

Multi Asset Portfolio

US assets tired. Buy into oil and selected EM assets



Global Asset Allocation

Alain Bokobza

Head of Strategy team
+33 1 42 13 84 38

Gaelle Blanchard

Strategist

Arthur van Slooten

Strategist

Praveen Singh

Strategist

Sophie Huynh

Strategist

Global Head of

Cross Asset Research

Patrick Legland

Economics

Michala Marcussen

Aneta Markowska

Wei Yao

Michel Martinez

Credit

Guy Stear

Rates & FX

Vincent Chaigneau

Jorge Garayo

Kit Juckes

Alvin Tan

Emerging markets

Guy Stear

Régis Chatellier

Jason Daw

Commodities

Michael Haigh

Michael Wittner

Jesper Dannesboe

Equity Strategy

Roland Kaloyan

Frank Benzimra

Vivek Misra

Equity Derivatives & Equity-Linked

Vincent Cassot

Technical analysis

Stephanie Aymes

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Report completed on 30 November 2015

SG MAP Global Asset Allocation

- One-year **strategic timeframe, revisited every quarter**
- **Tactical adjustments** can be made according to market conditions and risk control

Authorised bands		Asset classes	Asset allocation			
Min	Max		SG MAP (Sep. 2015)	New SG MAP (Dec. 2015)	Major changes	Current Reco*
30%	70%	EQUITIES	50%	50%		N
0%	20%	Europe ex-UK equities	18%	18%		OW
0%	10%	UK equities	2%	5%	↑ +3	N
10%	40%	US equities	19%	15%	↓ -4	UW
0%	10%	Japanese equities	5%	5%		N
0%	15%	Global EM equities	4%	7%	↑ +3	N
0%	3%	China equities	2%	0%	↓ -2	UW
5%	40%	GOVERNMENT BONDS	21%	21%		N
0%	10%	Government bonds (10Y) – Core Euro	0%	0%		MIN
0%	10%	Government bonds (5Y) – Peripherals Euro	5%	8%	↑ +3	OW
0%	5%	Government bonds (10Y) – UK	1%	0%	↓ -1	MIN
0%	20%	Government bonds (10Y) – US	10%	8%	↓ -2	UW
0%	15%	Government bonds (10Y) – Japan	0%	0%		MIN
0%	10%	Government bonds (10Y) – EM	5%	5%		N
0%	5%	INFLATION-LINKED BONDS	5%	5%		MAX
0%	5%	Inflation-linked – Euro	0%	2%	↑ +2	N/OW
0%	5%	Inflation-linked – UK	0%	0%		MIN
0%	5%	Inflation-linked – US	5%	3%	↓ -2	OW
0%	20%	CORPORATE BONDS	11%	9%	↓ -2	UW
0%	10%	Investment Grade – Europe	4%	4%		UW
0%	10%	Investment Grade – US	3%	3%		UW
0%	10%	Investment Grade – Asia	2%	0%	↓ -2	MIN
0%	5%	High Yield – Europe	2%	2%		N
0%	5%	High Yield – US	0%	0%		MIN
0%	5%	High Yield – Asia	0%	0%		MIN
5%	30%	CASH	7%	7%		UW
0%	10%	Cash in €	0%	0%		MIN
0%	10%	Cash in £	0%	0%		MIN
0%	10%	Cash in \$	7%	7%		OW
0%	10%	Cash in ¥	0%	0%		MIN
0%	10%	COMMODITIES	5%	8%	↑ +3	OW
		<i>of which: Base Metals</i>				OW
		<i>Energy</i>				OW
		<i>Agri & Livestock</i>				UW
		<i>Precious Metals</i>				UW

Allocation based on common currency: all assets are recommended with their currency exposure (i.e. without hedging).

Source: SG Cross Asset Research / Global Asset Allocation

Assets including FX exposure. Authorised bands based on the asset's market capitalisation. Major changes: only strategic and tactical moves are highlighted. EM: Emerging. HEDGE versus USD.

*OW: Overweight, N: Neutral, UW: Underweight, MIN: Minimum, MAX: Maximum, Recommendation based on our view within the asset class

Implied currency exposure of SG MAP Asset Allocation

Currencies	Asset allocation		
	SG MAP (Sep. 2015)	New SG MAP (Dec. 2015)	Major Changes
Euro	34%	34%	
Dollar	46%	36%	↓
Yen	0%	5%	↑
Sterling	3%	5%	↑
EM Currencies	11%	12%	↑
Commodities	5%	8%	↑

Major changes: only strategic and tactical moves are highlighted. Source: SG Cross Asset Research / Global Asset Allocation

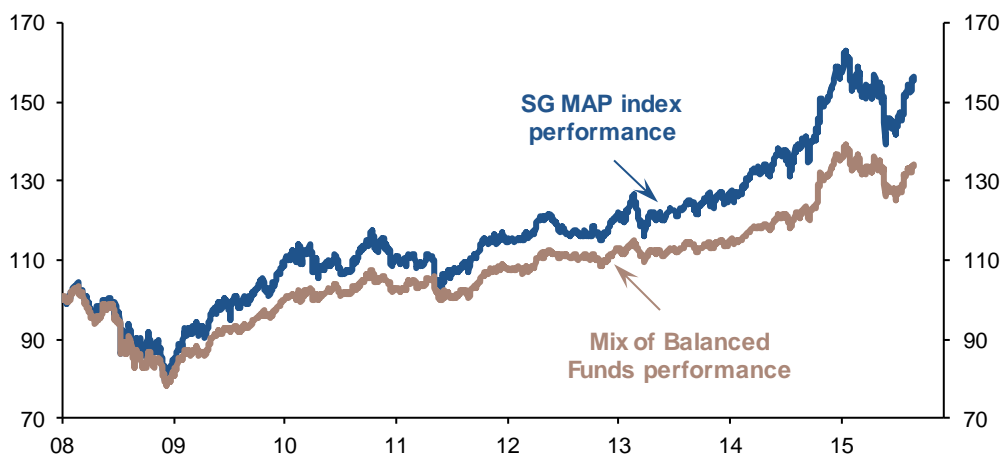
Multi Asset Portfolio: performance with risk control

Multi Asset Portfolio and Global Balanced Funds (as reported by Bloomberg)

The SG MAP Index has delivered a return of 10.6% in 2015 compared to 8.5% for the Bloomberg balanced fund mix.

Over the medium to long term, the MAP has outperformed its peer group. Over the last three months, our stance has been to add risk on dips by increasing our allocation into equities. We also introduced inflation-linked bonds which bring some diversification benefit in an environment where the correlation between assets remains above the long-term average.

The global balanced funds mix represents the aggregation of all balanced funds, equally weighted, whose performance is reported in Bloomberg (BENCHMAP Index).

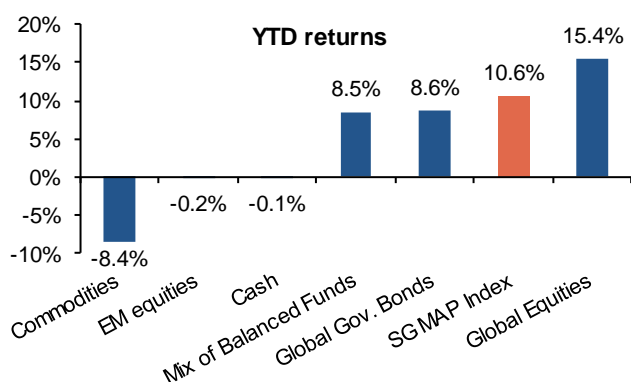


Data as of 24 November 2015. Performance in euro and total return. 100 = 01/04/08 (= launch of the SG MAP index). Bloomberg balanced funds mix represents balanced funds (domiciled in US, JP, UK, FR, SW & NL) based on Bloomberg's Active Indices for Funds. Source: Bloomberg, SG Global Cross Asset Strategy/Global Asset Allocation, SGI Index, S&P Custom Indices – Note: Past performance is not indicative of future results. Portfolio presented assumes no transaction costs. For additional details on portfolio performance, including interim recommendations or a different performance horizon, please contact us.

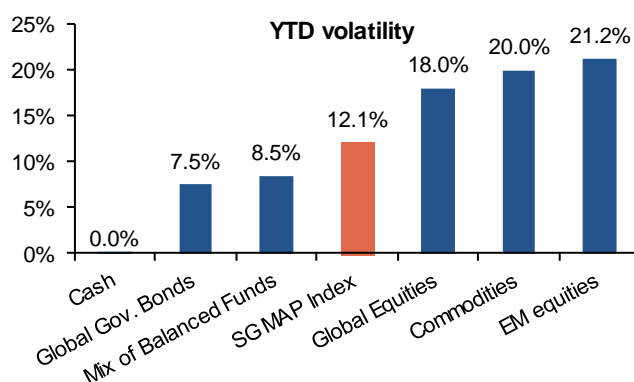
The MAP has performed well after the summer dip

Year-to-date, the MAP has delivered a return of 10.6% compared to 8.5% for a mix of balanced funds. Over the last three months, our stance has been to add risk on dips by increasing our allocation into equities after the summer correction. We also introduced inflation-linked bonds which bring some diversification benefit in an environment where the correlation between assets remains above the long-term average.

Year-to-date performance



Year-to-date volatility



Data as of 24 November 2015. Volatility and returns based on daily data. Cash: EONIA. Global bonds: Lehman global aggregate index. Global equity: MSCI World. Commodities: CRB index. Bloomberg balanced funds mix represents balanced funds (domiciled in US, JP, UK, FR, SW & NL) based on Bloomberg's Active Indices for Funds. Source: SG Global Cross Asset Strategy/Global Asset Allocation, SGI Index, S&P Custom Indices

Our story – Investment summary (1)

SG MAP Global Asset Allocation

Min	Max	Asset	SG MAP (Sep. 2015)	New SG MAP (Dec. 2015)	Reco	Currency	SG MAP (Sep. 2015)	New SG MAP (Dec. 2015)	
30%	70%	Equities	50%	50%	N	Euro	34%	34%	
5%	40%	Government bonds	21%	21%	N	Dollar	46%	36%	↓
0%	20%	Corporate bonds	11%	9%	↓ UW	Yen	0%	5%	↑
0%	5%	Inflation-linked bonds	5%	5%	MAX	Sterling	3%	5%	↑
5%	30%	Cash	7%	7%	UW	EM currencies	11%	12%	↑
0%	10%	Commodities	5%	8%	↑ OW	Commodities	5%	8%	↑

Source: SG Cross Asset Research/Global Asset Allocation

Implied currency exposure

Overall stance

We propose a balanced allocation for the year 2016 (50% equities, 50% bonds & others), as cross-asset correlations are high and US equities are very expensive

Commodities – a wild card for 2016 (+3 to 8%)

We propose a balanced allocation for the year 2016 (50% equities, 50% bonds & others). An equity weighting greater than 50% would be hard to envisage as correlations are very high both within equities (making diversification difficult) and across the asset classes (making it difficult to control portfolio volatility), while US equities (60% of the global equity market capitalisation) are very expensive from a long-term perspective. M&A and corporate balance sheet leverage are positive drivers for equities, to the disadvantage of the expensive credit market (allocation down 2 points to a 9% weighting). Commodities is a wild card for 2016 (+3 points to 8%). Oil is our favourite, as a much better balance between offer and demand is in sight, with major consequences across the asset classes. Currency-wise, we continue to reduce USD exposure (-10 points to 36% – more than the 34% we have on the euro, and down from significant overexposure), although there is still demand for the USD – for now.

Shy on US and Asian assets, optimistic on Europe and Japan

US assets, both equities (-4 points to 15%) and Treasuries (-2 to 8%) should underperform

The sun should continue to shine on euro area assets as monetary conditions get even looser

We reduce direct exposure (*) to China equities to zero (-2) after the strong rebound since September

Japan equities are the only entry point we find within Asia, thanks to an expected steep increase in ROE

US assets, both equities (-4 points to 15%) and Treasuries (-2 to 8%) should underperform as the end of the super-loose monetary policy bites into liquidity conditions. Both asset classes are already trading at high valuation levels. **Gold** should also be a casualty of Fed tightening. For **Euro area assets**, the sun should continue to shine as monetary conditions become looser still, even as the growth outlook improves. In this region, our preference is very much for equities as the euro is unlikely to fall below parity with the USD given the dovish message expected from the Fed.

Asian assets are a source of worry as the region's currencies are overvalued and look set to fall against the USD, at a time when policy making is highly uncertain in China. We have thus decided, after the strong rise in the market since September, to reduce direct exposure (*) to China equities to zero (-2). As the yen is likely to stop falling from its extremely depressed level ahead of the July 2016 elections, **Japan** equities are the only entry point we find within Asia, as we expect a steep increase in return on equity (ROE) coming from better corporate governance.

Legend: we have indirect exposure to China as it represents 25% of EM equity benchmark

Our story – Investment summary (2)

We expect oil to rebound to \$60 by end-2016, supporting inflation-linked bonds, commodity currencies, oil-related equity sectors and equity markets with a high oil content

Increase oil (and inflation-related assets) weighting significantly

Our scenario assumes a fair amount of upside for the real economy in the next two years, and an already cheap oil price valuation is vulnerable to game changers (our oil expert says the barrel should move back up to \$70-80 corridor in the medium term). We expect a more balanced market by mid-2016, as OPEC members are under pressure to change their current production policy, which is bleeding public finances. This scenario is obviously bad for bonds – we reduce our exposure to US Treasuries which are also vulnerable to Fed tightening (-2 to 8%).

Beyond buying oil itself (\$60 price target for end-2016), we propose four ways to gear to this positive oil outlook: inflation-protected bonds (maximum weighting at 5%), commodity currencies (AUD, CAD, BRL, CLP, MXN, NOK, and RUB), equity sectors such as integrated oils (use necessary balance sheet recapitalisations to re-weight oil services), and equity markets with high oil content (Indonesia, Malaysia, Thailand, Russia, the UK, France and Italy).

We downgrade our credit market exposure to underweight (-2 to 9%)

Fears on corporate leverage: reduce credit market exposure

The US high yield segment has become the first casualty in the corporate bond market, burdened by rising defaults, and opening the door to more generalised fears. Too many years of laxist monetary policies have led to an inefficient allocation of capital, especially in the US and Asia: we have zero exposure to high yield in those two regions, and downgrade investment grade exposure in Asia to zero (-2 points).

Overall, we downgrade our credit exposure to underweight (-2 to 9%), as the market is also facing headwinds such as lack of liquidity which could trigger discount valuations. With the powerful M&A cycle under way, we recommend reallocating into equities.

After five years of falling or collapsing EM asset prices, fears of a lost decade are now taking the lead. We think it is time to re-weight

EM assets, from decoupling to fears of a lost decade

At the end of 2010, EM assets were priced for perfection, at a time when economic consensus was dealing with the *decoupling* story (superior growth in emerging countries on a sustainable basis): in March 2011, we published a Multi Asset Portfolio entitled '[the EM party is over](#)'. After five years of falling or collapsing EM asset prices (especially currencies and equities), fears of a lost decade are now taking the lead. We think it is time to re-weight.

We prefer eastern European assets, backed by improving fundamentals, cheap valuations and loose or looser monetary policies.

Eastern European assets (equities, currencies and bonds) are clear buys, backed by improving fundamentals, a better growth outlook, cheap valuations and loose or looser monetary policies. The Polish zloty (PLN) is a key buy, and the quasi peg of the Czech koruna (CZK) with the euro will break by the end of 2016, with significant upside for the Czech currency. All super-cheap Russian assets (RUB, bonds and equities) should enjoy significant price increases thanks to a rising oil price and potentially improving geopolitics.

Latam assets have very weak fundamentals and valuations that are cheap indeed. Mexican assets might benefit from a higher oil price (especially the MXN) and, if political situation were to improve in Brazil (i.e. if President Rousseff were impeached), then the Brazilian real could move significantly up. **Asian currencies** are a worry, being overvalued, while inflated corporate debt and China policy uncertainty are clear headwinds. We would sell most Asian currencies against the USD.

Seven key calls

Key Call 1

Fed starts tightening

The Fed tightening cycle is looming, reflecting confidence in the shape of the US economy. The sustained improvement in the labour market, recovery in credit and healthy GDP growth open the door to gradual monetary policy tightening.

- + Long US dollar vs basket of Asian currencies (CNH, KRW)
- + Enter US flatteners (2s10s and 5s10s)
- + Long US breakevens
- + Long consumer discretionary / Short consumer staples
- + Long US oil / Short US industrials
- + Short US high yield credit
- + Short Russell 2000 / Long S&P500
- + Short US equities vs Long Eurozone equities
- + Short Gold

Key Call 2

Commodity prices bottoming out, oil price rises

Within commodities, we expect oil to outperform over a one-year horizon. We expect the price to reach \$56/b for WTI and \$60/b for Brent by end-2016, as rebalancing is underway. With regard to the macro environment, energy and base metal prices should find support from ongoing growth in the US (GDP to remain between 2.6-2.9% over 2016), a recovery in the eurozone supported by the ECB's dovish stance as well as the implementation of structural reforms, policy mix adjustment supporting growth in China, and finally fading fears regarding emerging markets.

- + Long Oil
- + Long basket of small LME base metals
- + Long Canadian dollar / Short Chinese renminbi
- + Long Canadian dollar / Short New Zealand dollar
- + Long Russian rouble / Short South African rand
- + Long European Oil & Gas

Key Call 3

Reflation policies to support inflation prints and inflation expectations

We expect 2016 to be marked by reflation policies which are now on the agenda more than ever. This should prove supportive for inflation expectations and inflation prints over the medium term. Inflation prints are seen as having bottomed out, supported by the base effect. The past year was dominated by a bear oil-commodity market but we expect the oil price to normalise going forward. We see more upside for the US inflation outlook, with support coming from wage growth and a sustained increase in core CPI until 2018.

- + Long US TIPS
- + Long euro breakevens (eurozone periphery)
- + Short Gold / Long Oil
- + Tightening of Euro Investment Grade credit spread
- + Long NOK / Short EUR
- + Long France's CAC 40, Long Italy's FTSE MIB
- + Long European Value stocks
- + Long European food retail and banks

Key Call 4

Cherry picking EM assets – Avoid Asia

It is time to consider some exposure to emerging markets, after the significant drop in asset prices since 2010 and the strongly negative newsflow. It is necessary, however, to differentiate between the regions /countries and asset classes, as vulnerabilities and risks are not identical. Eastern Europe is our favourite region, for all asset classes. It should benefit from the improving eurozone outlook, ECB QE and accommodative domestic monetary and fiscal policies. Russian assets will find support in the recovery in oil prices. Asia is at risk given China's slowdown, potential currency depreciation and worries about corporate defaults. Latam should eventually benefit from recovering commodity prices, but political/governance issues will also be key drivers, in Brazil especially.

- + Long PLN, CZK & RUB / Short EUR
- + Long Polish and Russian bonds
- + Long MSCI Eastern Europe (vs MSCI Emerging Markets); Long Austrian equities
- + Long SG [Russia-related basket](#) (European companies with exposure to Russia)
- + Short KRW / Long USD
- + Long Indian equities (not hedged)

Key Call 5

Brexit fears warming up

We don't believe the UK will leave the European Union in the end. However, the risk of Brexit could increase between now and the vote. The FTSE 100 has been hit in 2015 by the UK elections, a strengthening pound and lower commodity prices. We now think it is time to reweight UK equities, on the back of our brighter scenario for commodity prices and the likely underperformance of sterling against the USD as the Bank of England delays the rate hike.

- + Long FTSE 100 / Short FTSE 250
- + Sell GBP/USD or Buy [SG Cable basket](#) (stocks benefiting from lower GBP)
- +Buy Brexit+ / Sell Brexit – (see details [here](#))

Key Call 6

Corporate governance to improve in Japan

Now that Japan's underlying inflation trend is improving, other priorities are emerging, such as corporate governance. An obvious way for companies to enhance shareholder return is to increase leverage by putting their excess cash to work. As a result, we anticipate return on equity (ROE) normalising to double-digit levels.

- + Long Topix (unhedged)
- + Long Japan [tourism basket](#); Long Japan [share buyback basket](#)
- +Short euro / Long Japanese yen

Key Call 7

Key call #7 proposes ways to hedge the three key risks identified in each quarterly MAP

Key risk 1 – Overshooting of US bond yields

- + Short 10y UST/Bund; Long US breakevens
- + Short S&P 500

Key risk 2 – Brazil President Rousseff impeached

- + Long BRL / Short USD; Long Brazilian bonds
- + Long [SG Brazil-related basket](#) (European companies with exposure to Brazil)

Key risk 3 – Geopolitical risk intensifying

- + Long USTs; Short Global equities
- + Long Japanese yen, Long US dollar
- + Long Gold

Main conclusions from our Q-MAP model run

The conclusions below are the result of our latest Q-MAP model run. Our optimisation process enables us to take account of different investment profile requirements in our allocation: risk-averse, risk-balanced and dynamic.

Insights from our Q-MAP model

Asset class	Tools	Level	Trend	Key messages
Equities	Expected return	**	↓	Highest for US equities, lowest for EM equities
	Expected volatility	**	↑	Chinese equities are most volatile, double-digit volatility for all equity markets
	Weight	UW	↑	Prefer Europe-ex-UK and US equity market
Bonds	Expected return	***	↓	Lowest for Euro area government bonds
	Expected volatility	**	↓	Average expected volatility declined
	Weight	OW	↓	OW USTs
Currencies	Expected return	*	↓	Best for USD, followed by GBP
	Expected volatility	**	↓	Moderately high volatility
	Weight	nm	nm	
Credit Investment Grade Credit	Expected return	***	↓	Highest for Asian investment grade
	Expected volatility	**	=	Volatility declined, falling most for US IG
	Weight	OW	=	
High Yield Credit	Expected return	***	↓	Asia HY offers the best return
	Expected volatility	**	↓	Highest for US HY
	Weight	OW	=	
Commodities	Expected return	*	↓	Continues to have negative expected return
	Expected volatility	***	↑	Volatility went up over the last 3 months
	Weight	MIN	=	Zero allocation to commodities

3M trend: change. Level: from * (the lowest level) to *** (the highest level). Weight: based on the common currency risk balanced portfolio. Source: SG Cross Asset Research/Global Asset Allocation

Expected returns

Over the last three months, average return expectations have declined. Return expectations fell the most for EM equities and EM government bonds. Within EM assets, return expectations for fixed income assets are higher than for EM equities. Within developed market equities, the US and the eurozone remain the preferred markets. Within government bonds, USTs is the preferred market.

Expected volatility

Over the last three months, the expected volatility signal for equity markets has increased. At the same time, expected volatility of fixed income assets has fallen. The Chinese equity market is expected to be the most volatile. The average expected volatility of both equities and government bonds is in double digits.

Correlation

Cross-asset correlation has declined over the last month from its historical peak (page 5). Despite the recent fall, average cross-asset correlation remains high in a historical context. The decline in the cross-asset correlation has been driven by falling correlation between equity and bond prices.

Portfolio changes

Since our last update, allocation to equities has increased (from 32% to 39%) while allocation to fixed income assets has declined (from 63% to 56%). Within equities, we continue to favour US and Europe-ex-UK equity markets while maintaining a minimum allocation to emerging markets, Japan and UK.

SG equity outlook and index forecasts

SG global equity index targets

Index	Current (20/11)	Q1 16e	Q2 16e	Q3 16e	Q4 16e	end 2016e	end 2017e	end 2018e
S&P 500	2089	2100	2050	1950	2050	2050	1950	1750
DJStoxx 600	382	395	405	410	425	425	450	395
Eurostoxx 50	3452	3600	3750	3850	4000	4000	4300	3750
FTSE 100	6335	6600	6600	6700	7000	7000	7500	6500
CAC 40	4911	5250	5600	5700	6000	6000	6500	5700
DAX 30	11120	11300	11250	11500	12000	12000	12500	11000
FTSE MIB	22140	24000	26000	26500	28000	28000	30000	26000
IBEX 35	10290	10500	11000	11250	11500	11500	12250	10500
SMI	9016	9200	9000	8750	9000	9000	9000	8200
Nikkei 225	19880	20000	20800	21000	22000	22000	23000	20500
TOPIX	1603	1620	1680	1700	1780	1780	1870	1670
ASX 200	5256	5200	5100	5200	5300	5300	5700	5000
HSCEI	10302	9800	9800	10000	10200	10200	14000	11900
Hang Seng	22444	21200	21200	21400	21500	21500	28000	25000
CSI 300	3768	3500	3600	3700	3900	3900	4500	4000
KOSPI	1990	1990	2000	2050	2100	2100	2200	1950
TAIEX	8465	8300	8400	8700	9200	9200	9900	8700
Sensex	25868	26500	27500	29500	32000	32000	36000	31000

Source: Datastream, SG Cross Asset Research/Equity Strategy

Markets to deliver in 2016

2016e: another good year for equities. We expect the global equity market to deliver a good performance in 2016, despite some volatility on the first Fed rate hikes, with an end to the bull market in H2 2017 ahead of the business cycle peak forecast for H2 2018.

S&P 500:
flat performance by end-2016e

The S&P 500 should absorb the Fed rate hike and finish the year flat. US dollar strengthening and high bond yields offset the strong US GDP growth already priced in. The presidential election in November 2016 could also be a source of volatility for US equities.

Euro area equities should deliver a strong performance over the next 18 months in our view.

European equities to deliver a strong performance in 2016e. As in 2015, the Eurostoxx index should deliver a strong performance (above 15%) in our view, driven by monetary policy changes, investment plans, a weaker currency, and better domestic newsflow. France and Italy look set to benefit in particular from the implementation of reforms. All these drivers should support European equities out to H2 2017e. Any rise in the German DAX will be limited in our view, given the index's high valuation and some margin squeeze (higher wage growth). The Spanish IBEX could be boosted by the stabilisation of newsflow in Latam thanks to higher commodity prices. In the UK, the FTSE is likely to continue to be under pressure from uncertainty on the Brexit question, but a rebound in oil price would support the index.

Asia equities to deliver contrasted but positive returns. While in 2015, all you needed to do was to buy China and Japan stocks and, more importantly, hold them, returns next year are more likely to come from non-China equities. We expect the performance in the Asia Pacific region to be driven by robust growth in internal demand, (often) weaker currencies, and in the case of India and Japan the pursuit of reforms. Our country allocation can be summarised in few words: less China (underweight), more Japan (overweight) and more India (overweight). We take into account the more positive backdrop we expect for oil prices in the next 12 months by raising the weighting of Indonesia and Thailand. While we believe Asian equity markets could weather the consequences of Fed tightening, we are concerned about risks to consumer goods and property stocks in Hong Kong, which remains one of our least preferred equity markets.

SG equity story and index forecasts

Quarterly and yearly variation of indices through 2018e

Index	Q1 16e	Q2 16e	Q3 16e	Q4 16e	end-2016e*	end-2017e	end-2018e
S&P 500	1%	-2%	-5%	5%	-2%	-5%	-10%
DJ Stoxx 600	3%	3%	1%	4%	11%	6%	-12%
Eurostoxx 50	4%	4%	3%	4%	16%	8%	-13%
FTSE 100	4%	0%	2%	4%	10%	7%	-13%
CAC 40	7%	7%	2%	5%	22%	8%	-12%
DAX 30	2%	0%	2%	4%	8%	4%	-12%
FTSE MIB	8%	8%	2%	6%	26%	7%	-13%
IBEX 35	2%	5%	2%	2%	12%	7%	-14%
SMI	2%	-2%	-3%	3%	0%	0%	-9%
Nikkei 225	1%	4%	1%	5%	11%	5%	-11%
TOPIX	1%	4%	1%	5%	11%	5%	-11%
ASX 200	-1%	-2%	2%	2%	1%	8%	-12%
HSCEI	-5%	0%	2%	2%	-1%	37%	-15%
Hang Seng	-6%	0%	1%	0%	-4%	30%	-11%
CSI 300	-7%	3%	3%	5%	4%	15%	-11%
KOSPI	0%	1%	2%	2%	6%	5%	-11%
TAIEX	-2%	1%	4%	6%	9%	8%	-12%
Sensex	2%	4%	7%	8%	24%	13%	-14%

Source: SG Cross Asset Research/Equity Strategy. * End-2016: difference between current level and end-2016 target

Variation of indices from current level through 2018e

Index	Q1 16e	Q2 16e	Q3 16e	Q4 16e	end-2016e*	end-2017e	end-2018e
S&P 500	1%	-2%	-7%	-2%	-2%	-7%	-16%
DJ Stoxx 600	3%	6%	7%	11%	11%	18%	3%
Eurostoxx 50	4%	9%	12%	16%	16%	25%	9%
FTSE 100	4%	4%	6%	10%	10%	18%	3%
CAC 40	7%	14%	16%	22%	22%	32%	16%
DAX 30	2%	1%	3%	8%	8%	12%	-1%
FTSE MIB	8%	17%	20%	26%	26%	36%	17%
IBEX 35	2%	7%	9%	12%	12%	19%	2%
SMI	2%	0%	-3%	0%	0%	0%	-9%
Nikkei 225	1%	5%	6%	11%	11%	16%	3%
TOPIX	1%	5%	6%	11%	11%	17%	4%
ASX 200	-1%	-3%	-1%	1%	1%	8%	-5%
HSCEI	-5%	-5%	-3%	-1%	-1%	36%	16%
Hang Seng	-6%	-6%	-5%	-4%	-4%	25%	11%
CSI 300	-7%	-4%	-2%	4%	4%	19%	6%
KOSPI	0%	1%	3%	6%	6%	11%	-2%
TAIEX	-2%	-1%	3%	9%	9%	17%	3%
Sensex	2%	6%	14%	24%	24%	39%	20%

Source: SG Cross Asset Research/Equity Strategy. * End-2016: difference between current level and end-2016 target

Key central bank rate forecasts

	Current (24/11)	Q1 16e	Q2 16e	Q3 16e	Q4 16e	2017e	2018e
USA	0.13	0.63	0.88	0.88	1.13	1.88	2.56
Japan	0.08	0.07	0.07	0.07	0.07	0.07	0.07
Eurozone	0.05	0.05	0.05	0.05	0.05	0.05	0.05
UK	0.50	0.50	0.50	0.50	0.75	1.29	2.25
Brazil	14.25	14.25	14.25	14.25	14.25	13.71	12.17
Russia	11.00	9.00	8.50	8.00	7.50	7.29	6.33
India	6.75	6.75	6.75	6.75	6.75	6.58	6.50
China	1.50	1.50	1.50	1.25	1.25	1.25	1.02

Source: SG Cross Asset Research/Economics

10-year bond yields (local market convention)

	Current (24/11)	Q1 16e	Q2 16e	Q3 16e	Q4 16e	2017e	2018e
USA	2.22	2.45	2.55	2.65	2.75	2.94	2.95
Japan	0.31	0.35	0.40	0.45	0.50	0.75	0.96
Eurozone (Bund)	0.50	0.50	0.65	0.80	0.95	1.14	1.31
UK	1.85	2.00	2.20	2.40	2.50	2.42	2.40
Brazil	15.16	15.70	15.90	15.90	15.80	15.57	14.67
Russia	9.88	9.50	9.00	8.50	8.00	7.71	6.84
India	7.70	7.75	7.60	7.40	7.25	7.08	6.98
China	3.10	3.35	3.45	3.50	3.50	3.53	3.46

Source: SG Cross Asset Research/Economics

Exchange rate forecasts

	Current (24/11)	Q1 16e	Q2 16e	Q3 16e	Q4 16e	2017e	2018e
USD/JPY	123	123	124	124	125	127	130
GBP/USD	1.51	1.48	1.42	1.39	1.43	1.45	1.44
EUR/USD	1.07	1.05	1.01	0.99	1.00	1.03	1.08
EUR/GBP	0.70	0.71	0.71	0.71	0.70	0.71	0.75
USD/BRL	3.73	3.95	4.00	4.05	4.10	4.24	4.36
USD/RUB	66.3	63.0	63.5	61.9	59.8	58.2	58.9
USD/INR	66.4	67.2	67.5	68.0	68.2	68.4	68.3
USD/CNY	6.39	6.60	6.65	6.70	6.80	6.60	6.50

Source: SG Cross Asset Research/FX Strategy

Commodities

	Current (24/11)	Q1 16e	Q2 16e	Q3 16e	Q4 16e	2017e	2018e
Aluminium (\$/t)	1,446	1,475	1,525	1,500	1,550	1,550	1,575
Copper (\$/t)	4,625	4,800	4,900	4,900	5,400	5,250	5,500
Zinc (\$/t)	1,574	1,750	1,800	1,850	1,900	1,900	2,000
Nickel (\$/t)	8,743	11,000	12,000	12,000	15,000	14,000	15,000
Gold (\$/oz)	1,074	1,040	1,020	985	955	950	900
Oil Brent (\$/b)	46.1	50.0	50.0	55.0	60.0	62.5	67.5

Source: SG Cross Asset Research/Commodity Strategy

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Editorial

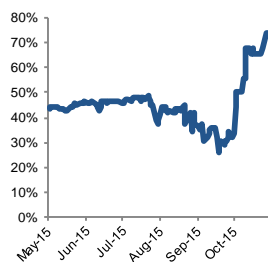
Gear to rising monetary policy de-synchronisation

Fed to hike, most other central banks to ease

Fed will hike but keep a dovish stance

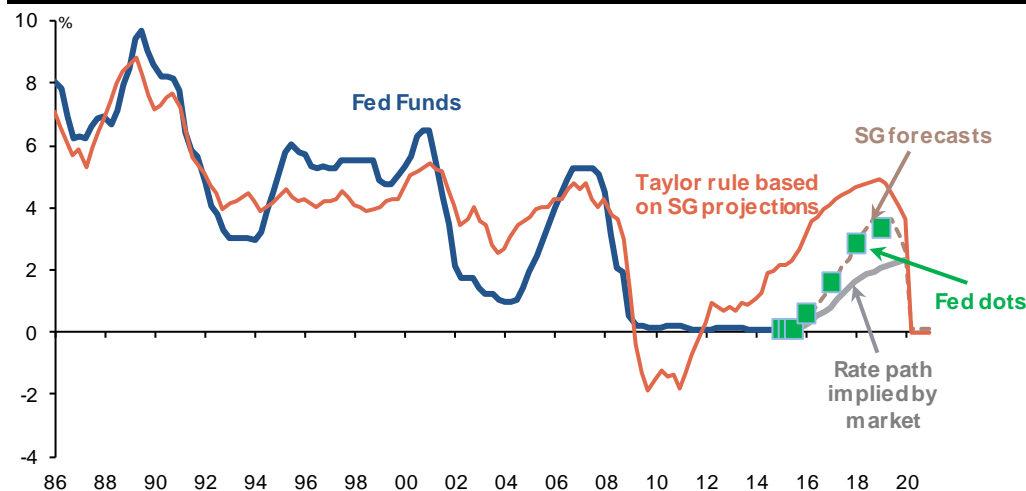
The market and economic consensus expect the Fed to start hiking rates in December, expressing confidence in the shape of the US economy. This should be a positive signal for the markets, especially as the tightening will be gradual and the Fed will likely keep a soft stance.

Market implied probability of a Fed rate hike in December



Source: Bloomberg, SG Cross Asset Research/Global Asset Allocation

The Fed will stay behind the curve



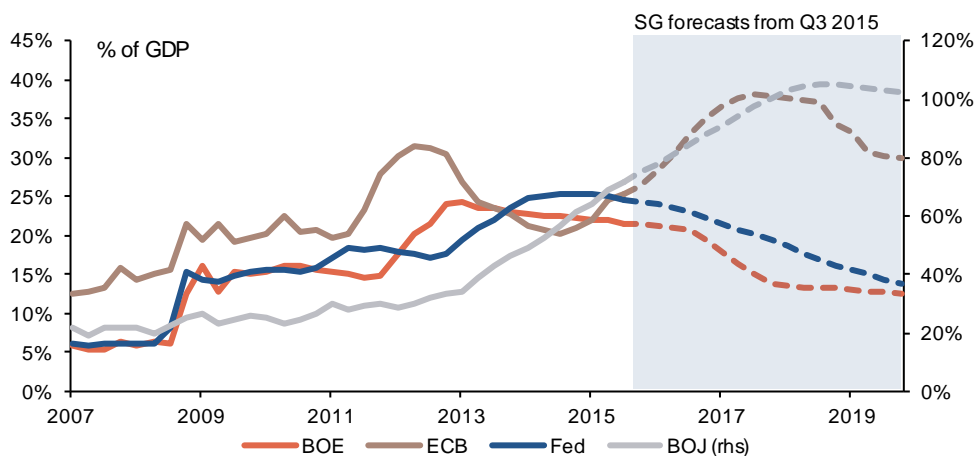
Source: SG Cross Asset Research/Economics

Most other central banks to keep an easing bias

While the Fed starts hiking, the ECB and BoJ will likely keep a very accommodative policy. Many central banks in EM will also keep an easy policy (India, Korea, Eastern Europe), ease further (China) or start cutting rates (Russia, Indonesia).

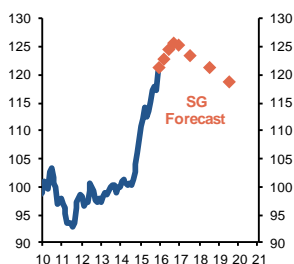
Policy de-synchronisation will continue to support the USD, although to a lesser extent than over the past year. The USD remains the main currency of investment in our portfolio.

ECB's and BoJ's balance sheets will continue to increase



Source: SG Cross Asset Research/Economics

USD trade-weighted index



Nominal Effective Exchange Rate.
Source: BIS, SG Cross Asset Research/Global Asset Allocation

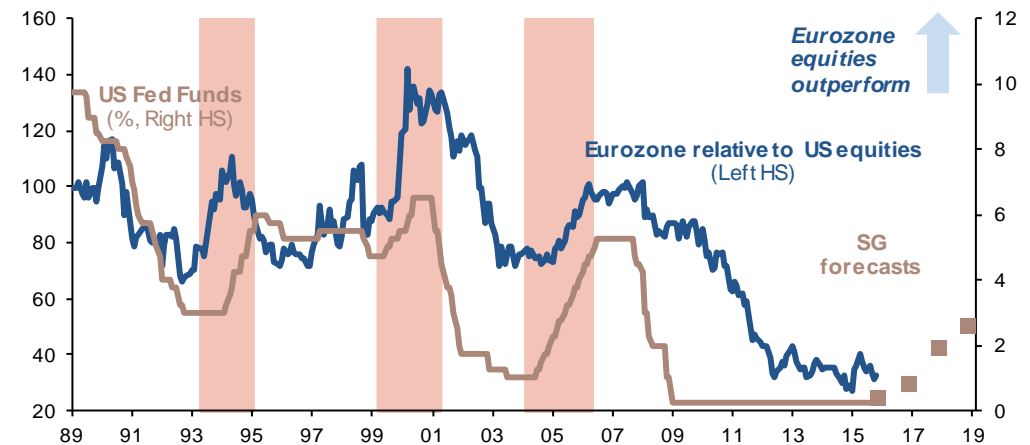
Broadly speaking, policy de-synchronisation will remain supportive for the US dollar. We expect the USD to strengthen towards parity vs the euro (0.99 in Q3 2016). Nevertheless, the Fed's dovish tone and the already significant appreciation should prevent further downside.

Prefer eurozone to US equities

In the context of monetary policy divergence between the US and eurozone, we expect eurozone equities to outperform and we stick to our OW eurozone equities/UW US equities stance.

Favour eurozone equities over US equities during Fed rate hike cycle

History tells us that eurozone equities have systematically outperformed US equities during Fed tightening cycles.



Eurozone performance based on the Eurostoxx 50 in euro. US performance based on the S&P500 in USD. Forecasts from SG economics team.
Source: Bloomberg, SG Cross Asset Research/Global Asset Allocation

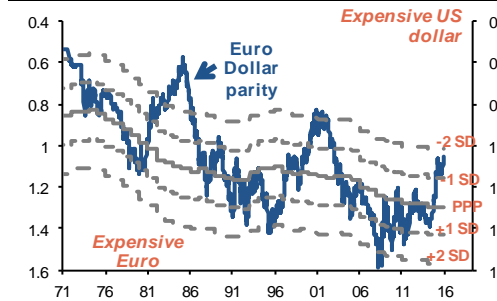
EUR/USD diverging from its fair value in terms of Purchasing Power Parity

Low level of the euro trade-weighted exchange rate

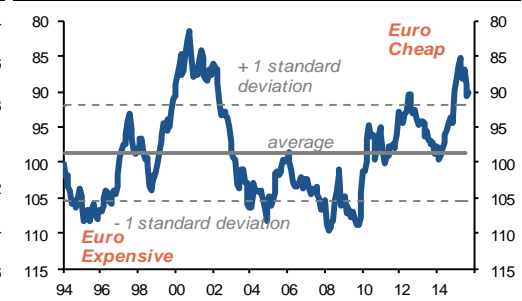
SG EM FX forecasts

	Q1 16	Q2 16	Q3-16	Q4 16	2017	2018
EUR/USD	1.05	1.01	0.99	1.00	1.03	1.08

Source: SG Cross Asset Research/FX Strategy/Economics



Source: Datastream, SG Global Asset Allocation

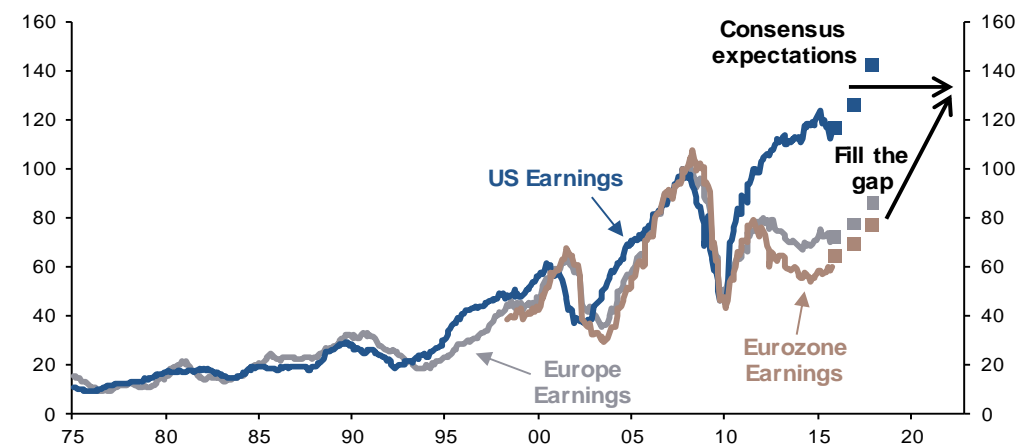


Source: BIS, SG Global Asset Allocation

The gap between US and eurozone earnings will tighten

The weak euro will provide further support for eurozone companies earnings, alongside the ongoing recovery in domestic demand

More on European equities in the [Big Picture – Outlook 2016](#)



100=01/10/2007, 12-month trailing earnings. Eurozone earnings started in May 1998. Source :MSCI, IBES, Datastream, SG Cross Asset Research/Equity Strategy

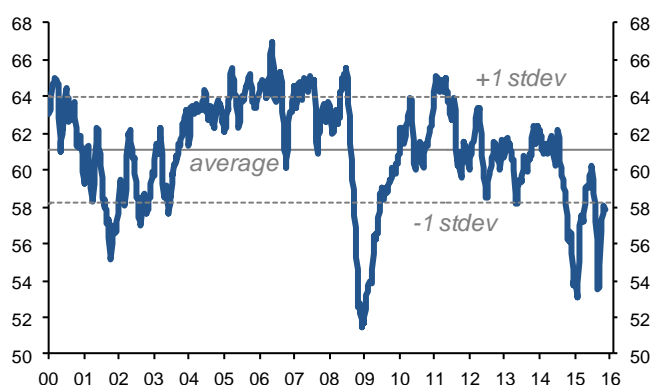


We introduced inflation-linked bonds in our multi-asset framework back in September.

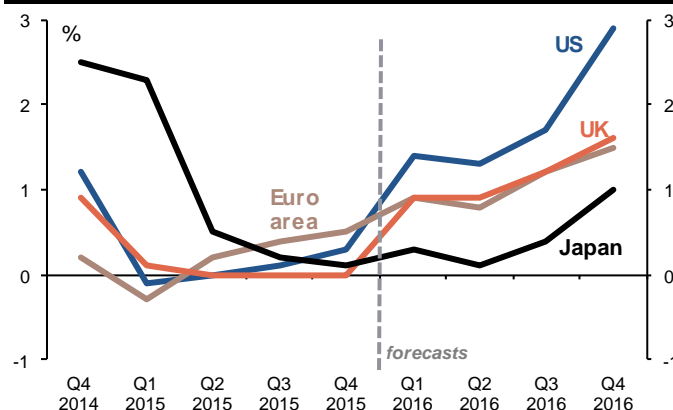
Sweet spots in inflation-linked bonds

Global news on inflation has been heavily impacted this summer by the commodity/oil correction, as well as fears of a China hard-landing and a growth slowdown in emerging markets. We expect these worries to continue to fade over time, and inflation prints to crawl higher over the next quarters. Inflation-linked bonds can be considered as a sweet spot from an asset allocation standpoint, as we [argued back in September](#) and through “[The virtues of inflation-linked bonds](#)” report. **We especially see value in US TIPS and euro inflation-linked bonds.**

Recent deflation fears have receded –the SG World Inflation Newsflow Indicator shows most of the summer plunge has now been erased



Data as of 16/11/15. Source: Dow Jones, SG Cross Asset Research/Global Asset Allocation/Rates



Source: SG Cross Asset Research/Global Asset Allocation/Economics

SG forecasts

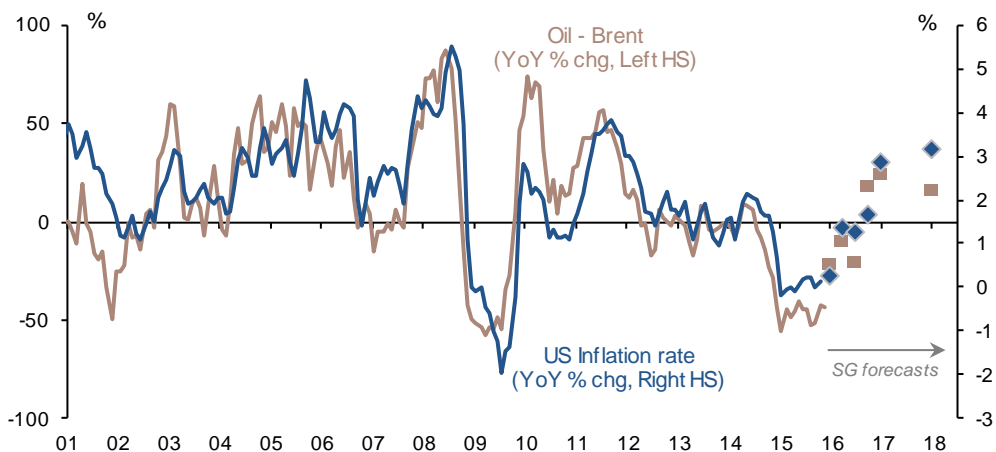
	Q1 16	Q2 16	Q3 16	Q4 16	2017	2018	2019
CPI headline (YoY%Chg)	1.4	1.3	1.7	2.9	3.2	2.9	2.5
CPI core (YoY%Chg)	2.1	2.0	2.2	2.3	2.5	2.7	2.4
Wage growth* (%)	2.6	2.7	2.8	2.7	2.9	3.1	2.4
Oil-Brent (\$/b)	50.0	50.0	55.0	60.0	62.5	67.5	70.0
Oil-WTI (\$/b)	46.0	46.0	51.0	56.0	59.0	64.5	67.0

*compensation per hour. Source: SG Cross Asset Research/Economics/Commodity Strategy

Inflation prints are seen as having bottomed out, supported by the base effect. The past year was dominated by a bear oil commodity market due to supply/demand imbalances, and we expect oil price to normalise going forward. We see more upside for the US inflation outlook, with support coming from wage growth and a sustained increase in core CPI until 2018.

Also significantly, we expect 2016 to be marked by reflation policies which are now on the agenda more than ever. This should prove supportive for inflation expectations and inflation prints over the medium term and put the 2014/2015 deflation fears newsflow behind us.

Base effect should support inflation prints in 2016



SG forecasts plotted. US inflation rate: CPI yoy % change. Source: Bloomberg, Datastream, SG Cross Asset Research/Global Asset Allocation

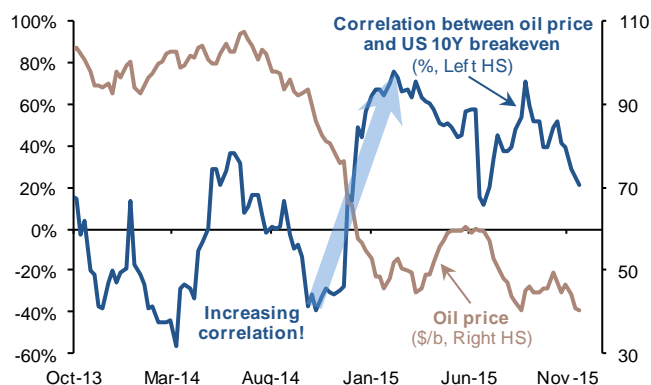
We have been positive on US TIPS for the past quarter already: have a look at the latest [Multi Asset Portfolio](#), or [our Inflation Newsflow Watch](#).

We still have a positive view on US TIPS

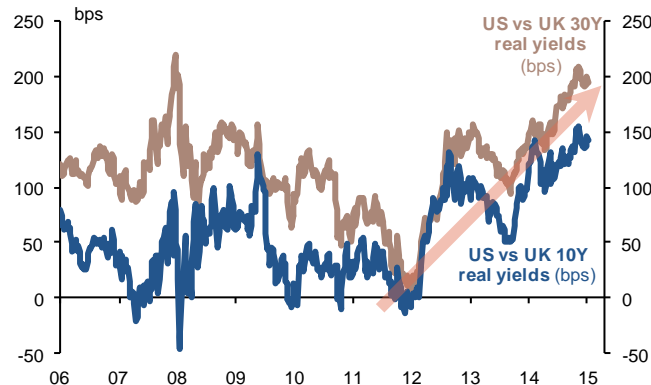
US Inflation breakevens have been rather sensitive to oil price swings, including the long end of the real curve which should be driven fundamentally by the growth outlook (triggering a cheapening of the 7y, 10y TIPS: [have a look at our inflation breakeven model](#)). We expect that correlation to break down going forward, as oil price stabilises and finally edges higher. We hold a positive view on US inflation breakevens, which we prefer to UK breakevens.

We expect the correlation between inflation breakeven and oil price to break down as oil price normalises and stabilises

US real yields are higher than UK ones by 140bps for 10Y maturity and 195bps for 30Y maturity



Source: Bloomberg, SG Cross Asset Research/Global Asset Allocation

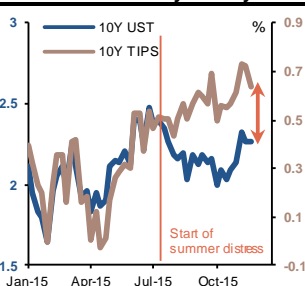


Source: Bloomberg, SG Cross Asset Research/Global Asset Allocation

For more information, see our inflation strategist Jorge Garayo's comment on inflation-linked bonds in the [FI Outlook](#).

Looking at the performance year-to-date and on a total return basis, US TIPS have indeed underperformed in 2015 compared to nominal bonds, but in tandem with a sustained increase in real yields. US TIPS are more attractive from both an asset allocation standpoint (diversification benefit) and in terms of the macro outlook. Also from a value perspective, 2016 should be a good year for US inflation-linked bonds.

Nominal and real 10y bond yields



Source: Bloomberg, SG Cross Asset Research/Global Asset Allocation

Euro breakevens to be supported by ECB extending quantitative easing

We continue to have a positive view on Euro inflation breakevens, with the ECB buying supportive for further gains in the near term. Medium term, we expect a better growth and inflation outlook with ongoing reflation policies and structural reforms being the main drivers for the outperformance of EUR breakevens.

We expect the ECB to step-up in purchases beyond September 2016 ([click](#)): this programme is supportive for high-yielding assets and has brought significant demand to long-dated and peripheral linkers. Overall, we think a more aggressive easing policy from the ECB will push up market-based measures of inflation, as well as inflation expectations through the currency channel. The ECB's easy monetary stance should continue to support yield pick-up strategies. **In this context, Italian and Spanish linkers still offer the best yield pick-up and roll-down opportunities.**

Projected linker purchases by the ECB Asset Purchase Programme

Issuer	Capital key	All govie purchases		Eligible (Mkt value based)			Linker Purchases *		Gross supply est.		Impact of purchases	
		Total	Per mth	Total	of which linkers	%	Total	Per mth	Total	Per mth	% of linker universe	% of gross supply
Germany	25.6%	228	12.0	960	64	7%	15.3	0.8	19.0	1.0	24%	81%
France	20.1%	180	9.5	1,353	211	16%	28.0	1.5	26.5	1.4	13%	106%
Italy (excl BTP Italia)	17.5%	166	8.2	1,412	143	10%	15.8	0.8	23.4	1.2	11%	67%
(Italy incl. BTP Italia)				1,474	205	14%	21.7	1.1	67.8	3.6	11%	32%
Spain	12.6%	112	5.9	662	19	3%	3.2	0.2	15.3	0.8	17%	21%
Total (ex BTP Italia)		677	35.6	4387	437	10%	62.3	3.3	84.2	4.4	14%	74%
Total (incl. BTP Italia)		677	35.6	4449	499	11%	68.2	3.6	128.5	6.8	14%	53%

Source: SG Cross Asset Research/Rates Strategy

Impact of various scenarios on the performance of each asset

	Higher growth prospects Inflation rising	Lower growth prospects Inflation rising
Inflation-linked bonds	= (*)	++
Nominal bonds	-	=
Equities	=	-
Commodities	+	=

(*) Higher growth prospects causing real yields to suddenly shift higher can offset the benefit of higher inflation. The case of the US for example is positive: real yields have already increased by a decent amount, which is not the case for UK linkers. Source: SG Cross Asset Research/Global Asset Allocation

SG forecasts

	Q1 16	Q2 16	Q3 16	Q4 16	2017	2018	2019
Gold (\$/oz)	1040	1020	985	955	950	900	850
Oil-WTI (\$/b)	46.0	46.0	51.0	56.0	59.0	64.5	67.0
Ratio Gold/Oil	22.6	20.0	17.6	15.9	16.1	14.0	12.7

Source: SG Cross Asset Research/Commodity Strategy

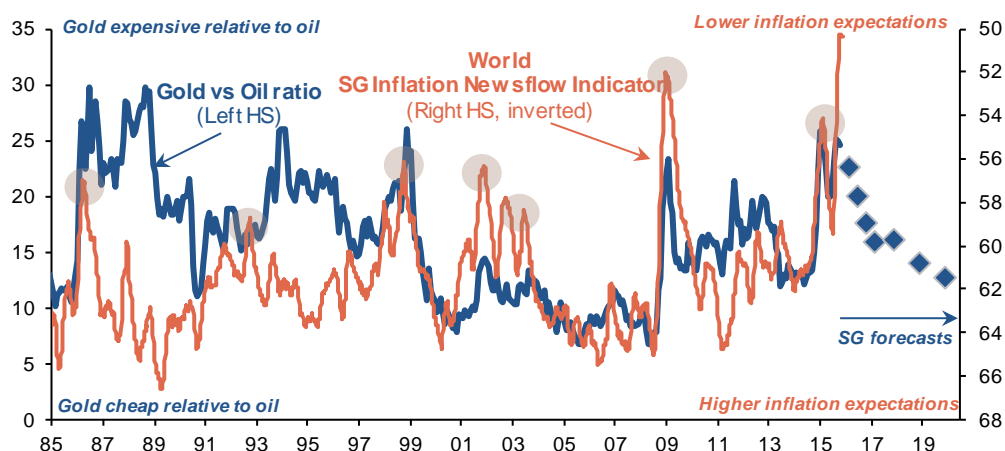
Impact of inflation prints crawling higher across asset classes

We also look at investment opportunities across asset classes in a context of inflation prints edging higher over the next quarters, beyond the positive bias on US and Euro breakevens discussed above.

Gold/oil ratio: a target of x14.0 by 2018 (current at x24.5)

Looking at how the gold/oil ratio and our measure of inflation expectations (SG Inflation Newsflow Indicator based on a Big Data approach) are correlated, our projections for the gold/oil ratio are consistent with a normalisation of the inflation cycle with a gradual recovery in inflation expectations from an all-time low level reached over the summer.

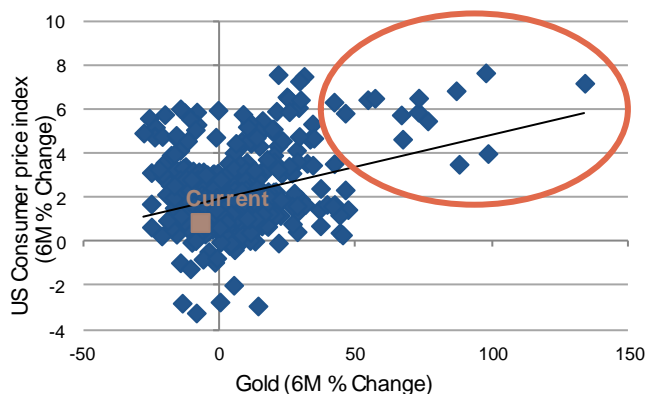
Gold/Oil ratio and inflation expectations track each other well



Monthly data for gold and oil (WTI) as of November 2015. Weekly data for World SG Inflation Newsflow Indicator, 12W moving average. Data up to 23/11/2015. Source: Datastream, Bloomberg, SG Cross Asset Research/Global Asset Allocation

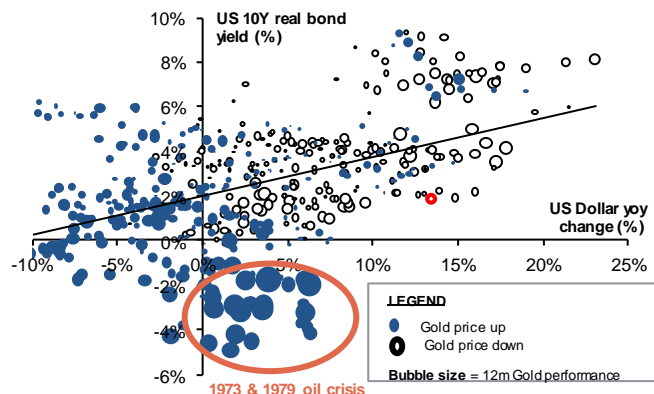
An argument in favour of gold in a reflating environment would be its use as an inflation hedge. However, we need to have a rather high regime point to find assured shelter in gold. We do not expect the initial stabilisation and recovery of inflation expectations to trigger a hedging panic and expect the strong dollar and higher real yields to continue to weigh on gold.

Gold did not always respond to higher inflation prints



Source: Datastream, SG Cross Asset Research/Global Asset Allocation

Real rates and USD matter for gold

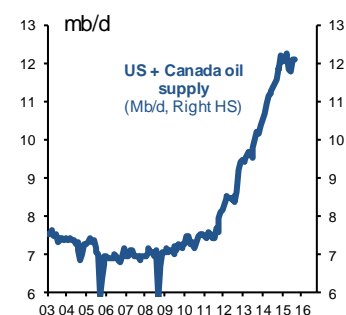


Red dot: current as of October 2015. Chart based on monthly data since January 1973. US 10Y real bond yield: US 10Y Government bond yield - US yoy CPI rate. US dollar index 12 months change: FED nominal trade-weighted index versus broad basket of currencies (100 = January 1997). Source: Datastream, SG Cross Asset Research/Global Asset Allocation

Have a look at the [Commodity Review : Rebalancing](#)

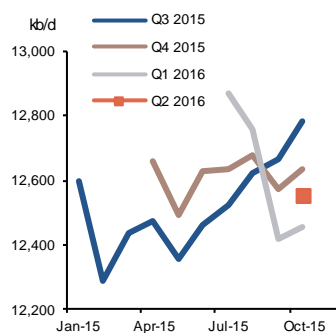
On oil, as argued by our Commodity Strategy team, we don't see any further fall in oil prices even though the global oil markets remain oversupplied. We expect price to reach \$56/b for WTI and \$60/b for Brent by end-2016. The rebalancing is underway with a decline in non-conventional oil and most of all US shale (which already started decline in April/May this year and could accelerate further – [click here for more](#)). OPEC countries, including Saudi Arabia, are under pressure at the current oil price: Saudi Arabia looks likely to record a budget deficit of more than 20% this year. The country has also withdrawn \$91bn from its currency reserve over the last 14 months.

US and Canada oil supply to hit a short-term peak in 2016



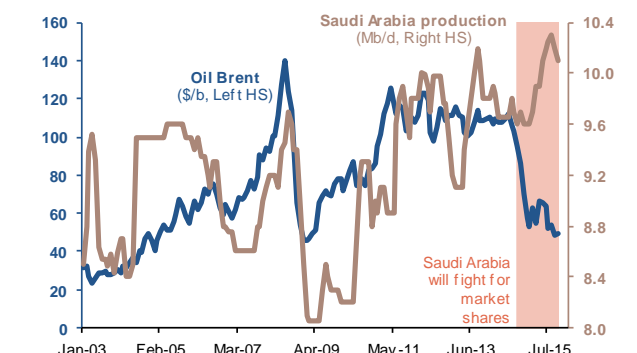
US + Canada oil supply: only crude oil. Source: IEA, EIA, Datastream, SG Cross Asset Research/Global Asset Allocation/Commodity Strategy

Production revisions for US



IEA monthly report as of October 2015. Source: IEA, SG Cross Asset Research/Global Asset Allocation

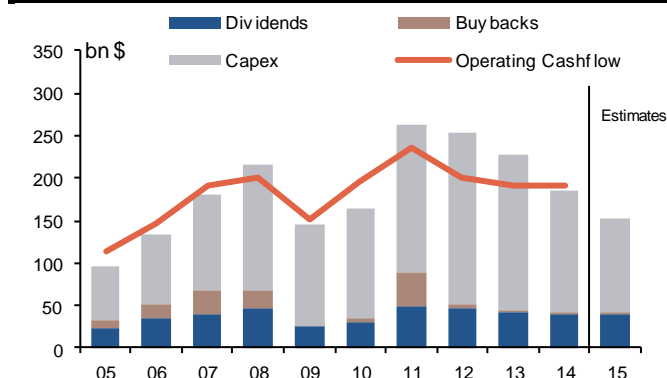
Saudi Arabia is under pressure at the current oil price Fiscal oil breakeven: 2015 at 105.6\$/b, 2016 at 95.8\$/b



Crude oil supply. Source: US Department of Energy, Bloomberg, SG Cross Asset Research/Global Asset Allocation

On base metals, our in-house outlook has become moderately bullish for next year amid the extended drop in prices and announced productions cuts (downside risk from China and lower production cost coming from further currency depreciation). Looking at the capex/depreciation ratio for global metals & mining companies, the ratio is at 1.4, from a peak of 2.4 in 2008 but already at 2.0 in 2011. Will depleting assets impact supply going forward? In EM, we hold a moderately positive view on EMEA and Latam currencies over the medium term, which should put a floor on supply resilience.

Capex in a downward trend since 2012. Seems like the focus is on supporting dividends



252 companies under review, universe of 35 countries, with a total market capitalisation of \$1.17trn. Source: Factset, SG Cross Asset Research/Global Asset Allocation

Price drop since the start the commodity bear market in July 2014

		Current	2014 peak	2011 peak	Cash cost of production
Aluminium	\$/t	1446.5	-22%	-46%	1007
Copper	\$/t	4597	-31%	-53%	3054
Nickel	\$/t	10566	-40%	-62%	7040
Zinc	\$/t	1557.5	-24%	-38%	1131
Lead	\$/t	1590	-24%	-46%	(by-product)
Tin	\$/t	14672	-38%	-56%	N/A

2014 peak: 14/04/14. 2011 peak: 11/04/11. Source: Bloomberg, SG Cross Asset Research/Global Asset Allocation/Commodity Strategy

With regard to the macro environment, energy and base metals prices should find support from the ongoing growth in the US (GDP to remain between 2.6-2.9% over 2016), a recovery in the eurozone supported by the ECB's dovish stance as well as the implementation of structural reforms, policy mix adjustment supporting growth in China and finally fading fears regarding emerging markets.

When commodity-linked currencies finally find a bottom

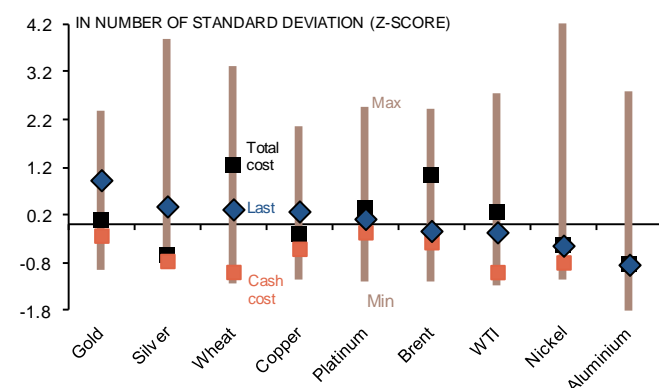
Going forward, more balanced supply/demand dynamics on the back of a healthier growth outlook and fading dollar appreciation (expect a bottoming out early 2017) should provide some relief to the commodity complex. **We have a preference for energy and base metals (both OW in our asset allocation) versus precious metals and agriculture & livestock.**

Commodity indices outperform in an environment of rising inflation expectations



SGINI: SG Inflation Newsflow Indicator. Commodity index: S&P GSCI Commodity index total return. Source: Datastream, Dow Jones, SG Cross Asset Research/Global Asset Allocation

Except for precious metals, other commodities are close to or already below the total cost of production: more capex cuts ahead



Data as of 30/10/2015, monthly data. **Cash cost of production:** expenditures for the day-to-day functioning of the operation. Total cost of production: includes fixed cost and operating cost. Here we are focused on the 90th percentile producer. Source: Datastream, Bloomberg, SG Cross Asset Research/Global Asset Allocation/Commodity Strategy

Given our positive outlook on energy and base metals (which account for almost 70% of the GSCI index), we think it likely that after underperformance of -49% since summer 2014, the S&P GSCI Commodity index has finally found a floor.

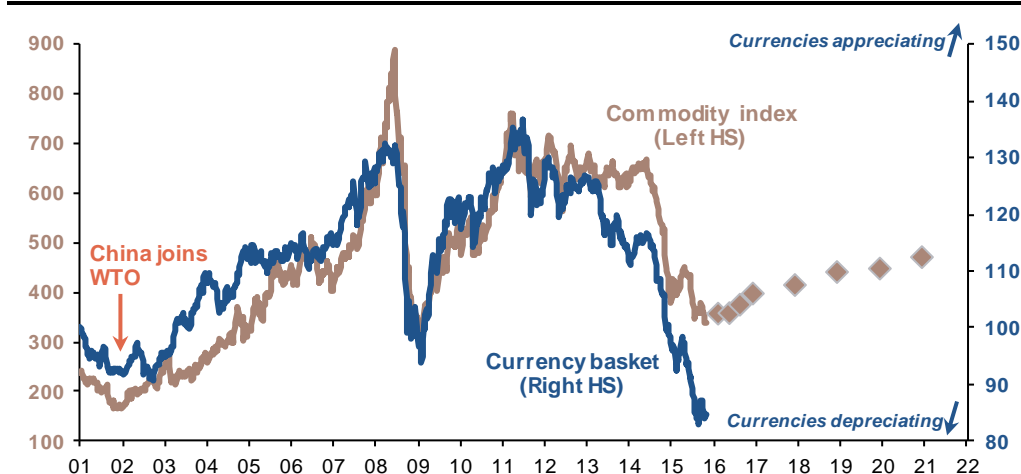
One way to leverage that positive view on the commodity complex would be on commodity-linked currencies which have not been spared by the commodity bear market that started in July 2014.

SG forecasts

	Q1 16	Q2 16	Q3 16	Q4 16	2017	2018	2019
Oil-Brent (\$/b)	50.0	50.0	55.0	60.0	62.5	67.5	70.0
Oil-WTI (\$/b)	46.0	46.0	51.0	56.0	59.0	64.5	67.0
Copper (\$/t)	4800	4900	4900	5400	5250	5500	5750
Aluminium (\$/t)	1475	1525	1500	1550	1550	1575	1600
Nickel (\$/t)	11000	12000	12000	15000	14000	15000	16000
Tin (\$/t)	16000	16500	16250	18000	17000	18000	18000
Lead (\$/t)	1800	1750	1750	1900	1900	1950	2000
Zinc (\$/t)	1750	1800	1850	1900	1900	2000	2100
Gold (\$/oz)	1040	1020	985	955	950	900	850
Silver (\$/oz)	14.0	14.0	14.0	13.0	14.0	13.0	13.0

Source: SG Cross Asset Research/Commodity Strategy

When commodity-linked currencies finally find a bottom...

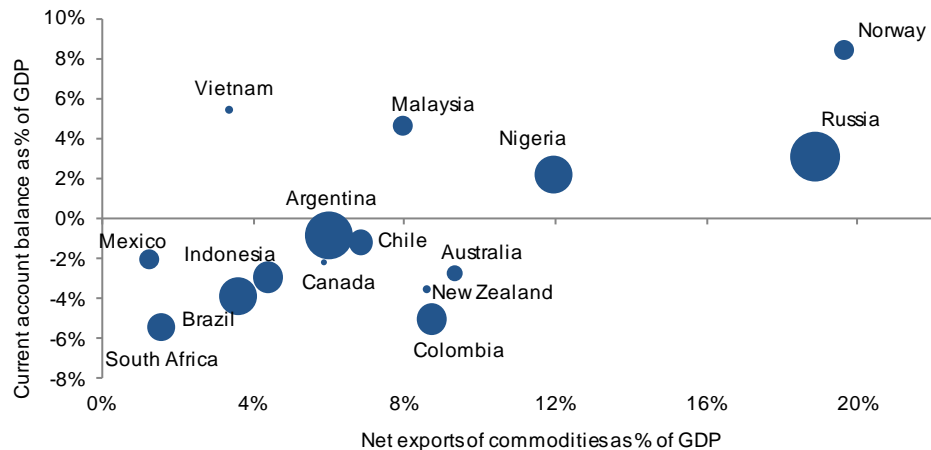


Commodity index: S&P GSCI Spot index with SG forecasts plotted, taking into account weighting of each of the components.

Currency basket: equally-weighted basket of currencies versus US dollar (base 100=30/01/01) – CAD, NOK, AUD, IDR, MYR, ZAR, COP, NZD, RUB, MXN, BRL and CLP. Source: Bloomberg, Datastream, SG Cross Asset Research/Global Asset Allocation/Commodity Strategy

The first beneficiaries would be those commodity exporters whose disinflationary trend has been more muted. A global reflationary environment could force central banks to switch to a more hawkish stance, which would drive their currencies higher.

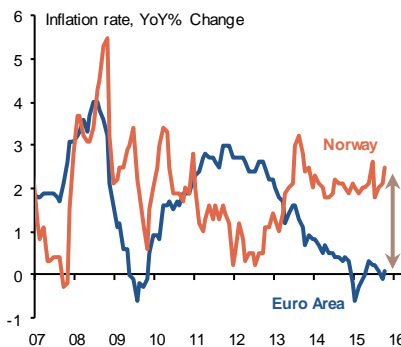
Among commodity exporters, a careful look at the external imbalances and current inflation rate



Inflation rate as of October 2015. Data for GDP as of July 2015 (expected GDP for 2014). Commodities net exports: SITC Revision 3, from codes 0 to 4 (data for 2013). Current account balance as % of GDP for 2014. Sources: IMF WEO, Comtrade, SG Cross Asset Research/Global Asset Allocation

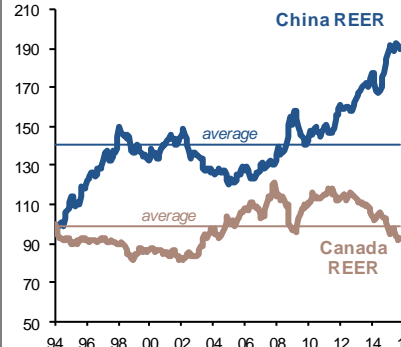
Our top ideas to leverage on commodity-linked currencies

Long NOK vs Short EUR



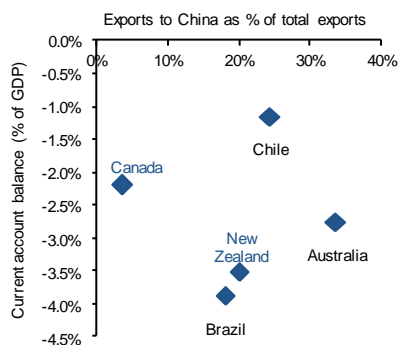
Norway's inflation regime is well above the one in the euro area. A scenario of normalisation of oil prices and a global reflationary environment/policies could turn out very supportive for the euro area.

Long CAD vs Short CNH



We are positive on the Canadian dollar as it is directly linked to the non-conventional oil industry which has been negatively affected by the downtrend in oil prices. On the other hand, we expect further renminbi depreciation. Being long the CAD/CNH is a good hedge against China policy surprises, in a context of oil price bottoming out.

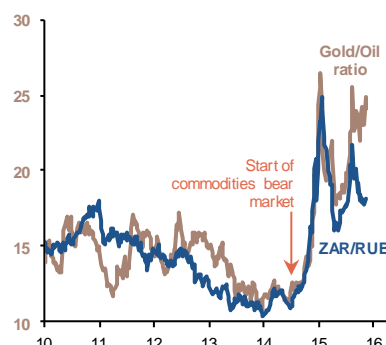
Short NZD vs Long CAD



The Canadian dollar has cheapened significantly in recent years, and its current valuation compares favourably to the New Zealand dollar.

Canada is also not as directly exposed to the Chinese economy as New Zealand. Moreover, the CAD should benefit from the ongoing US economic recovery.

Long RUB vs short ZAR



Stabilising oil prices and progress on the diplomatic front should support Russian assets. In the medium term, stabilisation, followed by recovery in oil prices should provide some support to Russia's economy and assets.

The South African rand continues to be impacted by the gold outlook.

Commodities net exports: SITC Revision 3, from codes 0 to 4 (from Comtrade, data for 2013). Total exports and total exports to China: Goods, Value of Exports from DOTS as of 2014. Source: IMF, DOTS, COMTRADE, MSCI, Datastream, SG Cross Asset Research/Global Asset Allocation

Have a look at [the Big Picture: Another sunny year ahead for European equities, add some oil.](#)

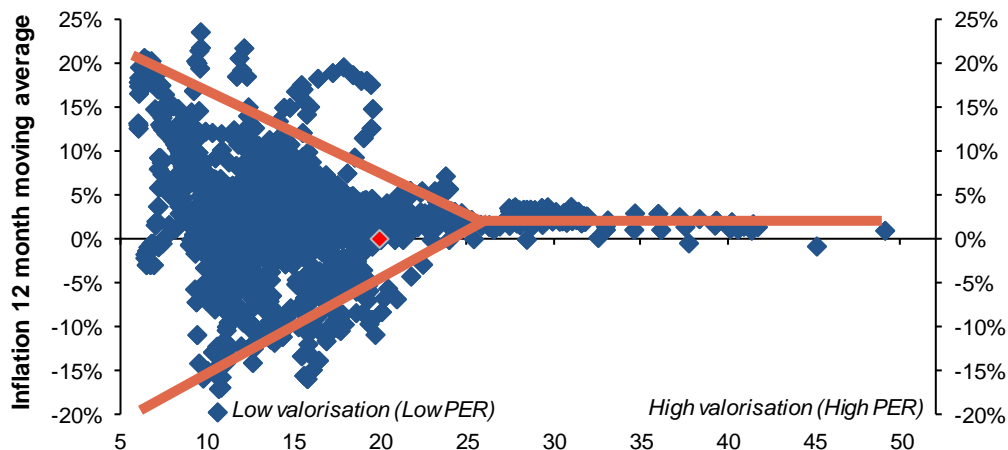
Opportunities in the equity space

We don't expect the normalisation of inflation figures to have a significant impact on share valuations as long as the cost of capital does not increase at a sustained and fast pace. Indeed, the correlation between inflation rate and equity markets is quite low when inflation is moderate: this is our scenario. On the other hand, we should not see an aggressively hawkish stance from central banks in 2016, which should keep less pressure on real rates.

Interplay between inflation and equity markets: "Y curve"

Two key conclusions:

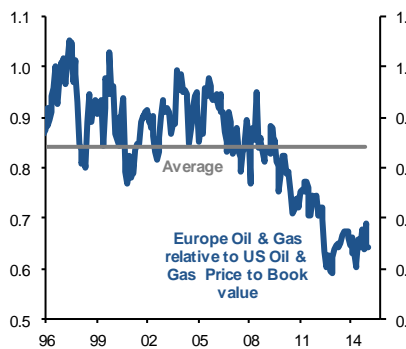
- 1) The correlation between inflation and equity markets is low when inflation is moderate, with P/E multiples of between 5 and 50 observed
- 2) When inflation is high, P/Es tend to collapse



Red dot: current. Monthly data since January 1872. Inflation is measured by growth in the US consumer price index (CPI) over 1 year. Basic P/E is based on a 12-month moving average in profits. Source: SG European Equity and Cross Asset Strategy, IRS Statistics of income bulletin, Robert Shiller (Yale University)

Our top ideas on the equity space to leverage our scenario for higher inflation and normalisation of oil price in 2016

Long European Oil & Gas (vs US Oil & Gas)

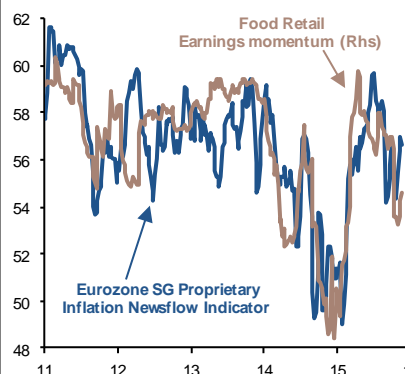


In Europe we expect the sector to re-rate in line with the oil price rebound

The current 2016 earnings expectation (+5% earnings growth based on analyst consensus) is well below our oil price scenario.

Outright or versus US Oil & Gas which has less attractive valuation features than its European counterpart

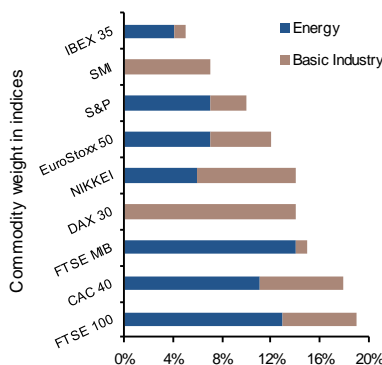
Long European Food retail



The food retail sector is highly sensitive to our inflation newsflow and would benefit from the aggressive reflation policy implemented by the ECB QE.

The sector is still trading at a very attractive valuation level with the 2016e price-to-earnings ratio at 16.3x.

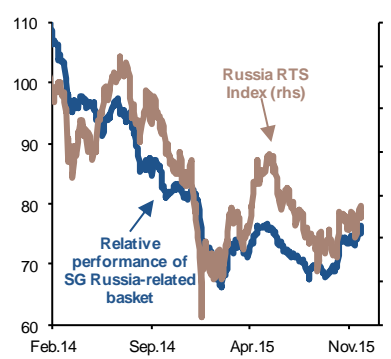
Time to reweight the FTSE 100 (versus FTSE 250)



We are starting to reweight UK equities, which are trading at attractive valuations thanks to the heavy weight of commodity-linked sectors

In order to protect the portfolio from a Brexit scenario, we recommend going long FTSE 100/ short FTSE 250

SGRUSSIA: basket of European shares sensitive to Russia*



The expected rebound in the oil price and the loosening of international sanctions would be supportive for attractive Russian assets, including the equity market. We recommend long-term investors to start to building long positions on Russia.

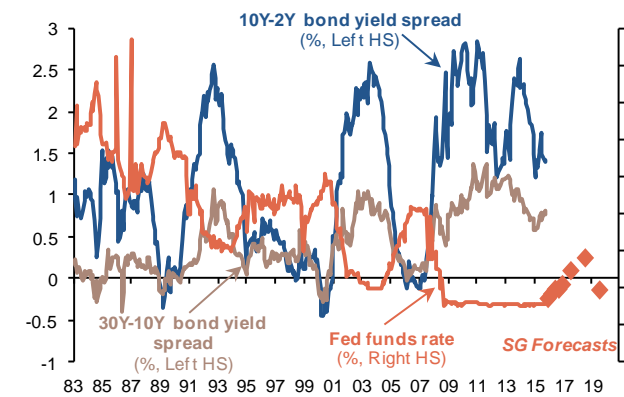
Have a look at our basket of European stocks showing a strong correlation with Russia (SGRUSSIA Index)

*100=28/02/2014, performance relative to Stoxx 600 in euro and total return. Russia RTS Index in dollar and total return. Past performance is not indicative of future results. Basket presented assumes no transaction costs. The basket is weighted according to the part of profit generated in Russia. Source: MSCI, Datastream, Bloomberg, SG Cross Asset Research/Equity Strategy

Any upside risk for US treasury yields in 2016?

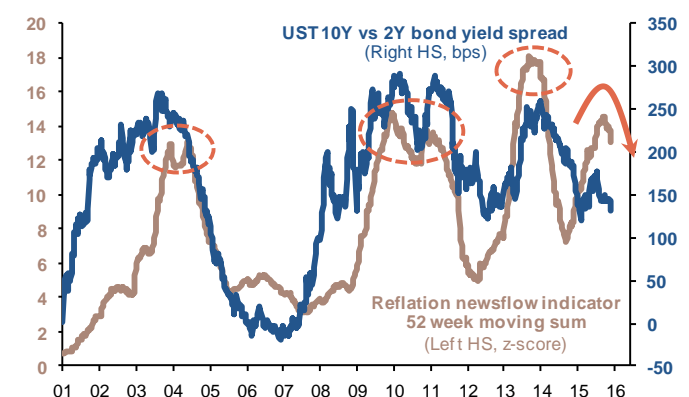
Sustained momentum in inflation prints should lead to reflation talk finally giving way to inflation concerns (so decrease the level of reflation newsflow). As could be expected, our “reflation” newsflow indicator shows peaks coinciding with the steepest levels in the 2s10s Treasury yield curve. The imminent normalisation of Federal Reserve monetary policy will trigger a flattening of the curve.

Expect a flattening of the 2s10s curve as the Fed starts a tightening cycle



Source: Datastream, SG Cross Asset Research/Global Asset Allocation

Reflation talk already leaving the floor to inflation talks

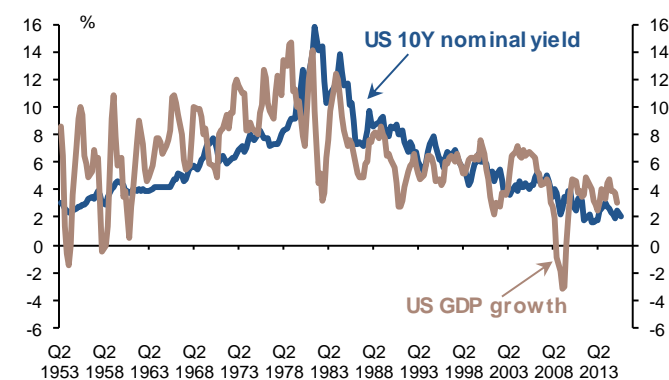


Source: Dow Jones, Datastream, SG Cross Asset Research/Global Asset Allocation

However, looking at how nominal bond yields and GDP are related, it seems that 10y Treasuries yields have been below nominal GDP since Q2 2010. Is that sustainable?

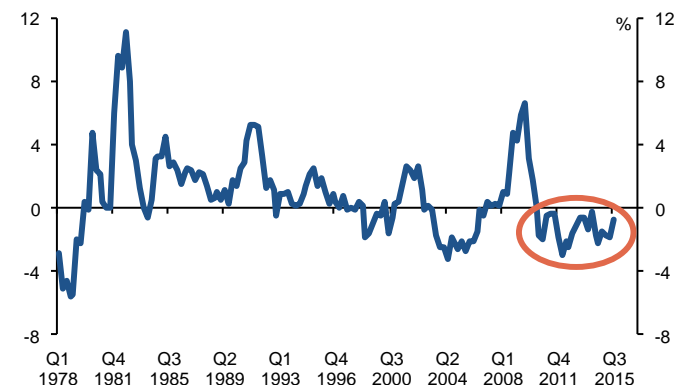
In the last tightening cycle, the performance of 10y Treasuries was supported by carry on the positions, with coupon yields above 4%. Indeed, despite the ‘conundrum’, the performance net of accrued interest was actually negative over the cycle. Today, after nine years of easing, we are about to see lift-off with a mere 2% handle on coupons, and therefore significantly less cushion from carry for the total return performance. **We reduce our allocation into Treasuries to focus on European peripheral nominal bonds, which benefit from the yield pick-up and will remain a sweet spot should the ECB extends its QE beyond September 2016.**

US GDP growth vs 10Y nominal yield



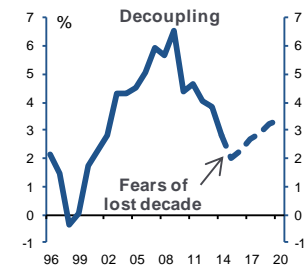
US GDP growth: yoy % change. Source: Datastream, BLS, SG Cross Asset Research/Global Asset Allocation

10Y UST yield below the GDP growth since Q2 2010



EM: from decoupling to fears of lost decade

EM-DM GDP growth gap



Source: IMF, SG Cross Asset Research/Global Asset Allocation

Composition of the regional currency baskets:

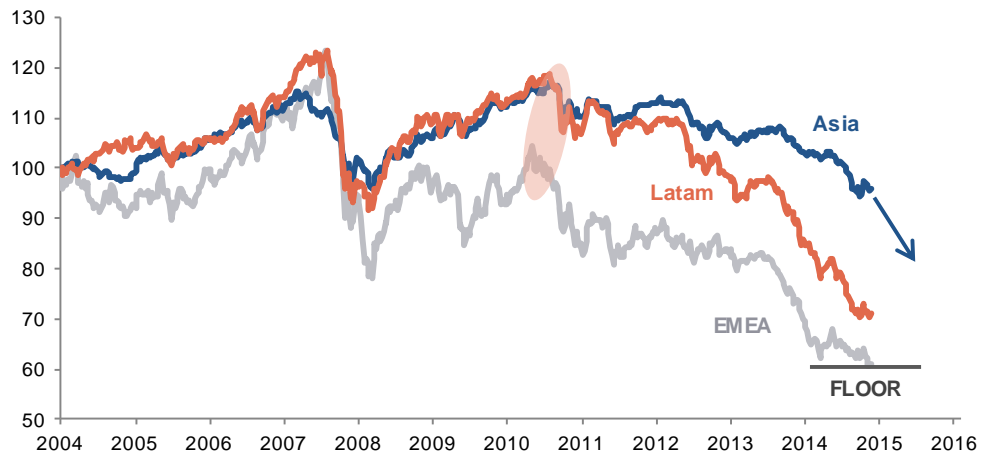
Asia: China, Korea, Taiwan, India, Indonesia, Thailand, Malaysia, Philippines

Latam: Mexico, Brazil, Chile, Argentina, Peru

EMEA: Poland, Czech Rep., Hungary, Romania, Russia, Turkey, South Africa

In 2010, the decoupling story took centre stage, just before EM economic growth started to fall and converge towards developed market growth. Now that EM growth and EM asset prices have dropped significantly, consensus remains negative on the EM outlook. Time to re-consider some EM exposure?

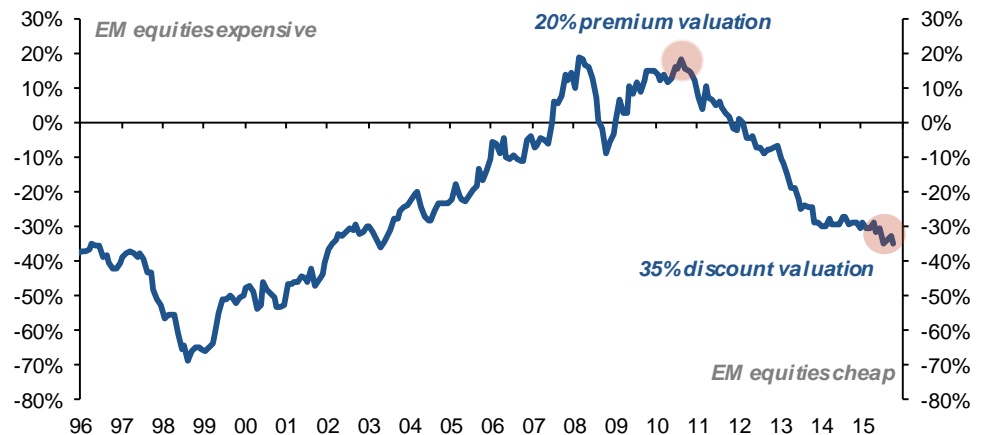
EM currencies have depreciated strongly against USD, especially EMEA and Latam



Data as of 20/11/15. Source: Datastream, SG Cross Asset Research/Global Asset Allocation

EM equities de-rating has gone far already

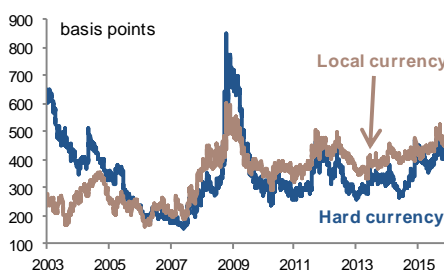
At a 35% discount EM equities appear attractive against developed markets



Source: SG Cross Asset Research/Global Asset Allocation

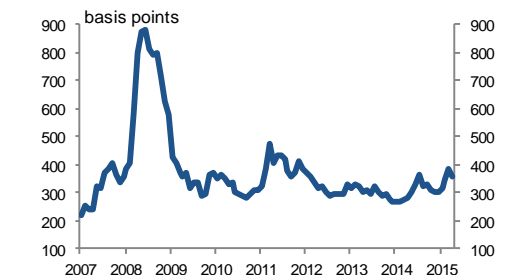
EM bond spreads have widened moderately

Corporate credit is the EM asset class that is drawing most attention these days, as the increase in leverage in a context of slowing growth and rising USD is raising concerns



Spread vs US 10Y yield. EM bonds: JPM EMBI & GBI EM Global Diversified. Source: SG Cross Asset Research/Global Asset Allocation

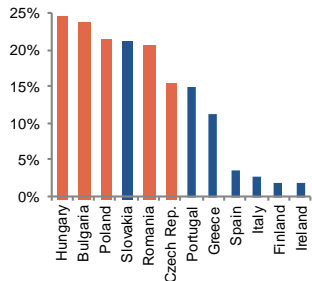
EM corporate bond spread



iBoxx USD EM corporate bond index. Source: Markit, SG Cross Asset Research/Global Asset Allocation

A sweet spot for Eastern European assets

Large EU funds to support eastern Europe's economies



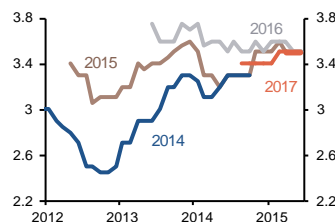
EU budget funds for 2014-2020, % of GDP.
Source: European Commission, SG Cross Asset Research/ Economics

Eastern Europe should benefit from the improving eurozone outlook, given the close economic and financial ties between the two areas. The area will also be supported by the ECB's QE and accommodative domestic monetary and fiscal (for Poland) policies. On top of this, EU funds will remain large for the coming years, insuring significant investments in infrastructures notably.

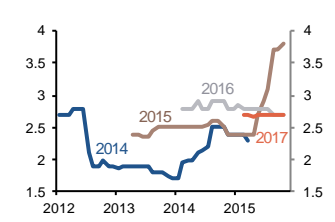
Meanwhile, the stabilisation and recovery in oil prices that we expect in the coming year will help the Russian economy and Russia assets to recover. The lifting of sanctions imposed by the EU and the US following the conflict with Ukraine would clearly provide a further boost.

Consensus growth forecasts for Eastern Europe (EU members) have been revised sharply up for 2015 and remain high for 2016 and 2017. After a sharp drop in 2015, Russia's GDP is expected to normalise from 2016.

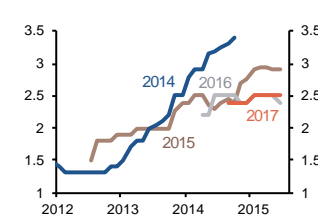
Poland GDP growth forecasts



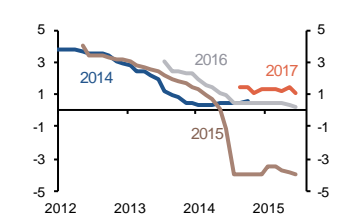
Czech GDP growth forecasts



Hungary GDP growth forecasts



Russia GDP growth forecasts

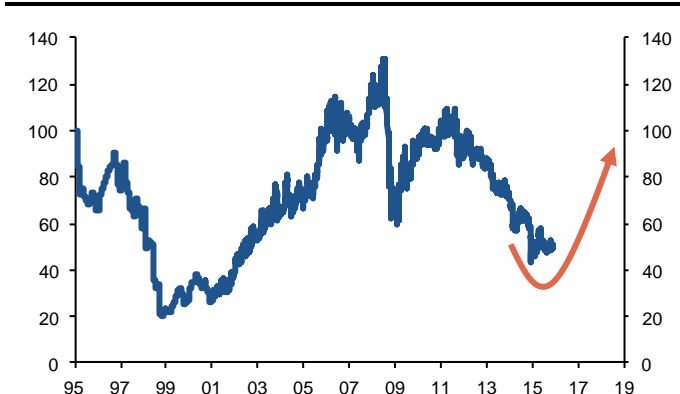


Consensus GDP growth forecasts. Source: Bloomberg, SG Cross Asset Research/Global Asset Allocation

Position for recovery in the equity markets

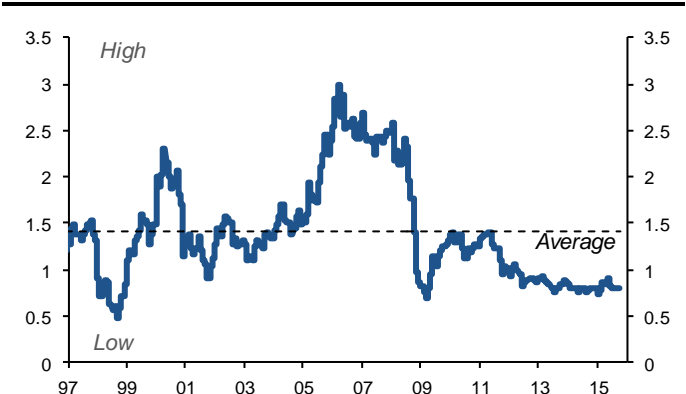
Over the past few years, an exceptional build-up of negative newsflow on Russia (Ukraine, economic and financial sanctions and sharp drop in oil prices) has weighed on the MSCI Eastern Europe index (Russia represents 65% of the index). The index is currently below its 2009 levels relative to both the MSCI EM and MSCI Europe index.

MSCI EM Eastern Europe relative to MSCI Europe



100=01/01/1995, performance in euro and total return Source: MSCI, Datastream, SG Cross Asset Research/Equity Strategy

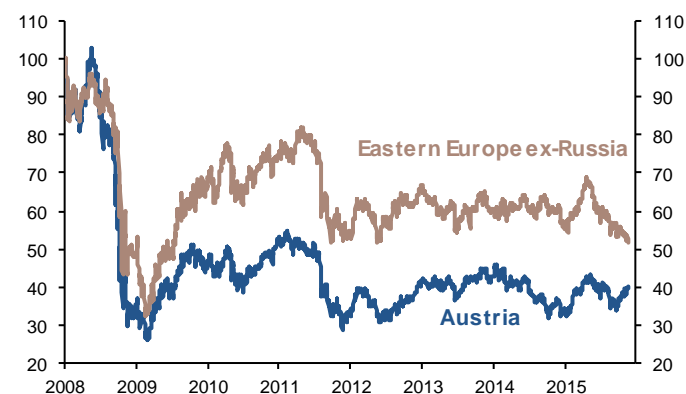
MSCI EM Eastern Europe price-to-book value is attractive



MSCI EM Eastern Europe price-to-book value. Source: MSCI, Datastream, SG Cross Asset Research/Equity Strategy

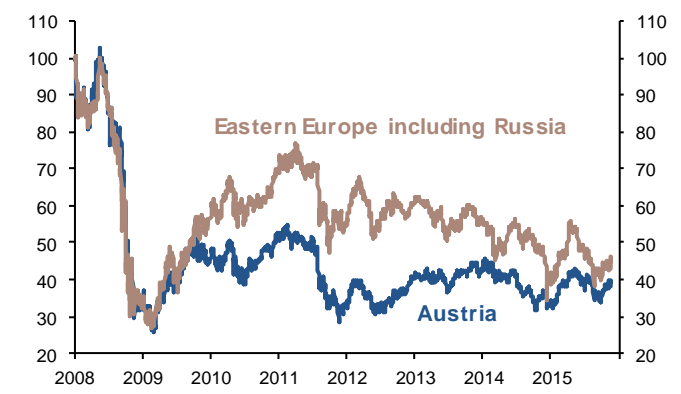
Another way to implement our positive view on Eastern Europe is through Austria's equity market, given the tight economic and financial links between the two areas.

MSCI Austria and MSCI Eastern Europe ex-Russia



January 2008 = 100. Performance in euro. Source: MSCI, SG Cross Asset Research/Global Asset Allocation

MSCI Austria and MSCI Eastern Europe including Russia



January 2008 = 100. Performance in euro. Source: MSCI, SG Cross Asset Research/Global Asset Allocation

The recovery in Brent towards \$60 per barrel that we expect by end-2016 will provide support to Russian assets

The Russian equity market is very closely linked to oil prices. SG Commodity Research expects oil supply/demand to be more balanced in H2 2016, after the oversupply situation triggered by the increase in North American supply over the past five years.

We expect oil price to recover towards \$60 by end-2016

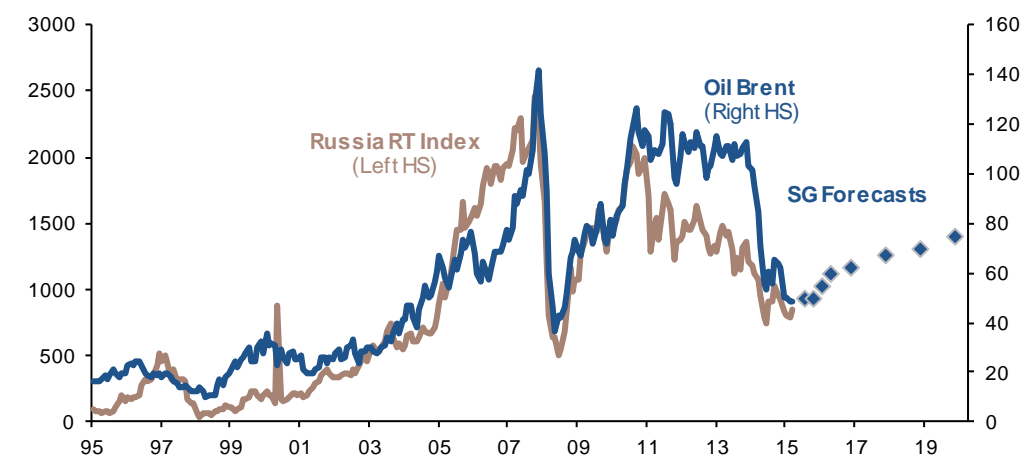
	Q1 16	Q2 16	Q3 16	Q4 16	2017	2018	2019	2020
Oil Brent	50	50	55	60	62.5	67.5	70	75

SG Cross Asset Research / Commodities

The Russian equity index is highly sensitive to the oil price

Russian equities are trading at a very attractive valuation (0.6 price-to-book value).

The Russia equity market is 70% composed of commodity-linked stocks (source MSCI).



Performance in dollar. Source: Datastream ,SG Cross Asset Research/Equity Strategy

Another way to gear to an improved Russian outlook is through the SG Russia basket. The SG Equity Strategy team, in collaboration with equity analysts, has compiled a basket of European stocks with significant exposure to Russia (Bloomberg <SGRUSSIA Index>). This basket has shown a strong correlation to the Russian equity index and has underperformed the Stoxx 600 by 40% since its launch in March 2014 (see report and component [here](#)).

SG EM FX forecasts

	Current	Q1 16	Q2 16	Q3-16	Q4 16
EUR/PLN	4.27	4.15	4.12	4.08	4.08
EUR/CZK	27.02	27.05	27.02	26.00	26.00
EUR/HUF	312	310	312	315	316
USD/RUB	66.25	63.00	63.50	61.90	59.80

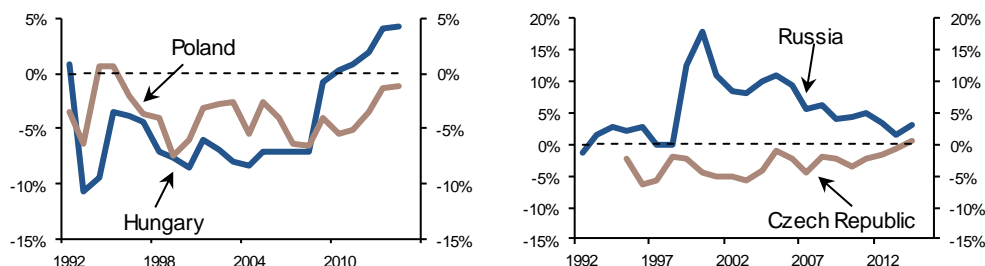
Current: 27/11/15. Source: SG Cross Asset Research/EM Strategy

Current account balances have significantly improved in Eastern Europe over the past few years. Most countries are close to equilibrium or recording a surplus. Although on a downward trend, Russia still records a surplus.

Stable to improving FX outlook

Central and Eastern European (EU members) currencies should benefit from improving external positions. We expect them to be resilient against the euro, especially in the context of an extension of the ECB's QE. In Russia, we expect the improved outlook for oil prices to support the rouble.

Sharp improvement in current account balances in eastern Europe's EU members



Current account balance in % of GDP. Source: IMF, SG Cross Asset Research/Global Asset Allocation

SG forecasts – Policy rates (%)

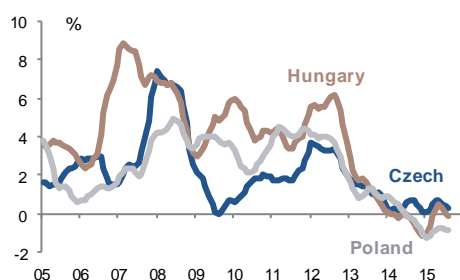
	Current	Q1 16	Q2 16	Q3-16	Q4 16
Poland	1.50	1.50	1.50	1.50	1.50
Czech Rep.	0.05	0.05	0.05	0.05	0.05
Hungary	1.35	1.35	1.35	1.35	1.35
Russia	11.00	9.00	8.50	8.00	7.50

Current: 27/11/15. Source: SG Cross Asset Research/Economics /EM Strategy

Supportive environment for sovereign bonds

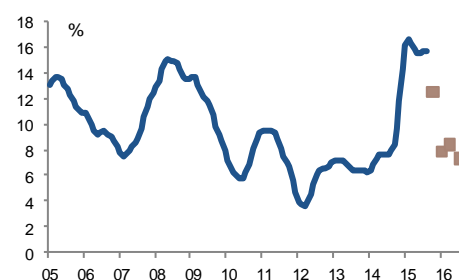
The fiscal adjustments made by Eastern European EU members (CEE) and the very low level of inflation has allowed central banks to lower rates over the past years. As inflation stays contained, monetary policies will remain supportive. Meanwhile, the expected QE extension by the ECB and the strengthening of CEE currencies against euro (except for the Hungarian currency) should provide additional support for the local bond markets, especially Polish bonds, which should provide attractive yields compared to eurozone peripheral bonds.

Low inflation in Eastern Europe justifies accommodative monetary policies



Source: SG Cross Asset Research

Russia CPI to drop, allowing the central bank to cut rates



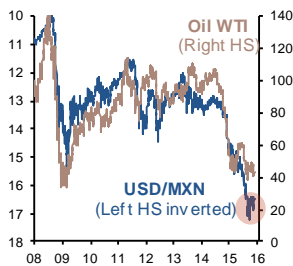
In Russia, the central bank had to sharply raise rates in 2014 to control inflation and prevent further financial stress. The key rate has been cut from 17% in January 2015 to 11% currently. We expect further cuts to 7.50% by end-2016, as inflation will drop towards 6.5%. Another positive driver for Russian bonds should be the moderate borrowing plans for next year (more in [Focus Russia](#)).

We recommend buying [Polish](#) and [Russian](#) bonds

Latam, the 2016 outsider?

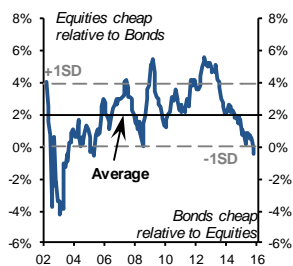
Latam has been hit over the past few years by the sharp drop in commodity prices and by policy/governance issues. This has led to a significant deterioration in fundamentals and to a de-rating of assets, especially FX. In our central scenario, the BRL, MXN and CLP are set to depreciate against the USD (respectively by about 6%, 2% and 2% from current level) by end-2016 (see all EM FX forecasts [here](#)). More positive developments on commodity prices and on the political front could improve the outlook.

MXN closely tied to oil prices



Source: Datastream, SG Cross Asset Research /Global Asset Allocation

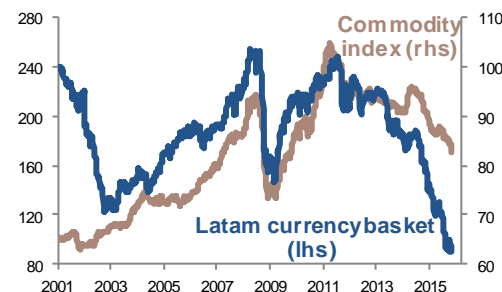
Latam bonds more attractive than equities



Equity market cap-weighted values. High, low and average since January 2002. Cost of capital = Risk Premium + 10y bond yield
Source: Datastream, SG Cross Asset Research/Global Asset Allocation

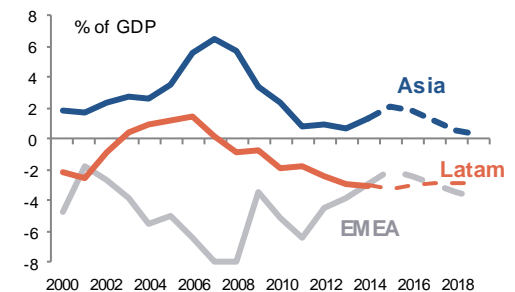
An improved commodity outlook would support currencies. As oil recovery is our strongest conviction within the commodity space for the coming year, oil-related currencies like the MXN should eventually benefit.

Latam currencies have overreacted to the drop in commodity prices



Jan 2001 = 100. Commodity index: CRB. Currency basket: BRL, MXN, CLP, ARS, COP, PEN. Source: Datastream, SG Cross Asset Research/Global Asset Allocation

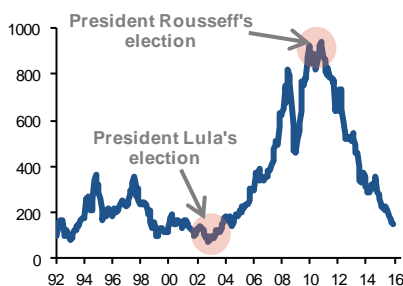
Latam current account balance would be supported by recovering commodity prices



Source: IMF, Datastream, SG Cross Asset Research/Global Asset Allocation

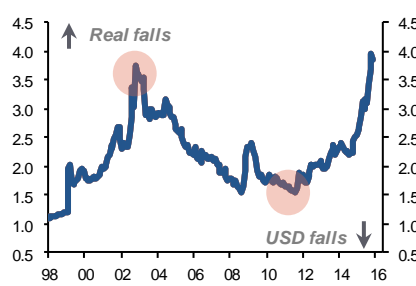
Political developments will be key. Markets welcomed the victory of the opposition (liberal) leader in Argentina's presidential election on 22 November. But the focus in 2016 will be on Brazil, where our central scenario for the currency remains negative (USD/BRL 4.10 end-2016). However, an impeachment procedure against President Rousseff (decision in coming weeks) could be the trigger for markets to move back into Brazilian assets. Brazilian assets have indeed underperformed on the back of poor governance and economic failure. According to our Equity Risk Premium tool, bonds are more attractive than equities in Latam overall, especially in Brazil.

Brazil's equity market has underperformed since Rousseff's election



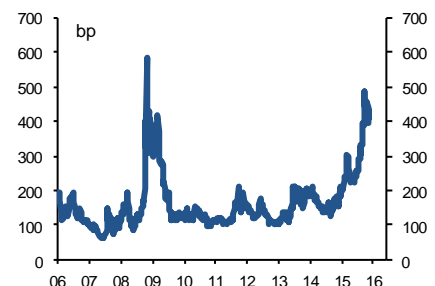
Bovespa performance relative to S&P500 index.
Source: Datastream, SG Cross Asset Research/Global Asset Allocation

The real has dropped sharply against the USD



Source: Datastream, SG Cross Asset Research/Global Asset Allocation

CDS spreads have widened, reflecting concerns about the lack of governance

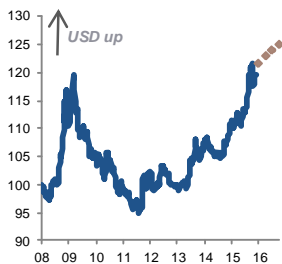


Credit Default Swaps. Source: Datastream, SG Cross Asset Research/Global Asset Allocation

Emerging Asia: caution on currencies, credit and equities

If China were to let its currency weaken further (we expect USD/CNY at 6.80 by end 2016), this could drive other EM Asia currencies lower too (detailed EM FX forecasts [here](#))

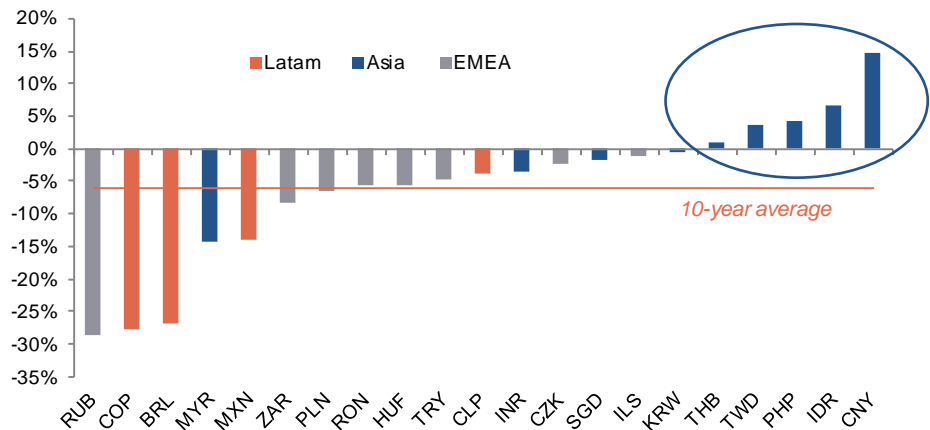
More upside for the USD against Asian currencies



Basket of EM Asia currencies. Jan 2008 = 100.
Source: SG Cross Asset Research/EM Strategy/Global Asset Allocation

Asian currencies have been resilient to the US dollar increase compared to other EM regions, resulting in a significant appreciation of their trade-weighted exchange rates.

Most Asian currencies have lost competitiveness compared to other EM currencies

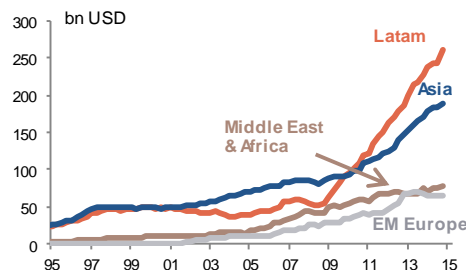


Source: SG Cross Asset Research/Global Asset Allocation

We have reduced our allocation to Asia credit in USD to zero.

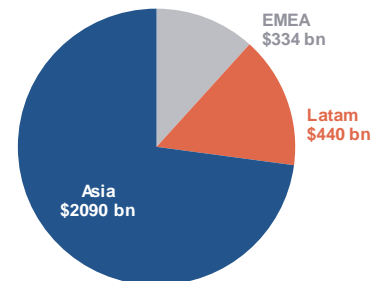
Non-financial corporate debt in USD has sharply increased since the Fed started QE in 2009. The surge has been especially significant in Latam. Looking at overall non-financial company issuance though (domestic + international), Asia is clearly ahead. Risks of corporate default are a significant concern.

International bond issuance by EM non-financial corporations has surged



Source: BIS, SG Cross Asset Research/Global Asset Allocation

Total bond issuance by EM non-financial corporations (domestic + international markets)

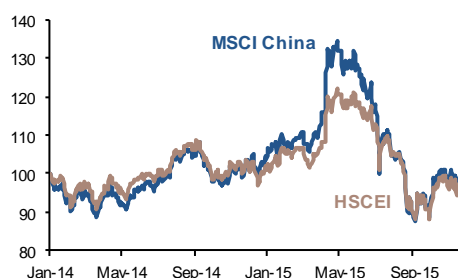


Source: BIS, SG Cross Asset Research/Global Asset Allocation

We expect the Chinese authorities to maintain policy support (monetary and fiscal) to prevent an economic hard landing. However, we reduce China exposure following the recent rebound.

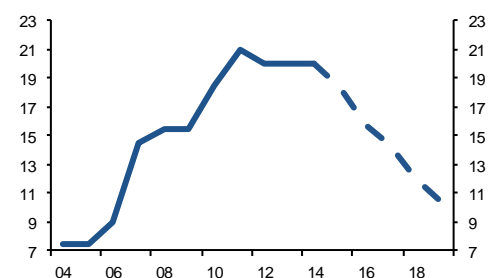
In September, we decided to increase the weight of Chinese equities in our portfolio, as valuations were attractive following the summer sell-off. **We now reduce our exposure to Chinese equities after the rally over the past few months.** We keep a long-term positive view on Chinese equities, which will be supported by easy monetary policy, structural reforms and inclusion in benchmark indices over time.

China equities performance



Absolute performance. Source: MSCI, SG Cross Asset Research/Global Asset Allocation

More RRR cuts to come



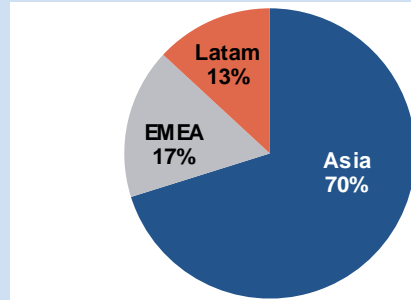
PBoC's Reserve Requirement Ratio. SG forecasts. Source: Datastream, SG Cross Asset Research/Economics

BOX 1 - Focus on emerging market benchmarks

As differentiation will be an important theme in EM in the coming year, it is important to assess the regional breakdown of the benchmarks in the different asset classes.

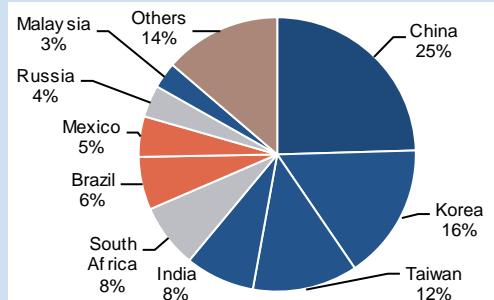
Asia dominates global EM equities

Asia largely dominates EM equities, and China itself represents 25% of global EM equities



MSCI EM index. Source: MSCI, SG Cross Asset Research/Global Asset Allocation

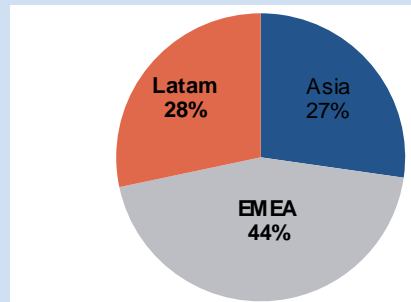
Main countries in the MSCI EM index



Source: MSCI, SG Cross Asset Research/Global Asset Allocation

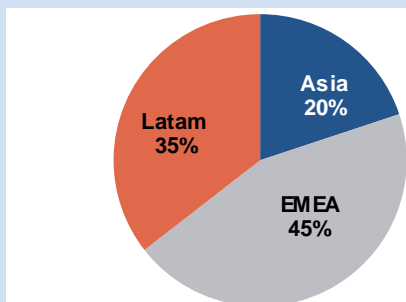
Local currency bond index breakdown

In the sovereign bond area, EMEA has the largest share of the benchmarks, given higher government debt and high tradability.



JPM GBI EM Global Diversified index. Source: JPM, SG Cross Asset Research/Global Asset Allocation

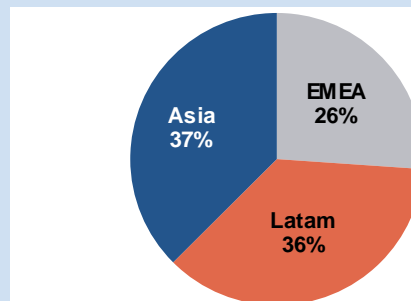
Hard currency bond index breakdown



JPM EMBI Global diversified index. Source: JPM, SG Cross Asset Research/Global Asset Allocation

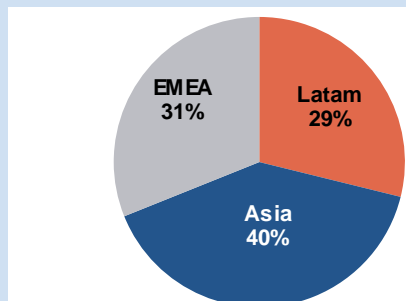
EM USD corporate bond index benchmark

In credit, Asia and Latam have built up more debt than EMEA, where corporate bonds have been issued mainly by Russian and Middle Eastern companies. In FX, Asian currencies have the highest turnover, but the best tradability is in EMEA and Mexico. MXN is the most traded currency in EM and one of the 10 most traded overall, followed by the Chinese currency.



iBoxx EM USD corporate bond index. Includes financial companies' issuance. Source: Markit, SG Cross Asset Research/Global Asset Allocation

Most traded currencies

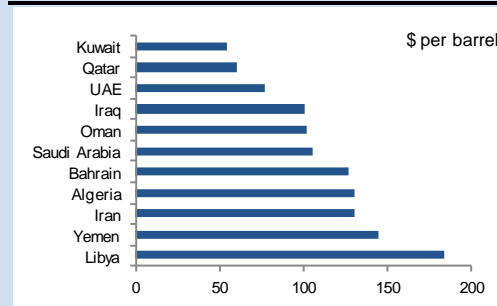


Based on the average daily FX turnover (spot+forward outright) from the BIS Triennial survey. Source: BIS, SG Cross Asset Research/Global Asset Allocation

Box 2 – Pegs under pressure

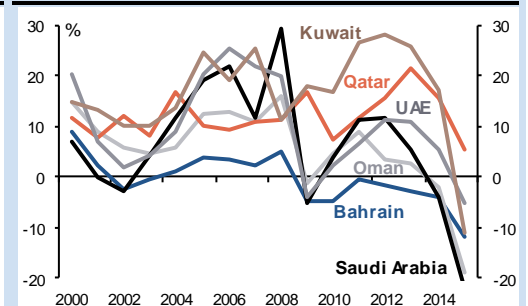
In the Middle East. After Russia, which entered a free-floating currency regime in 2014, and Kazakhstan, which removed its currency peg in August 2015, the oil price drop is putting heavy pressure on the currency pegs of Middle Eastern exporters.

Fiscal breakeven oil price (2015)



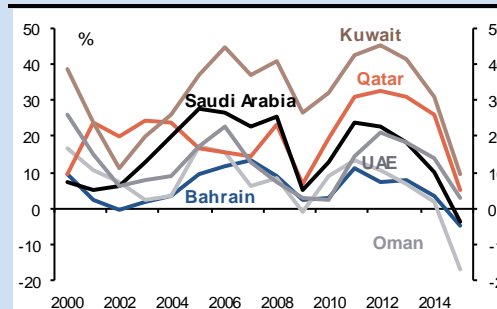
Source: IMF, SG Cross Asset Research/Global Asset Allocation

Budget balances (% of GDP)



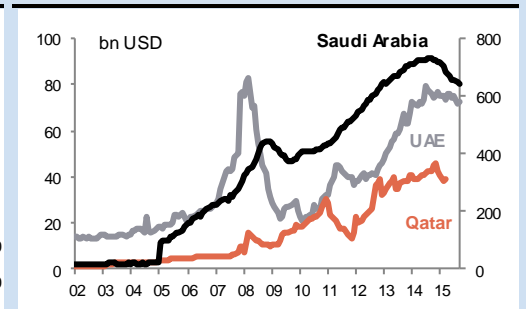
Source: IMF, SG Cross Asset Research/Global Asset Allocation

Current account balances (% of GDP)



Source: IMF, SG Cross Asset Research/Global Asset Allocation

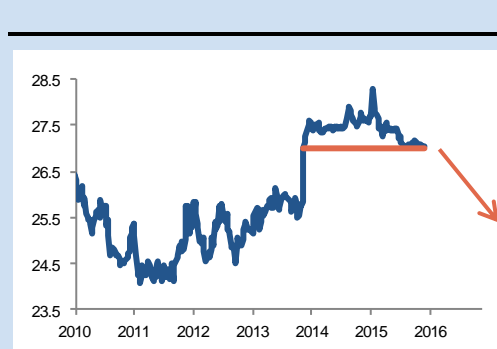
FX reserves are declining



Source: IMF, SG Cross Asset Research/Global Asset Allocation

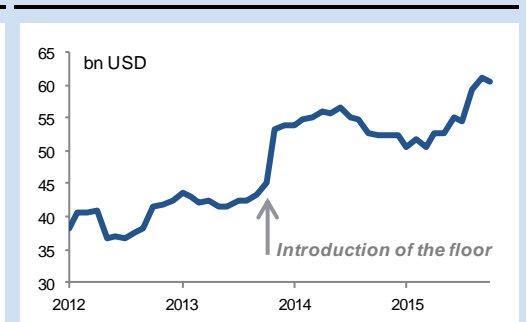
In Europe. After the Swiss central bank removed the CHF floor versus EUR at the beginning of the year, another peg is at risk in Europe: the **Czech crown floor against EUR**. In 2013 the Czech central bank established an EUR/CZK floor at 27.00 in order to ease monetary conditions further while the key rate was already close to zero. The solid economic growth and external position, combined with a gradual recovery in inflation will make it difficult to keep the floor in place for much longer. According to SG estimates (Natrex methodology), the EUR/CZK equilibrium exchange rate is 24.75. We expect the Czech National Bank to scrap its FX floor in Q3 16 (more [here](#)).

EUR/CZK floor under pressure



Source: Datastream, SG Cross Asset Research/Global Asset Allocation

Increase in FX reserves as the central bank defends the floor



Source: Datastream, SG Cross Asset Research/Global Asset Allocation

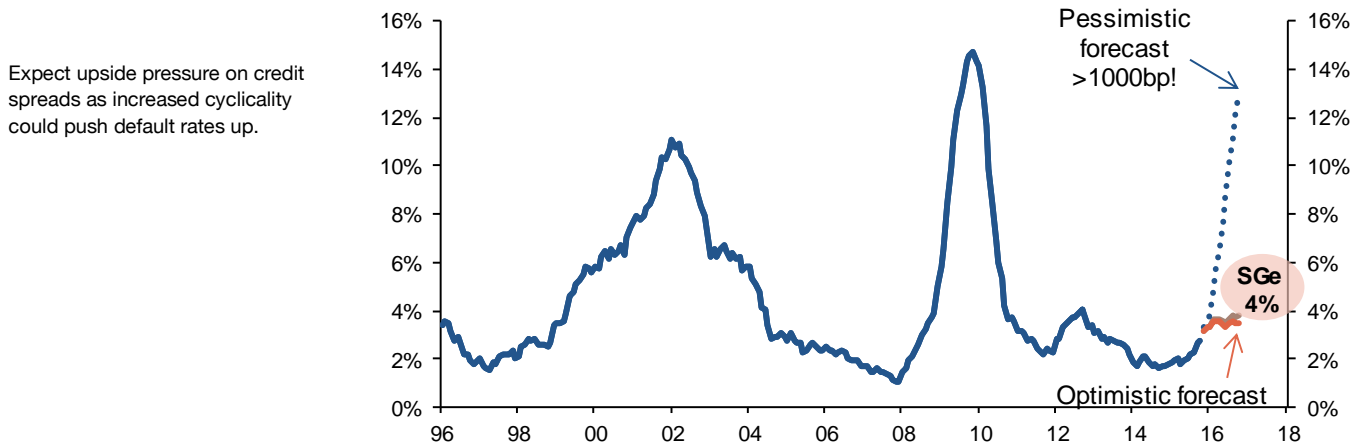
Corporate releverage: reduce credit, prefer equities

Several arguments explain our preference for equities over credit. **Firstly, we anticipate higher bond yields.**

Our quantitative model, the Q-MAP recommends keeping a balanced portfolio, but with less corporate credit (see [here](#))

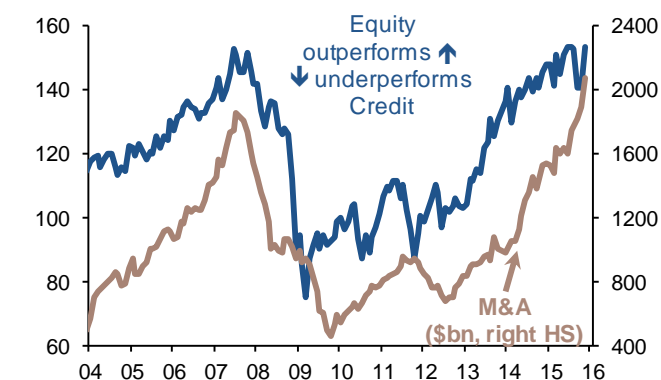
Secondly, we see upside pressure on credit spreads as default rates for speculative grade corporate bonds in the US (chart below) and in emerging markets could rise more than currently expected. Due to the rise in oil and other commodity-related issues, the cyclical nature in these segments of the credit market has strongly increased. So far Moody's base-line forecasts, the industry benchmark, have remained suspiciously close to their most optimistic levels. In a topical piece of research "[Will defaults be worse than expected next year?](#)", our credit strategists estimate that in 2016, defaults are likely to be around 2.5% in Europe but around 4.65% in the US and EM sectors combined.

The rise in default rates could be worse than expected, putting pressure on credit spreads



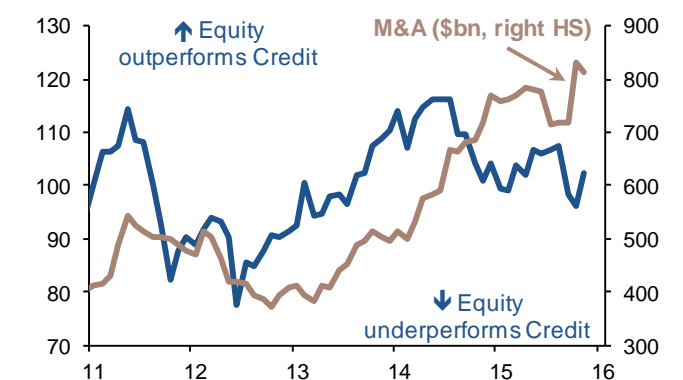
Thirdly, a strong M&A cycle is typically a favourable environment for equities to outperform credit. M&A activity started to pick up in 2013 and continues to increase. The deals are also getting larger.

US - M&A and Equity versus Credit (relative performance)



M&A annualised volume of deals, in \$bn. Equity vs Credit relative performance of return indices
Source: Bloomberg, MSCI, Barclays, SG Cross Asset Research/Global Asset Allocation

Western Europe - M&A and Equity versus Credit



M&A annualised volume of deals, in \$bn. Equity vs Credit relative performance of return indices
Source: Bloomberg, MSCI, IBOXX, SG Cross Asset Research/Global Asset Allocation

Politics and reforms provide investment opportunities

Time to reweight UK equities

The FTSE 100 has been hit in 2015 by the UK electoral agenda – the general election in May and the looming referendum on EU membership – a strengthening pound and lower commodity prices. **We now think it is time to reweight UK equities, on the back of our brighter scenario for commodity prices and the likely underperformance of sterling against USD as the Bank of England delays the rate hike. Later on, relief from Brexit fears would also support UK equities.**

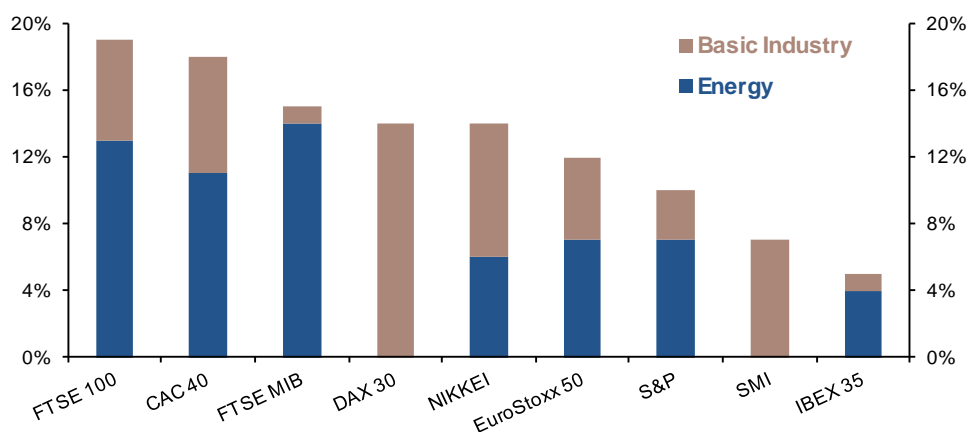
SG UK FX and rates forecasts

%	Current	Q1-16	Q2-16	Q3-16	Q4-16	2017	2018	2019	2020
GBP/USD	1.5035	1.48	1.42	1.39	1.43	1.45	1.44	1.52	1.54
EUR/GBP	0.7040	0.71	0.71	0.71	0.70	0.71	0.75	0.77	0.79
Policy rate	0.50	0.5	0.5	0.5	0.75	1.3	2.3	2.3	1.8

Current: 27/11/15. Source: SG Cross Asset Research/FX Strategy/Economics

Commodity weights in indices

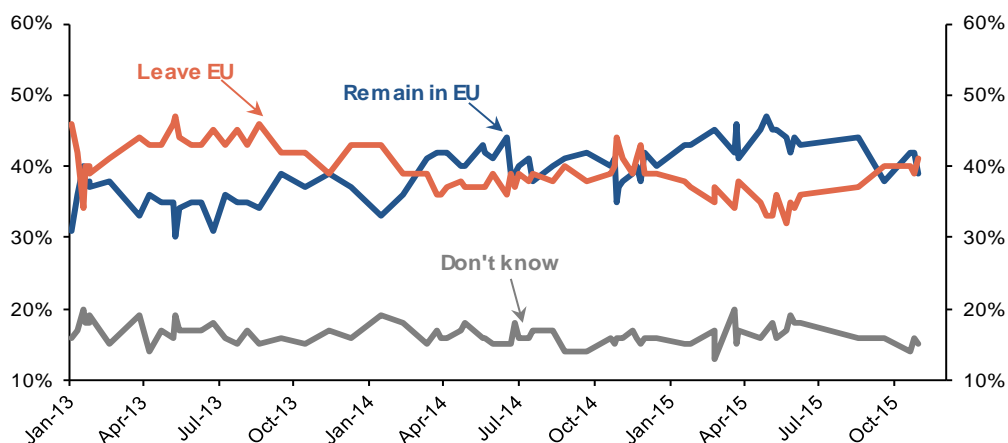
Among the main developed markets, the UK index is the most exposed to commodity sectors (19%) vs CAC 40 (18%) and FTSE MIB (15%).



Source: Bloomberg, SG Cross Asset Research/Equity Strategy

Opinion polls show the referendum outcome is still a close call

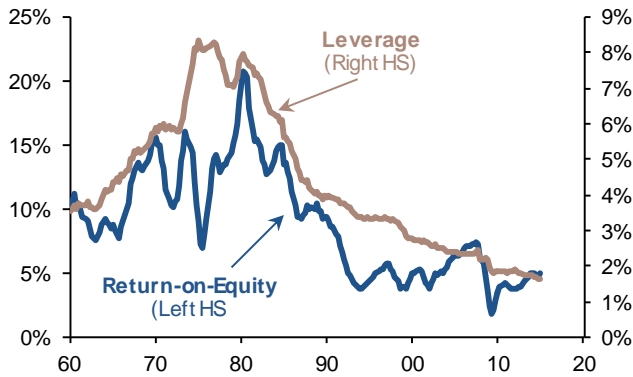
Relief from Brexit fears to support the FTSE 100. There is no date yet for the referendum, which has to be held before end-2017. Prime Minister Cameron said that he would prefer sooner rather than later. There could be some volatility for UK assets ahead of the referendum, but it is in the interests of both the EU and the UK to find an agreement to prevent a Brexit.



Source: YouGov, SG Cross Asset Research/Global Asset Allocation

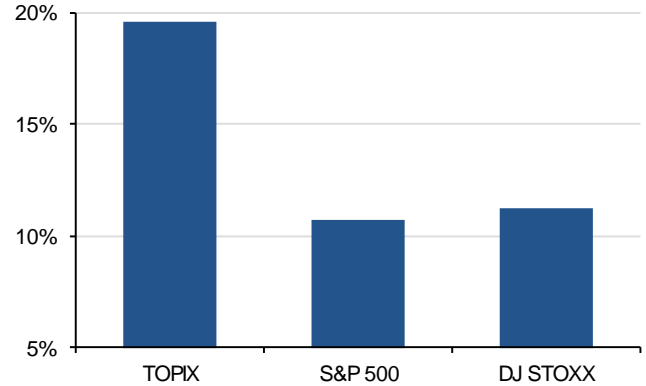
Corporate governance in Japan to improve

Return on equity should improve when leverage is increased



Left: Return on Equity (RoE). Right: leverage. Both are national statistics
Source: Japanese Ministry of Finance (MOF), SG Cross Asset Research/Equity

Cash holdings in Japan nearly twice as high as in the US



Cash, as a percentage of market capitalisation.
Source: Datastream, SG Cross Asset Research/Global Asset Allocation

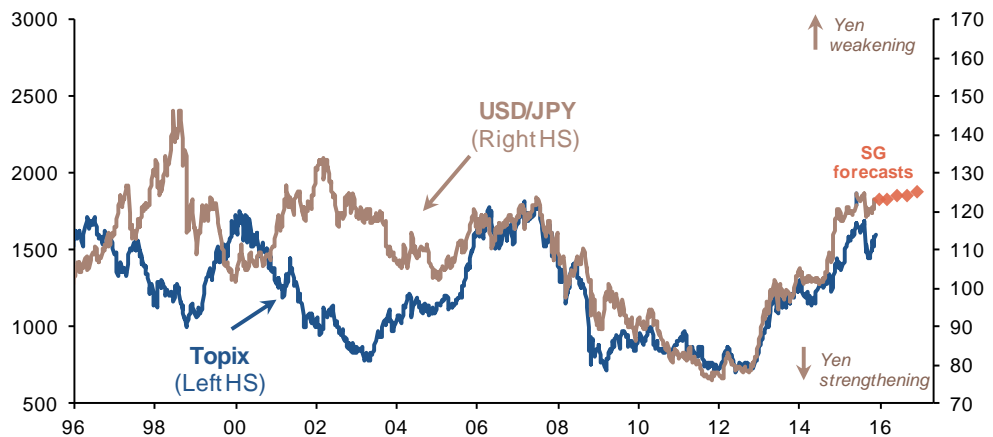
Japanese companies are highly underleveraged with cash holdings nearly twice as high as in the US. In a deflationary environment, paying back debts is indeed the right thing to do. However, now that Japan's underlying inflation trend is improving, other priorities are emerging, such as corporate governance. An obvious way to enhance shareholder return is to increase leverage by putting excess cash to work. As a result, we anticipate return on equity (ROE) normalising to double-digit levels.

Thanks to BOJ's QQE, we expect the yen to remain weak and the Topix to perform well

Supported by a normalisation of Return on Equity and a weak yen, our equity strategists forecast a Topix of 1780 at end-2016 (11% upside).

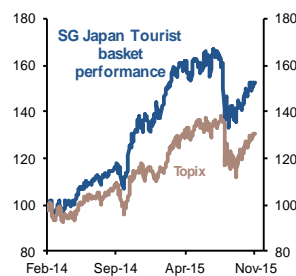
In the MAP, we keep Japanese equity at a Neutral weighting.

Our **Japan Tourism basket** provides a thematic approach ahead of the 2020 Olympic Games.



Source: Datastream, SG Cross Asset Research/Global Asset Allocation

Japan Tourism basket



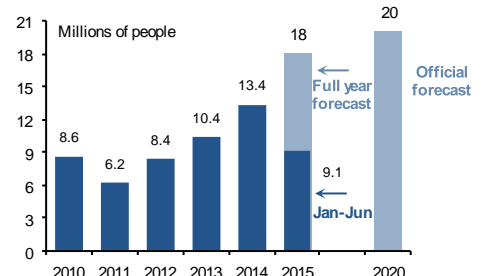
Source: SG Cross Asset Research

Japan – GDP growth and SG forecasts



Source: IMF, SG Global Asset Allocation

Tourism to rise ahead of 2020 Olympics



Source: , Japan Tourism Agency, SG Global Asset Allocation

Important Notice: The circumstances in which this publication has been produced are such that it is not appropriate to characterise it as independent investment research as referred to in MiFID and that it should be treated as a marketing communication even if it contains a research recommendation. This publication is also not subject to any prohibition on dealing ahead of the dissemination of investment research. However, SG is required to have policies to manage the conflicts which may arise in the production of its research, including preventing dealing ahead of investment research.



Economic Scenario

SG Economic Scenario

More life left in the cycle

- Profit margins and capacity suggest more life in the current recovery cycle for the G4.
- China set to bottom out.
- High debt remains a headwind.

First a car then a house

- Consumers are leading the way in recovery.
- Low oil price to remain a consumer support.
- Jobs hold the key.
- US housing the next leg of the recovery.

Rebalancing from labour to capital

- Tighter labour markets and need for renewal to drive investment in G4.
- China infra-structure spending to receive some policy support.

Criss-cross trade winds

- As investment recovers, trade is set to pick up.
- Long-term, trade agreements should boost service trade

Inflation heading higher

- China remains a deflationary force.
- Tighter G4 labour markets should see a revival of the Phillips Curve.
- The Fed is set to lift off, the ECB prepares to ease further.

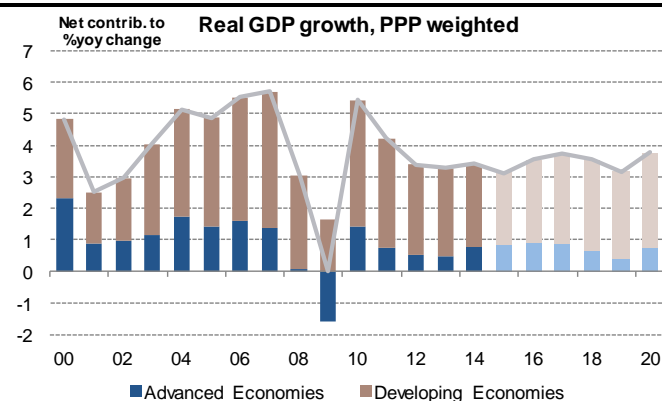
For further details, please see [SG Global Economic Outlook – Cycle is alive... ticking away in 2016!](#)

SG Growth and Inflation Outlook

	Real GDP							Potential growth		CPI						
	2014	2015f	2016f	2017f	2018f	2019f	2020f	per annum		2014	2015f	2016f	2017f	2018f	2019f	2020f
World (Mkt FX weights)	2.9	2.8	3.1	3.2	2.8	2.4	3.2			2.7	2.2	3.0	3.5	3.3	3.1	2.9
World (PPP weights)	3.4	3.1	3.5	3.7	3.5	3.2	3.8			3.6	3.7	4.1	4.3	4.0	3.8	3.6
Developed countries (PPP)	1.8	1.9	2.3	2.2	1.6	0.9	2.0			1.4	0.3	1.4	2.3	2.2	2.0	1.7
Emerging countries (PPP)	4.6	4.0	4.5	4.8	4.9	4.7	4.9			5.3	6.2	6.1	5.7	5.3	4.9	4.8
North America																
US	2.4	2.5	2.8	2.7	1.3	0.0	2.6	2.1		1.6	0.1	1.8	3.2	2.9	2.5	1.6
Europe																
Euro area	0.9	1.5	1.6	1.5	1.3	1.0	1.0	1.0		0.4	0.1	1.1	1.5	1.4	1.5	1.6
Germany (nsa)	1.6	1.6	1.8	1.5	1.4	1.0	0.6	1.2								
Germany	1.6	1.5	1.6	1.6	1.4	1.0	0.6			0.8	0.2	1.3	1.6	1.5	1.5	1.5
France	0.2	1.2	1.4	1.5	1.3	1.0	1.0	1.1		0.6	0.2	1.1	1.5	1.4	1.5	1.7
Italy	-0.4	0.7	1.2	0.9	0.8	0.5	0.6	0.7		0.2	0.2	1.1	1.6	1.4	1.4	1.6
Spain	1.4	3.1	2.5	1.7	1.5	1.2	1.3	0.9		-0.2	-0.7	0.7	1.1	1.1	1.3	1.5
Netherlands	1.0	1.9	2.0	1.6	1.3	1.0	1.1	1.2		0.3	0.3	0.9	1.1	1.3	1.3	1.5
Slovakia	2.4	3.2	2.9	3.0	2.8	2.8	2.3	2.5		-0.1	-0.2	0.5	2.1	2.3	2.0	2.0
UK	2.9	2.4	2.0	1.8	1.6	1.3	1.1	1.6		1.5	0.0	1.1	2.1	2.2	2.0	1.8
Switzerland	1.9	1.0	1.3	1.7	1.4	0.7	1.0	1.9		0.0	-1.1	-0.4	0.5	0.8	0.8	0.6
Asia																
China	7.3	6.9	6.0	6.0	5.5	5.0	5.5	5.5		2.0	1.5	2.0	2.4	2.2	2.0	2.5
Japan	-0.1	0.6	1.7	1.0	1.2	1.5	1.6	0.5		2.7	0.8	0.5	2.3	1.9	2.1	2.1
Australia	2.7	2.4	2.9	3.3	3.0	2.0	2.8	2.8		2.5	1.5	2.1	2.4	2.7	2.4	2.5
South Korea	3.3	2.6	3.2	3.5	3.2	2.5	3.0	3.0		1.3	0.7	1.8	2.1	2.0	1.8	1.8
Taiwan	3.8	1.0	1.8	2.9	2.8	0.7	2.3	2.5		1.2	-0.3	1.5	1.2	1.0	0.7	0.3
India*	6.9	7.3	7.3	7.4	7.8	8.1	7.8	7.5		9.7	5.9	5.1	5.5	5.0	4.9	5.0
Indonesia	5.0	4.7	5.2	5.5	6.0	6.3	6.4	5.6		6.4	6.6	5.7	5.9	5.2	4.9	4.8
Latin America																
Brazil	0.2	-3.2	-1.4	0.0	1.1	0.9	1.5	1.6		6.3	9.0	7.2	6.0	5.4	5.1	4.9
Mexico	2.3	2.5	3.2	3.4	2.2	0.9	2.2	2.9		4.0	2.8	3.5	3.3	3.1	2.9	2.9
Chile	1.9	2.3	2.5	2.7	2.5	2.1	2.4	2.6		4.4	4.3	3.6	3.3	3.1	3.1	3.1
Russia & Eastern Europe																
Russia	0.6	-3.8	0.0	1.0	1.1	1.2	1.5	1.5		8.6	15.1	7.6	5.9	5.7	5.3	4.9
Poland	3.3	3.5	3.5	3.6	4.0	2.8	3.2	3.1		0.1	-0.9	0.9	2.0	2.5	2.3	2.0
Czech Republic	2.0	4.2	2.8	2.6	2.5	2.1	1.9	2.0		0.4	0.5	1.6	2.2	1.9	1.9	2.4

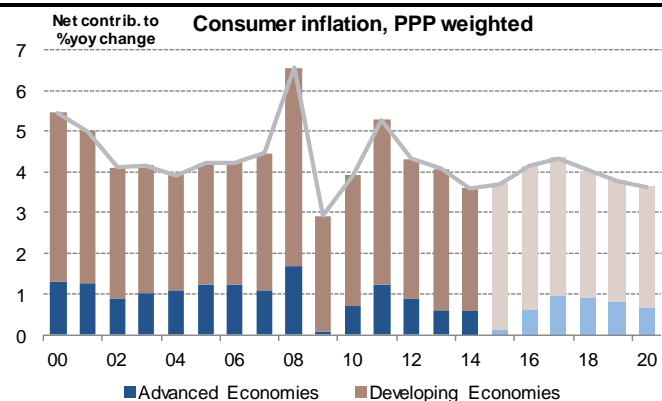
* In India, the numbers are averaged over the Fiscal Year, ending in March

Real GDP growth, PPP weighted



Source: SG Cross Asset Research/ Economics

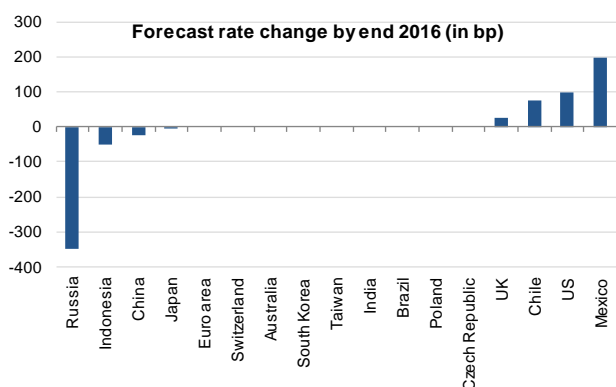
Consumer inflation, PPP weighted



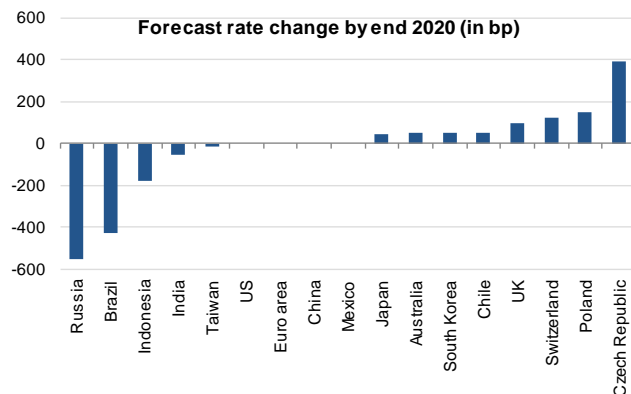
SG Monetary Policy Rate Outlook – Key Rates

	Nov 23	Dec 2015	Mar 2016	Jun 2016	Sep 2016	Dec 2016	Neutral rate	2015	2016	2017	2018	2019	2020
North America													
US	0.13	0.38	0.63	0.88	0.88	1.13	3.5	0.2	0.8	1.9	2.6	0.8	0.1
Europe													
Euro area	0.05	0.05	0.05	0.05	0.05	0.05	2.5	0.1	0.1	0.1	0.1	0.1	0.1
UK	0.50	0.50	0.50	0.50	0.50	0.75	3.5	0.5	0.5	1.3	2.3	2.3	1.8
Switzerland	-0.75	-0.72	-0.75	-0.75	-0.75	-0.75	2.0	-0.6	-0.7	-0.6	0.1	0.5	0.5
Asia													
China	1.50	1.50	1.50	1.50	1.25	1.25	3.0	2.0	1.4	1.3	1.0	0.6	1.0
Japan	0.08	0.07	0.07	0.07	0.07	0.07	1.5	0.1	0.1	0.1	0.1	0.1	0.2
Australia	2.00	2.00	2.00	2.00	2.00	2.00	4.5	2.1	2.0	2.5	3.3	3.0	2.5
South Korea	1.50	1.50	1.50	1.50	1.50	1.50	3.0	1.6	1.5	2.0	2.9	2.3	2.0
Taiwan	1.75	1.75	1.75	1.75	1.75	1.75	2.5	1.8	1.8	1.9	2.1	2.0	1.7
India	6.75	6.75	6.75	6.75	6.75	6.75	6.5	7.2	6.8	6.7	6.5	6.3	6.3
Indonesia	7.50	7.50	7.25	7.25	7.00	7.00	6.5	7.5	7.2	6.7	6.3	6.1	5.8
Latin America													
Brazil	14.25	14.25	14.25	14.25	14.25	14.25	11.0	13.5	14.3	13.7	12.2	10.5	10.0
Mexico	3.00	3.00	3.50	4.00	4.50	5.00	4.8	3.0	4.1	5.4	4.8	3.2	3.0
Chile	3.25	3.25	3.75	4.00	4.00	4.00	4.3	3.0	3.9	4.0	3.7	3.3	3.7
Eastern Europe													
Russia	11.00	10.50	9.00	8.50	8.00	7.50	4.0	92.0	8.5	7.3	6.3	5.5	5.5
Poland	1.50	1.50	1.50	1.50	1.50	1.50	3.8	1.5	1.5	1.9	2.7	2.3	2.7
Czech Republic	0.05	0.05	0.05	0.05	0.05	0.05	3.5	0.1	0.1	0.5	1.4	2.4	3.5

Short-term SG view



Long-term SG view

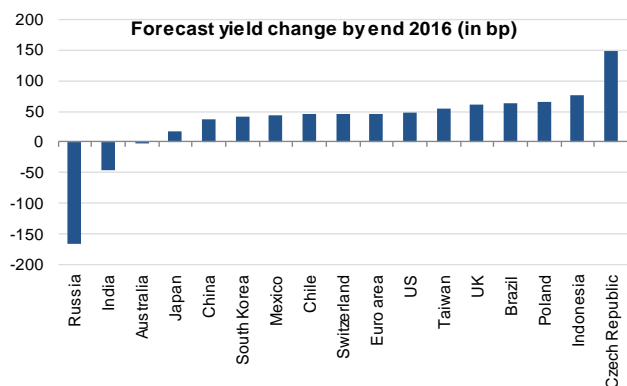


Source: SG Cross Asset Research/Economics. The "neutral rate" for key rates give our estimate of "fair value" assuming an output gap of zero and inflation at trend

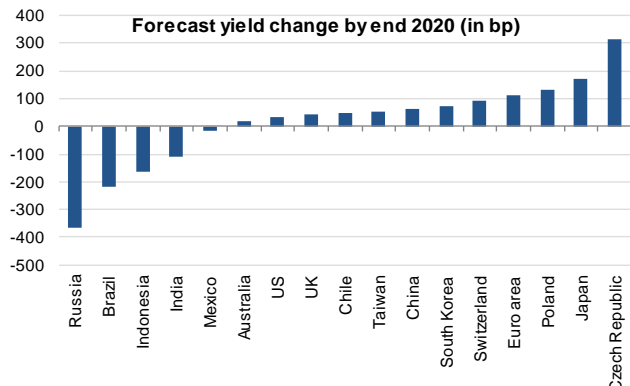
SG Long Gvt. Bond Yield Outlook (10Y)

	Nov 23	Dec 2015	Mar 2016	Jun 2016	Sep 2016	Dec 2016	Neutral rate	2015	2016	2017	2018	2019	2020
North America													
US	2.27	2.10	2.45	2.55	2.65	2.75	4.5	2.1	2.5	2.9	2.9	2.0	2.2
Europe													
Euro area	0.49	0.45	0.50	0.65	0.80	0.95	3.3	0.5	0.7	1.1	1.3	0.6	1.0
UK	1.89	1.75	2.00	2.20	2.40	2.50	4.5	1.8	2.2	2.4	2.4	1.5	1.8
Switzerland	-0.34	-0.44	-0.39	-0.19	-0.09	0.11	2.5	-0.1	-0.2	0.4	0.5	-0.4	0.0
Asia													
China	3.13	3.25	3.35	3.45	3.50	3.50	4.0	3.5	3.4	3.5	3.5	2.9	3.3
Japan	0.32	0.28	0.35	0.40	0.45	0.50	2.5	0.3	0.4	0.7	1.0	1.3	1.7
Australia	2.94	2.50	2.70	2.75	2.80	2.90	5.0	2.7	2.8	3.4	3.6	3.2	3.1
South Korea	2.29	2.25	2.35	2.45	2.50	2.70	4.0	2.4	2.5	3.4	3.9	2.9	2.9
Taiwan	1.15	1.30	1.40	1.50	1.60	1.70	2.8	1.5	1.5	1.9	2.3	2.1	1.8
India	7.72	7.60	7.75	7.60	7.40	7.25	7.0	7.7	7.5	7.3	7.0	6.8	6.7
Indonesia	8.63	8.75	9.20	9.40	9.45	9.40	7.3	8.2	9.3	8.3	7.9	7.4	7.1
Latin America													
Brazil	15.18	15.54	15.70	15.90	15.90	15.80	13.5	13.1	15.8	15.6	14.7	13.4	13.0
Mexico	6.18	6.07	6.07	6.20	6.40	6.60	6.2	6.0	6.3	6.5	6.3	5.9	5.8
Chile	4.60	4.60	4.90	5.00	5.03	5.05	5.3	4.4	5.0	5.1	5.2	5.1	5.1
Eastern Europe													
Russia	9.67	10.00	9.50	9.00	8.50	8.00	4.5	12.6	8.9	7.7	6.8	6.1	6.0
Poland	2.70	2.72	2.90	3.05	3.20	3.35	4.4	2.7	3.1	3.5	3.7	3.0	3.4
Czech Republic	0.46	0.75	1.05	1.20	1.50	1.95	5.0	0.8	1.3	2.7	3.5	3.7	3.6

Short-term SG view



Long-term SG view

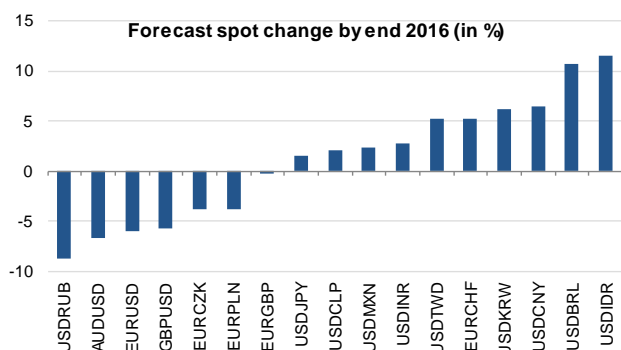


Source: SG Cross Asset Research/ Economics . The trend fair value for currencies reflects a PPP based valuation.

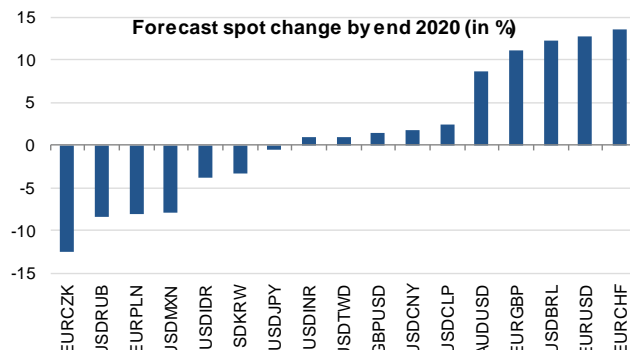
SG FX Outlook

	Nov 23	Dec 2015	Mar 2016	Jun 2016	Sep 2016	Dec 2016	Neutral rate	2015	2016	2017	2018	2019	2020
North America													
EURUSD	1.06	1.07	1.05	1.01	0.99	1.00	1.35	1.11	1.02	1.03	1.08	1.18	1.22
Europe													
EURGBP	0.70	0.73	0.71	0.71	0.71	0.70	0.75	0.73	0.71	0.71	0.75	0.77	0.79
GBPUSD	1.52	1.47	1.48	1.42	1.39	1.43	1.80	1.52	1.43	1.45	1.44	1.52	1.54
EURCHF	1.08	1.09	1.10	1.12	1.14	1.14	1.30	1.08	1.12	1.16	1.18	1.20	1.22
Asia													
USDCNY	6.39	6.50	6.60	6.65	6.70	6.80	6.00	6.28	6.66	6.60	6.50	6.59	6.51
USDJPY	123	123	123	124	124	125	115	121	124	127	130	127	124
AUDUSD	0.72	0.71	0.69	0.68	0.66	0.67	0.78	0.75	0.68	0.68	0.72	0.78	0.79
USDKRW	1159	1190	1200	1210	1220	1230	1050	1131	1212	1192	1122	1180	1157
USDTWD	32.7	33.3	33.5	33.8	34.1	34.4	29	31.7	33.9	33.0	32.6	33.5	33.2
USDINR	66.3	66.7	67.2	67.5	68.0	68.2	63.5	64.6	67.6	68.4	67.8	67.3	67.0
USDIDR	13719	14100	14400	14700	14900	15300	13500	13451	14725	15171	14008	13317	13204
Latin America													
USDBRL	3.71	3.90	3.95	4.00	4.05	4.10	4.00	3.19	4.01	4.24	4.36	4.20	4.16
USDMXN	16.61	16.85	16.90	16.90	16.95	17.00	15.5	15.5	16.9	16.7	16.1	15.5	15.3
USDCLP	711	715	717	720	722	725	710	644	720	733	741	736	731
Eastern Europe													
USDRUB	65.5	63.0	63.0	63.5	61.9	59.8	60.0	60.3	62.3	58.2	58.9	59.9	60.0
EURPLN	4.24	4.20	4.15	4.12	4.08	4.08	4.0	4.16	4.12	4.03	4.00	3.91	3.90
EURCZK	27.04	27.1	27.1	27.0	26.4	26.0	25.0	27.3	26.7	25.5	24.7	24.2	23.8

Short-term SG view



Long-term SG view



Source: SG Cross Asset Research/ Economics

Results of our Q-MAP model & portfolio construction tools

Main conclusions from our Q-MAP model run

The conclusions below are the result of our latest Q-MAP model run. Our optimisation process enables us to take account of different investment profile requirements in our allocation: risk-averse, risk-balanced and dynamic.

Insights from our Q-MAP model

Asset class	Tools	Level	Trend	Key messages
Equities	Expected return	**	↓	Highest for US equities, lowest for EM equities
	Expected volatility	**	↑	Chinese equities are most volatile, double-digit volatility for all equity markets
	Weight	UW	↑	Prefer Europe-ex-UK and US equity market
Bonds	Expected return	***	↓	Lowest for Euro area government bonds
	Expected volatility	**	↓	Average expected volatility declined
	Weight	OW	↓	OW USTs
Currencies	Expected return	*	↓	Best for USD, followed by GBP
	Expected volatility	**	↓	Moderately high volatility
	Weight	nm	nm	
Credit Investment Grade Credit	Expected return	***	↓	Highest for Asian investment grade
	Expected volatility	**	=	Volatility declined, falling most for US IG
	Weight	OW	=	
High Yield Credit	Expected return	***	↓	Asia HY offers the best return
	Expected volatility	**	↓	Highest for US HY
	Weight	OW	=	
Commodities	Expected return	*	↓	Continues to have negative expected return
	Expected volatility	***	↑	Volatility went up over the last 3 months
	Weight	MIN	=	Zero allocation to commodities

3M trend: change. Level: from * (the lowest level) to *** (the highest level). Weight: based on the common currency risk balanced portfolio. Source: SG Cross Asset Research/Global Asset Allocation

Expected returns

Over the last three months, average return expectations have declined. Return expectations fell the most for EM equities and EM government bonds. Within EM assets, return expectations for fixed income assets are higher than for EM equities. Within developed market equities, the US and the eurozone remain the preferred markets. Within government bonds, USTs is the preferred market.

Expected volatility

Over the last three months, the expected volatility signal for equity markets has increased. At the same time, expected volatility of fixed income assets has fallen. The Chinese equity market is expected to be the most volatile. The average expected volatility of both equities and government bonds is in double digits.

Correlation

Cross-asset correlation has declined over the last month from its historical peak (page 5). Despite the recent fall, average cross-asset correlation remains high in a historical context. The decline in the cross-asset correlation has been driven by falling correlation between equity and bond prices.

Portfolio changes

Since our last update, allocation to equities has increased (from 32% to 39%) while allocation to fixed income assets has declined (from 63% to 56%). Within equities, we continue to favour US and Europe-ex-UK equity markets while maintaining a minimum allocation to emerging markets, Japan and UK.

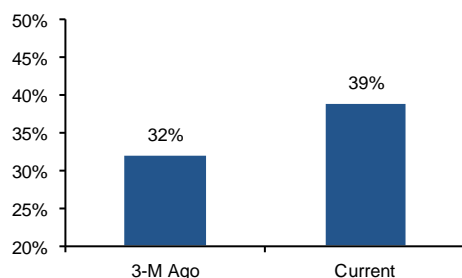
Q-MAP risk-balanced portfolio signals

The charts below show the trends for our **Q-MAP risk-balanced portfolio**.

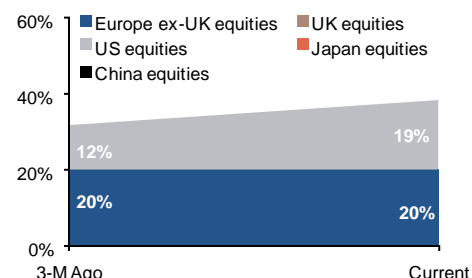
Since our last quarterly update, allocation to equities has gone up while fixed income (government bond + corporate credit) allocation has come down. The rise in equity allocation has been driven by higher allocation to US equities. Our model continues to signal minimum allocation to the UK, emerging markets and Japan.

Within government bonds, USTs remain the favourite.

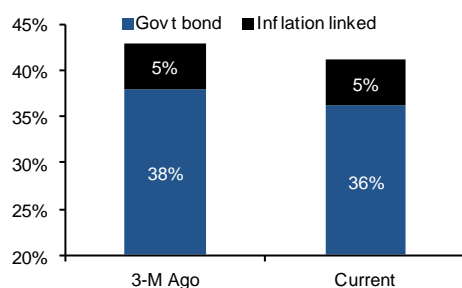
Equity weight



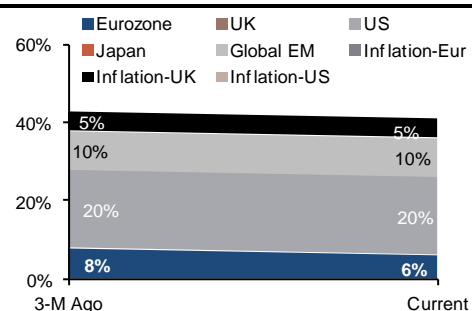
Equity allocation



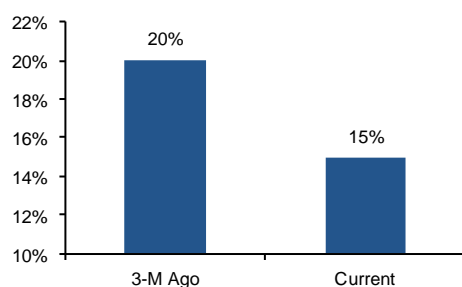
Govt and inflation-linked bond weight



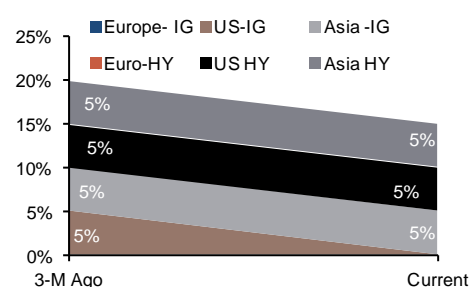
Govt and inflation-linked bond allocation



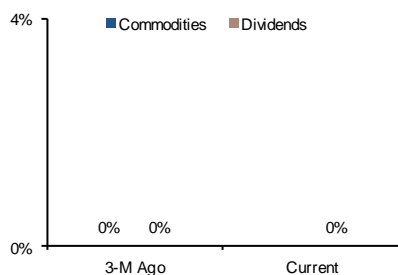
Credit weight



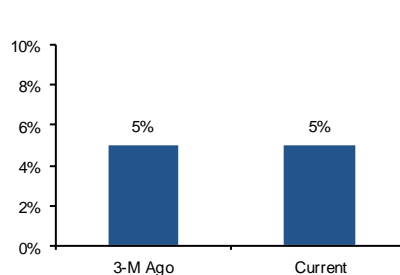
Credit allocation



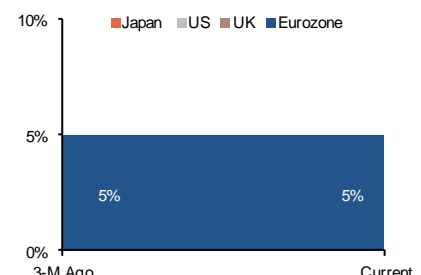
Commodities & Dividends – Zero allocation



Cash weight



Cash allocation



Source: SG Cross Asset Research/Global Asset Allocation

Optimal portfolios from our Q-MAP model

Risk averse •Focus on low risk	Risk balanced •Focus on risk reward	Dynamic •Focus on high return
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Three portfolios from our Q-MAP model

Authorised bands		Asset classes	Portfolios		
Min	Max		Risk-averse	Risk-balanced	Dynamic
30%	70%	EQUITIES	30%	39%	70%
0%	20%	Europe ex-UK equities	20%	20%	20%
0%	10%	UK equities	0%	0%	0%
10%	40%	US equities	10%	19%	40%
0%	10%	Japanese equities	0%	0%	10%
0%	5%	China equity	0%	0%	0%
0%	10%	Global emerging equities	0%	0%	0%
5%	50%	BONDS	26%	36%	5%
0%	15%	Government bonds - Eurozone	15%	6%	0%
0%	5%	Government bonds - UK	0%	0%	0%
0%	20%	Government bonds - US	0%	20%	0%
0%	15%	Government bonds - Japan	11%	0%	0%
0%	10%	Government bonds - EM	0%	10%	5%
0%	15%	INFLATION LINKED BONDS	7%	5%	5%
0%	5%	Inflation-Eur	5%	0%	0%
0%	5%	Inflation-UK	2%	5%	5%
0%	5%	Inflation-US	0%	0%	0%
0%	20%	CREDIT	15%	15%	15%
0%	10%	Corporate Credit - Europe	10%	0%	0%
0%	10%	Corporate Credit - US	0%	0%	0%
0%	5%	Corporate Credit -Asia	0%	5%	5%
0%	5%	High Yield Credit-Europe	5%	0%	0%
0%	5%	High Yield Credit-US	0%	5%	5%
0%	5%	High Yield Credit-Asia	0%	5%	5%
5%	30%	CASH	20%	5%	5%
0%	10%	Cash Eurozone	10%	5%	0%
0%	10%	Cash UK	0%	0%	0%
0%	10%	Cash US	0%	0%	5%
0%	10%	Cash Japan	10%	0%	0%
0%	20%	ALTERNATIVES	2%	0%	0%
0%	10%	Commodities	0%	0%	0%
0%	5%	Dividends	2%	0%	0%
Exp Returns			6.0%	10.7%	12.1%
Volatility			6.7%	10.9%	14.7%
Sharpe Ratio			0.9	1.0	0.8
Currency Exposure					
Euro			67%	31%	20%
USD			10%	44%	50%
Other			23%	25%	30%

Calculations based on common currency (euro). Expected volatility: 12-month forward volatility is based on the EWMA model. Expected return: the estimated future performance of an asset, based on a mix of a normalised, momentum and risk-derived approaches. The Sharpe ratio indicates the amount of probability for one unit of risk. The higher the Sharpe ratio, the greater the return on risk.

Note: Past performance is not indicative of future results. Portfolio presented assumes no transaction costs. For additional details on portfolio performance, including interim recommendations or a different performance horizon, please contact us. Source: SG Cross Asset Research/Global Asset Allocation

Q-MAP risk-balanced portfolio signals

Portfolios in common versus local currency (i.e. hedged)

On the previous page, we present the results of our Q-MAP model run in common currency (euro). Nevertheless, we also run all our portfolio tools in local currency (i.e. hedged) and the results are available on request (gaa@sgcib.com). Below, we highlight the major differences between the two approaches to the Q-MAP risk-balanced portfolio.

Q-MAP risk-balanced portfolio in common currency (euro) and in local currency

Authorised bands		Asset classes	Risk-balanced portfolio		
Min	Max		Common currency	Local currency	Common vs local cur.
30%	70%	EQUITIES	39%	50%	↓
0%	20%	Europe ex-UK equities	20%	20%	=
0%	10%	UK equities	0%	0%	=
10%	40%	US equities	19%	10%	↑
0%	10%	Japanese equities	0%	10%	↓
0%	5%	China equities	0%	0%	=
0%	10%	EM equities	0%	10%	↓
5%	50%	BONDS	36%	25%	↑
0%	15%	European government bonds	6%	0%	↑
0%	5%	UK government bonds	0%	5%	↓
0%	20%	US government bonds	20%	10%	↑
0%	15%	Japanese government bonds	0%	0%	=
0%	10%	EM bonds	10%	10%	=
0%	15%	INFLATION LINKED BONDS	5%	5%	=
0%	5%	Inflation - US	0%	0%	=
0%	5%	Inflation - UK	5%	5%	=
0%	5%	Inflation - Eur	0%	0%	=
0%	20%	CREDIT	15%	15%	=
0%	10%	Corporate credit – Europe	0%	0%	=
0%	10%	Corporate credit – US	0%	0%	=
0%	5%	Corporate credit – Asia	5%	5%	=
0%	5%	High Yield credit – Europe	0%	0%	=
0%	5%	High Yield credit – US	5%	5%	=
0%	5%	High Yield credit – Asia	5%	5%	=
5%	30%	CASH	5%	5%	=
0%	10%	Eurozone	5%	5%	=
0%	10%	UK	0%	0%	=
0%	10%	US	0%	0%	=
0%	10%	Japan	0%	0%	=
0%	20%	ALTERNATIVES	0%	0%	=
0%	10%	Commodities	0%	0%	=
0%	5%	Dividend Futures	0%	0%	=

Calculations based on local (hedged) and common currency (euro) based on SG Q-MAP methodology.
Source: SG Cross Asset Research/Global Asset Allocation

Asset class expected returns

How do we calculate our expected return? Investor return expectations are a function of historical returns (normalised expected return), recent returns (momentum expected return) and risk-return profile expectations (risk-derived expected return). These three return components are combined to arrive at the expected total return of the asset class over a 12-month horizon.

Hierarchy of the current 12-month expected return (%)

Top/Bottom expected return change over the 3 months

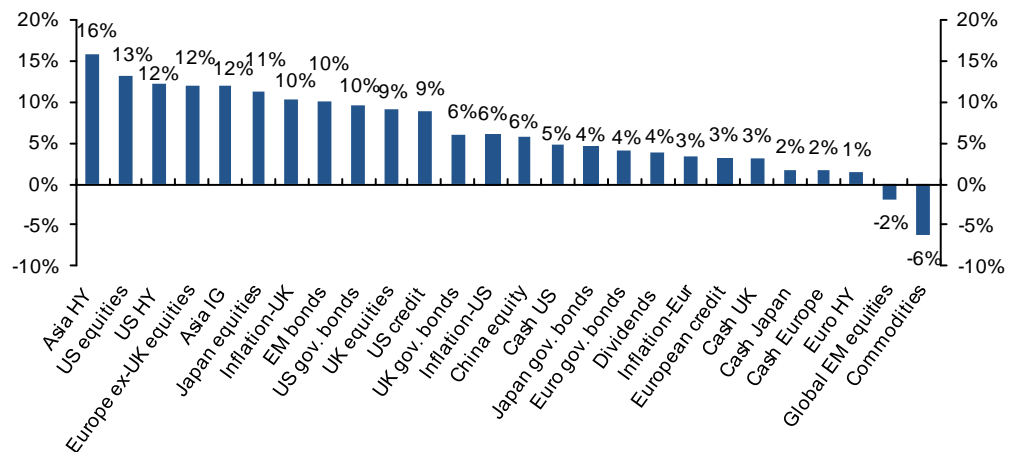
Top 3

- JGBs
- Cash Japan
- Cash Europe

Bottom 3

- EM equity
- US equity
- China equity

Top three/Bottom three = highest increase/decrease of expected return over one month



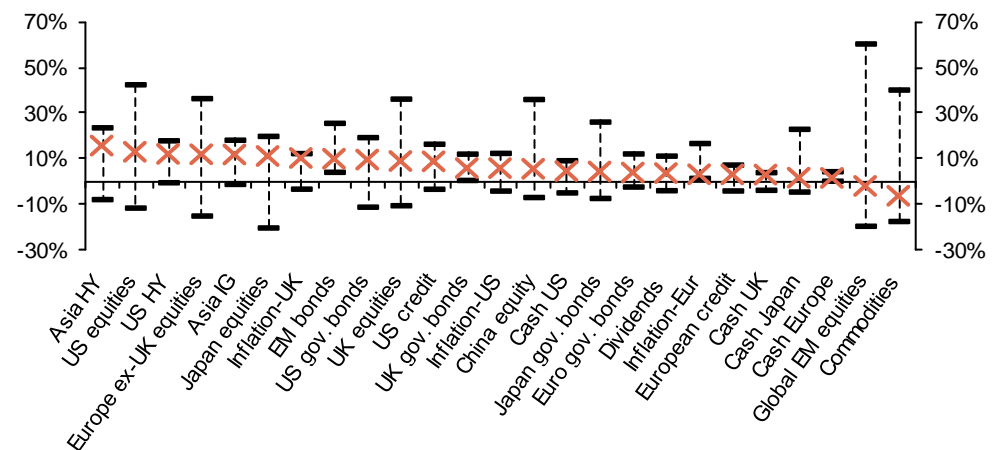
Common currency: euro. Expected return: the estimated future performance of an asset, based on a mix of a normalised, momentum and risk-derived approach. Source: SG Cross Asset Research/Global Asset Allocation

Where the current expected return stands compared to the historical range (since 1994)



How to read this chart

The hierarchy depends on the historical percentile: on the left (or right) of the chart are asset classes with current expected return the closest to its historical maximum (or minimum)



Common currency: euro. Expected return: the estimated future performance of an asset, based on a mix of a normalised, momentum and risk-derived approach. Cross corresponds to current expected return. Max and Min computed over the period from 29/04/94 to 06/11/2015. Source: SG Cross Asset Research/Global Asset Allocation

Asset class expected volatility

How do we calculate our expected volatility? Expected volatility is a measure of volatility over 12 months. We calculate expected 12-month volatility using an exponentially weighted moving average methodology.

Top/Bottom expected volatility change over 3 months

Top 3

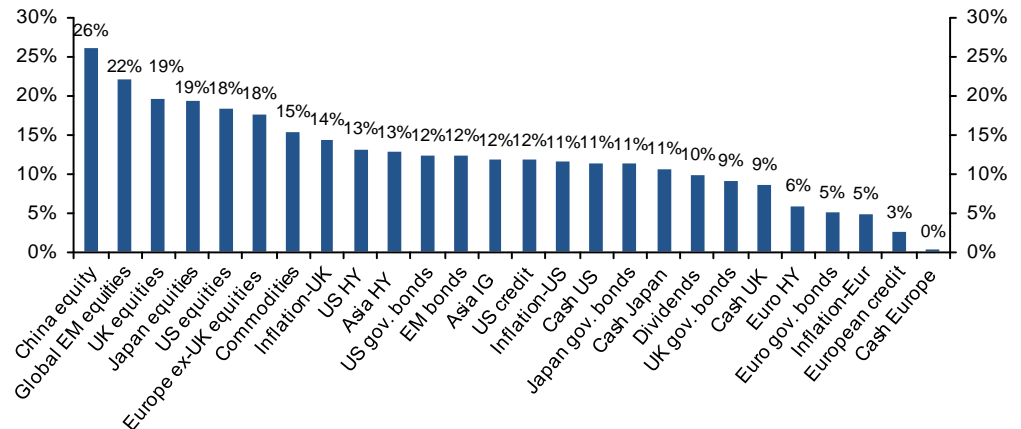
- UK Gilts
- Euro govt bonds
- US IG credit

Bottom 3

- GEM equity
- US equity
- Europe-ex-UK equity

Top three/Bottom three = highest decrease/increase of expected volatility over 3month

Expected volatility (%) – Current



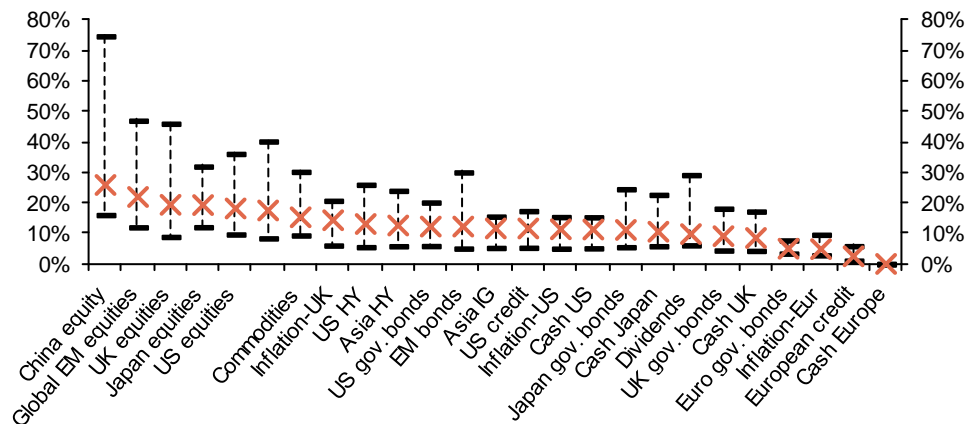
Common currency: euro. 12-month forward volatility is based on the EWMA model. Source: SG Cross Asset Research/Global Asset Allocation

Where current expected volatility stands compared to the historical range (since 1994)



How to read this chart?

Hierarchy is in function of historical percentile: on the left (or right) of the chart are located asset classes with current expected volatility the closest from its historical maximum (or minimum)



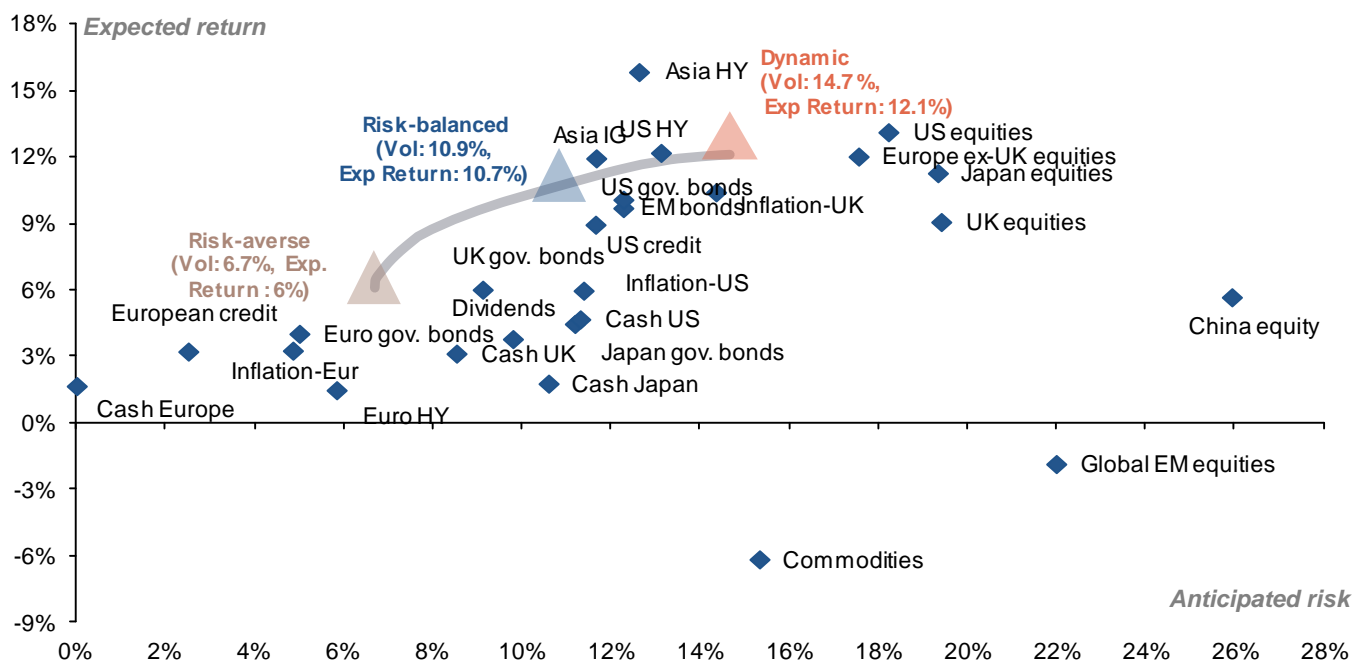
Common currency: euro. 12-month forward volatility is based on the EWMA model. Cross corresponds to current conditional volatility as of 6/11/2015. Max and min computed over the period from 25/03/94 to 06/11/2015 Source: SG Cross Asset Research/Global Asset Allocation

Position of asset classes on the efficient frontier

What is an efficient frontier?

A set of optimal portfolios that offers the highest expected return for a defined level of risk (or the lowest risk for a given level of expected return). SG Q-MAP portfolios (risk-averse, dynamic, risk-balanced) are on the efficient frontier.

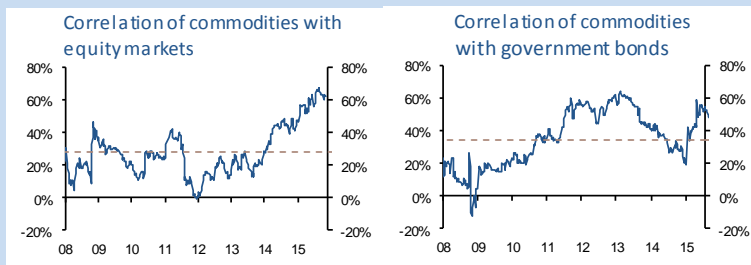
Positioning of asset classes and Q-MAP portfolios relative to the efficient frontier



Common currency: euro. Anticipated risk: 12-month forward volatility is based on the EWMA model. Expected return: the estimated future performance of an asset, based on a mix of a normalised, momentum and risk-derived approaches. Source: SG Cross Asset Research/Global Asset Allocation

Correlation matrix (in euro)

Common currency correlation	Equities					Government bonds					Inflation			IG Credit			HY Credit			Cash				Others	
	UK	US	Japan	China	Global EM	Euro	UK	US	Japan	EM	US	UK	Eur	Euro	US	Asia	Euro	US	Asia	Euro	UK	US	Japan	Commodities	Dividends
Europe ex-UK equities	90%	84%	74%	69%	82%	-7%	41%	25%	9%	69%	1%	6%	34%	26%	45%	53%	69%	71%	65%	7%	60%	49%	15%	48%	73%
UK equities		84%	75%	67%	82%	-1%	49%	23%	7%	64%	-3%	11%	36%	32%	44%	48%	57%	67%	59%	7%	69%	42%	11%	52%	61%
US equities			81%	72%	82%	-2%	50%	45%	25%	81%	4%	6%	32%	27%	63%	72%	55%	83%	81%	0%	67%	70%	29%	56%	59%
Japan equities				71%	74%	2%	53%	48%	26%	71%	9%	3%	39%	45%	62%	65%	56%	70%	75%	3%	68%	65%	35%	51%	51%
China equity					87%	3%	40%	31%	11%	63%	-	17%	24%	32%	48%	54%	54%	59%	64%	5%	50%	49%	16%	38%	47%
Global EM equities						-4%	45%	30%	20%	76%	10%	2%	6%	29%	53%	58%	61%	73%	69%	4%	58%	50%	23%	55%	56%
Euro gov. bonds							48%	39%	28%	7%	4%	6%	57%	63%	26%	12%	-2%	-4%	-2%	6%	11%	2%	16%	-24%	-13%
UK gov. bonds								72%	60%	61%	16%	3%	52%	57%	75%	65%	22%	52%	57%	-5%	82%	53%	57%	9%	13%
US gov. bonds									82%	70%	28%	-	48%	37%	92%	85%	2%	59%	70%	-10%	49%	78%	82%	15%	1%
Japan gov. bonds										61%	40%	-	40%	25%	79%	73%	-5%	53%	58%	-20%	44%	67%	96%	19%	-8%
EM bonds											22%	26%	-9%	35%	86%	90%	49%	93%	91%	-8%	67%	87%	64%	52%	44%
Inflation-US												-	18%	10%	29%	28%	0%	18%	20%	16%	8%	24%	36%	10%	4%
Inflation-UK												97%	-6%												
Inflation-Eur															11%	-14%	4%	-6%	-8%	-16%	6%	-12%	-23%	-9%	-1%
European credit															59%	40%	26%	35%	39%	3%	37%	28%	34%	10%	25%
US credit																44%	29%	53%	33%	22%	45%	24%	21%	0%	19%
Asia IG																95%	27%	81%	87%	-5%	65%	88%	78%	30%	19%
Euro HY																	32%	87%	95%	-7%	64%	94%	75%	41%	30%
US HY																		60%	47%	21%	44%	31%	-2%	35%	60%
Asia HY																			91%	1%	67%	85%	56%	59%	46%
Cash Europe																					-4%	-8%	-19%	7%	8%
Cash UK																								34%	33%
Cash US																								46%	25%
Cash Japan																								29%	-1%
Commodities																									30%



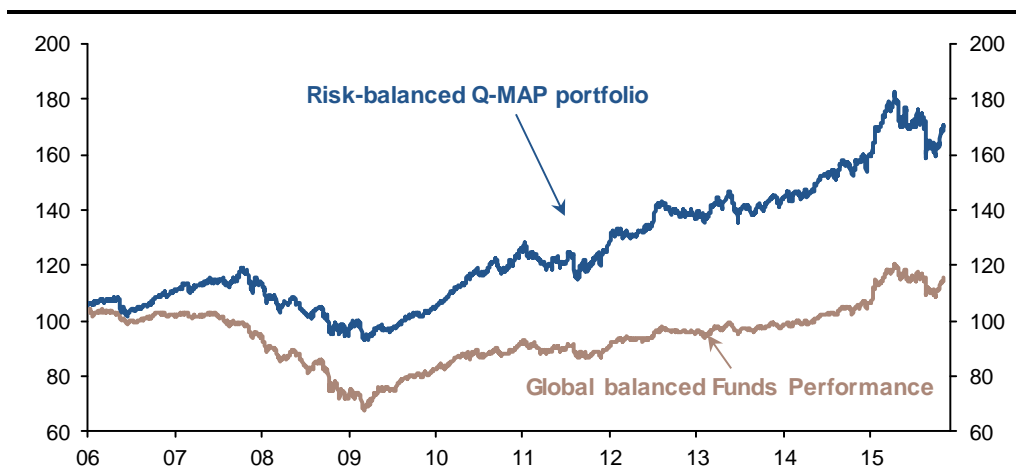
Calculations based on euros. Range between -100% and 100%. A correlation coefficient of zero indicates a complete lack of relationship, whereas a coefficient of 100% demonstrates a perfect linear relationship. Correlation has been calculated using logarithmic returns and EWMA method. Source: SG Cross Asset Research/Global Asset Allocation

Performance snapshot of Q-MAP risk-balanced portfolio

What is our Q-MAP model?

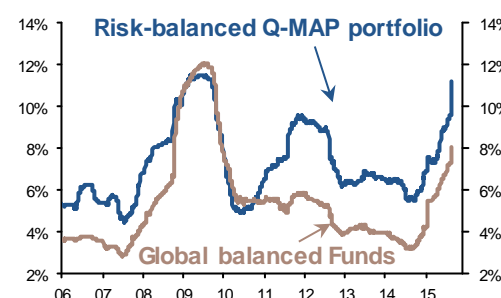
We leverage the pure quantitative tools ('Q-MAP' for short) that support the asset allocation decisions flagged in our quarterly MAP. We run our models on a monthly basis. The Q-MAP can differ from MAP to the extent that the latter also considers qualitative factors. Our optimisation process allows us to take different investment profile requirements into account. These requirements are organised into three types of optimal portfolios:

Performance (rebased to 100 = 01/09/2005)

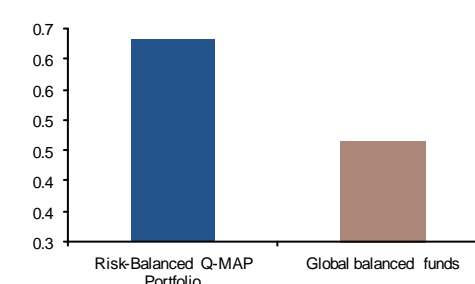


Performance in euro and total return. 100=01/09/2005 (Launch of MAP): SG Cross Asset Research/Global Asset Allocation, Bloomberg. Past performance is not indicative of future performance. Portfolio presented assumes no transaction costs. For additional details on portfolio performance, including interim recommendations or a longer performance horizon, please contact us

1-year realised volatility



Sharpe ratio (higher is better)



One-year volatility based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation, Bloomberg. Past performance is not indicative of future performance. Portfolio presented assumes no transaction costs. For additional details on portfolio performance, including interim recommendations or a longer performance horizon, please contact us

Q-MAP risk balanced versus global funds snapshot

	Since Sept. 2005		In 2015	
	Q-MAP risk-balanced portfolio	Global balanced funds index	Q-MAP risk-balanced portfolio	Global balanced funds index
Annual return	5.5%	1.9%	6.2%	8.1%
1Y Volatility	8.1%	3.6%	11.9%	6.1%
Sharpe ratio	0.7	0.5	0.5	1.3
Max drawdown	22%	35%	13%	10%

Past performance is not indicative of future results. Portfolio assumes no transaction costs. For additional details on portfolio performance, including interim recommendation, or a different time horizon, please contact us. Source: SG Cross Asset Research/Global Asset Allocation, Bloomberg.

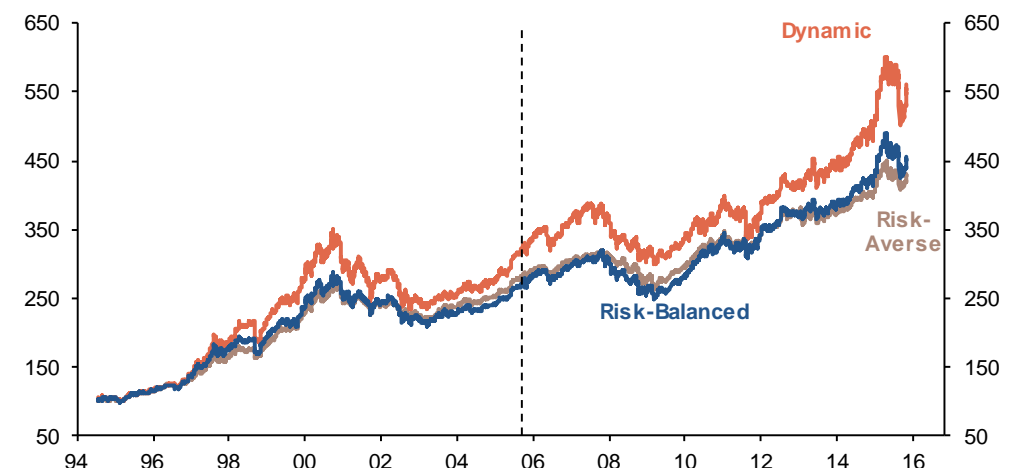
Q-MAP portfolio performances

Performance of Q-MAP portfolios since 1994

Risk and return of Q-MAP portfolios since 1994

	Risk-averse	Risk-balanced	Dynamic
Annualised return	7.1%	7.4%	8.5%
Volatility	7.4%	9.0%	11.2%
Sharpe ratio	0.94	0.81	0.74
Max drawdown	22%	27%	33%

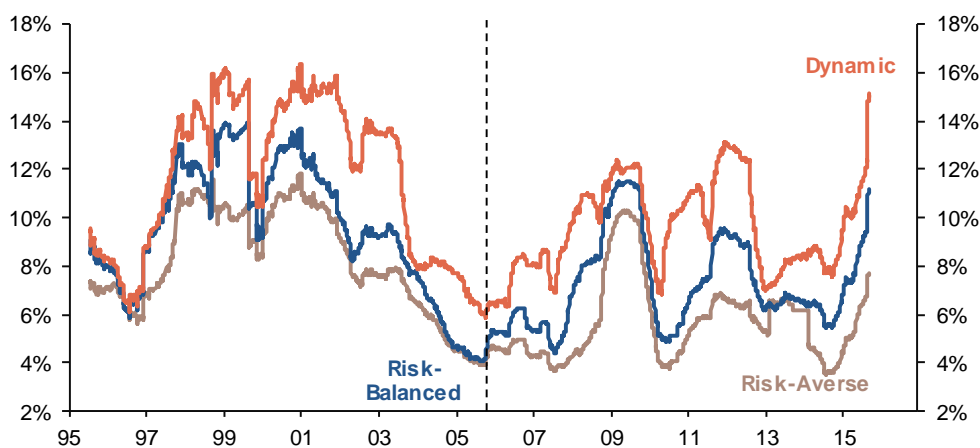
Performance and ratios are in total return and in euro. Data prior to Sept. 2005 is based on backtest results. Source: SG Cross Asset Research/Global Asset Allocation



Rebased to 100 = 15/07/1994. Performance in total return and in euro. Data prior to Sept. 2005 (indicated by dotted vertical line) is based on backtest results. Source: SG Cross Asset Research/Global Asset Allocation.

Past performance is not indicative of future performance. The portfolio presented assumes no transaction costs. For additional details on portfolio performance, including interim recommendations or a longer performance horizon, please contact us

One-year volatility of Q-MAP portfolios since 1994



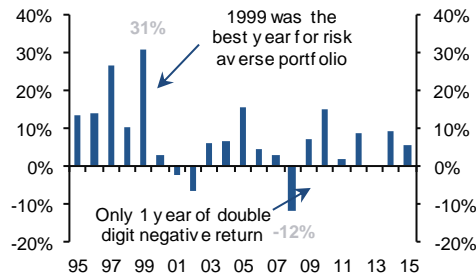
One-year realised volatility has been calculated using equal weight daily logarithmic returns. Data prior to Sept. 2005 (indicated by dotted vertical line) is based on backtest results. Source: SG Cross Asset Research/Global Asset Allocation.

Past performance is not indicative of future performance. The portfolio presented assumes no transaction costs. For additional details on portfolio performance, including interim recommendations or a longer performance horizon, please contact us.

Historical return and volatility distribution of Q-MAP portfolios

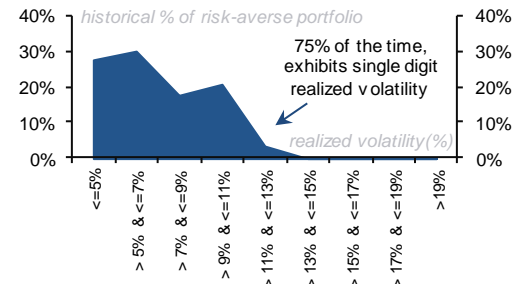
Our risk-averse portfolio tends to do well during times of market stress and when volatility is high. With a relatively higher allocation in bonds, it has curtailed downside to low double-digit levels, even during the credit crisis. This portfolio has mostly exhibited single-digit volatility.

Risk-averse annual return



Total return in euro over the calendar year.
Source: SG Cross Asset Research/Global Asset Allocation

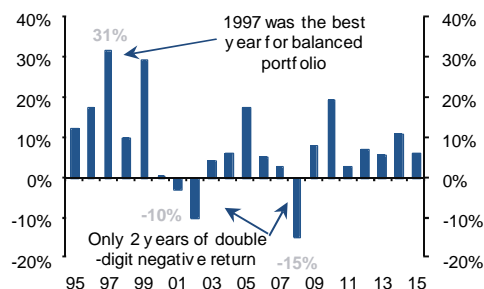
Risk-averse volatility distribution



Realised volatility has been calculated using equal weighted daily logarithmic returns since 13/07/1995
Source: SG Cross Asset Research/Global Asset Allocation

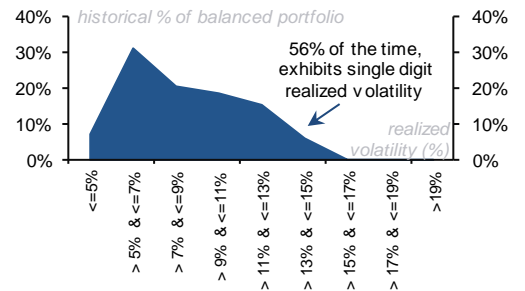
The risk-balanced portfolio did well in 2010 and 2011 and has delivered marginally higher returns compared to our risk-averse portfolio. Since 1995, there have only been three years of negative returns.

Risk-balanced annual return



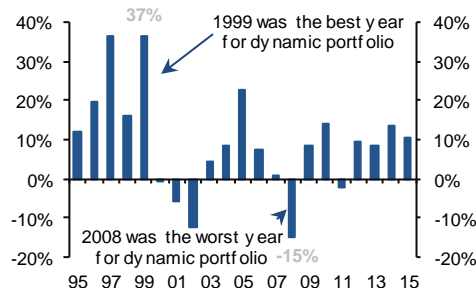
Total return in euro over the calendar year.
Source: SG Cross Asset Research/Global Asset Allocation

Risk-balanced volatility distribution



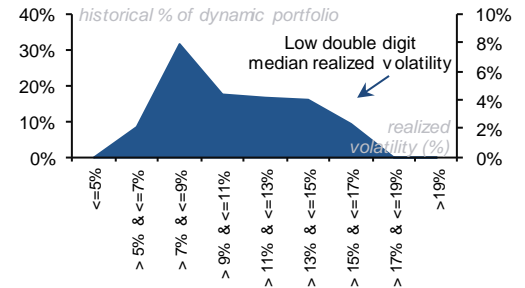
Realised volatility has been calculated using equal-weighted daily logarithmic returns since 13/07/1995
Source: SG Cross Asset Research/Global Asset Allocation

Dynamic annual return



Total return in euro over the calendar year.
Source: SG Cross Asset Research/Global Asset Allocation

Dynamic volatility distribution



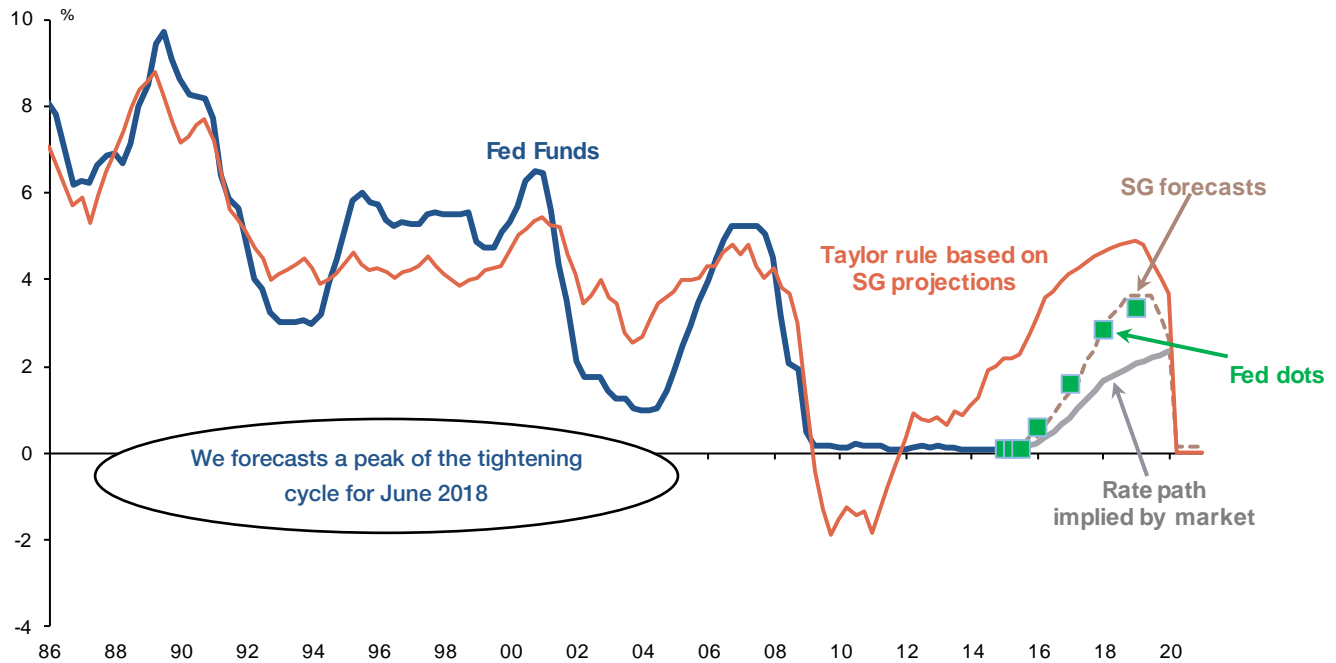
Realised volatility has been calculated using equal-weighted daily logarithmic returns since 13/07/1995
Source: SG Cross Asset Research/Global Asset Allocation

Asset classes under review

Cash: Risk-free rate

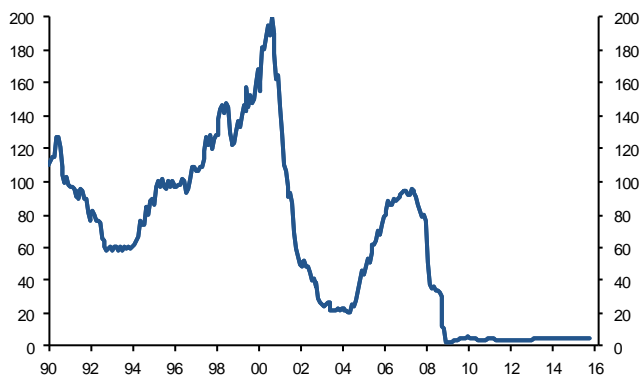
Underweight

Fed Funds Rate vs Taylor rule



Definition of the Taylor Rule used in this chart: Prescribed Central Bank Rate = Neutral Real Rate + Inflation Rate + 0.5*(Inflation Rate - Inflation Target) + 0.5*2*(NAIRU - Unemployment Rate). Given the zero-bound on interest rates and the unorthodox policy measures adopted by the Fed, traditional Taylor Rules are less useful than in the past for forecasting the path of policy rates. This version of the rule doubles the employment gap coefficient relative to the standard approach. Source: SG Cross Asset Research / Economics

Earnings yield ratio relative to short-term yield – US



Earnings yield ratio: Central bank yield divided by inverted equity market P/E.
Source: SG Cross Asset Research/Global Asset Allocation, Datastream

Earnings yield ratio relative to short-term yield – Europe

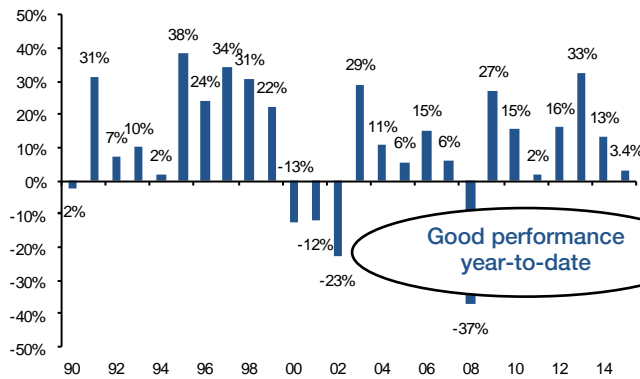


Earnings yield ratio: Central bank yield divided by inverted equity market P/E.
Source: SG Cross Asset Research/Global Asset Allocation, Datastream

Equity: US equity market

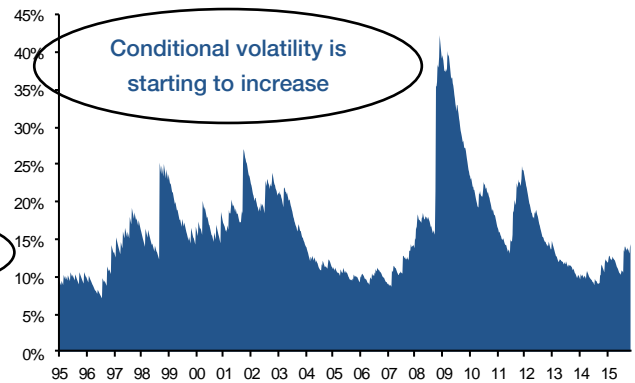
Underweight

Annual return (%)



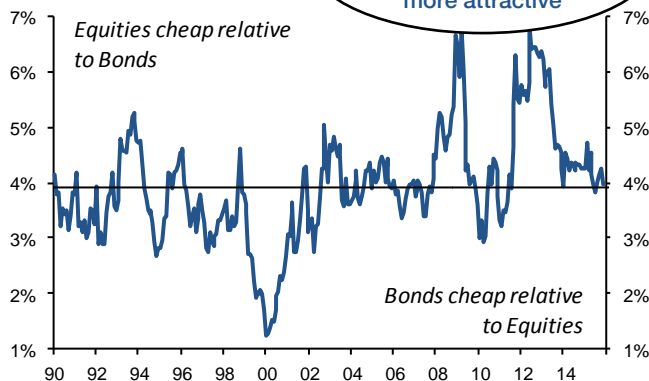
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



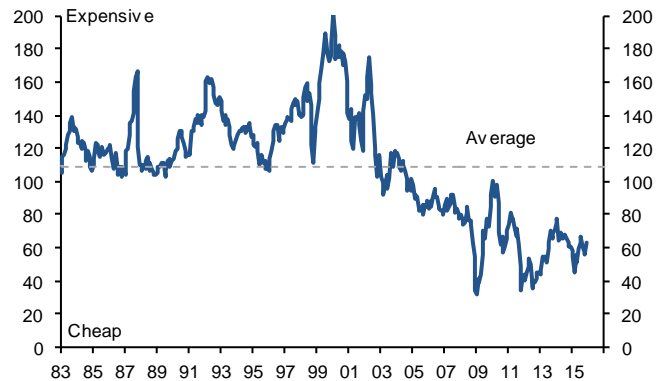
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

Equity risk premium – US



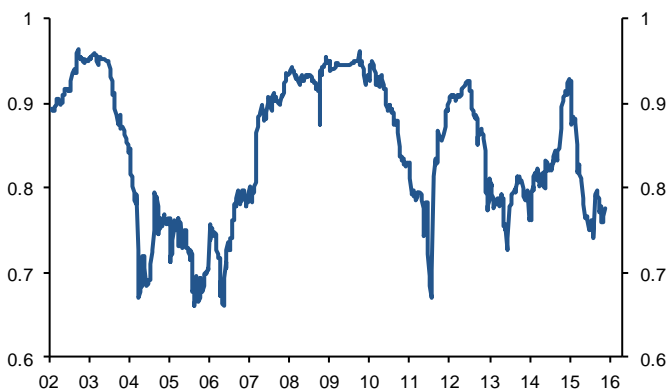
Equity risk premium: Internal rate of return minus 10-year bond yield.
Source: SG Cross Asset Research/Global Asset Allocation

Fed model – US



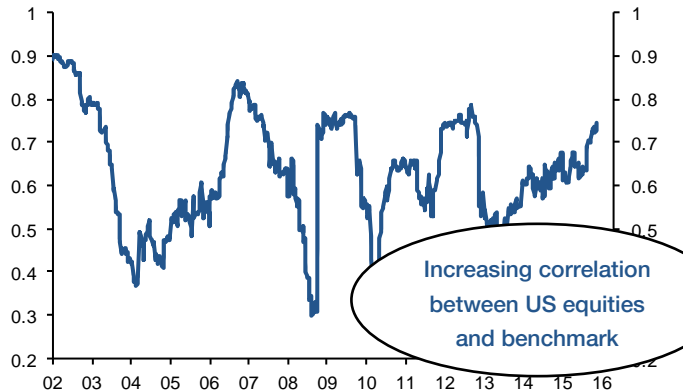
Earnings yield ratio: 10-year government nominal bond yield divided by inverted equity market P/E.
Source: SG Cross Asset Research/Global Asset Allocation, Datastream, R. Shiller (Yale University)

Correlation with global equities



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

Correlation with a 50% bonds/50% equities portfolio

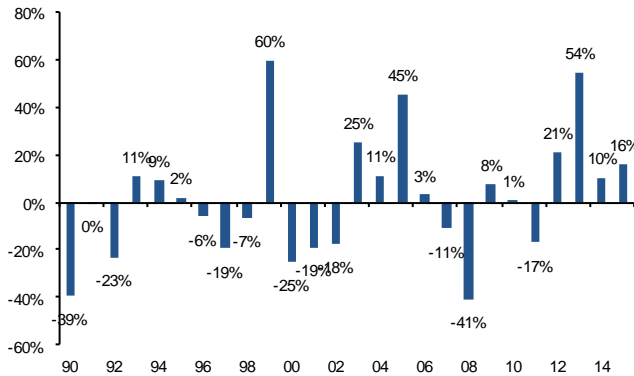


Correlation is based on one-year weekly data. Benchmark is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

Equity: Japanese equity market

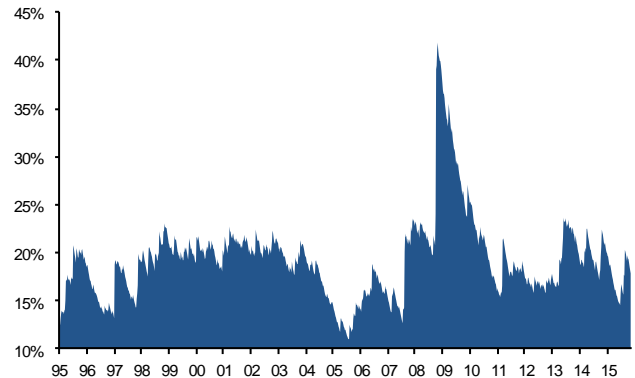
Neutral

Annual return (%)



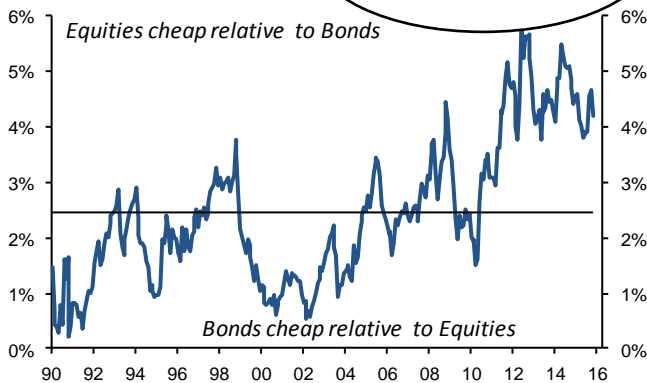
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

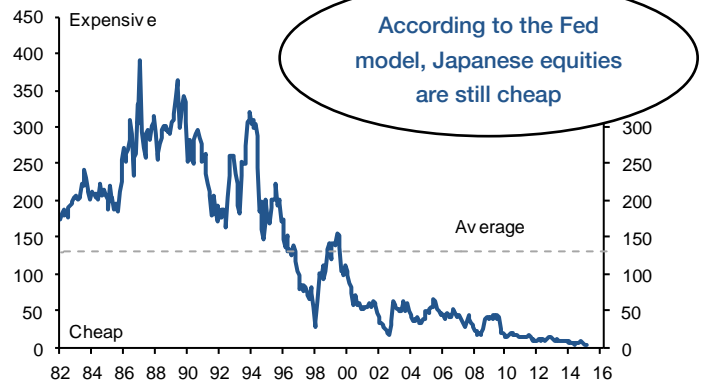
Equity risk premium – Japan



Equity risk premium: Internal rate of return minus 10-year bond yield.
Source: SG Cross Asset Research/Global Asset Allocation

The ERP still points to a preference for Japanese equities

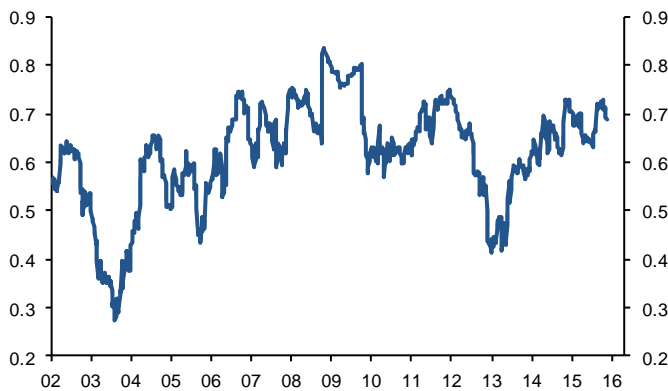
Fed model – Japan



Earnings yield ratio: 10-year government nominal bond yield divided by inverted equity market P/E.
Source: SG Cross Asset Research/Global Asset Allocation, Datastream, R. Shiller (Yale University)

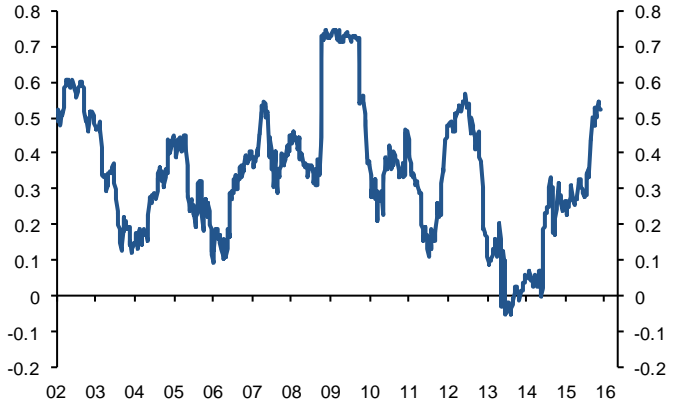
According to the Fed model, Japanese equities are still cheap

Correlation with global equities



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

Correlation with a 50% bonds/50% equities portfolio



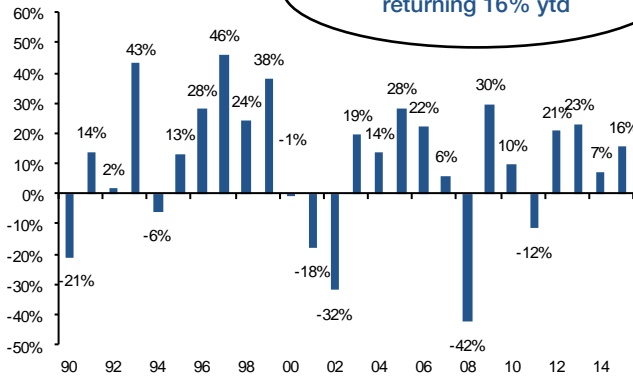
Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

Equity: Euro equity market

Overweight

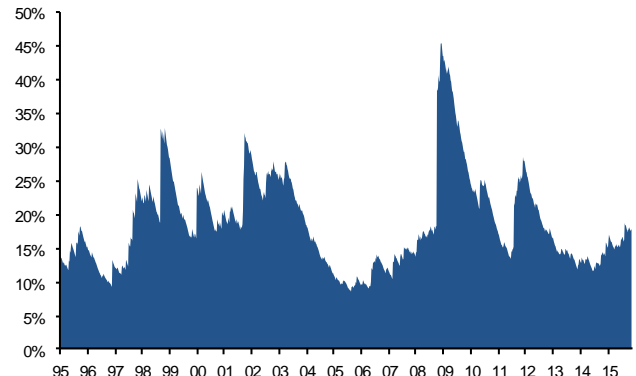
Annual return (%)

The euro equity market is returning 16% ytd



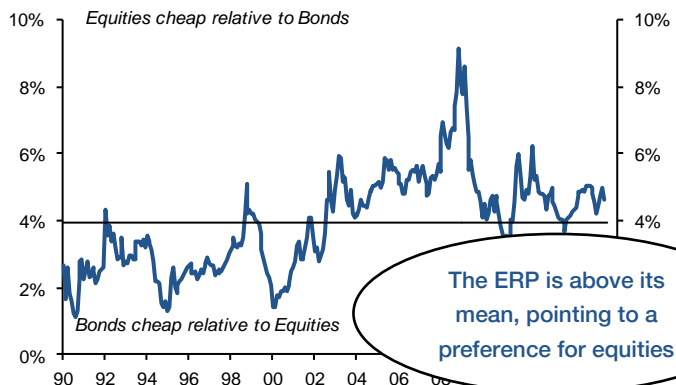
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



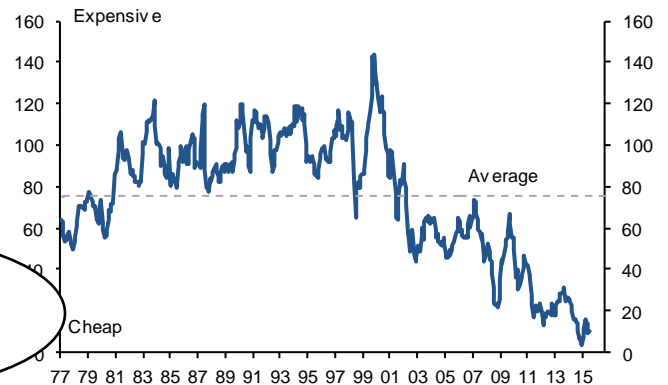
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

Equity risk premium – Europe



Equity risk premium: Internal rate of return minus 10-year bond yield.
Source: SG Cross Asset Research/Global Asset Allocation

Fed model – Europe



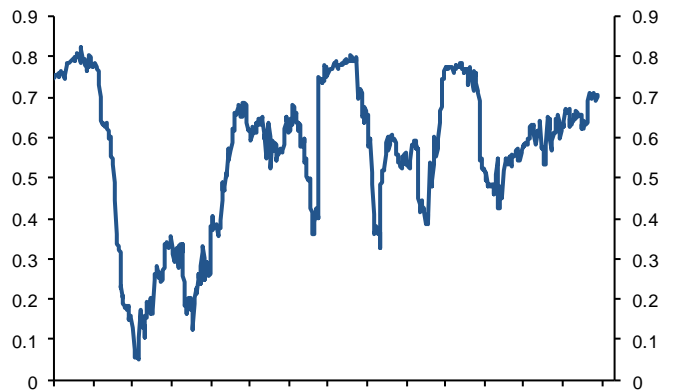
Earnings yield ratio: 10-year government nominal bond yield divided by inverted equity market P/E.
Source: SG Cross Asset Research/Global Asset Allocation, Datastream, R. Shiller (Yale University)

Correlation with global equities



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

Correlation with a 50% bonds/50% equities portfolio

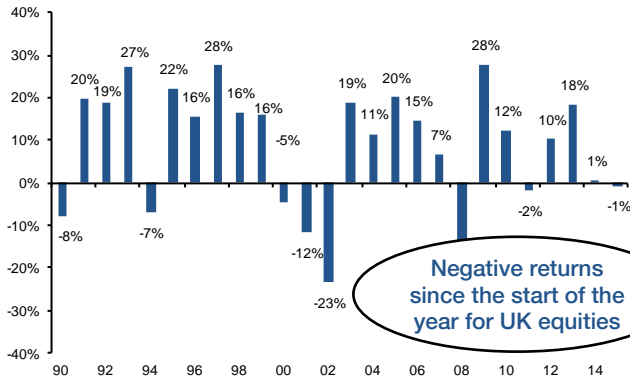


Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

Equity: UK equity markets

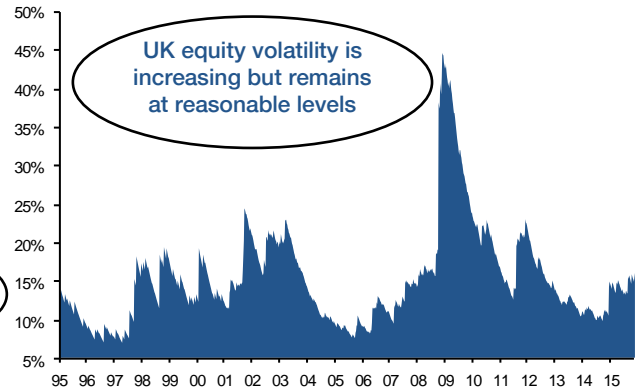
Neutral

Annual return (%)



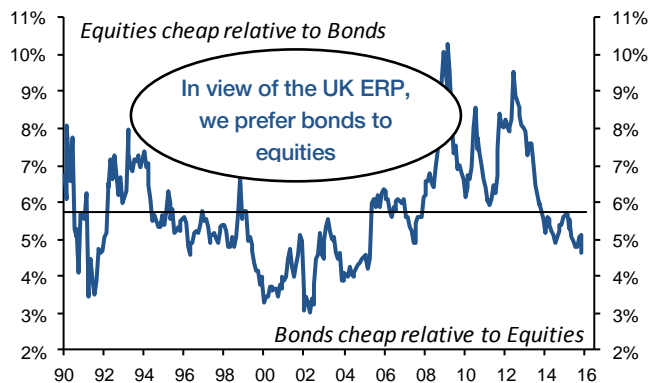
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



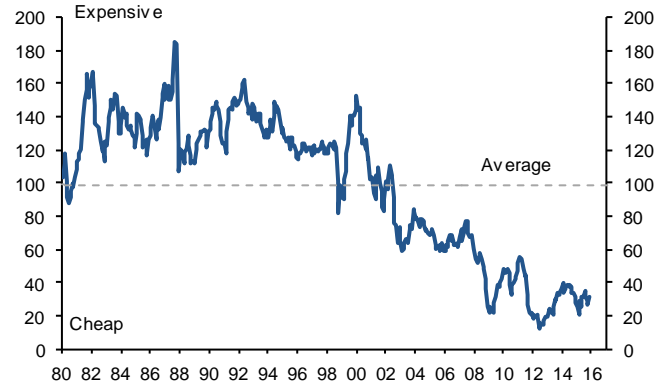
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

Equity risk premium – UK



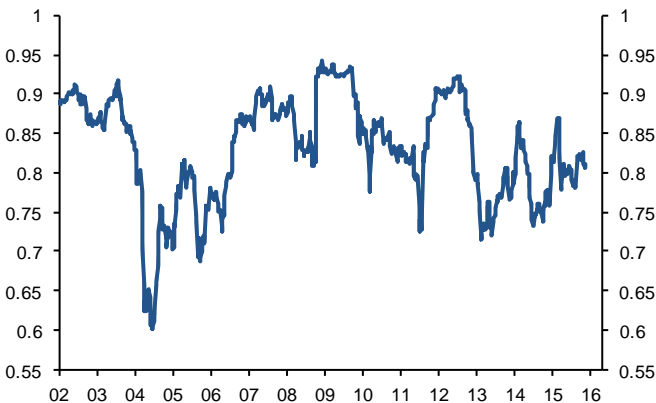
Equity risk premium: Internal rate of return minus 10-year bond yield.
Source: SG Cross Asset Research/Global Asset Allocation

Fed model – UK



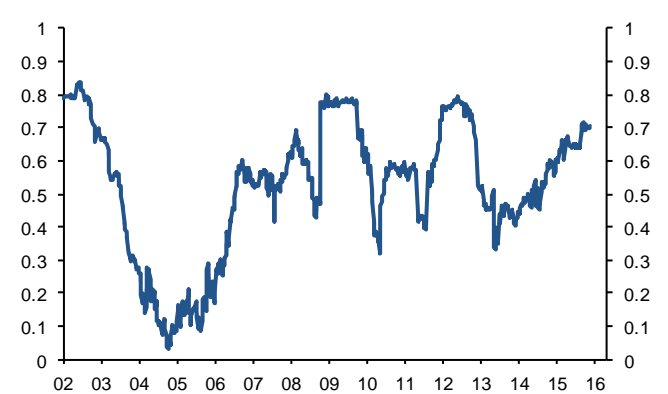
Earnings yield ratio: 10-year government nominal bond yield divided by inverted equity market P/E.
Source: SG Cross Asset Research/Global Asset Allocation, Datastream

Correlation with global equities



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

Correlation with a 50% bonds/50% equities portfolio

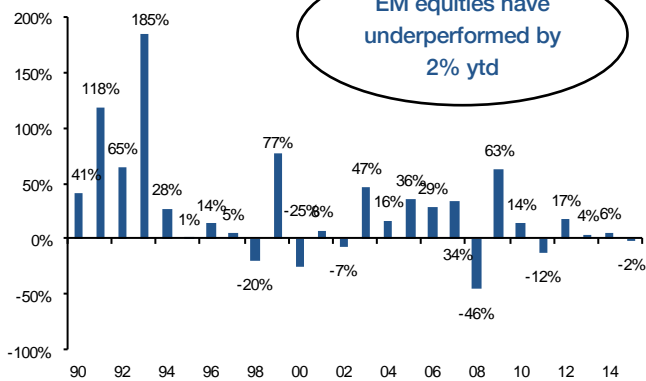


Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

Equity: Emerging equity market

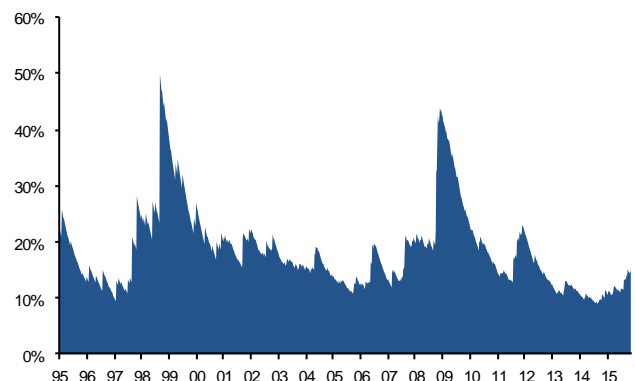
Neutral

Annual return (%)



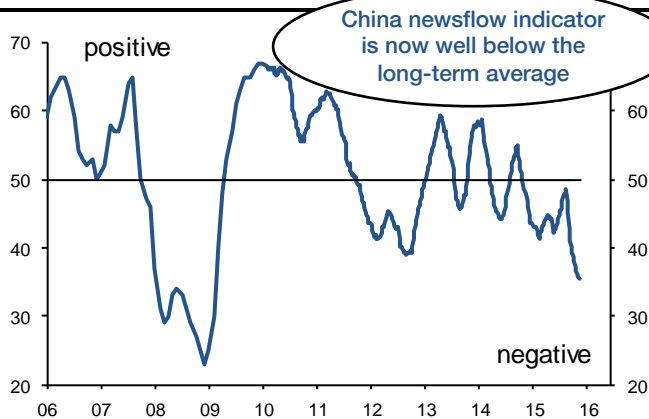
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



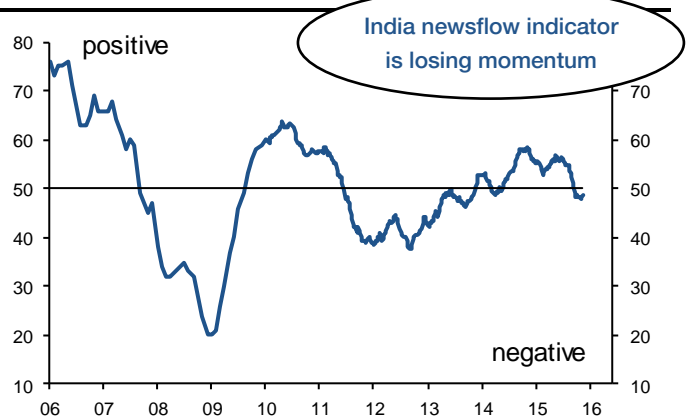
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

China: economic newsflow



Newsflow indicators count the number of newspaper articles highlighting themes related to key parameters. Weekly data, data as of 16/09/2015.
Sources: Dow Jones, SG Cross Asset Research/Global Asset Allocation

India: economic newsflow



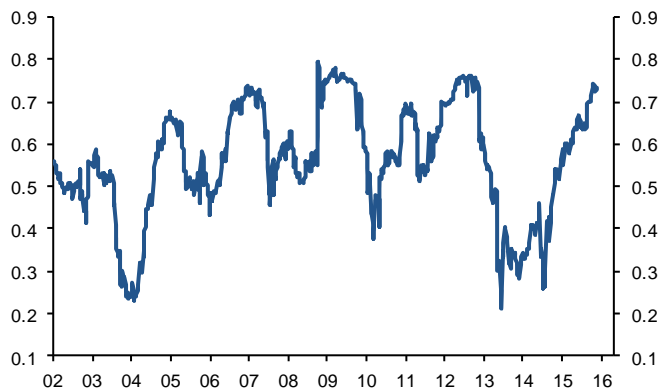
Newsflow indicators count the number of newspaper articles highlighting themes related to key parameters. Weekly data, data as of 16/09/2015.
Sources: Dow Jones, SG Cross Asset Research/Global Asset Allocation

Correlation with global equities



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

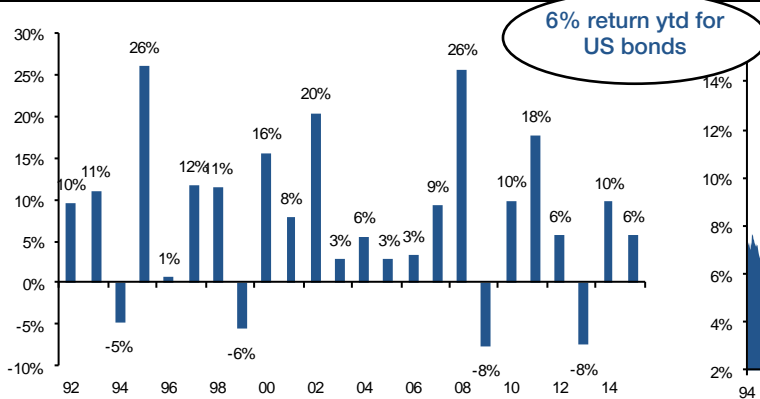
Correlation with a 50% bonds / 50% equities portfolio



Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

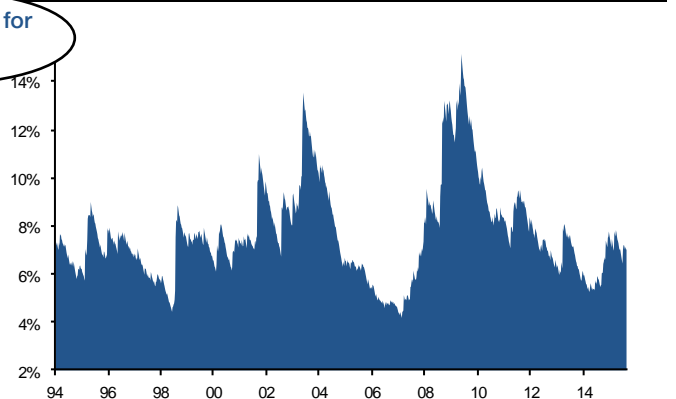
Fixed Income: US government bonds Underweight

Annual return (%)



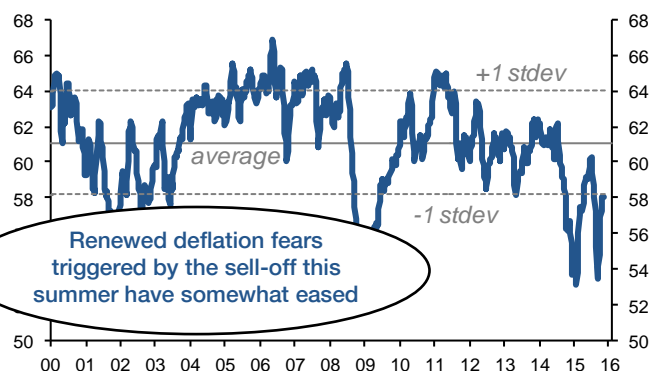
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



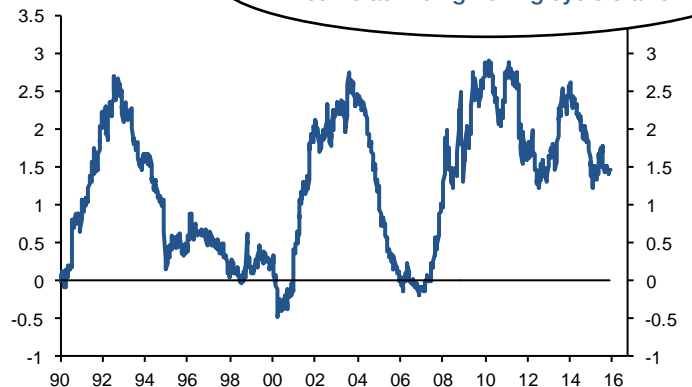
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

World SG Inflation Newsflow Indicator (World SGINI)



Weekly data, as of 09/11/2015.
Source: Dow Jones, SG Cross Asset Research/Global Asset Allocation

Yield curve



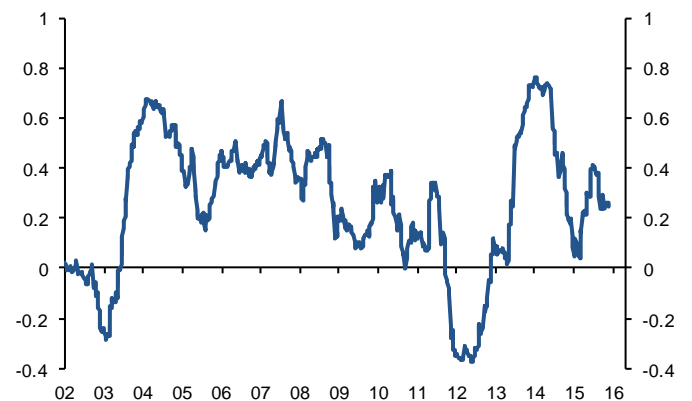
Yield curve: 10Y bond yield - 2Y bond yield.
Source: SG Cross Asset Research/Global Asset Allocation

Correlation with global bonds



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

Correlation with a 50% bonds / 50% equities portfolio

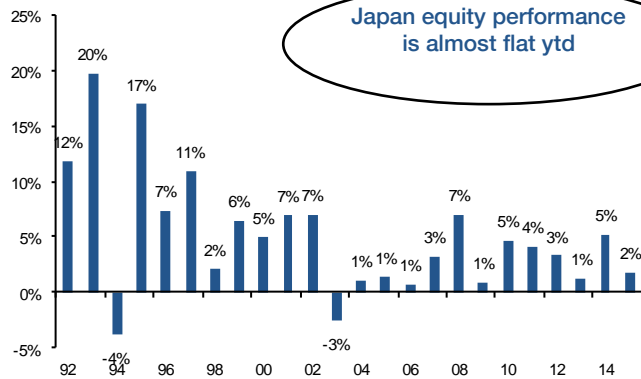


Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

Fixed Income: Japanese gov. bonds

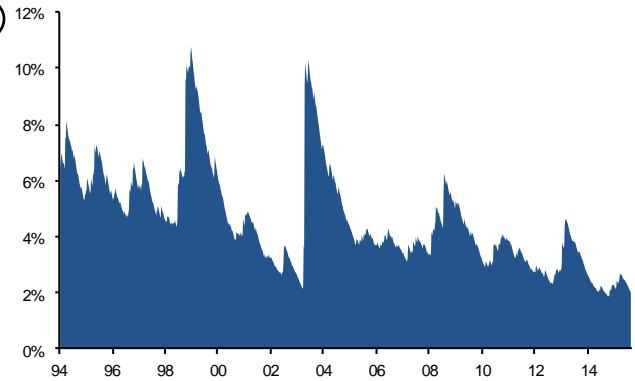
Minimum

Annual return (%)



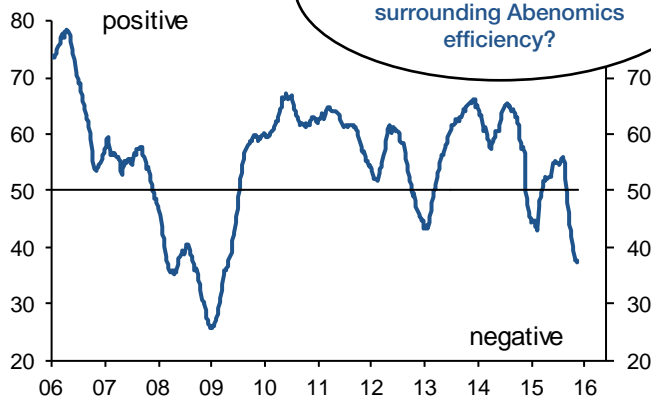
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



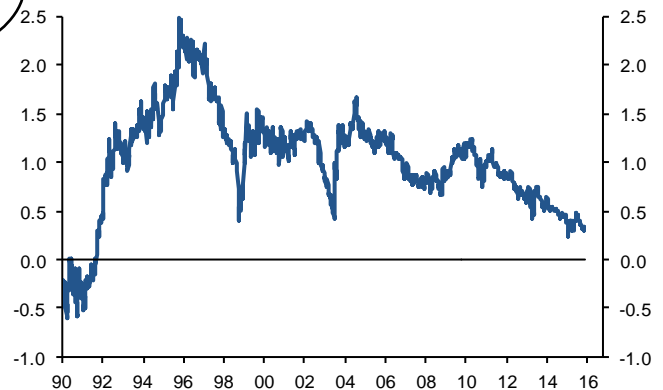
12-month forward volatility is based on the EWMA model. GPIF: Government Pension Investment Fund
Source: SG Cross Asset Research/Global Asset Allocation

Japanese newsflow



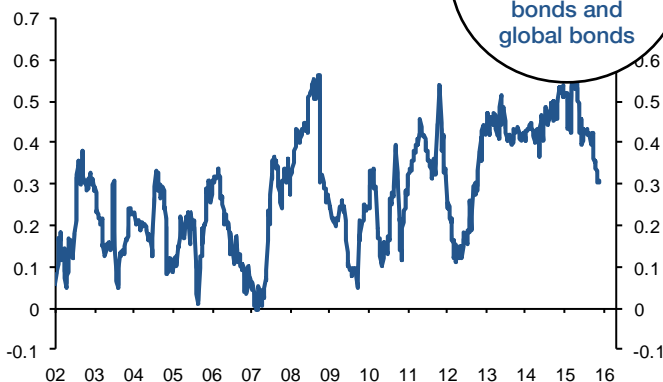
Newsflow indicators count the number of newspaper articles highlighting themes related to key parameters. Weekly data, data as of 16/09/2015.
Sources: Dow Jones, SG Cross Asset Research/Global Asset Allocation

Yield curve



Yield curve: 10Y bond yield - 2Y bond yield.
Source: SG Cross Asset Research/Global Asset Allocation.

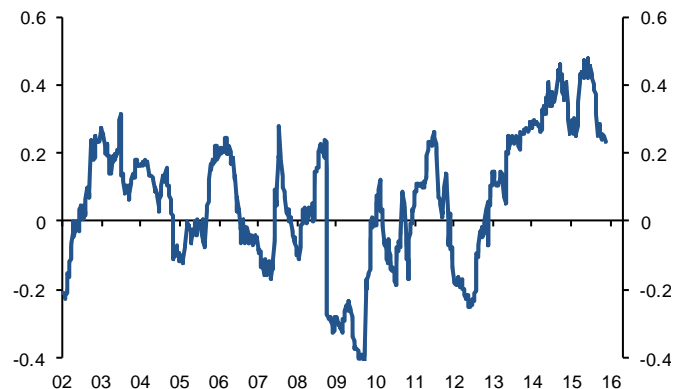
Correlation with global bonds



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

Decreasing correlation between Japanese gov. bonds and global bonds

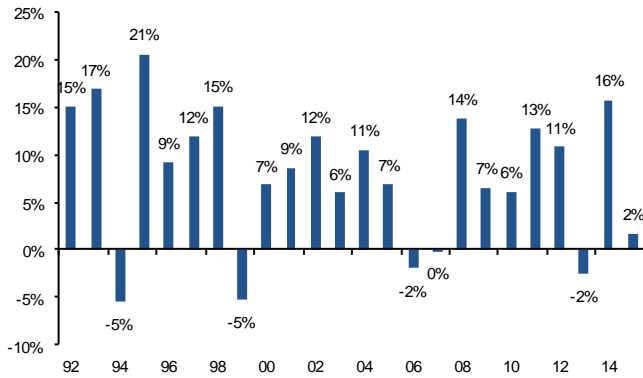
Correlation with a 50% bonds/50% equities portfolio



Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

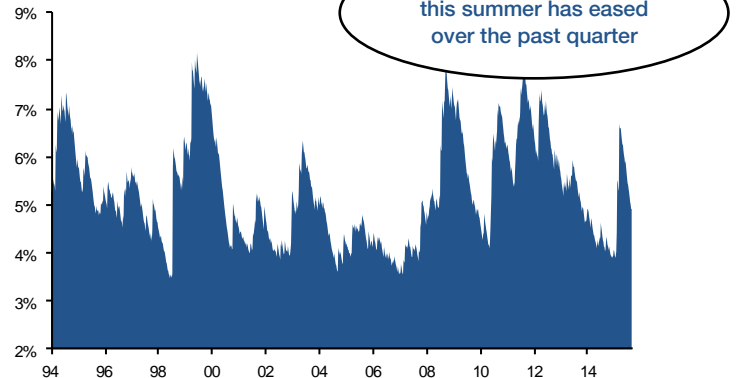
Fixed Income: European gov. bonds (Core) Minimum

Annual return (%)



YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



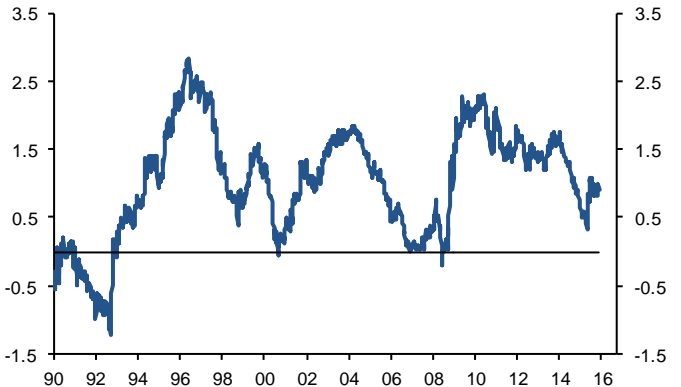
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

Correlation US/Europe rates



Source: SG Cross Asset Research/Global Asset Allocation

Yield curve



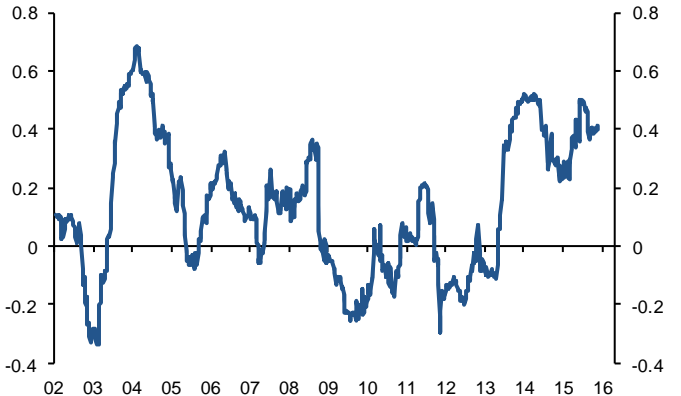
Yield curve: 10Y bond yield - 2Y bond yield.
Source: SG Cross Asset Research/Global Asset Allocation.

Correlation with global bonds



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

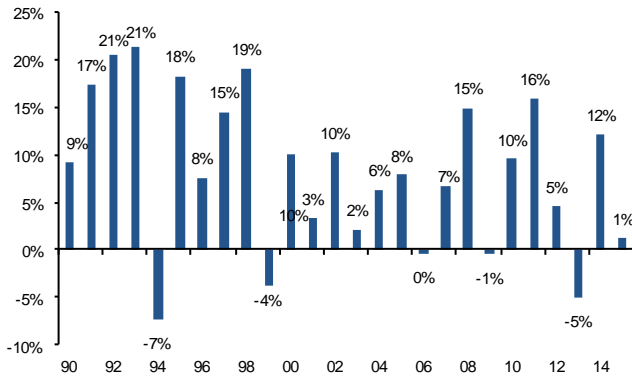
Correlation with a 50% bonds/50% equities portfolio



Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

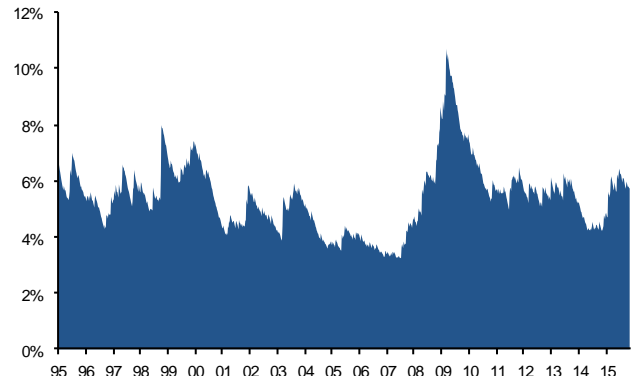
Fixed Income: UK government bonds Minimum

Annual return (%)



YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

UK newsflow



Newsflow indicators count the number of newspaper articles highlighting themes related to key parameters. Weekly data, data as of 16/09/2015.
Sources: Dow Jones, SG Cross Asset Research/Global Asset Allocation Strategy

Yield curve



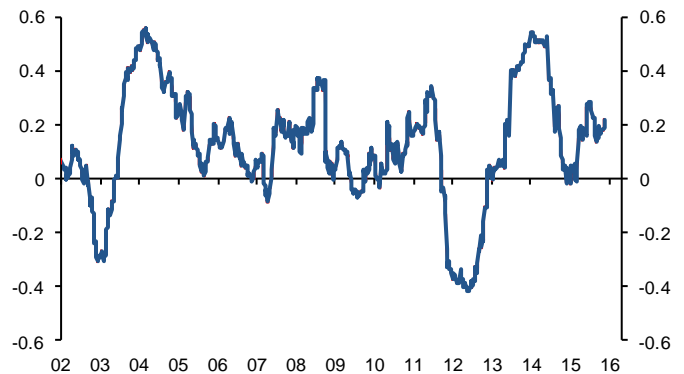
Yield curve: 10Y bond yield - 2Y bond yield.
Source: SG Cross Asset Research/Global Asset Allocation.

Correlation with global bonds



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

Correlation with a 50% bonds/50% equities portfolio

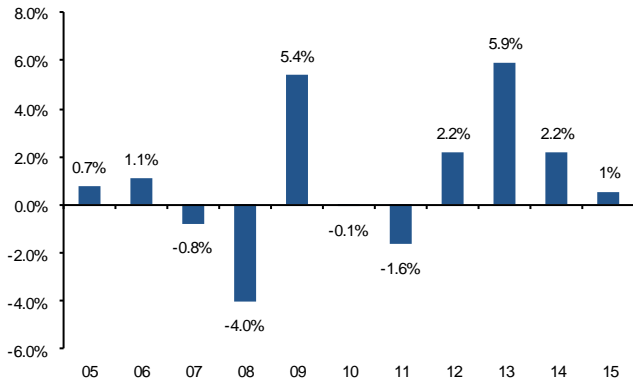


Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

Fixed Income: European credit (IG)

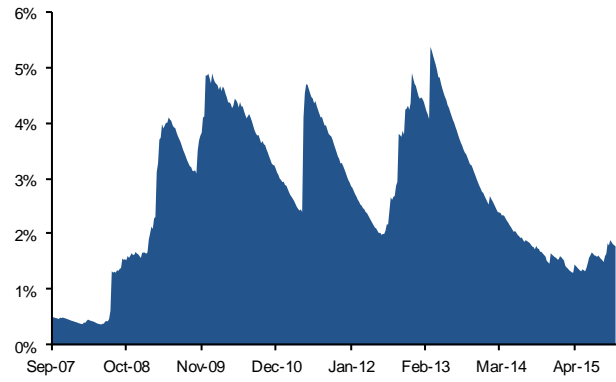
Underweight

Annual return (%)



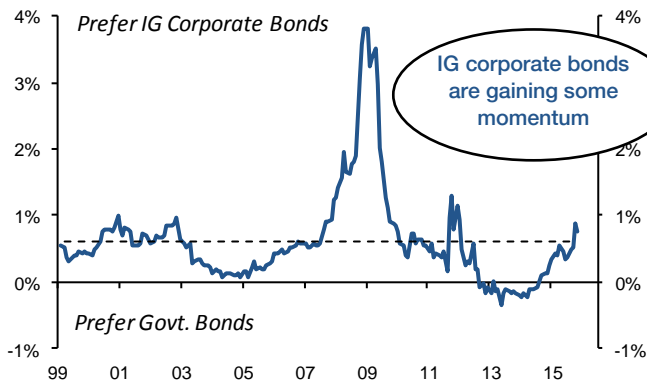
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



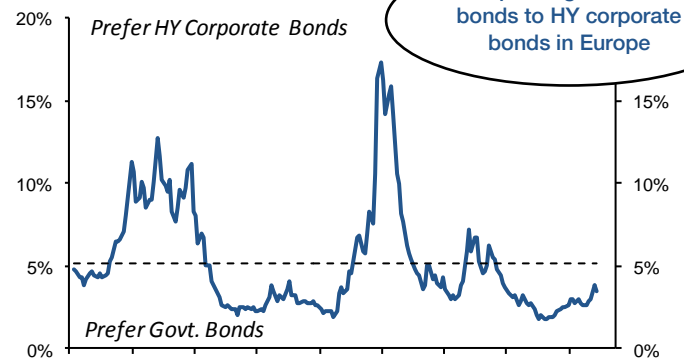
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

Euro sovereign vs euro IG Credit



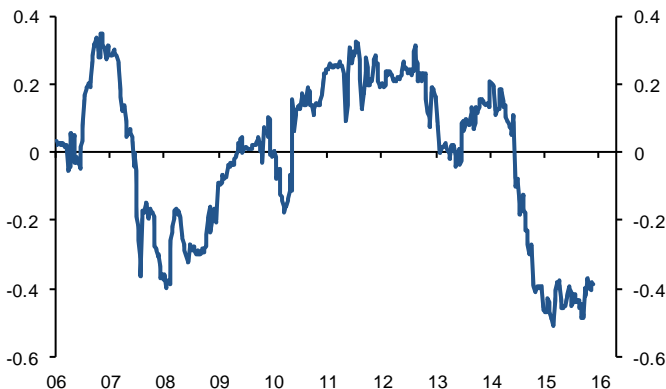
Excess return = bond yield - 10-year government bond yield. IBOXX Euro corporate bond index has been used for IG corporate bonds in Europe. Data for Europe start from 1/1/1999.
Source: SG Cross Asset Research/Global Asset Allocation

Euro sovereign vs euro HY Credit



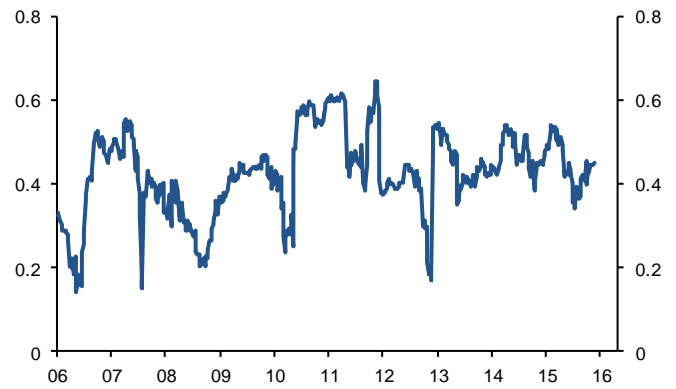
Excess return = bond yield - 10-Year government bond yield. Barclays Euro HY index has been used for HY corporate bonds in Europe. Data for Europe start from 1/1/1999.
Source: SG Cross Asset Research/Global Asset Allocation

Correlation with global bonds



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

Correlation with a 50% bonds/50% equities portfolio

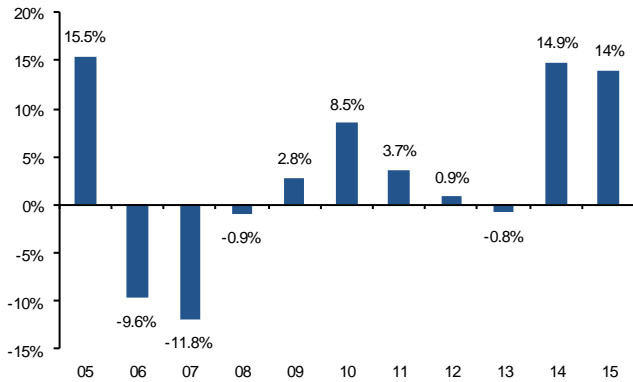


Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

Fixed Income: US credit (IG)

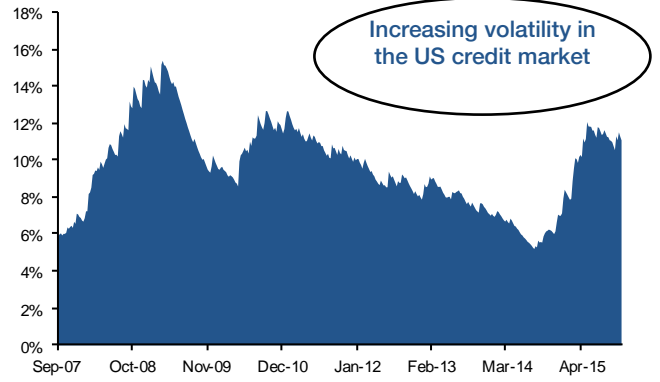
Underweight

Annual return (%)



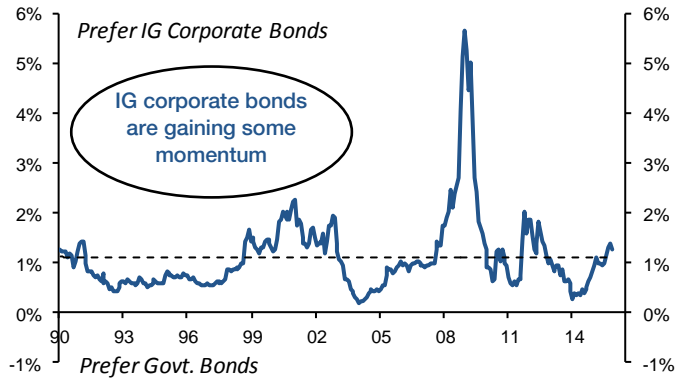
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



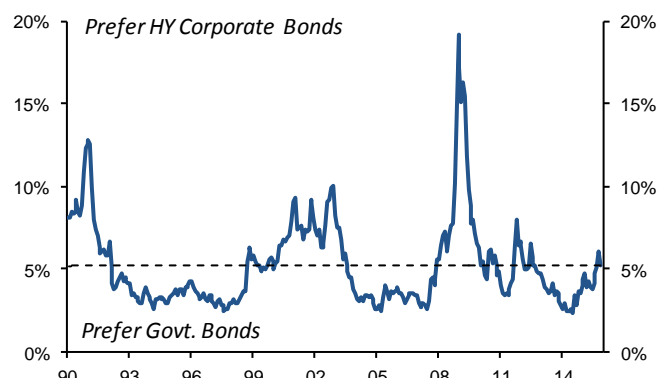
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

US sovereign vs US IG credit



Excess return = bond yield – 10-year government bond yield. Barclays IG index has been used for US IG corporate bonds. Data for US start from 1/1/1990. Source: SG Cross Asset Research/Global Asset Allocation

US sovereign vs US HY credit



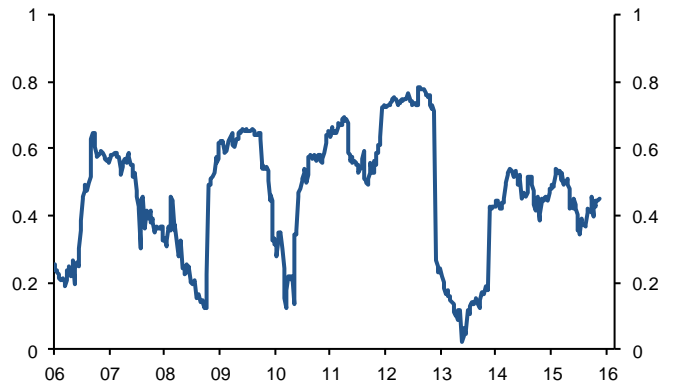
Excess return = bond yield – 10-year government bond yield. Barclays HY index has been used for US HY corporate bonds. Data for US start from 1/1/1990. Source: SG Cross Asset Research/Global Asset Allocation

Correlation with global bonds



Correlation is based on weekly data. Source: SG Cross Asset Research/Global Asset Allocation

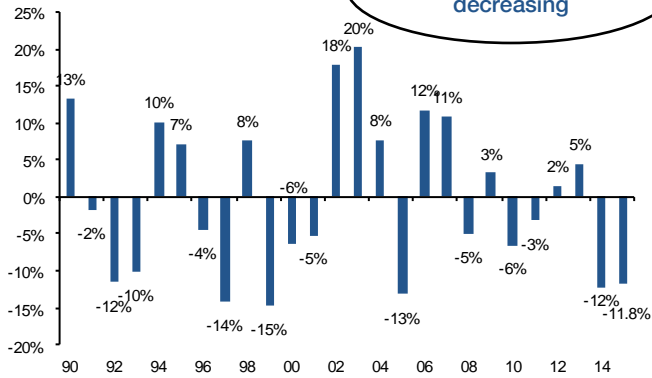
Correlation with a 50% bonds/50% equities portfolio



Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

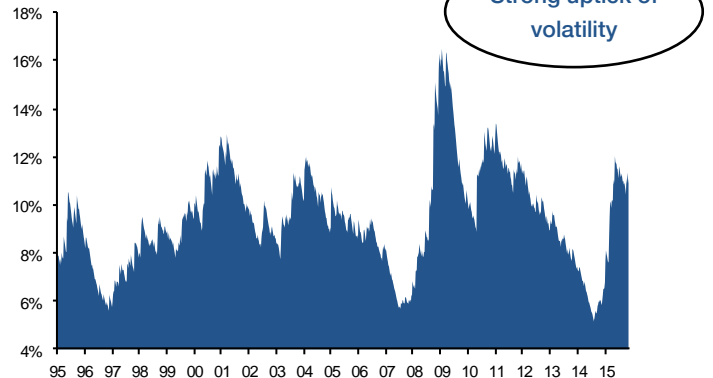
Forex market: Foreign exchange €/€

Annual rate (%)



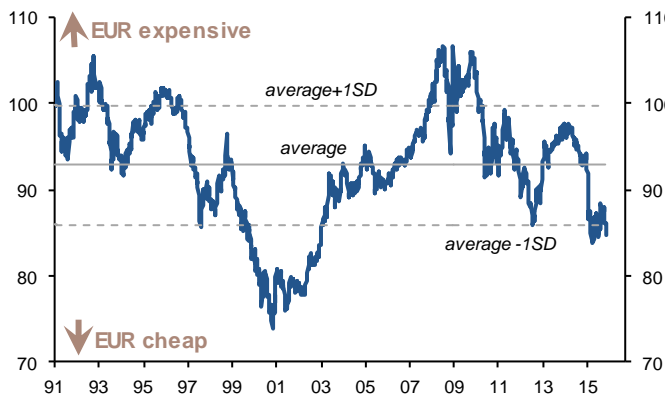
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



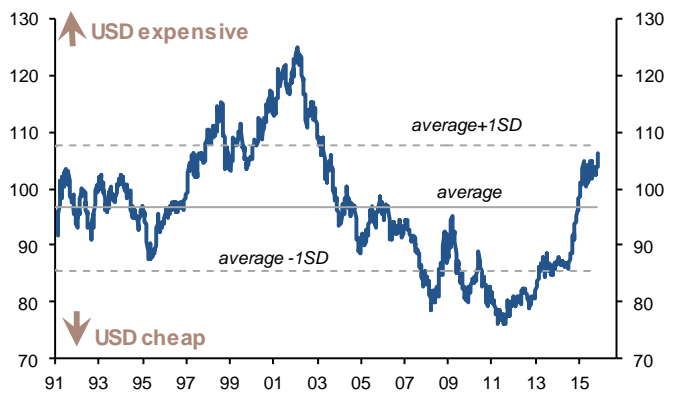
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

Euro – Trade-weighted index



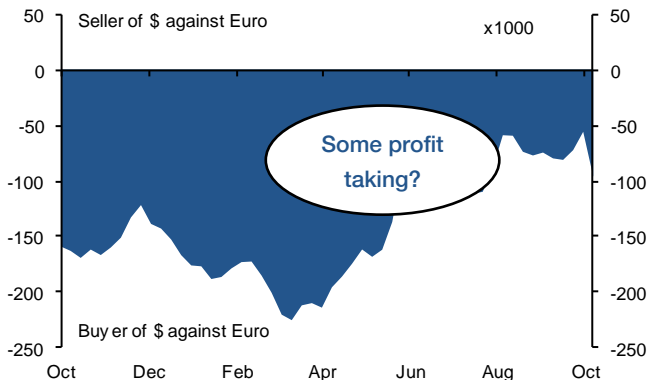
Real effective exchange rate, CPI based.
Source: IMF, SG Cross Asset Research/Global Asset Allocation

US dollar – Real effective exchange rate



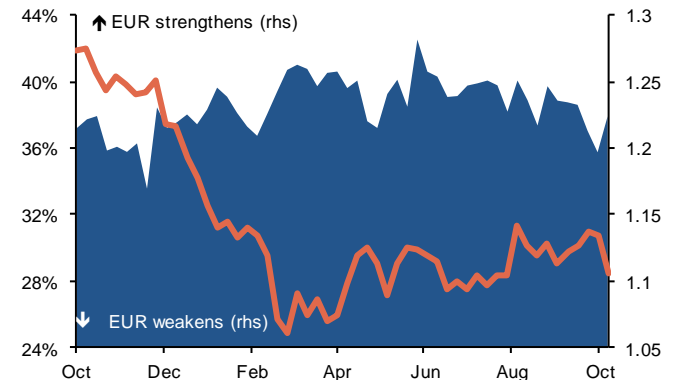
Real effective exchange rate, CPI based.
Source: IMF, SG Cross Asset Research/Global Asset Allocation

Hedge fund net positions on €/€



(Contracts of €125,000).
Source: SG Cross Asset Research/Global Asset Allocation, CFTC

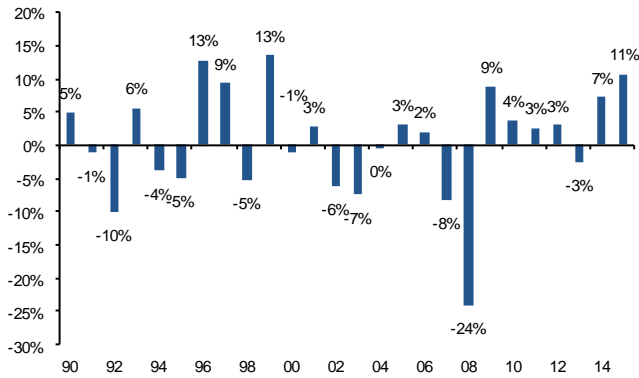
€/€ price and non-commercial positions on total open interest



€/€ price: orange line, rhs
Source: SG Cross Asset Research/Global Asset Allocation, CFTC

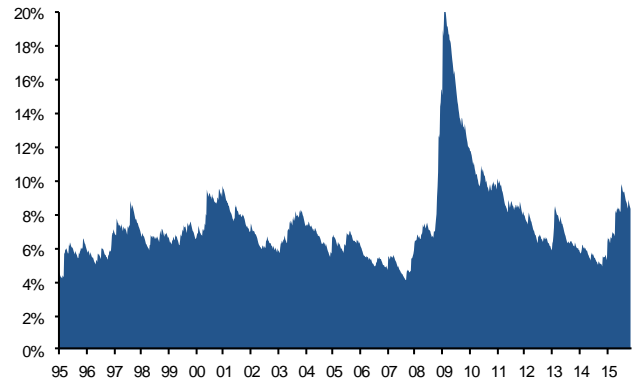
Forex market: Foreign exchange €/£

Annual rate (%)



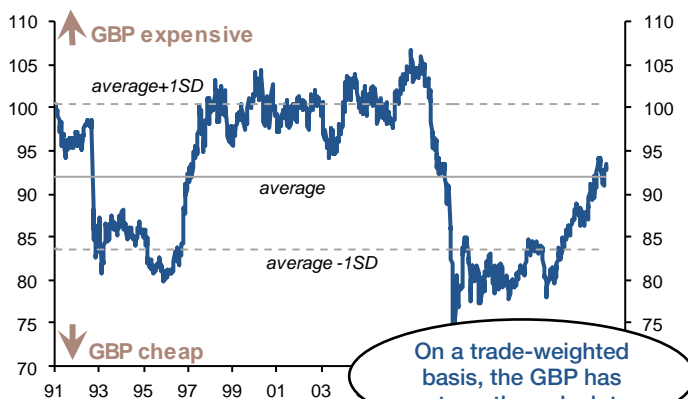
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



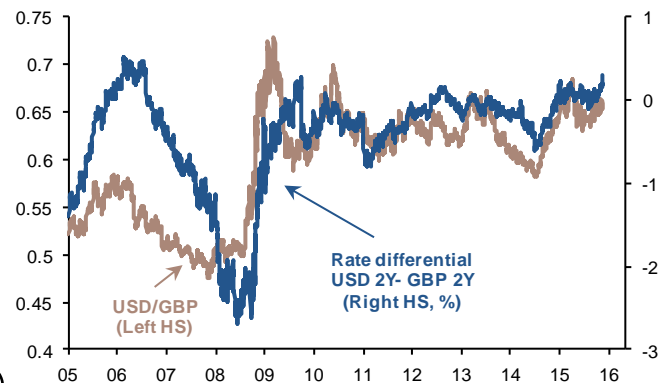
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

Sterling – Trade-weighted index



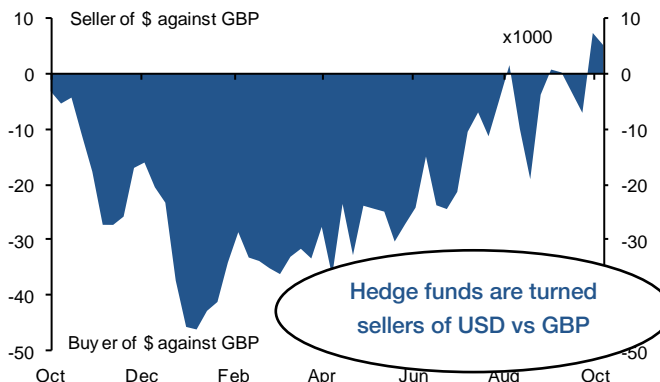
Real effective exchange rate, CPI based.
Source: IMF, SG Cross Asset Research/Global Asset Allocation

USD/GBP and rate differential



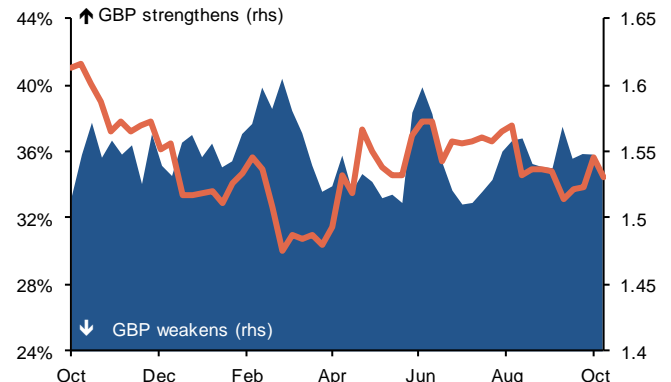
Source: SG Cross Asset Research/Global Asset Allocation, Datastream, MSCI

Hedge fund net positions on \$/£



(Contracts of €125,000).
Source: SG Cross Asset Research/Global Asset Allocation, CFTC

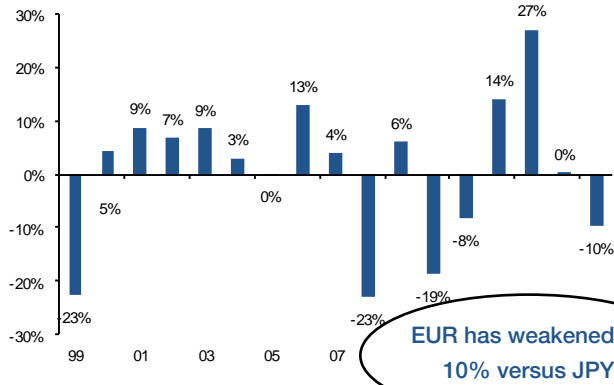
\$/£ price and non-commercial positions on total open interest



\$/£ price: orange line, rhs
Source: SG Cross Asset Research/Global Asset Allocation, CFTC

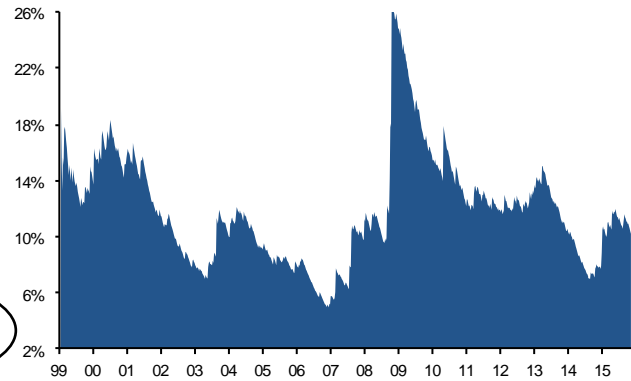
Forex market: Foreign exchange €/¥

Annual rate (%)



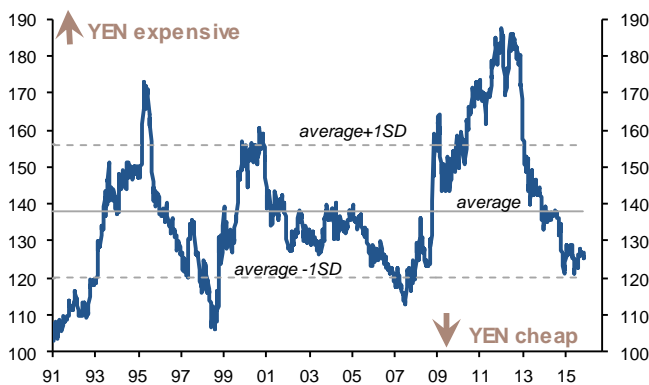
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



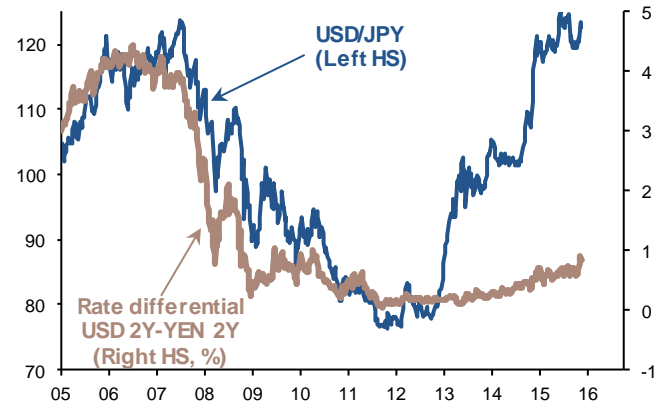
12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation h

Japanese yen – Real effective exchange rate



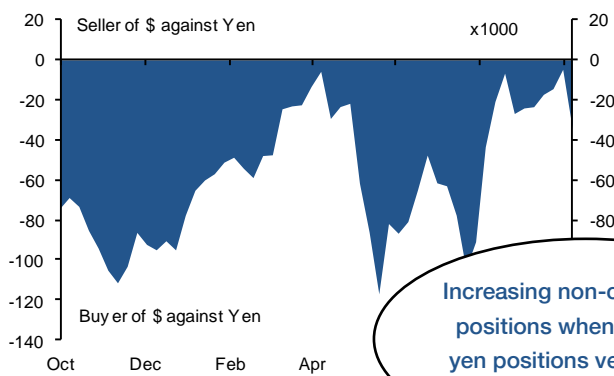
Real effective exchange rate, CPI based.
Source: IMF, SG Cross Asset Research/Global Asset Allocation

USD/JPY and rate differential



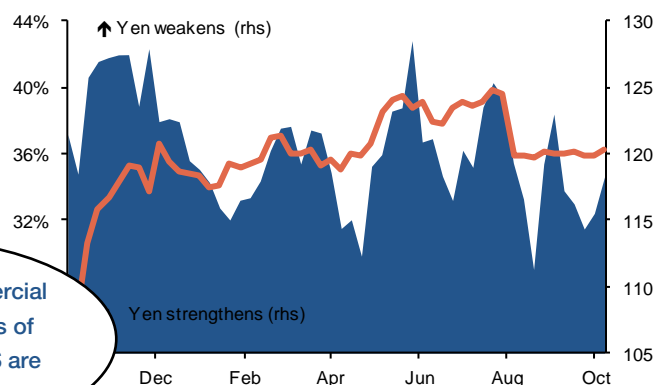
Source: SG Cross Asset Research/Global Asset Allocation, Datastream, MSCI

Hedge fund net positions on ¥/\$



Source: CFTC (Contracts of Y 12,500,000), SG Cross Asset Research/Global Asset Allocation.

Yen/\$ price and non-commercial positions on total open interest (OI)

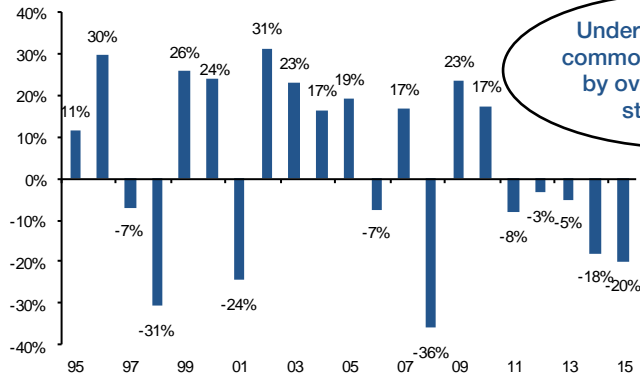


Source: CFTC, Hedge Fund Watch, SG Cross Asset Research/Global Asset Allocation

Other: Commodities

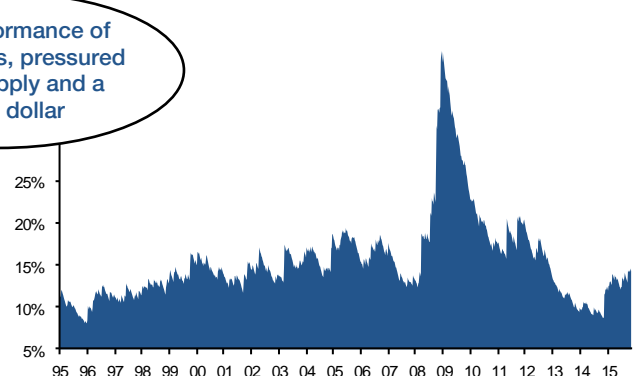
Overweight

Annual rate (%)



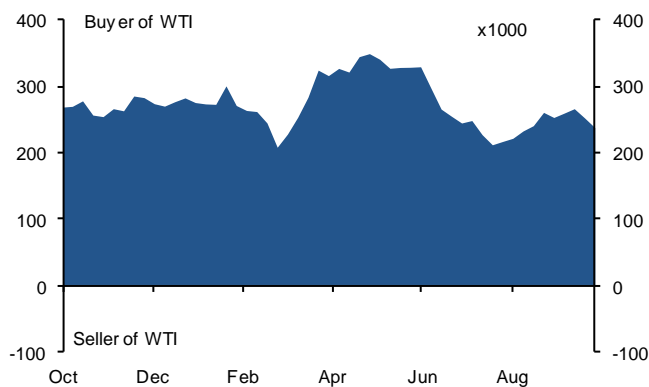
YTD = up to 20/11/15. Source: SG Cross Asset Research/Global Asset Allocation

Conditional volatility (%)



12-month forward volatility is based on the EWMA model.
Source: SG Cross Asset Research/Global Asset Allocation

Hedge Fund net position on Crude Oil



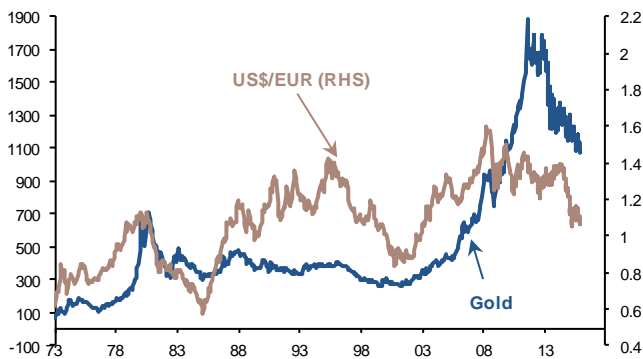
(Contracts of 1,000 barrels). Source: SG Cross Asset Research/Global Asset Allocation, CFTC

SG forecast table (\$)

	Current Level	2017	2018
Aluminium (\$/t)	1,460	1,550	1,575
Copper (\$/t)	4,546	5,250	5,500
Nickel (\$/t)	8,910	14,000	15,000
Zinc (\$/t)	1,578	1,900	2,000
Gold (\$/oz)	1,071	950	900
WTI Nymex (\$/b)	42.9	59	64.5

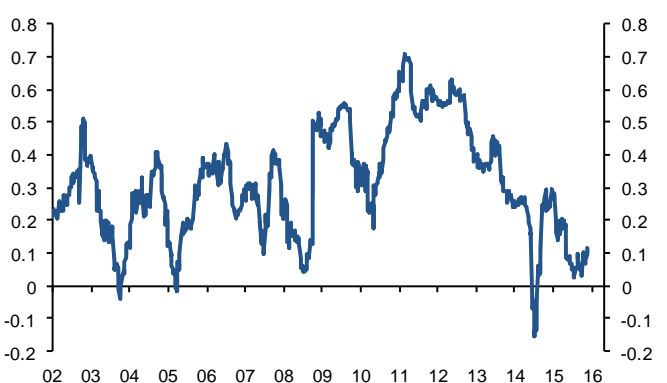
Current price on 27/11/2015. Price forecasts are annual averages.
Source: SG Cross Asset Research/Global Asset Allocation

Gold & USD/EUR



Source: SG Cross Asset Research/Global Asset Allocation, Datastream.

Correlation with a 50% bonds/50% equities portfolio



Correlation is based on one-year weekly data. Portfolio is composed of 50% global equities and 50% global bonds. Source: SG Cross Asset Research/Global Asset Allocation

APPENDIX

Analyst Certification

The analysts named or listed in individual sections of this report hereby certify that, with respect to his or her contribution, that the views expressed in the research report accurately reflect his or her personal views, including views about subject securities or issuers mentioned in the report, if any. No part of his or her compensation was, is, or will be related, directly or indirectly, to the specific recommendations or views expressed in this report.

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SG EQUITY RESEARCH RATINGS on a 12 months period

BUY: absolute total shareholder return forecast of 15% or more over a 12 month period.

HOLD: absolute total shareholder return forecast between 0% and +15% over a 12 month period.

SELL: absolute total shareholder return forecast below 0% over a 12 month period.

Total shareholder return means forecast share price appreciation plus all forecast cash dividend income, including income from special dividends, paid during the 12 month period. Ratings are determined by the ranges described above at the time of the initiation of coverage or a change in rating (subject to limited management discretion). At other times, ratings may fall outside of these ranges because of market price movements and/or other short term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by research management.

Sector Weighting Definition on a 12 months period:

The sector weightings are assigned by the SG Equity Research Strategist and are distinct and separate from SG equity research analyst ratings. They are based on the relevant MSCI.

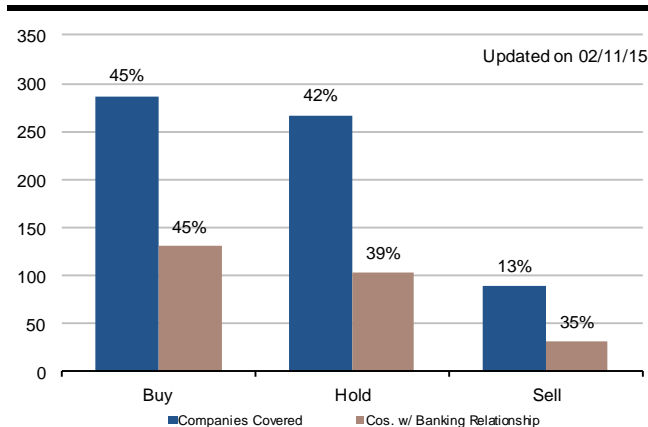
OVERWEIGHT: sector expected to outperform the relevant broad market benchmark over the next 12 months.

NEUTRAL: sector expected to perform in-line with the relevant broad market benchmark over the next 12 months.

UNDERWEIGHT: sector expected to underperform the relevant broad market benchmark over the next 12 months.

The Preferred and Least preferred stocks are selected by the covering analyst based on the individual analyst's coverage universe and not by the SG Equity Research Strategist.

Equity rating and dispersion relationship



Source: SG Cross Asset Research/Equity

SG CREDIT RESEARCH RATINGS

SG credit research may contain both a credit opinion of the company and market recommendations on individual bonds issued by the company and/or its Credit Default Swap.

Credit Opinion:

POSITIVE: Indicates expectations of a general improvement of the issuer's credit quality over the next six to twelve months, with credit quality expected to be materially stronger by the end of the designated time horizon.

STABLE: Indicates expectations of a generally stable trend in the issuer's credit quality over the next six to twelve months, with credit quality expected to be essentially unchanged by the end of the designated time horizon.

NEGATIVE: Indicates expectations of a general deterioration of the issuer's credit quality over the next six to twelve months, with the credit quality expected to be materially weaker by the end of the designated time horizon.

Individual Bond recommendations:

BUY: Indicates likely to outperform its iBoxx subsector by 5% or more

HOLD: Indicates likely to be within 5% of the performance of its iBoxx subsector

SELL: Indicates likely to underperform its iBoxx subsector by 5% or more

Individual CDS recommendations:

SG Credit research evaluates its expectation of how the 5 year CDS is going to perform vis-à-vis its sector.

SELL: CDS spreads should outperform its iTraxx sector performance

NEUTRAL: CDS spreads should perform in line with its iTraxx sector performance

BUY: CDS spreads should underperform its iTraxx sector performance

Sector weightings:

OVERWEIGHT: Sector spread should outperform its iBoxx corporate index

NEUTRAL: Sector spread should perform in line with its iBoxx corporate index

UNDERWEIGHT: Sector spread should underperform its iBoxx corporate index

CONFLICTS OF INTEREST

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All pricing information included in this report is as of market close, unless otherwise stated.

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Barclays	SG acted as co-manager in Barclays's bond issue (EUR, 1.25bn, 2.625%)
Barclays	SG acted as joint bookrunner for Barclay's bond issue (3y GBP covered bond)
European Union	SG acted as a co lead manager in European Union's bond issue (EUR 8y) .

SG or its affiliates expect to receive or intend to seek compensation for investment banking services in the next 3 months from Barclays.

SG or its affiliates had an investment banking client relationship during the past 12 months with Barclays, European Union.

SG or its affiliates have received compensation for investment banking services in the past 12 months from Barclays, European Union.

SG or its affiliates managed or co-managed in the past 12 months a public offering of securities of Barclays, European Union.

SG received compensation for products and services other than investment banking services in the past 12 months from Barclays, European Union.

SGAS had a non-investment banking non-securities services client relationship during the past 12 months with Barclays.

SGAS received compensation for products and services other than investment banking services in the past 12 months from Barclays.

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SG Macro Strategy Group



Patrick Legland
Global Head of Cross Asset Research
Paris
+33 (0)1 42 13 97 79
+33 (0)6 76 86 52 22

Macro

Global Economics



Michala Marcussen
Head of Global Economics
Paris
+33 (0)1 42 13 00 34
+33 (0)6 87 77 98 73

Global Asset Allocation



Alain Bokobza
Head of Global Asset Allocation Strategy
Paris
+33 (0)1 42 13 84 38
+33 (0)6 80 27 22 51

Global Strategy *SG Alternative View*



Albert Edwards
Head of Global Strategy
London
+44 20 7762 5890
+44 78 2490 6433

Fixed Income, Forex & Credit

Rates & Forex



Vincent Chaigneau
Head of Rates and Forex
London
+44 20 7762 4629

Credit



Guy Stear
Global Head of Credit Strategy
Paris
+33 1 42 13 63 99

FIC Strategy



Kit Jukes
FIC Strategy
London
+44 20 7676 7972

Emerging Markets



Guy Stear
Global Head of Emerging Markets
Paris
+33 1 42 13 63 99

Commodities



Michael Haigh
Head of Commodities Research
New York
+1 212 278 6020

Quant

Cross Asset Quantitative Research & Modelling



Julien Turc
Head of Cross Asset Quant Research
Paris
+33 (0)1 42 13 40 90
+33 (0)6 24 84 46 62

Equity Quant Strategy



Andrew Laphorne
Head of Equity Quant
Strategy
London
+44 20 7762 5762
+44 78 2589 3230

Equity Strategy

Equity Strategy *Europe*



Roland Kaloyan
Paris
+33 (0)1 58 98 04 88

Equity Strategy *Asia*



Frank Benzimra
Hong Kong
+852 2166 4309

Derivatives Strategy



Vincent Cassot
Head of Equity Derivatives
Strategy
Paris
+33 (0)1 42 13 59 55

Macro

Global Asset Allocation Team



Alain Bokobza
Head of GAA
Paris
+33 (0)1 42 13 84 38
+33 (0)6 80 27 22 51



Arthur van Slooten
GAA Strategist
Paris
+33 (0)1 42 13 45 06



Gaelle Blanchard
GAA Strategist
Paris
+33 (0)1 57 29 20 66



Sophie Huynh
GAA Strategist
London
+44 20 7676 7471



Praveen Singh
GAA Strategist
Bangalore
+91 80 2802 4232