

## Fortis Healthcare Ltd

### 3QFY12: Strong Hospitals Performance Marred by Weak SRL

- Strong hospitals performance.** Hospital business revenues increased 30% YoY driven by 15% growth in ARPOB. Occupancy rate declined 400bps YoY to 72% and ALOS increased to 4.0 days (from 3.8 days in 3QFY11). Management attributed the decline in occupancy to seasonality (festive season resulting in postponement of procedures). Hospitals' EBITDA margins improved 80bps YoY driven by improving margins of mature hospitals (22.5%-23.5%). Excluding the losses from newly commissioned hospitals, EBITDA margins improved 200bps YoY. Management indicated that focus on improving ARPOB and higher occupancy rate should drive growth going forward.
- Weak quarter for SRL.** SRL reported 3Q EBITDA margin of 7.6%, down 670bps sequentially. Management attributed weak performance to: 1) one-time start-up expenses of Rs36.6MM incurred on opening of two new facilities, 2) loss of clinical trials business from some clients (pharma companies), and 3) seasonally weak quarter. Excluding the one-time start-up costs of Rs36.6MM, EBITDA margins were 10.6% (down 370bps QoQ). Management expects SRL performance to improve going forward driven by: 1) price increases in Jan, 2) ramp up of new facilities, and 3) increased contribution from existing facilities (strengthened test menu).
- 3QFY12 result highlights.** 3Q revenues increased 63% YoY (SRL consolidation 30%, hospitals +33% YoY). EBITDA margins declined 80bps YoY mainly on account of poor SRL margins (7.6%). PAT declined 28% YoY on higher depreciation (+58% YoY), interest costs (+182% YoY) and higher tax rates (+790bps YoY). Deposits (including ICDs) increased Rs6.3B sequentially and net current assets declined by Rs5.5B QoQ.
- International business acquisition complete; keeping our estimates for now pending further review.** International business registered revenues of Rs6.2B with EBITDA margins of 13%. International business would be consolidated from 4Q as the acquisition was completed on Jan-13 2012. Post the acquisition, management expects its consolidated net D/E ratio to increase to 0.83 vs. 0.13 at Dec-11. We are maintaining our current estimates subject to further review pending more financial disclosures for international operations. We believe that the financial profile of the consolidated entity would determine valuations for Fortis going forward.

## Neutral

FOHE.BO, FORH IN

Price: Rs108.10

Price Target: Rs160.00

### India

#### Hospitals

Princy Singh <sup>AC</sup>

(91-22) 6157-3587

princy.singh@jpmorgan.com

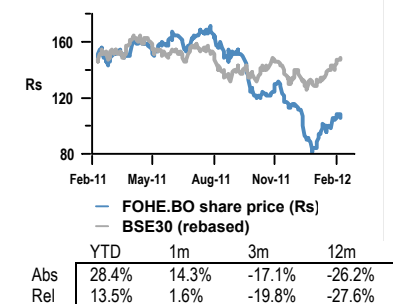
Dinesh S. Harchandani, CFA

(91-22) 6157-8383

dinesh.x.harchandani@jpmorgan.com

J.P. Morgan India Private Limited

#### Price Performance



#### Fortis Healthcare Ltd (Reuters: FOHE.BO, Bloomberg: FORH IN)

Rs in mn, year-end Mar	FY10A	FY11A	FY12E	FY13E	FY14E
Adjusted EPS (Rs)	2.61	2.76	3.35	5.28	7.45
EPS growth (%)	310.9%	5.7%	21.4%	57.4%	41.2%
Adjusted P/E	41.4	39.1	32.2	20.5	14.5
Revenue (Rs mn)	9,379	14,828	25,420	31,555	37,313
Revenue growth (%)	48.7%	58.1%	71.4%	24.1%	18.3%
EBITDA (Rs mn)	1,413	2,058	3,778	4,921	6,088
EBITDA margin	15.1%	13.9%	14.9%	15.6%	16.3%
Net Profit (Rs mn)	694.8	1,063.5	1,358.6	2,137.8	3,019.6
DPS (Rs)	0.00	0.00	0.00	0.00	0.00
Dividend Yield	0.0%	0.0%	0.0%	0.0%	0.0%
EV/EBITDA (x)	76.4	30.9	19.9	15.2	12.1
P/BV (x)	1.4	1.2	1.3	1.2	1.1

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

#### Company Data

Shares O/S (mn)	405
Market cap (Rs mn)	43,800
Market cap (\$ mn)	899
Price (Rs)	108.10
Date Of Price	09 Feb 12
Free float (%)	17.7%
3-mth trading value (Rs mn)	85.9
3-mth trading value (\$ mn)	1.7
3-mth trading volume	0.9
BSE30	17,707
Exchange Rate	48.70
Fiscal Year End	Mar

#### See page 6 for analyst certification and important disclosures, including non-US analyst 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.

### Company Description

Fortis Healthcare Limited is a healthcare company, engaged in providing medical care, tele-medicine, education and research. The company provides healthcare services through a network of 30 hospitals (including 10 hospitals acquired from Wockhardt in FY10) spread across 10 states in the country. Fortis provides secondary and tertiary healthcare to patients in specialty areas, such as cardiac care, orthopedics, neuroscience, oncology, renal care, gastroenterology and mother and child care. Fortis also operates one hospital in Mauritius and one heart command center in Afghanistan.

### P&L sensitivity metrics

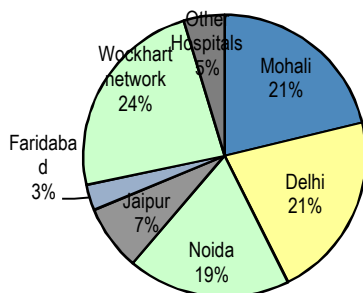
FY12E	EBITDA impact (%)	EPS impact (%)
Fortis Standalone Occupancy Rate (%)	71%	
Impact of each +5% increase	5%	11%
Fortis Standalone ARPOB-Inpatient (Rs/day)	22,632	
Impact of each +5% increase	3%	8%
Wockhardt network Occupancy Rate (%)	62%	
Impact of each +5% increase	3%	7%
Wockhardt network ARPOB-Inpatient (Rs/day)	19,980	
Impact of each +5% increase	2%	4%

Source: J.P. Morgan estimates.

### PT and valuation analysis

Our price target of Rs160 is based on 15.0x FY13E EV/EBITDA, a 10% premium to the current one-year forward Asian hospitals peer group multiple.

### FY2011E EBITDA by segment



Source: J.P. Morgan estimates.

### EPS: J.P. Morgan vs. consensus

Rs	J. P. Morgan	Consensus	vs. Cons
FY12E	3.4	3.8	-12%
FY13E	5.3	5.6	-6%

Source: Bloomberg and J.P. Morgan estimates.

Table 1: FORH vs. Asian peer group valuation comparison

Crncy		EBITDA Margin			EV/EBITDA			P/E			P/B			ROE		
		2011E	2012E	2013E	2011E	2012E	2013E	2011E	2012E	2013E	2011E	2012E	2013E	2011E	2012E	2013E
	FORTIS HEALTHCARE JPMe est	14%	15%	15%	25.7	14.3	11.1	34.1	31.5	21.4	1.3	1.3	1.2	4.4	4.2	6.1
	FORTIS HEALTHCARE BB est	14%	15%	16%	25.7	16.1	12.0	34.1	50.9	26.3	1.3	1.3	1.2	4.4	2.9	4.6
	APOLLO HOSPITALS	16%	16%	16%	22.2	18.8	16.0	43.0	37.5	33.3	4.4	4.2	3.5	10.7	11.6	12.0
	RAFFLES MEDICAL GROUP LTD	25%	26%	26%	17.8	15.0	12.9	23.7	21.0	17.7	3.7	3.3	2.9	16.4	16.9	17.6
	BUMRUNGRAD HOSPITAL PUB	25%	25%	25%	12.5	11.4	10.5	21.4	18.3	15.5	4.8	4.2	3.6	24.0	NM	25.5
	BANGKOK DUSIT MED SERVICE	24%	25%	25%	14.3	12.1	11.0	26.3	21.8	18.4	3.7	3.3	3.0	17.5	16.3	17.2
	BANGKOK CHAIN HOSPITAL	33%	33%	32%	11.0	9.6	8.6	22.0	17.4	14.9	3.7	3.3	3.0	18.8	21.1	22.0
	<b>Average</b>				<b>15.5</b>	<b>13.4</b>	<b>11.8</b>	<b>27.3</b>	<b>23.2</b>	<b>20.0</b>	<b>4.1</b>	<b>3.7</b>	<b>3.2</b>	<b>17.5</b>	<b>16.5</b>	<b>18.9</b>

Source: Bloomberg consensus estimates for non-rated companies. J.P. Morgan estimates for FORH and APHS. FY11 nos are actuals for FORH and APHS. Valuations as on COB 02/10/2012.

Table 2: FORH 3QFY12 results summary

	Q3FY11	Q3FY12	% YoY	Q2FY12	% QoQ
Hospitals		4,820.0	29.8	4,830.0	(0.2)
SRL		1,220.0		1,270.0	(3.9)
Inter-segment		5.6		0.9	
<b>Revenues</b>	<b>3,670.2</b>	<b>5,964.9</b>	<b>62.5</b>	<b>5,988.5</b>	<b>(0.4)</b>
Other operating Income	44.1	80.7	83.0	112.4	
<b>Total Income</b>	<b>3,714.3</b>	<b>6,045.6</b>	<b>62.8</b>	<b>6,100.9</b>	<b>(0.9)</b>
Hospitals EBITDA	538.6	740.0	37.4	725.5	2.0
Margin (%)	14.5	15.4		15.0	
SRL EBITDA		93.0		146.0	(36.3)
Margin (%)		7.6		14.3	
<b>EBITDA</b>	<b>538.6</b>	<b>831.3</b>	<b>54.3</b>	<b>871.5</b>	<b>(4.6)</b>
EBITDA Margin	14.5	13.8		14.3	
Depreciation	(268.8)	(424.0)	57.7	(385.3)	10.0
Interest	(211.0)	(595.4)	182.2	(598.9)	(0.6)
Other Income	369.3	528.3	43.1	99.2	432.6
<b>PBT</b>	<b>428.1</b>	<b>340.2</b>	<b>(20.5)</b>	<b>(13.5)</b>	<b>2,620.0</b>
Tax	(71.4)	(83.6)	17.1	(130.4)	(35.9)
Tax rate	16.7	24.6		965.9	
<b>PAT</b>	<b>356.7</b>	<b>256.6</b>	<b>(28.1)</b>	<b>(143.9)</b>	<b>278.3</b>
PAT Margin	9.6	4.2		(2.4)	
Minorities	(10.0)	(33.5)		15.7	
Share in associates	(1.7)	2.5		2.3	
PAT after minorities	345.0	225.6	(34.6)	(125.9)	279.2
Raw Materials	975.7	1,547.4	58.6	1,584.0	(2.3)
% of revenues	26.3	25.6		26.0	
Employee costs	656.3	1,104.5	68.3	1,144.3	(3.5)
% of revenues	17.7	18.3		18.8	
Professional charges to doctors	440.7	796.8	80.8	708.2	12.5
% of revenues	11.9	13.2		11.6	

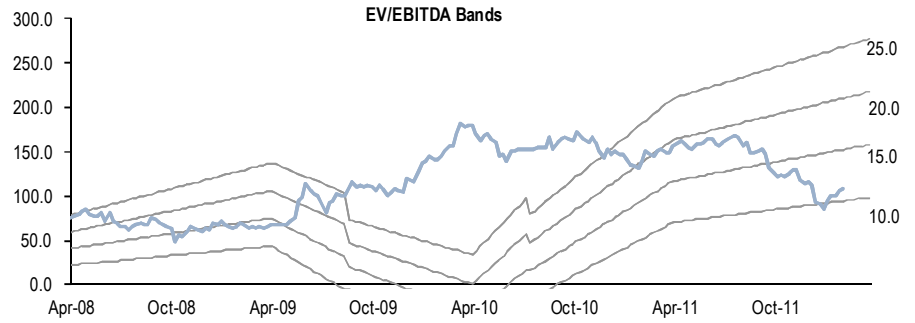
Source: Company reports.

Table 3: Fortis Hospitals performance based on maturity

Maturity	Revenue contribution	EBITDA contribution	Average EBITDA margin	Average Occupancy	Average ARPOB (Rs MM)
5 years and above	24%	29%	23.5%	76%	11.7
3-5 years	57%	67%	22.5%	67%	8.2
1-3 years	18%	5%	5.2%	64%	6.9
Upto 1 year	1%	-1%	-15.2%	32%	1.9

Source: Company presentation.

Figure 1: FORH EV/EBITDA bands (x)



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

## Fortis Healthcare Ltd: Summary of Financials

Income Statement						Cash flow statement					
Rs in millions, year end Mar	FY10	FY11	FY12E	FY13E	FY14E	Rs in millions, year end Mar	FY10	FY11	FY12E	FY13E	FY14E
Revenues	9,379	14,828	25,420	31,555	37,313	PBT	734	1,260	1,671	2,756	3,926
% change Y/Y	48.7%	58.1%	71.4%	24.1%	18.3%	Depr. & amortization	599	1,045	1,443	1,555	1,668
Gross Profit	4,340	6,436	11,178	13,981	16,802	Change in working capital	-2	-1,158	-2,135	-1,220	-1,115
% change Y/Y	45.7%	48.3%	73.7%	25.1%	20.2%	Other	134	1,503	674	783	682
EBITDA	1,413	2,058	3,778	4,921	6,088	Cash flow from operations	1,325	2,572	1,353	3,324	4,376
% change Y/Y	64.5%	45.6%	83.6%	30.3%	23.7%	Capex	-10,440	-3,498	-13,464	-2,191	-2,500
EBIT	814	1,013	2,335	3,366	4,420	Net Interest	-573	-696	-913	-763	-663
% change Y/Y	119.0%	24.5%	130.6%	44.1%	31.3%	Other	-34,583	27,449	1,300	0	0
EBIT Margin	8.7%	6.8%	9.2%	10.7%	11.9%	Free cash flow	-9,115	-925	-12,112	1,133	1,876
Net Interest	-573	-696	-913	-763	-663	Equity raised/(repaid)	7,080	18,548	0	0	0
Earnings before tax	734	1,260	1,671	2,756	3,926	Debt raised/(repaid)	50,023	-43,823	478	-1,500	-1,000
% change Y/Y	235.9%	71.7%	32.6%	64.9%	42.4%	Other	-876	-696	-913	-763	-663
Tax	-34	-77	-301	-551	-785	Dividends paid	0	0	0	0	0
as % of EBT	4.6%	6.1%	18.0%	20.0%	20.0%	Beginning cash	585	13,113	13,666	2,419	1,290
Net income	694.8	1,063.5	1,358.6	2,137.8	3,019.6	Ending cash	13,113	13,666	2,419	1,290	1,503
% change Y/Y	381.9%	53.1%	27.8%	57.4%	41.2%	DPS	0.00	0.00	0.00	0.00	0.00
Shares outstanding	-	-	-	-	-						
EPS (reported)	2.61	2.76	3.35	5.28	7.45						
% change Y/Y	310.9%	5.7%	21.4%	57.4%	41.2%						
Balance sheet						Ratio Analysis					
Rs in millions, year end Mar	FY10	FY11	FY12E	FY13E	FY14E	Rs in millions, year end Mar	FY10	FY11	FY12E	FY13E	FY14E
Cash and cash equivalents	13,113	13,666	2,419	1,290	1,503	Gross margin	46.3%	43.4%	44.0%	44.3%	45.0%
Accounts receivable	1,567	2,477	4,246	5,271	6,233	EBITDA margin	15.1%	13.9%	14.9%	15.6%	16.3%
Inventories	238	376	644	800	946	Operating margin	8.7%	6.8%	9.2%	10.7%	11.9%
Others	2,151	3,401	5,831	7,238	8,559	Net margin	7.4%	7.2%	5.3%	6.8%	8.1%
Current assets	17,069	19,920	13,140	14,598	17,240	Sales per share growth	26.8%	9.2%	62.9%	24.1%	18.3%
LT investments	34,485	902	902	902	902	Sales growth	48.7%	58.1%	71.4%	24.1%	18.3%
Net fixed assets	16,649	19,102	24,188	24,823	25,655	Net profit growth	381.9%	53.1%	27.8%	57.4%	41.2%
Total Assets	79,402	49,903	53,040	55,128	58,597	EPS growth	310.9%	5.7%	21.4%	57.4%	41.2%
Liabilities						Interest coverage (x)	2.47	2.96	4.14	6.45	9.19
Payables	1,944	3,073	5,269	6,540	7,734	Net debt to equity	201.4%	-8.2%	26.2%	23.6%	18.7%
Others	1,749	1,760	1,897	1,993	2,113	Working Capital to Sales	(1.5%)	(1.5%)	(1.5%)	(1.5%)	(1.5%)
Total current liabilities	3,693	4,833	7,166	8,534	9,847	Sales/assets	0.19	0.23	0.49	0.58	0.66
Long-term debt	54,706	10,883	11,361	9,861	8,861	Assets/equity	3.84	1.47	1.55	1.52	1.49
Other liabilities	3	0	0	0	0	ROAE	4.1%	3.9%	4.0%	6.1%	8.0%
Total Liabilities	58,403	15,717	18,527	18,395	18,708	ROACE	1.7%	1.7%	5.2%	7.3%	9.4%
Shareholders' equity	20,654	33,885	34,189	36,327	39,347						
BVPS	77.70	88.01	84.40	89.67	97.13						

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

**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

- **Client:** J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as clients: Fortis Healthcare Ltd.

**Company-Specific Disclosures:** Important disclosures, including price charts, are available for compendium reports and all J.P. Morgan-covered companies by visiting <https://mm.jpmorgan.com/disclosures/company>, calling 1-800-477-0406, or emailing [research.disclosure.inquiries@jpmorgan.com](mailto:research.disclosure.inquiries@jpmorgan.com) with your request.

Fortis Healthcare Ltd (FOHE.BO, FORH IN) Price Chart



Date	Rating	Share Price (Rs)	Price Target (Rs)
05-Oct-10	N	165.55	160.00
31-May-11	N	162.30	175.00
17-Aug-11	N	155.40	160.00

Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends. Initiated coverage Oct 05, 2010.

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: OW = Overweight, N= Neutral, UW = Underweight

### Explanation of Equity Research Ratings 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.] In our Asia (ex-Australia) and UK 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.morganmarkets.com](http://www.morganmarkets.com).

**Coverage Universe: Singh, Princy:** Apollo Hospitals Enterprise Ltd. (APLH.BO), Ballarpur Industries Ltd. (BILT.BO), DB Corp Ltd. (DBCL.BO), Deepak Fertilisers & Petrochemicals Corp (DPFE.BO), Dish TV (DSTV.BO), Dr. Reddy's Laboratories Limited (REDY.BO), Entertainment Network (India) Limited (ENIL.NS), Fortis Healthcare Ltd (FOHE.BO), Glenmark Pharmaceuticals Ltd. (GLEN.NS), HT Media Ltd. (HTML.BO), Havells India Ltd (HVEL.NS), Jagran Prakashan Ltd. (JAGP.BO), Jain Irrigation Systems Ltd (JAIR.BO), Jet Airways (India) Ltd. (JET.BO), Kingfisher Airlines Limited (KING.BO), Opto Circuits (India) Ltd (OPTO.BO), Rallis India Limited (RALL.BO), S.Kumars Nationwide Limited (SKMK.BO), Sintex Industries Limited (SNTX.BO), Spicejet Ltd (SPJT.BO), Sterlite Technologies Ltd (STTE.BO), Sun Pharmaceutical Industries Ltd. (SUN.BO)

### J.P. Morgan Equity Research Ratings Distribution, as of January 6, 2012

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage	47%	42%	12%
IB clients*	52%	45%	36%
JPMS Equity Research Coverage	45%	47%	8%
IB clients*	72%	62%	58%

\*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.

**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.morganmarkets.com>, contact the primary analyst or your J.P. Morgan representative, or email [research.disclosure.inquiries@jpmorgan.com](mailto: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, which include revenues from, among other business units, Institutional Equities and Investment Banking.

**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.

**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 and is authorized and regulated in the UK by the Financial Services Authority. **U.K.:** J.P. Morgan Securities Ltd. (JPMSL) is a member of the London Stock Exchange and is authorized and regulated by the Financial Services Authority. Registered in England & Wales No. 2711006. Registered Office 125 London Wall, London EC2Y 5AJ. **South Africa:** J.P. Morgan Equities Limited is a member of the Johannesburg Securities Exchange and is regulated by the FSB. **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 (ABN 52 002 888 011/AFS Licence No: 238188) is regulated by ASIC and J.P. Morgan Securities Australia Limited (ABN 61 003 245 234/AFS Licence No: 238066) is a Market Participant with the ASX and regulated by ASIC. **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 member of the Philippine Stock Exchange and 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 J.P. Morgan Securities Singapore Private Limited (JPMS) [MICA (P) 032/01/2012 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. **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 JPMSL. Investment research issued by JPMSL has been prepared in accordance with JPMSL'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. JPMSAL does not issue or distribute this material to "retail clients". 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 terms "wholesale client" and "retail client" have the meanings given to them in section 761G of the Corporations Act 2001. **Germany:** This material is distributed in Germany by J.P. Morgan Securities Ltd., 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 Securities 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:** JPMSAL 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.

**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 January 6, 2012.

---

**Copyright 2012 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.**