

September 1, 2016

CROSS-ASSET STRATEGY

Global In the Flow

September 2016

Performance – Relatively Quiet Summer

This summer has been quiet as S&P stayed rangebound but there were key moves within asset classes, with EM equities up 2.5% in total returns, US HY posting another solid 2.9%, EM credit up 2.6% and Global Financials up 3.5%, the best performing sector across regions. Oil also bounced back last month, with Brent up 10.8%. Post Jackson Hole, the market probability of a Fed hike by year-end has risen but markets are still pricing in a relatively gradual pace of hikes. USD stayed largely unchanged in August.

Technicals – EM Net Issuance Going Strong

EM issuance continued to rise in August, with gross issuance up by 21% YoY. DM IG issuance remained relatively stable, with gross issuance up 6% YoY. Unlike their peers, DM sovereigns and HY issuance, both gross and net, continued their downward trend.

Sentiment – Market Fear Stays Low

Measures of market fear remained low last month. VIX, currently at ~13%, stayed range-bound throughout the month. Similarly, the MS Global Risk Demand Index* stayed around 1 before declining to a current level of 0.4.

Market Implied Pace of Hikes is Still Low

MS - Market Implied Pace of Hikes



Source: Morgan Stanley Research, Bloomberg

MORGAN STANLEY RESEARCH Global

Morgan Stanley & Co. International plc+

Andrew Sheets

Strategist
andrew.sheets@morganstanley.com
+44 (0)207 677 2905

Phanikiran Naraparaju

Strategist
phanikiran.naraparaju@morganstanley.com
+44 (0)207 677 5065

Serena Tang

Strategist
serena.tang@morganstanley.com
+44 (0)207 677 1149

Wanting Low

Strategist
wanting.low@morganstanley.com
+44 (0)207 425 6841

Morgan Stanley & Co. LLC

Elizabeth Volynsky

Strategist
elizabeth.volynsky@morganstanley.com
+1 212 761-4410

Sign up here: If you didn't receive this directly, but would like to, please click [here](#).

*Global Risk Demand Index – US Pat. 7,617,143

Morgan Stanley does and seeks to do business with companies covered in Morgan Stanley Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Morgan Stanley Research. Investors should consider Morgan Stanley Research as only a single factor in making their investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report.

+= Analysts employed by non-U.S. affiliates are not registered with FINRA, may not be associated persons of the member and may not be subject to NASD/NYSE restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Highlights from August

Global Equities

MSCI EM total returns in August at: **2.5%**

Russia was the best performing market overall in August, rising (in \$): **6.1%**

Global Fixed Income

In August, US 10yr yields rose by: **+13bp**

US HY posted YTD excess returns of: **10.6%**

FX

NOK was the strongest G10 currency, rising: **1.4%**

In August, ZAR depreciated by: **5.7%**

Technical/Sentiment

Morgan Stanley Standardized GRDI* fell to: **0.4**

VIX currently stands at: **13.4%**

Flows and Issuance

YoY change in DM IG gross issuance: **+6%**

YoY change in EM gross issuance: **+21%**

What We're Watching

Number of US rate hikes expected over next 12m: **0.9**

Market-implied date for first rate hike by the ECB pushed back to: **Oct '21**

Table of Contents

1. Highlights from August	2
2. Market Review & Trends	4
Equity • Fixed Income • Credit • FX & Commodities	
3. Valuations	18
Equity • Fixed Income • Credit • FX	
4. Technicals	28
Sentiment • Speculative Positioning • Mutual Fund Flows • Issuance	
5. What We're Watching	36
DM Cycle Indicators • US • Europe • Japan • China • EM	

In Case You Missed It...

7 Aug	Cross-Asset Playbook: Trading Cautiously Our economic forecasts expect disappointing DM growth to keep the Fed on hold through 2017 and USD weaker through year-end. We think this backdrop favours 'Quality Carry' – assets that can beat inflation, with some protection against weaker growth. Securitized products and EM local rates fit this bill.
29 Jul	Cross-Asset Dispatches: US Elections: What's the Best Option? We think that options markets are pricing in too little risk that the US election drives volatility, especially in FX and interest rates.
17 Jul	Global Strategy Summer Outlook: Dealing with Disappointment With a backdrop of disappointing growth and return forecasts, investors should look for quality and carry in 2H. Credit remains our top asset class, but tighter spreads and an on-hold Fed lead us to reduce corporates and add to securitised products, Treasuries and EM local rates.
7 Jul	Cross-Asset Strategy: The New Diversifiers With yields at historical lows, can bonds still 'do their job' in multi-asset portfolios? We think bonds will no longer be as effective and explore potential diversifiers in this note.
29 Jun	Cross-Asset Playbook: Our Plan for No Plan The UK has voted to leave the EU without a plan about how to do so. This increases uncertainty and economic risk, enough that we no longer expect the Fed to hike this year. Systemic risk measures, however, remain well-behaved. We discuss what happens post-Brexit and highlight the trades we like.
24 Jun	Cross-Asset Strategy: What Leave Means The UK has voted to leave the EU. We look at the implications of 'Leave' across different asset classes.

We acknowledge Ankit Modi's contribution to this report.

Market Review & Trends

MARKET REVIEW
Cross-Asset Performance

Market	Ccy	Latest	1Y	CHANGES			PERFORMANCE			VALUATIONS				
				1 Mth Δ	3 Mth Δ	YTD Δ	1 Mth	3 Mth	YTD	Latest	10YAvg	10Y Pctile		
EQUITIES														
			Level	Price Returns (%)			Total Returns (%)			Fwd P/E				
US	S&P 500	USD	2171		-0.1	3.5	6.2	0.1	4.1	7.8	17.1x	14.1x	97%	
Europe	MSCI EUROPE	EUR	1393		0.9	2.5	-1.4	1.2	3.2	1.8	15.1x	12.1x	90%	
Asia	TOPIX	JPY	1330		0.5	-3.6	-14.1	0.6	-3.5	-13.0	13.2x	15.1x	29%	
EM	MSCI EM	USD	894		2.3	10.7	12.5	2.5	12.1	14.8	12.4x	11.0x	83%	
RATES														
			Yield (%)	Yield Change (bp)			Total Returns (%)			Real Yield				
USTs	2 Year	USD	0.81		15	-7	-24	-0.2	0.4	1.2	0.01	0.45	32%	
	5 Year	USD	1.20		17	-17	-56	-0.8	1.2	3.9	0.40	1.25	36%	
	10 Year	USD	1.58		13	-27	-69	-1.1	2.9	7.9	0.78	2.03	57%	
	30 Year	USD	2.23		5	-42	-78	-0.9	9.8	19.2	1.43	2.77	63%	
Bunds	2 Year	EUR	-0.62		1	-10	-27	-0.1	0.1	0.3	-0.82	0.66	64%	
	5 Year	EUR	-0.50		3	-13	-46	-0.2	0.5	2.3	-0.70	1.18	78%	
	10 Year	EUR	-0.07		5	-20	-69	-0.5	2.1	7.3	-0.27	1.82	82%	
	30 Year	EUR	0.46		12	-39	-103	-2.7	9.4	25.0	0.26	2.42	85%	
JGBs	5 Year	JPY	-0.17		9	5	-20	-0.5	-0.3	1.0	0.23	0.32	54%	
	10 Year	JPY	-0.06		13	4	-33	-1.3	-0.4	3.4	0.34	0.90	66%	
CREDIT														
			Spread (bp)	Spread Change (bp)			Excess Returns (bp)			Spread (bps)				
US	IG Corporates	USD	134		-11	-14	-30	109	185	336	134	187	32%	
	HY Corporates	USD	513		-55	-90	-182	286	470	1056	513	624	38%	
EUR	IG Corporates	EUR	80		-3	-24	-37	50	210	346	80	133	86%	
	HY Corporates	EUR	367		-35	-50	-81	186	309	589	367	443	79%	
EM	EM	USD	361		-31	-60	-84	261	516	858	361	347	36%	
FX														
			Spot	% Change			Total Returns			Rate Differential (US - loc)				
G10	EURUSD	-	1.11		-0.3	-0.1	2.1	-	-	-	1.4	0.0	100%	
	GBPUSD	-	1.31		-0.7	-10.1	-11.3	-	-	-	0.7	-0.4	100%	
	USDJPY	-	103		1.2	-7.1	-14.2	-	-	-	1.0	1.0	76%	
EM	BRLUSD	-	0.31		1.7	10.2	22.4	-	-	-	-11.5	-10.7	39%	
	INRUSD	-	0.01		0.0	0.5	-1.2	-	-	-	-6.0	-6.3	65%	
	RUBUSD	-	0.02		2.7	1.1	13.1	-	-	-	-8.0	-7.4	34%	

Note: Under 1Y range column, a dot to the right represents higher equity/FX prices, higher yields for rates and wider credit spreads. Under valuations column, a higher percentile means the asset class is expensive compared to history. EUR spreads used here are asset swap spreads.

Source: Morgan Stanley Research, Bloomberg, Datastream, Markit iBoxx

MARKET REVIEW

Equity Markets by Region & Market Cap – Total Returns

	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
World				
MSCI EM	2.8	2.5	11.1	14.8
MSCI Europe	1.2	0.3	1.8	-0.3
MSCI ACWI	0.7	0.4	5.0	6.4
S&P 500	0.1	0.1	7.8	7.8

	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
MSCI ACWI				
Large Cap	0.8	0.5	4.9	6.3
Small & Mid Cap	0.4	0.0	5.8	7.7
Growth	0.0	-0.3	3.5	5.1
Value	1.4	1.1	6.4	7.7

	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
DM				
Hong Kong Hang Seng	5.2	5.3	8.1	8.1
Germany DAX	2.5	2.1	-1.4	1.1
Netherlands AEX	1.9	1.5	6.4	9.1
UK FTSE 100	1.7	0.3	12.1	-0.4
Spain IBEX 35	1.5	1.1	-5.6	-3.2
Switzerland SMI	0.9	-0.7	-3.7	-1.9
Italy FTSE MIB	0.6	0.2	-18.2	-16.2
Japan Topix	0.6	-0.4	-13.0	1.1
France CAC 40	0.0	-0.4	-1.1	1.4
Australia ASX	-1.3	-2.4	6.5	10.0

	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
MSCI US				
Large Cap	0.2	0.2	7.5	7.5
Small & Mid Cap	0.4	0.4	10.0	10.0
Growth	-0.3	-0.3	5.3	5.3
Value	0.6	0.6	10.1	10.1

	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
EM				
Russia RTS	6.1	6.1	32.5	32.5
China Shanghai SE	3.7	3.0	-11.1	-13.7
Indonesia SE	3.3	1.6	19.2	24.3
Thailand SET 100	2.5	3.2	25.0	29.9
Mexico IPC	2.1	1.4	12.0	2.5
Brazil Bovespa (\$)	1.0	1.0	33.6	63.4
Korea KOSPI	0.9	0.6	3.8	9.5
South Africa JSE	0.3	-5.5	5.8	11.4

	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
MSCI Europe				
Large Cap	1.1	0.3	1.8	-0.3
Small & Mid Cap	1.6	0.8	2.1	-0.3
Growth	0.1	-0.8	1.6	0.1
Value	2.3	1.5	2.2	-0.7

Source: MSCI, Datastream, Bloomberg, Morgan Stanley Research

MARKET REVIEW

Equity Markets by Sector – Total Returns

MSCI ACWI	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
Financials	3.8	3.4	-0.1	1.6
Information Technology	2.5	2.5	9.2	10.5
Industrials	1.5	1.2	7.5	10.1
Energy	1.2	0.9	16.0	16.1
Materials	1.2	0.7	15.8	18.2
Consumer Discretionary	0.2	-0.2	-0.1	2.0
Consumer Staples	-0.3	-0.8	8.0	8.4
Telecommunication Services	-2.3	-2.8	7.0	8.7
Health Care	-3.7	-4.0	-1.6	-0.9
Utilities	-4.3	-4.5	8.7	9.6

MSCI EM	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
Information Technology	5.1	5.5	17.6	20.5
Financials	4.2	3.9	9.7	13.7
Consumer Discretionary	3.4	1.8	6.0	9.2
Energy	2.0	2.0	15.9	23.0
Industrials	1.6	1.7	3.7	6.2
Materials	0.2	-0.2	20.2	25.5
Consumer Staples	0.1	-0.4	7.3	11.2
Health Care	-0.1	-0.7	1.3	3.4
Utilities	-0.2	-0.4	9.2	14.7
Telecommunication Services	-1.3	-1.8	8.3	10.0

MSCI US	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
Financials	3.5	3.5	4.1	4.1
Energy	2.6	2.6	15.7	15.7
Information Technology	2.3	2.3	9.8	9.8
Industrials	1.4	1.4	12.7	12.7
Materials	1.1	1.1	13.6	13.6
Consumer Staples	-0.6	-0.6	9.0	9.0
Consumer Discretionary	-1.0	-1.0	3.9	3.9
Health Care	-3.0	-3.0	1.8	1.8
Telecommunication Services	-5.4	-5.4	18.9	18.9
Utilities	-5.9	-5.9	15.2	15.2

MSCI Europe	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
Financials	6.7	5.8	-9.8	-11.9
Industrials	3.3	2.5	9.8	9.1
Materials	2.9	2.1	17.5	16.1
Consumer Discretionary	0.9	0.2	-3.7	-5.2
Energy	0.2	-0.7	21.5	14.3
Consumer Staples	0.1	-0.9	10.5	7.0
Information Technology	0.0	-0.5	4.2	4.5
Telecommunication Services	-0.1	-0.8	-6.8	-9.7
Utilities	-4.3	-5.0	3.3	0.7
Health Care	-4.4	-5.5	-4.0	-5.0

Source: MSCI, RIMES, Morgan Stanley Research

MARKET REVIEW

Fixed Income Markets – Total and Excess Returns

Total Returns

WORLD	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
Global HY	2.1	2.0	13.4	13.5
Asia \$ Broad IG	0.8	0.8	8.5	8.5
EM Sovs	0.3	1.8	9.7	14.6
EUR Broad IG	0.0	-0.4	5.8	8.5
Global Broad IG	-0.1	-0.5	6.2	9.1
US Broad IG	-0.1	-0.1	6.0	6.0

Excess Returns

WORLD	August-16 (%)		YTD (%)	
	in USD		in USD	
<i>Dur-Adj Excess Returns*</i>				
EM Sovs	2.6		8.6	
Global HY	2.6		9.8	
Asia \$ Broad IG	1.5		3.9	
US Broad IG	0.6		0.7	
Global Broad IG	0.3		3.1	
EUR Broad IG	0.3		2.9	

US Fixed Income	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
HY Corporates		2.2		14.6
IG Corporates		0.3		9.4
ABS		0.0		2.1
Treasuries		-0.6		5.5

US Fixed Income	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
<i>Dur-Adj Excess Returns*</i>				
HY Corporates		2.9		10.6
IG Corporates		1.1		3.4
ABS		0.2		0.8
Treasuries		0.0		0.0

US Corporates	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
AA		0.0		7.4
A		0.1		8.2
BBB		0.5		11.2
BB		1.6		12.1
B		2.7		13.7
CCC		3.6		26.6

US Corporates	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
<i>Dur-Adj Excess Returns*</i>				
AA		0.8		1.7
A		0.9		2.2
BBB		1.4		5.0
BB		2.2		7.7
B		3.2		9.9
CCC		4.1		23.7

EUR Fixed Income	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
EUR HY Corporates	1.7	1.3	7.6	10.4
ABS	0.5	0.1	6.2	8.9
EUR IG Corporates	0.3	-0.1	6.2	8.9
Covered Bonds	0.1	-0.3	3.7	6.4
German Bunds	-0.5	-0.9	6.4	9.1

EUR Fixed Income	August-16 (%)		YTD (%)	
	Local Ccy	in USD	Local Ccy	in USD
<i>Dur-Adj Excess Returns**</i>				
EUR HY Corporates	1.9	1.8	5.9	7.1
ABS	0.7	0.8	4.0	5.1
EUR IG Corporates	0.5	0.6	3.5	4.5
Covered Bonds	0.3	0.4	1.4	2.4
German Bunds	0.0	-0.1	0.0	2.7

Note: (*) versus duration-matched US Treasuries for local ccy; (**) versus duration-matched EUR Bunds for local ccy.; versus US Treasuries for USD returns.
 Source: Morgan Stanley Research, BAML

MARKET REVIEW
FX & Commodities Market

Currencies

G10	August 2016 (%)	YTD (%)
NOK	1.4	5.5
NZD	0.7	6.0
USD	0.4	-1.1
SEK	0.0	-1.8
EUR	-0.1	2.1
CAD	-0.5	5.9
GBP	-0.7	-11.3
AUD	-1.0	3.2
JPY	-1.3	16.6
CHF	-1.5	0.5

ASIA	August 2016 (%)	YTD (%)
INR	-0.4	-0.7
KRW	-0.4	5.5
CNY	-0.6	-2.8
IDR	-1.6	4.2

CEEMEA	August 2016 (%)	YTD (%)
TRY	0.9	-1.3
RUB	0.9	12.5
HUF	0.3	3.2
ZAR	-5.7	5.6

LATAM	August 2016 (%)	YTD (%)
BRL	0.7	22.7
ARS	0.4	-13.2
MXN	-0.2	-7.5

Commodities

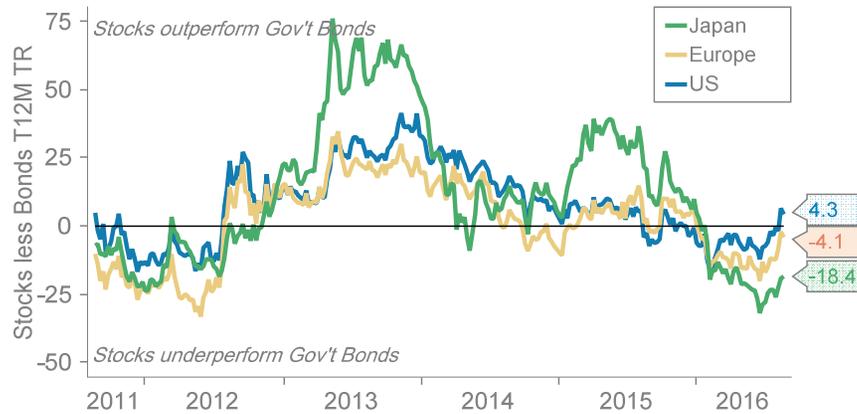
S&P GSCI	August 2016 (%)	YTD (%)
Energy	6.1	4.0
S&P GSCI	1.8	1.9
Industrial Metals	-3.2	5.1
Precious Metals	-4.0	24.1
Agriculture	-5.7	-5.8

	August 2016 (%)	YTD (%)
Brent Crude	10.8	29.0
Heating Oil	10.5	30.7
Sugar	5.3	32.4
Cocoa	2.2	-10.3
Coal	1.3	-7.7
Coffee	0.6	18.9
Natural Gas	0.4	-31.7
CRB Futures Index	-0.4	3.0
Aluminum	-0.9	6.2
Gold	-3.0	23.4
Live Cattle	-5.7	-22.0
Copper	-6.3	-2.7
Soybeans	-7.0	9.7
Platinum	-8.4	20.9
Silver	-8.5	34.5
Corn	-9.9	-16.0
Cotton	-11.9	2.1

Note: Price returns. Per USD for all currencies. Fed Broad Trade-weighted USD is used for USD.
 Source: Bloomberg, Morgan Stanley Research

MARKET TRENDS
Relative Performance – Total Returns Differences

Equities versus Govt. Bonds (%)



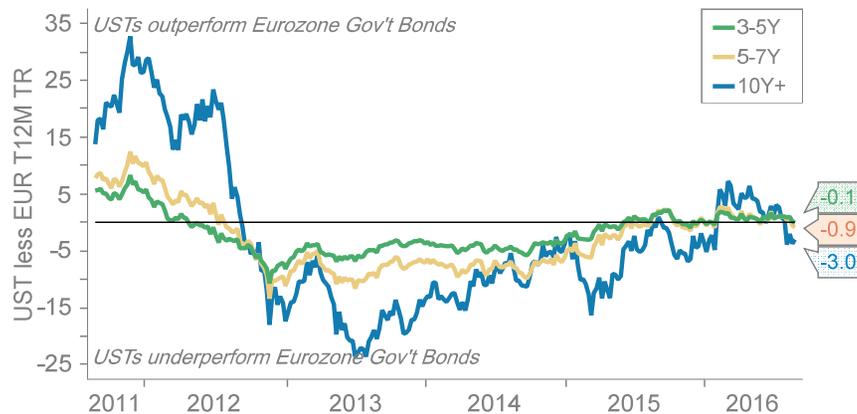
Source: Bloomberg, Macrobond, MSCI, Morgan Stanley Research

Regional Equities vs. MSCI ACWI (%)



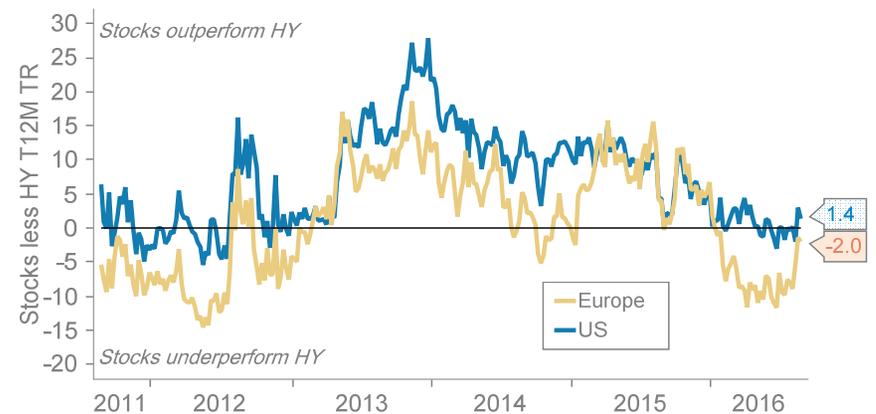
Source: Macrobond, MSCI, Morgan Stanley Research

US versus Eurozone Govt. Bonds (%)



Source: Bloomberg, Macrobond, Morgan Stanley Research

Equities versus High Yield (%)



Source: Macrobond, Markit iBoxx, MSCI, The Yieldbook, Morgan Stanley Research

MARKET TRENDS
Relative Performance – Total Returns Differences

EM versus DM Equities (%)



Source: Macrobond, MSCI, Rimes, Morgan Stanley Research

Cyclical versus Defensive Equities (%)



Source: Macrobond, MSCI, Rimes, Morgan Stanley Research

Small- & Mid-Cap versus Large-Cap Equities (%)



Source: Macrobond, MSCI, Rimes, Morgan Stanley Research

Value versus Growth Equities (%)

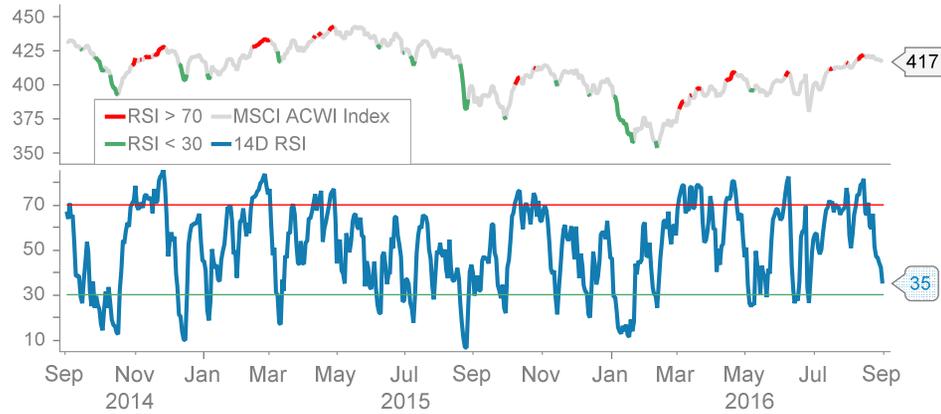


Source: Macrobond, MSCI, Rimes, Morgan Stanley Research

MARKET TRENDS
Equity Markets by Region

Developed Market

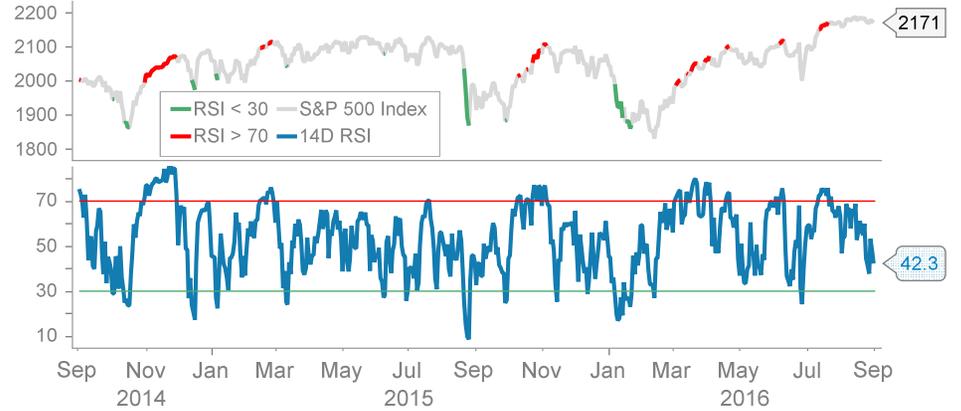
MSCI World Local Index



Source: Bloomberg, Macrobond, MSCI, Morgan Stanley Research

US

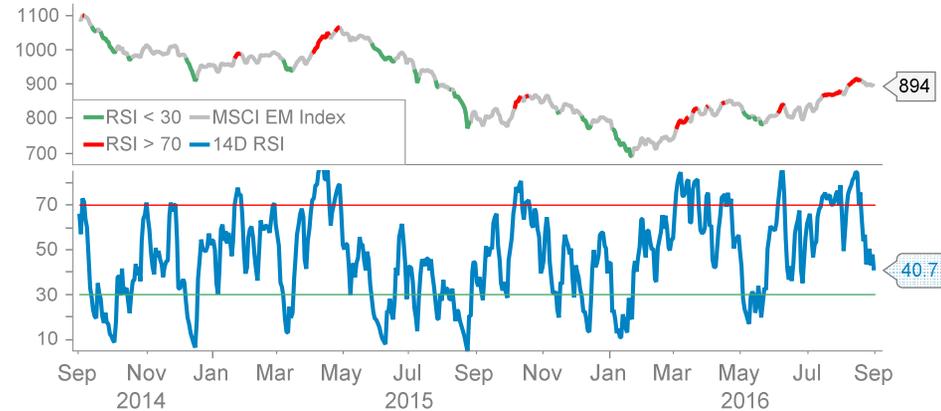
S&P 500



Source: Bloomberg, Macrobond, Morgan Stanley Research

Emerging Market

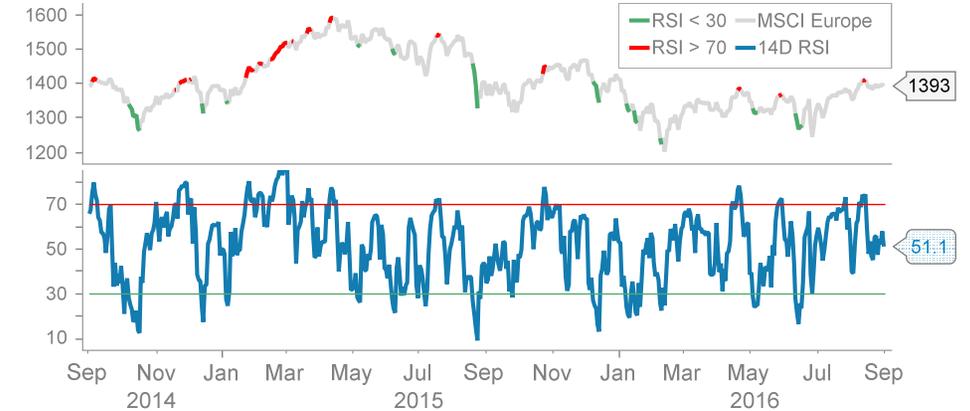
MSCI EM (USD)



Source: Bloomberg, Macrobond, MSCI, Morgan Stanley Research

Europe

MSCI Europe (Local Ccy)



Source: Bloomberg, Macrobond, Morgan Stanley Research

MARKET TRENDS
Government Bond Markets

UST 10Y (%)



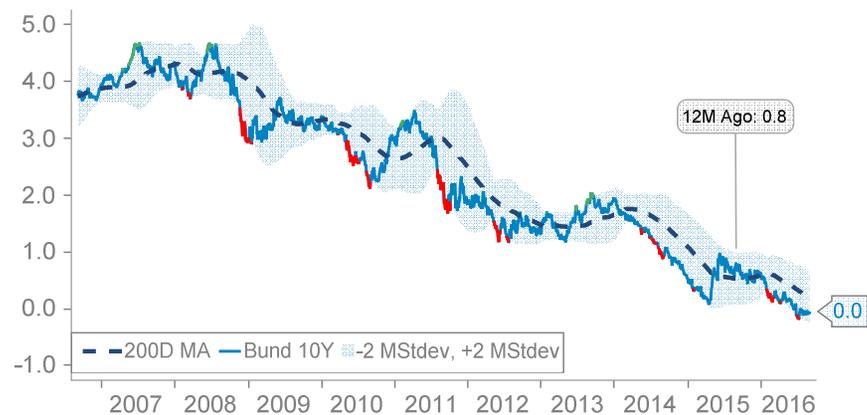
Source: Bloomberg, Macrobond, Morgan Stanley Research

US 2s10s (bp)



Source: Bloomberg, Macrobond, Morgan Stanley Research

Bunds 10Y (%)



Source: Bloomberg, Macrobond, Morgan Stanley Research

JGB 10Y (%)



Source: Bloomberg, Macrobond, Morgan Stanley Research

Note: Red indicates index at 2 standard deviations below 220D moving average; green indicates index at 2 standard deviations above 200D moving average.

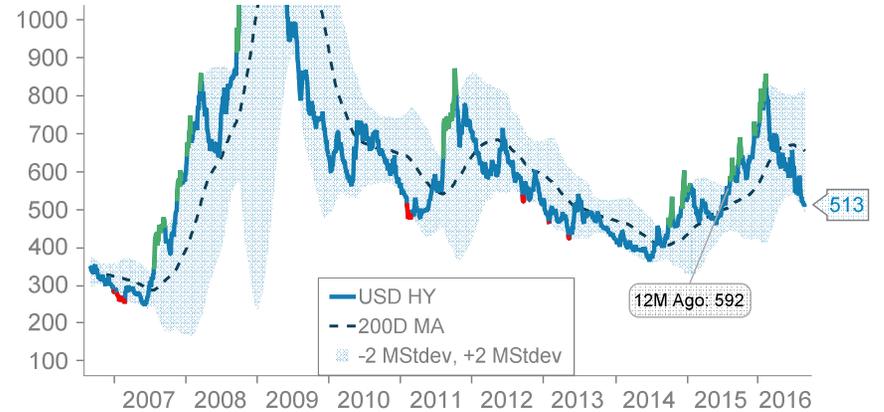
MARKET TRENDS
Credit Markets

USD Investment Grade Credit (OAS bp)



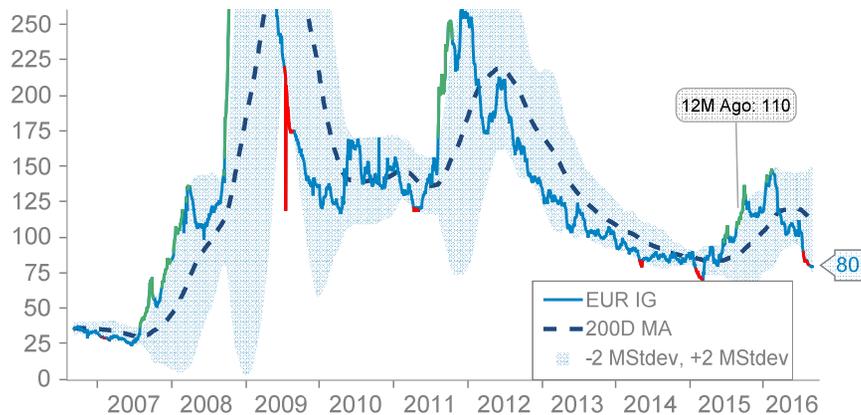
Source: The Yield Book, Macrobond, Morgan Stanley Research

USD High Yield Credit (Spread to Worst bp)



Source: The Yield Book, Macrobond, Morgan Stanley Research

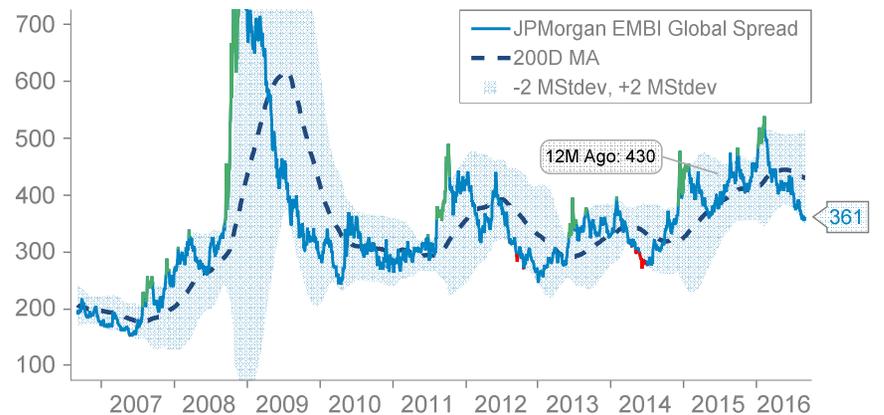
EUR Investment Grade Credit (ASW bp)



Source: Markit, Macrobond, Morgan Stanley Research

Note: Red indicates index at 2 standard deviations below 220D moving average; green indicates index at 2 standard deviations above 200D moving average.

EMBI Global Spread (ASW bp)



Source: Bloomberg, Macrobond, Morgan Stanley Research

MARKET TRENDS
FX Markets

DXY Index



Source: Bloomberg, Macrobond, Morgan Stanley Research

EUR/USD



Source: Bloomberg, Macrobond, Morgan Stanley Research

FXEM Index



Source: Bloomberg, Macrobond, Morgan Stanley Research

USD/JPY



Source: Bloomberg, Macrobond, Morgan Stanley Research

Note: Red indicates index at 2 standard deviations above 220D moving average; green indicates index at 2 standard deviations below 200D moving average.

MARKET TRENDS
Commodity Markets

GSCI



Source: Bloomberg, Macrobond, Morgan Stanley Research

S&P GSCI Indices (2013=100)



Source: Bloomberg, Macrobond, Morgan Stanley Research

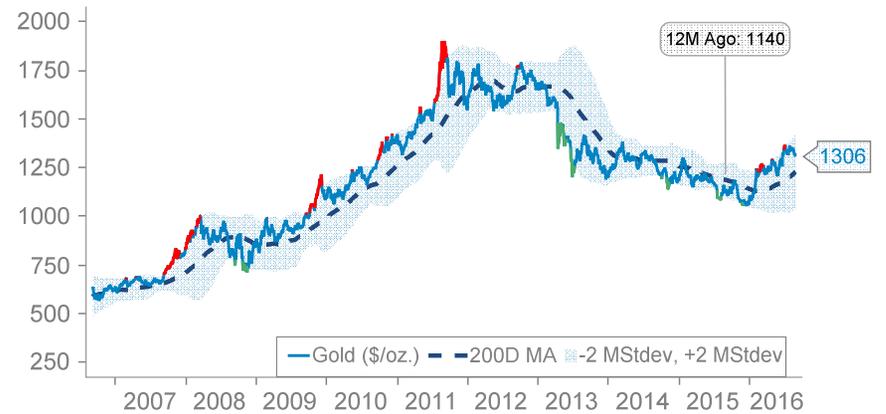
Brent



Source: Bloomberg, Macrobond, Morgan Stanley Research

Note: Red indicates index at 2 standard deviations above 220D moving average; green indicates index at 2 standard deviations below 200D moving average.

Gold

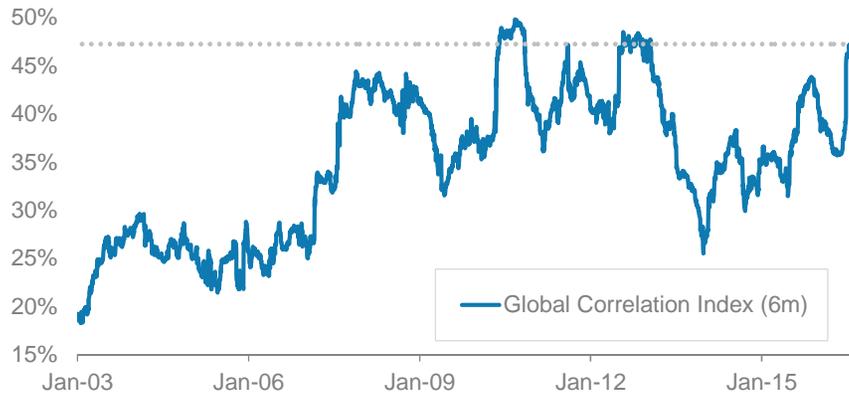


Source: Bloomberg, Macrobond, Morgan Stanley Research

MARKET TRENDS
Cross-Asset Correlations

Global Correlation Index

6m Correlation



Source: Bloomberg, Morgan Stanley Research

Equity Market Correlations

6m Correlation



Source: Bloomberg, Morgan Stanley Research

Note: Equity Correlation Index is average of the pairwise correlation of five regional equities (US, Europe, Japan, UK and EM). Rates Correlation is the average pairwise correlation of G4 Rates Markets. Equity-FX and Equity-Rates Correlation indices are the average of the correlation between Equity-FX pairs and Equity-Rates pairs in G4 countries respectively. Oil correlation average of correlation to S&P 500, Eurostoxx, US IG, US HY, EM Credit, UST 10yr and UST 2yr.

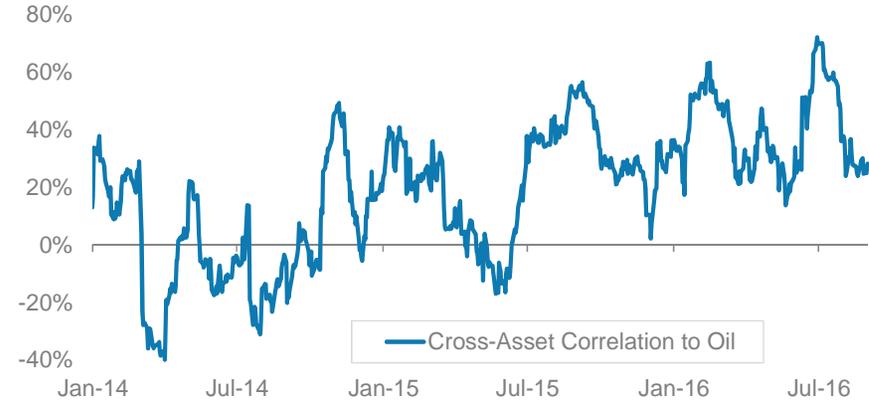
Global Correlation Index Components

	6m Correlation	Correlation on LT range	Long-Term Min	Long-Term Max	Deviation from LT Avg
Global Correlation	47%		11%	50%	+13%
Regional Correlations	50%		19%	52%	+12%
Equity	59%		33%	63%	+11%
Rates	30%		10%	44%	+2%
Credit	68%		-5%	74%	+21%
DM FX	44%		8%	59%	+14%
EM FX	47%		0%	58%	+15%
Cross-Asset Correlations	44%		1%	49%	+15%
Equity-Credit	57%		-6%	60%	+24%
Equity-FX	31%		-10%	31%	+21%
Rates-Equity*	30%		-8%	69%	-5%
Rates-Credit*	58%		-10%	66%	+19%
FX-Rates	0%		-15%	22%	-5%

Note: * Sign inverted and rates correlations in yield terms here. Source: Bloomberg, Morgan Stanley Research

Cross-Asset Correlation to Oil

1m Correlation



Source: Morgan Stanley Research, Bloomberg

Valuations

VALUATIONS Equity Valuation by Region and Sector

Index	Level	1yr Range	Forward		Trailing					Composite Value		
			Fwd P/E	20yr Range	P/B	20yr Range	Div Yield	20yr Range	EV/EBIT	20yr Range	vs. ACWI	20yr Range
MSCI ACWI	417		15.6		2.1		2.6		18.5		n/a	n/a
S&P 500	2,171		17.1		2.9		2.1		18.8		123%	
MSCI Europe	1,393		15.1		1.7		3.6		19.5		90%	
EuroStoxx 50	3,023		14.7		1.4		4.0		15.3		81%	
CAC 40	4,438		13.6		1.4		3.8		16.8		77%	
DAX 30	10,593		12.6		1.7		2.9		15.4		81%	
FTSE 100	6,782		16.1		1.8		4.1		32.9		95%	
FTSE MIB (Italy)	16,943		11.7		0.9		4.1		16.3		59%	
Swiss Market Index	8,202		16.8		2.5		3.6		21.6		114%	
TOPIX	1,330		13.2		1.2		2.2		13.1		70%	
Hang Seng	22,977		11.8		1.2		3.5		11.2		66%	
MSCI Australia	1,084		16.7		1.9		4.6		22.1		98%	
MSCI EM	894		12.4		1.5		2.6		14.2		77%	
Brazil	1,651		12.4		1.5		3.0		34.6		76%	
China	62		11.8		1.5		2.6		12.5		76%	
India	491		17.9		3.2		1.4		20.5		134%	
Korea	403		10.4		1.0		1.6		11.3		57%	
Mexico	5,306		18.7		2.7		2.1		16.1		125%	
Russia	493		5.8		0.8		4.6		6.2		37%	
S&P Fins.	330		19.6		1.3		2.3				94%	
EU Fins.	96		8.7		0.6		4.9				41%	
US Growth	3,539		18.9		4.7		1.3		18.0		174%	
US Value	2,221		16.1		2.1		2.9		21.5		102%	
EU Growth	2,246		18.1		3.4		2.4		18.4		140%	
EU Value	2,013		12.9		1.1		4.8		20.8		69%	
US Large Cap	1,419		17.2		3.0		2.2		18.4		126%	
US Small Cap	753		22.2		2.1		1.5		30.0		122%	
EU Large Cap	835		14.9		1.7		3.8		20.2		88%	
EU Small Cap	382		16.5		1.8		2.4		23.1		96%	

Note: The Composite Value vs ACWI is an average of forward P/E and P/B of the index against ACWI. It shows where the index is trading at as compared to ACWI. MSCI ACWI and MSCI EM countries are denoted in USD, the rest are in local currency. For 20-year ranges, we show as much history as possible in cases without 20 years of historical data.

Source: Bloomberg, Rimes, Datastream, Morgan Stanley Research

VALUATIONS
Fixed Income Valuation

Rates																
Market	Rating	10yr Yield	1yr Range	Range	Breakeven	Range	Real Yield	Range	2s10s	Range	10s30s	Range	1yr Vol (bp)	Range	Carry+Roll / Vol	Range
United States	Aaa	1.58			1.47		0.11		0.77		0.65		72		3.1	
United Kingdom	Aa1	0.64			2.61		-1.96		0.50		0.63		82		1.7	
Germany	Aaa	-0.07			0.84		-0.91		0.55		0.52		62		1.6	
Italy	Baa2	1.15			0.64		0.50		1.23		1.05		78		3.4	
Spain	Baa2	1.01			0.69		0.32		1.19		1.09		79		3.2	
Portugal	Ba1	3.04			n/a		n/a		2.51		0.88		128		3.8	
Japan	A1	-0.06			0.33		-0.39		0.13		0.49		39		n/a	
South Korea	Aa2	1.48			0.53		0.95		0.16		0.05		45		3.8	
Australia	Aaa	1.82			1.62		0.21		0.39		n/a		80		2.9	
Brazil	Ba2	12.08			6.11		5.97		-0.31		n/a		287		4.1	
Mexico	A3	5.85			3.11		2.74		0.60		0.51		62		10.0	
Indonesia	Baa3	7.09			n/a		n/a		0.62		0.57		130		5.8	
Russia	Ba1	8.20			n/a		n/a		-0.67		n/a		144		5.4	
South Africa	Baa2	9.07			7.13		1.94		1.02		0.61		184		5.3	
Turkey	Baa3 *-	9.60			7.17		2.43		1.34		n/a		174		5.7	
Credit (Spread)																
Market	Rating	Spread	1yr Range	20yr	Hist. Loss	---	Loss-Adj.	20yr	Lev.*	20yr	Cov.*	20yr	1yr Vol. (bp)	20yr	Carry+Roll / Vol	20yr
US Inv. Grade	A3	134			0.19%		115		2.0		10.4		25		8.6	
EU Inv. Grade	Baa1	121			0.20%		99		1.9		9.4		26		5.1	
US High Yield	B1	513			2.61%		189		4.2		4.2		150		2.7	
EU High Yield	B1	428			2.61%		159		3.0		3.6		106		5.5	
EM Sovereign^																
Brazil	Ba2	260			1.54%		105						170		2.8	
Mexico	A3	138			0.19%		125						75		3.3	
Indonesia	Baa3	146			0.28%		119						89		n/a	
Russia	Ba1	220			1.54%		67						137		n/a	
South Africa	Baa2	261			0.28%		232						127		2.5	
Turkey	Baa3 *-	245			0.28%		217						110		3.7	

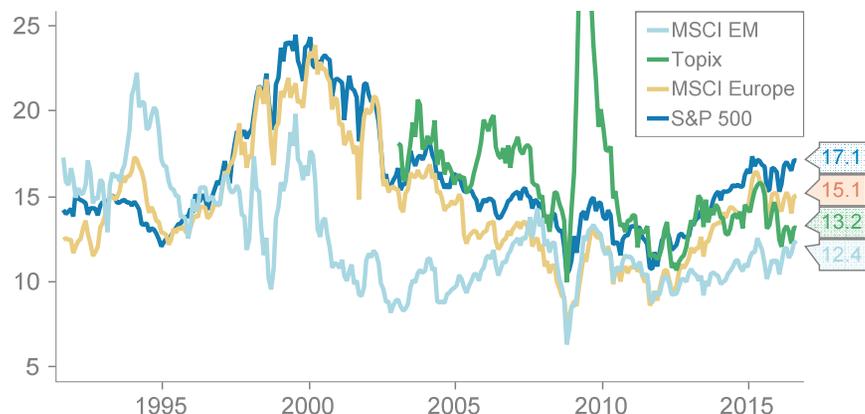
Note: Real yields are calculated as 10y yields – 10y breakevens. Leverage is calculated as net debt/EBITDA, and interest coverage as EBITDA/interest. Credit loss numbers are based on whole letter rating. Carry and roll are adjusted for 1Y volatility. EU spreads used here are benchmark spreads as they have a longer history. Range represents 20 years or the entire history, whichever is shorter.

^ EM sovereign spreads are based on 5y CDS spreads.

Source: Bloomberg, the Yield Book, Morgan Stanley Research

VALUATIONS
Equity Markets by Region

Price/Earnings (NTME)



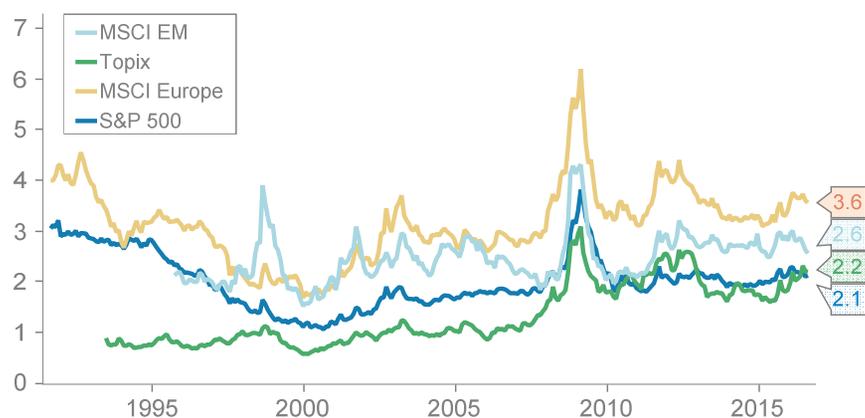
Source: Datastream, IBES, Macrobond, Morgan Stanley Research

Cyclically Adjusted P/E



Source: Morgan Stanley Research, MSCI, Bloomberg, Macrobond

Dividend Yield (%)



Source: Bloomberg, Macrobond, Morgan Stanley Research

Price/Book

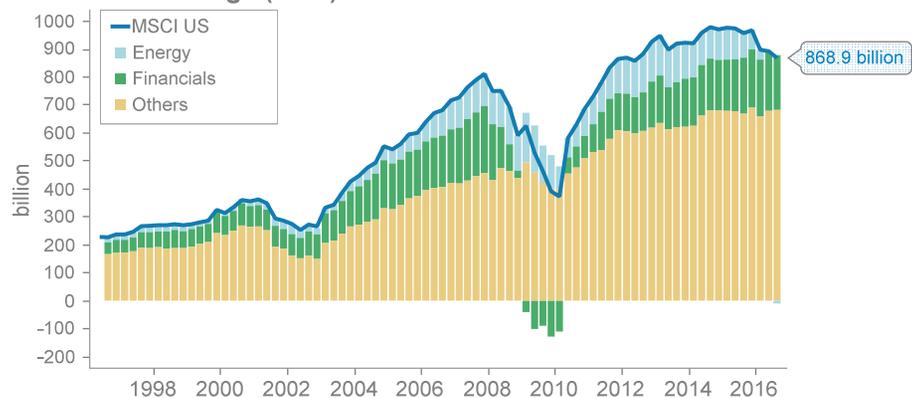


Source: Bloomberg, Macrobond, Morgan Stanley Research

VALUATIONS Equity Markets Sector Earnings Trend

US

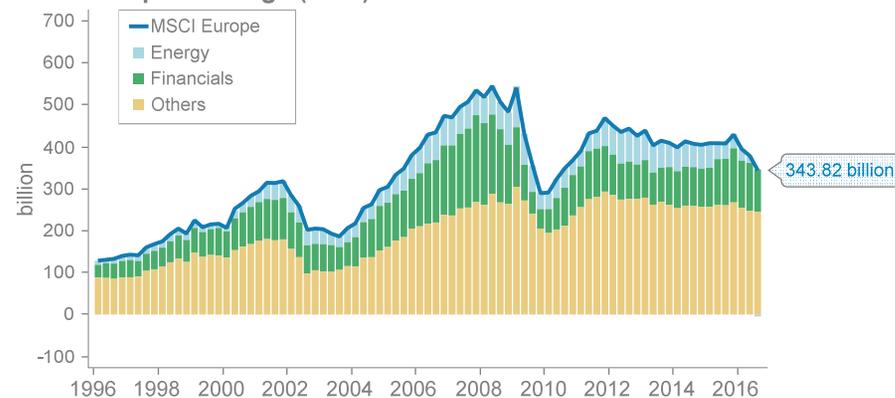
MSCI USA Earnings (USD)



Source: MSCI, Datastream, Morgan Stanley Research

Europe

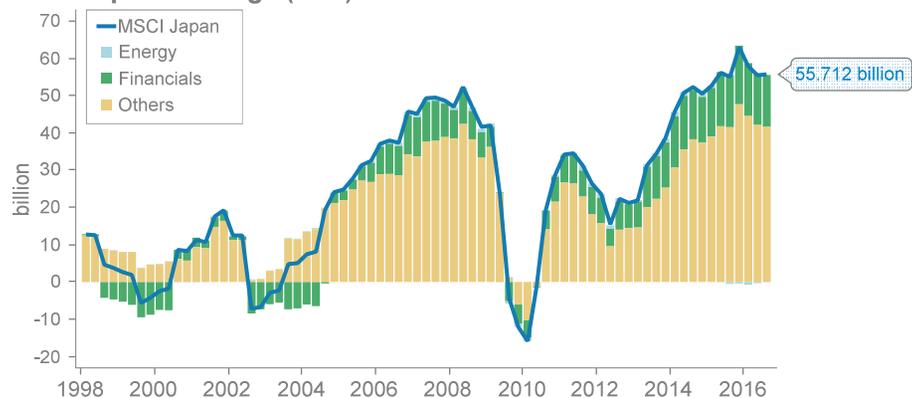
MSCI Europe Earnings (EUR)



Source: MSCI, Datastream, Morgan Stanley Research

Japan

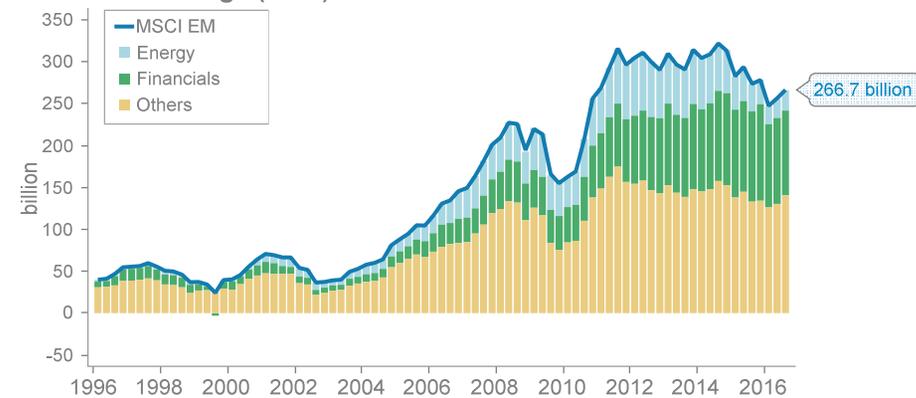
MSCI Japan Earnings (JPY)



Source: MSCI, Datastream, Morgan Stanley Research

EM

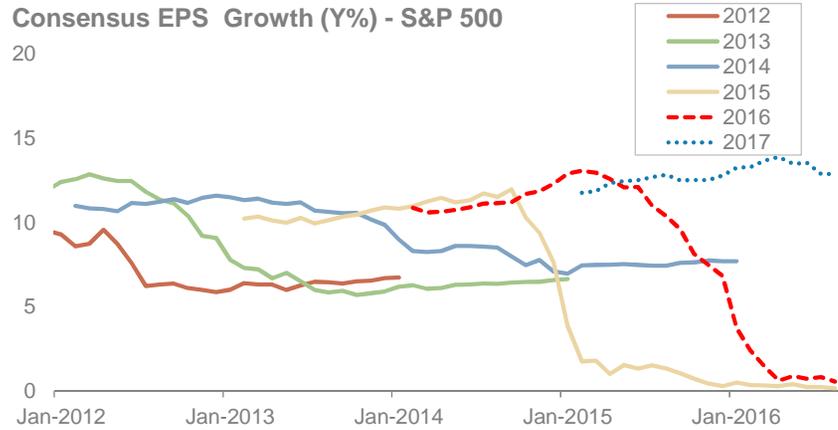
MSCI EM Earnings (USD)



Source: MSCI, Datastream, Morgan Stanley Research

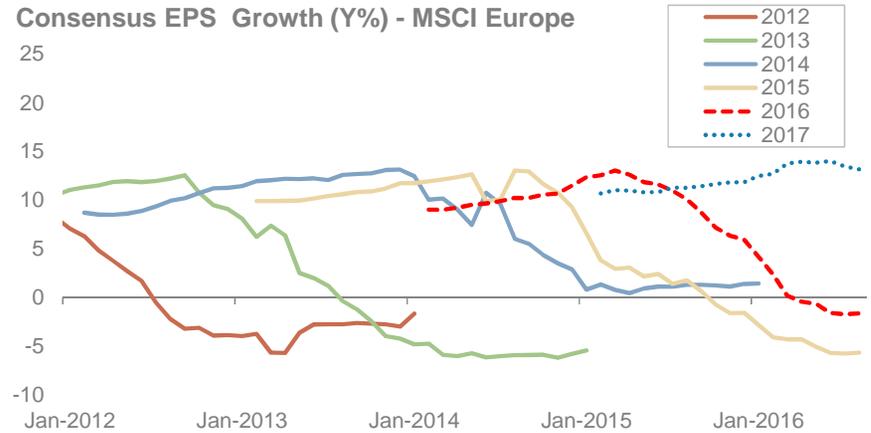
VALUATIONS
Equity Markets Earnings Growth Revisions

US



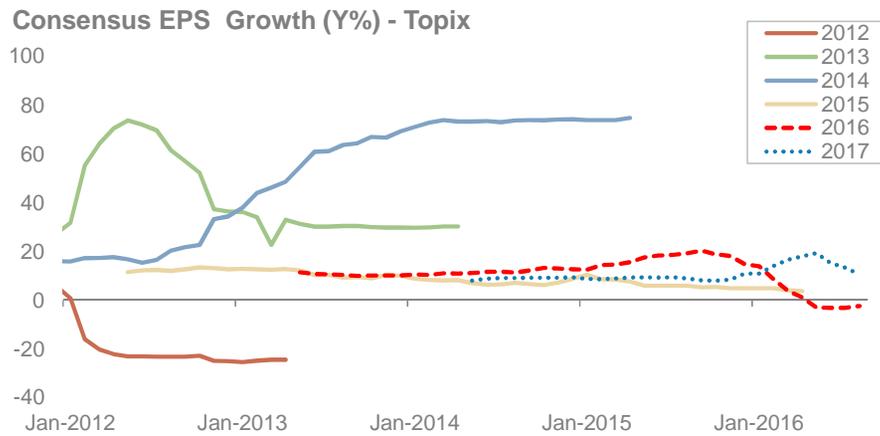
Source: MSCI, Datastream, IBES, Morgan Stanley Research

Europe



Source: MSCI, Datastream, IBES, Morgan Stanley Research

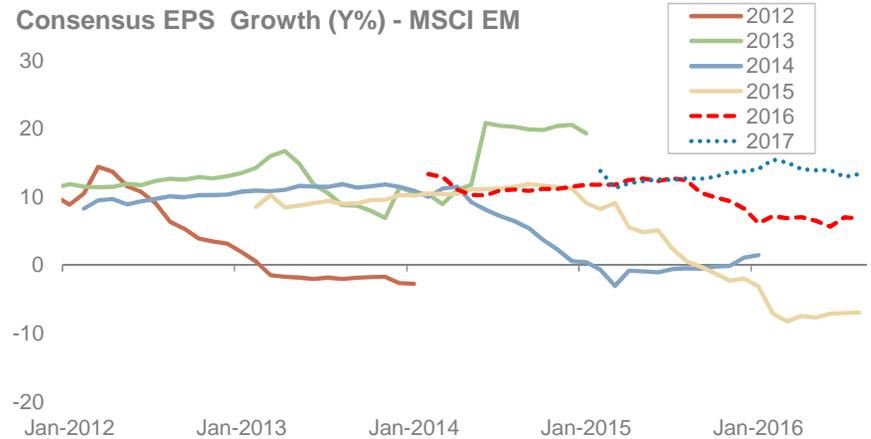
Japan



Source: MSCI, Datastream, IBES, Morgan Stanley Research

*All EPS growth numbers are based off financial year (e.g. 2016 numbers are growth in EPS from Apr 2015 to Mar 2016)

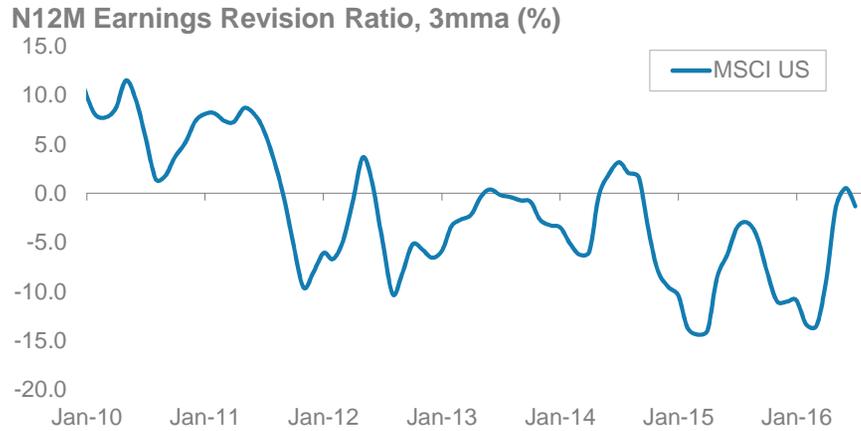
EM



Source: MSCI, Datastream, IBES, Morgan Stanley Research. Note: in USD

VALUATIONS
Equity Markets Earnings Growth Revisions

US



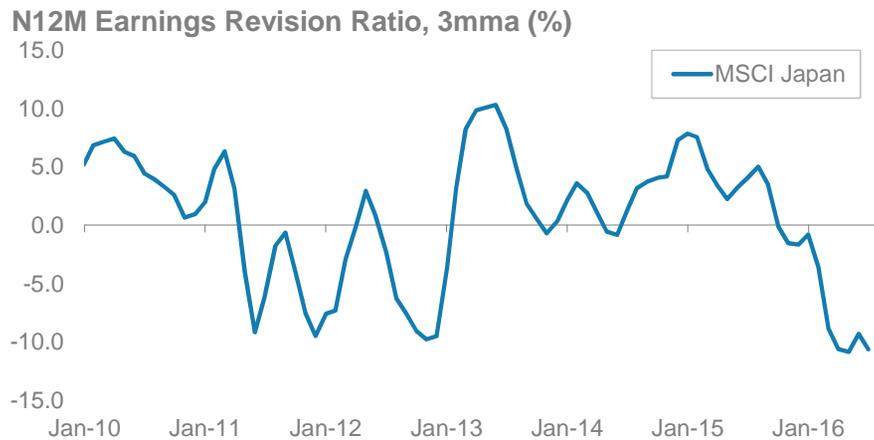
Source: MSCI, IBES, Morgan Stanley Research

Europe



Source: MSCI, IBES, Morgan Stanley Research

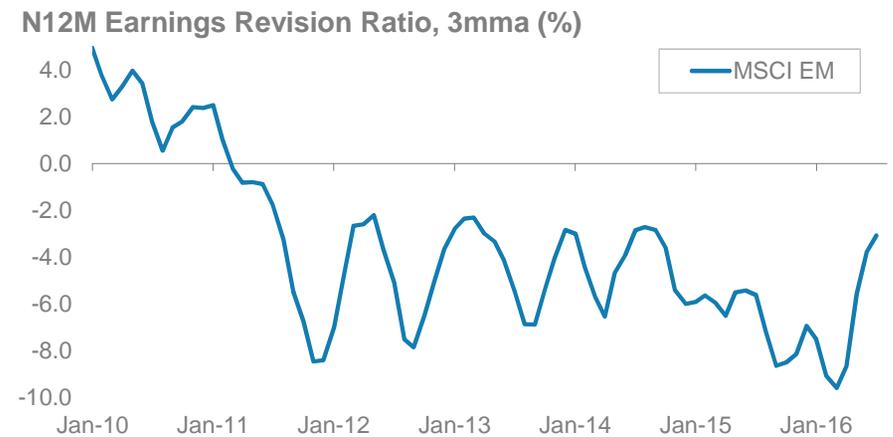
Japan



Source: MSCI, IBES, Morgan Stanley Research

Note: Earnings revisions ratio calculated as (# of upgrades - # of downgrades)/(# of estimates)

EM



Source: MSCI, IBES, Morgan Stanley Research

VALUATIONS
Fixed Income Markets

Nominal Yields (%)



Source: Morgan Stanley Research, Bloomberg, Macrobond

Real 10-Year Yields (bp)



Source: Bloomberg, Macrobond, Morgan Stanley Research. Note: Calculations based on swaps.

1yr Carry + Roll Down, Adjusted for Volatility (%)



Note: Adjusted for 3yr volatility. Calculation done using swaps.
 Source: Bloomberg, Macrobond, Morgan Stanley Research

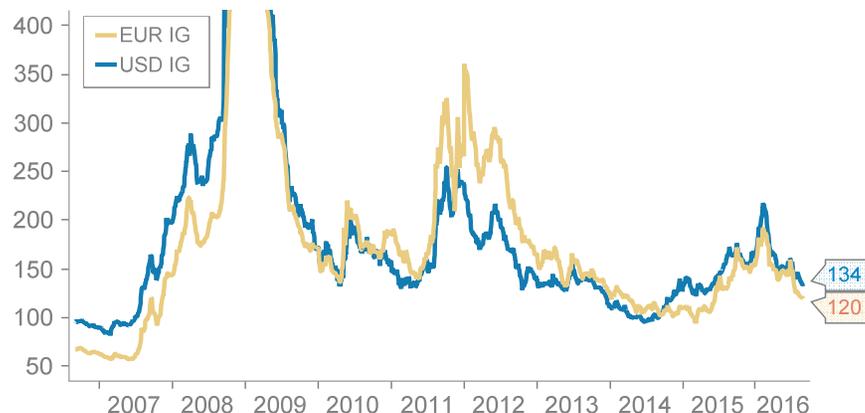
10-Year Breakeven Inflation (%)



Source: Bloomberg, Macrobond, Morgan Stanley Research

VALUATIONS
Credit Markets

Global IG Credit Spreads (bp)



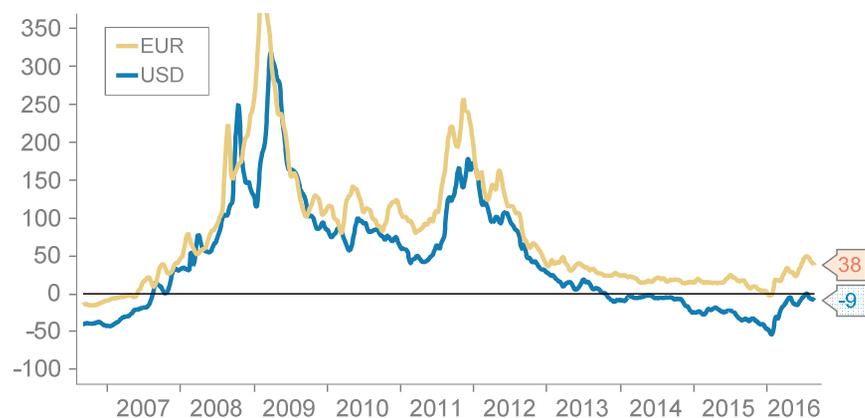
Source: Markit, The Yieldbook, Bloomberg, Morgan Stanley Research

Global High Yield Spreads (bp)



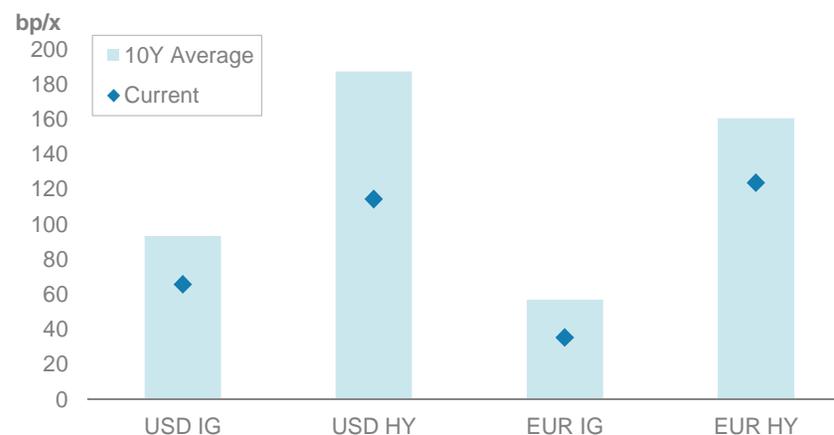
Source: Markit, The Yieldbook, Bloomberg, Morgan Stanley Research.
 Note: Asset swap spreads are used for EUR HY.

Financial vs. Non-Financial Spreads (bp)



Source: Markit, Macrobond, Morgan Stanley Research

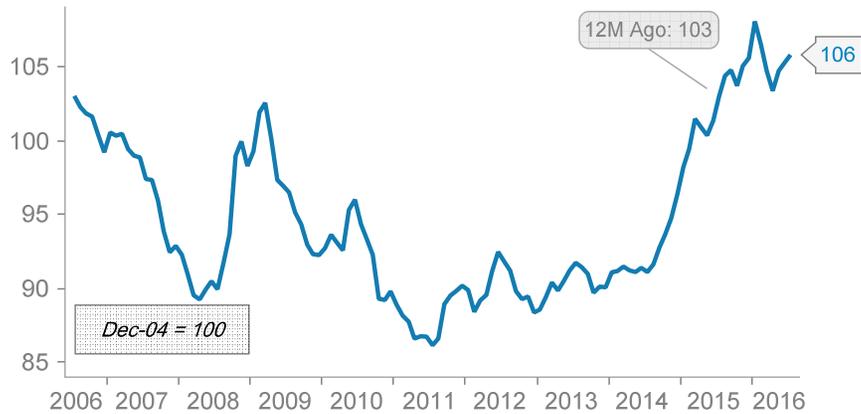
Spread per Leverage, by Market



Note: Defined as non-financials cash spreads over net debt/trailing 12m EBITDA.
 Source: Morgan Stanley Research

VALUATIONS
FX Markets

Real Effective Exchange Rate – USD



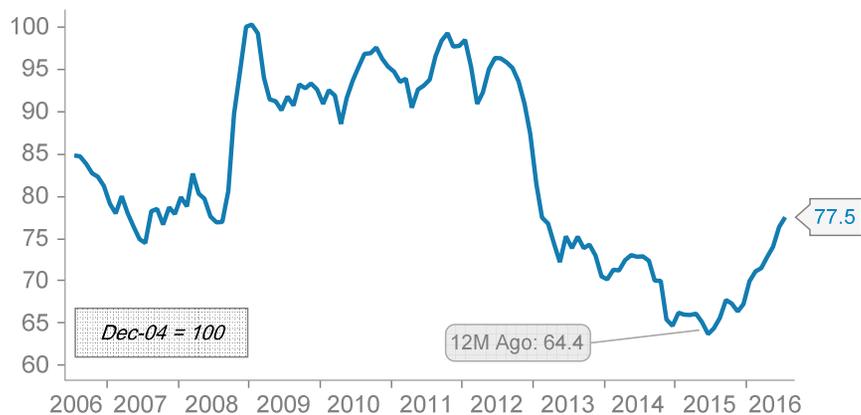
Source: Morgan Stanley Research, Bloomberg, Macrobond

Real Effective Exchange Rate – EUR



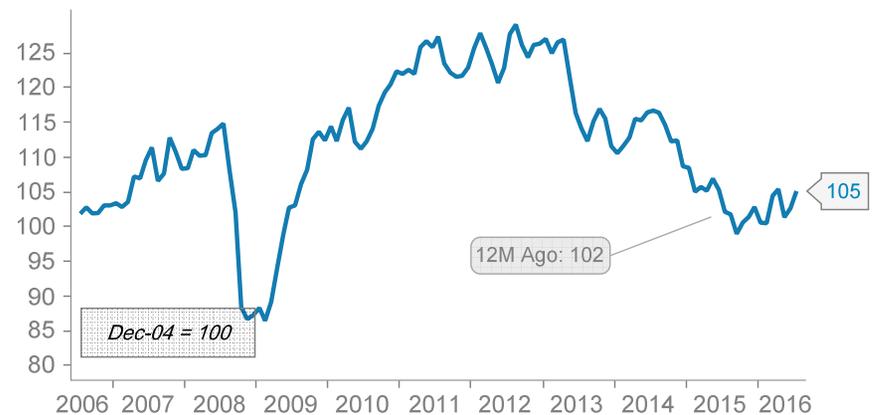
Source: Morgan Stanley Research, Bloomberg, Macrobond

Real Effective Exchange Rate – JPY



Source: Morgan Stanley Research, Bloomberg, Macrobond
 *Data as of June 2016.

Real Effective Exchange Rate – AUD



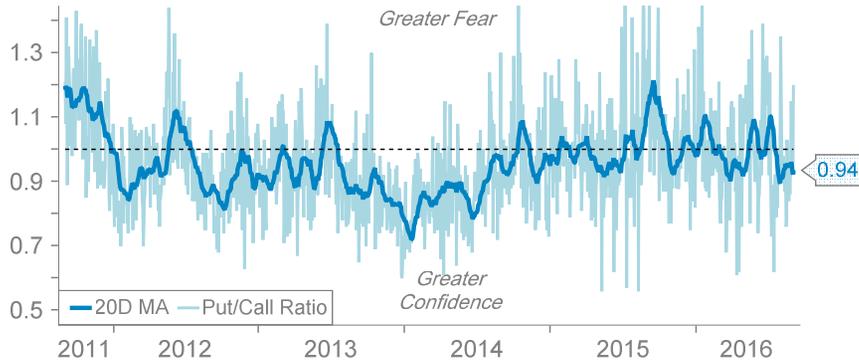
Source: Morgan Stanley Research, Bloomberg, Macrobond

Technicals

TECHNICALS
Sentiment Indicators

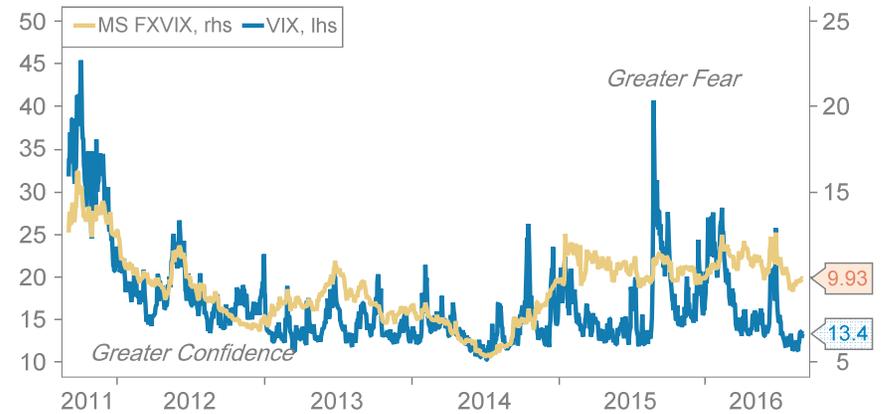
US Equity Put/Call Ratio

Equity Put/Call Ratio



Source: CBOE, Bloomberg, Macrobond, Morgan Stanley Research

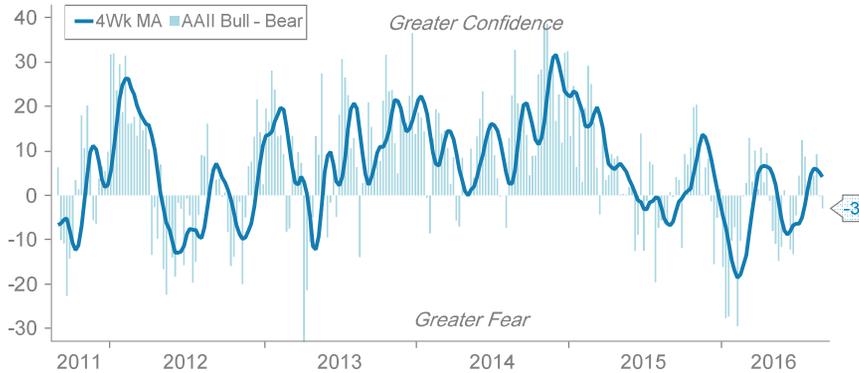
VIX and FX VIX



Source: Bloomberg, Macrobond, Morgan Stanley Research

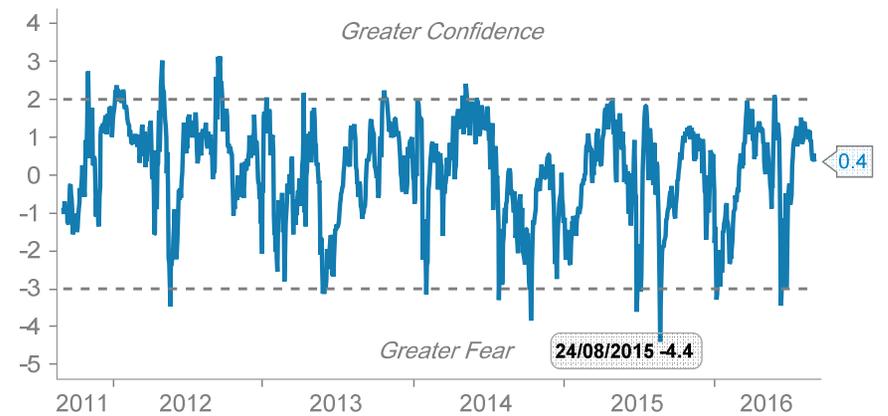
AAll Bulls-Bears

Retail Investor Sentiment



Source: AAll, Macrobond, Morgan Stanley Research

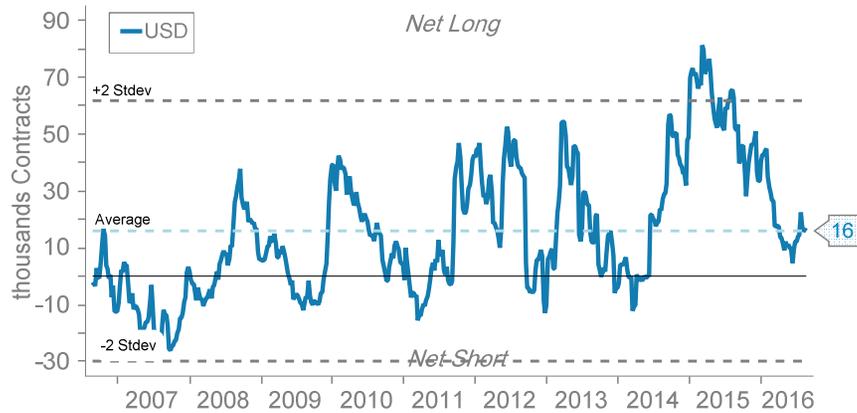
Morgan Stanley Standardized Global Risk Demand Index



Note: Global Risk Demand Index – US Pat. 7,617,143
 Source: Bloomberg, Macrobond, Morgan Stanley Research

TECHNICALS
Speculative Positioning – FX

USD (thousands contracts)



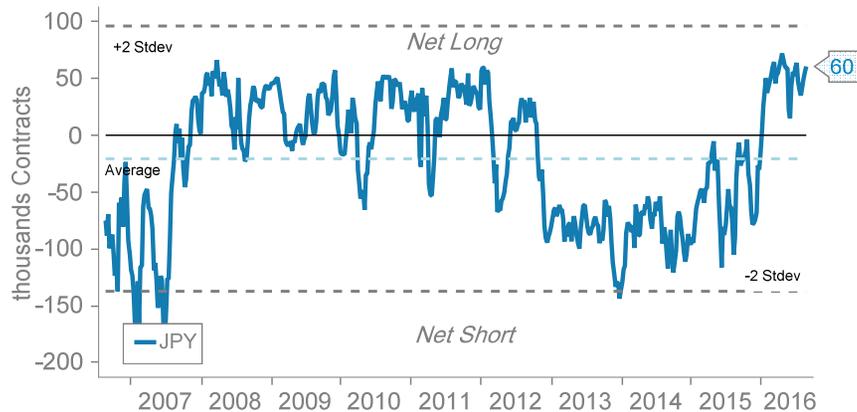
Source: CFTC, Bloomberg, Macrobond, Morgan Stanley Research

EUR (thousands contracts)



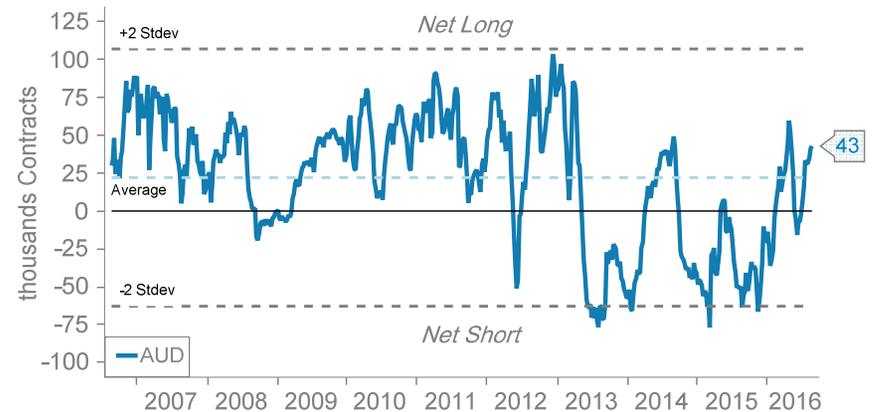
Source: CFTC, Macrobond, Morgan Stanley Research

JPY (thousands contracts)



Source: CFTC, Macrobond, Morgan Stanley Research

AUD (thousands contracts)



Source: CFTC, Macrobond, Morgan Stanley Research

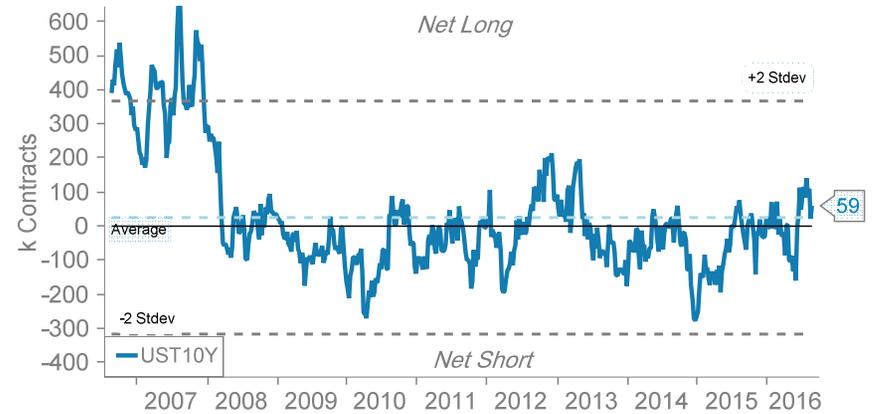
TECHNICALS
Speculative Positioning – Stocks, Bonds and Commodities

S&P 500 (k contracts)



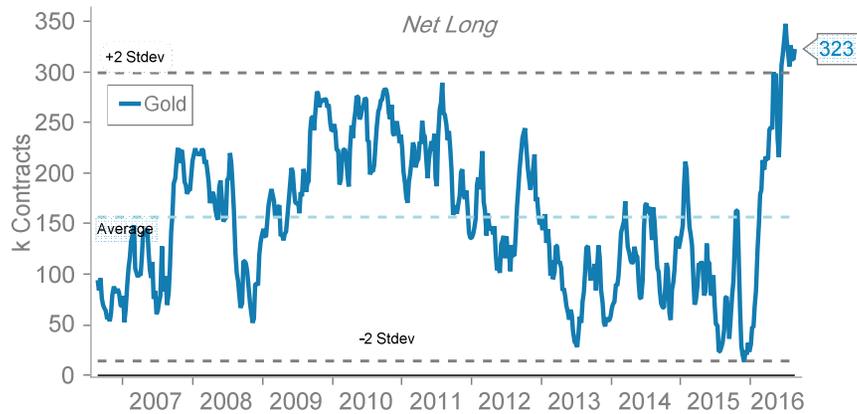
Source: CFTC, Macrobond, Morgan Stanley Research

UST 10Y (k contracts)



Source: CFTC, Macrobond, Morgan Stanley Research

Gold (k contracts)



Source: CFTC, Macrobond, Morgan Stanley Research

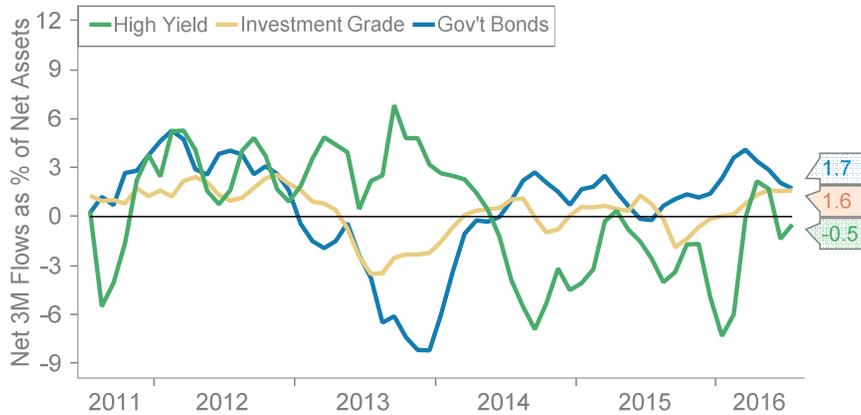
WTI (k contracts)



Source: CFTC, Macrobond, Morgan Stanley Research

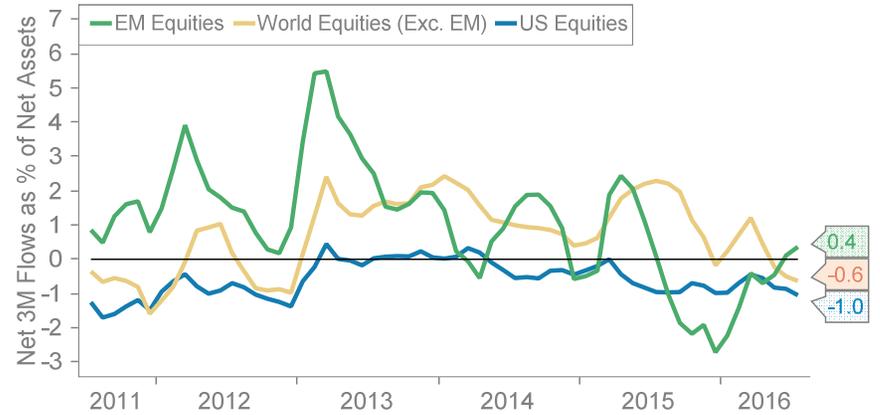
TECHNICALS
US Mutual Fund Flows

US Fixed Income Fund Flows



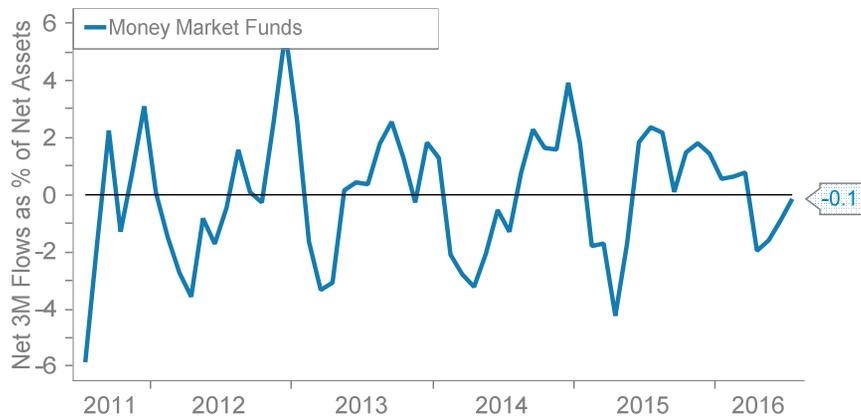
Source: ICI, Macrobond, Morgan Stanley Research

US Equity Fund Flows



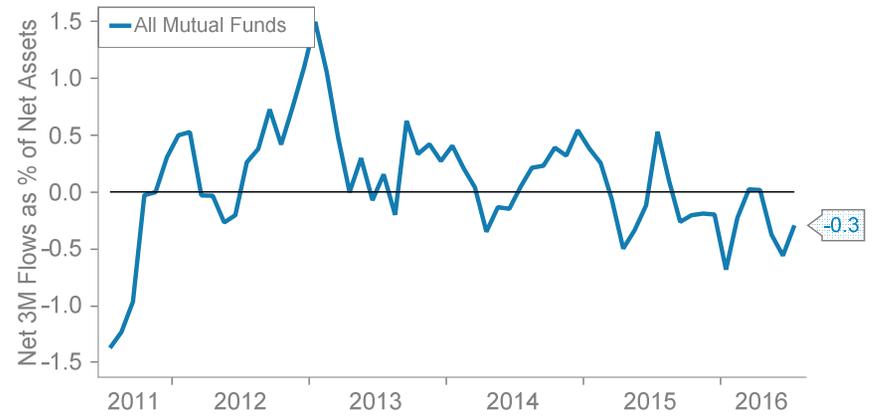
Source: ICI, Macrobond, Morgan Stanley Research

US Money Market Fund Flows



Source: ICI, Macrobond, Morgan Stanley Research

US Total Mutual Fund Flows

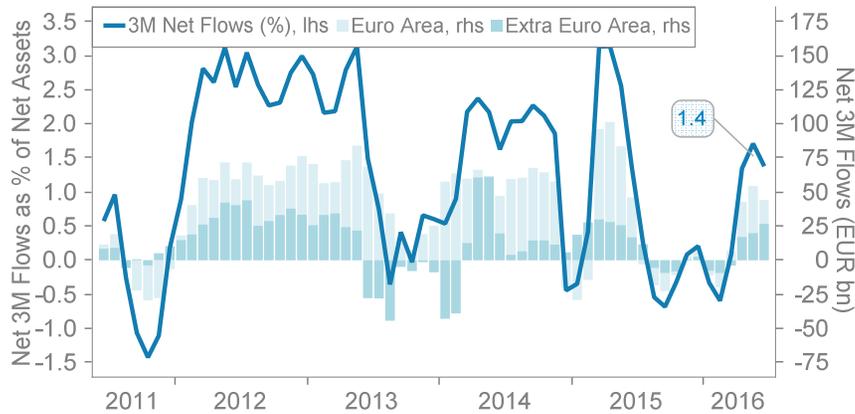


Source: ICI, Macrobond, Morgan Stanley Research

*All data as of end Jul, 2016.

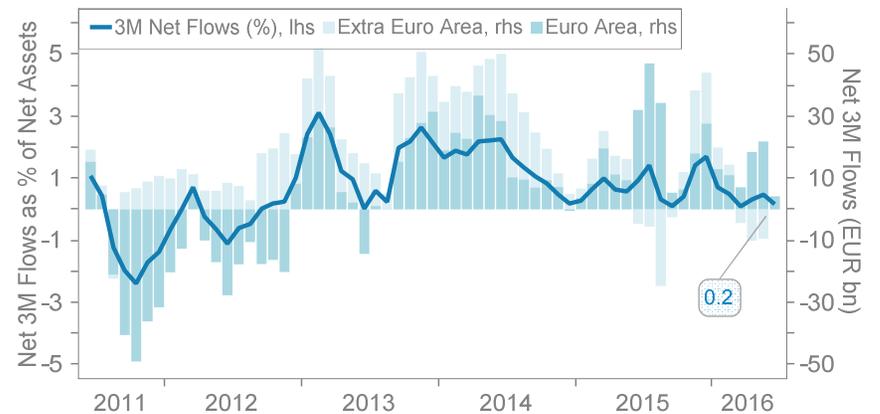
TECHNICALS
Euro Area and Japan Investment Fund Flows

Euro Area Bond Fund Flows



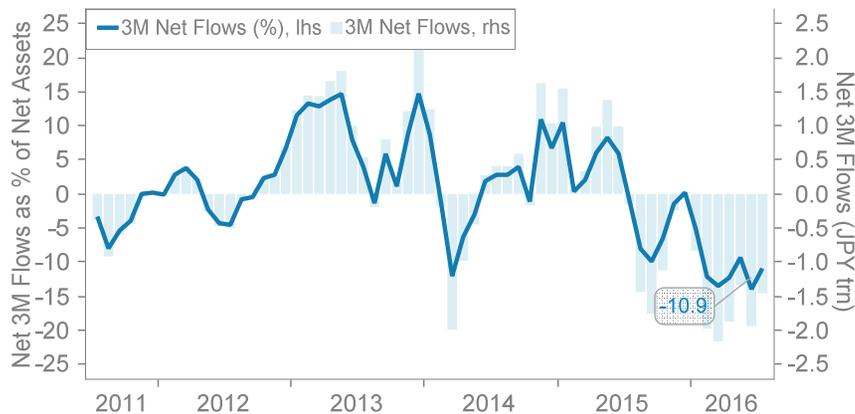
Source: ECB, Macrobond, Morgan Stanley Research. Data as of end Jun, 2016.

Euro Area Equity Fund Flows



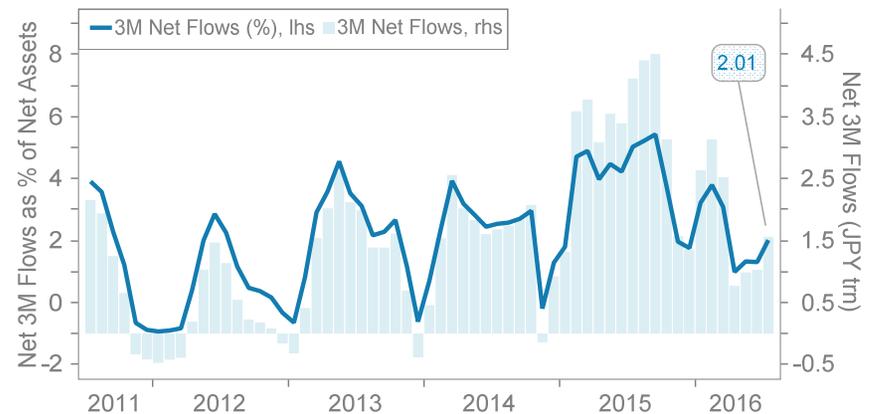
Source: ECB, Macrobond, Morgan Stanley Research. Data as of end Jun, 2016.

Japan Bond Fund Flows



Source: JITA, Macrobond, Morgan Stanley Research. Data as of end Jul, 2016.

Japan Equity Fund Flows

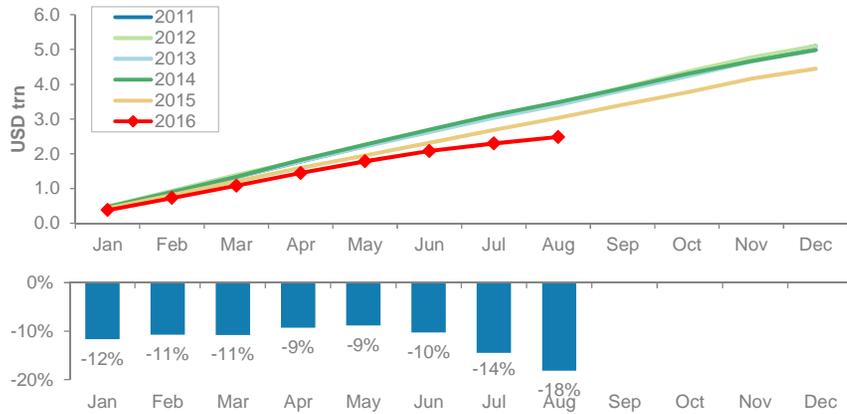


Source: JITA, Macrobond, Morgan Stanley Research. Data as of end Jul, 2016.

TECHNICALS

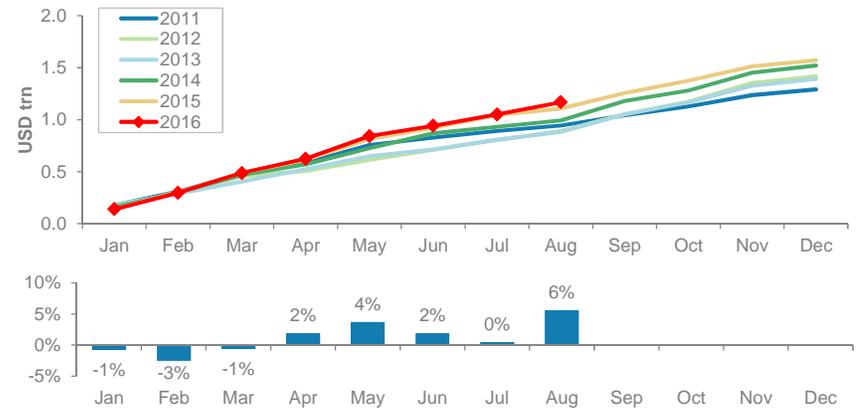
Global Fixed Income Gross Issuance – Run Rate & YoY Trend

DM Sovereigns



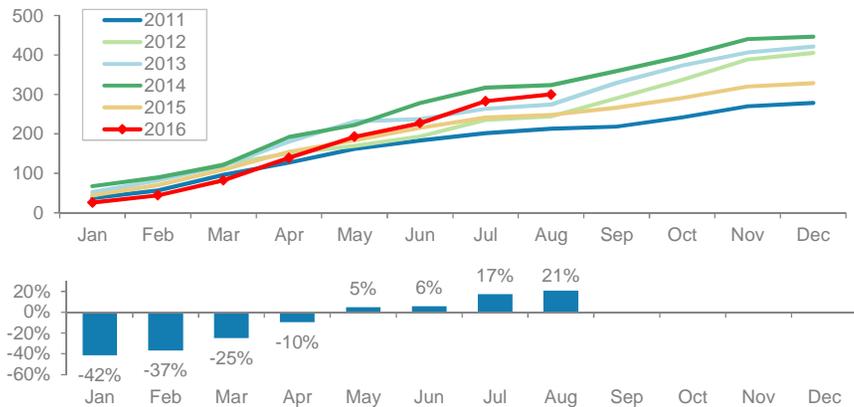
Source: Dealogic, Morgan Stanley Research

DM Investment Grade Credit



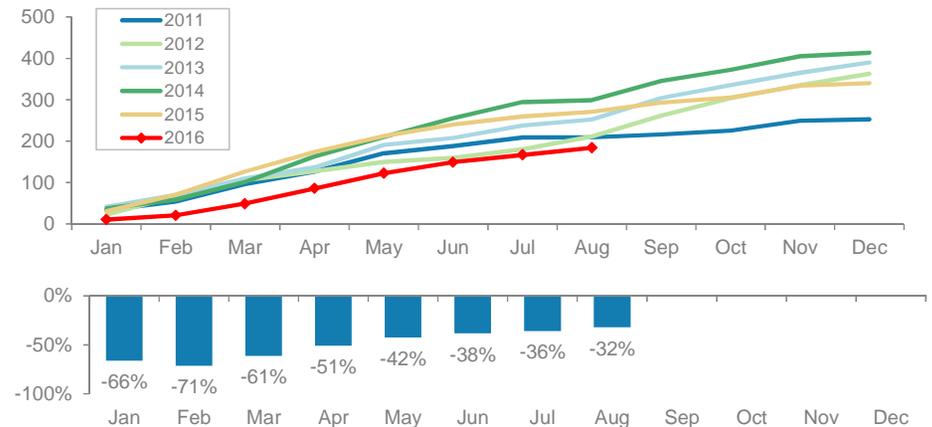
Source: Dealogic, Morgan Stanley Research

Emerging Market Debt



Source: Dealogic, Morgan Stanley Research

DM High Yield Credit

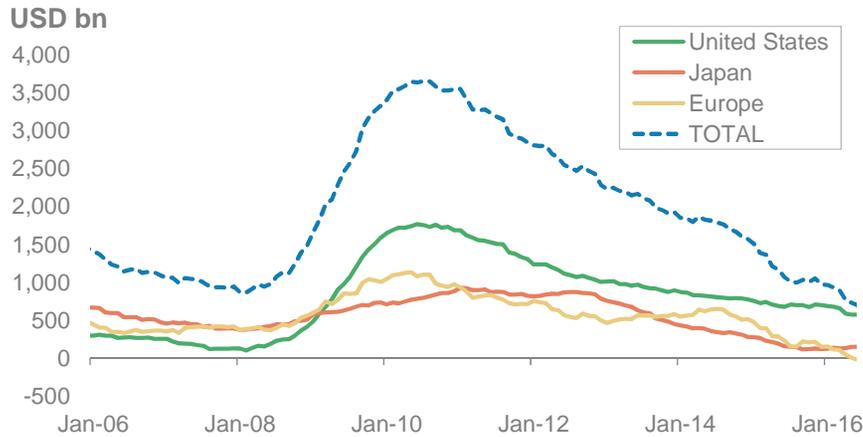


Source: Dealogic, Morgan Stanley Research

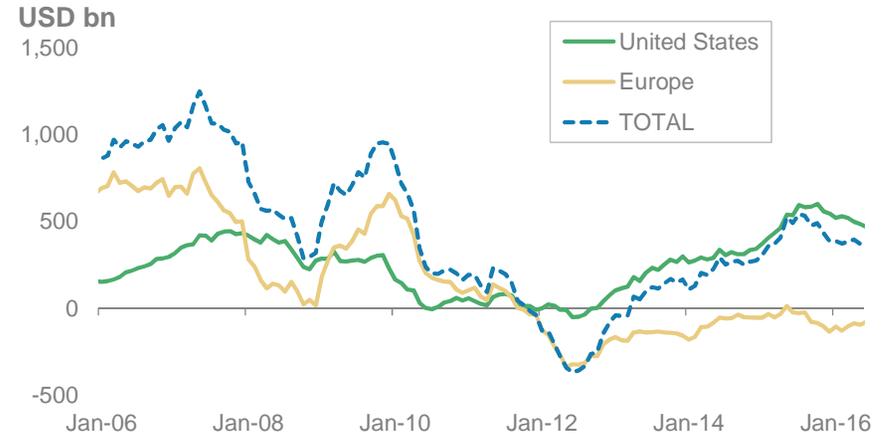
Note: Blue bar charts represent YoY % change in issuance between 2015 and 2016 for each month

TECHNICALS
Global Fixed Income Net Issuance

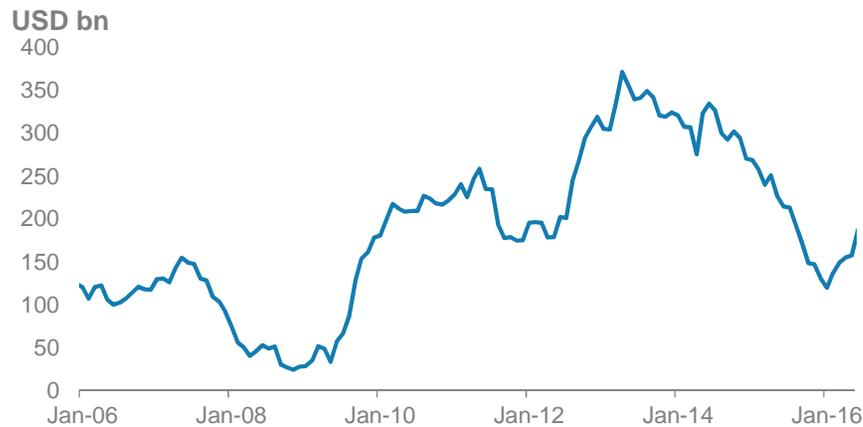
DM Sovereigns: Trailing 12M Net Issuance



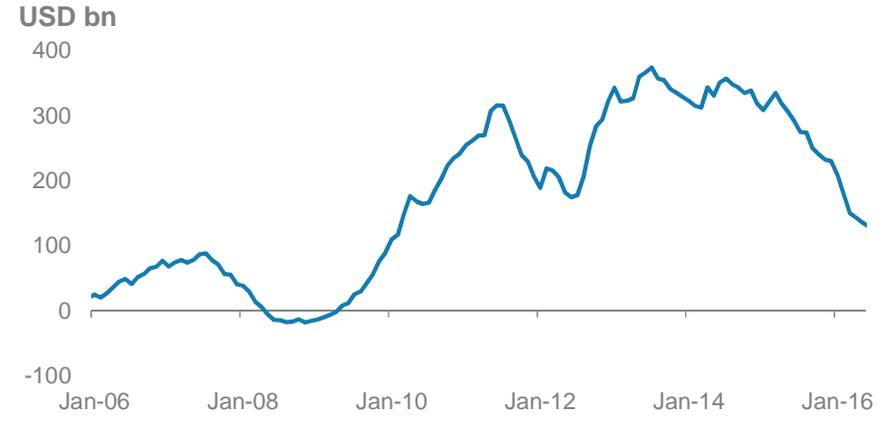
IG Corporate Trailing 12M Net Issuance



EM Trailing 12M Net Issuance



HY Corporate Trailing 12M Net Issuance



What We're Watching

WHAT WE'RE WATCHING | GLOBAL INFLATION MONITOR
Inflation Snapshot

Region	Latest	Target Inflation*	YoY Headline Inflation	YoY Core Inflation	YoY Headline Inflation (%)	YoY Core Inflation (%)	3m Ann Headline Inflation (%)	3m Ann. Core Inflation (%)	12-Month Inflation Surprise Index
DEVELOPED MARKETS									
US	Jul-16	2			0.8	1.6	1.1	1.3	
EuroArea	Aug-16	<2			0.2	0.8	1.0	1.1	
Japan	Jun-16	2			-0.5	0.4	-1.2	0.4	
UK	Jul-16	2			0.6	1.3	2.5	2.5	
Canada	Jul-16	2 (Band: 1-3)			1.3	2.0	1.9	2.9	
Australia	Jun-16	2-3			1.0	1.6	1.5	1.2	
EMERGING MARKETS									
Brazil	Jun-16	4.5 (Band: 2.5-6.5)			8.9	6.8	7.8	5.7	
Russia	Jul-16	4			7.3	7.5	9.1	8.3	
India	Jul-16	4 (Band: 2-6)			6.0	4.6	4.4	3.1	
China	Jul-16	3			1.9	1.6	0.5	2.1	
S. Africa	Jul-16	3-6			6.1	5.7	7.0	5.5	
Mexico	Jul-16	3			2.7	3.0	3.2	3.2	

Construction Details:

*Note: inflation targets are not official for certain countries or regions. We have used closest available benchmarks where appropriate. We have generally used seasonally adjusted inflation series from Haver Analytics, where available.

- 1) In YoY and 3m annualized columns, light blue shading indicates realized inflation is below target. Red indicates realized inflation above target.
- 2) In YoY and 3m annualized spark lines, blue dots indicate that realized inflation is below zero. Or that the region/country is in deflation.
- 3) 12-Month Inflation Surprise Index uses headline target inflation.
- 4) The surprise index is calculated by taking the current headline inflation surprise relative to Bloomberg consensus divided by standard deviation of surprises over the trailing 36 months.

Source: Morgan Stanley Research, Bloomberg, Haver Analytics

Legend

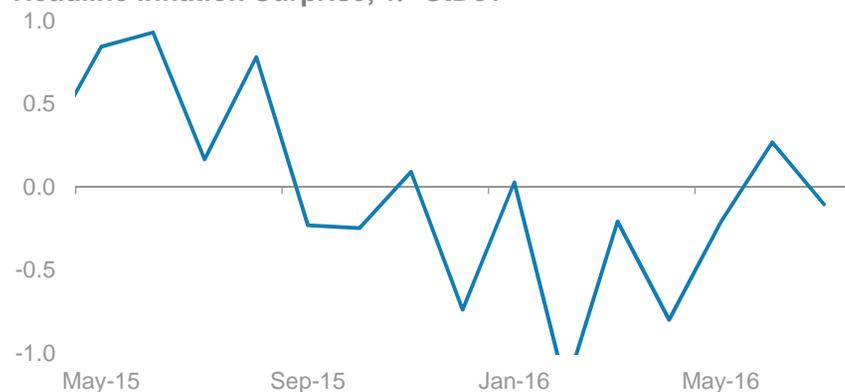
- Inflation +/-ve surprise over past 12 months
- Light Blue: Negative headline inflation surprise
- Dark blue : Largest negative headline inflation surprise in the past 12 months
- Yellow : Positive headline inflation surprise
- Red: Largest positive headline inflation surprise in the past 12 months

WHAT WE'RE WATCHING | GLOBAL INFLATION MONITOR

Headline Inflation Surprise Indices & Morgan Stanley CPI Forecasts

DM Headline Inflation Surprise Index

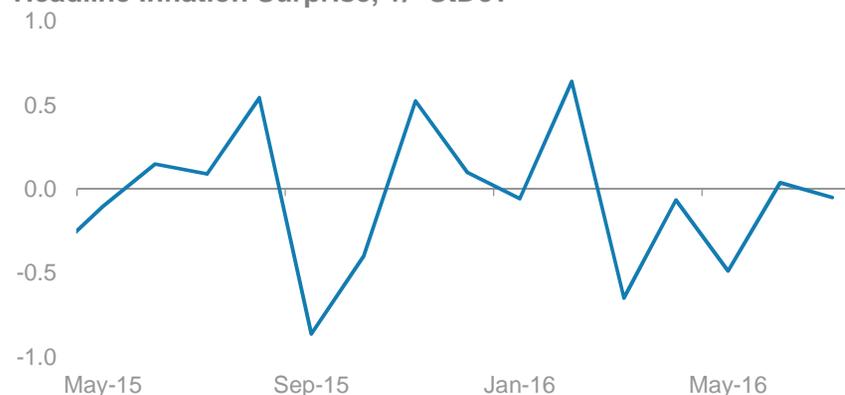
Headline Inflation Surprise, +/- StDev



Source: Morgan Stanley Research, Bloomberg

EM Headline Inflation Surprise Index

Headline Inflation Surprise, +/- StDev



Source: Morgan Stanley Research, Bloomberg

DM Inflation Forecasts

		MS	Consensus	Above/ Below
US	2016	1.2	1.3	Below
	2017	1.9	2.2	Below
EA	2016	0.3	0.3	Above
	2017	1.5	1.3	Above
Japan	2016	-0.2	-0.1	Above
	2017	0.9	0.7	Above
UK	2016	0.6	0.7	Above
	2017	2.2	2.2	Above

Note: CPI Inflation numbers are annual period averages. Red indicates below consensus, green indicates above consensus. US is PCE. UK and Japan CPI. Euro Area is HICP.

Source: Morgan Stanley Research estimates, Bloomberg

EM Inflation Forecasts

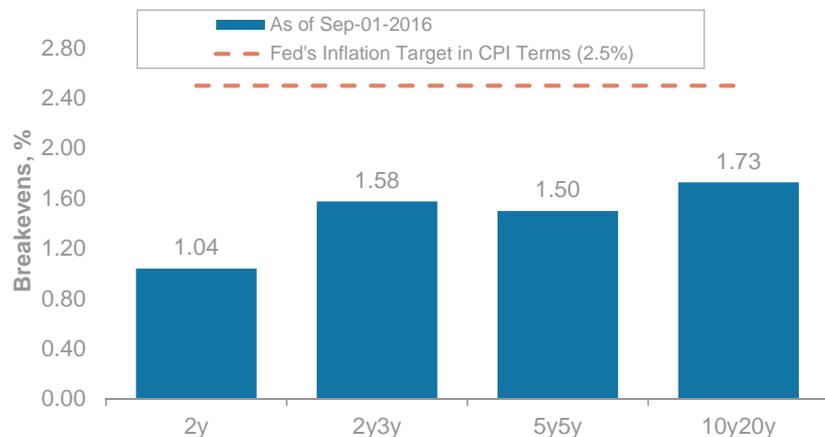
		MS	Consensus	Above/ Below
China	2016	1.8	2.0	Below
	2017	1.5	2.0	Below
India	2016	5.1	4.9	Above
	2017	4.5	5.3	Below
Brazil	2016	8.9	8.6	Above
	2017	5.8	5.5	Above
Russia	2016	7.2	7.2	Above
	2017	5.5	5.5	Above

Note: CPI/ Inflation numbers are annual period averages. Red indicates below consensus, green indicates above consensus. Brazil is National CPI. Russia, India and China, forecasts are of their respective CPIs.

Source: Morgan Stanley Research estimates, Bloomberg

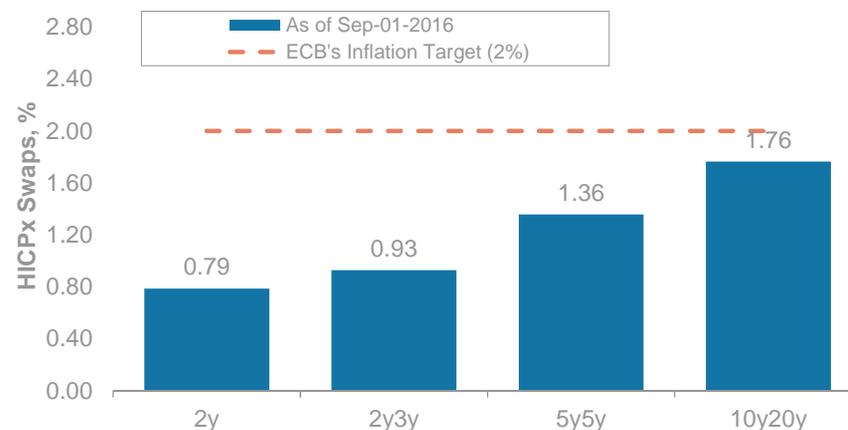
WHAT WE'RE WATCHING | GLOBAL INFLATION MONITOR
Global Market Pricings Relative to Target

US



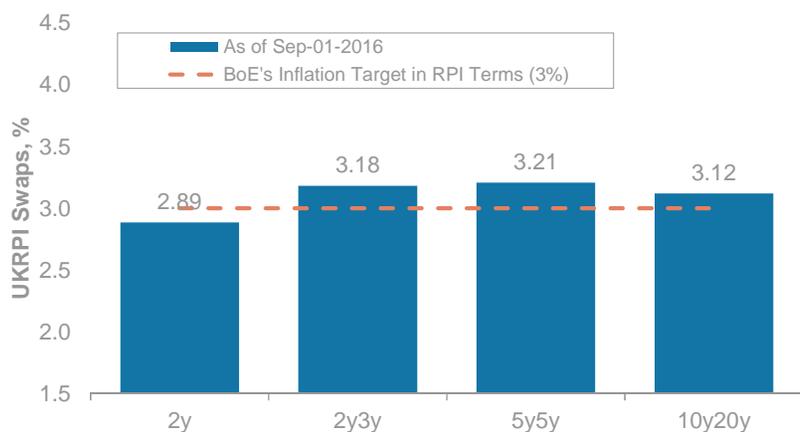
Note: Assume 50bp CPI-PCE wedge, consistent with history.
 Source: Morgan Stanley Research, Bloomberg

Eurozone



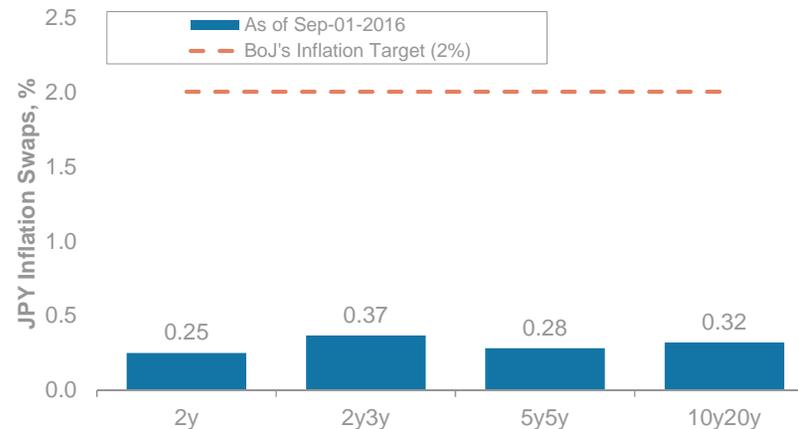
Source: Morgan Stanley Research, Bloomberg

UK



Note: Assume 100bp RPI-CPI wedge, consistent with history.
 Source: Morgan Stanley Research, Bloomberg

Japan



Source: Morgan Stanley Research, Bloomberg

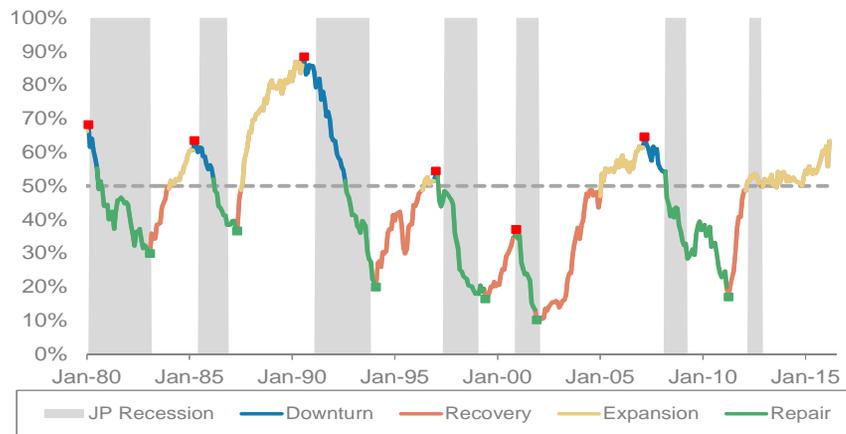
WHAT WE'RE WATCHING
Morgan Stanley Cycle Indicators

DM Cycle Indicator



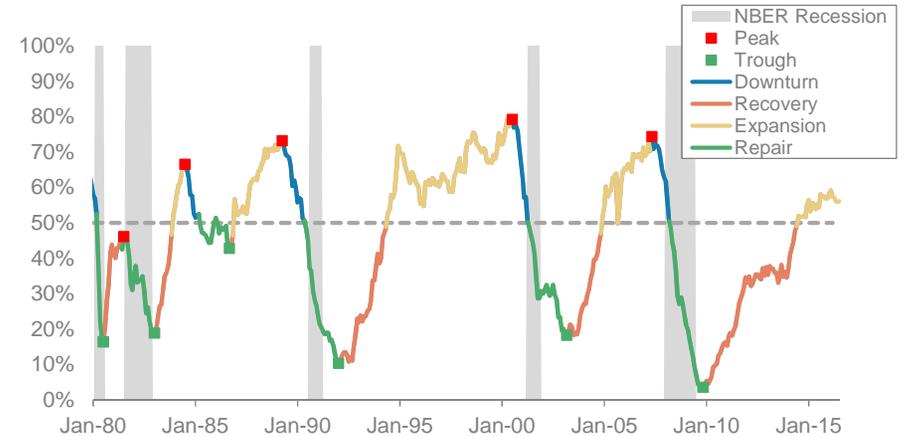
Note: Weighted average of US, EU and Japan cycles, with weights of 50%, 35%, 15%.
 Source: Morgan Stanley Research

Japan Cycle Indicator



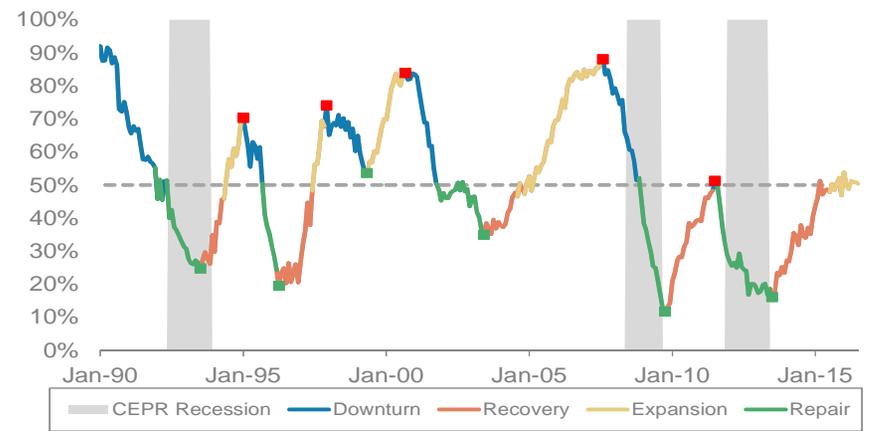
Source: Morgan Stanley Research, Haver Analytics

US Cycle Indicator



Source: Morgan Stanley Research, Haver Analytics

Euro Area Cycle Indicator



Source: Morgan Stanley Research, ECB, Haver Analytics

WHAT WE'RE WATCHING

Morgan Stanley Months to 1st Hike (M1KE) Indicators

US – Pace of Rate Hikes

MS - Market Implied Pace of Hikes

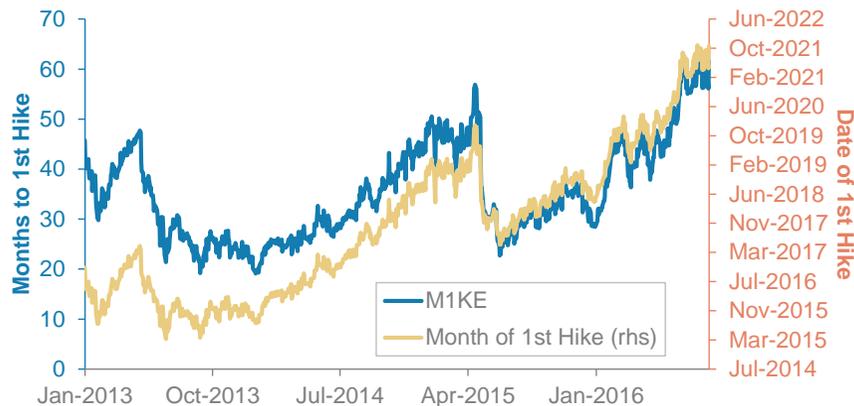


Source: Morgan Stanley Research, Bloomberg.
 See [Dropping the M1KE, When's the Next Hike?](#) (December 17, 2015)

		Cumulative Expected Policy Rate Moves (bp)		
Month		Fed	ECB	BoE
2016	Sep	+6.1	-1.2	-1.4
	Oct	-	-	-1.4
	Nov	+7.8	-2.4	-7.1
	Dec	+16.1	-4.9	-8.0
	Jan	-	-	-8.0
2017	Feb	+17.8	-6.5	-9.0
	Mar	+22.6	-7.5	-10.2
	Apr	+23.3	-8.1	-10.4
	May	-	-	-10.6
	Jun	+26.5	-9.3	-12.1
	Jul	+29.1	-10.5	-12.1
	Aug	-	-	-12.4
	Sep	+30.5	-11.1	-12.8

Source: Morgan Stanley Research, Bloomberg.
 See [What's In The Price \(WITP\) Interactive Tool](#) for more market-implied policy rate changes and our forecasts.

Euro Area Months to 1st Hike



Source: Morgan Stanley Research, Bloomberg

UK Months to 1st Hike



Source: Morgan Stanley Research, Bloomberg

WHAT WE'RE WATCHING
 US

Major Economic Indicators

Leading Indicators

		Period	12M Trend	Actual	Δ	Hit/Miss
ISM Mfg PMI		Jul-16		52.6	→	
ISM Non-Mfg PMI		Jul-16		55.5	→	
Conf. Board Leading Indicator	YoY%	Jul-16		1.2	↑	
Conf. Board Leading Indicator		Apr-16		98.9	↑	
University Of Michigan Survey		Aug-16		89.8	↓	

Economic Activity

		Period	12M Trend	Actual	Δ	Hit/Miss
Industrial Production	YoY%	Jul-16		-0.5	↑	
Durable Goods New Orders	YoY%	Jul-16		-6.4	↑	
Durable Goods Inventories	YoY%	Jul-16		-2.6	↑	
Retail Sales	YoY%	Jul-16		2.3	↓	
Auto Sales	YoY%	Jul-16		17.8	↑	

Labor Market

		Period	12M Trend	Actual	Δ	Hit/Miss
Non-Farm Payroll	MoM k	Jul-16		255	→	
Initial Jobless Claims	k	Aug-16		261	→	
Continuing Claims	k	Aug-16		2,145	→	
ADP Employment Change	MoM k	Aug-16		177	↓	
Avg Hourly Earnings	YoY%	Jul-16		2.6	→	

Prices

		Period	12M Trend	Actual	Δ	Hit/Miss
CPI	YoY%	Jul-16		0.8	↓	
CPI ex Food & Energy	YoY%	Jul-16		2.2	↓	
PPI	YoY%	Jul-16		-2.2	↓	
PPI ex Food & Energy	YoY%	Jul-16		1.0	↓	
Core PCE	YoY%	Jul-16		1.6	↓	

Housing Market

		Period	12M Trend	Actual	Δ	Hit/Miss
New Home Sales	SAAR k	Jul-16		654	↑	
Existing Home Sales	SAAR k	Jul-16		5.4	↓	
MBA Mortgage Applications	weekly %	Aug-16		2.8	↑	
S&P/Cas-Shiller 20-City Index	YoY%	Jun-16		5.1	↓	

Legend

- Survey consensus hit/miss over past 12 months
- Blue rectangles:** Metric comes above consensus
- Dark blue rectangle:** largest surprise to the upside over past 12 months
- Grey rectangles:** Metric comes below consensus
- Dark grey rectangle:** largest surprise to the downside over past 12 months

Source: National sources, Haver Analytics, Bloomberg, Morgan Stanley Research

WHAT WE'RE WATCHING
Europe

Major Economic Indicators

Leading Indicators

	Period	12M Trend	Actual	Δ	Hit/Miss
Eurozone (EZ) Mfg PMI	Aug-16		51.8	↓	
EZ Consumer Confidence	Aug-16		-8.5	↓	
Germany ZEW	Aug-16		0.5	↑	
Germany Mfg PMI	Aug-16		53.6	↓	
Germany Ifo Business Survey	Aug-16		106.2	↓	

Prices

	Period	12M Trend	Actual	Δ	Hit/Miss
EZ Core CPI	Aug-16		0.7	↓	
Germany Core CPI	Aug-16		1.1	↓	
France Core CPI	Aug-16		0.5	↓	
Italy Core CPI	Aug-16		0.4	↓	
Spain Core CPI	Aug-16		0.6	↓	

Economic Activity

	Period	12M Trend	Actual	Δ	Hit/Miss
EZ Industrial Production YoY%	Jun-16		0.4	↑	
Germany Ind. Production YoY%	Jun-16		0.5	↑	
Italy Ind. Production YoY%	Jun-16		-1.0	↓	
Germany Retail Sales YoY%	Jul-16		-1.5	↓	
France Consumpt'n of Mfg Gds YoY%	Jul-16		1.0	↑	

Lending and Money Supply

	Period	12M Trend	Actual	Δ	Hit/Miss
EZ M1 YoY%	Aug-16		7.9	↓	
EZ M3 YoY%	Aug-16		4.8	→	
EZ Lending to Priv. Sector SAAR k	Aug-16		3.9	→	
EZ Loans to Corporates YoY%	Aug-16		1.9	→	
EZ Priv. Sect. LT Borrow Cost YoY%	Aug-16		2.0	↑	

Labor Market

	Period	12M Trend	Actual	Δ	Hit/Miss
EZ Unemployment Rate %	Aug-16		10.1	→	
Germany Unemployment Rate %	Aug-16		4.2	↓	
Italy Unemployment Rate %	Aug-16		11.4	↓	
EUR Real Effective Ex. Rate Index	Jul-16		91.1	↓	

Legend

- Survey consensus hit/miss over past 12 months
- Blue rectangles:** Metric comes above consensus
- Dark blue rectangle:** largest surprise to the upside over past 12 months
- Grey rectangles:** Metric comes below consensus
- Dark grey rectangle:** largest surprise to the downside over past 12 months

Source: National sources, Haver Analytics, Bloomberg, Morgan Stanley Research

WHAT WE'RE WATCHING
Japan

Major Economic Indicators

Leading Indicators

	Period	12M Trend	Actual	Δ	Hit/Miss
Leading Indicator	Jun-16		99.2	↑	
Eco Watchers: Outlook	Jul-16		47.1	↑	
Tankan Mfg: Outlook	Aug-16		6.0	↑	
Tankan Non-Mfg: Outlook	Aug-16		19.0	↑	
PMI	Aug-16		49.5	↑	

Prices

	Period	12M Trend	Actual	Δ	Hit/Miss
CGPI	YoY% Jul-16		-3.9	-	
CPI	YoY% Jul-16		-0.4	-	
Core CPI	YoY% Aug-16		0.1	-	
Export Prices	YoY% Jul-16		-14.0	-	
Import Prices	YoY% Jul-16		-21.7	-	

Economic Activity

	Period	12M Trend	Actual	Δ	Hit/Miss
Industrial Production	YoY% Jul-16		-3.8	↓	
Vehicle Production	YoY% Jul-16		-4.1	↓	
Machinery Orders	YoY% Jun-16		-0.9	↑	
Dept Store Sales	YoY% Jul-16		-0.1	↑	
Vehicle Sales	YoY% Aug-16		5.7	↑	

Housing Market

	Period	12M Trend	Actual	Δ	Hit/Miss
Tokyo Residential Hse Prices	YoY% May-16		2.9	↓	
Housing Starts	YoY% Jul-16		8.9	↑	
Construction Orders	YoY% Jul-16		-10.9	↓	
Tokyo Condo Sales	YoY% Jul-16		-30.7	↓	
Tokyo Avg Office Vacancies	% Jul-16		3.9	↑	

Labor Market

	Period	12M Trend	Actual	Δ	Hit/Miss
Jobless Rate	% Jul-16		3.0	↑	
Job-to-Applicant Ratio	Jul-16		1.4	↑	
Regular Employees	YoY% Jun-16		2.0	→	
Avg Monthly Cash Earnings	YoY% Jun-16		1.4	↑	
Avg Monthly Hours Worked	YoY% Jun-16		-0.3	↑	

Legend

- Survey consensus hit/miss over past 12 months
- Blue rectangles:** Metric comes above consensus
- Dark blue rectangle:** largest surprise to the upside over past 12 months
- Grey rectangles:** Metric comes below consensus
- Dark grey rectangle:** largest surprise to the downside over past 12 months

Source: National sources, Haver Analytics, Bloomberg, Morgan Stanley Research

WHAT WE'RE WATCHING
China

Major Economic Indicators

Leading Indicators

	Period	12M Trend	Actual	Δ	Hit/Miss
Leading Indicator	Jun-16		98.3	↓	
CFLP Mfg PMI	Aug-16		50.4	↑	
CFLP Non-Mfg PMI	Aug-16		53.5	↓	
HSBC Mfg PMI	Aug-16		50.0	↓	
HSBC Services PMI	Jul-16		51.7	↓	

Economic Activity

	Period	12M Trend	Actual	Δ	Hit/Miss
Val-Added of Industry	YoY% Jul-16		6.0	↓	
FAI ex-Rural	YoY% Jul-16		8.1	↓	
Retail Sales	YoY% Jul-16		10.2	↓	
Imports	YoY% Jul-16		-12.5	↑	
Exports	YoY% Jul-16		-4.4	↑	

Financial

	Period	12M Trend	Actual	Δ	Hit/Miss
M2	YoY% Jul-16		10.2	↓	
New Loans	RMB bn Jul-16		463.6	↓	
Total Loan Growth	YoY% Jul-16		12.9	↓	
Policy Rate	% Aug-16		4.4	↓	
RRR	% Aug-16		17.0	↓	

Prices

	Period	12M Trend	Actual	Δ	Hit/Miss
CPI	YoY% Jul-16		1.8	-	
Core CPI	YoY% Jul-16		1.8	-	
PPI	YoY% Jul-16		-1.7	-	

Housing Market

	Period	12M Trend	Actual	Δ	Hit/Miss
Avg Hse Price in 100 cities	RMB/M ² Aug-16		12,270	↑	
Avg Hse Price in Beijing	Aug-16		38,926	↑	
Avg Hse Price in Shanghai	YoY% Aug-16		43,420	↑	
Price of New Resi in Beijing	Index Aug-16		120	↓	
Price of New Resi in Shanghai	Index Aug-16		126	↓	

Legend

- Survey consensus hit/miss over past 12 months
- Blue rectangles:** Metric comes above consensus
- Dark blue rectangle:** largest surprise to the upside over past 12 months
- Grey rectangles:** Metric comes below consensus
- Dark grey rectangle:** largest surprise to the downside over past 12 months

Source: National sources, Haver Analytics, Bloomberg, Morgan Stanley Research

WHAT WE'RE WATCHING
EM

Major Economic Indicators

Brazil		Period	12M Trend	Actual	Δ	Hit/Miss
PMI		Jul-16		46.0	↑	
Industrial Production	YoY%	Jun-16		-6.0	↑	
Imports	YoY%	Jul-16		-16.0	↑	
Exports	YoY%	Jul-16		-12.4	↓	
CPI	YoY%	Jul-16		8.7	-	

Russia		Period	12M Trend	Actual	Δ	Hit/Miss
PMI		Aug-16		50.8	↑	
Industrial Production	YoY%	Jul-16		-1.5	↓	
Imports	YoY%	Jun-16		-1.4	↓	
Exports	YoY%	Jun-16		-19.8	↑	
CPI	YoY%	Jul-16		7.2	-	

Mexico		Period	12M Trend	Actual	Δ	Hit/Miss
PMI		Jul-16		50.6	↓	
Industrial Production	YoY%	Jun-16		0.6	↑	
Imports	YoY%	Jul-16		-9.9	↑	
Exports	YoY%	Jul-16		-9.0	↓	
CPI	YoY%	Jul-16		2.7	-	

India		Period	12M Trend	Actual	Δ	Hit/Miss
PMI		Aug-16		52.6	↑	
Industrial Production	YoY%	Jun-16		2.1	↑	
Imports	YoY%	Jul-16		-19.0	↑	
Exports	YoY%	Jul-16		-6.8	↓	
CPI	YoY%	Jul-16		3.6	-	

Poland		Period	12M Trend	Actual	Δ	Hit/Miss
PMI		Jul-16		50.3	↓	
Industrial Production	YoY%	Jul-16		-3.4	↓	
Imports	YoY%	Jun-16		2.4	↓	
Exports	YoY%	Jun-16		6.4	↑	
CPI	YoY%	Aug-16		-0.8	-	

Legend

- Survey consensus hit/miss over past 12 months
- Blue rectangles:** Metric comes above consensus
- Dark blue rectangle:** largest surprise to the upside over past 12 months
- Grey rectangles:** Metric comes below consensus
- Dark grey rectangle:** largest surprise to the downside over past 12 months

Source: National sources, Haver Analytics, Bloomberg, Morgan Stanley Research

Disclosure Section

Morgan Stanley & Co. International plc, authorized by the Prudential Regulatory Authority and regulated by the Financial Conduct Authority and the Prudential Regulatory Authority, disseminates in the UK research that it has prepared, and approves solely for the purposes of section 21 of the Financial Services and Markets Act 2000, research which has been prepared by any of its affiliates. As used in this disclosure section, Morgan Stanley includes RMB Morgan Stanley (Proprietary) Limited, Morgan Stanley & Co International plc and its affiliates.

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/researchdisclosures, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.

For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Andrew Sheets

Unless otherwise stated, the individuals listed on the cover page of this report are research analysts.

Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at www.morganstanley.com/institutional/research/conflictolicies.

Important US Regulatory Disclosures on Subject Companies

The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

Global Stock Ratings Distribution

(as of August 31, 2016)

The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm.

For disclosure purposes only (in accordance with NASD and NYSE requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

Disclosure Section (Cont.)

Stock Rating Category	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1140	34%	250	39%	22%	564	35%
Equal-weight/Hold	1458	44%	305	47%	21%	727	46%
Not-Rated/Hold	73	2%	7	1%	10%	10	1%
Underweight/Sell	651	20%	86	13%	13%	291	18%
Total	3,322		648			1592	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers

Important disclosures regarding the relationship between the companies that are the subject of Morgan Stanley Research and Morgan Stanley Smith Barney LLC or Morgan Stanley or any of their affiliates, are available on the Morgan Stanley Wealth Management disclosure website at www.morganstanley.com/online/researchdisclosures. For Morgan Stanley specific disclosures, you may refer to www.morganstanley.com/researchdisclosures.

Disclosure Section (Cont.)

Each Morgan Stanley Equity Research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval is conducted by the same person who reviews the Equity Research report on behalf of Morgan Stanley. This could create a conflict of interest.

Other Important Disclosures

Morgan Stanley Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. In addition, certain Research publications are intended to be updated on a regular periodic basis (weekly/monthly/quarterly/annual) and will ordinarily be updated with that frequency, unless the Research Analyst and Research Management determine that a different publication schedule is appropriate based on current conditions.

Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Matrix at <http://www.morganstanley.com/matrix>.

Morgan Stanley Research is provided to our clients through our proprietary research portal on Matrix and also distributed electronically by Morgan Stanley to clients. Certain, but not all, Morgan Stanley Research products are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience. For access to all available Morgan Stanley Research, please contact your sales representative or go to Matrix at <http://www.morganstanley.com/matrix>.

Any access and/or use of Morgan Stanley Research is subject to Morgan Stanley's Terms of Use (<http://www.morganstanley.com/terms.html>). By accessing and/or using Morgan Stanley Research, you are indicating that you have read and agree to be bound by our Terms of Use (<http://www.morganstanley.com/terms.html>). In addition you consent to Morgan Stanley processing your personal data and using cookies in accordance with our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html), including for the purposes of setting your preferences and to collect readership data so that we can deliver better and more personalized service and products to you. To find out more information about how Morgan Stanley processes personal data, how we use cookies and how to reject cookies see our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html).

If you do not agree to our Terms of Use and/or if you do not wish to provide your consent to Morgan Stanley processing your personal data or using cookies please do not access our research.

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

The "Important US Regulatory Disclosures on Subject Companies" section in Morgan Stanley Research lists all companies mentioned where Morgan Stanley owns 1% or more of a class of common equity securities of the companies. For all other companies mentioned in Morgan Stanley Research, Morgan Stanley may have an investment of less than 1% in securities/instruments or derivatives of securities/instruments of companies and may trade them in ways different from those discussed in Morgan Stanley Research. Employees of Morgan Stanley not involved in the preparation of Morgan Stanley Research may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned and may trade them in ways different from those discussed in Morgan Stanley Research. Derivatives may be issued by Morgan Stanley or associated persons.

Disclosure Section (Cont.)

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley Research personnel may participate in company events such as site visits and are generally prohibited from accepting payment by the company of associated expenses unless pre-approved by authorized members of Research management.

Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.

To our readers in Taiwan: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments. To our readers in Hong Kong: Information is distributed in Hong Kong by and on behalf of, and is attributable to, Morgan Stanley Asia Limited as part of its regulated activities in Hong Kong. If you have any queries concerning Morgan Stanley Research, please contact our Hong Kong sales representatives.

Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only.

Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A.; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V. which is regulated by Comisión Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Bank Morgan Stanley Asia International Limited, Hong Kong Branch; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Bank Morgan Stanley Asia International Limited, Singapore Branch (Registration number T11FC0207F); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited; in Indonesia by PT Morgan Stanley Asia Indonesia; in Canada by Morgan Stanley Canada Limited, which has approved of and takes responsibility for its contents in Canada; in Germany by Morgan Stanley Bank AG, Frankfurt am Main and Morgan Stanley Private Wealth Management Limited, Niederlassung Deutschland, regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin); in Spain by Morgan Stanley, S.V., S.A., a Morgan Stanley group company, which is supervised by the Spanish Securities Markets Commission (CNMV) and states that Morgan Stanley Research has been written and distributed in accordance with the rules of conduct applicable to financial research as established under Spanish regulations; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulatory Authority and regulated by the Financial Conduct Authority and the Prudential Regulatory Authority, disseminates in the UK research that it has prepared, and approves solely for the purposes of section 21 of the Financial Services and Markets Act 2000, research which has been prepared by any of its affiliates. RMB Morgan Stanley (Proprietary) Limited is a member of the JSE Limited and regulated by the Financial Services Board in South Africa. RMB Morgan Stanley (Proprietary) Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited. The information in Morgan Stanley Research is being disseminated by Morgan Stanley Saudi Arabia, regulated by the Capital Market Authority in the Kingdom of Saudi Arabia, and is directed at Sophisticated investors only.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA), and is directed at Professional Clients only, as defined by the DFSA. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria to be a Professional Client.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.

Disclosure Section (Cont.)

As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided exclusively to persons based on their risk and income preferences by the authorized firms. Comments and recommendations stated here are general in nature. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.

The trademarks and service marks contained in Morgan Stanley Research are the property of their respective owners. Third-party data providers make no warranties or representations relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P.

Morgan Stanley Research, or any portion thereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.jf01/09/16

The Americas

1585 Broadway
New York, NY 10036-8293
United States
+1 212 761 4000

Europe

20 Bank Street, Canary Wharf
London E14 4AD
United Kingdom
+44 (0)20 7425 8000

Japan

1-9-7 Otemachi, Chiyoda-ku
Tokyo 100-8104
Japan
+81 (0) 3 6836 5000

Asia/Pacific

1 Austin Road West
Kowloon
Hong Kong
+852 2848 5200