

Monthly Market Review

Asia Pacific | December 2017

Global economy:

- U.S. 3Q real GDP growth was revised up to 3.3% SAAR, from 3.0%, amid stronger domestic final sales, inventories and trade. One of the more noteworthy aspects was the upward revision of business equipment spending (from 8.6% to 10.4% SAAR), thereby signaling the impressive acceleration in business spending within the U.S. throughout 2017. In the eurozone, incoming survey data continue to point to an additional firming in GDP growth. The latest euro area economic sentiment rose by another 0.5 point to a 17-year high of 114.6, echoing the recent strong Purchasing Managers' Index data. (GTMA P. 21, 26)
- The minutes to the last Federal Open Market Committee meeting kept our call for a December rate hike on track, while sounding somewhat less confident about inflation returning to target in the medium term. The People's Bank of China reiterated its neutral monetary policy stance in its 3Q Monetary Policy Report. Meanwhile, new regulatory efforts have been announced to rein in excess credit growth and strengthen risk control. (GTMA P. 9, 25)

Equities:

- The global equities market posted positive performance in November (MSCI ACWI +1.3%). The S&P 500 rose 3.1% on the back of healthy economic data and strong 3Q earnings results. Japan and Europe also recorded positive performance of 3.0% and 0.2%, respectively. (GTMA P. 28, 34)
- Asian equities registered moderate gains during the month. Hong Kong (+3.4%) was the stronger performer among peers. Concerns over a potential economic slowdown and further regulatory scrutiny may be headwinds for China and Hong Kong in the short run. Steady export data combined with synchronized global growth should translate into robust earnings growth, thereby supporting a further rally in Asian equities in the months to come. (GTMA P. 28, 36)

Fixed income:

- U.S. Treasury yields rose to 2.42% after U.S. data showed a rise in inflation and a decline in initial jobless claims, reinforcing expectations of a December rate hike and several more in 2018. Meanwhile, European government bond yields fell amid weaker-than-expected inflation data, suggesting the European Central Bank will likely only wind down its asset purchases gradually. (GTMA P. 43)
- The U.S. high yield spread widened during the month following market speculation over potential delay in tax reform and slower pace of earnings growth in 3Q. For emerging markets, local currency debt (+1.43%) outperformed hard currency debt (-0.27%) given the weaker dollar. (GTMA P. 43, 49, 50)

Other assets:

- The U.S. dollar reversed from its recent upward trend as the U.S. dollar index declined to 93.0 in November. Having said that, expectations for the December rate hike and progress on U.S. tax reform could be U.S. dollar supportive in the near term. During the month, Malaysia (+3.6%), Korea (+3.3%) and Philippines (+2.7%) gained the most against the U.S. dollar. (GTMA P. 56)
- Oil prices continued to track higher, with West Texas Intermediate and Brent rising 5.6% and 2.1%, respectively, in November. The strong performance is supported by improving supply and demand fundamentals and still-strong global growth momentum. Looking ahead, we expect the price of crude oil to remain range bound. The extension of the current Organization of Petroleum Exporting Countries production cut should provide support for crude prices in the coming year. However, further upside surprise should be limited as U.S. shale oil producers can quickly respond to change in market demand. (GTMA P. 58)

Global Purchasing Managers' Index for manufacturing

	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	Sep'17	Oct'17	Nov'17
Global	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	52.8	53.2	53.3	53.5	54.0
DM	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	54.6	55.2	55.8
EM	49.0	49.4	48.9	50.2	49.5	49.5	49.3	50.3	50.1	50.4	51.0	50.8	51.1	50.8	51.3	51.6	50.9	50.6	50.8	51.0	51.7	51.4	51.2	51.7
U.S.	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	53.1	54.6	53.9
Euro area	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	58.1	58.5	60.1
Germany	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	60.6	60.6	62.5
France	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	56.1	56.1	57.7
Italy	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	56.3	57.8	58.3
Spain	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	54.3	55.8	56.1
Greece	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	52.8	52.1	52.2
UK	51.1	52.2	50.8	51.3	49.5	50.5	53.1	48.5	53.2	55.9	54.1	53.1	55.7	55.3	54.5	54.2	57.0	56.4	54.3	55.4	56.9	56.3	56.6	58.2
Australia	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	54.2	51.1	57.3
Japan	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	52.9	52.8	53.6
China	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	51.0	51.0	50.8
China (NBS)	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	52.4	51.6	51.8
Korea	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	50.6	50.2	51.2
Taiwan	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	54.2	53.6	56.3
Indonesia	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	50.4	50.1	50.4
India	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	51.2	50.3	52.6
Russia	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	51.9	51.1	51.5
Brazil	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	50.9	51.2	53.5
Mexico	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	52.8	49.2	52.4
# countries above 50*	12	10	10	10	9	10	13	10	10	12	13	13	12	14	13	14	15	14	16	14	16	17	16	17

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. The Markit PMI, not the National Bureau of Statistics PMI, is counted for China.

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Monthly inflation trend

Year-over-year change

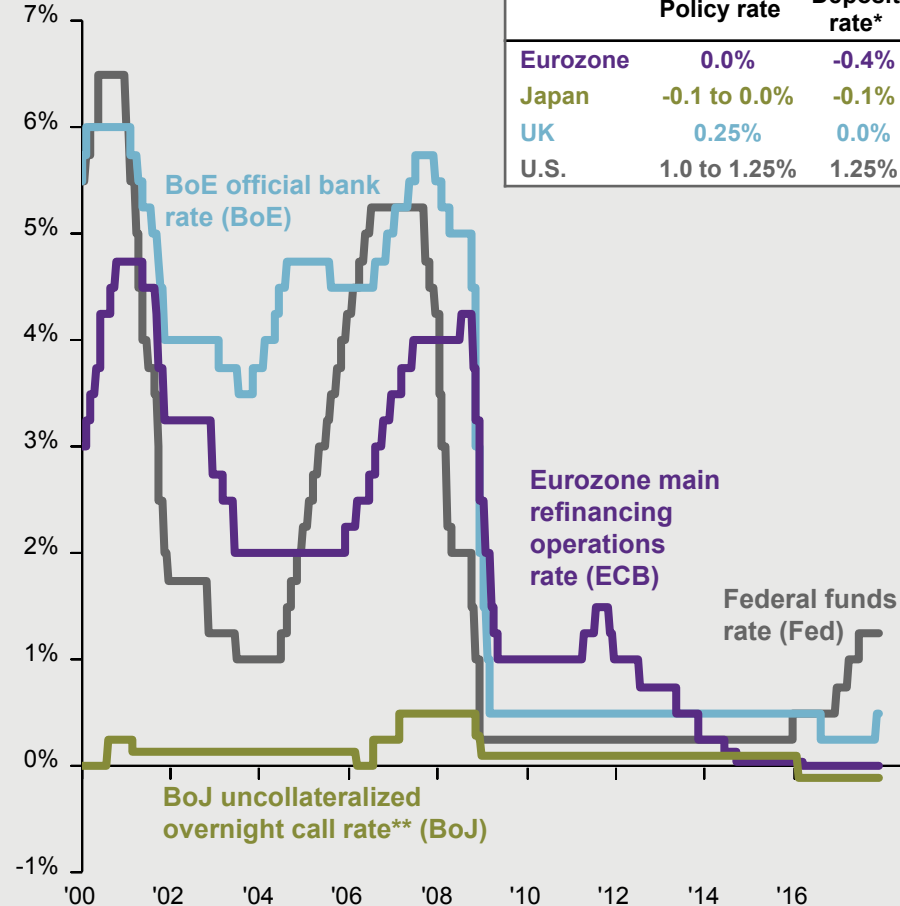
Below target or below range by more than 0.5%
 Within +/- 0.5% of target or within range
 Above target or above range by more than 0.5%

Country	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Central bank target	Key policy rate* (↓ easing, ↑ tightening)
China	2.1	2.3	2.1	2.5	0.8	0.9	1.2	1.5	1.5	1.4	1.8	1.6	1.9	3.0	4.35 (↓10/2015)
India	4.2	3.6	3.4	3.2	3.7	3.9	3.0	2.2	1.5	2.4	3.3	3.3	3.6	2.0 – 6.0	6.00 (↓ 8/2017)
Indonesia	3.3	3.6	3.0	3.5	3.8	3.6	4.2	4.3	4.4	3.9	3.8	3.7	3.6	3.0 – 5.0	4.25 (↓ 9/2017)
Japan	0.1	0.5	0.3	0.4	0.3	0.2	0.4	0.4	0.4	0.4	0.7	0.7	0.2	2.0	-0.1–0.0 (↓ 2/2016)
Korea	1.5	1.5	1.3	2.0	1.9	2.2	1.9	2.0	1.9	2.2	2.6	2.1	1.8	2.0	1.25 (↑11/2017)
Malaysia	1.4	1.8	1.8	3.2	4.5	5.1	4.4	3.9	3.6	3.2	3.7	4.3	3.7	2.0 – 3.0	3.00 (↓ 7/2016)
Taiwan	1.7	2.0	1.7	2.2	-0.1	0.2	0.1	0.6	1.0	0.8	1.0	0.5	-0.3	2.0	1.375 (↓ 6/2016)
Thailand	0.3	0.6	1.1	1.6	1.4	0.8	0.4	0.0	0.0	0.2	0.3	0.9	0.9	1.0 – 4.0	1.5 (↓ 4/2015)
U.S.	1.6	1.7	2.1	2.5	2.7	2.4	2.2	1.9	1.6	1.7	1.9	2.2	2.0	2.0	1.00–1.25 (↑ 6/2017)
Eurozone	0.5	0.6	1.1	1.8	2.0	1.5	1.9	1.4	1.3	1.3	1.5	1.5	1.4	2.0	0.00 (↓ 3/2016)
UK	0.9	1.2	1.6	1.8	2.3	2.3	2.7	2.9	2.6	2.6	2.9	3.0	3.0	2.0	0.25 (↑11/2017)

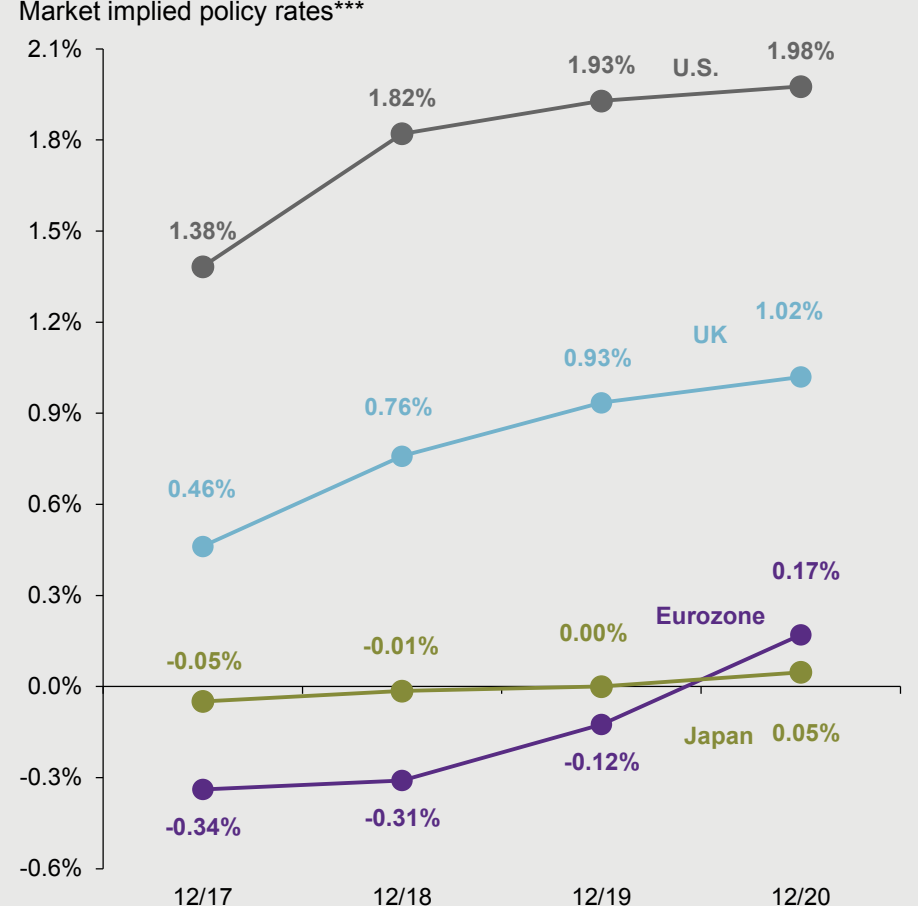
Source: FactSet, various central banks, J.P. Morgan Economic Research, J.P. Morgan Asset Management.

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. G4 are the Bank of England, the Bank of Japan, the European Central Bank and the U.S. Federal Reserve. *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. *Guide to the Markets – Asia*. Data reflect most recently available as of 30/11/17.

Global and Asia equity market returns

Equities

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	3Q '17	YTD '17	10-yrs ('07 - '16)	
													Ann. Ret.	Ann. Vol.
India	Japan	India	ASEAN	U.S.	HK	U.S.	India	Japan	Taiwan	China	China	U.S.	India	
73.1%	-29.1%	102.8%	32.4%	2.0%	28.3%	32.6%	23.9%	9.9%	19.6%	14.8%	51.4%	7.0%	31.6%	
China	U.S.	Taiwan	Korea	ASEAN	India	Japan	U.S.	U.S.	U.S.	Asia ex-JP	Korea	HK	China	
66.2%	-37.1%	80.2%	27.2%	-6.1%	26.0%	27.3%	13.4%	1.3%	11.6%	6.7%	43.5%	5.7%	27.6%	
HK	Taiwan	ASEAN	HK	Europe	China	Europe	Taiwan	HK	Korea	Europe	Asia ex-JP	ASEAN	Korea	
41.2%	-45.9%	75.0%	23.2%	-10.5%	23.1%	26.0%	10.1%	-0.5%	9.2%	6.5%	38.3%	5.6%	25.4%	
Asia ex-JP	Europe	Asia ex-JP	Taiwan	Korea	ASEAN	HK	China	Europe	ASEAN	HK	HK	Taiwan	HK	
40.5%	-46.1%	72.5%	22.7%	-11.8%	22.8%	11.1%	8.3%	-2.3%	6.2%	5.1%	32.6%	4.7%	23.6%	
ASEAN	ASEAN	Korea	India	Japan	Asia ex-JP	Taiwan	ASEAN	India	Asia ex-JP	U.S.	India	Asia ex-JP	ASEAN	
39.2%	-47.6%	72.1%	20.9%	-14.2%	22.7%	9.8%	6.4%	-6.1%	5.8%	4.5%	32.3%	4.0%	23.2%	
Korea	China	China	Asia ex-JP	HK	Korea	Korea	Asia ex-JP	Korea	Japan	Japan	Taiwan	China	Asia ex-JP	
32.6%	-50.8%	62.6%	19.9%	-16.0%	21.5%	4.2%	5.1%	-6.3%	2.7%	4.1%	27.0%	4.0%	23.0%	
Europe	HK	HK	Japan	Asia ex-JP	Europe	China	HK	China	HK	ASEAN	ASEAN	Korea	Taiwan	
14.4%	-51.2%	60.2%	15.6%	-17.1%	19.9%	4.0%	5.1%	-7.6%	2.3%	3.4%	24.5%	2.9%	22.7%	
Taiwan	Asia ex-JP	Europe	U.S.	China	Taiwan	Asia ex-JP	Japan	Asia ex-JP	China	India	Europe	India	Europe	
9.1%	-52.2%	36.8%	15.4%	-18.2%	17.7%	3.3%	-3.7%	-8.9%	1.1%	3.0%	24.3%	2.7%	21.5%	
U.S.	Korea	U.S.	China	Taiwan	U.S.	India	Europe	Taiwan	Europe	Korea	Japan	Europe	Japan	
6.0%	-55.1%	27.1%	4.8%	-20.2%	16.1%	-3.8%	-5.7%	-11.0%	0.2%	2.7%	23.5%	1.0%	16.8%	
Japan	India	Japan	Europe	India	Japan	ASEAN	Korea	ASEAN	India	Taiwan	U.S.	Japan	U.S.	
-4.1%	-64.6%	6.4%	4.5%	-37.2%	8.4%	-4.5%	-10.7%	-18.4%	-1.4%	1.4%	20.6%	0.7%	16.5%	

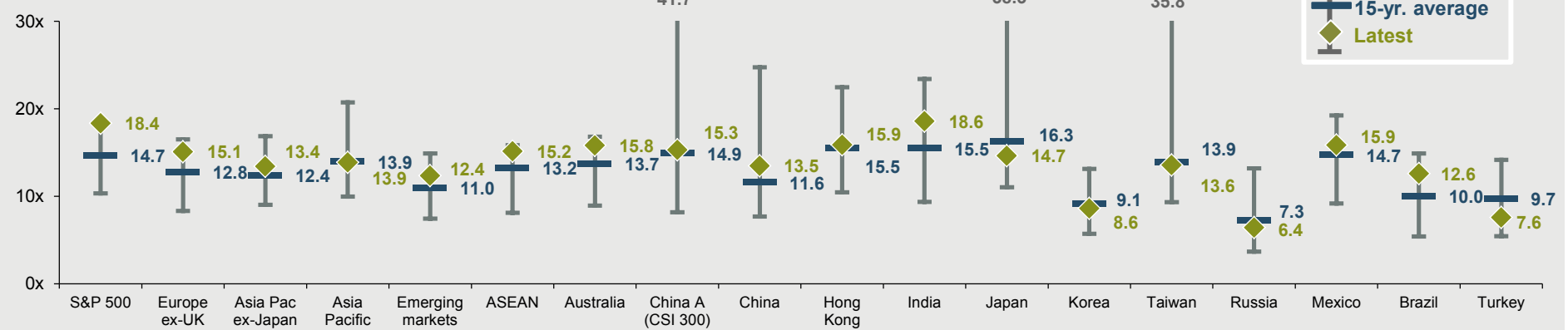
Source: FactSet, MSCI, J.P. Morgan Asset Management.

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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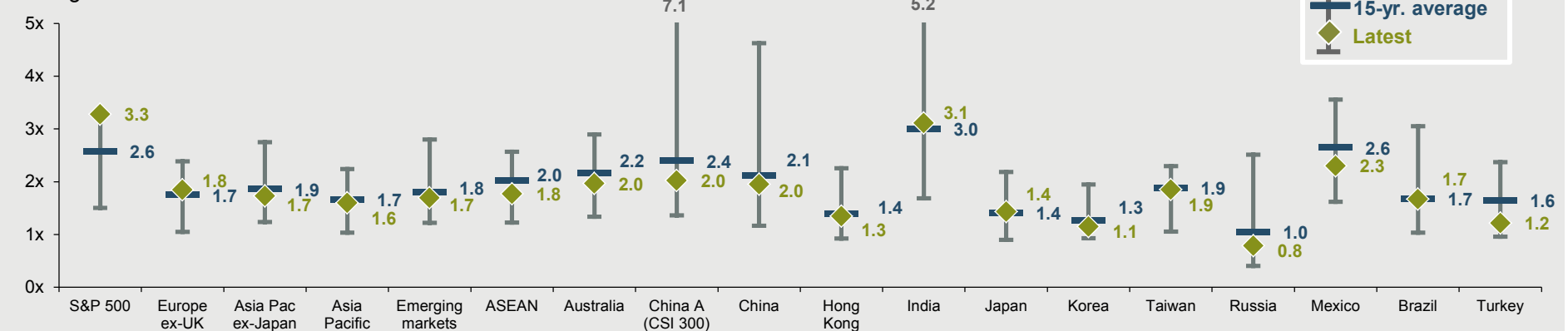
Equity market valuations – Price to earnings

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 are 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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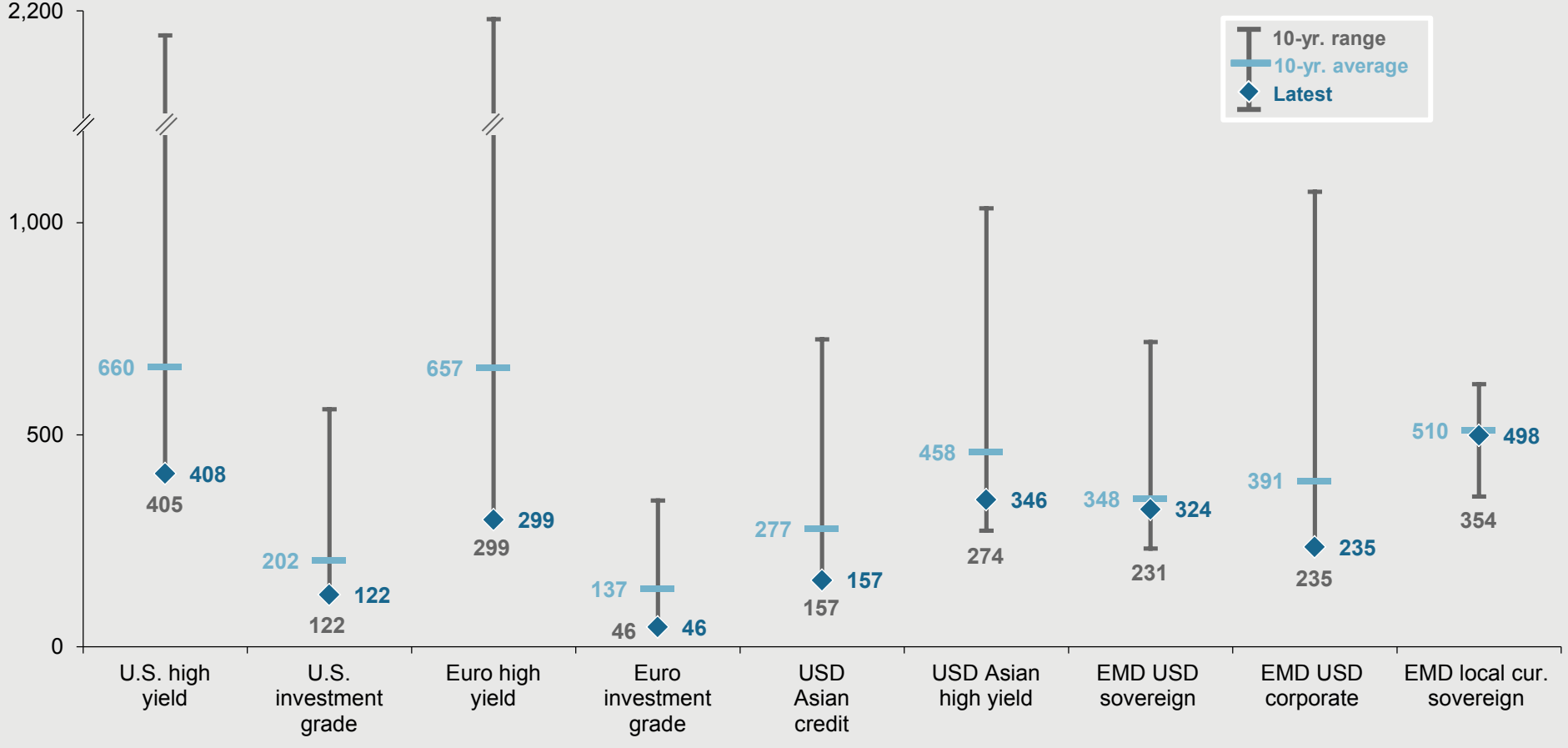
Global bond opportunities	YTM	Duration* (years)	Correl. to 10-year UST
Local CCY EMD	7.1%	4.4	0.08
Asia Corporate HY	6.9%	5.0	-0.08
U.S. Corporate HY	6.1%	3.8	-0.23
USD EMD	5.6%	7.0	0.22
USD Asian Bond	4.6%	5.4	0.25
U.S. Corporate IG	3.3%	7.5	0.45
Europe HY	3.2%	3.7	-0.24
U.S. Treasury	2.2%	6.2	0.99
DM Government Bond	1.4%	7.9	0.64
Cash	1.2%	0.2	0.09

Fixed income sector returns							
2012	2013	2014	2015	2016	3Q '17	YTD '17	5-yrs 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 5.3%	Europe HY 20.2%	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 4.5%	Local EMD 13.6%	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%	USD EMD 2.4%	USD EMD 8.6%	Europe HY 6.1%
USD EMD 18.5%	Cash 0.0%	USD EMD 5.5%	U.S. Treas 0.8%	USD EMD 10.2%	Asia HY 2.2%	U.S. HY 7.2%	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%	U.S. HY 2.0%	DM Gov't 6.7%	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%	DM Gov't 1.6%	Asia HY 5.9%	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 1.5%	USD Asian 5.6%	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. IG 1.3%	U.S. IG 5.5%	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%	U.S. Treas 0.4%	U.S. Treas 2.0%	Local EMD -0.6%
Cash 0.1%	USD EMD -6.6%	Local EMD -6.1%	Local EMD -18.0%	Cash 0.3%	Cash 0.3%	Cash 0.7%	DM Gov't -0.7%

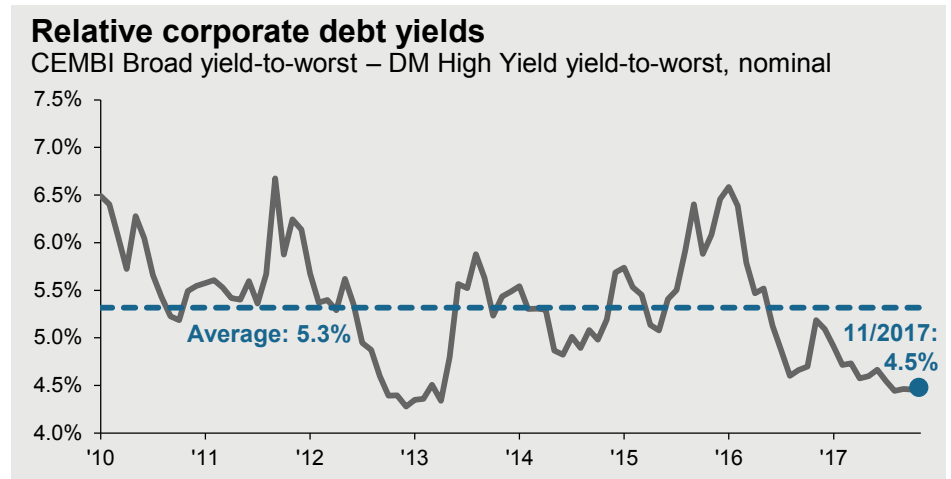
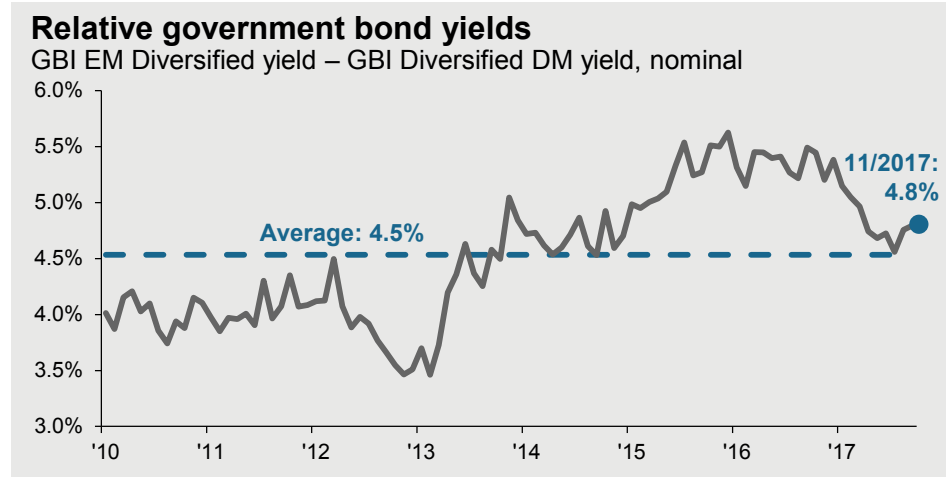
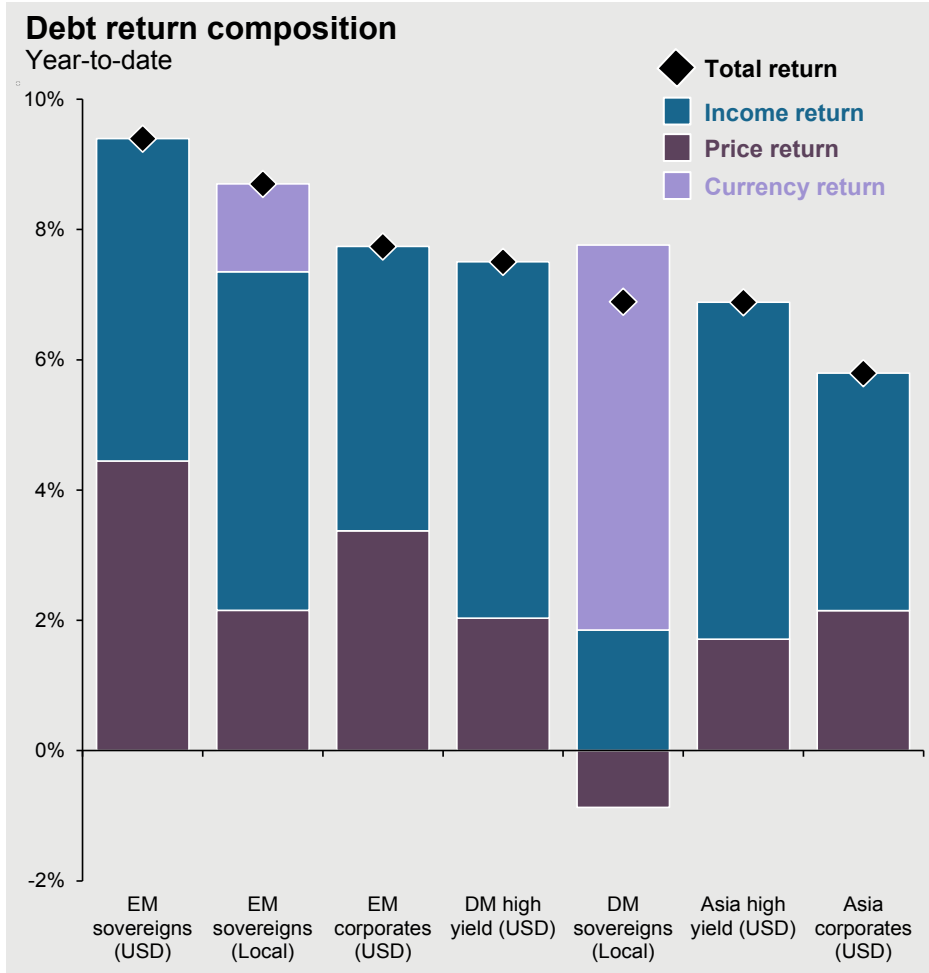
Source: Bloomberg Finance L.P., FactSet, J.P. Morgan Economic Research, J.P. Morgan Asset Management. Based on Bloomberg Barclays U.S. Aggregate Credit - Corporate High Yield Index (U.S. Corporate HY), Bloomberg Barclays U.S. Aggregate Credit - Corporate Investment Grade Index (U.S. Corporate IG), J.P. 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. Data reflect most recently available as of 30/11/17.

Spread to worst across fixed income sub-sectors

Basis points

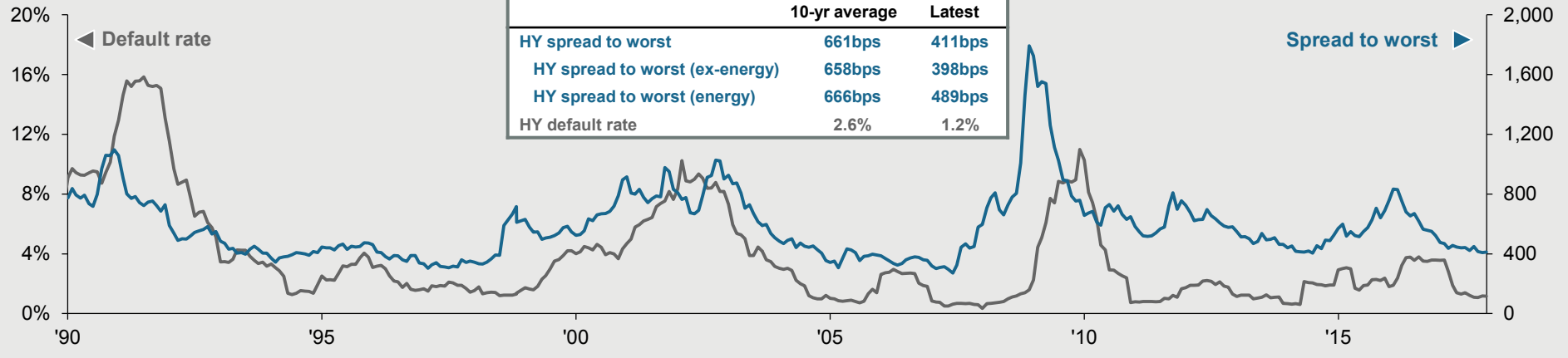


Source: BofA/Merrill Lynch, iBoxx, J.P. Morgan Economic Research, J.P. Morgan Asset Management. Based on J.P. Morgan Domestic High Yield Index (U.S. High Yield), J.P. Morgan U.S. Liquid Index (JULI) (U.S. Investment Grade), BofA/Merrill Lynch Euro Non-Financial High Yield Constrained (Euro High Yield), 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. Data reflect most recently available as of 30/11/17.



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. Data reflect most recently available as of 30/11/17.

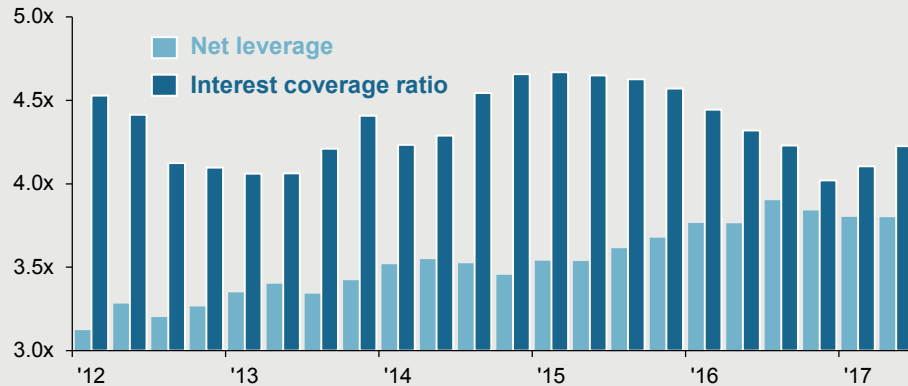
U.S. high yield spread and default rate*



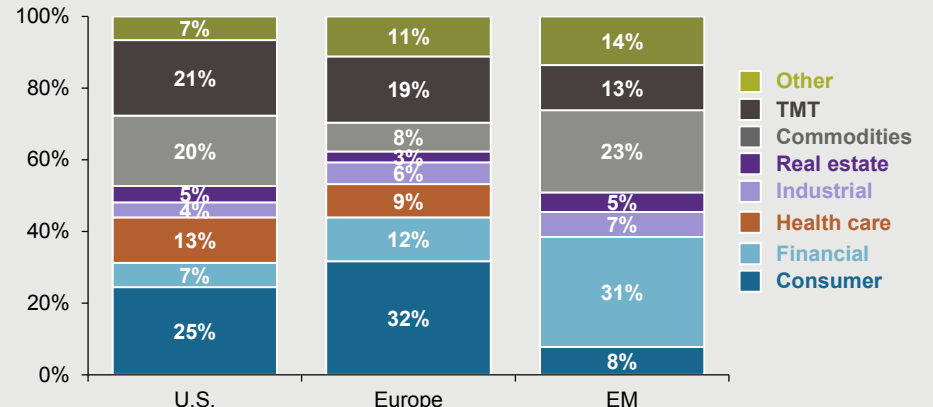
Fixed income

U.S. high yield leverage measures

Net leverage** and interest coverage ratio***



Sector breakdown across high yield indices



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

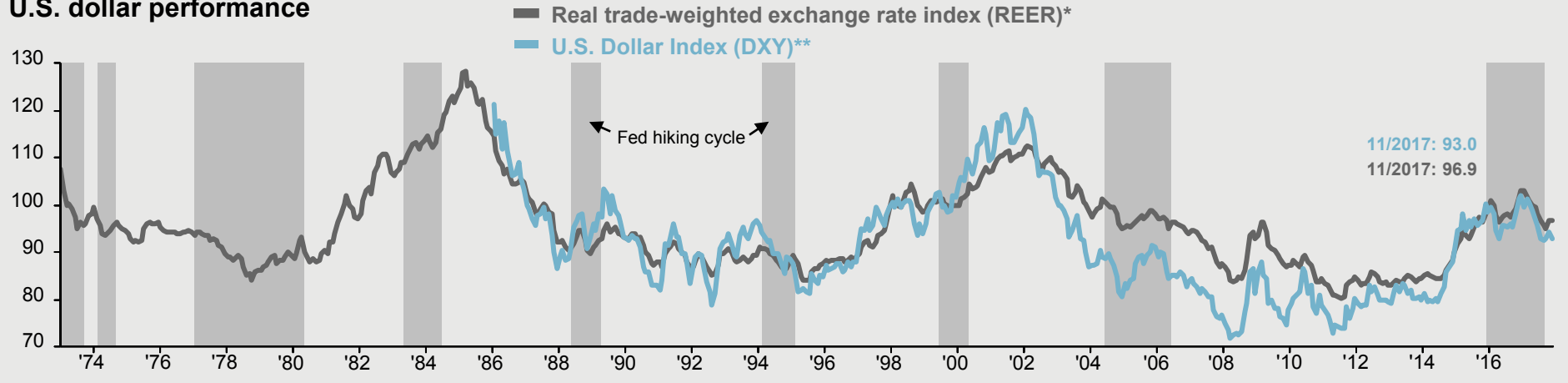
*Default rate is defined as the par value percentage of the total market trading at or below 50% of par value and includes any Chapter 11 filing, prepackaged filing or missed interest payments. Spreads indicated are benchmark yield-to-worst less comparable maturity Treasury yields. **Net leverage is 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. Data reflect most recently available as of 30/11/17.

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	3Q '17	YTD '17	10-yrs ('07 - '16)	
												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%	EM ex-Asia 11.8%	Asia ex-Japan 38.3%	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%	Asia ex-Japan 6.7%	DM Equities 21.4%	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%	DM Equities 5.0%	Diversified 16.4%	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%	Diversified 3.9%	EM ex-Asia 14.6%	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 Corp HY 2.7%	Global Corp HY 9.9%	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 2.4%	EMD 8.6%	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%	Global Bonds 1.8%	Global Bonds 7.0%	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 1.5%	Asian Bonds 5.6%	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%	U.S. REITs 0.9%	U.S. REITs 5.3%	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%	Cash 0.3%	Cash 0.7%	EM ex-Asia -1.3%	Cash 0.1%

Other asset classes

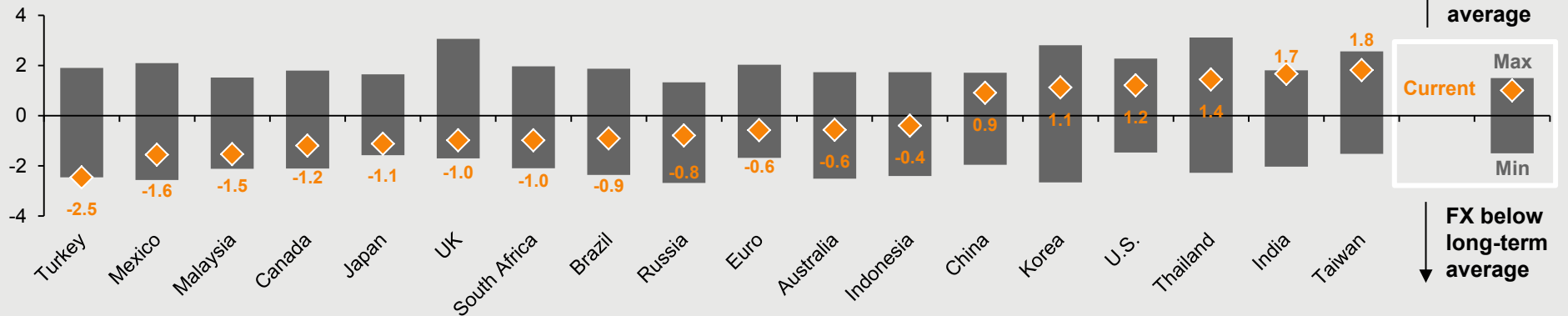
Source: Bloomberg Finance L.P., Dow Jones, FactSet, J.P. Morgan Economic Research, MSCI, J.P. Morgan Asset Management. The "Diversified" portfolio assumes the following weights: 20% in the MSCI The World Index (*DM Equities*), 20% in the MSCI AC Asia ex-Japan (*Asia ex-Japan*), 5% in the average of the 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. Ten-year total return data is used to calculate annualized returns (Ann. Ret.) and ten-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*. Data reflect most recently available as of 30/11/17.

U.S. dollar performance



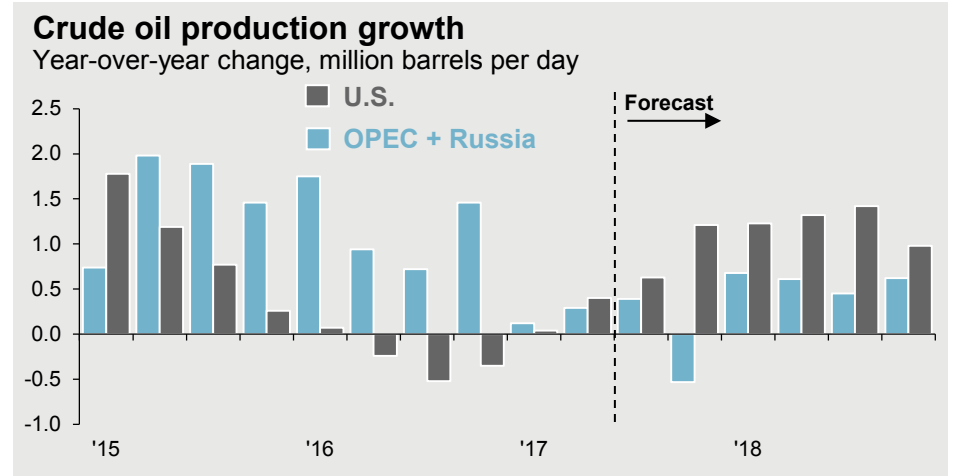
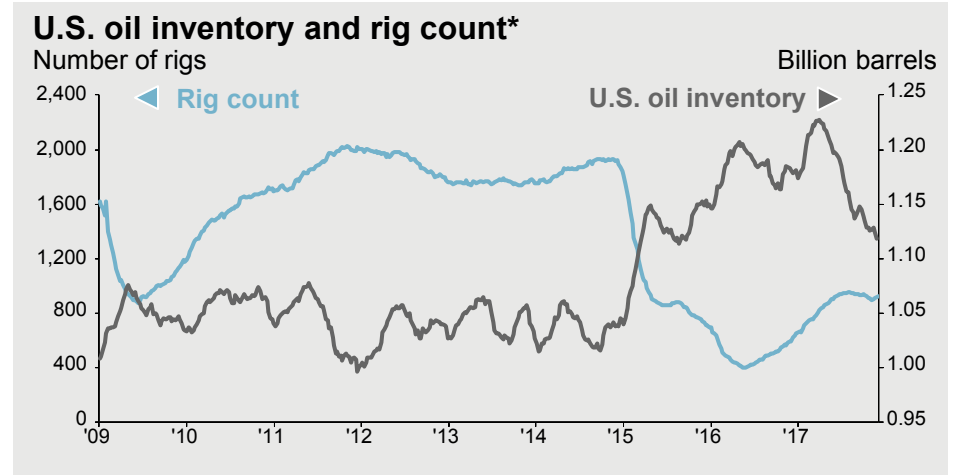
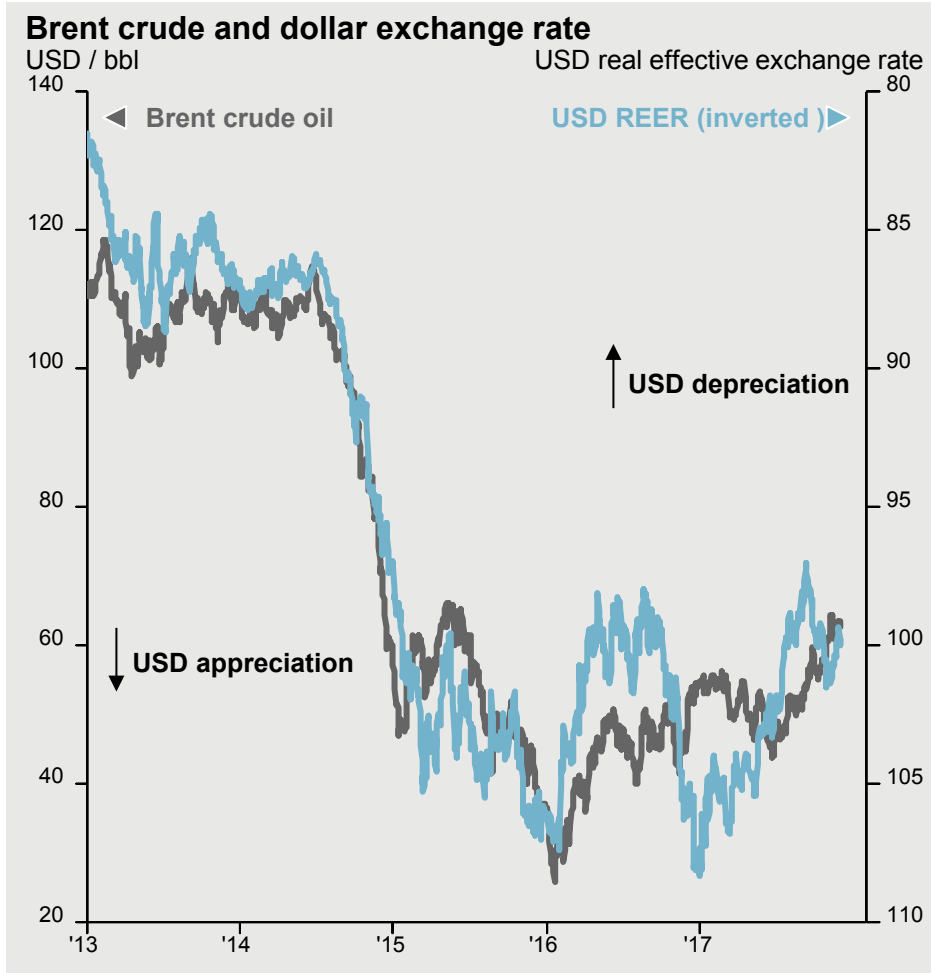
Currency deviation from 10-year average in real effective exchange rate* terms

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 seven major U.S. trade partners' currencies – Australian dollar, British pound, Canadian dollar, euro, Japanese yen, Swedish kroner and Swiss franc.
 Guide to the Markets – Asia. Data reflect most recently available as of 30/11/17.

Other asset classes



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. Data reflect most recently available as of 30/11/17.

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 IndexSM** 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 IndicesSM** 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 IndexSM** 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 IndexSM** 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 IndexSM** 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 IndexSM** 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 IndexSM** 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 IndexSM** 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 IndexSM** 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 IndexSM** 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 IndexSM** 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 IndexSM** 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 IndexSM** 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 IndexSM** 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 | December 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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