

# Monthly Market Review

Asia Pacific | September 2017

## Global economy:

- Overall macroeconomic data remain firm with global manufacturing Purchasing Managers' Index strengthened to 53.1 in August from 52.7 in July. The U.S., eurozone, China and Japan's PMI data are all sitting comfortably above 50. The 2Q GDP for the U.S. was also revised higher to 3% quarterly-over-quarter SAAR. Despite disappointing August job data, the market continues to expect the Federal Reserve to announce its plan to reduce its balance sheet in its September Federal Open Market Committee meeting. (GTMA P. 15, 22, 25)
- In contrast to the strong growth data, investors are monitoring a number of risk events in the coming months. Escalation of tension between the U.S. and North Korea could have an impact on South Korea's economy and global manufacturing supply chain. The European Central Bank's (ECB) reluctance to announce the reduction of its quantitative easing due to fear of the euro's strength is confusing investors. In weeks ahead, the U.S. Congress will need to raise the government's debt ceiling and approve a budget to avoid a government shutdown as well as plan ahead for tax reform. (GTMA P. 19, 24, 28)

## Equities:

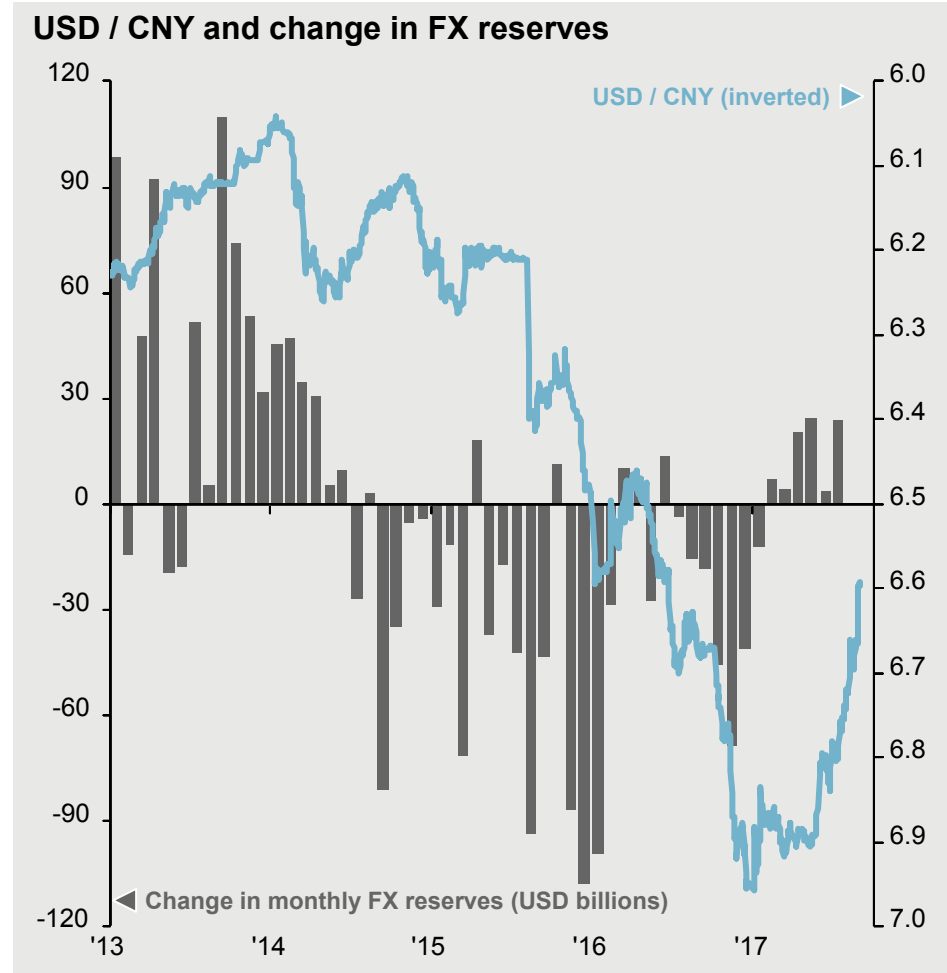
- Despite U.S.-North Korea tension and ongoing concerns that U.S. equities are poised for a correction, global equities remained well supported in August. The MSCI World index was up 1% in the month, while the U.S., emerging market (EM) and Asia also gained. European equities came under pressure due to the strengthening of the euro, even though we note that historically, the negative relationship between European stocks and the exchange rate is weak. (GTMA P. 30)
- In Asia, China (both onshore and offshore) and Southeast Asia were the outperformers in August. Renminbi stabilization has helped to reinforce Chinese investors' confidence about renminbi assets. (GTMA P. 30)

## Fixed income:

- Lack of inflationary pressure has weighed on the long end of the U.S. Treasury yield, despite the prospects of balance sheet reduction in the near term. 10-year yield reached its year-to-date low of 2.11%. The two-year yield has been more stable, trading in a range of 1.29% and 1.35% as rate hike expectations have been dampened. (GTMA P. 42)
- Fixed income generally generated a good return in August, especially in EM sovereign debt. U.S. high yield was an exception due to credit spread widening (+26bps) and investor concerns that valuation is becoming too rich. While we believe economic fundamentals should keep default rates low and hence help to maintain a tight credit spread, a key source of return for high yield corporate debt is expected to come from coupon rather than spread compression. (GTMA P. 45, 47)

## Other assets:

- The USD index remains under pressure despite the ECB's effort to stem the euro's strength. The U.S. dollar also weakened against EM and Asian currencies, especially versus the Russian ruble (-5%), Turkish lira (-4.6%), South African rand (-2.8%) and the Chinese yuan (-2.4%). (GTMA P. 54)
- Geopolitical tension has pushed gold higher—above U.S. dollar 1,300—and to its highest since September 2016, a 14% year-to-date gain. Despite the devastating impact from Hurricane Harvey on oil refining facilities in Texas, the global crude oil price remained stable. Investors are increasingly convinced that the impact from the Organization of the Petroleum Exporting Countries production cut is likely to be limited on supporting oil prices since U.S. shale oil producers are more agile in meeting market demand. (GTMA P. 56, 57, 58)



Source: FactSet, J.P. Morgan Asset Management; (Left) J.P. Morgan Economic Research; (Right) People's Bank of China.  
 \*NEER stands for nominal effective exchange rate.  
 Guide to the Markets – Asia 3Q 2017.  
 Data reflect most recently available as of 31/8/17.

## Global Purchasing Managers' Index for manufacturing

	Oct'15	Nov'15	Dec'15	Jan'16	Feb'16	Mar'16	Apr'16	May'16	Jun'16	Jul'16	Aug'16	Sep'16	Oct'16	Nov'16	Dec'16	Jan'17	Feb'17	Mar'17	Apr'17	May'17	Jun'17	Jul'17	Aug'17
Global	51.0	51.0	50.7	50.9	50.0	50.6	50.2	50.1	50.4	51.0	50.8	51.1	52.0	52.1	52.7	52.8	53.0	53.0	52.7	52.6	52.6	52.7	53.1
DM	52.5	52.3	52.0	52.1	50.8	50.9	50.5	50.4	51.2	51.5	51.2	51.5	52.6	53.0	53.8	54.2	54.1	53.9	54.1	54.1	53.9	54.0	54.2
EM	49.0	49.2	49.0	49.4	48.9	50.2	49.6	49.5	49.3	50.3	50.1	50.3	51.0	50.8	51.1	50.8	51.3	51.6	50.9	50.6	50.8	50.9	51.7
U.S.	54.1	52.8	51.2	52.4	51.3	51.5	50.8	50.7	51.3	52.9	52.0	51.5	53.4	54.1	54.3	55.0	54.2	53.3	52.8	52.7	52.0	53.3	52.8
Euro area	52.3	52.8	53.2	52.3	51.2	51.6	51.7	51.5	52.8	52.0	51.7	52.6	53.5	53.7	54.9	55.2	55.4	56.2	56.7	57.0	57.4	56.6	57.4
Germany	52.1	52.9	53.2	52.3	50.5	50.7	51.8	52.1	54.5	53.8	53.6	54.3	55.0	54.3	55.6	56.4	56.8	58.3	58.2	59.5	59.6	58.1	59.3
France	50.6	50.6	51.4	50.0	50.2	49.6	48.0	48.4	48.3	48.6	48.3	49.7	51.8	51.7	53.5	53.6	52.2	53.3	55.1	53.8	54.8	54.9	55.8
Italy	54.1	54.9	55.6	53.2	52.2	53.5	53.9	52.4	53.5	51.2	49.8	51.0	50.9	52.2	53.2	53.0	55.0	55.7	56.2	55.1	55.2	55.1	56.3
Spain	51.3	53.1	53.0	55.4	54.1	53.4	53.5	51.8	52.2	51.0	51.0	52.3	53.3	54.5	55.3	55.6	54.8	53.9	54.5	55.4	54.7	54.0	52.4
Greece	47.3	48.1	50.2	50.0	48.4	49.0	49.7	48.4	50.4	48.7	50.4	49.2	48.6	48.3	49.3	46.6	47.7	46.7	48.2	49.6	50.5	50.5	52.2
UK	54.5	52.4	51.2	52.2	50.9	51.3	49.5	50.6	53.1	48.5	53.2	55.3	54.2	53.4	55.8	55.3	54.6	54.3	57.0	56.4	54.3	55.3	56.9
Australia	50.2	52.5	51.9	51.5	53.5	58.1	53.4	51.0	51.8	56.4	46.9	49.8	50.9	54.2	55.4	51.2	59.3	57.5	59.2	54.8	55.0	56.0	59.8
Japan	52.4	52.6	52.6	52.3	50.1	49.1	48.2	47.7	48.1	49.3	49.5	50.4	51.4	51.3	52.4	52.7	53.3	52.4	52.7	53.1	52.4	52.1	52.2
China	48.3	48.6	48.2	48.4	48.0	49.7	49.4	49.2	48.6	50.6	50.0	50.1	51.2	50.9	51.9	51.0	51.7	51.2	50.3	49.6	50.4	51.1	51.6
China (NBS)	49.8	49.6	49.7	49.4	49.0	50.2	50.1	50.1	50.0	49.9	50.4	50.4	51.2	51.7	51.4	51.3	51.6	51.8	51.2	51.2	51.7	51.4	51.7
Korea	49.1	49.1	50.7	49.5	48.7	49.5	50.0	50.1	50.5	50.1	48.6	47.6	48.0	48.0	49.4	49.0	49.2	48.4	49.4	49.2	50.1	49.1	49.9
Taiwan	47.8	49.5	51.7	50.6	49.4	51.1	49.7	48.5	50.5	51.0	51.8	52.2	52.7	54.7	56.2	55.6	54.5	56.2	54.4	53.1	53.3	53.6	54.3
Indonesia	47.8	46.9	47.8	48.9	48.7	50.6	50.9	50.6	51.9	48.4	50.4	50.9	48.7	49.7	49.0	50.4	49.3	50.5	51.2	50.6	49.5	48.6	50.7
India	50.7	50.3	49.1	51.1	51.1	52.4	50.5	50.7	51.7	51.8	52.6	52.1	54.4	52.3	49.6	50.4	50.7	52.5	52.5	51.6	50.9	47.9	51.2
Russia	50.2	50.1	48.7	49.8	49.3	48.3	48.0	49.6	51.5	49.5	50.8	51.1	52.4	53.6	53.7	54.7	52.5	52.4	50.8	52.4	50.3	52.7	51.6
Brazil	44.1	43.8	45.6	47.4	44.5	46.0	42.6	41.6	43.2	46.0	45.7	46.0	46.3	46.2	45.2	44.0	46.9	49.6	50.1	52.0	50.5	50.0	50.9
Mexico	53.0	53.0	52.4	52.2	53.1	53.2	52.4	53.6	51.1	50.6	50.9	51.9	51.8	51.1	50.2	50.8	50.6	51.5	50.7	51.2	52.3	51.2	52.2
# countries above 50*	11	11	12	10	10	10	9	10	13	10	10	12	13	13	12	14	13	14	15	14	16	14	16

Source: Australian Industry Group, J.P. Morgan Economic Research, Markit, National Bureau of Statistics of China (NBS), J.P. Morgan Asset Management.

Heatmap colors are based on PMI relative to 50, which indicates contraction (below 50) or expansion (above 50) of the sector.

\*Number of countries displayed in the above heatmap, excluding regional aggregates (Global, DM, EM and euro area), which are in expansionary territory. Markit PMI, not NBS PMI, is counted for China.

Guide to the Markets – Asia 3Q 2017.

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## Monthly inflation trend

Year-over-year change

  Below target or below range by more than 0.5%
   Within +/- 0.5% of target or within range
   Above target or above range by more than 0.5%

Country	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Central bank target	Key policy rate* (↓ easing, ↑ tightening)
China	1.8	1.3	1.9	2.1	2.3	2.1	2.5	0.8	0.9	1.2	1.5	1.5	1.4	3.0	4.35 (↓ 10/2015)
India	6.1	5.0	4.4	4.2	3.6	3.4	3.2	3.7	3.9	3.0	2.2	1.5	2.4	2.0 – 6.0	6.00 (↓ 8/2017)
Indonesia	3.2	2.8	3.1	3.3	3.6	3.0	3.5	3.8	3.6	4.2	4.3	4.4	3.9	3.0 – 5.0	4.50 (↓ 8/2017)
Japan	-0.4	-0.5	-0.5	0.1	0.5	0.3	0.4	0.3	0.2	0.4	0.4	0.4	0.4	2.0	-0.1–0.0 (↓ 2/2016)
Korea	0.4	0.5	1.3	1.5	1.5	1.3	2.0	1.9	2.2	1.9	2.0	1.9	2.2	2.0	1.25 (↓ 6/2016)
Malaysia	1.1	1.5	1.5	1.4	1.8	1.8	3.2	4.5	5.1	4.4	3.9	3.6	3.2	2.0 – 3.0	3.00 (↓ 7/2016)
Taiwan	1.2	0.6	0.3	1.7	2.0	1.7	2.2	-0.1	0.2	0.1	0.6	1.0	0.8	2.0	1.375 (↓ 6/2016)
Thailand	0.1	0.3	0.4	0.3	0.6	1.1	1.6	1.4	0.8	0.4	0.0	0.0	0.2	1.0 – 4.0	1.5 (↓ 4/2015)
U.S.	0.8	1.1	1.5	1.6	1.7	2.1	2.5	2.7	2.4	2.2	1.9	1.6	1.7	2.0	1.00–1.25 (↑ 6/2017)
Eurozone	0.2	0.2	0.4	0.5	0.6	1.1	1.8	2.0	1.5	1.9	1.4	1.3	1.3	2.0	0.00 (↓ 3/2016)
UK	0.6	0.6	1.0	0.9	1.2	1.6	1.8	2.3	2.3	2.7	2.9	2.6	2.6	2.0	0.25 (↓ 8/2016)

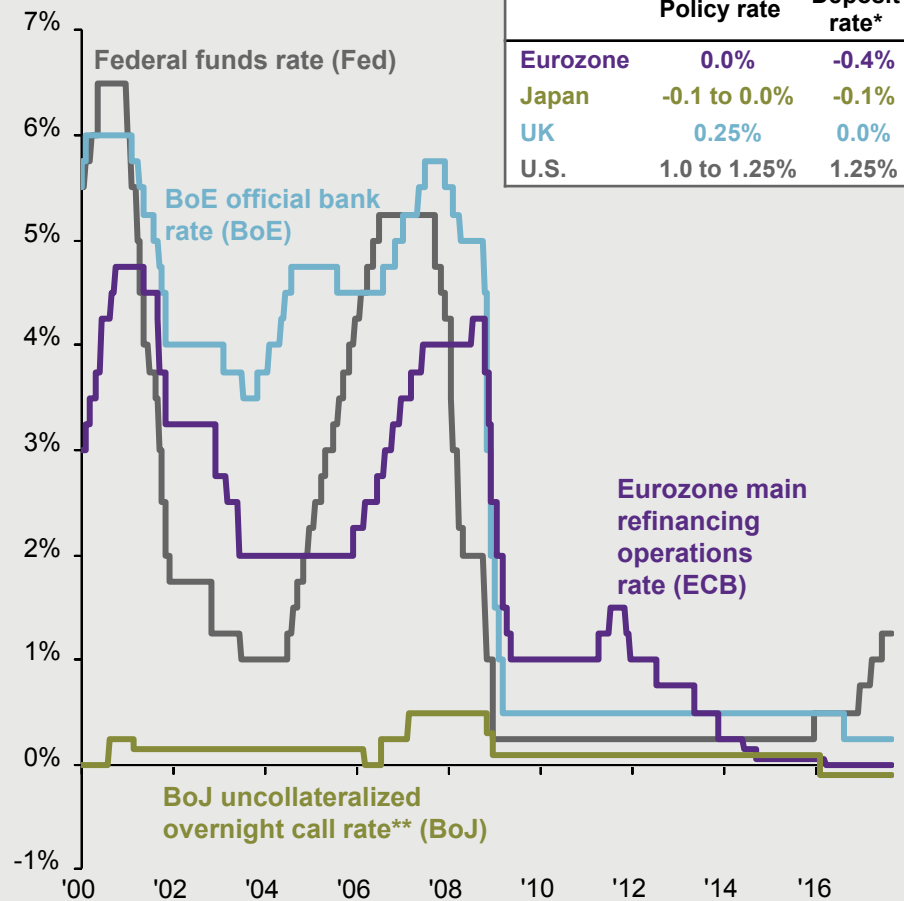
Source: Various central banks, FactSet, J.P. Morgan Economic Research, J.P. Morgan Asset Management.

All inflation numbers refer to headline CPI inflation. \*Arrows and dates indicate the direction and date of last change, respectively. The central bank's policy rates used are: the one-year benchmark lending rate (*China*), RBI policy repo rate (*India*), BI 7-day reverse repo rate (*Indonesia*), the BoJ's policy rate on the aggregate balance of all financial institutions' current accounts at the BoJ (*Japan*), BoK base rate (*Korea*), overnight policy rate (*Malaysia*), discount rate (*Taiwan*), one-day repurchase rate (*Thailand*), fed funds rate (*U.S.*), eurozone main refinancing operations rate (*eurozone*) and BoE official bank rate (*UK*).

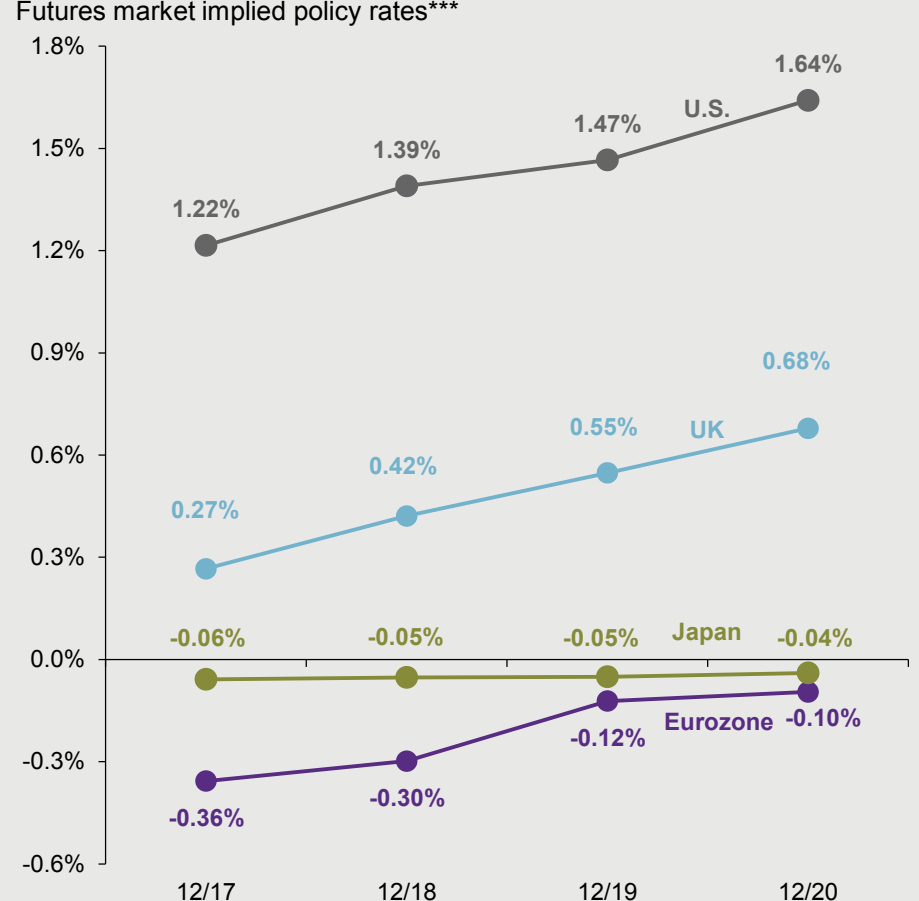
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## Central bank key policy rates



## Market expectations for policy rates



Source: Bloomberg Finance L.P., J.P. Morgan Asset Management; (Left) FactSet.

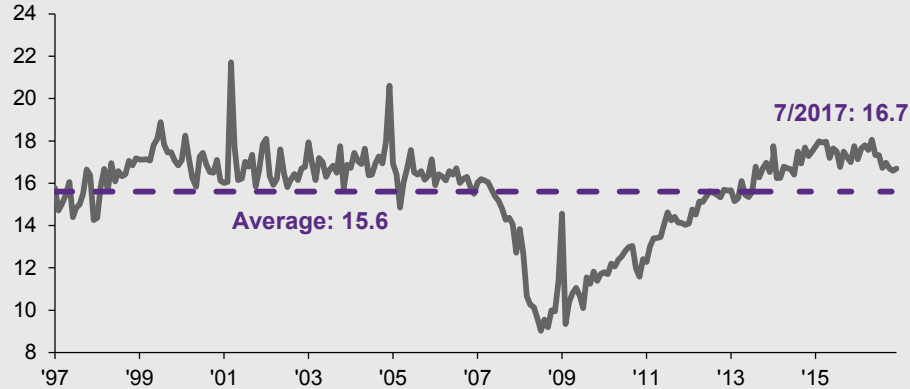
\*Key deposit rates that central banks charge commercial banks on their excess reserves. \*\*The BoJ is adopting a three-tier system in which a negative interest rate of -0.1% will be applied to the policy rate balance of the aggregate amount of all financial institutions that have current accounts at the BoJ. \*\*\*Market implied policy rates are derived from the Overnight Index Swaps market.

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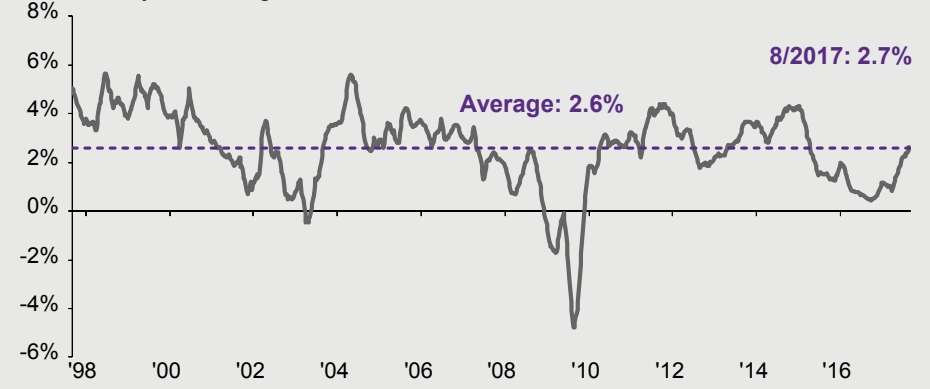
## Light vehicle sales

Millions, seasonally adjusted annualized rate



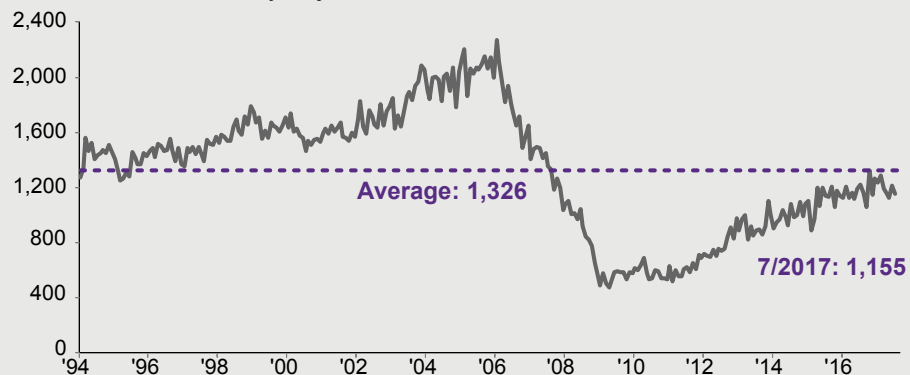
## Retail sales

Year-over-year change, 3MMA



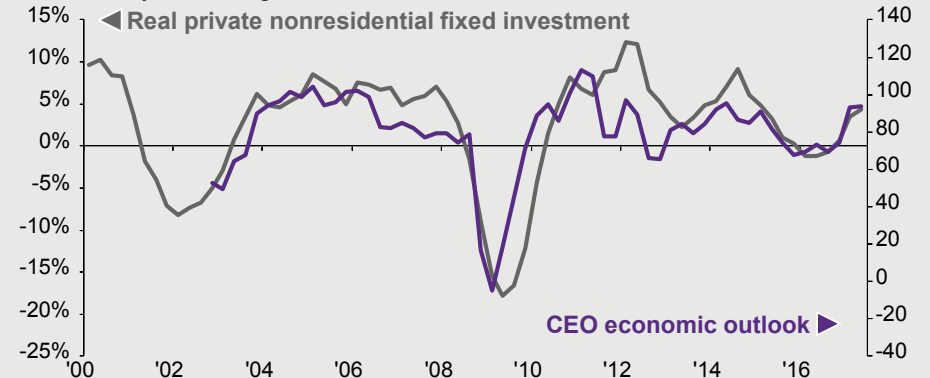
## Housing starts

Thousands, seasonally adjusted annualized rate



## U.S. capital expenditures & CEO economic outlook

Year-over-year change



Source: J.P. Morgan Asset Management; (Top left and top right) FactSet, U.S. Bureau of Economic Analysis; (Bottom left and right) Census Bureau, FactSet.  
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Equities

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2Q '17	YTD '17	10-yrs ('07 - '16)	
													Ann. Ret.	Ann. Vol.
India	73.1%	-29.1%	102.8%	32.4%	2.0%	28.3%	32.6%	23.9%	9.9%	19.6%	10.7%	41.9%	U.S.	India
China	66.2%	-37.1%	80.2%	27.2%	-6.1%	26.0%	27.3%	13.4%	1.3%	11.6%	10.3%	31.4%	HK	China
HK	41.2%	-45.9%	75.0%	23.2%	-10.5%	23.1%	26.0%	10.1%	-0.5%	9.2%	9.0%	29.7%	Taiwan	Korea
Asia ex-JP	40.5%	-46.1%	72.5%	22.7%	-11.8%	22.8%	11.1%	8.3%	-2.3%	6.2%	8.4%	28.8%	ASEAN	HK
ASEAN	39.2%	-47.6%	72.1%	20.9%	-14.2%	22.7%	9.8%	6.4%	-6.1%	5.8%	7.7%	28.2%	China	ASEAN
Korea	32.6%	-50.8%	62.6%	19.9%	-16.0%	21.5%	4.2%	5.1%	-6.3%	2.7%	7.2%	27.8%	Asia ex-JP	Asia ex-JP
Europe	14.4%	-51.2%	60.2%	15.6%	-17.1%	19.9%	4.0%	5.1%	-7.6%	2.3%	5.6%	19.5%	India	Taiwan
Taiwan	9.1%	-52.2%	36.8%	15.4%	-18.2%	17.7%	3.3%	-3.7%	-8.9%	1.1%	5.2%	19.1%	Korea	Europe
U.S.	6.0%	-55.1%	27.1%	4.8%	-20.2%	16.1%	-3.8%	-5.7%	-11.0%	0.2%	3.1%	12.3%	Europe	Japan
Japan	-4.1%	-64.6%	6.4%	4.5%	-37.2%	8.4%	-4.5%	-10.7%	-18.4%	-1.4%	2.9%	12.1%	Japan	U.S.

Source: FactSet, MSCI, J.P. Morgan Asset Management.

Returns are total returns based on MSCI indices in U.S. dollar terms. 10-yr total (net) return data is used to calculate annualized returns

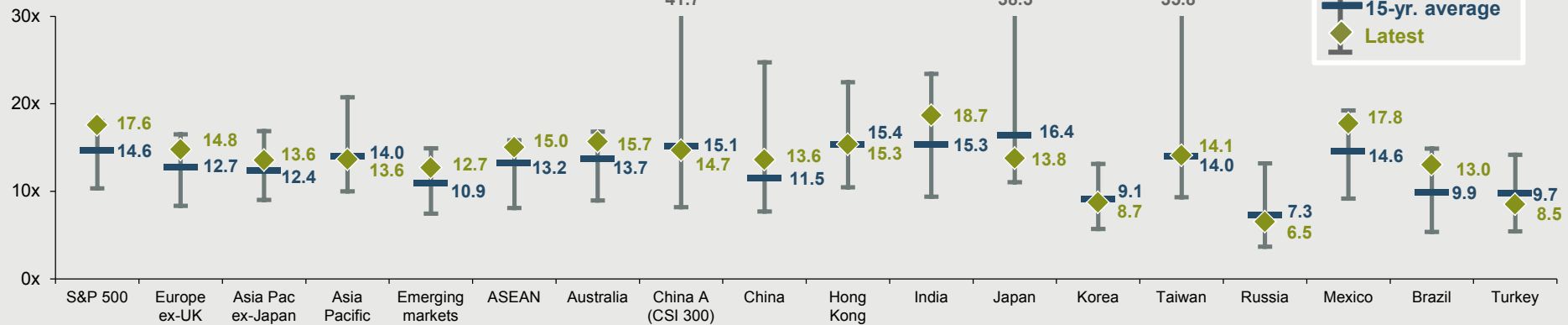
(Ann. Ret.) and 10-yr price return data is used to calculate annualized volatility (Ann. Vol.) and reflect the period 31/12/06 – 31/12/16.

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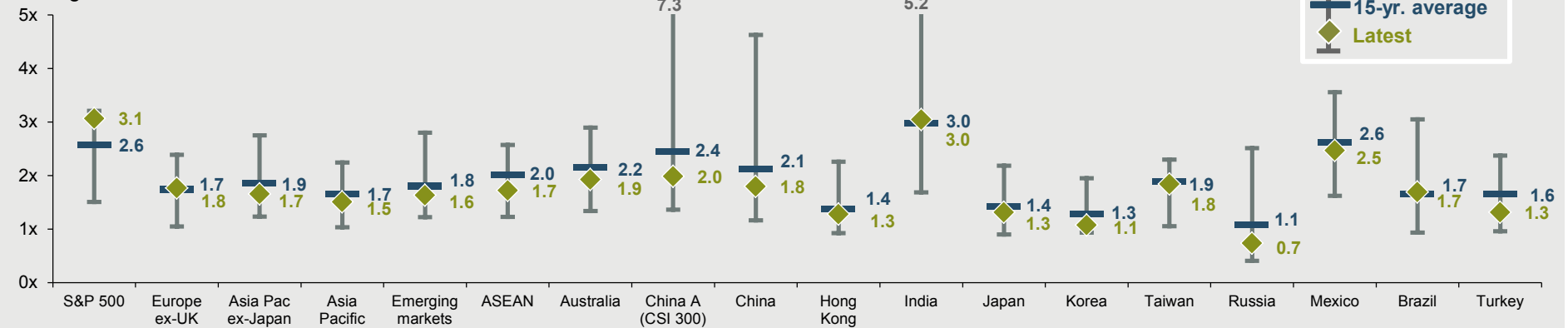
## Equity market valuations – Price to earnings

Forward P/E ratios



## Equity market valuations – Price to book

Trailing P/B ratios



Source: China Securities Index, FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.  
 P/E and P/B ratios are in local currency terms. China A valuations based on the CSI300 Index and use 10 years of data due to availability. China H valuations based on the MSCI China. 15-year range for P/E and P/B ratios are cut off to maintain a more reasonable scale.  
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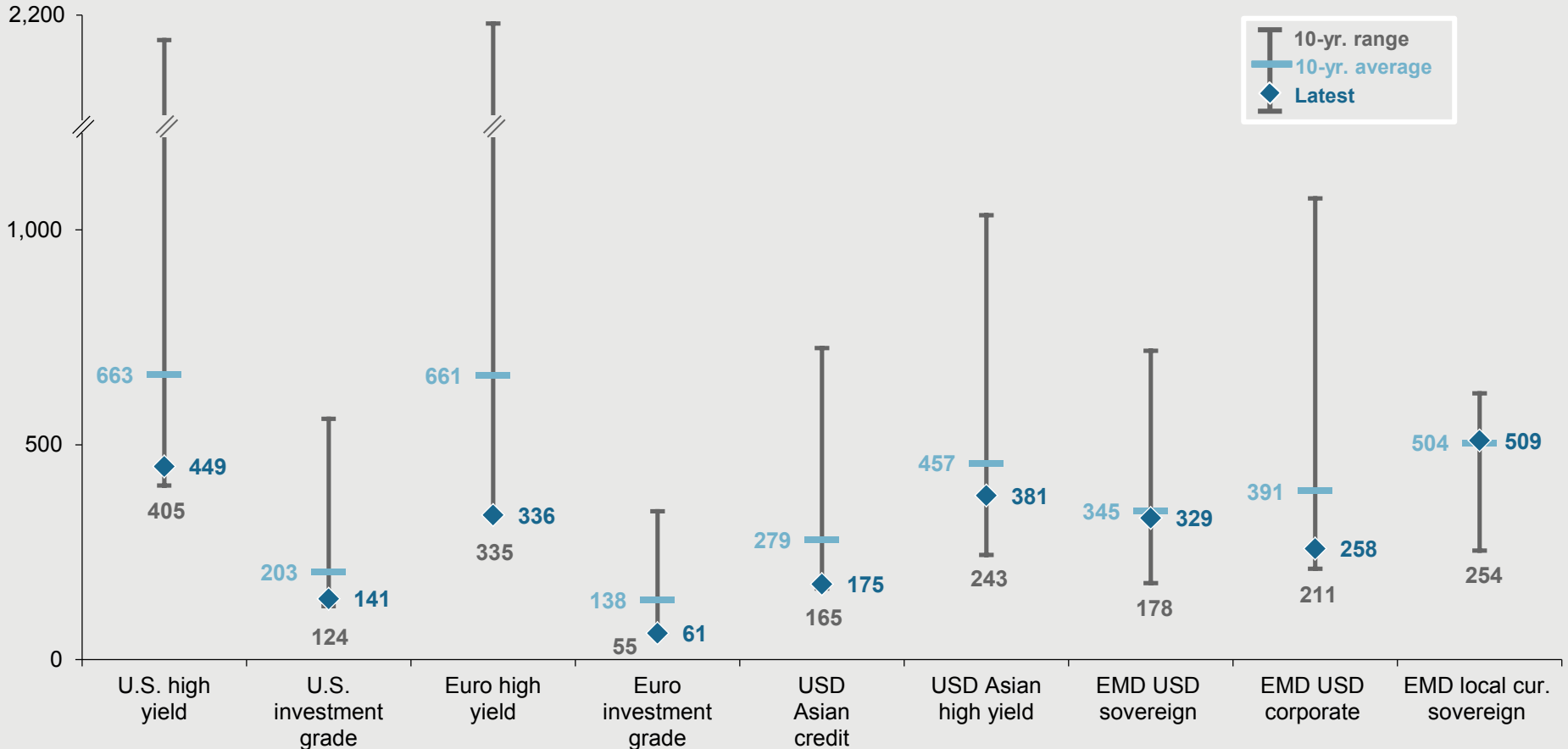
Global bond opportunities	YTM	Duration* (years)	Correl. to 10-year UST
Asia Corporate HY	6.8%	4.9	-0.09
Local CCY EMD	6.8%	4.5	0.08
U.S. Corporate HY	6.1%	3.8	-0.25
USD EMD	5.4%	6.9	0.21
USD Asian Bond	4.4%	5.4	0.24
Europe HY	3.2%	3.4	-0.25
U.S. Corporate IG	3.1%	7.6	0.44
U.S. Treasury	1.8%	6.3	0.99
DM Government Bond	1.3%	7.9	0.65
Cash	1.0%	0.2	0.18

Fixed income sector returns							5-yrs ('12 - '16)
2012	2013	2014	2015	2016	2Q '17	YTD '17	Ann. Ret.
Europe HY 30.5%	Europe HY 14.9%	USD Asian 8.3%	Asia HY 5.8%	U.S. HY 17.1%	Europe HY 8.6%	Europe HY 17.6%	Asia HY 10.2%
Asia HY 25.4%	U.S. HY 7.4%	U.S. IG 7.5%	USD Asian 2.8%	Local EMD 11.4%	Local EMD 3.4%	Local EMD 16.6%	U.S. HY 7.4%
Local EMD 19.9%	Asia HY 4.3%	Asia HY 5.5%	USD EMD 1.2%	Asia HY 11.4%	DM Gov't 2.6%	USD EMD 8.7%	Europe HY 6.1%
USD EMD 18.5%	Cash 0.0%	USD EMD 5.5%	U.S. Treas 0.8%	USD EMD 10.2%	U.S. IG 2.5%	DM Gov't 7.0%	USD Asian 5.8%
U.S. HY 15.8%	USD Asian -1.4%	U.S. Treas 5.1%	Cash 0.0%	U.S. IG 6.1%	USD EMD 2.2%	U.S. HY 6.1%	USD EMD 5.4%
USD Asian 14.3%	U.S. IG -1.5%	U.S. HY 2.5%	U.S. IG -0.7%	USD Asian 5.8%	U.S. HY 2.2%	U.S. IG 5.4%	U.S. IG 4.1%
U.S. IG 9.8%	U.S. Treas -2.7%	DM Gov't 0.7%	DM Gov't -2.6%	Europe HY 3.4%	USD Asian 1.2%	USD Asian 5.4%	U.S. Treas 1.2%
U.S. Treas 2.0%	DM Gov't -4.5%	Cash 0.0%	U.S. HY -4.5%	DM Gov't 1.6%	U.S. Treas 1.2%	Asia HY 4.9%	Cash 0.1%
DM Gov't 1.3%	Local EMD -5.5%	Europe HY -6.0%	Europe HY -7.6%	U.S. Treas 1.0%	Cash 0.2%	U.S. Treas 3.1%	Local EMD -0.6%
Cash 0.1%	USD EMD -6.6%	Local EMD -6.1%	Local EMD -18.0%	Cash 0.3%	Asia HY -0.2%	Cash 0.5%	DM Gov't -0.7%

Source: Bloomberg Finance L.P., FactSet, J.P. Morgan Economic Research, J.P. Morgan Asset Management. Based on Bloomberg Barclays U.S. Aggregate Credit - Corporate High Yield Index (U.S. Corporate HY), Bloomberg Barclays U.S. Aggregate Credit - Corporate Investment Grade Index (U.S. Corporate IG), J.P. Morgan Government Bond Index - EM Global (GBI-EM) (Local CCY EMD), J.P. Morgan Emerging Market Bond Index Global (EMBIG) (USD EMD), J.P. Morgan Asia Credit Index (JACI) (USD Asian), Bloomberg Barclays Pan European High Yield (Europe HY), J.P. Morgan Government Bond Index - Global Traded (DM Gov't), J.P. Morgan Asia Credit Index - Non-Investment Grade Corporate (Asia Corporate HY), Bloomberg Barclays Global U.S. Treasury - Bills (3-5 years) (U.S. Treasury) and Bloomberg Barclays U.S. Treasury - Bills (1-3 months) (Cash). 5-year data is used to calculate annualized returns (Ann. Ret.). Returns are in USD and reflect the period from 31/12/11 - 31/12/16. Duration is a measure of the sensitivity of the price (the value of the principal) of a fixed-income investment to a change in interest rates. \*Duration is expressed as number of years. Rising interest rates mean falling bond prices, while declining interest rates mean rising bond prices. 10-year data is used to calculate the correlation to the 10-year UST. Positive yield does not imply positive return. Guide to the Markets - Asia 3Q 2017. Data reflect most recently available as of 31/8/17.

**Spread to worst across fixed income sub-sectors**

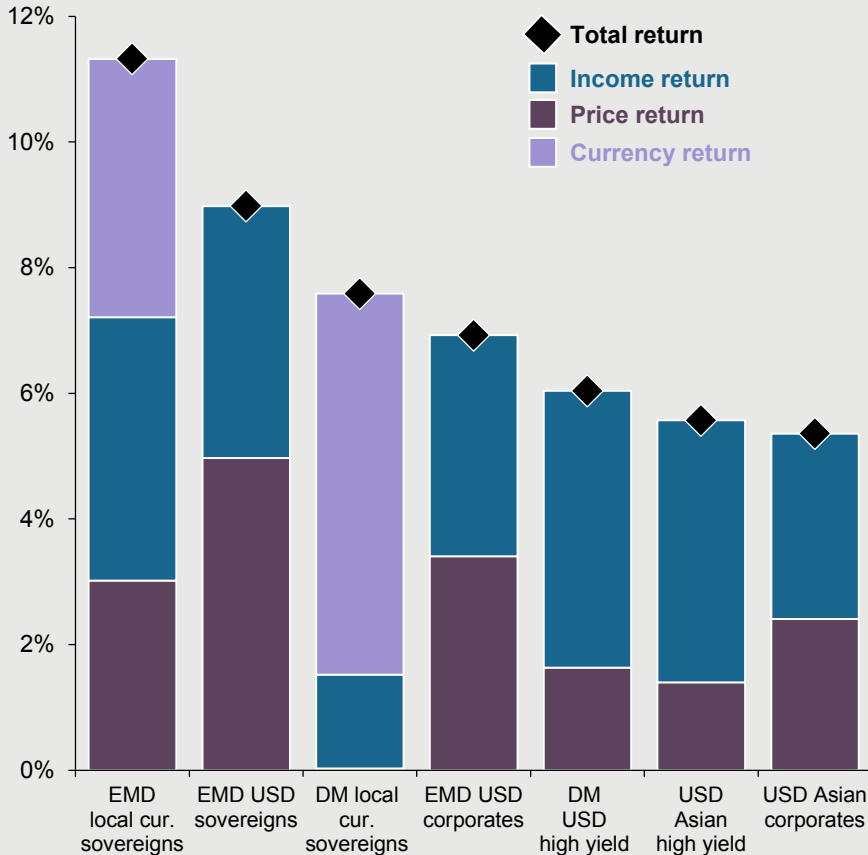
Basis points



Source: BofA/Merrill Lynch, iBoxx, J.P. Morgan Economic Research, J.P. Morgan Asset Management. Based on J.P. Morgan Domestic High Yield Index (*U.S. High Yield*), J.P. Morgan U.S. Liquid Index (JULI) (*U.S. Investment Grade*), BofA/Merrill Lynch Euro Non-Financial High Yield Constrained (*Euro High Yield*), iBoxx EUR corporates (*Euro Investment Grade*), J.P. Morgan Asia Credit Index (JACI) (*USD Asian Credit*), J.P. Morgan Asia Credit High Yield Index (*USD Asian High Yield*), J.P. Morgan EMBI+ (*EMD USD Sovereign*), J.P. Morgan Corporate Emerging Markets Bond Index – CEMBI (*EMD USD Corporate*), J.P. Morgan GBI-EM (*EMD Local Cur. Sovereign*). Positive yield does not imply positive return. *Guide to the Markets – Asia 3Q 2017*. Data reflect most recently available as of 31/8/17.

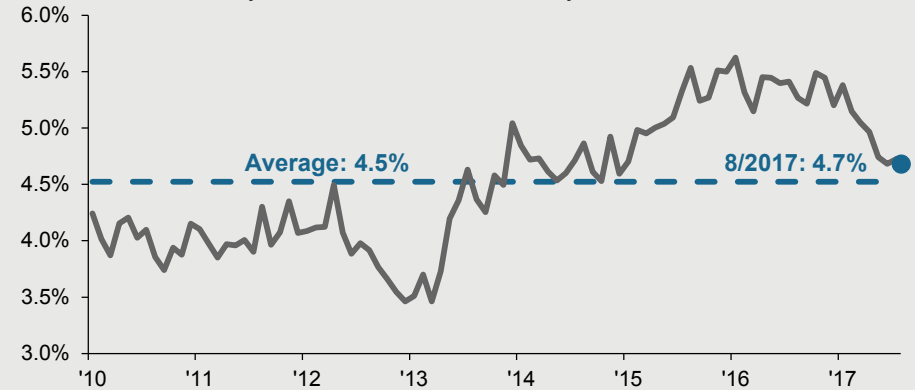
## Debt return composition

Year-to-date



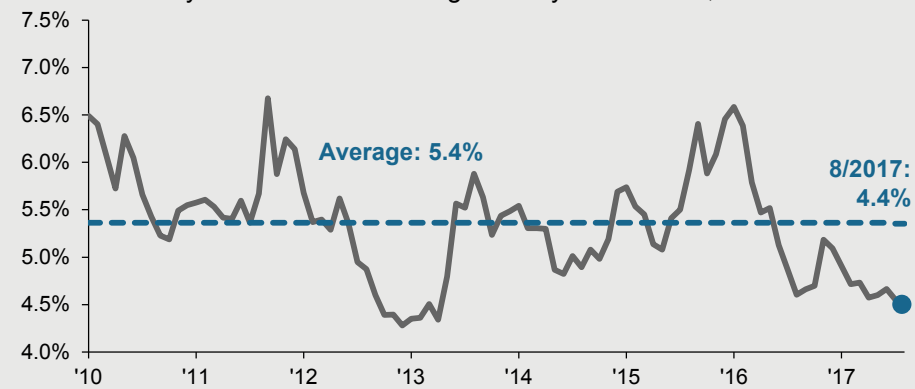
## Relative government bond yields

GBI EM Diversified yield – GBI Diversified DM yield, nominal



## Relative corporate debt yields

CEMBI Broad yield-to-worst – DM High Yield yield-to-worst, nominal

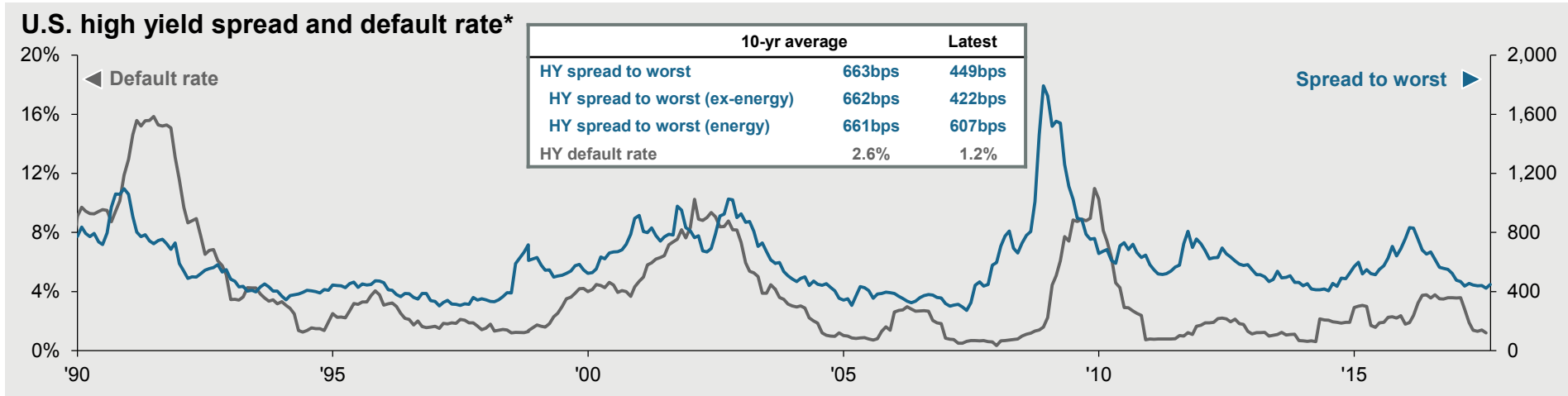


Source: J.P. Morgan Economic Research, J.P. Morgan Asset Management.

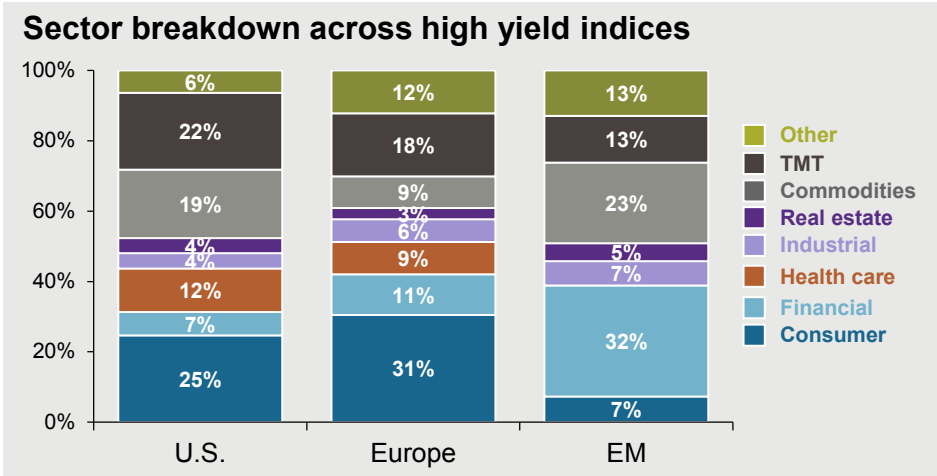
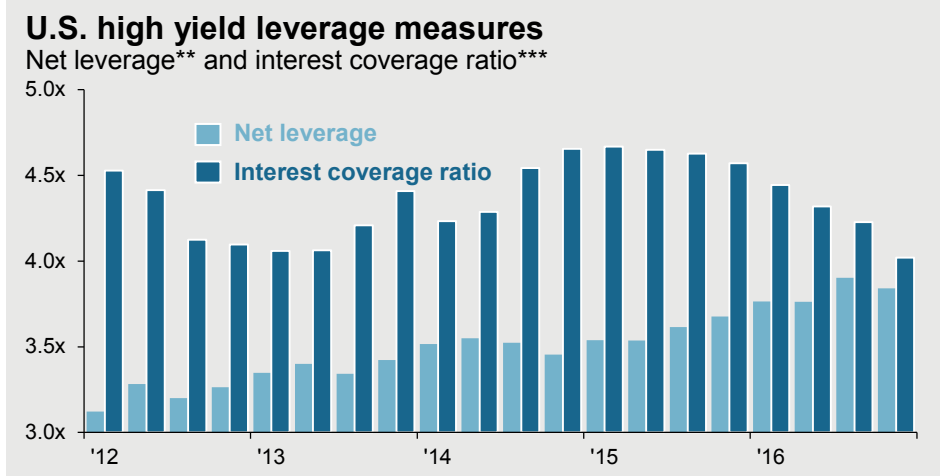
Based on J.P. Morgan Developed Market HY (DM USD high yield), J.P. Morgan EMBI+ (EMD USD sovereigns), J.P. Morgan CEMBI (EMD USD corporates), JACI Asia HY (Asian USD high yield), J.P. Morgan GBI-EM (EMD local cur. sovereigns), JACI Asia Credit (Asian USD corporates), J.P. Morgan GBI-DM (DM local cur. sovereigns).

Guide to the Markets – Asia 3Q 2017.

Data reflect most recently available as of 31/8/17.



Fixed income



Source: J.P. Morgan Economic Research, J.P. Morgan Asset Management.

\*Default rate is defined as the par value percentage of the total market trading at or below 50% of par value and includes any Chapter 11 filing, prepackaged filing or missed interest payments. Spreads indicated are benchmark yield-to-worst less comparable maturity Treasury yields. \*\*Net leverage is net debt divided by adjusted earnings before interest, tax, depreciation and amortization (EBITDA). \*\*\*Interest coverage ratio is EBITDA over interest expense. U.S. corporate high yield is represented by the J.P. Morgan Domestic High Yield Index. Europe corporate high yield is represented by J.P. Morgan Euro High Yield Index. EM corporate high yield is represented by J.P. Morgan CEMBI NON-IG Index. TMT represents Telecommunications & Technology. Positive yield does not imply positive return.

Guide to the Markets – Asia 3Q 2017.  
Data reflect most recently available as of 31/8/17.

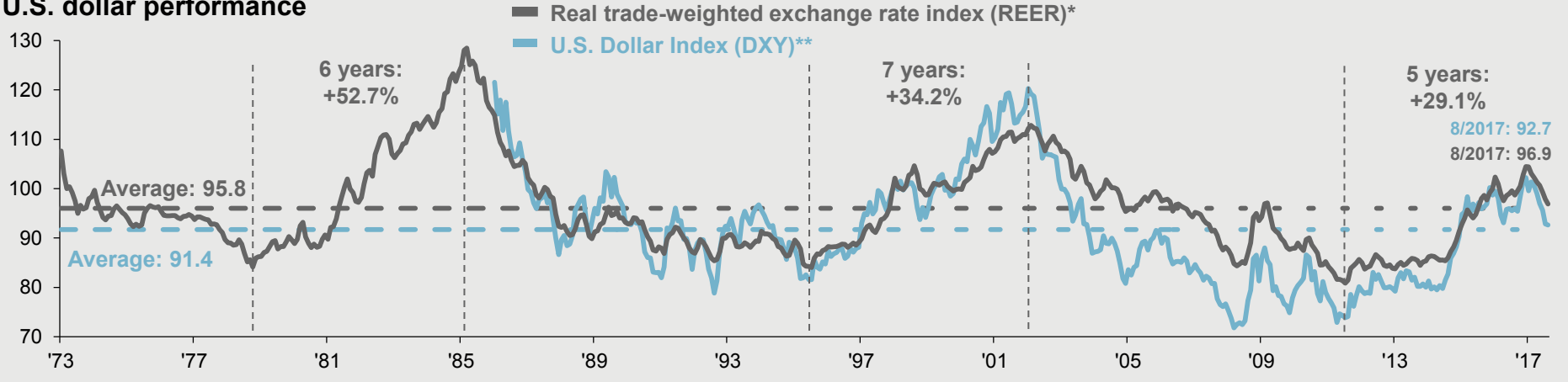
												10-yrs ('07 - '16)	
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2Q '17	YTD '17	Ann. Ret.	Ann. Vol.
EM ex-Asia 41.1%	Global Bonds 4.8%	EM ex-Asia 91.3%	U.S. REITs 28.5%	U.S. REITs 8.7%	Asia ex-Japan 22.7%	DM Equities 27.4%	U.S. REITs 30.4%	Asian Bonds 2.8%	EM ex-Asia 27.1%	Asia ex-Japan 8.4%	Asia ex-Japan 31.4%	Global Corp HY 7.1%	EM ex-Asia 27.0%
Asia ex-Japan 40.5%	Cash 1.8%	Asia ex-Japan 72.5%	Asia ex-Japan 19.9%	EMD 8.5%	Global Corp HY 18.9%	Global Corp HY 8.4%	Asian Bonds 8.3%	U.S. REITs 2.5%	Global Corp HY 14.0%	DM Equities 4.2%	EM ex-Asia 19.3%	EMD 6.8%	U.S. REITs 26.1%
Diversified 14.1%	Asian Bonds -9.8%	Global Corp HY 63.9%	EM ex-Asia 16.6%	Global Bonds 5.6%	EMD 18.5%	Diversified 5.6%	EMD 5.5%	EMD 1.2%	EMD 10.2%	Diversified 3.6%	DM Equities 13.9%	Asian Bonds 6.4%	Asia ex-Japan 22.6%
DM Equities 9.6%	EMD -10.9%	Diversified 40.8%	Global Corp HY 13.8%	Asian Bonds 4.1%	U.S. REITs 17.8%	Asia ex-Japan 3.3%	DM Equities 5.5%	Cash 0.0%	U.S. REITs 8.6%	Global Corp HY 3.4%	Diversified 13.5%	U.S. REITs 5.0%	DM Equities 16.5%
Global Bonds 9.5%	Global Corp HY -27.9%	DM Equities 30.8%	Diversified 13.4%	Global Corp HY 2.6%	EM ex-Asia 17.0%	U.S. REITs 2.5%	Asia ex-Japan 5.1%	DM Equities -0.3%	DM Equities 8.2%	Global Bonds 2.6%	EMD 8.7%	Diversified 4.8%	Diversified 12.2%
EMD 6.3%	Diversified -28.1%	U.S. REITs 28.6%	DM Equities 12.3%	Cash 0.1%	DM Equities 16.5%	Cash 0.0%	Diversified 4.5%	Diversified -3.1%	Diversified 8.1%	EMD 2.2%	Global Corp HY 8.4%	DM Equities 4.4%	Global Corp HY 11.3%
Asian Bonds 5.4%	U.S. REITs -38.0%	Asian Bonds 28.3%	EMD 12.0%	Diversified -2.8%	Diversified 15.9%	Asian Bonds -1.4%	Global Bonds 0.6%	Global Bonds -3.2%	Asian Bonds 5.8%	U.S. REITs 1.7%	Global Bonds 7.2%	Asia ex-Japan 4.0%	EMD 8.9%
Cash 4.8%	DM Equities -40.3%	EMD 28.2%	Asian Bonds 10.6%	DM Equities -5.0%	Asian Bonds 14.3%	Global Bonds -2.6%	Global Corp HY 0.2%	Global Corp HY -4.9%	Asia ex-Japan 5.8%	Asian Bonds 1.2%	Asian Bonds 5.4%	Global Bonds 3.3%	Asian Bonds 7.4%
Global Corp HY 2.6%	Asia ex-Japan -52.2%	Global Bonds 6.9%	Global Bonds 5.5%	Asia ex-Japan -17.1%	Global Bonds 4.3%	EMD -6.6%	Cash 0.0%	Asia ex-Japan -8.9%	Global Bonds 2.1%	Cash 0.2%	U.S. REITs 3.7%	Cash 0.7%	Global Bonds 2.8%
U.S. REITs -16.8%	EM ex-Asia -57.2%	Cash 0.1%	Cash 0.1%	EM ex-Asia -21.2%	Cash 0.1%	EM ex-Asia -8.5%	EM ex-Asia -20.2%	EM ex-Asia -22.7%	Cash 0.3%	EM ex-Asia -0.2%	Cash 0.5%	EM ex-Asia -1.3%	Cash 0.1%

Other asset classes

Source: Bloomberg Finance L.P., Dow Jones, FactSet, J.P. Morgan Economic Research, MSCI, J.P. Morgan Asset Management.  
 The "Diversified" portfolio assumes the following weights: 20% in the MSCI The World Index (*DM Equities*), 20% in the MSCI AC Asia ex-Japan (*Asia ex-Japan*), 5% in the average of the MSCI EM Latin America and MSCI EM EMEA Indices (*EM ex-Asia*), 10% in the J.P. Morgan EMBIG Index (*EMD*), 10% in the Bloomberg Barclays Aggregate (*Global Bonds*), 10% in the Bloomberg Barclays Global Corporate High Yield Index (*Global Corporate High Yield*), 15% in J.P. Morgan Asia Credit Index (*Asian Bonds*), 5% in MSCI U.S. REITs Index (*U.S. REITs*) and 5% in Bloomberg Barclays U.S. Treasury – Bills (1-3 months) (*Cash*). Diversified portfolio assumes annual rebalancing. All data represent total return in U.S. dollar terms for the stated period. 10-year total return data is used to calculate annualized returns (Ann. Ret.) and 10-year price return data is used to calculate annualized volatility (Ann. Vol.) and reflects the period 31/12/06 – 31/12/16. Please see disclosure page at end for index definitions.  
*Guide to the Markets – Asia 3Q 2017.*

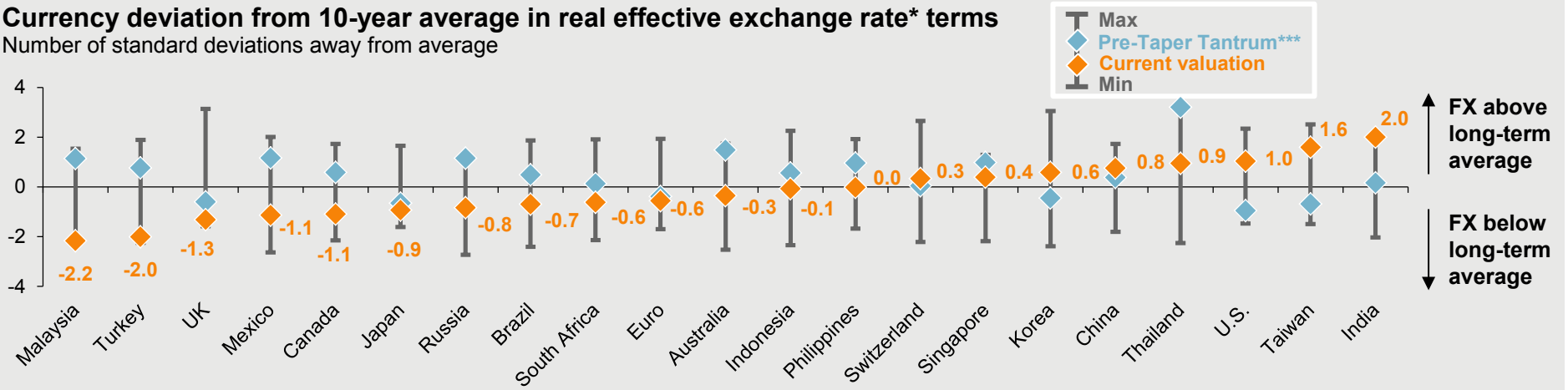
Data reflect most recently available as of 31/8/17.

U.S. dollar performance



Currency deviation from 10-year average in real effective exchange rate\* terms

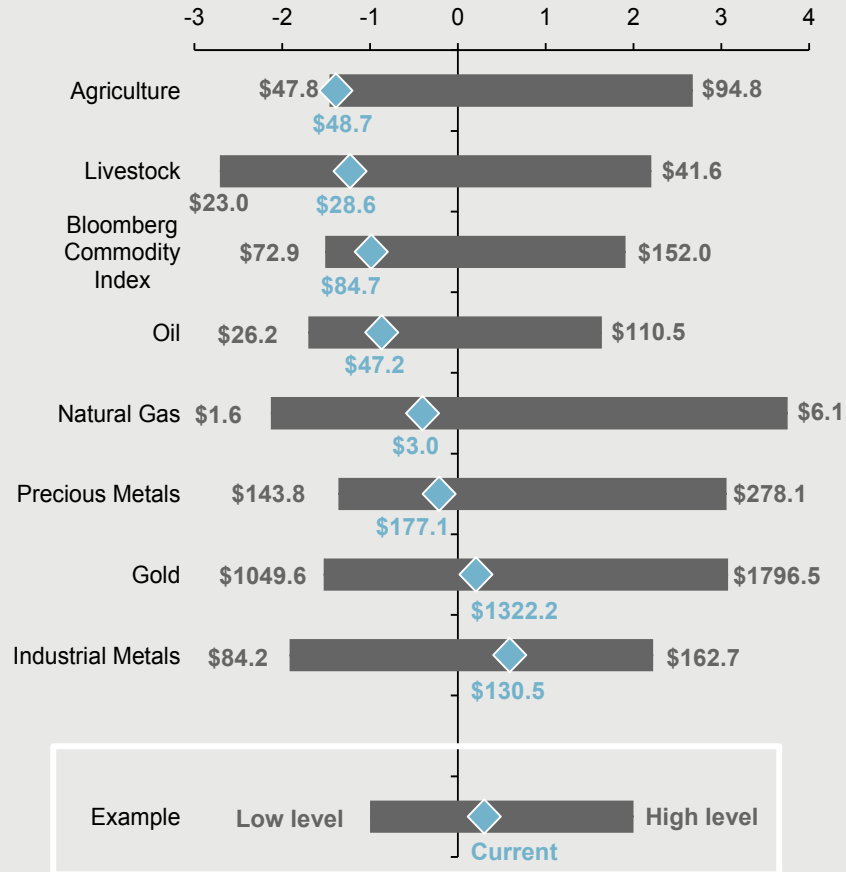
Number of standard deviations away from average



Source: FactSet, J.P. Morgan Asset Management; (Top) Bloomberg Finance L.P., U.S. Federal Reserve; (Bottom) J.P. Morgan Economic Research.  
 \*The real trade-weighted exchange rate index is the weighted average of a country's currency relative to a basket of other major currencies adjusted for the effects of inflation. The weights are determined by comparing the relative trade balances, in terms of one country's currency, with other countries within the basket.  
 \*\*The Dollar Index is a trade-weighted index calculated using 7 major U.S. trade partners' currencies – Australian dollar, British pound, Canadian dollar, euro, Japanese yen, Swedish kroner and Swiss franc.  
 \*\*\*Data as of 30/4/13 has been used for pre-Taper Tantrum period.  
 Guide to the Markets – Asia 3Q 2017. Data reflect most recently available as of 31/7/17.

## Commodity prices

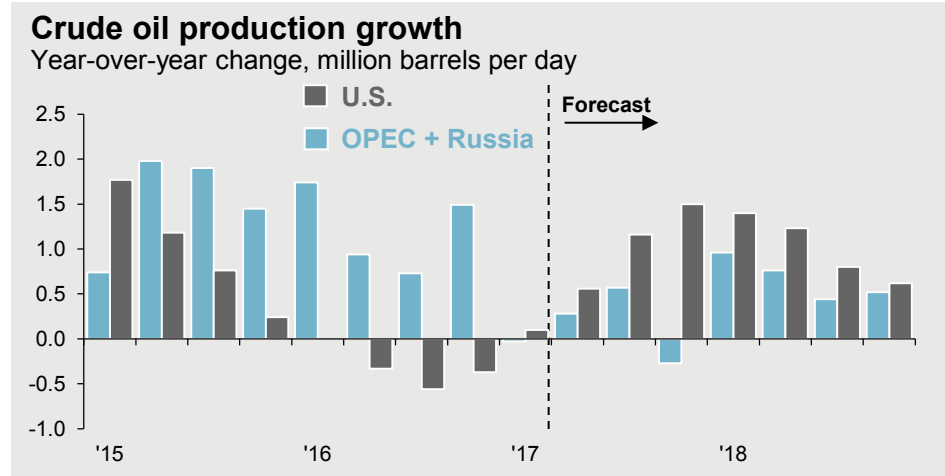
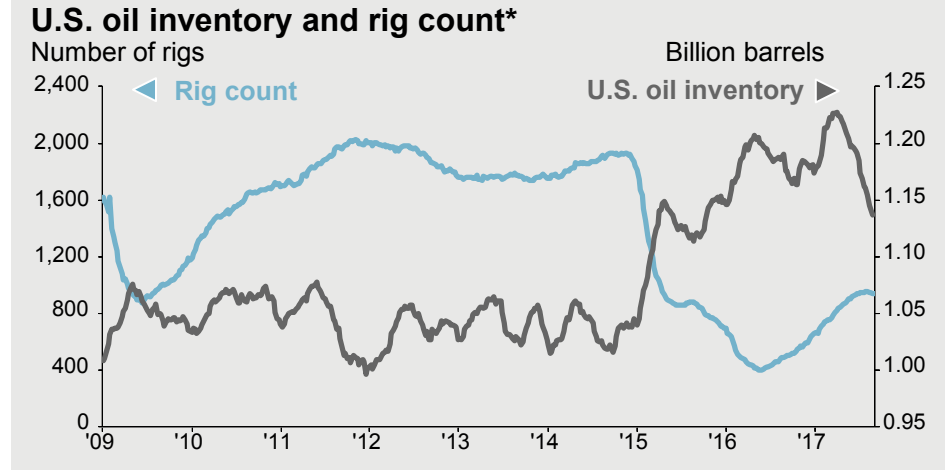
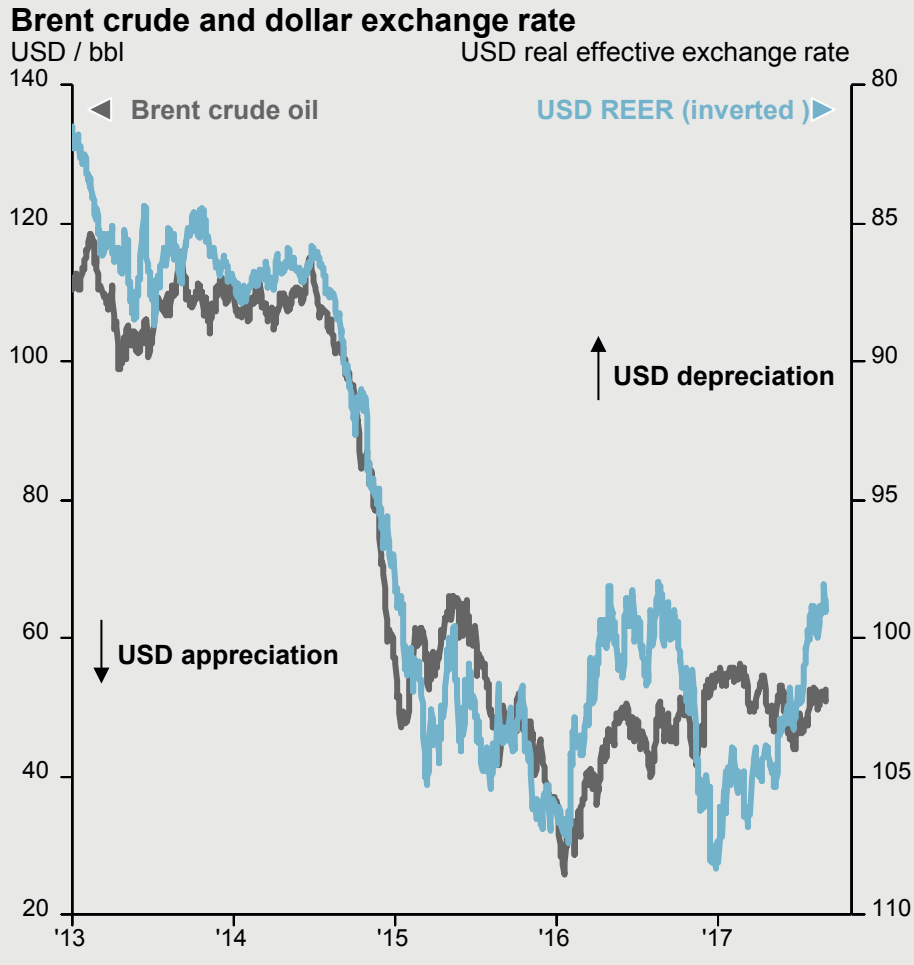
Commodity price z-scores



## Returns

							2012 - 2016	
2012	2013	2014	2015	2016	2Q '17	YTD '17	Ann. Ret.	Ann. Vol.
EM M&M (FI) 18.8%	Energy (E) 13.8%	Euro M&M (FI) 8.6%	Energy (FI) -7.3%	Gold (E) 62.9%	Agri. (E) 3.5%	M&M (E) 24.4%	EM M&M (FI) 6.0%	Gold (E) 37.2%
Agri. (E) 18.7%	US M&M (FI) 7.5%	Energy (FI) 2.1%	EM M&M (FI) -10.9%	M&M (E) 57.8%	Energy (FI) 2.9%	Gold (E) 15.4%	US M&M (FI) 4.6%	M&M (E) 26.7%
Euro M&M (FI) 10.7%	Agri. (E) 5.1%	Agri. (E) -0.2%	Agri. (E) -13.7%	US M&M (FI) 45.5%	US M&M (FI) 1.7%	EM M&M (FI) 10.6%	Agri. (E) 4.5%	Energy (E) 17.9%
US M&M (FI) 9.4%	Euro M&M (FI) 1.1%	EM M&M (FI) -0.8%	Euro M&M (FI) -16.1%	EM M&M (FI) 32.4%	EM M&M (FI) 1.3%	Agri. (E) 9.8%	Euro M&M (FI) 4.4%	Comdty. 14.6%
Energy (FI) 9.3%	Energy (FI) -1.0%	US M&M (FI) -4.4%	Energy (E) -20.6%	Energy (E) 29.2%	Euro M&M (FI) -0.1%	US M&M (FI) 7.5%	Energy (FI) 2.8%	Agri. (E) 13.8%
M&M (E) 5.4%	EM M&M (FI) -3.5%	Energy (E) -15.1%	US M&M (FI) -23.7%	Euro M&M (FI) 21.9%	M&M (E) -2.4%	Energy (FI) 6.8%	Energy (E) 0.2%	US M&M (FI) 12.9%
Energy (E) 1.8%	M&M (E) -7.3%	Gold (E) -16.4%	Comdty. -24.7%	Agri. (E) 15.7%	Comdty. -3.0%	Euro M&M (FI) 3.2%	M&M (E) -5.6%	EM M&M (FI) 11.3%
Comdty. -1.1%	Comdty. -9.5%	Comdty. -17.0%	Gold (E) -26.3%	Comdty. 11.8%	Energy (E) -4.7%	Comdty. -2.7%	Comdty. -9.0%	Euro M&M (FI) 8.1%
Gold (E) -13.9%	Gold (E) -52.0%	M&M (E) -19.0%	M&M (E) -40.1%	Energy (FI) 11.1%	Gold (E) -5.9%	Energy (E) -7.7%	Gold (E) -16.1%	Energy (FI) 5.2%

Source: Bloomberg Finance L.P., FactSet, J.P. Morgan Asset Management; (Left) CME; (Right) Barclays, J.P. Morgan Economic Research, MSCI. Commodity prices are represented by the appropriate Bloomberg Commodity sub-index in USD. Crude oil shown is Brent crude. Other commodity prices are represented by futures contracts. Z-scores are calculated using daily prices over the past 5 years. Based on Bloomberg Commodity Index (Comdty.); MSCI ACWI Select – Energy Producers IMI, Metals & Mining Producers ex Gold & Silver IMI, Gold Miners IMI, Agriculture Producers IMI (Energy (E), M&M (E), Gold (E), Agri. (E)); Bloomberg Barclays Global Aggregate Credit – Corporate Energy Index (Energy (FI)); Bloomberg Barclays U.S. Aggregate Credit – Corporate High Yield Metals & Mining Index (U.S. M&M (FI)); Bloomberg Barclays Euro Aggregate Credit – Corporate Metals & Mining Index (Euro M&M (FI)); J.P. Morgan Emerging Market Corporate Credit – Corporate Metals & Mining Index (EM M&M (FI)). 5-year total return data is used to calculate annualized returns (Ann. Ret.) and 5-year price return data is used to calculate annualized volatility (Ann. Vol.) and reflects the period 31/12/11 – 31/12/16. Guide to the Markets – Asia 3Q 2017. Data reflect most recently available as of 31/8/17.



Source: FactSet, J.P. Morgan Asset Management; (Top right) Baker Hughes, U.S. Department of Energy; (Bottom right) U.S. Energy Information Administration.  
 \*Weekly U.S. crude oil and petroleum ending inventory includes strategic petroleum reserve, and active rig count represents both natural gas and oil rigs.  
 Guide to the Markets – Asia 3Q 2017.  
 Data reflect most recently available as of 31/8/17.

Other asset classes



# J.P. Morgan Asset Management: Index Definitions

**All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.**

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. This world-renowned index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the S&P 500 Index focuses on the large-cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market. An investor cannot invest directly in an index.

The **Tokyo Stock Price Index (TOPIX)** is a composite index of all common stocks listed on the First Section of Tokyo Stock Exchange (TSE). The index is basically a measure of the changes in aggregate market value of TSE common stocks. The base for the index is the aggregate market value of its component stocks as of the close on January 4, 1968. The aggregate market value is calculated by multiplying the number of listed shares of each component stock by its price and totaling the products derived there from.

The **Bombay Exchange Sensitive Index (SENSEX)**, first compiled in 1986, was calculated on a "Market Capitalization-Weighted" methodology of 30 component stocks representing large, well-established and financially sound companies across key sectors. The base year of SENSEX was taken as 1978-79. SENSEX today is widely reported in both domestic and international markets through print as well as electronic media. It is scientifically designed and is based on globally accepted construction and review methodology. Since September 1, 2003, SENSEX is being calculated on a free-float market capitalization methodology.

The **Korea Composite Stock Price Index (KOSPI)** is market capitalization based index on all common stocks listed on the Stock Market Division of the Korea Exchange (KRX) and excludes preferred stocks. The stock price index is calculated using the actual price traded on the market and not the "base price" used for market management such as establishment of price change limits. When no market price is available for issues that are not being traded or have halted trading, the latest closing price is used. KOSPI was assigned a base index of 100 set to January 4, 1980.

The **China Shenzhen Composite Index** is an actual market-cap weighted index that tracks the stock performance of all the A-share and B-share lists on Shenzhen Stock Exchange. The index was developed on April 3, 1991 with a base price of 100.

The **MSCI® EAFE (Europe, Australia, Far East) Net Index** is recognized as the pre-eminent benchmark in the United States to measure international equity performance. It comprises 21 MSCI country indexes, representing the developed markets outside of North America.

The **MSCI Emerging Markets Index<sup>SM</sup>** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. As of June 2007, the MSCI Emerging Markets Index consisted of the following 25 emerging market country indices: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Jordan, Korea, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.

The **MSCI ACWI (All Country World Index) Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. As of June 2009 the **MSCI ACWI** consisted of 45 country indices comprising 23 developed and 22 emerging market country indices.

The following **MSCI Total Return Indices<sup>SM</sup>** are calculated with gross dividends: This series approximates the maximum possible dividend reinvestment. The amount reinvested is the dividend distributed to individuals resident in the country of the company, but does not include tax credits.

The **MSCI Europe Index<sup>SM</sup>** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe. As of June 2007, the MSCI Europe Index consisted of the following 16 developed market country indices: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

The **MSCI Pacific Index<sup>SM</sup>** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region. As of June 2007, the MSCI Pacific Index consisted of the following 5 Developed Market countries: Australia, Hong Kong, Japan, New Zealand, and Singapore.

The **MSCI Europe ex UK Index<sup>SM</sup>** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the developed markets in Europe, excluding the United Kingdom. The **MSCI Europe ex UK Index** consists of the following 15 developed market country indices: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, and Switzerland.

The **MSCI Pacific ex Japan Index<sup>SM</sup>** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region, excluding Japan. As of June 2007, the MSCI Pacific Index consisted of the following 4 Developed Market countries: Australia, Hong Kong, New Zealand, and Singapore.

The **MSCI USA Index<sup>SM</sup>** is designed to measure the performance of the large and mid cap segments of the U.S. market. With 586 constituents, the index covers approximately 84% of the free float-adjusted market capitalization in the U.S.. The MSCI USA Index was launched on December 31, 1969.

The **MSCI China Index<sup>SM</sup>** captures large and mid cap representation across China H shares, B shares, Red chips and P chips. With 148 constituents, the index covers about 84% of this China equity universe. The MSCI China Index was launched on December 31, 1992.

The **MSCI Indonesia Index<sup>SM</sup>** is designed to measure the performance of the large and mid cap segments of the Indonesian market. With 25 constituents, the index covers about 84% of the Indonesian equity universe. The MSCI Indonesia Index was launched on December 31, 1990.

The **MSCI Korea Index<sup>SM</sup>** is designed to measure the performance of the large and mid cap segments of the South Korean market. With 105 constituents, the index covers about 84% of the Korean equity universe. The MSCI Korea Index was launched on December 31, 1989.

The **MSCI India Index<sup>SM</sup>** is designed to measure the performance of the large and mid cap segments of the Indian market. With 71 constituents, the index covers about 84% of the Indian equity universe. The MSCI India Index was launched on December 31, 1993.

The **MSCI Japan Index<sup>SM</sup>** is designed to measure the performance of the large and mid cap segments of the Japan market. With 315 constituents, the index covers approximately 84% of the free float-adjusted market capitalization in Japan. The MSCI Japan Index was launched on December 31, 1969.

The **MSCI Hong Kong Index<sup>SM</sup>** is designed to measure the performance of the large and mid cap segments of the Hong Kong market. With 42 constituents, the index covers approximately 84% of the free float-adjusted market capitalization of the Hong Kong equity universe. The MSCI Hong Kong Index was launched on December 31, 1972.

The **MSCI Taiwan Index<sup>SM</sup>** is designed to measure the performance of the large and mid cap segments of the Taiwan market. With 113 constituents, the index covers approximately 84% of the free float-adjusted market capitalization in Taiwan. The MSCI Taiwan Index was launched on December 31, 1989.

**West Texas Intermediate (WTI)** is the underlying commodity for the New York Mercantile Exchange's oil futures contracts.

The **Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification. Roll period typically occurs from 6th-10th business day based on the roll schedule.

The **Bloomberg Commodity Subindexes** represent commodity groups and sectors, as well as single commodities, that make up the Bloomberg Commodity Index. The subindexes track exchange-traded futures of physical commodities, and the commodity groups and sectors, like in the case of the broad index, are weighted to account for economic significance and market liquidity. The various subindexes include Agriculture, Energy, Livestock, Grains, Industrial Metals, Precious Metals and Softs.

# J.P. Morgan Asset Management: Index Definitions, Risks and Disclosures

The **Euro Stoxx 600 Index** represents large, mid and small capitalization companies across 18 European countries.

The **Bloomberg Barclays High Yield Index** covers the universe of fixed rate, non-investment grade debt. Pay-in-kind (PIK) bonds, Eurobonds, and debt issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, and 144-As are also included.

The **Bloomberg Barclays 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Bloomberg Barclays Corporate Bond Index** is the Corporate component of the U.S. Credit index.

The **Bloomberg Barclays TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan EMBI Global Index** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan GBI-EM Global Diversified** consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure. The weightings among the countries are more evenly distributed within this index.

The **J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI)**: The CEMBI tracks total returns of US dollar-denominated debt instruments issued by corporate entities in Emerging Markets countries, and consists of an investable universe of corporate bonds.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **VIX-CBOE Volatility Index** measures market expectations of near-term volatility conveyed by S&P 500 Index (SPX) option prices.

The **MOVE-Merrill Lynch Option Volatility Index** is a blended implied normal volatility for constant one-month at-the-money options on U.S. Treasuries.

**Price to forward earnings** is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

**Bonds** are subject to interest rate risks. Bond prices generally fall when interest rates rise.

The price of **equity** securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

**Small-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.

**Mid-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

**Real estate** investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

**International** investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies can raise or lower returns. Also, some markets may not be as politically and economically stable as other nations. Investments in **emerging markets** can be more volatile. The normal risks of international investing are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

**Derivatives** may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Investing using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

# Monthly Market Review

Asia Pacific | September 2017

The Market Insights program provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the program explores the implications of current economic data and changing market conditions.

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