

Petronet LNG
PLNG IN

- 1 Buy
- 2 **Outperform** (unchanged)
- 3 Hold
- 4 Underperform
- 5 Sell

Target price: **Rs147.00** → **Rs162.00** Up/downside: **+9.2%** Share price (19 Jul): **Rs148.30**

High Performance. Delivered.

Nirmal Raghavan, CFA
(91) 22 6622 1018
nirmal.raghavan@in.daiwacm.com

- The 1Q FY12 net profit beat our forecast by a wide margin
- Capacity expansion plans suggest the expectation of an expanding market
- Earnings forecasts, target price revised; maintain Outperform

■ **What's new**

Petronet processed 133tn British thermal units (BTU) of LNG regassification volumes in 1Q FY12 which supported its strong performance for the quarter. As a result, we have revised up our FY12 volume assumption, leading to earnings and target-price upgrades.

■ **What's the impact**

Petronet LNG recorded a net profit of Rs2.56bn for 1Q FY12, driven by high regassification volumes. This was well ahead of our forecast (Rs1.99bn) as well as the Bloomberg-consensus forecast.

Strong volume growth. LNG regassification volumes for 1Q FY12 stood at 133.4tn BTU (up 40% YoY and 6.1% QoQ) ahead of our forecast of 127tn BTU. As a follow-through, we have revised up our FY12 and FY13 LNG regassification volume forecasts from 9.8mt and 10.3mt to 10.2mt and 10.45mt, respectively. We expect FY12 regassification volumes to comprise 7.5mt on long-

term contracts, 1.5mt on short-term contracts, and 1.2mt re-gas services.

Marketing margins provided support. We believe the 1Q FY12 results were also supported by healthy marketing margins on the short-term contracts of 1.5mt. Most of this volume is being supplied to companies in the Refinery and Petrochemical Sector. We forecast an average marketing margin of US\$0.26¢ on short-term LNG regassification volumes for FY12-13.

■ **Further capacity expansion.**

The company plans to assess the feasibility of a new LNG terminal with a capacity of 5mt on the east coast of India. It is also studying expanding the Dahej terminal by a further 5mt. These moves indicate that Petronet senses a long-term opportunity for itself in the expanding market for gas in India. We forecast the demand-supply gap in India's gas market to widen from 60mmscmd currently to 135mmscmd by FY15.

Following the changes to our forecasts for regassification volumes and marketing margins, we have revised up our FY12 and FY13 EPS forecasts from Rs9.7 and Rs10.0 to Rs11.2 and Rs11.6, respectively.

■ **What we recommend**

We have raised our DCF-based six-month target price from Rs147 to Rs162. Our target price is based on a WACC of 10.2%, long-term (FY20E) LNG regassification volumes of 16mt and a growth rate of 1%.

We think the stock may continue to trade at high FY12-13 PERs because of the relatively low risk to its earnings, the sanguine business outlook, and expectations of strong quarterly results. We retain our

Outperform (2) rating. The tie-up of any new LNG supply contract (short-term or long-term) would be a catalyst for the stock over the next year. We would see the inability to tie up a long-term contract and high dependence on short-term contracts as the key risk to the stock.

■ **How we differ**

Unlike the consensus, we believe that even if domestic gas output rises, the demand for imported gas will stay strong. We forecast a 6% CAGR in the company's LNG processing volume over FY11-20.

Forecast revisions (%)

Year to 31 Mar	12E	13E	14E
Revenue change	4.9	0.4	n.a.
Net-profit change	15.6	15.2	n.a.
EPS change	15.6	15.2	n.a.

Source: Daiwa forecasts

Share price performance



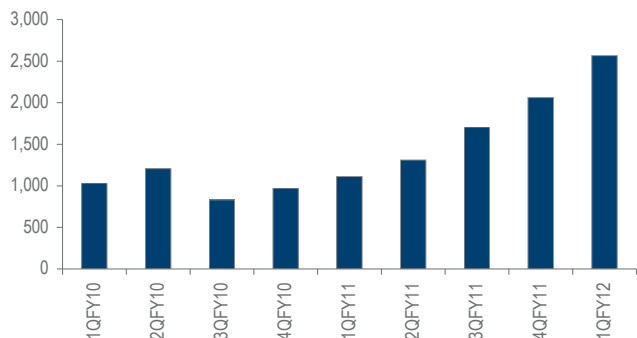
12-month range	81.00-153.50
Market cap (US\$bn)	2.50
Average daily turnover (US\$m)	5.71
Shares outstanding (m)	750
Major shareholder	GAIL India (12.5%)

Financial summary (Rs)

Year to 31 Mar	12E	13E	14E
Revenue (m)	167,052	188,865	223,488
Operating profit (m)	14,234	15,141	13,845
Net profit (m)	8,420	8,668	7,067
Core EPS	11.226	11.558	9.423
EPS change (%)	35.9	3.0	(18.5)
Daiwa vs Cons. EPS (%)	13.3	11.1	-22.8
PER (x)	13.2	12.8	15.7
Dividend yield (%)	2.3	2.3	1.9
DPS	3.368	3.467	2.827
PBR (x)	3.4	2.9	2.6
EV/EBITDA (x)	9.1	8.3	7.9
ROE (%)	28.5	24.7	17.6

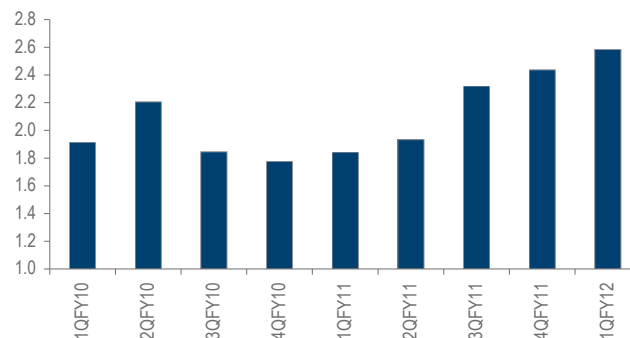
Source: Bloomberg, Daiwa forecasts

■ **Petronet: quarterly earnings (Rs m)**



Source: Company

■ **Petronet: quarterly LNG re-gas volume trend**



Source: Company

■ **Petronet: one-year forward PER**



Source: Bloomberg, Daiwa estimates

■ **Petronet: one-year forward PBR**



Source: Bloomberg, Daiwa estimates

■ **Petronet: quarterly financials**

Period		1Q FY11	4Q FY10	1Q FY12	YoY (%)	QoQ (%)
Sales Qty	(tn BTU)	89	112	115		
Regassified Qty	(tn BTU)	6	14	19		
Total	(tn BTU)	9	126	133	40	6
Sales	(Rs m)	25,260	39,860	46,233	83	16
Total expenditure	(Rs m)	22,782	36,347	41,852		
EBITDA	(Rs m)	2,477	3,513	4,381	77	25
Depreciation	(Rs m)	461	455	458		
Interest	(Rs m)	498	431	464		
PBT	(Rs m)	1,644	2,941	3,722	126	27
Tax	(Rs m)	530	878	1,155		
PAT	(Rs m)	1,114	2,063	2,567	130	24
EPS	(Rs/share)	1.48	2.75	3.42	130	24
EBITDA margin	(%)	9.8	8.8	9.5		
Net margin	(%)	4.4	5.2	5.6		

Source: Company

■ **Petronet: key business assumptions**

Volumes		FY11	FY12E	FY13E	FY14E
Dahej	(m tonnes)	8.6	10.2	10.2	10.00
Kochi	(m tonnes)	0.0	0.0	0.3	1.11
Total	(m tonnes)	8.6	10.2	10.4	11.1
Re gas margins					
Dahej	(Rs/mmbtu)	32.2	33.8	35	35

Source: Company, Daiwa forecasts

Financial summary

■ Key assumptions

Year to 31 Mar	2007	2008	2009	2010	2011	2012E	2013E	2014
LNG (000t)	5,600	6,300	6,290	7,550	8,640	10,195	10,445	11,110

■ Profit and loss (Rs m)

Year to 31 Mar	2007	2008	2009	2010	2011	2012E	2013E	2014E
R-LNG	55,090	65,553	84,287	106,491	131,973	167,052	188,865	223,488
none	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0
Total revenue	55,090	65,553	84,287	106,491	131,973	167,052	188,865	223,488
Other income	0	0	0	0	0	0	0	0
COGS	(47,465)	(55,664)	(73,756)	(96,648)	(118,012)	(148,991)	(169,134)	(203,406)
SG&A	0	0	0	0	0	0	0	0
Other op. expenses	(2,165)	(2,249)	(2,543)	(2,987)	(3,645)	(3,828)	(4,590)	(6,236)
Operating profit	5,460	7,640	7,988	6,856	10,316	14,234	15,141	13,845
Net-interest inc./(exp.)	(704)	(488)	(247)	(861)	(1,252)	(1,477)	(2,007)	(3,138)
Assoc/forex/extraord./others	0	0	0	0	0	0	0	0
Pre-tax profit	4,756	7,152	7,740	5,995	9,064	12,757	13,134	10,708
Tax	(1,623)	(2,405)	(2,556)	(1,950)	(2,868)	(4,337)	(4,466)	(3,641)
Min. int./pref. div./others	0	0	0	0	0	0	0	0
Net profit (reported)	3,133	4,747	5,184	4,045	6,196	8,420	8,668	7,067
Net profit (adjusted)	3,133	4,747	5,184	4,045	6,196	8,420	8,668	7,067
EPS (reported) (Rs)	4.177	6.329	6.913	5.393	8.262	11.226	11.558	9.423
EPS (adjusted) (Rs)	4.177	6.329	6.913	5.393	8.262	11.226	11.558	9.423
EPS (adjusted fully-diluted) (Rs)	4.177	6.329	6.913	5.393	8.262	11.226	11.558	9.423
DPS (Rs)	1.250	1.500	1.750	1.750	2.478	3.368	3.467	2.827
EBIT	5,460	7,640	7,988	6,856	10,316	14,234	15,141	13,845
EBITDA	6,481	8,661	9,013	8,465	12,163	16,084	17,473	17,598

■ Cash flow (Rs m)

Year to 31 Mar	2007	2008	2009	2010	2011	2012E	2013E	2014E
Profit before tax	4,756	7,152	7,740	5,995	9,064	12,757	13,134	10,708
Depreciation and amortisation	1,020	1,022	1,025	1,609	1,847	1,850	2,332	3,752
Tax paid	(524)	(1,693)	(2,656)	(1,640)	(2,179)	(3,955)	(4,072)	(3,319)
Change in working capital	(710)	492	(3,384)	3,026	(1,079)	(1,218)	(142)	107
Other operational CF items	671	1,444	119	1,289	1,422	1,477	2,007	3,138
Cash flow from operations	5,214	8,416	2,844	10,279	9,075	10,911	13,260	14,385
Capex	(3,666)	(6,043)	(7,883)	(10,470)	(8,750)	(12,309)	(7,009)	(2,509)
Net (acquisitions)/disposals	(1,211)	(2,780)	2,473	(1,886)	(56)	0	0	0
Other investing CF items	326	(414)	713	(2)	(5,960)	452	461	468
Cash flow from investing	(4,551)	(9,237)	(4,697)	(12,358)	(14,766)	(11,857)	(6,548)	(2,041)
Change in debt	1,233	1,944	7,039	2,181	7,163	5,777	2,500	(3,500)
Net share issues/(repurchases)	0	0	0	0	(1,806)	0	0	0
Dividends paid	0	0	(1,316)	(1,536)	(1,531)	(1,743)	(2,955)	(3,043)
Other financing CF items	(997)	(942)	(878)	(1,739)	0	(1,929)	(2,468)	(3,606)
Cash flow from financing	236	1,002	4,845	(1,094)	3,826	2,104	(2,923)	(10,149)
Forex effect/others	0	0	0	0	0	0	0	0
Change in cash	899	181	2,992	(3,173)	(1,865)	1,159	3,788	2,196
Free cash flow	1,547	2,373	(5,039)	(191)	325	(1,398)	6,251	11,876

Source: Company, Daiwa forecasts

Financial summary continued ...
■ Balance sheet (Rs m)

As at 31 Mar	2007	2008	2009	2010	2011	2012E	2013E	2014E
Cash & short-term investment	3,405	3,586	6,578	3,405	1,540	2,699	6,487	8,683
Inventory	2,099	909	3,856	2,223	2,480	3,204	3,426	3,939
Accounts receivable	3,313	3,330	6,712	5,035	8,472	10,618	12,189	13,557
Other current assets	2,066	3,651	952	1,554	1,383	1,383	1,383	1,383
Total current assets	10,883	11,476	18,097	12,216	13,875	17,903	23,485	27,562
Fixed assets	21,273	26,293	33,156	42,012	49,053	59,512	64,189	62,945
Goodwill & intangibles	0	0	0	0	0	0	0	0
Other non-current assets	2,780	5,473	3,043	5,386	11,649	11,649	11,649	11,649
Total assets	34,936	43,242	54,295	59,614	74,576	89,064	99,323	102,156
Short-term debt	0	0	0	0	0	0	0	0
Accounts payable	3,125	3,388	5,715	6,043	8,317	9,969	11,621	13,609
Other current liabilities	856	900	1,650	1,406	2,031	2,030	2,030	2,030
Total current liabilities	3,981	4,287	7,365	7,449	10,348	12,000	13,651	15,639
Long-term debt	13,832	15,776	22,817	24,998	32,161	37,938	40,438	36,938
Other non-current liabilities	4,368	6,993	4,279	4,819	5,266	6,860	7,342	7,101
Total liabilities	22,181	27,057	34,461	37,266	47,775	56,798	61,431	59,678
Share capital	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
Reserves/R.E./others	5,255	8,685	12,334	14,849	19,302	24,766	30,392	34,978
Shareholders' equity	12,755	16,185	19,834	22,349	26,802	32,266	37,892	42,478
Minority interests	0	0	0	0	0	0	0	0
Total equity & liabilities	34,936	43,242	54,295	59,614	74,577	89,064	99,323	102,156
EV	125,552	127,316	131,364	136,718	145,746	150,364	149,076	143,380
Net debt/(cash)	10,427	12,191	16,239	21,593	30,621	35,239	33,951	28,255
BVPS (Rs)	17.007	21.581	26.446	29.798	35.735	43.021	50.522	56.637

■ Key ratios (%)

Year to 31 Mar	2007	2008	2009	2010	2011	2012E	2013E	2014E
Sales (YoY)	n.a.	19.0	28.6	26.3	23.9	26.6	13.1	18.3
EBITDA (YoY)	n.a.	33.7	4.1	(6.1)	43.7	32.2	8.6	0.7
Operating profit (YoY)	n.a.	39.9	4.6	(14.2)	50.5	38.0	6.4	(8.6)
Net profit (YoY)	n.a.	51.5	9.2	(22.0)	53.2	35.9	3.0	(18.5)
EPS (YoY)	n.a.	51.5	9.2	(22.0)	53.2	35.9	3.0	(18.5)
Gross-profit margin	13.8	15.1	12.5	9.2	10.6	10.8	10.4	9.0
EBITDA margin	11.8	13.2	10.7	7.9	9.2	9.6	9.3	7.9
Operating-profit margin	9.9	11.7	9.5	6.4	7.8	8.5	8.0	6.2
ROAE	24.6	32.8	28.8	19.2	25.2	28.5	24.7	17.6
ROAA	9.0	12.1	10.6	7.1	9.2	10.3	9.2	7.0
ROCE	20.5	26.1	21.4	15.2	19.4	22.0	20.4	17.6
ROIC	15.5	19.7	16.6	11.6	13.9	15.0	14.3	12.8
Net debt to equity	81.7	75.3	81.9	96.6	114.3	109.2	89.6	66.5
Effective tax rate	34.1	33.6	33.0	32.5	31.6	34.0	34.0	34.0
Accounts receivable (days)	22.0	18.5	21.7	20.1	18.7	20.9	22.0	21.0
Payables (days)	20.7	18.1	19.7	20.1	19.9	20.0	20.9	20.6
Net interest cover (x)	7.8	15.7	32.3	8.0	8.2	9.6	7.5	4.4
Net dividend payout	29.9	23.7	25.3	32.4	30.0	30.0	30.0	30.0

Source: Company, Daiwa forecasts

■ Company profile

Petronet LNG is an LNG import and regassification company. It has a 10mtpa regassification terminal at Dahej, Gujarat, on the west coast of India. The company imports LNG from suppliers on long-term, short-term and spot contracts, and regassifies the LNG. It sells the regassified LNG to its offtakers - GAIL India, Indian Oil and Bharat Petroleum.

Disclaimer

This publication is produced by Daiwa Securities Capital Markets Co. Ltd. and/or its non-U.S. affiliates, and distributed by Daiwa Securities Capital Markets Co. Ltd. and/or its non-U.S. affiliates, except to the extent expressly provided herein. This publication and the contents hereof are intended for information purposes only, and may be subject to change without further notice. Any use, disclosure, distribution, dissemination, copying, printing or reliance on this publication for any other purpose without our prior consent or approval is strictly prohibited. Neither Daiwa Securities Capital Markets Co. Ltd. nor any of its respective parent, holding, subsidiaries or affiliates, nor any of its respective directors, officers, servants and employees, represent nor warrant the accuracy or completeness of the information contained herein or as to the existence of other facts which might be significant, and will not accept any responsibility or liability whatsoever for any use of or reliance upon this publication or any of the contents hereof. Neither this publication, nor any content hereof, constitute, or are to be construed as, an offer or solicitation of an offer to buy or sell any of the securities or investments mentioned herein in any country or jurisdiction nor, unless expressly provided, any recommendation or investment opinion or advice. Any view, recommendation, opinion or advice expressed in this publication may not necessarily reflect those of Daiwa Securities Capital Markets Co. Ltd., and/or its affiliates nor any of its respective directors, officers, servants and employees except where the publication states otherwise. This research report is not to be relied upon by any person in making any investment decision or otherwise advising with respect to, or dealing in, the securities mentioned, as it does not take into account the specific investment objectives, financial situation and particular needs of any person.

Daiwa Securities Capital Markets Co. Ltd., its parent, holding, subsidiaries or affiliates, or its or their respective directors, officers and employees from time to time have trades as principals, or have positions in, or have other interests in the securities of the company under research including derivatives in respect of such securities or may have also performed investment banking and other services for the issuer of such securities. The following are additional disclosures.

Japan

Daiwa Securities Capital Markets Co. Ltd and Daiwa Securities Group

Daiwa Securities Capital Markets Co. Ltd and Daiwa Securities Group: Daiwa Securities Capital Markets Co. Ltd is a subsidiary of Daiwa Securities Group.

Investment Banking Relationship

Within the preceding 12 months, The Affiliates of Daiwa Securities Capital Markets Co. Ltd.* has lead-managed public offerings and/or secondary offerings (excluding straight bonds) of the securities of the following companies: Patel Engineering (PEC IN); International Taifeng Holdings Limited (873 HK); Sihuan Pharmaceutical Holdings Group Limited (460 HK); Strides Arcolab Limited (STR IN); China Metal Resources Holding Limited (8071 HK); China 33 Media Group Limited (8087 HK); Sabana Shari'ah Compliant Industrial Real Estate Investment Trust (SSREIT SP); SBI Holdings Inc. (6488 HK).

*Affiliates of Daiwa Securities Capital Markets Co. Ltd. for the purposes of this section shall mean any one or more of:

- Daiwa Capital Markets Hong Kong Limited
- Daiwa Capital Markets Singapore Limited
- Daiwa Capital Markets Australia Limited
- Daiwa Capital Markets India Private Limited
- Daiwa-Cathay Capital Markets Co., Ltd.
- Daiwa Securities Capital Markets Co. Ltd., Seoul Branch

Hong Kong

This research is distributed in Hong Kong by Daiwa Capital Markets Hong Kong Limited ("DHK") which is regulated by the Hong Kong Securities and Futures Commission. Recipients of this research in Hong Kong may contact DHK in respect of any matter arising from or in connection with this research.

Ownership of Securities

For "Ownership of Securities" information, please visit BlueMatrix disclosure Link at http://www2.us.daiwacm.com/report_disclosure.html.

Investment Banking Relationship

For "Investment Banking Relationship", please visit BlueMatrix disclosure Link at http://www2.us.daiwacm.com/report_disclosure.html.

Relevant Relationship (DHK)

DHK may from time to time have an individual employed by or associated with it serves as an officer of any of the companies under its research coverage.

DHK market making

DHK may from time to time make a market in securities covered by this research.

Singapore

This research is distributed in Singapore by Daiwa Capital Markets Singapore Limited and it may only be distributed in Singapore to accredited investors, expert investors and institutional investors as defined in the Financial Advisers Regulations and the Securities and Futures Act (Chapter 289), as amended from time to time. By virtue of distribution to these category of investors, Daiwa Capital Markets Singapore Limited and its representatives are not required to comply with Section 36 of the Financial Advisers Act (Chapter 110) (Section 36 relates to disclosure of Daiwa Capital Markets Singapore Limited's interest and/or its representative's interest in securities). Recipients of this research in Singapore may contact Daiwa Capital Markets Singapore Limited in respect of any matter arising from or in connection with the research.

Australia

This research is distributed in Australia by Daiwa Capital Markets Stockbroking Limited and it may only be distributed in Australia to wholesale investors within the meaning of the Corporations Act. Recipients of this research in Australia may contact Daiwa Capital Markets Stockbroking Limited in respect of any matter arising from or in connection with the research.

Ownership of Securities

For "Ownership of Securities" information, please visit BlueMatrix disclosure Link at http://www2.us.daiwacm.com/report_disclosure.html.

India

This research is distributed by Daiwa Capital Markets India Private Limited (DAIWA) which is an intermediary registered with Securities & Exchange Board of India. This report is not to be considered as an offer or solicitation for any dealings in securities. While the information in this report has been compiled by DAIWA in good faith from sources believed to be reliable, no representation or warranty, express or implied, is made or given as to its accuracy, completeness or correctness. DAIWA its officers, employees, representatives and agents accept no liability whatsoever for any loss or damage whether direct, indirect, consequential or otherwise howsoever arising (whether in negligence or otherwise) out of or in connection with or from any use of or reliance on the contents of and/or omissions from this document. Consequently DAIWA expressly disclaims any and all liability for, or based on or relating to any such information contained in or errors in or omissions in this report. Accordingly, you are recommended to seek your own legal, tax or other advice and should rely solely on your own judgment, review and analysis, in evaluating the information in this document. The data contained in this document is subject to change without any prior notice DAIWA reserves its right to modify this report as maybe required from time to time. DAIWA is committed to providing independent recommendations to its Clients and would be happy to provide any information in response to any query from its Clients. This report is strictly confidential and is being furnished to you solely for your information. The information contained in this document should not be reproduced (in whole or in part) or redistributed in any form to any other person. We and our group companies, affiliates, officers, directors and employees may from time to time, have long or short positions, in and buy sell the securities thereof, of company(ies) mentioned herein or be engaged in any other transactions involving such securities and earn brokerage or other compensation or act as advisor or have the potential conflict of interest with respect to any recommendation and related information or opinion. DAIWA prohibits its analyst and their family members from maintaining a financial interest in the securities or derivatives of any companies that the analyst cover. This report is not intended or directed for distribution to, or use by any person, citizen or entity which is resident or located in any state or country or jurisdiction where such publication, distribution or use would be contrary to any statutory legislation, or regulation which would require DAIWA and its affiliates/ group companies to any registration or licensing requirements. The views expressed in the report accurately reflect the analyst's personal views about the securities and issuers that are subject of the Report, and that no part of the analyst's compensation was, is or will be directly or indirectly, related to the recommendations or views expressed in the Report. This report does not recommend to US recipients the use of Daiwa Capital Markets India Private Limited or any of its non – US affiliates to effect trades in any securities and is not supplied with any understanding that US recipients will direct commission business to Daiwa Capital Markets India Private Limited.

Taiwan

This research is distributed in Taiwan by Daiwa-Cathay Capital Markets Co., Ltd and it may only be distributed in Taiwan to institutional investors or specific investors who have signed recommendation contracts with Daiwa-Cathay Capital Markets Co., Ltd in accordance with the Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers. Recipients of this research in Taiwan may contact Daiwa-Cathay Capital Markets Co., Ltd in respect of any matter arising from or in connection with the research.

United Kingdom

This research report is produced by Daiwa Securities Capital Markets Co., Ltd and/or its affiliates and is distributed by Daiwa Capital Markets Europe Limited in the European Union, Iceland, Liechtenstein, Norway and Switzerland. Daiwa Capital Markets Europe Limited is authorised and regulated by The Financial Services Authority ("FSA") and is a member of the London Stock Exchange, Chi-X, Eurex and NYSE Liffe. Daiwa Capital Markets Europe Limited and its affiliates may, from time to time, to the extent permitted by law, participate or invest in other financing transactions with the issuers of the securities referred to herein (the "Securities"), perform services for or solicit business from such issuers, and/or have a position or effect transactions in the Securities or options thereof and/or may have acted as an underwriter during the past twelve months for the issuer of such securities. In addition, employees of Daiwa Capital Markets Europe Limited and its affiliates may have positions and effect transactions in such securities or options and may serve as Directors of such issuers. Daiwa Capital Markets Europe Limited may, to the extent permitted by applicable UK law and other applicable law or regulation, effect transactions in the Securities before this material is published to recipients. This publication is intended for investors who are not Retail Clients in the United Kingdom within the meaning of the Rules of the FSA and should not therefore be distributed to such Retail Clients in the United Kingdom. Should you enter into investment business with Daiwa Capital Markets Europe's affiliates outside the United Kingdom, we are obliged to advise that the protection afforded by the United Kingdom regulatory system may not apply; in particular, the benefits of the Financial Services Compensation Scheme may not be available. Daiwa Capital Markets Europe Limited has in place organisational arrangements for the prevention and avoidance of conflicts of interest. Our conflict management policy is available at <http://www.uk.daiwacm.com/about-us/corporate-governance-and-regulatory>. Regulatory disclosures of investment banking relationships are available at www2.us.daiwacm.com/report_disclosure.html.

Germany

This document has been approved by Daiwa Capital Markets Europe Limited and is distributed in Germany by Daiwa Capital Markets Europe Limited, Niederlassung Frankfurt which is regulated by BaFin (Bundesanstalt fuer Finanzdienstleistungsaufsicht) for the conduct of business in Germany.

Dubai

This document has been distributed by Daiwa Capital Markets Europe Limited, Dubai Branch. Related financial products or services are intended only for professional clients and no other person should act upon it. Daiwa Capital Markets Europe Limited is duly licensed and regulated by the Dubai Financial Services Authority.

United States

This report is distributed in the U.S. by Daiwa Capital Markets America Inc. (DCMA). It may not be accurate or complete and should not be relied upon as such. It reflects the preparer's views at the time of its preparation, but may not reflect events occurring after its preparation; nor does it reflect DCMA's views at any time. Neither DCMA nor the preparer has any obligation to update this report or to continue to prepare research on this subject. This report is not an offer to sell or the solicitation of any offer to buy securities. Unless this report says otherwise, any recommendation it makes is risky and appropriate only for sophisticated speculative investors able to incur significant losses. Readers should consult their financial advisors to determine whether any such recommendation is consistent with their own investment objectives, financial situation and needs. This report does not recommend to U.S. recipients the use of any of DCMA's non-U.S. affiliates to effect trades in any security and is not supplied with any understanding that U.S. recipients of this report will direct commission business to such non-U.S. entities. Unless applicable law permits otherwise, non-U.S. customers wishing to effect a transaction in any securities referenced in this material should contact a Daiwa entity in their local jurisdiction. Most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as a process for doing so. As a result, the securities discussed in this report may not be eligible for sales in some jurisdictions. Customers wishing to obtain further information about this report should contact DCMA: Daiwa Capital Markets America Inc., Financial Square, 32 Old Slip, New York, New York 10005 (telephone 212-612-7000).

Ownership of Securities

For "Ownership of Securities" information please visit BlueMatrix disclosure link at http://www2.us.daiwacm.com/report_disclosure.html.

Investment Banking Relationships

For "Investment Banking Relationships" please visit BlueMatrix disclosure link at http://www2.us.daiwacm.com/report_disclosure.html.

DCMA Market Making

For "DCMA Market Making" please visit BlueMatrix disclosure link at http://www2.us.daiwacm.com/report_disclosure.html.

Research Analyst Conflicts

For updates on "Research Analyst Conflicts" please visit BlueMatrix disclosure link at http://www2.us.daiwacm.com/report_disclosure.html. The principal research analyst who prepared this report have no financial interest in securities of the issuers covered in the report, are not (nor are any members of their household) an officer, director or advisory board member of the issuer(s) covered in the report, and are not aware of any material relevant conflict of interest involving the analyst or DCMA, and did not receive any compensation from the issuer during the past 12 months except as noted: no exceptions.

Research Analyst Certification

For updates on "Research Analyst Certification" and "Rating System" please visit BlueMatrix disclosure link at http://www2.us.daiwacm.com/report_disclosure.html. The views about any and all of the subject securities and issuers expressed in this Research Report accurately reflect the personal views of the research analyst(s) primarily responsible for this report (or the views of the firm producing the report if no individual analysts[s] is named on the report); and no part of the compensation of such analyst(s) (or no part of the compensation of the firm if no individual analyst[s] is named on the report) was, is, or will be directly or indirectly related to the specific recommendations or views contained in this Research Report.

The following explains the rating system in the report as compared to relevant local indices, based on the beliefs of the author of the report.

"1": the security could outperform the local index by more than 15% over the next six months.

"2": the security is expected to outperform the local index by 5-15% over the next six months.

"3": the security is expected to perform within 5% of the local index (better or worse) over the next six months.

"4": the security is expected to underperform the local index by 5-15% over the next six months.

"5": the security could underperform the local index by more than 15% over the next six months.

Additional information may be available upon request.

Japan - additional notification items pursuant to Article 37 of the Financial Instruments and Exchange Law

(This Notification is only applicable where report is distributed by Daiwa Securities Capital Markets Co. Ltd.)

If you decide to enter into a business arrangement with us based on the information described in materials presented along with this document, we ask you to pay close attention to the following items.

- In addition to the purchase price of a financial instrument, we will collect a trading commission* for each transaction as agreed beforehand with you. Since commissions may be included in the purchase price or may not be charged for certain transactions, we recommend that you confirm the commission for each transaction.
- In some cases, we may also charge a maximum of ¥ 2 million (including tax) per year as a standing proxy fee for our deposit of your securities, if you are a non-resident of Japan.
- For derivative and margin transactions etc., we may require collateral or margin requirements in accordance with an agreement made beforehand with you. Ordinarily in such cases, the amount of the transaction will be in excess of the required collateral or margin requirements.
- There is a risk that you will incur losses on your transactions due to changes in the market price of financial instruments based on fluctuations in interest rates, exchange rates, stock prices, real estate prices, commodity prices, and others. In addition, depending on the content of the transaction, the loss could exceed the amount of the collateral or margin requirements.
- There may be a difference between bid price etc. and ask price etc. of OTC derivatives handled by us.
- Before engaging in any trading, please thoroughly confirm accounting and tax treatments regarding your trading in financial instruments with such experts as certified public accountants. *The amount of the trading commission cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

When making an actual transaction, please be sure to carefully read the materials presented to you prior to the execution of agreement, and to take responsibility for your own decisions regarding the signing of the agreement with us.

Corporate Name: Daiwa Securities Capital Markets Co. Ltd.
Financial instruments firm: chief of Kanto Local Finance Bureau (Kin-sho) No.109
Memberships: Japan Securities Dealers Association, Financial Futures Association of Japan
Japan Securities Investment Advisers Association
Type II Financial Instruments Firms Association