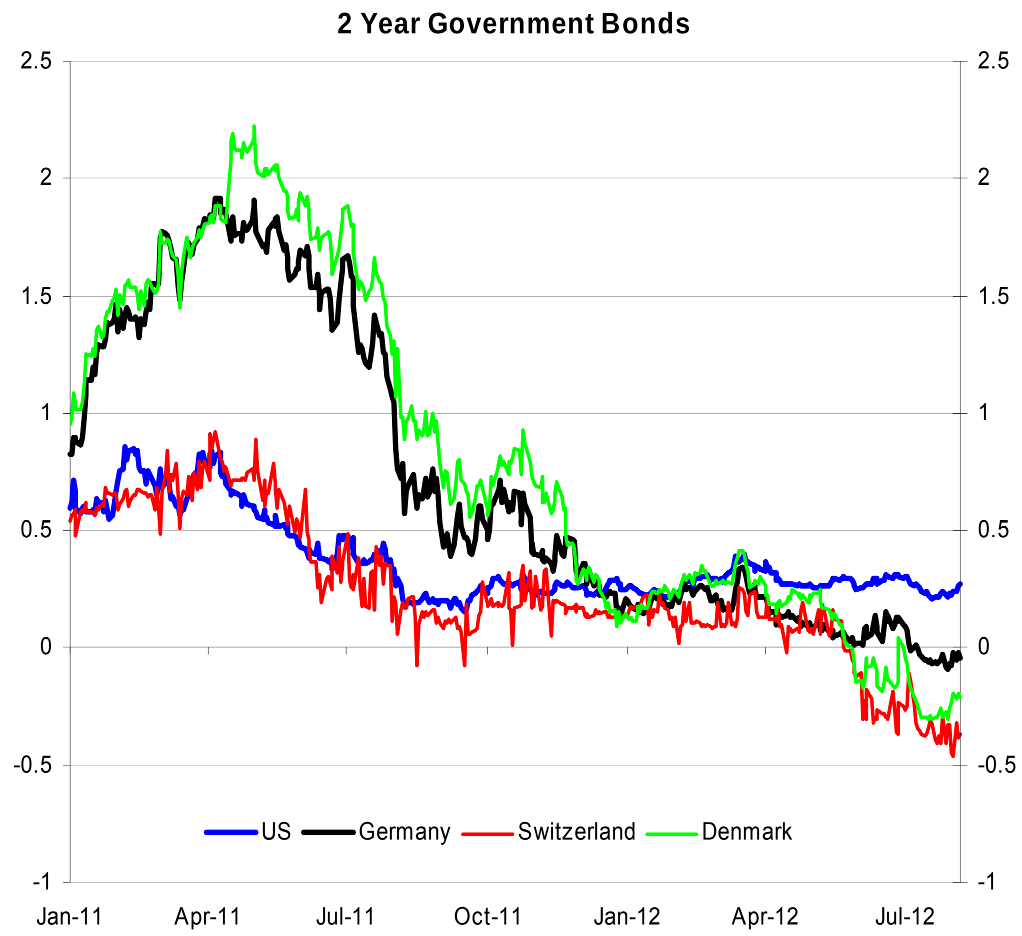
- **With their solvency under threat, governments have been encouraging financial institutions to buy their debt.**
- **New capital and liquidity requirements on banks (Basle III) and insurance companies (Solvency II) are incentivising them to increase holdings of (relatively) risk-free government debt.**
- **The regulatory environment is still in a state of flux – banks fear that regulations will get tougher and that they may be forcibly restructured…**
- **…adding to the tendency to reduce risk and prefer purchases of government debt over riskier lending**

Eurozone bond markets - rapid localisation



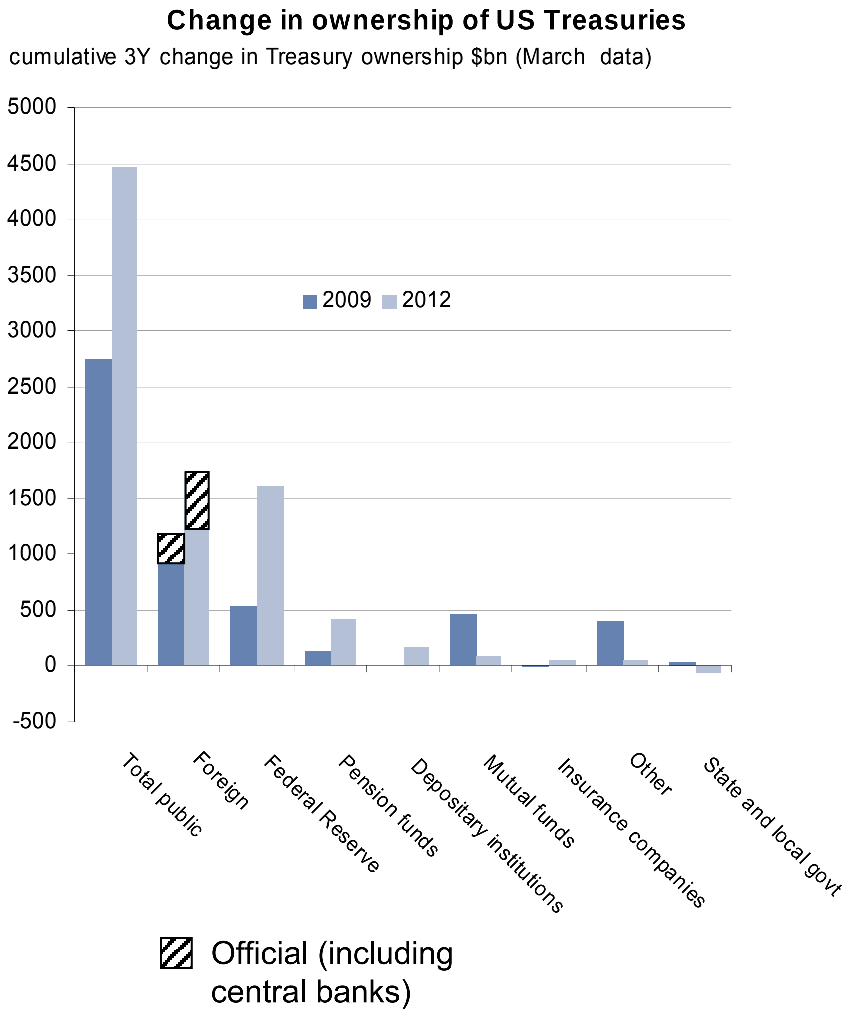
- Banks in Europe have succumbed to pressure buy domestic government bonds. The ECB's long term refinancing operations (LTROs) increased this domestication trend…
- Italy is a dramatic example: domestic buyers investors have been the biggest buyers for the past year
- Meanwhile, ECB buying has compensated for the exodus of foreign investors
- It has been a similar story in Spain

4. Flight to safety – it's all relative



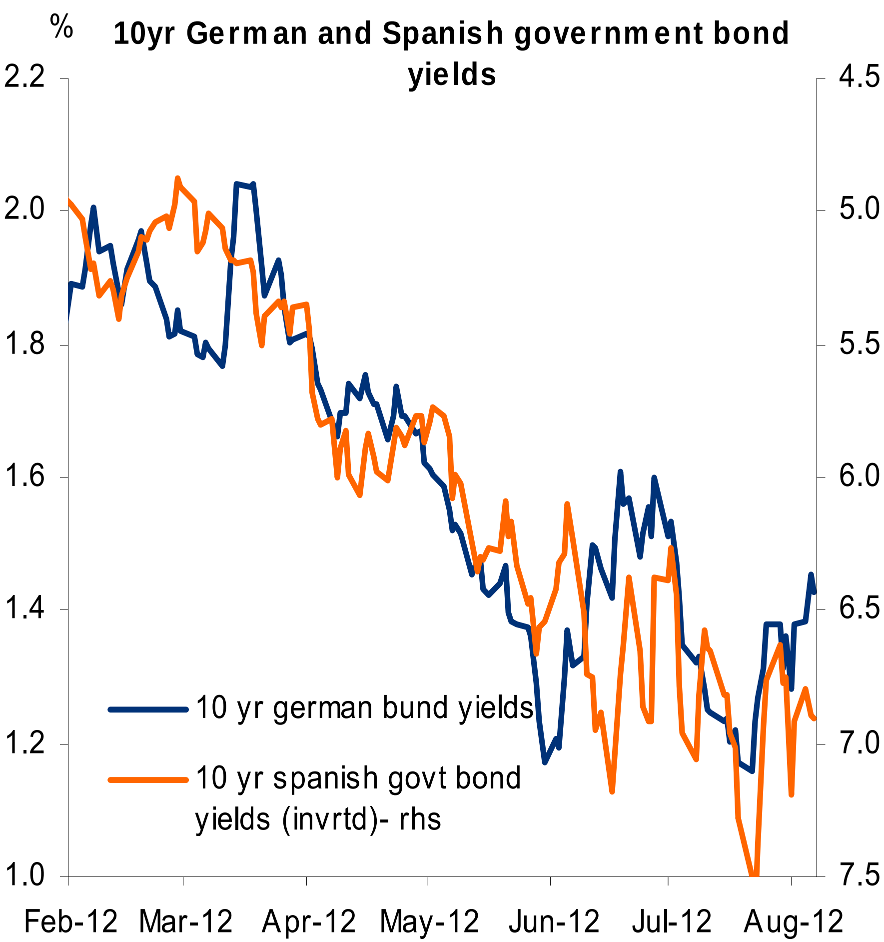
- While investors realise government bonds are not 'risk free', some are safer than others…
- Flight to safety - from the Eurozone's periphery has driven down yields not only in the core Eurozone markets…
- …but also in other markets including the US, UK, Switzerland, and Scandinavia.
- Particularly dramatic impact at the short end of the yield curve…
- …where some markets have seen 2-year yields turn negative!

US Treasuries – attracting foreign inflows



- **The US Treasury market has become a ‘safe haven’, despite its fiscal problems and doubts about its credit rating**
- **Foreign buyers, including central banks, have been heavy buyers, outdoing the Fed**
- **Buying by US private investors has been modest…**
- **…reflecting the healthier risk appetite in the US financial markets**

The Eurozone ‘flight to safety’ – Bunds first



- In the flight to safety within the Eurozone, German yields have fallen the most, outperforming other core markets
- Aside from default risk, investors are pricing-in the potential currency risk from EMU break-up
- The write-down of Greek government debt was a massive blow to private sector holders: pre-crisis, the markets did not believe in the Eurozone’s ‘no bail-out’ clause

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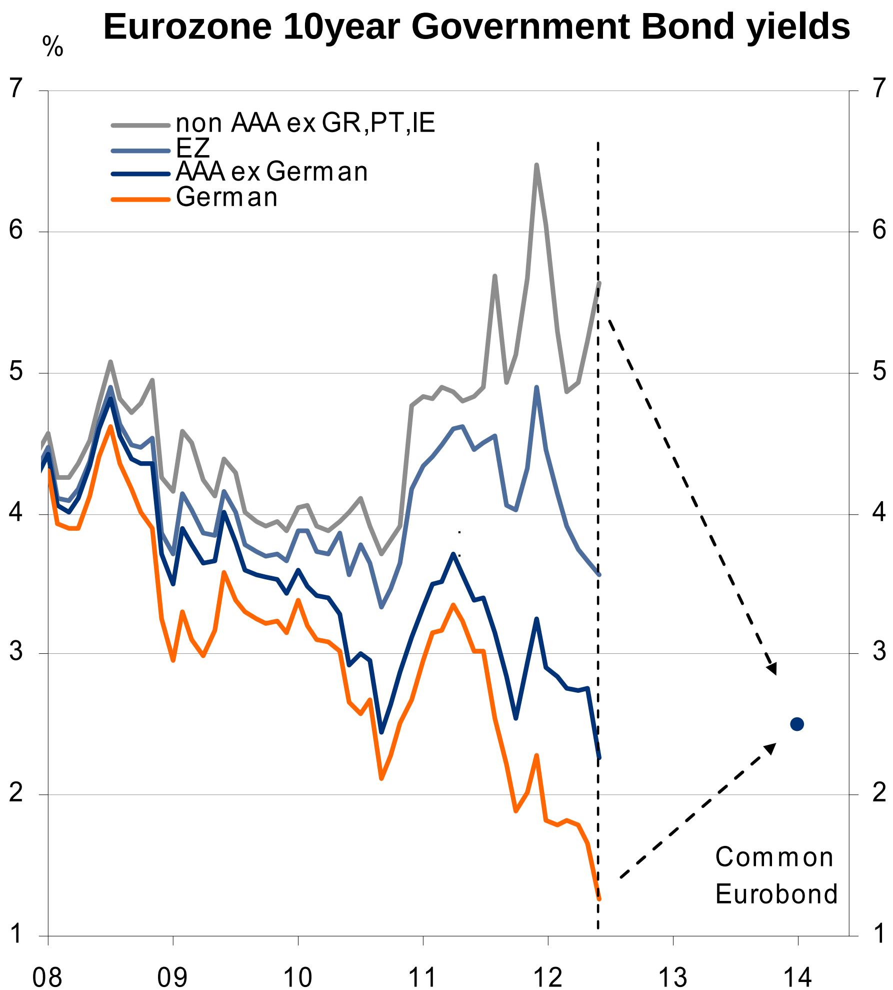
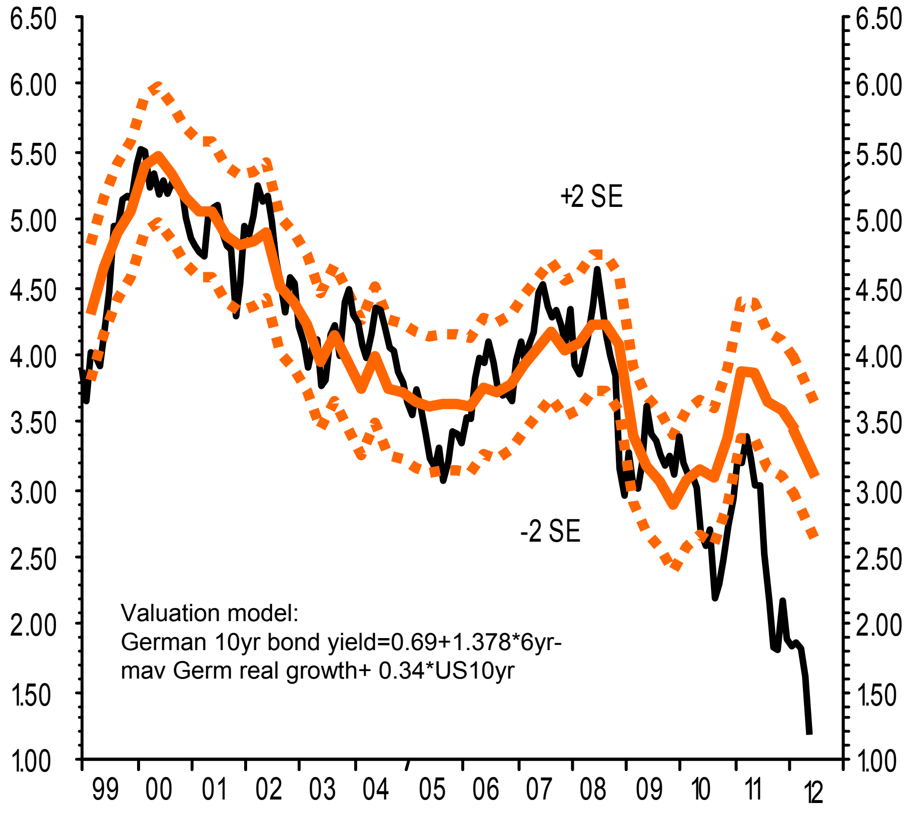
Eurozone's survival – a threat to the safe havens



- The flipside, were steps taken to ensure EMU's survival, is a potential 'survival trade', which would see massive reconvergence in Eurozone yields…
- The ultimate would be a move to common Eurobonds…
- …the German government does not rule out common bonds on principle, but sees them as a long term option, once fiscal union is agreed
- The implied mutualisation of risk is a massive contingent transfer, and there is an implicit transfer arising from yield convergence…
- …BUT this would be a 'positive sum game' as weighted average yields would likely fall…
- …so long as moral hazard – fiscal ill-discipline – is addressed with binding commitments

"Normality" is some way off…

German 10yr bond yield - undershooting past relationships



- **Calculating the net effect of the forces warping the bond markets is difficult**
- **10 year bund yields are at least 120 basis points below the lower bound based on pre-crisis "fundamentals"…**
- **…but this is priced off US Treasuries, which are themselves trading way below what previous relationships would suggest…**
- **…so 250bp plus could easily be justified…**
- **With yields only recently touching new lows, it's way too early to be talking of new norms**

Conclusion - world to keep warping

- **The financial crisis continues to mutate**
- **Fate of bond yields is subject to unpredictable economic and political shocks**
- **The 'risk free' rate is dead – some corporates can borrow more cheaply**
- **The regulatory rules continue change while the game is being played**
- **Central banks will continue to improvise and intervene**
- **Political uncertainty exceeds economic uncertainty…**
- **…commitment to fiscal austerity could prompt more shocks…**
- **…and Eurozone bond markets will remain volatile unless a convincing road to EMU's survival is found**
- **…but if it is, a massive global re-convergence trade would see 'safe haven' markets suffer in favour of peripheral Eurozone bond markets**
- **Nevertheless, amid ongoing structural change, it is hard to imagine developed world bond yields returning to pre-crisis levels for some years**

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Note: Sources for all figures is ING and EcoWin.

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