

Kythera Biopharmaceuticals

Model Update

After reviewing key trends as well as including the recent equity offering, we are making very modest updates to our forecasts. Please see page 2 for a summary of our estimate changes.

Overweight

KYTH, KYTH US

Price: \$43.19

▲ **Price Target: \$48.00**
Previous: \$45.00

Pharmaceuticals — Major & Specialty

Chris Schott, CFA ^{AC}

(1-212) 622-5676

christopher.t.schott@jpmorgan.com

Bloomberg JPMA SCHOTT <GO>

Dana C Flanders

(1-212) 622-1256

dana.c.flanders@jpmorgan.com

Jessica Fye

(1-212) 622-4165

jessica.m.fye@jpmorgan.com

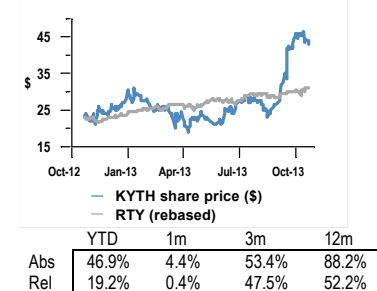
Wendy L Lin

(1-212) 622-5350

wendy.l.lin@jpmorgan.com

J.P. Morgan Securities LLC

Price Performance



Kythera Biopharmaceuticals, Inc. (KYTH;KYTH US)

FYE Dec	2011A	2012A	2013E	2013E	2014E	2014E	2015E	2015E
			(Prev)	(Curr)	(Prev)	(Curr)	(Prev)	(Curr)
EPS Adjusted (\$)								
Q1 (Mar)	(0.46)	(4.91)	(0.77)A	(0.77)A	-	-	-	-
Q2 (Jun)	(0.41)	3.21	(0.67)A	(0.67)A	-	-	-	-
Q3 (Sep)	(1.66)	(11.41)	(0.78)	(0.78)	-	-	-	-
Q4 (Dec)	-	(1.04)	(0.78)	(0.69)	-	-	-	-
FY	(7.98)	(2.62)	(2.99)	(2.89)	(0.38)	(0.33)	(1.68)	(1.45)
Bloomberg EPS FY (\$)	-1.00	-4.04	-	-2.99	-	-1.53	-	-1.17

Source: Company data, Bloomberg, J.P. Morgan estimates.

Company Data

Price (\$)	43.19
Date Of Price	22 Oct 13
52-week Range (\$)	47.85-14.07
Market Cap (\$ mn)	795.69
Fiscal Year End	Dec
Shares O/S (mn)	18
Price Target (\$)	48.00
Price Target End Date	31-Dec-14

See page 6 for analyst certification and important disclosures.

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.

Figure 1: Changes to EPS and Sales forecasts

\$ in millions

Kythera Period	EPS			Revenue (\$ thousands)		
	Revised	Prior	Difference	Revised	Prior	Difference
3Q/13E	(\$0.78)	(\$0.78)	\$0.00	\$0	\$0	\$0
4Q/13E	(\$0.69)	(\$0.78)	\$0.09	\$0	\$0	\$0
2013E	(\$2.89)	(\$2.99)	\$0.10	\$0	\$0	\$0
2014E	(\$0.33)	(\$0.38)	\$0.05	\$39,000	\$39,000	\$0
2015E	(\$1.45)	(\$1.68)	\$0.23	\$20,552	\$20,552	\$0
2016E	\$0.39	\$0.44	(\$0.05)	\$80,636	\$80,636	\$0

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

Investment Thesis, Valuation and Risks

Kythera Biopharmaceuticals (Overweight; Price Target: \$48.00)

Investment Thesis

Maintain Overweight Rating. Kythera's primary pipeline asset, ATX-101, is in phase 3 development for the aesthetic reduction of submental fat and to us represents a \$500+ million annual sales opportunity. ATX-101 has shown positive and highly consistent results in US phase 2 and European phase 3 trials and we have a high level of confidence in the product's ongoing US phase 3 program.

Valuation

Raising Dec-14 price target to \$48. Our prior Dec-14 price target was \$45. Our discounted cash flow (DCF) analysis leads us to a valuation of \$48/share for KYTH by the end of 2014, assuming the receipt of positive phase 3 data from the ongoing US trials and continued progress toward regulatory filings in the US and EU. We assume Kythera will launch ATX-101 in the US in 2015 and Bayer will launch in the EU around the same time. In addition, we expect Kythera's expense structure to continue to increase through 2030 on an absolute basis but consistently decline as a percentage of revenue through our estimate period.

We estimate a weighted average cost of capital (WACC) of 10%, which is consistent with our normal WACC estimates for companies of Kythera's size and development stage due to the risk of the company's business model relative to more established branded pharma companies with commercialized products. We also use a terminal decline of 30% past 2030 as the last patents covering ATX-101 expire in 2030. We use a long-term estimated tax rate of 38% in our analysis given Kythera's US/California domicile.

We have applied a 90% probability of success to ATX-101 gaining approval in the US and EU, which is consistent with probabilities of success for other products with positive phase 3 data and potential for filing in multiple jurisdictions.

Risks to Rating and Price Target

Risks to the downside include: 1) clinical risk from ongoing US phase 3 trials, 2) regulatory risk from FDA and EMA review of ATX-101 following submission, 3)

commercial and partnership risk with ATX-101 potentially launching into the US and EU markets, and 4) financing risk on any development delays for ATX-101.

Figure 2: Kythera Quarterly Financial Model

\$ in millions

thousands USD				Mar 2013	Jun 2013	Sep 2013	Dec 2013													
Fiscal year ends December 31	FY 2010A	FY 2011A	FY 2012A	1QA	2QA	3QE	4QE	FY 2013E	FY 2014E	FY 2015E	FY 2016E	FY 2017E	FY 2018E	FY 2019E	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E
Income Statement																				
Revenue	-	-	-	-	-	-	-	-	-	19,953	76,614	133,797	206,442	300,308	367,529	404,595	461,677	505,426	507,527	509,146
License/royalty income	4,488	12,985	19,687	-	-	-	-	-	39,000	599	4,022	18,028	20,483	26,427	35,283	41,269	47,091	54,586	54,813	54,988
Total revenue	4,488	12,985	19,687	-	-	-	-	-	39,000	20,552	80,636	151,825	226,926	326,736	402,812	445,864	508,768	560,012	562,339	564,134
Cost of goods sold	-	-	-	-	-	-	-	-	-	1,995	7,661	13,380	20,644	30,031	36,753	40,460	46,168	50,543	50,753	50,915
Sublicense expense	411	1,188	1,936	-	-	-	-	-	3,900	180	1,207	5,408	6,145	7,928	10,585	12,381	14,127	16,376	16,444	16,496
Total cost of revenue	411	1,188	1,936	-	-	-	-	-	3,900	2,175	8,868	18,788	26,789	37,959	47,338	52,840	60,295	66,918	67,197	67,411
Gross profit	4,077	11,797	17,751	-	-	-	-	35,100	18,377	71,768	133,037	200,136	288,777	355,474	393,024	448,473	493,094	495,143	496,723	496,723
R&D	14,842	15,766	43,183	10,034	7,767	10,000	10,000	37,801	15,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
SG&A	6,785	6,879	10,503	3,725	3,973	4,000	4,000	15,698	25,000	39,562	52,626	69,987	90,664	120,809	139,351	147,916	156,450	163,179	163,234	163,477
Total operating expense	21,627	22,645	53,686	13,759	11,740	14,000	14,000	53,499	40,000	47,562	60,626	77,987	98,664	128,809	147,351	155,916	164,450	171,179	171,234	171,477
Income (loss) from operations (EBIT)	(17,550)	(10,848)	(35,935)	(13,759)	(11,740)	(14,000)	(14,000)	(53,499)	(4,900)	(29,185)	11,142	55,050	101,472	159,968	208,123	237,108	284,022	321,915	323,909	325,245
Warrant & other interest income (expense)	589	(304)	(861)	(367)	(518)	(375)	(375)	(1,636)	(2,139)	(2,139)	(2,139)	(2,139)	(14)	-	-	-	-	-	-	-
Other income	930	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total other income (expense)	1,519	(304)	(861)	(367)	(518)	(375)	(375)	(1,636)	(2,139)	(2,139)	(2,139)	(2,139)	(14)	-	-	-	-	-	-	-
Earnings (loss) before tax (EBT)	(16,031)	(11,152)	(36,796)	(14,126)	(12,258)	(14,375)	(14,375)	(55,135)	(7,039)	(31,324)	9,003	52,910	101,458	159,968	208,123	237,108	284,022	321,915	323,909	325,245
Income tax (expense)	-	-	-	-	-	-	-	-	-	-	-	2,646	15,219	55,989	79,087	90,101	107,928	122,328	123,086	123,593
NET INCOME	(16,031)	(11,152)	(36,796)	(14,126)	(12,258)	(14,375)	(14,375)	(55,135)	(7,039)	(31,324)	9,003	50,265	86,239	103,979	129,036	147,007	176,094	199,587	200,824	201,652
EPS	(11.64)	(7.98)	(2.62)	(0.77)	(0.67)	(0.78)	(0.69)	(2.89)	(0.33)	(1.45)	0.39	2.14	3.64	4.35	5.35	6.03	7.16	8.04	8.01	7.97
Basic shares outstanding	1,377	1,398	14,058	18,335	18,423	18,444	20,978	19,045	21,247	21,541	21,757	21,974	22,194	22,416	22,640	22,866	23,095	23,326	23,559	23,795
FD shares outstanding	1,377	1,398	14,058	18,335	18,423	18,444	20,978	19,045	21,247	21,541	23,257	23,474	23,694	23,916	24,140	24,366	24,595	24,826	25,059	25,295
Margins																				
Gross product margin										90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Gross sublicense margin									90%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
Gross margin										89%	89%	88%	88%	88%	88%	88%	88%	88%	88%	88%
R&D										40%	10%	6%	4%	3%	2%	2%	2%	2%	2%	2%
SG&A										198%	69%	52%	44%	40%	38%	37%	34%	32%	32%	32%
Opex										238%	79%	58%	48%	43%	40%	39%	36%	34%	34%	34%
Operating margin										-146%	15%	41%	49%	53%	57%	59%	62%	64%	64%	64%
Pretax margin										-157%	12%	40%	49%	53%	57%	59%	62%	64%	64%	64%
Tax rate											0%	5%	15%	35%	38%	38%	38%	38%	38%	38%
NET MARGIN										-157%	12%	38%	42%	35%	35%	36%	38%	39%	40%	40%
Growth Rates																				
Revenue	n/a	189%	52%	n/a	n/a	n/a	n/a	n/a	n/a	-47%	292%	88%	49%	44%	23%	11%	14%	10%	0%	0%
COGS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	284%	75%	54%	45%	22%	10%	14%	9%	0%	0%
Sublicense expense	n/a	189%	63%	n/a	n/a	n/a	n/a	n/a	n/a	-95%	572%	348%	14%	29%	34%	17%	14%	16%	0%	0%
Gross profit	n/a	189%	50%	n/a	n/a	n/a	n/a	n/a	n/a	-48%	291%	85%	50%	44%	23%	11%	14%	10%	0%	0%
R&D	51%	6%	174%	55%	-7%	-28%	-30%	-12%	-60%	-47%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
SG&A	38%	1%	53%	70%	61%	64%	18%	49%	59%	58%	33%	30%	33%	15%	6%	6%	4%	0%	0%	0%
Operating income	47%	5%	137%	59%	8%	-14%	-21%	0%	-25%	19%	27%	29%	27%	31%	14%	6%	5%	4%	0%	0%
Pretax income	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	488%	92%	58%	30%	14%	20%	13%	1%	0%
NET INCOME	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	458%	72%	21%	24%	14%	20%	13%	0%	0%
EPS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	453%	70%	19%	23%	13%	19%	12%	0%	-1%
FD shares outstanding (sequential)	1%	2%	906%	6%	0%	0%	14%	35%	12%	1%	8%	1%	1%	1%	1%	1%	1%	1%	1%	1%

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

Kythera Biopharmaceuticals: Summary of Financials

Income Statement - Annual	FY12A	FY13E	FY14E	FY15E	Income Statement - Quarterly	1Q13A	2Q13A	3Q13E	4Q13E
Revenues	20	0	39	21	Revenues	0A	0A	0	0
Cost of products sold	(2)	0	(4)	(2)	Cost of products sold	0A	0A	0	0
Gross profit	18	0	35	18	Gross profit	0A	0A	0	0
SG&A	(11)	(16)	(25)	(40)	SG&A	(4)A	(4)A	(4)	(4)
R&D	(43)	(38)	(15)	(8)	R&D	(10)A	(8)A	(10)	(10)
Operating income	(36)	(53)	(5)	(29)	Operating income	(14)A	(12)A	(14)	(14)
Net interest (income) / expense	(1)	(2)	(2)	(2)	Net interest (income) / expense	(0)A	(1)A	(0)	(0)
Other income / (expense)	0	0	0	0	Other income / (expense)	0A	0A	0	0
Pretax income	(37)	(55)	(7)	(31)	Pretax income	(14)A	(12)A	(14)	(14)
Income taxes	0	0	0	0	Income taxes	0A	0A	0	0
Net income - recurring	(37)	(55)	(7)	(31)	Net income - recurring	(14)A	(12)A	(14)	(14)
Diluted shares outstanding	14	19	21	22	Diluted shares outstanding	18A	18A	18	21
EPS - excluding non-recurring	(2.62)	(2.89)	(0.33)	(1.45)	EPS - excluding non-recurring	(0.77)A	(0.67)A	(0.78)	(0.69)
EPS - recurring	(2.62)	(2.89)	(0.33)	(1.45)	EPS - recurring	(0.77)A	(0.67)A	(0.78)	(0.69)
Balance Sheet and Cash Flow Data	FY12A	FY13E	FY14E	FY15E	Ratio Analysis	FY12A	FY13E	FY14E	FY15E
Cash and cash equivalents	79	134	164	133	Sales growth	51.6%	(100.0%)	-	(47.3%)
Short Term Investment	-	-	-	-	EBIT growth	231.3%	48.9%	(90.8%)	495.6%
Accounts receivable	0	0	7	8	EPS growth - recurring	(67.2%)	10.6%	(88.6%)	338.9%
Inventories	0	0	0	0	Gross margin	90.2%	-	90.0%	89.4%
Other current assets	8	12	12	12	EBIT margin	(182.5%)	-	(12.6%)	(142.0%)
Current assets	88	146	182	153	Tax rate	0.0%	0.0%	0.0%	0.0%
PP&E	0	0	0	1	Net Profit Margin	(186.9%)	-	(18.0%)	(152.4%)
Total assets	96	146	182	154					
Total debt	3	9	16	16					
Total liabilities	27	31	38	37					
Shareholders' equity	69	148	144	117					
Net income (including charges)	(37)	(55)	(7)	(31)					
D&A	1	1	0	0					
Change in working capital	(1)	(1)	(7)	(3)					
Other	4	3	2	2					
Cash flow from operations	(33)	(53)	(12)	(33)					
Capex	(0)	(0)	(0)	(0)					
Free cash flow	(32)	(51)	(10)	(31)					
Cash flow from investing activities	(0)	(33)	32	(0)					
Cash flow from financing activities	78	140	10	2					

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

Note: \$ in millions (except per-share data). Fiscal year ends Dec

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.

Important Disclosures

- **Market Maker:** JPMS makes a market in the stock of Kythera Biopharmaceuticals.
- **Lead or Co-manager:** J.P. Morgan acted as lead or co-manager in a public offering of equity and/or debt securities for Kythera Biopharmaceuticals within the past 12 months.
- **Client:** J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as clients: Kythera Biopharmaceuticals.
- **Client/Investment Banking:** J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as investment banking clients: Kythera Biopharmaceuticals.
- **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: Kythera Biopharmaceuticals.
- **Investment Banking (past 12 months):** J.P. Morgan received in the past 12 months compensation from investment banking Kythera Biopharmaceuticals.
- **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 Kythera Biopharmaceuticals.
- **Non-Investment Banking Compensation:** J.P. Morgan has received compensation in the past 12 months for products or services other than investment banking from Kythera Biopharmaceuticals.

Company-Specific Disclosures: Important disclosures, including price charts, are available for compendium reports and all J.P. Morgan–covered companies by visiting <https://jpm.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.

Kythera Biopharmaceuticals (KYTH, KYTH US) Price Chart



Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.
Initiated coverage Nov 05, 2012.

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: Schott, Christopher: AbbVie (ABBV), Actavis Inc (ACT), Allergan (AGN), Amarin Corporation (AMRN), Bristol-Myers Squibb Company (BMY), Eli Lilly & Company (LLY), Endo Health Solutions (ENDP), Forest Laboratories, Inc (FRX), Hospira, Inc. (HSP), Impax Laboratories (IPXL), Kythera Biopharmaceuticals (KYTH), Merck & Co., Inc. (MRK), Mylan Inc. (MYL), Perrigo Company (PRGO), Pfizer Inc. (PFE), Sagent Pharmaceuticals (SGNT), Teva Pharmaceuticals (TEVA), Valeant Pharmaceuticals (VRX), Zoetis (ZTS)

J.P. Morgan Equity Research Ratings Distribution, as of September 30, 2013

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage	43%	44%	12%
IB clients*	57%	49%	39%
JPMS Equity Research Coverage	42%	50%	8%
IB clients*	76%	65%	57%

*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.

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.

Options related research: If the information contained herein regards options related research, such information is available only to persons who have received the proper option risk disclosure documents. For a copy of the Option Clearing Corporation's Characteristics and Risks of Standardized Options, please contact your J.P. Morgan Representative or visit the OCC's website at <http://www.optionsclearing.com/publications/risks/riskstoc.pdf>

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. **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, 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. **Thailand:** JPMorgan Securities (Thailand) Limited is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission. **Indonesia:** PT J.P. Morgan Securities Indonesia is a member of the Indonesia Stock Exchange and is regulated by the 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 Comissão de Valores Mobiliários (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 J.P. Morgan Securities Singapore Private Limited (JPMSS) [MIC (P) 049/04/2013 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. **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. **India:** For private circulation only, not for sale. **Pakistan:** For private circulation only, not for sale. **New 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 September 28, 2013.

Copyright 2013 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.