

September 2014

How sticky is the money in credit?

Why the ECB is the all-purpose adhesive

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures

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Where *did* the money come from?

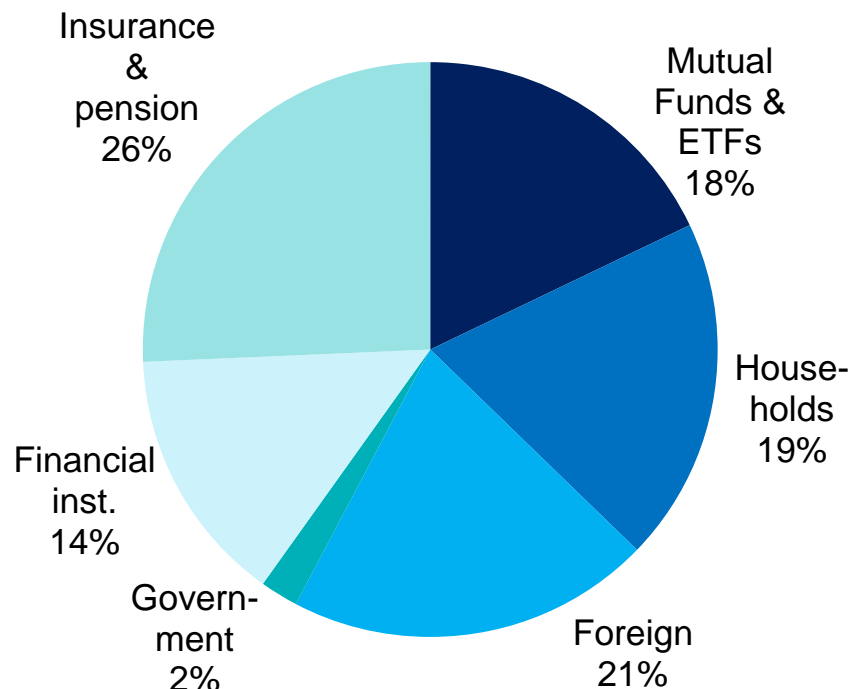
Are inflows about to come unstuck?

How to form a bond in credit with the ECB

Who owns corporate credit?

Lots of investor types hold US credit

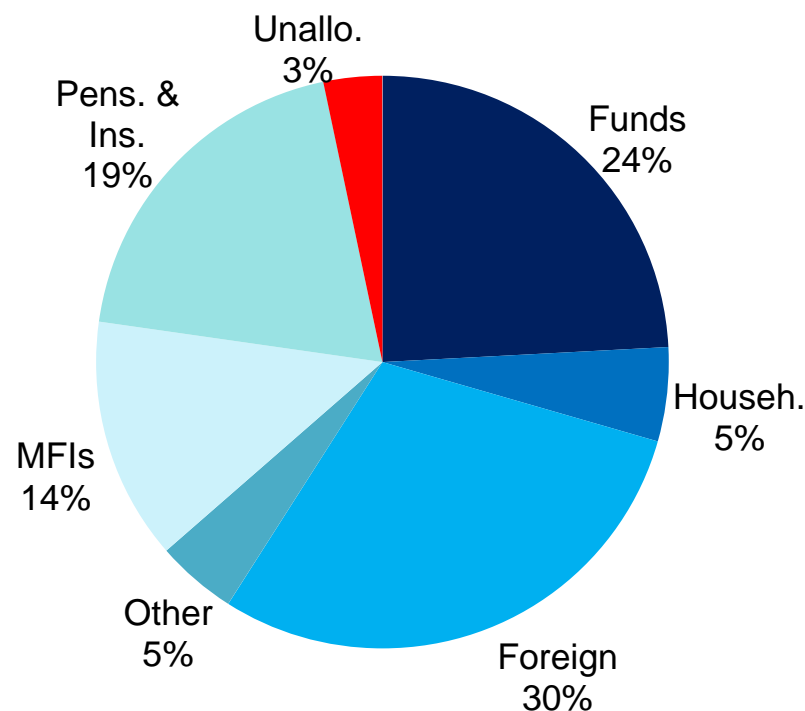
US corporate credit market by type of holder, %



Source: Citi Research, Federal Reserve Flow of Funds.

Lots of investor types hold European credit

Eurozone non-financial corporate credit by type of holder, %



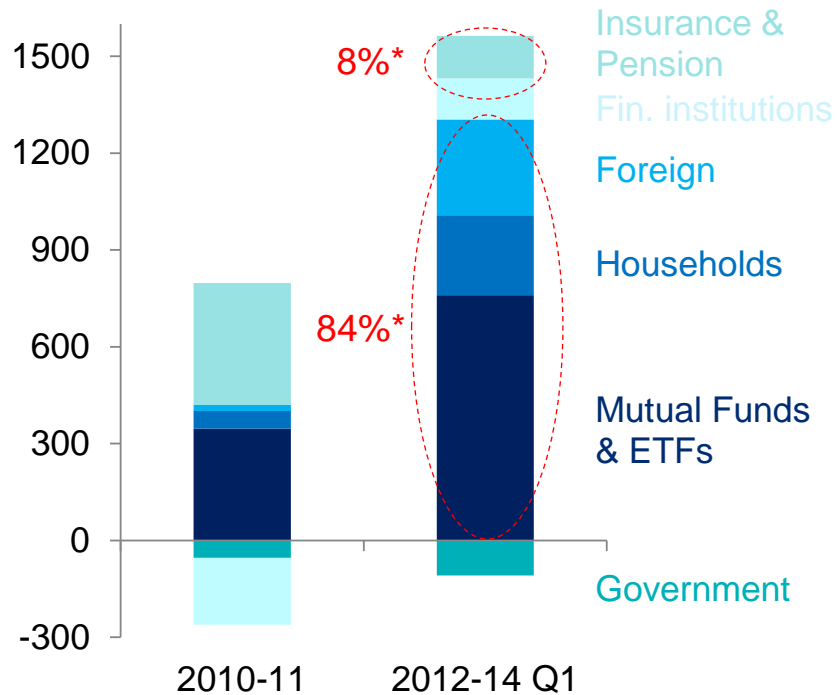
Source: Citi Research, ECB.

The investor base looks nicely diversified

Fine, but who has been buying corporate credit?

“Stable” pension & insurance money? Nope!

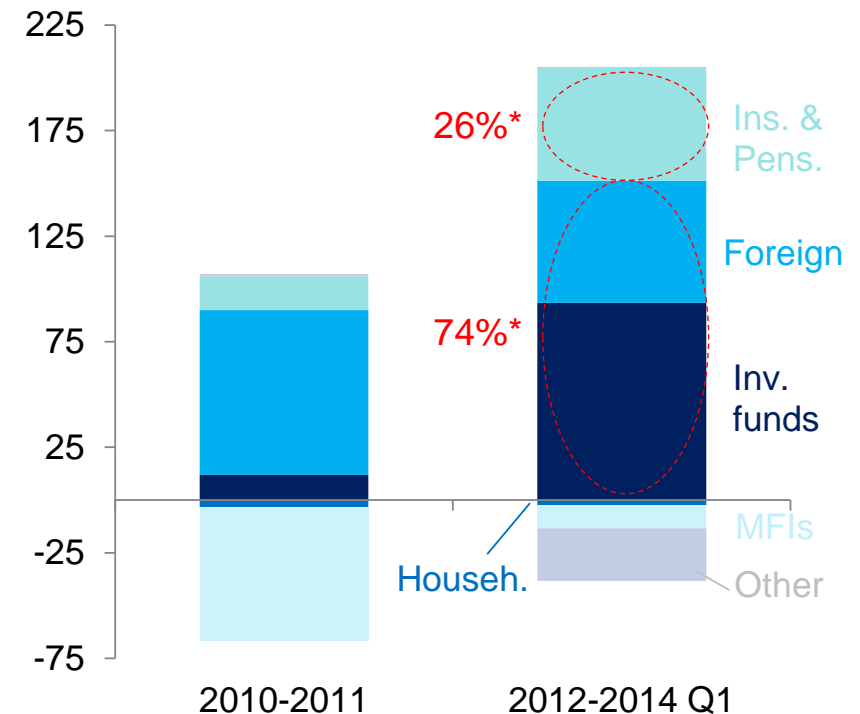
Change in holdings of US corporate credit, \$ bn



Source: Citi Research, Federal Reserve Flow of Funds. * Of investor types with inflows only.

Lot's of foreign inflows? Yup!

Change in holdings of Eurozone non-financial credit, €bn

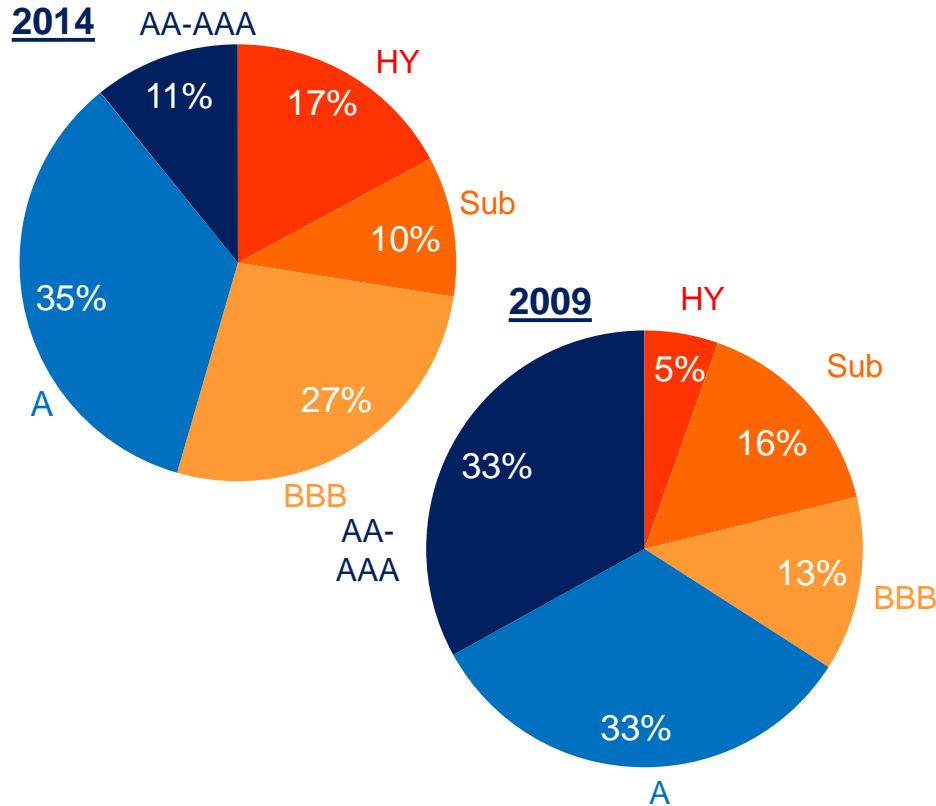


Source: Citi Research, ECB. * Of investor types with inflows only.

Ahem, it's the so-called “non-dedicated” money

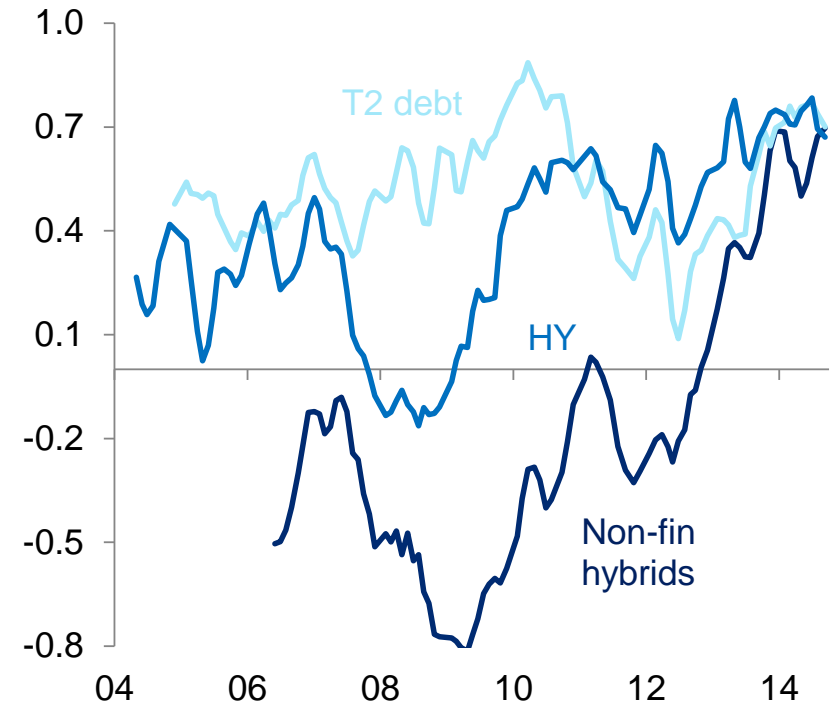
And what have they been buying?

Index is more HY, sub and BBB today ...
iBoxx index outstanding by rating / type, 2009 vs. June 2014*



Source: Citi Research, MarkIt. * Market cap weighted.

... and nearly everyone seems to be long
Citi global credit survey positions in HY, T2 & hybrids*, 3m MA



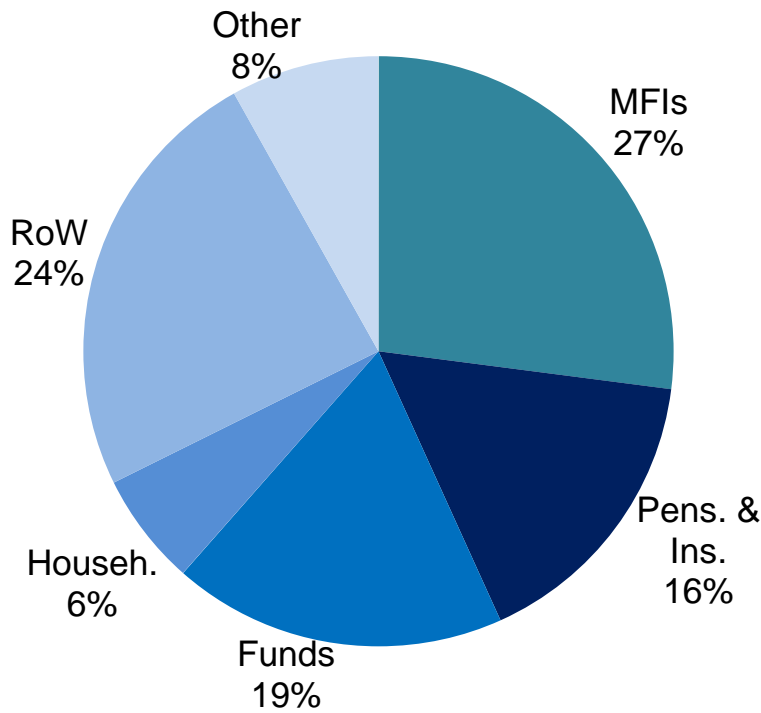
Source: Citi Research. Note: Responses to the question "How large are your current positions compared to your benchmark or normal level? Scale: +/-2".

Well, beyond rotation *into* credit, there's rotation *within* credit

It's the same across fixed income markets

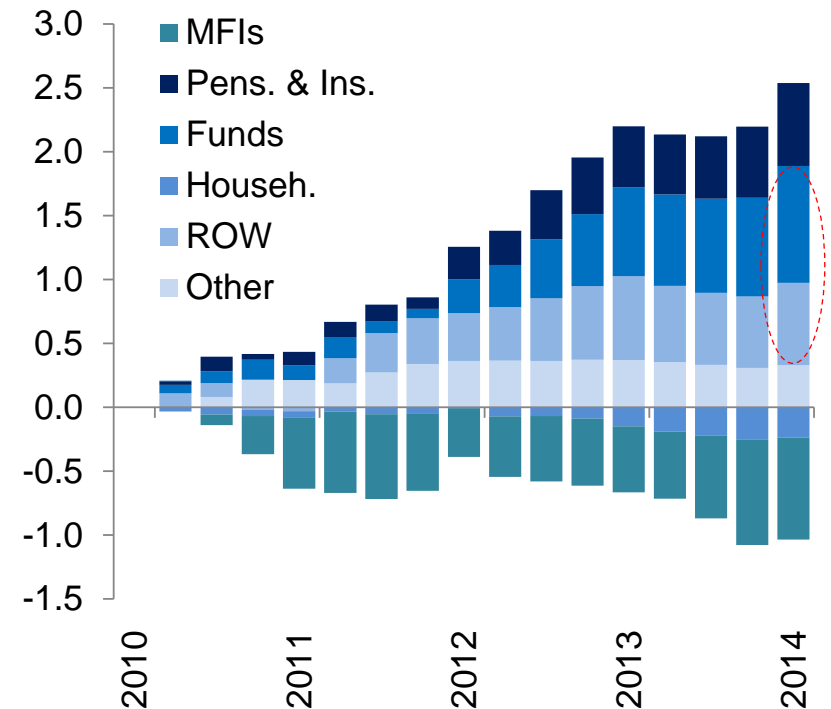
Lots of owners – but the bulk of new money concentrated on funds & foreigners

Eurozone fixed income market by type of holder, %



Source: Citi Research, ECB.

Cum. chg. in holdings, 2010-14 Q1, by type of holder, €tn



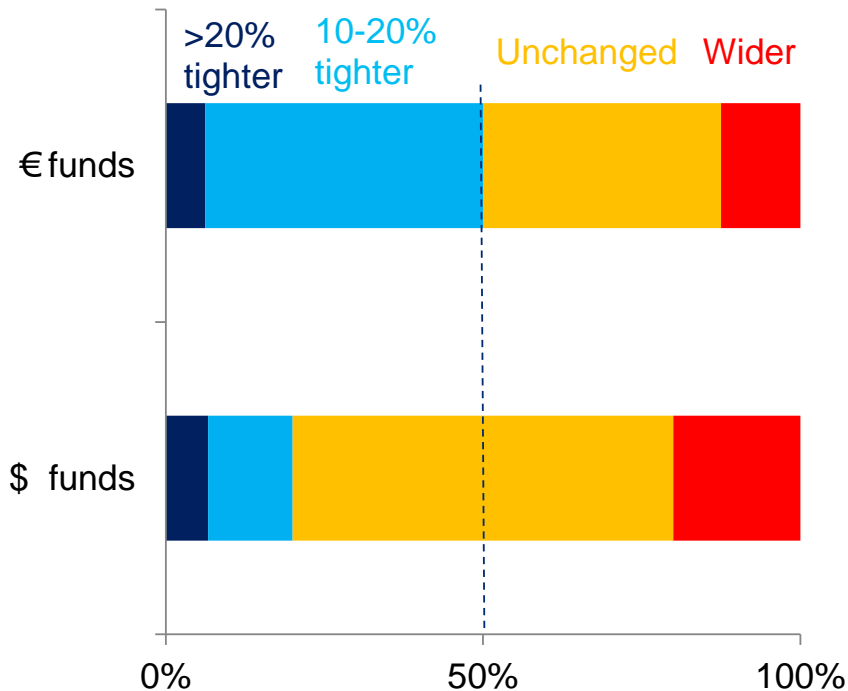
Source: Citi Research, ECB.

Ownership is diversified; but demand is rather concentrated

So what's the expectation now?

“Spreads will perform a bit more”

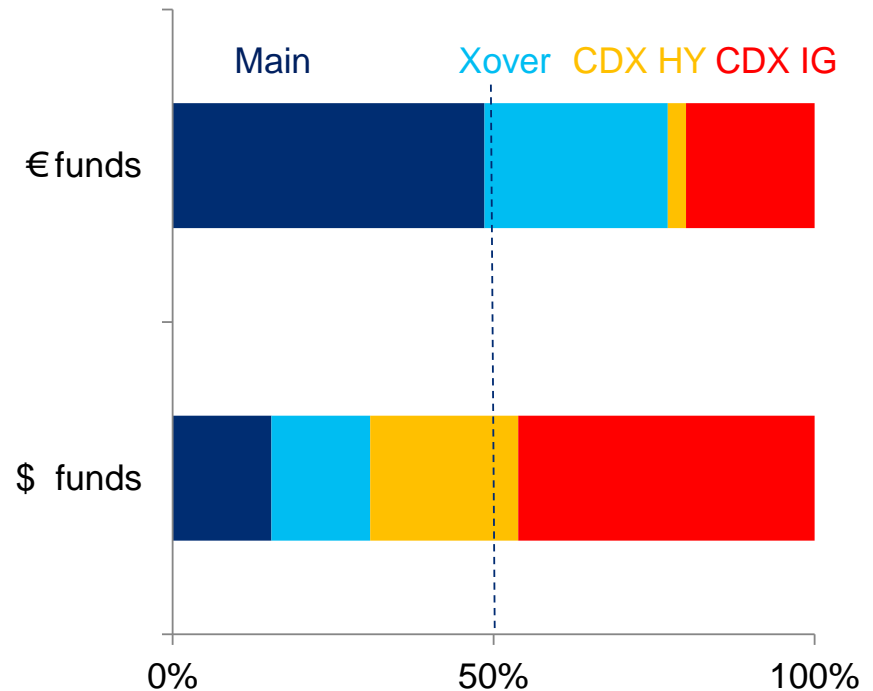
Answers to the question: “How much will spreads perform in H2 2014?”, Jul. 14



Source: Citi Credit Survey.

“My market will do better than yours”

Answers to the question: “Which index will outperform (β-adjusted) into year-end?”, Sep. 14.



Source: Citi Credit Survey.

€ investors remain bullish on their home market

Where *did* the money come from?

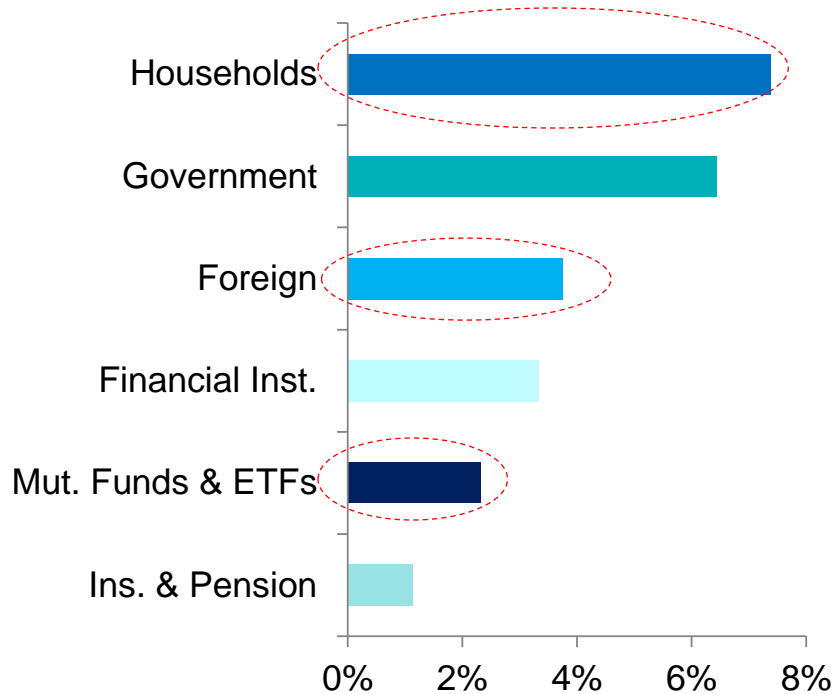
Are inflows about to come unstuck?

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So how stable is this “new money”?

Some holdings are more volatile than others

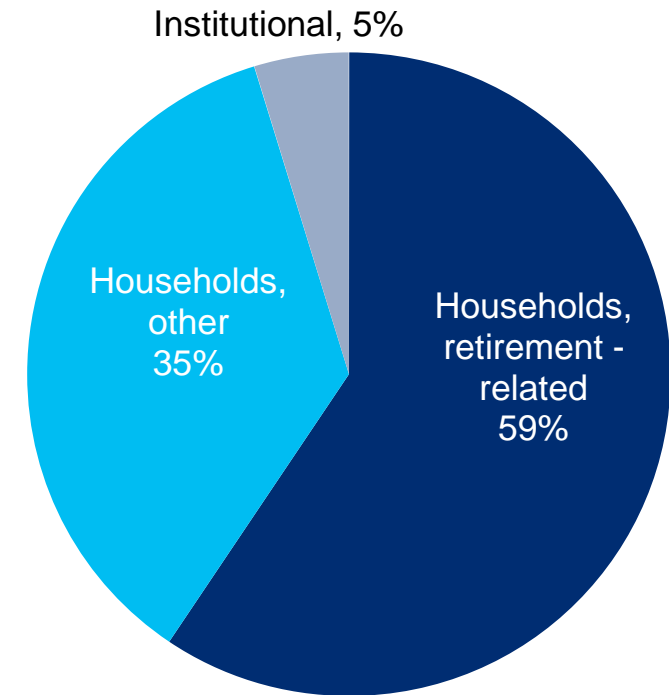
St. dev. in US corp. bond holdings, 1993-2014, QoQ, % of assets



Source: Citi Research, Federal Reserve Flow of Funds.

Pensions a big part of mutual fund money

Ownership of long-term US mutual funds, by investor type



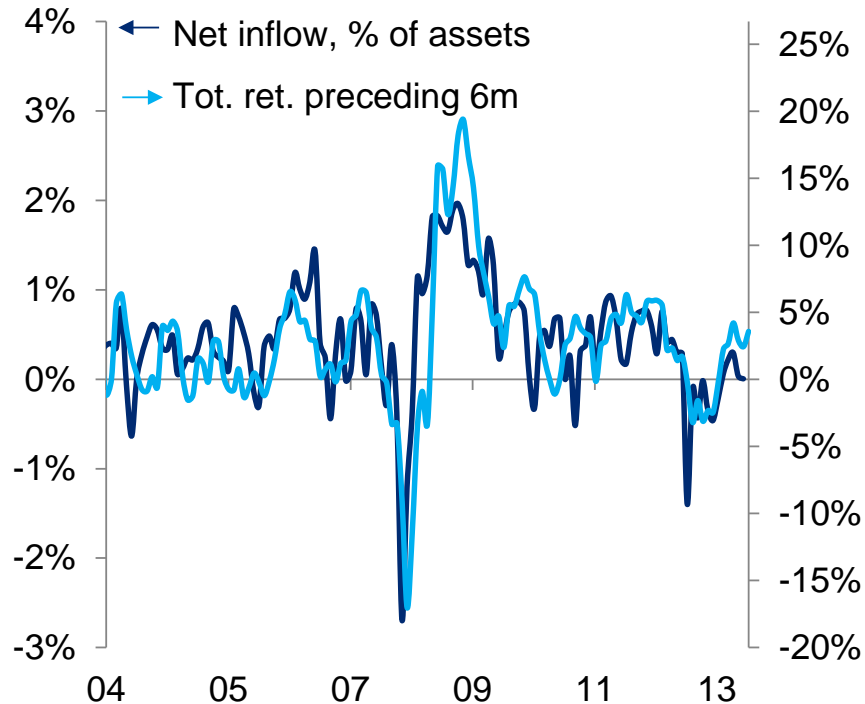
Source: Citi Research, ICI Factbook 2014.

Mutual fund flows are less fickle than their reputation;
other flows are not

Should we rely on yet more mutual money then?

Total returns drive future credit inflows

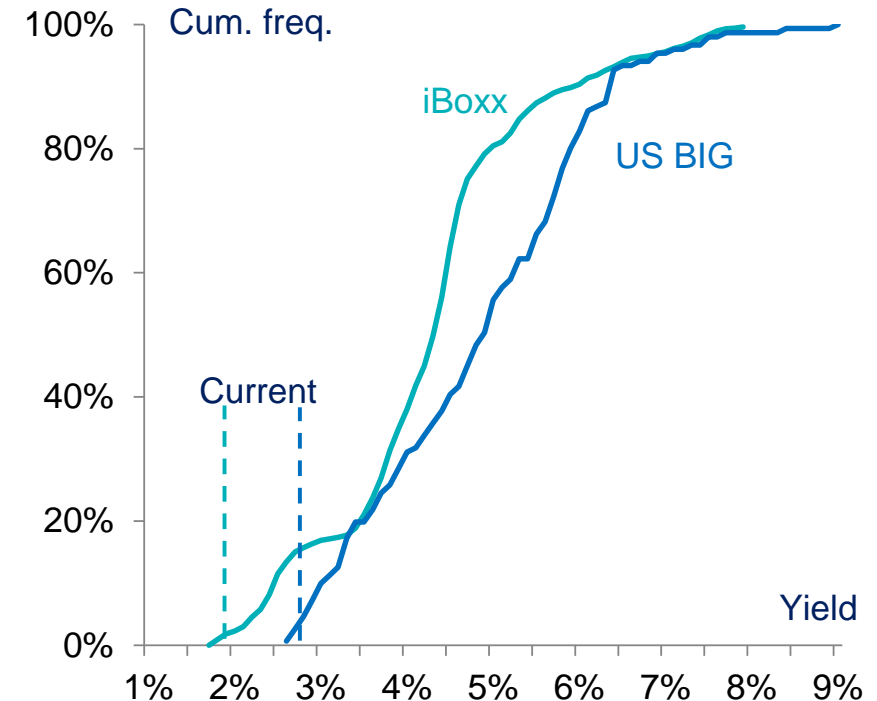
Mut. fund inflows, % of assets, vs. total return, previous 6m, %



Source: Citi Research, ICI.

But where will future returns come from?

Histogram, iBoxx € Corp & US BIG yield, 2002-14



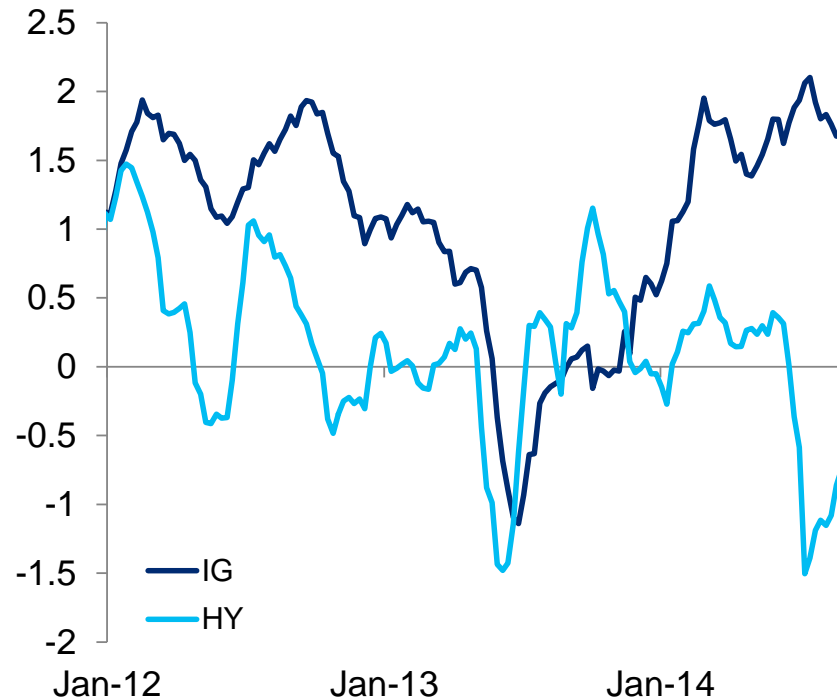
Source: Citi Research, MarkIt.

As returns wane, incremental flows should dry up

Is there any sign of that happening?

Money going to IG over HY

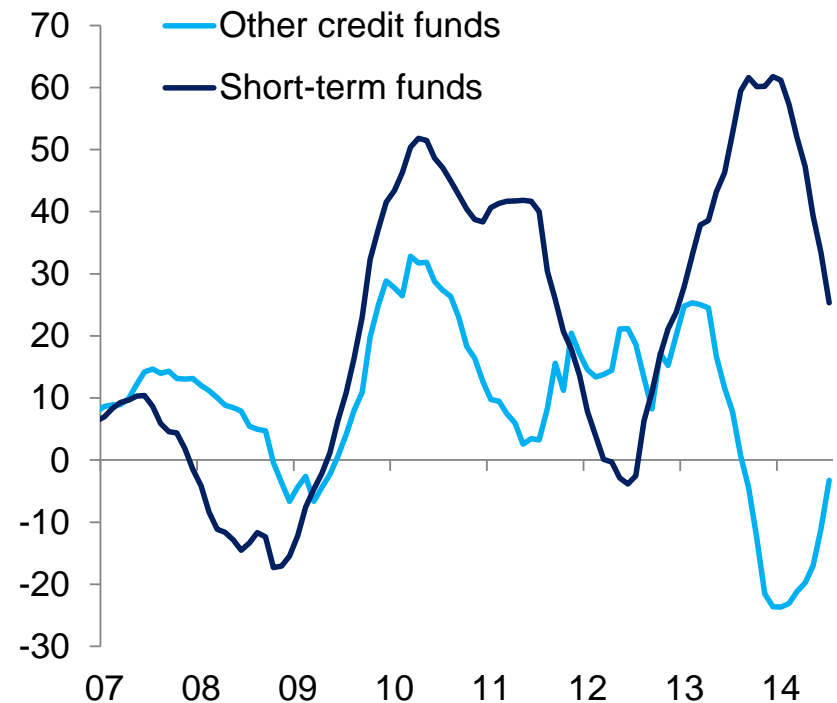
US mutual fund flows into credit, 8w mov. avg., \$bn



Source: Citi Research, AMG, EPFR.

Money has been going to short-term funds

US mutual fund flows into credit, 12m rolling sum, \$bn



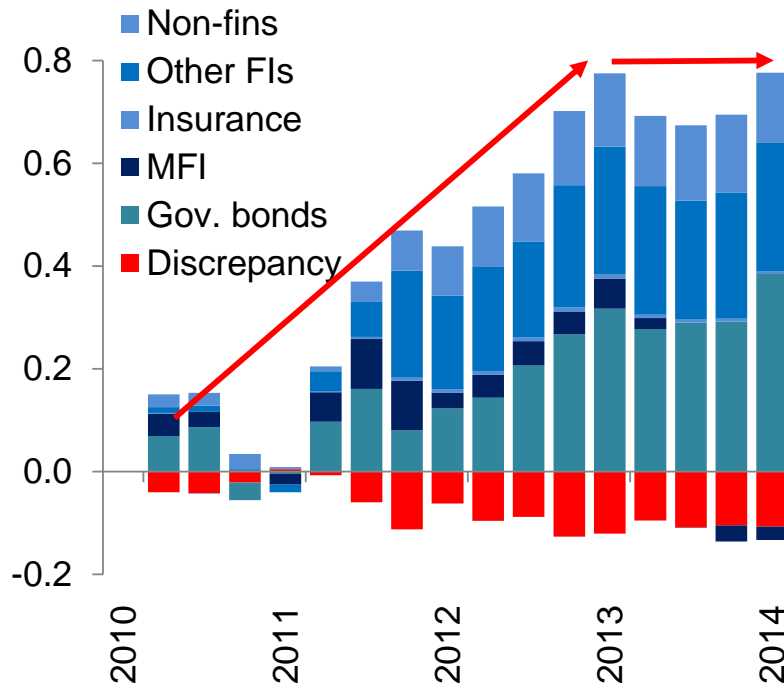
Source: Citi Research, Haver, ICI.

Recent US inflows *have* been more selective

Will the foreign money keep coming?

Foreign flows into €FI waning

Cum. chg. in holdings of external investors, 2010-14 Q1, €tn

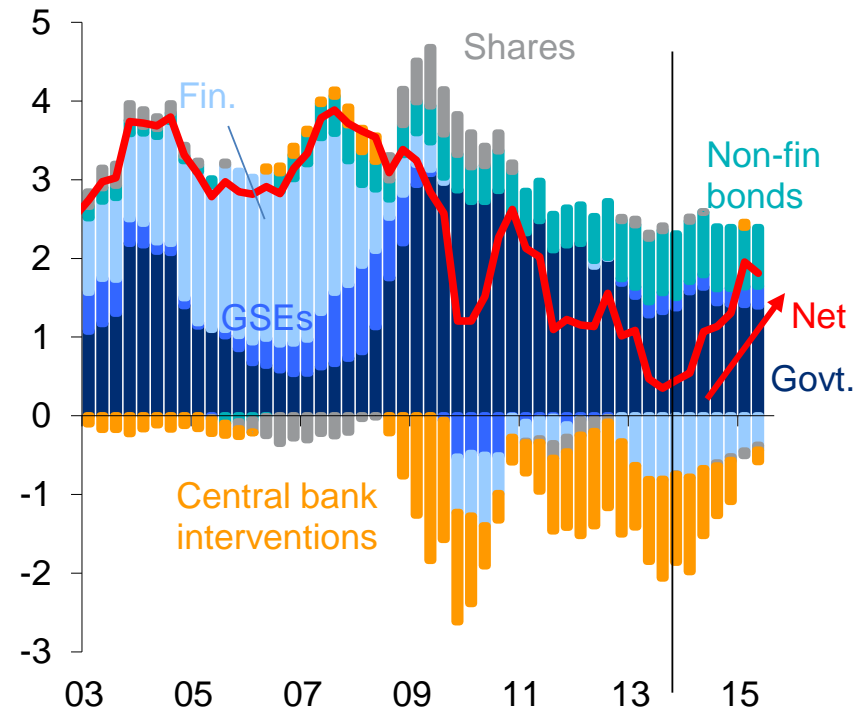


Source: Citi Research, ECB.

Global supply-demand balance is shifting

Net iss. of securities vs CB* interventions, 12m rolling, \$tn

Note: Assumes no further ECB intervention (QE or TLTROs)



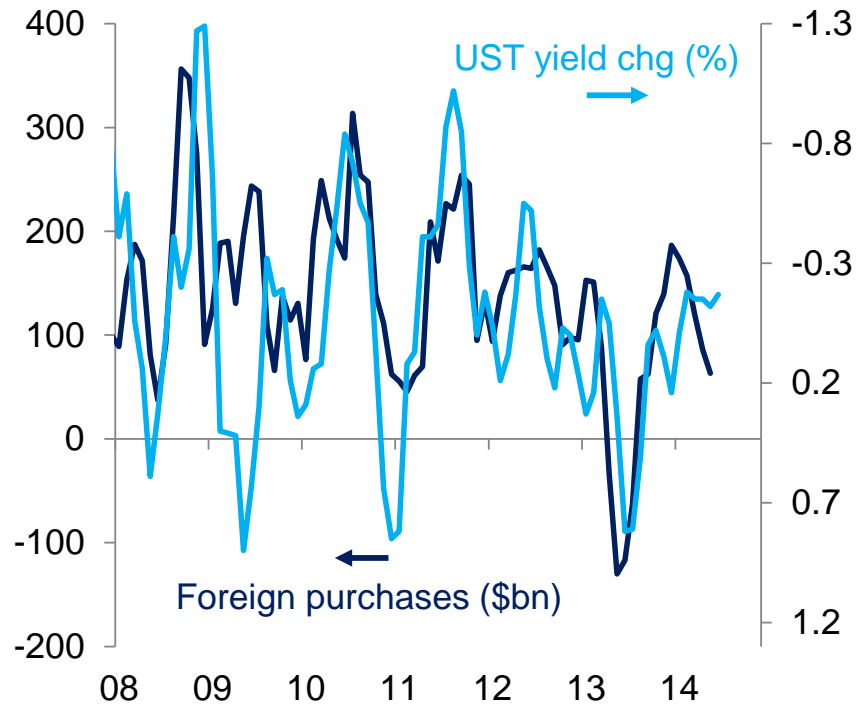
Source: Citi Research, Haver. *: Federal Reserve, Bank of Japan, ECB.

Foreign flows seem vulnerable – at the margin at least

Will the foreign money keep coming? (ii)

Virtuous relationships can turn vicious!

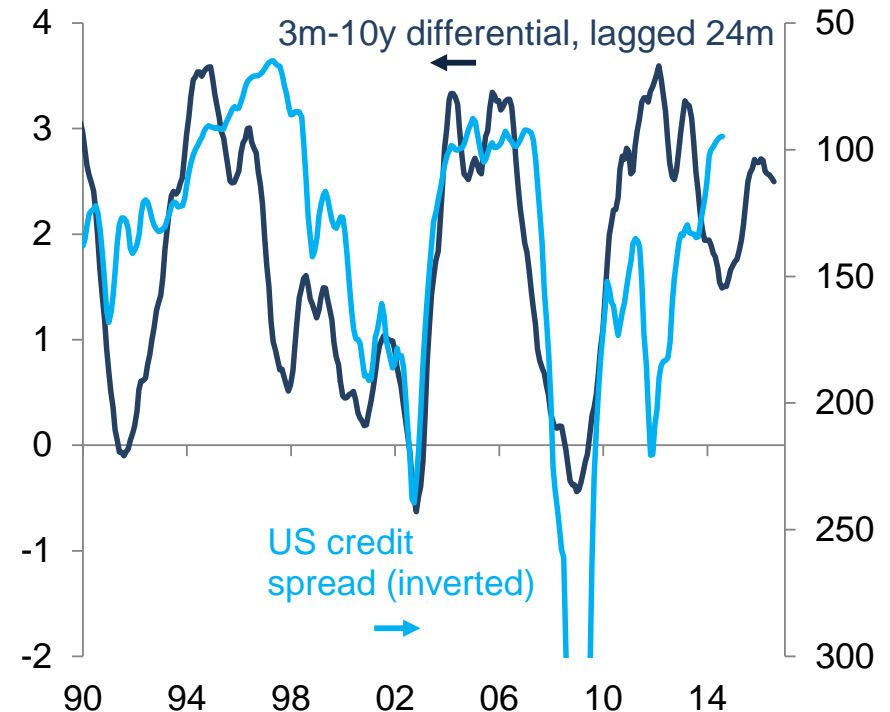
Foreign buying of USTs vs UST 10y yield chg., 3m rolling



Source: Citi Research, US Treasury. See [‘It’s all about the flows’](#), M. King, 1 August.

Spreads susceptible to US flattening

US 3m-10yr yield curve, %, vs. US credit spread, bp



Source: Citi Research, Yield Book, Bloomberg.

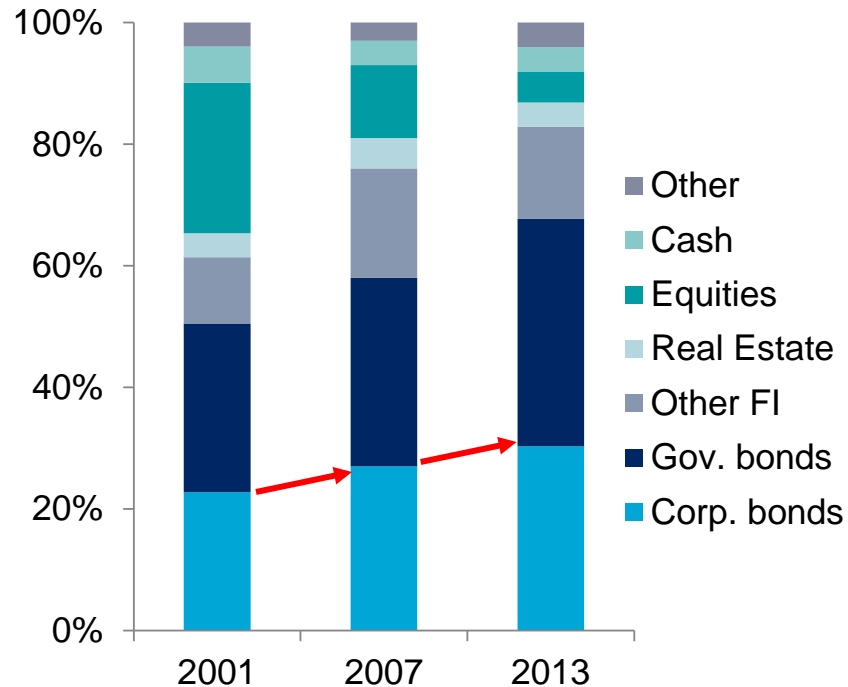
Turn in US monetary policy comes with many perils

Can traditional buyers pick up any shortfall? (Insurance)

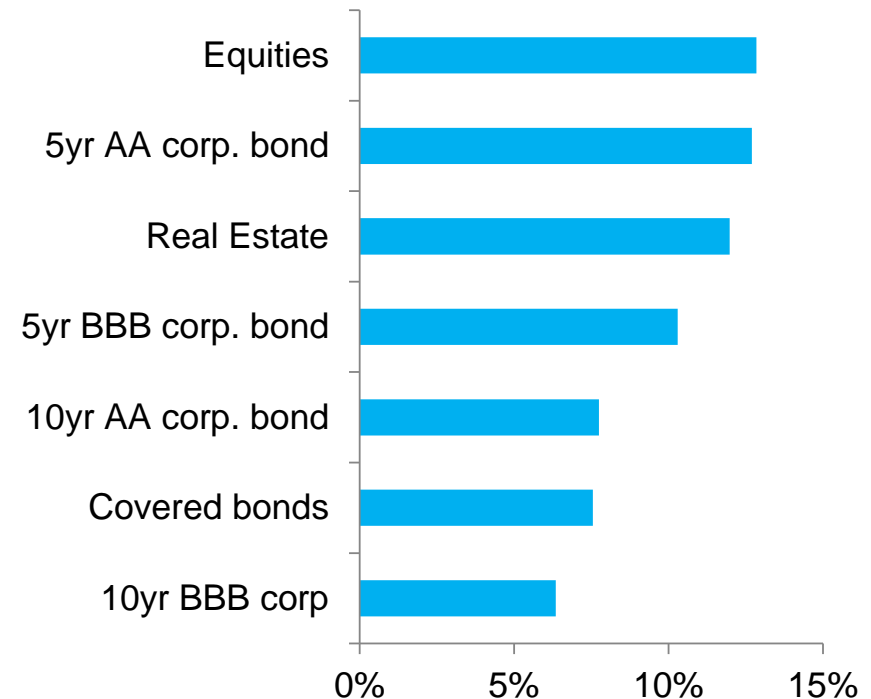
Credit: the darling asset class for a decade... but no longer that efficient

Est. asset allocation of multi-line (composite) insurers, 2001-13

Solvency 2 risk-adj. return on capital across asset classes, %



Source: Citi Research estimates, based on data from composite insurers in Europe.



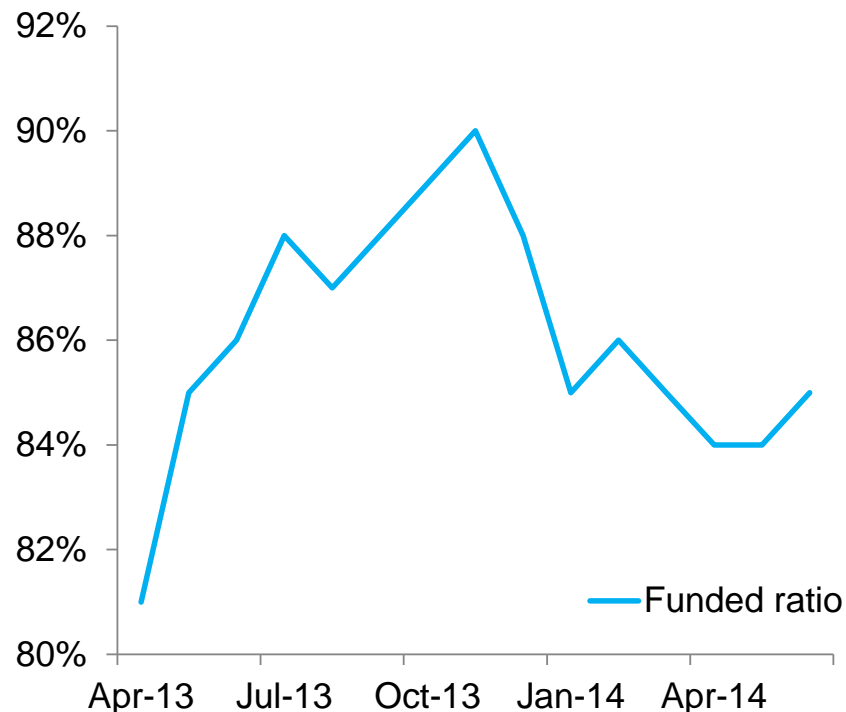
Source: Citi Research Estimates.

Don't count on the insurers at these valuations

Can traditional buyers pick up any shortfall? (Pension funds)

Improvement in funded status stalling

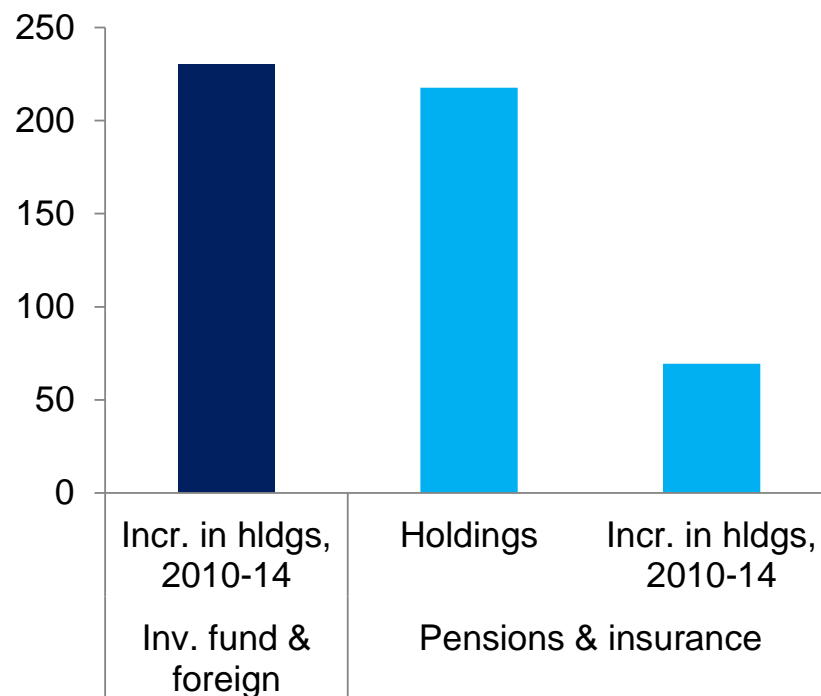
Est. funded status for top-250 US corp. def. ben. schemes.



Source: Citi Research, Bloomberg. See '[Quantitative Pension Strategy](#)', M. Bernstein.

And their flows simply aren't big enough!

Holdings and inflows into non-financial bonds, Eurozone, 2010-Q1 2014, €bn



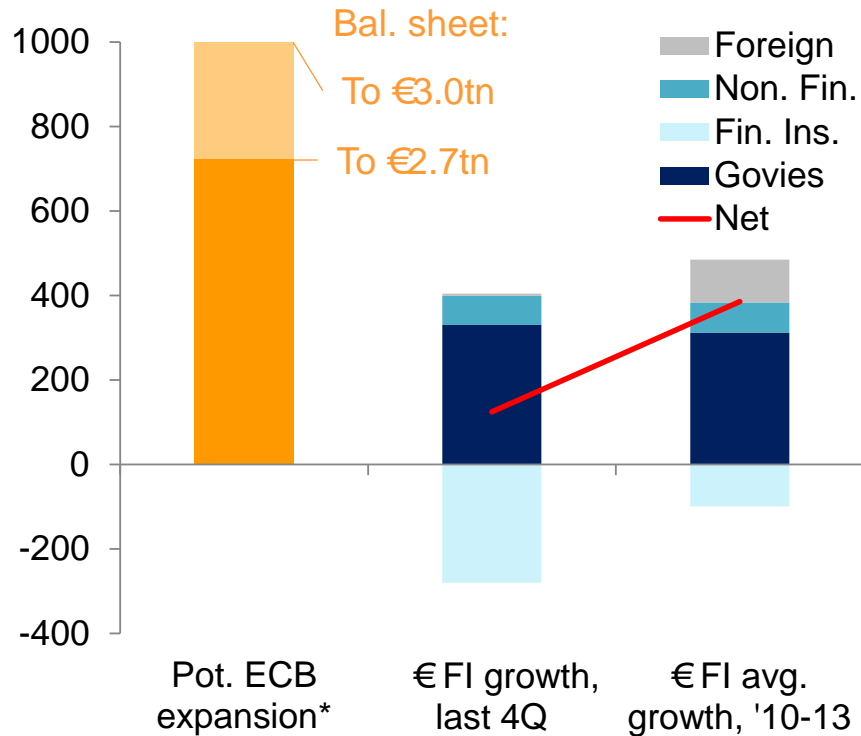
Source: Citi Research, ECB.

It doesn't seem likely

What does that leave?

>2x the annual net supply in € fixed income... ... and shift the global balance with QE

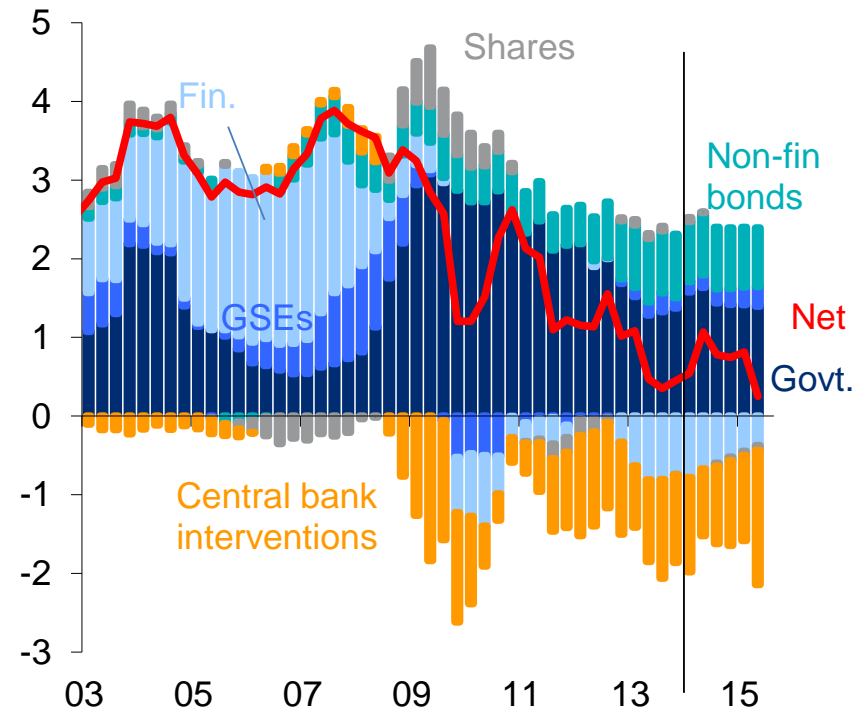
Pot. ECB expansion vs. chg. in € fixed income outstanding, €bn



Source: Citi Research, ECB. *QE required to bring the ECB's BS back to 'start 2012 level' (Range: week 1-9). Assumes: 400bn TLTRO, full LTRO repayment, no change in other TROs.

Net iss. of securities vs CB* interventions, 12m rolling, \$tn

Note: Assumes ECB intervention**



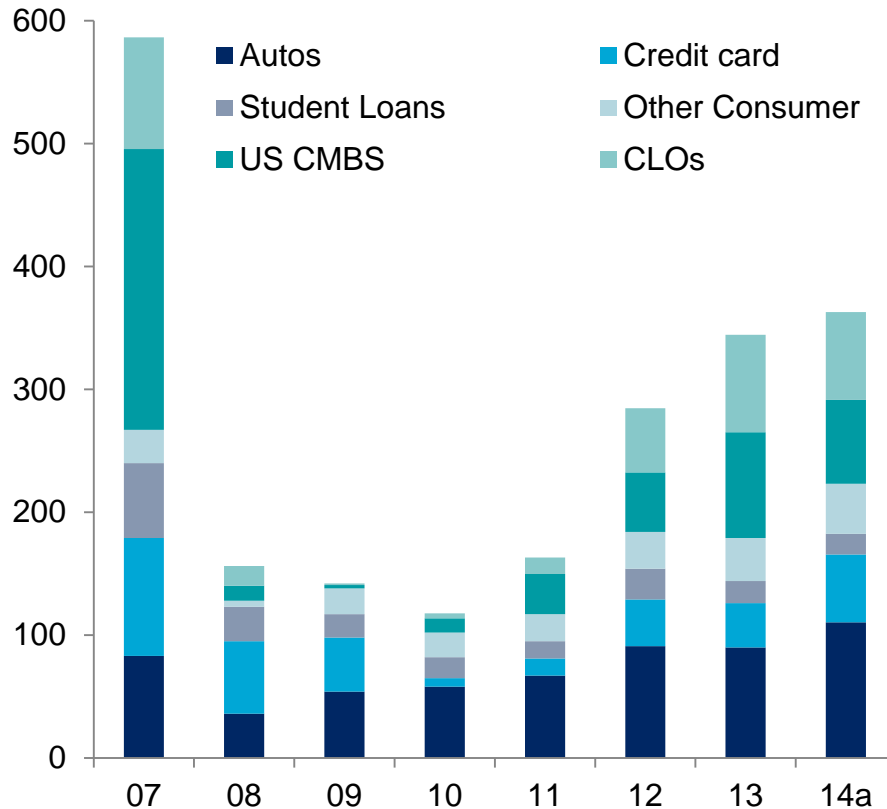
Source: Citi Research, Haver. *: Federal Reserve, Bank of Japan, ECB. **: €400bn of TLTROs, €50bn of ABS purchases in Q4, €800bn of QE in 2015.

ECB QE can change everything

Why has US ABS recovered, when European hasn't?

US securitization has rebounded

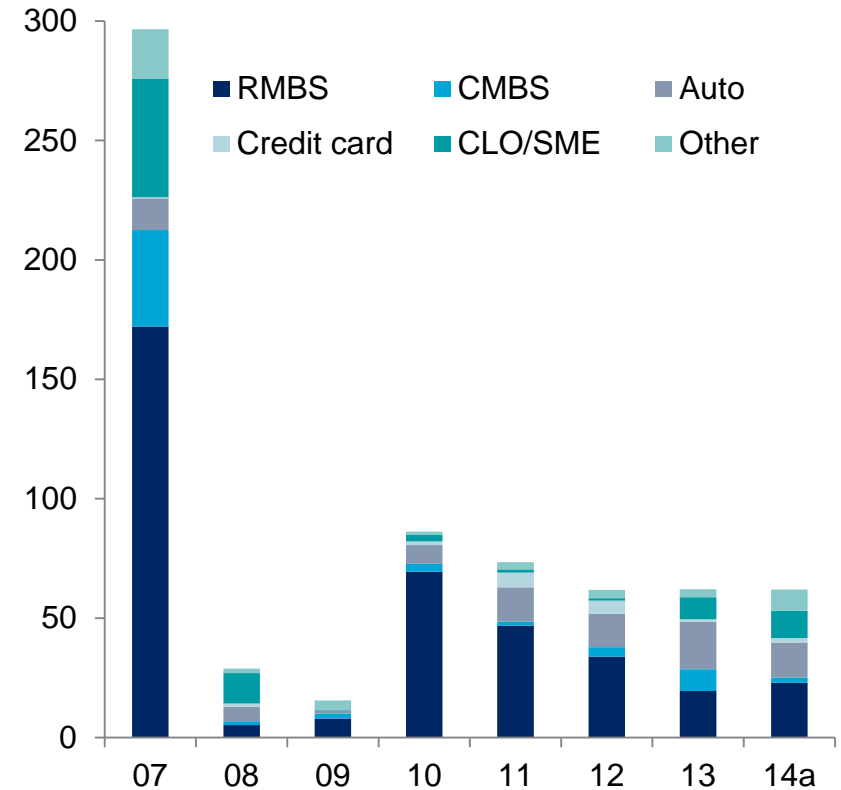
US non-agency, non-RMBS securitization issuance by type, \$bn



Source: SIFMA, Citi Research. See [‘Small is beautiful – but also rather risky’](#), M. King, 5 June.

Yet € securitisation is flagging

€ placed (non-retained) issuance by type, €bn



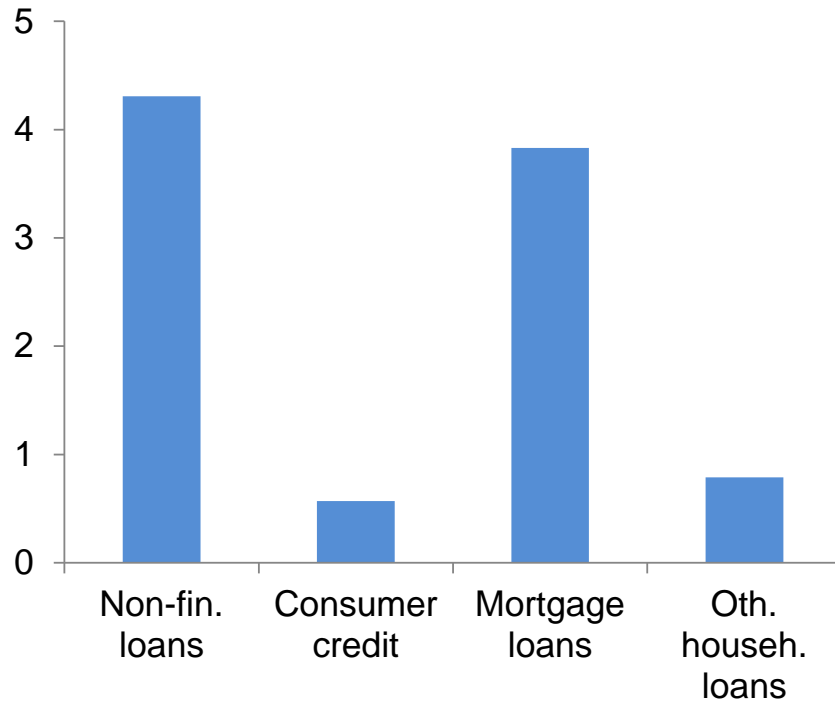
Source: Concept ABS, IFR, Citi Research.

Reviving €ABS would help monetary transmission

What could the ECB buy?

Assets to securitize: easy to find, hard to get

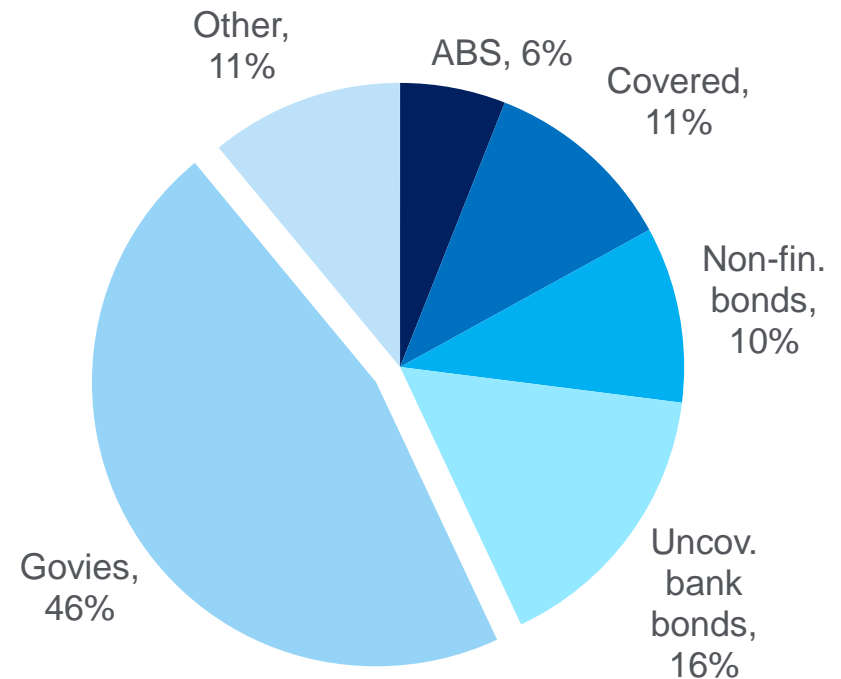
Selected European bank loans by amount outstanding, €tn



Source: Citi Research, ECB.

The ECB's €14tr pool of eligible assets

Distribution of eligible assets for the Eurosystem, Q4 2013



Source: Citi Research, ECB.

A broadening in QE likely to include corp. credit
– at least senior bank bonds

Where *did* the money come from?

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Lots not to like about the outlook, but...

Tactical & strategic view is overweight

Citi spread & return forecasts for the remainder of 2014

	Current	14F target	Excess return	Total return
iBoxx € Corp	91bp	80bp	0.8%	0.9%
iBoxx € HY	335bp	290bp	1.8%	1.9%
iTraxx Main*	59bp	55bp	-	-
iTraxx Xover*	245bp	260bp	-	-

Source: Citi Research. *: Current level is pre-roll. Target is post roll.

Our key recommendations

Select Citi recommendations

- Long β (HY & hybrids)
- Long Europe over US (& UK)
- Long cash over CDS
- Long fins over non-fins
- Long releveraged over releveraging credits
- Hedge tails with payers
- Short bond, long CDS duration

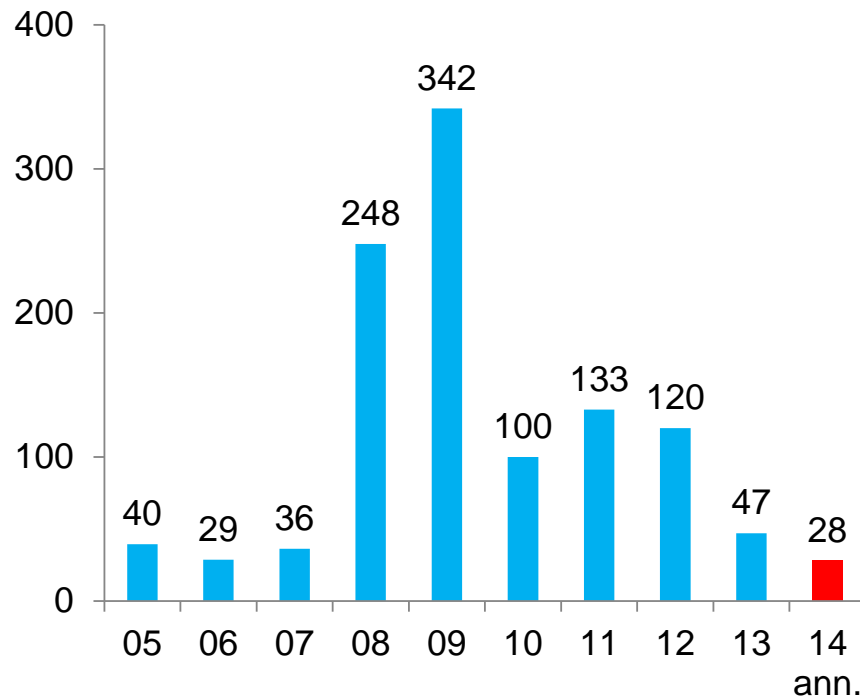
Source: Citi Research.

... that's why the ECB can't afford to let markets fall apart
— we remain long

Alpha won't get you there

Perfect foresight won't get most to target...

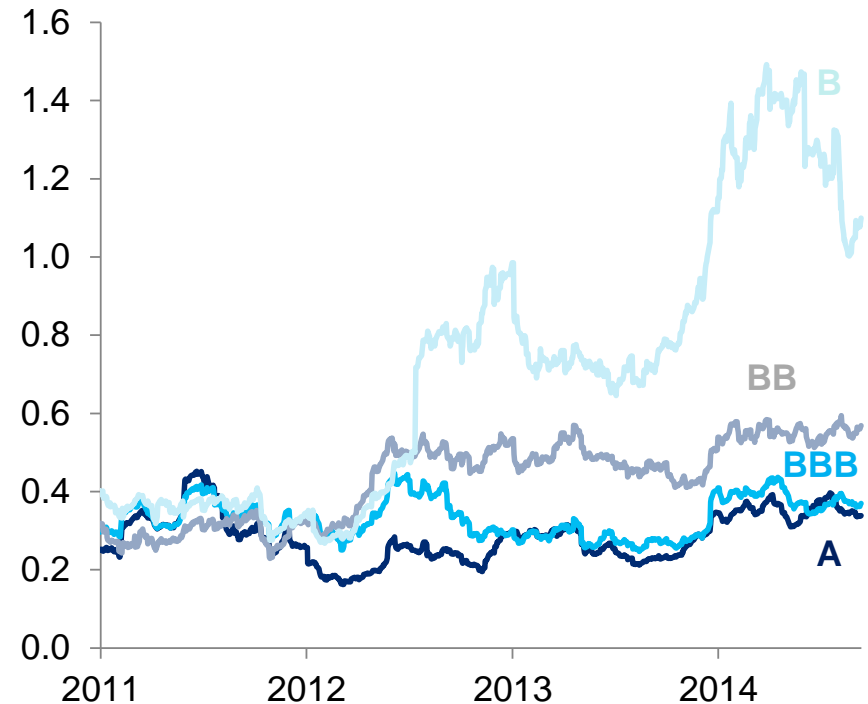
"Perfect foresight"* excess returns in € iBoxx Corporate, bp



Source: Citi Research, MarkIt. *: Excess return on a 5% overweight in the two best performing sectors and a 5% underweight in the two worst sectors, quarterly rebalancing.

... but risk/reward still favours a bit of β

Annual breakeven* to annualised daily vol ratio



Source: Citi Research, MarkIt. *: Spread / Duration

The transmission of QE relies on you taking risk

So where should you take that risk?

A quick numeric take (assuming the past is a good guide to the future)

Historical data based on the period 2010 - Sep. 2014.

Higher ratios are better, lower ranking is better.

	Main	Cross-over	€iBoxx IG	€iBoxx HY	Non-Fin Hybrids	EM	Spain 5yr sprd	Mezz CLO
1yr BE / Vol	0.52	0.59	1.24	1.55	0.86	0.82	0.34	1.71
12m carry'n'roll / biggest drawdown	0.24	0.22	0.32	0.46	0.47	0.43	0.09	1.75
Current spread % of low	106%	111%	100%	120%	114%	109%	194%	112%
Current spread % of peak	28%	28%	28%	40%	49%	51%	11%	24%

Rank

1yr BE / Vol	7	6	3	2	4	5	8	1
12m carry'n'roll / biggest drawdown	6	7	5	3	2	4	8	1
Current spread % of low	7	5	8	2	3	6	1	4
Current spread % of peak	4	6	5	3	2	1	8	7
Average ranking	6	6	5	1	2	4	8	3

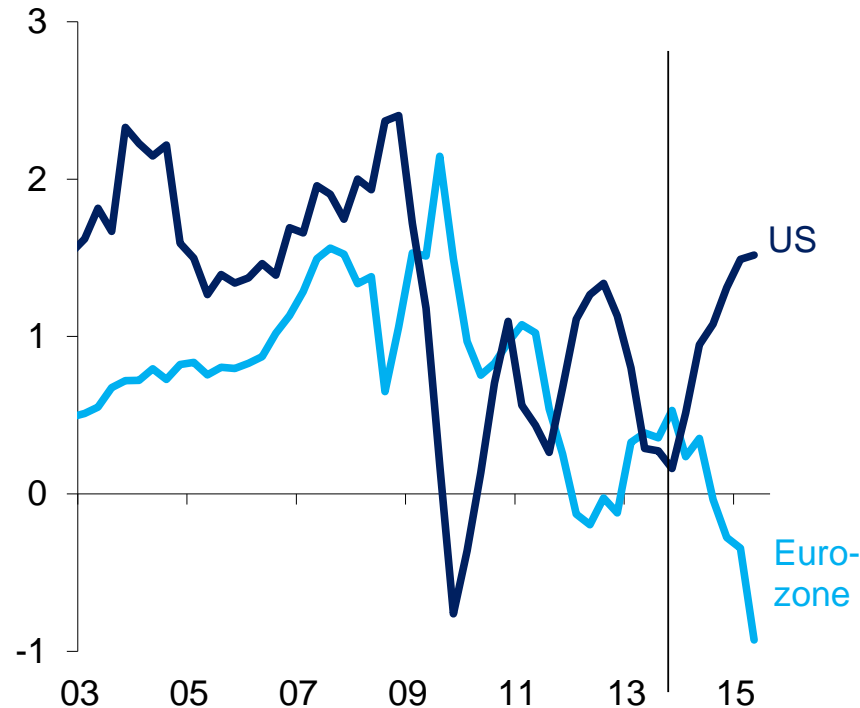
Source: Citi Research, MarkIt. Note: Volatility is calculated on monthly changes annualised. Drawdown is calculated as the largest loss over a 60-day period.

HY & hybrids are tight, but everything else seems tighter

The prospect of ECB QE favours ...

Europe over the US (and the UK)

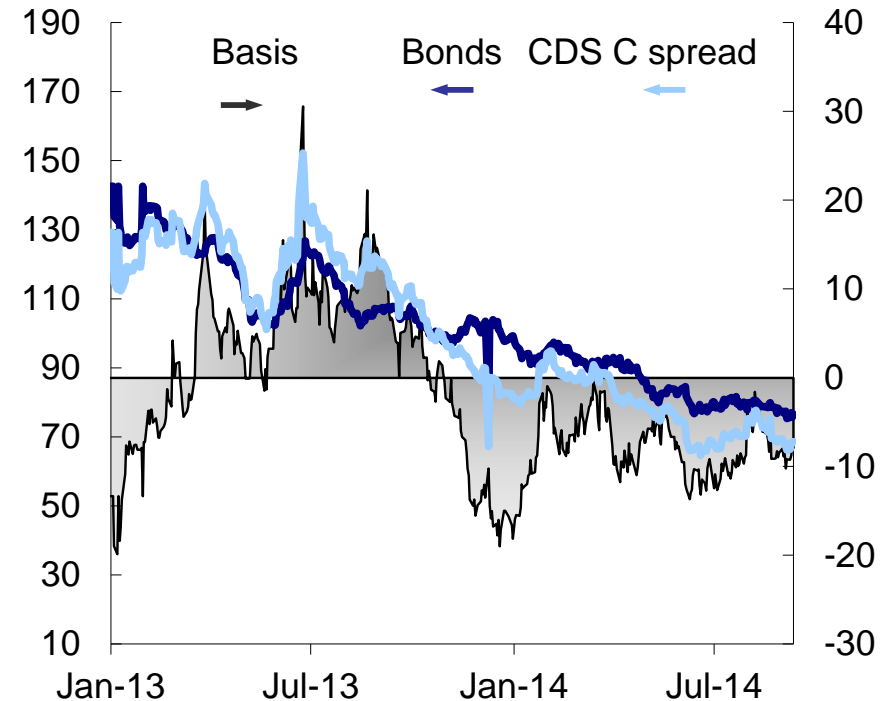
Net iss. of securities after CB* interventions, 12m rolling, \$tn



Source: Citi Research, Haver, ECB, Federal Reserve. Note: €400bn of TLTROs, €50bn of ABS purchases in Q4, €800bn of QE in 2015.

Funded over unfunded assets

Cash-CDS basis, € IG credit, bp



Source: Citi Research, Markit.

... following the crowd(-ing out)

The prospect of ECB QE favours ... (ii)

Banks over non-fins

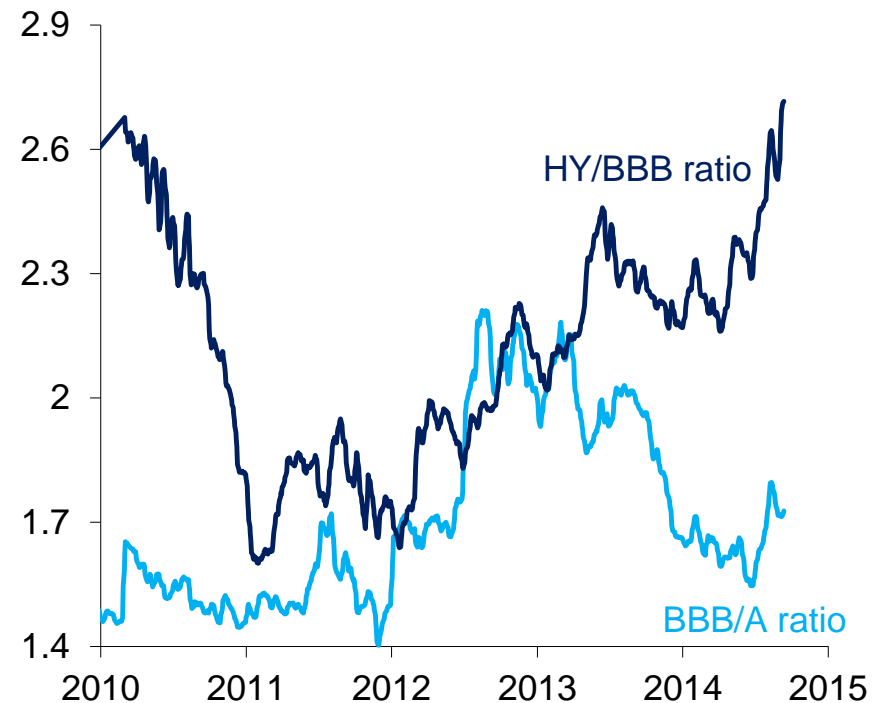
Why the ECB might buy senior bank, but not non-fin, debt

- Familiarity with credit risk (AQR / Stress test)
- “Improves transmission and reduces fragmentation in EZ banking”
- “Cheaper funding should encourage lending where there is credit rationing”
- Non-fin yields at historic lows already

Source: Citi Research.

BBBs? Hmm.. We favour HY on trickle down

iBoxx € HY / BBB spread ratio vs. BBB / A spread ratio



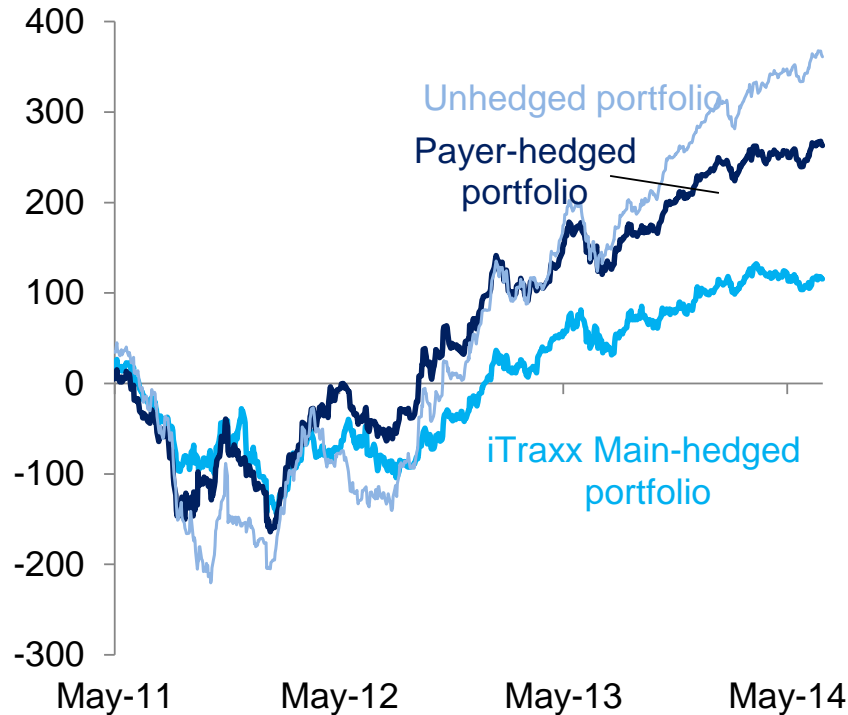
Source: Citi Research, MarkIt.

... banks and BBBs – the latter looks priced, so expect a squeeze into HY

If you hedge ...

Payer hedge* more efficient than iTraxx

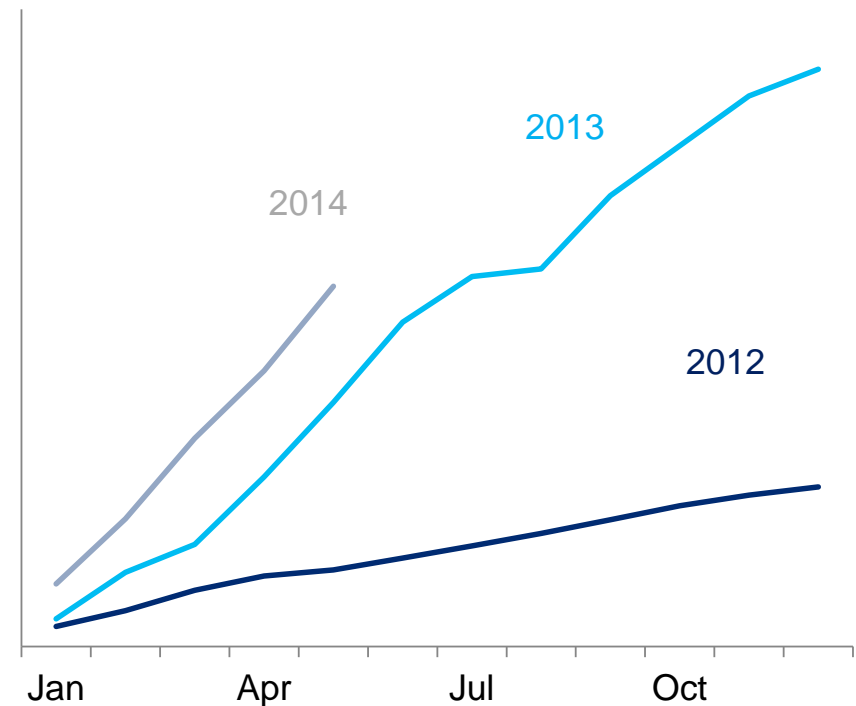
Cum. performance of modelled iBoxx-benchmarked portfolio, bp



Source: Citi Research, MarkIt. *: 6-month 10% delta payers rolled monthly. See [‘Hedging the tail’](#), Hans Lorenzen.

Options liquidity keeps improving

Cum. notional options volume traded in € since beginning-of-year, Main equivalent

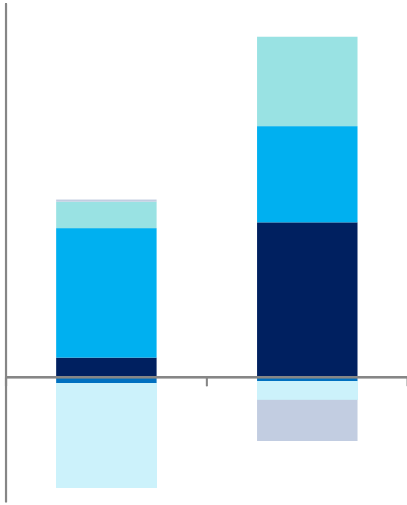


Source: Citi Research.

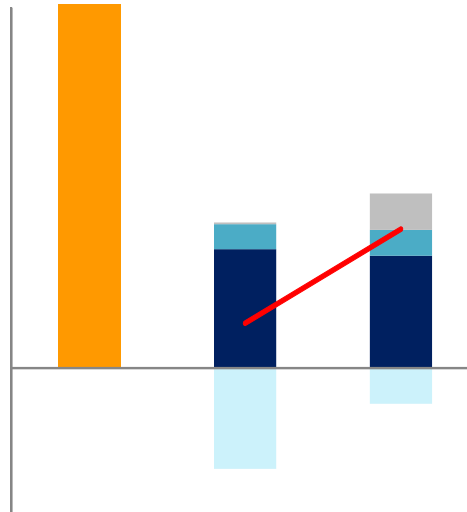
... do so with options rather than the index

Even the ECB may not be keen on the prospect ...

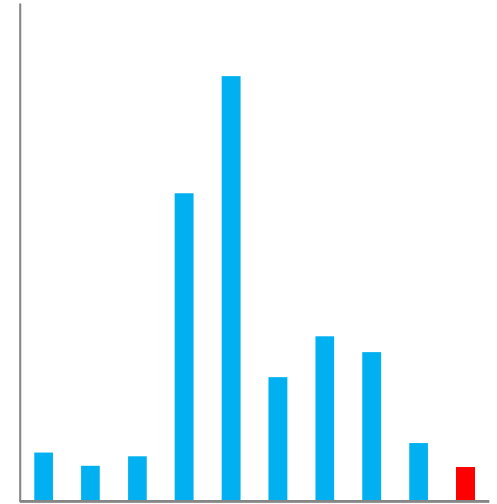
Sources of past inflows
look vulnerable



But for €FI, QE *is* a
game changer



Hard to see any returns
without taking risk



... but with QE we're probably stuck with low volatility

Appendix A-1

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