JPM-pp1

Asia Pacific Equity Research

27 March 2015

Overweight

Price: HK\$5.57 26 Mar 2015 Price Target: HK\$6.80

PT End Date: 31 Dec 2015

Industrial and Commercial Bank of China - H (1398 HK)

FY14 results - stable growth amid challenging environment

ICBC reported FY14 net profits of Rmb275.8bn, up 5% yoy, largely in line with our estimate. We believe this is a solid set of numbers. Key positives are: improving sequential trend in NIM, relatively stable asset quality, ample balance sheet liquidity and strong capital position. The key downside was the cutting of the dividend payout ratio to 33% from 35% last year, and FY14 dividend per share was down 2% yoy. However, following the dividend cut by ABC and BOC, ICBC's move is within expectations.

- NIM improved 3bps qoq in 4Q14: This is better than the industry trend of up 2bps qoq. We note that the loan-deposits spread improved 2bps hoh in 2H14 and the interbank asset yield went up 26bps, while interbank liabilities funding cost was flat hoh.
- Relatively stable asset quality: The NPL ratio went up 7bps qoq, to 1.13%, better than the industry trend of 9bps qoq and peers (ABC +25bps qoq). ICBC's NPL coverage was ~207% at end-2014 (-10ppt qoq). ICBC's overdue loans and special-mentioned loans went up 18% and 28% hoh, respectively, in line with industry data. The key sectors that saw asset quality deterioration were Manufacturing (NPL ratio 2.33%), Wholesale & Retail (NPL ratio 4.61%) and personal business loans (NPL ratio 5.33%). Management acknowledged that credit risks are spreading from micro-small enterprises to medium and big enterprises. It also mentioned that it has introduced measures to control credit risks: (1) reduced LGFV loans by one-third in the past three years, NPL ratio went down to 0.07%; (2) Monitor loans in overcapacity sector, NPL ratio was 2.05%; (3) re-examine half of the loan book to ensure risk is exposed early; (4) implement a stringent accountability system. Net NPL went up Rmb30.8bn in 2014, including gross formation of close to Rmb140bn, NPL transfer/disposed of Rmb25.8bn, cash collection (recovery) of Rmb40.7bn and write-offs of Rmb38.2bn.
- Strong capital position: ICBC's core tier 1 ratio went up 13bps, to 11.92%, due mainly to the conversion of CB of Rmb7.7bn in 4Q14. The tier 1 ratio was 12.19% at end-2014, up 39bps qoq, due mainly to CB conversions and preference shares issuances of Rmb34bn. We expect the core tier 1 ratio to improve 8bps due to the CB conversion in 1Q15 and the tier 1 ratio to improve 36bps due to the preference shares issuance in 2015.
- Balance sheet liquidity: The calculated loan-deposits ratio was 70.9% at end-2014, and if according to the new rule by CBRC, LDR was 68.4% at end-2014, significantly below the 75% ceiling.
- Net profits growth: Management commented that it is hard to assess if 2015 net profits will be up, flat or down, mainly due to uncertainties in the macro environment, regulations and further actions on interest rate liberalization, etc.
- Dividend payout ratio: This was cut to 33% in 2014 from 35% in 2013. DPS was cut 2% yoy, to Rmb0.2554 from Rmb0.2617, due partly to a decline in the payout ratio and an increase in share numbers of 0.6% due to the CB conversion. However, this should be within market expectations. The question remains how much DPS will decline in 2015 due to further dividend payout ratio cuts.

Table 1: Summary of 2014 results

Rmb in millions	FY13	FY14	YoY	FY14E	A vs. E	1H14	2H14	НоН
NII	443,335	493,522	11%	491,833	0%	237,607	255,915	8%
Non-Interest Income	135,566	141,336	4%	141,828	0%	79,246	62,090	-22%
Fees	122,326	132,497	8%	131,810	1%	73,228	59,269	-19%
Non-fee	13,240	8,839	-33%	10,018	-12%	6,018	2,821	-53%
Total Income	578,901	634,858	10%	633,661	0%	316,853	318,005	0%
Operating expenses	(204,140)	(218,674)	7%	(216,635)	1%	(99,612)	(119,062)	20%
Staff costs	(103,455)	(112,022)	8%	(108,794)	3%	(49,452)	(62,570)	27%
Other operating expenses	(100,685)	(106,652)	6%	(107,840)	-1%	(50,160)	(56,492)	13%
PPOP	374,761	416,184	11%	417,027	0%	217,241	198,943	-8%
LLP	(38,098)	(56,267)	48%	(53,360)	5%	(23,988)	(32,279)	35%
Pre-Tax	338,537	361,612	7%	365,019	-1%	194,090	167,522	-14%
Income Tax	(75,572)	(85,326)	13%	(85,964)	-1%	(45,709)	(39,617)	-13%
Attributable Income	262,649	275,811	5%	278,494	-1%	148,100	127,711	-14%
Gross Loans	9,922,374	11,026,331	11%	11,125,190	-1%	10,646,115	11,026,331	4%
Deposits	14,620,825	15,556,601	6%	15,885,615	-2%	15,728,332	15,556,601	-1%
Equity	1,274,134	1,530,859	20%	1,485,251	3%	1,354,857	1,530,859	13%
Total Assets	18,917,752	20,609,953	9%	20,861,080	-1%	20,303,677	20,609,953	2%
Key Ratios								
NIM	2.57%	2.66%	8 bps	2.60%	6 bps	2.62%	2.70%	7 bps

Cost income ratio	35.3%	34.4%	-82 bps	34.2%	26 bps	31.4%	37.4%	600 bps
ROE	21.9%	19.7%	-223 bps	20.2%	-52 bps	22.5%	17.7%	-483 bps
ROA	1.44%	1.40%	-5 bps	1.40%	0 bps	1.5%	1.2%	-26 bps
NPL Ratio	0.94%	1.13%	18 bps	1.14%	-1 bps	0.99%	1.13%	14 bps
NPL Coverage ratio	257%	207%	-50 pt	213%	-6 pt	238%	207%	-31 pt
Loan loss reserve	2.43%	2.34%	-9 bps	2.43%	-9 bps	2.36%	2.34%	-3 bps
LDR	67.9%	70.9%	301 bps	70.0%	85 bps	67.7%	70.9%	319 bps
Credit costs	0.41%	0.54%	13 bps	0.51%	3 bps	0.47%	0.60%	13 bps
Core capital ratio	10.57%	11.92%	134 bps	11.72%	20 bps	11.36%	11.92%	56 bps
Tier 1 Ratio	10.57%	12.19%	162 bps	11.99%	20 bps	11.36%	12.19%	83 bps
Total CAR	13.12%	14.53%	140 bps	14.16%	36 bps	13.67%	14.53%	86 bps
Dividend payout ratio	35%	33%	-2 pt	35.00%	-2 pt			

Source: Company reports, J.P. Morgan estimates.

Table 2: Summary of 4Q14 financials

Rmb in millions	4Q13	1Q14	2Q14	3Q14	4Q14	QoQ	YoY
Key P&L Items							
NII	115,699	115,825	121,782	125,327	130,588	4%	13%
Non-Interest Income	30,728	41,038	38,208	27,361	34,729	27%	13%
Fees	26,823	37,682	35,546	27,657	31,612	14%	18%
Others	3,905	3,356	2,662	(296)	3,117	-1153%	-20%
Total Income	146,427	156,863	159,990	152,688	165,317	8%	13%
Operating expenses	(63,412)	(47,928)	(51,684)	(50,766)	(68,296)	35%	8%
PPOP	83,015	108,935	108,306	101,922	97,021	-5%	17%
LLP	(9,834)	(13,672)	(10,316)	(8,238)	(24,041)	192%	144%
Pre-Tax	73,888	95,657	98,433	94,141	73,381	-22%	-1%
Income Tax	(16,694)	(22,196)	(23,513)	(21,667)	(17,950)	-17%	8%
Attributable Income	57,116	73,302	74,798	72,364	55,347	-24%	-3%
Key Balance Sheet Items							
Gross Loans	9,922,374	10,372,180	10,646,115	10,853,652	11,026,331	2%	11%
Including NPL amount	93,689	100,550	105,741	115,471	124,497	8%	33%
Total deposits	14,620,825	15,160,980	15,728,332	15,339,964	15,556,601	1%	6%
Total assets	18,917,752	19,734,683	20,303,677	20,150,956	20,609,953	2%	9%
Equity	1,274,134	1,358,485	1,354,857	1,427,581	1,530,859	7%	20%
Key Ratios							
NIM	2.59%	2.60%	2.64%	2.68%	2.71%	3bp	12bp
Cost income ratio	43.3%	30.6%	32.3%	33.2%	41.3%	806bp	-199bp
ROE	18.2%	22.3%	22.1%	20.8%	15.1%	-566bp	-309bp
ROA	1.21%	1.52%	1.49%	1.43%	1.09%	-34bp	-13bp
NPL Ratio	0.94%	0.97%	0.99%	1.06%	1.13%	7bp	18bp
NPL Coverage ratio	257.2%	245.4%	238.0%	216.6%	206.9%	-10 pt	-50 pt
Loan loss reserve	2.43%	2.38%	2.36%	2.30%	2.34%	3bp	-9bp
Credit cost	0.40%	0.54%	0.39%	0.31%	0.88%	57bp	48bp
LDR	67.9%	68.4%	67.7%	70.8%	70.9%	12bp	301bp
Core capital ratio	10.57%	10.88%	11.36%	11.79%	11.92%	13bp	134bp
Tier 1 Ratio	10.57%	10.88%	11.36%	11.80%	12.19%	39bp	162bp
Total CAR	13.12%	13.22%	13.67%	14.20%	14.53%	33bp	140bp

Source: Company reports.

Investment Thesis

- Fortress balance sheet with abundant liquidity (LDR 67.9% at end 2013) and strong capital position (tier 1 10.6% at end-2013).
- Less downside to NIM than peers due to funding advantage (funding cost 2.05% vs. sector 2.39% in 2013).
- ROE expanded 6% over 2007-2013. We believe its more protected NIM, balanced risk profile and cost efficiency (due to slow branch expansion) will support a stable ROE, while peers will see ROE compression.
- Interbank liabilities accounted for only 9% of total IBL in 2013, one of the lowest among peers.

Valuation

• Our Dec-15 price target of HK\$6.80 is based on DDM, using a cost of equity of 13.7%, normalized ROE of 13.6% and a terminal date of 31 December 2016.

Risks to Rating and Price Target

• Key risks to our PT include: lower-than-expected fee growth; deterioration in pricing power, which could lead to NIM erosion; and a sharp rise in non-performing loans, which could push up credit costs.

Banks

AC.

Katherine Lei

(852) 2800-8552

katherine.lei@jpmorgan.com

Bloomberg JPMA LEI <GO>

Lu Lu

(852) 2800-8592 lu.lu@jpmorgan.com

Josh Klaczek

(852) 2800-8534

josh.klaczek@jpmorgan.com

J.P. Morgan Securities (Asia Pacific) Limited

www.jpmorganmarkets.com

Analyst Certification: The research analyst(s) denoted by an "AC" on the cover of this report certifies (or, where multiple research analysts are primarily responsible for this report, the research analyst denoted by an "AC" on the cover or within the document individually certifies, with respect to each security or issuer that the research analyst covers in this research) that: (1) all of the views expressed in this report accurately reflect his or her personal views about any and all of the subject securities or issuers; and (2) no part of any of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst(s) in this report. For all Korea-based research analysts listed on the front cover, they also certify, as per KOFIA requirements, that their analysis was made in good faith and that the views reflect their own opinion, without undue influence or intervention.

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

Important Disclosures

- Lead or Co-manager: J.P. Morgan acted as lead or co-manager in a public offering of equity and/or debt securities for Industrial and Commercial Bank of China H within the past 12 months.
- Client: J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as clients: Industrial and Commercial Bank of China H.
- Client/Investment Banking: J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as investment banking clients: Industrial and Commercial Bank of China H.
- Client/Non-Investment Banking, Securities-Related: J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-investment-banking, securities-related: Industrial and Commercial Bank of China H.
- Client/Non-Securities-Related: J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-securities-related: Industrial and Commercial Bank of China H.
- Investment Banking (past 12 months): J.P. Morgan received in the past 12 months compensation from investment banking Industrial and Commercial Bank of China H.
- Investment Banking (next 3 months): J.P. Morgan expects to receive, or intends to seek, compensation for investment banking services in the next three months from Industrial and Commercial Bank of China H.
- Non-Investment Banking Compensation: J.P. Morgan has received compensation in the past 12 months for products or services other than investment banking from Industrial and Commercial Bank of China H.
- "J.P. Morgan and its affiliates may perform, or may seek to perform, other financial or advisory services for ICBC or its affiliates and may have other interests in or relationships with ICBC or its affiliates, and receive fees, commissions or other compensation in such capacities. This research report and the information herein is not intended to serve as an endorsement of the proposed transaction or result in procurement, withholding or revocation of a proxy or any other action by a security holder. This report is based solely on publicly available information. No representation is made that it is accurate or complete." "As announced on 14 May 2014, Industrial and Commercial Bank of China Limited, Singapore Branch ("ICBC SG BRANCH") has appointed J.P. Morgan (S.E.A.) Limited ("J.P. Morgan") as a Joint Bookrunner for its USD-denominated senior unsecured notes offering pursuant to its MTN programme. J.P. Morgan will be receiving fees for so acting. J.P. Morgan and/or its affiliates may perform, or may seek to perform, other financial or advisory services for ICBC SG BRANCH and/or its affiliates and may have other interests in or relationships with ICBC SG BRANCH and/or its affiliates, and receive fees, commissions or other compensation in such capacities. This research report and the information herein is not intended to serve as an endorsement of the proposed transaction or result in procurement, withholding or revocation of a proxy or any other action by a security holder. This report is based solely on publicly available information. No representation is made that it is accurate or complete."

Company-Specific Disclosures: Important disclosures, including price charts and credit opinion history tables, are available for compendium reports and all J.P. Morgan–covered companies by visiting https://jpmm.com/research/disclosures, calling 1-800-477-0406, or e-mailing research.disclosure.inquiries@jpmorgan.com with your request. J.P. Morgan's Strategy, Technical, and Quantitative Research teams may screen companies not covered by J.P. Morgan. For important disclosures for these companies, please call 1-800-477-0406 or e-mail research.disclosure.inquiries@jpmorgan.com.

	Date	Rating	Share Price (HK\$)	Price Target (HK \$)
	18-Dec-06	N	4.15	4.40
	07-Jan-07	N	4.78	5.10
	02-Apr-07	N	4.40	5.00
	04-Apr-07	N	4.31	4.90
	16-Jul-07	OW	4.78	5.80
	23-Aug-07	OW	4.90	5.90
	25-Oct-07	OW	7.03	8.80
	15-Jan-08	OW	5.24	8.20
	26-Feb-08	OW	5.23	7.20
	06-Jul-08	OW	5.11	7.00
	21-Aug-08	OW	5.23	7.10
	28-Sep-08	OW	4.74	6.60
	26-Oct-08	OW	2.80	6.20
	07-Jan-09	N	3.96	5.90
	04-Mar-09	OW	3.03	5.70
	26-Mar-09	OW	4.11	6.10
	28-Jun-09	OW	5.45	7.30
http://gps-app.amer.jpmchase.net:6080/server/console/chart/?	20-Aug-09	OW	5.27	7.40
shareClassId=504530&shareClassServerId=4&chartDesignation=1&actionType=C	30-Oct-09	OW	6.08	7.30
shareClassid=304330&shareClassServerid=4&chartDesignation=1&action11ype=C	30-Nov-09	OW	6.55	8.08
	10-Mar-10	OW	5.91	7.80
	26-Mar-10	OW	5.70	7.40
	09-Aug-10	OW	5.98	7.30
	27-Aug-10	OW	5.58	7.20
	11-Nov-10	OW	6.63	8.50
	27-Nov-10	OW	6.03	8.20
	31-Mar-11	OW	6.30	8.60
	10-Nov-11	OW	4.74	8.70
	12-Jan-12	OW	5.03	8.80
	30-Mar-12	OW	4.93	8.60
	31-Jul-12	OW	4.45	5.80
	07-Nov-12	OW	5.21	6.25
	20-Feb-13	OW	5.71	6.85
	28-Apr-13	OW	5.42	6.85
	31-Oct-13	OW	5.47	7.10
	09-Feb-14	OW	4.70	6.80
	10-Apr-14	OW	4.93	6.30
	26-Jun-14	OW	4.81	6.20
	17-Oct-14	OW	4.92	6.40
	03-Mar-15	OW	5.58	6.80

 $The \ chart(s) \ show \ J.P. \ Morgan's \ continuing \ coverage \ of \ the \ stocks; \ the \ current \ analysts \ may \ or \ may \ not \ have \ covered \ it \ over \ the \ entire \ period.$

J.P. Morgan ratings or designations: OW = Overweight, N= Neutral, UW = Underweight, NR = Not Rated

Explanation of Equity Research Ratings, Designations and Analyst(s) Coverage Universe:

J.P. Morgan uses the following rating system: Overweight [Over the next six to twelve months, we expect this stock will outperform the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] Neutral [Over the next six to twelve months, we expect this stock will perform in line with the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] Underweight [Over the next six to twelve months, we expect this stock will underperform the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] Not Rated (NR): J.P. Morgan has removed the rating and, if applicable, the price target, for this stock because of either a lack of a sufficient fundamental basis or for legal, regulatory or policy reasons. The previous rating and, if applicable, the price target, no longer should be relied upon. An NR designation is not a recommendation or a rating. In our Asia (ex-Australia) and U.K. small- and mid-cap equity research, each stock's expected total return is compared to the expected total return of a benchmark country market index, not to those analysts' coverage universe. If it does not appear in the Important Disclosures section of this report, the certifying analyst's coverage universe can be found on J.P. Morgan's research website, www.jpmorganmarkets.com.

Coverage Universe: Lei, Katherine: Agricultural Bank of China - A (601288.SS), Agricultural Bank of China - H (1288.HK), Bank of China - A (601988.SS), Bank of China - H (3988.HK), Bank of Communications - A (601328.SS), Bank of Communications - H (3328.HK), CITIC Securities - A (600030.SS), CITIC Securities - H (6030.HK), China Cinda Asset Management Co Ltd (1359.HK), China Citic Bank - A (601998.SS), China Citic Bank - H (0998.HK), China Construction Bank - A (601939.SS), China Construction Bank - H (0939.HK), China Galaxy Securities Co - H (6881.HK), China Merchants Bank - A (600036.SS), China Merchants Bank - H (3968.HK), China Minsheng Banking - A (600016.SS), China Minsheng Banking - H (1988.HK), Chongqing Rural Commercial Bank (3618.HK), Far East Horizon (3360.HK), Haitong Securities - A (600837.SS), Haitong Securities - H (6837.HK), Huishang Bank (3698.HK), Industrial and Commercial Bank of China - A (601398.SS), Industrial and Commercial Bank of China - H (1398.HK)

J.P. Morgan Equity Research Ratings Distribution, as of January 1, 2015

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage	45%	43%	12%
IB clients*	56%	49%	33%
JPMS Equity Research Coverage	45%	48%	7%
IB clients*	75%	67%	52%

^{*}Percentage of investment banking clients in each rating category.

For purposes only of FINRA/NYSE ratings distribution rules, our Overweight rating falls into a buy rating category; our Neutral rating falls into a hold rating category; and our Underweight rating falls into a sell rating category. Please note that stocks with an NR designation are not included in the table above.

Equity Valuation and Risks: For valuation methodology and risks associated with covered companies or price targets for covered companies, please see the most recent company-specific research report at http://www.jpmorganmarkets.com, contact the primary analyst or your J.P. Morgan representative, or email research. disclosure.inquiries@jpmorgan.com.

Equity Analysts' Compensation: The equity research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors, and overall firm revenues.

Registration of non-US Analysts: Unless otherwise noted, the non-US analysts listed on the front of this report are employees of non-US affiliates of JPMS, are not registered/qualified as research analysts under NASD/NYSE rules, may not be associated persons of JPMS, and may not be subject to FINRA Rule 2711 and NYSE

Rule 472 restrictions on communications with covered companies, public appearances, and trading securities held by a research analyst account.

Other Disclosures

J.P. Morgan ("JPM") is the global brand name for J.P. Morgan Securities LLC ("JPMS") and its affiliates worldwide. J.P. Morgan Cazenove is a marketing name for the U.K. investment banking businesses and EMEA cash equities and equity research businesses of JPMorgan Chase & Co. and its subsidiaries.

All research reports made available to clients are simultaneously available on our client website, J.P. Morgan Markets. Not all research content is redistributed, e-mailed or made available to third-party aggregators. For all research reports available on a particular stock, please contact your sales representative.

Legal Entities Disclosures

U.S.: JPMS is a member of NYSE, FINRA, SIPC and the NFA. JPMorgan Chase Bank, N.A. is a member of FDIC. U.K.: JPMorgan Chase N.A., London Branch, is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and to limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from J.P. Morgan on request. J.P. Morgan Securities plc (JPMS plc) is a member of the London Stock Exchange and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Registered in England & Wales No. 2711006. Registered Office 25 Bank Street, London, E14 5JP. South Africa: J.P. Morgan Equities South Africa Proprietary Limited is a member of the Johannesburg Securities Exchange and is regulated by the Financial Services Board. Hong Kong: J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong and/or J.P. Morgan Broking (Hong Kong) Limited (CE number AAB027) is regulated by the Securities and Futures Commission in Hong Kong, Korea: J.P. Morgan Securities (Far East) Ltd, Seoul Branch, is regulated by the Korea Financial Supervisory Service, Australia: J.P. Morgan Australia Limited (JPMAL) (ABN 52 002 888 011/AFS Licence No: 238188) is regulated by ASIC and J.P. Morgan Securities Australia Limited (JPMSAL) (ABN 61 003 245 234/AFS Licence No: 238066) is regulated by ASIC and is a Market, Clearing and Settlement Participant of ASX Limited and CHI-X. Taiwan: J.P.Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. India: J.P. Morgan India Private Limited (Corporate Identity Number -U67120MH1992FTC068724), having its registered office at J.P. Morgan Tower, Off. C.S.T. Road, Kalina, Santacruz - East, Mumbai - 400098, is a member of the National Stock Exchange of India Limited (SEBI Registration Number - INB 230675231/INF 230675231/INE 230675231) and Bombay Stock Exchange Limited (SEBI Registration Number - INB 010675237/INF 010675237) and is regulated by Securities and Exchange Board of India. Telephone: 91-22-6157 3000, Facsimile: 91-22-6157 3990 and Website: www.jpmipl.com. For non local research reports, this material is not distributed in India by J.P. Morgan India Private Limited. Thailand: This material is issued and distributed in Thailand by JPMorgan Securities (Thailand) Ltd., which is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission and its registered address is 3rd Floor, 20 North Sathorn Road, Silom, Bangrak, Bangkok 10500. Indonesia: PT J.P. Morgan Securities Indonesia is a member of the Indonesia Stock Exchange and is regulated by the OJK a.k.a. BAPEPAM LK. Philippines: J.P. Morgan Securities Philippines Inc. is a Trading Participant of the Philippine Stock Exchange and a member of the Securities Clearing Corporation of the Philippines and the Securities Investor Protection Fund. It is regulated by the Securities and Exchange Commission. Brazil: Banco J.P. Morgan S.A. is regulated by the Comissao de Valores Mobiliarios (CVM) and by the Central Bank of Brazil. Mexico: J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P. Morgan Grupo Financiero is a member of the Mexican Stock Exchange and authorized to act as a broker dealer by the National Banking and Securities Exchange Commission. Singapore: This material is issued and distributed in Singapore by or through J.P. Morgan Securities Singapore Private Limited (JPMSS) [MCI (P) 199/03/2014 and Co. Reg. No.: 199405335R] which is a member of the Singapore Exchange Securities Trading Limited and is regulated by the Monetary Authority of Singapore (MAS) and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore) which is regulated by the MAS. This material is provided in Singapore only to accredited investors, expert investors and institutional investors, as defined in Section 4A of the Securities and Futures Act, Cap. 289, Recipients of this document are to contact JPMSS or JPMCB Singapore in respect of any matters arising from, or in connection with, the document, Japan: JPMorgan Securities Japan Co., Ltd. is regulated by the Financial Services Agency in Japan. Malaysia: This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-X) which is a Participating Organization of Bursa Malaysia Berhad and a holder of Capital Markets Services License issued by the Securities Commission in Malaysia, Pakistan: J. P. Morgan Pakistan Broking (Pvt.) Ltd is a member of the Karachi Stock Exchange and regulated by the Securities and Exchange Commission of Pakistan. Saudi Arabia: J.P. Morgan Saudi Arabia Ltd. is authorized by the Capital Market Authority of the Kingdom of Saudi Arabia (CMA) to carry out dealing as an agent, arranging, advising and custody, with respect to securities business under licence number 35-07079 and its registered address is at 8th Floor, Al-Faisaliyah Tower, King Fahad Road, P.O. Box 51907, Riyadh 11553, Kingdom of Saudi Arabia. Dubai: JPMorgan Chase Bank, N.A., Dubai Branch is regulated by the Dubai Financial Services Authority (DFSA) and its registered address is Dubai International Financial Centre - Building 3, Level 7, PO Box 506551, Dubai, UAE.

Country and Region Specific Disclosures

U.K. and European Economic Area (EEA): Unless specified to the contrary, issued and approved for distribution in the U.K. and the EEA by JPMS plc. Investment research issued by JPMS plc has been prepared in accordance with JPMS plc's policies for managing conflicts of interest arising as a result of publication and distribution of investment research. Many European regulators require a firm to establish, implement and maintain such a policy. This report has been issued in the U.K. only to persons of a kind described in Article 19 (5), 38, 47 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (all such persons being referred to as "relevant persons"). This document must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is only available to relevant persons and will be engaged in only with relevant persons. In other EEA countries, the report has been issued to persons regarded as professional investors (or equivalent) in their home jurisdiction. Australia: This material is issued and distributed by JPMSAL in Australia to "wholesale clients" only. This material does not take into account the specific investment objectives, financial situation or particular needs of the recipient. The recipient of this material must not distribute it to any third party or outside Australia without the prior written consent of JPMSAL. For the purposes of this paragraph the term "wholesale client" has the meaning given in section 761G of the Corporations Act 2001. Germany: This material is distributed in Germany by J.P. Morgan Securities plc, Frankfurt Branch and J.P.Morgan Chase Bank, N.A., Frankfurt Branch which are regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht. Hong Kong: The 1% ownership disclosure as of the previous month end satisfies the requirements under Paragraph 16.5(a) of the Hong Kong Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission. (For research published within the first ten days of the month, the disclosure may be based on the month end data from two months prior.) J.P. Morgan Broking (Hong Kong) Limited is the liquidity provider/market maker for derivative warrants, callable bull bear contracts and stock options listed on the Stock Exchange of Hong Kong Limited. An updated list can be found on HKEx website: http://www.hkex.com.hk. Japan: There is a risk that a loss may occur due to a change in the price of the shares in the case of share trading, and that a loss may occur due to the exchange rate in the case of foreign share trading. In the case of share trading, JPMorgan Securities Japan Co., Ltd., will be receiving a brokerage fee and consumption tax (shouhizei) calculated by multiplying the executed price by the commission rate which was individually agreed between JPMorgan Securities Japan Co., Ltd., and the customer in advance. Financial Instruments Firms: JPMorgan Securities Japan Co., Ltd., Kanto Local Finance Bureau (kinsho) No. 82 Participating Association / Japan Securities Dealers Association, The Financial Futures Association of Japan, Type II Financial Instruments Firms Association and Japan Investment Advisers Association. Korea: This report may have been edited or contributed to from time to time by affiliates of J.P. Morgan Securities (Far East) Ltd, Seoul Branch. Singapore: JPMSS and/or its affiliates may have a holding in any of the securities discussed in this report; for securities where the holding is 1% or greater, the specific holding is disclosed in the Important Disclosures section above. Taiwan: This material is issued and distributed in Taiwan by J.P. Morgan Securities (Taiwan Limited). India: For private circulation only, not for sale. Pakistan: For private circulation only, not for sale. Zealand: This material is issued and distributed by JPMSAL in New Zealand only to persons whose principal business is the investment of money or who, in the course of and for the purposes of their business, habitually invest money. JPMSAL does not issue or distribute this material to members of "the public" as determined in accordance with section 3 of the Securities Act 1978. The recipient of this material must not distribute it to any third party or outside New Zealand without the prior written consent of JPMSAL. Canada: The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, or solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the dealer registration requirement in the relevant province or territory of Canada in which such offer or sale is made. The information contained herein is under no circumstances to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient. To the extent that the information contained herein references securities of an issuer incorporated, formed or created under the laws of Canada or a province or territory of Canada, any trades in such securities must be conducted through a dealer registered in Canada. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed judgment upon these materials, the information contained herein or the merits of the securities described herein, and any representation to the contrary is an offence. **Dubai:** This report has been issued to persons regarded as professional clients as defined under the DFSA rules. Brazil: Ombudsman J.P. Morgan: 0800-7700847 / ouvidoria.jp.morgan@jpmorgan.com.

General: Additional information is available upon request. Information has been obtained from sources believed to be reliable but JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) do not warrant its completeness or accuracy except with respect to any disclosures relative to JPMS and/or its affiliates and the analyst's involvement with the issuer that is the subject of the research. All pricing is as of the close of market for the securities discussed, unless otherwise stated. Opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. Past performance is not indicative of future results. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. The recipient of this report must make its own independent decisions regarding any

securities or financial instruments mentioned herein. JPMS distributes in the U.S. research published by non-U.S. affiliates and accepts responsibility for its contents. Periodic updates may be provided on companies/industries based on company specific developments or announcements, market conditions or any other publicly available information. Clients should contact analysts and execute transactions through a J.P. Morgan subsidiary or affiliate in their home jurisdiction unless governing law permits otherwise.

"Other Disclosures" last revised November 29, 2014.

Copyright 2015 JPMorgan Chase & Co. All rights reserved. This report or any portion hereof may not be reprinted, sold or redistributed without the written consent of J.P. Morgan.