India gas

OIL & GAS/CHEMICALS

NOMURA
EQUITY RESEARCH

Govt takes a bold gas price decision

June 28, 2013

Quick Note

Govt accepts the Rangarajan formula from April 2014; a positive move, and could more than double domestic gas prices

The Indian government has finally acted on gas prices. The full details of Cabinet committee on economic affairs (CCEA) meeting are not yet available, but as per CNBC and other news channels reports:

- Govt has accepted all the recommendation of Rangarajan committee on gas pricing. The only difference seems to be that there will be quarterly revision (and not monthly as recommended).
- New price **applicable from 01-April-2014**; and valid for five years.
- The likely price is **USD8.4 to 8.6/mmbtu in April 14**, and this could potential increase to over USD10/mmbtu in three years.
- Applicable to all domestic gas including APM gas, but not applicable where prices are determined by PSC mechanism (like NELP blocks) or where contracts provide for price indexation (like PMT).

The approved formula, in our view, would not directly apply to NELP blocks like RIL's KG-D6. Under the PSC mechanism, the price is market determined and government approval is required only for formulas. But, with the benchmark being set for domestic prices and government keen to control price, we think any new NELP price formula would be at least similar if not better than the Rangarajan formula.

ONGC and OIL biggest beneficiary; but, will much benefit stay?

On our estimate, each USD1/mmbtu of higher gas price raises ONGC /OIL's FY15 EPS by 8–9%. Thus a near doubling of price to USD 8.4/mmbtu can possibly raises ONGC/OIL's FY15 earnings by nearly 35–40%. But, the catch is that nearly 90% of APM gas goes to the highly price-sensitive fertiliser and power sectors, where passing on price increases is particularly difficult. And it is unlikely, in our view, that the cash-strapped GoI would be willing to foot the nearly USD2.8bn increase in the gas bill for the power and fertilizer sectors.

We highlight, that when APM gas prices were raised last in June 2010 (from USD 2/mmbtu to USD 4.2) not much benefit stayed with the upstream producers. The effective subsidy share of upstream was increased from near 1/3rd level earlier to nearly 40% in FY11 and FY12. Assuming that all of the impact of a higher subsidy is passed on to ONGC/OIL, the benefits would be rather modest at only 7–8%, in our view.

Positive for RIL: KG-D6 price revision will get easier; CBM price also can be decided soon; no change in PMT pricing

Adoption of the Rangarajan committee recommendations paves the way for discussion to commence on KG-D6 and CBM blocks as per the production sharing contract (PSC) mechanism. We think a USD8 plus price is good to attract new investments. But, we think unlikely contractors will readily agree, and will still seek higher pricing. The contractors have been seeking LNG import parity pricing (results in price of USD13-15/mmbtu). The gas pricing for the Panna, Mukta & Tapti

Research analysts

India Oil & Gas/Chemicals

Anil Sharma - NFASL
anil.sharma.1@nomura.com
+91 22 4037 4338

Ravi Adukia, CFA - NSFSPL
ravikumar.adukia@nomura.com
+91 22 4037 4232

See Appendix A-1 for analyst certification, important disclosures and the status of non-US analysts.

(PMT) fields is currently capped at USD5.57–5.73 (based on fuel price linkages as per PSC).

On our estimates, each USD1/mmbtu increase raises RIL's FY15 EPS by INR1.4/share (2%). For RIL, we already model price of USD8/mmbtu from FY15, and thus do not see much changes to our estimates.

GAIL likely worst impacted; EPS impact of ~18% to FY15F EPS

GAIL, as a user of gas (internal consumption as fuel/feedstock for LPG/petchem production and gas transmission), would be worst impacted. The pricing of both LPG and petchem is based on import parity, thus we do not believe GAIL could pass on costs. For transmission, GAIL could appeal for tariff increases to PNGRB, but tariff reviews take time and PNGRB does not seem favourably disposed towards tariff increases and most of its tariff orders have been harsh.

On our estimates, nearly 50% of GAIL's gas consumption is of non-LNG/non-PMT gas, which is priced at KG-D6 price (USD4.2/mmbtu) or non-APM price (USD5.00–5.50). Our initial estimate indicates that GAIL's gas cost could increase by USD170–180mn. Assuming it is not able to pass on any cost increase (or reduce gas costs by increasing PMT volumes for own consumption), we see an impact of 18% to FY15F EPS.

IGL to pass on increase; not much impact on GUJS and GGAS

In our view, city gas distribution companies (CGD) would be able to pass on all the gas price increases by raising end prices. We highlight that all CGD companies have been able to pass on cost increases, thus would not have much worry on this issue. We highlight that when APM prices were increased by sharp 112% in June 2010, IGL had passed on all of the cost increase by raising its retail CNG price by 26%. Also, we highlight that IGL has shown tremendous ability to pass on gas cost increases – over the past three years; it has affected 14 price increases to raise CNG prices by nearly 100%.

APM gas comprises nearly 70% of IGL's current CNG supply portfolio. For each USD1/mmbtu in APM gas cost increase, we estimate that IGL would need to increase its CNG price by INR2.4/kg. Thus, if APM gas prices were to increase to USD8.4/mmbtu, IGL would need to increase its CNG price by nearly INR10/kg or 24% of the current price.

Gujarat Gas: In our view, APM or KG-D6 price increases would not have much impact on Gujarat Gas, as most of its gas is either LNG or from PMT fields. Only a 10–15% share of its gas is from marginal fields in Gujarat, and we think similar to IGL, it could pass on costs.

For GSPL, as it does not have any gas compression, there is only marginal internal consumption of gas. Thus we do not see any significant impact.

Higher prices improve sentiment and also investment climate

In our view, GoI's decision on gas price is positive and it certainly improves the near term sentiment. However, we think a lot more would still need to be done.

- The Rangarajan committee recommended formula is complex and with many variables and assumption. Timely and transparent pricing decision each quarter would be very important.
- Also, as we highlighted, the Rangarajan committee recommended formula would not directly apply to PSC blocks, and government would need to work with operators to determine the pricing for each of these blocks. This could still remain tricky as several operators have been seeking much higher import parity price than what was recommended by the Rangarajan committee.

Fig. 1: Dr. Rangarajan committee formula on gas pricing

P_{AP} = Appropriate price for domestic consumers = Simple avg. of P_{IAV} and P_{WAV}

Where:

P_{IAV} = Average producer weighted avg. net-back price for Indian LNG imports (Net back price means FOB price minus US$2.5-3.0/mmbtu of liquefaction costs & US$0.5/ mmbtu of transportation costs).

P_{WAV} = Weighted average price to producers in the global markets (Henry-hub, NBP and Japanese LNG)

Note: Calculation suggested was on monthly basis and to be based on trailing 12M prices and volumes. Petroleum Ministry has recommended quarterly pricing.

Source: Petroleum Ministry, Nomura research

Fig. 2: Indicative gas prices for last 4 quarters

With rising Indian import prices and rising spot LNG share, the average prices are expected to move above USD8 next year, and above USD10 in three years

	P_{IAV}	P_{WAV}	P_{AP}
July - Sep 12	5.65	10.52	8.08
Oct - Dec 12	6.01	9.14	7.58
Jan - Mar 13	6.36	7.84	7.10
Apr - Jun 13	6.77	6.78	**6.775**

Note: Calculation is based on last 4 qtrs avg. with a gap of 1 qtr.

Source: Petroleum Ministry, Nomura research

Fig. 3: Likely impact of APM price of $8.4/mmbtu

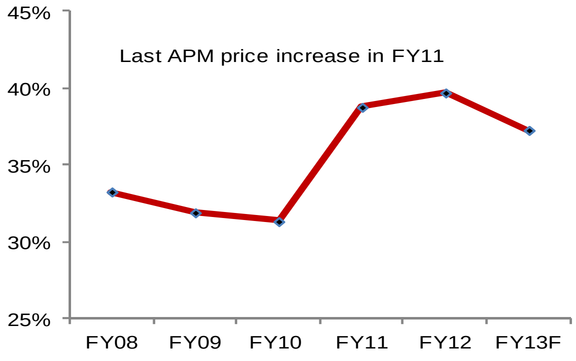
INR Bn

Incremental revenue to upstream (ONGC/OIL)	**193**
Incremental revenue to GoI	78
- Royalty	19
- Corporate income tax	59
Post-tax benefit to ONGC/OIL	115
Increase in burden for sensitive sectors	**170**
- Fertilizer	69
- Power	94
- North East subsidy	7

Source: Nomura estimates

Fig. 4: Upstream subsidy share trends

After last APM price increase in June 2010, the upstream subsidy share increased from one-third to nearly 40%



Source: Petroleum Ministry, company data, Nomura research

Fig. 5: Sensitivity of gas price hike on earnings of ONGC, Oil India and GAIL

Assuming all price hike benefits stay with ONGC/OIL (though an unlikely scenario, in our view), we estimate the earning upside would be 33-39%. If ONGC/OIL bear all the cost increases for power/fertiliser, the gas price gains would be modest at 7–8% on EPS; GAIL would likely suffer most

	FY15F EPS	Price increase of $1/mmbtu	Domestic gas price at US$8.4
GAIL	29.6	1.8	5.3
		6%	***18%***
Assuming all benefit stay with ONGC / OIL			
ONGC	32.6	3.0	12.8
		9%	***39%***
OIL	57.2	4.5	18.8
		8%	***33%***
Assuming increased fertilser / power gas cost borne by ONGC / OIL			
ONGC	32.6	0.6	2.6
		2%	***8%***
OIL	57.2	0.9	3.8
		2%	***7%***

Note: Assume INR60/USD for calculation of impact of gas price hike

Source: Nomura estimates

Appendix A-1

Analyst Certification

We, Anil Sharma and Ravikumar Adukia, hereby certify (1) that the views expressed in this Research report accurately reflect our personal views about any or all of the subject securities or issuers referred to in this Research report, (2) no part of our compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this Research report and (3) no part of our compensation is tied to any specific investment banking transactions performed by Nomura Securities International, Inc., Nomura International plc or any other Nomura Group company.

Issuer Specific Regulatory Disclosures

The term "Nomura Group" used herein refers to Nomura Holdings, Inc. or any of its affiliates or subsidiaries, and may refer to one or more Nomura Group companies.

Materially mentioned issuers

Issuer	Ticker	Price	Price date	Stock rating	Previous rating	Date of change	Sector rating
GAIL	GAIL IN	INR 299	27-Jun-2013	Neutral	Buy	19-Jul-2012	Not rated
Gujarat Gas	GGAS IN	INR 188	27-Jun-2013	Neutral	Reduce	05-May-2011	Not rated
Gujarat State Petronet	GUJS IN	INR 53	27-Jun-2013	Buy	Not Rated	11-May-2010	Not rated
Indraprastha Gas	IGL IN	INR 266	27-Jun-2013	Buy	Not Rated	11-May-2010	Not rated
Oil India	OINL IN	INR 572	27-Jun-2013	Reduce	Not Rated	18-Sep-2012	Not rated
Oil and Natural Gas	ONGC IN	INR 320	27-Jun-2013	Reduce	Neutral	18-Sep-2012	Not rated
Reliance Industries	RIL IN	INR 830	27-Jun-2013	Buy	Neutral	19-Jul-2012	Not rated

Important Disclosures

Online availability of research and conflict-of-interest disclosures

Nomura research is available on www.nomuranow.com/research, Bloomberg, Capital IQ, Factset, MarkitHub, Reuters and ThomsonOne.
Important disclosures may be read at http://go.nomuranow.com/research/globalresearchportal/pages/disclosures/disclosures.aspx or requested from Nomura Securities International, Inc., on 1-877-865-5752. If you have any difficulties with the website, please email grpsupport@nomura.com for help.

The analysts responsible for preparing this report have received compensation based upon various factors including the firm's total revenues, a portion of which is generated by Investment Banking activities. Unless otherwise noted, the non-US analysts listed at the front of this report are not registered/qualified as research analysts under FINRA/NYSE rules, may not be associated persons of NSI, 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.

Nomura Global Financial Products Inc. (“NGFP”) Nomura Derivative Products Inc. (“NDPI”) and Nomura International plc. (“NIplc”) are registered with the Commodities Futures Trading Commission and the National Futures Association (NFA) as swap dealers. NGFP, NDPI, and NIplc are generally engaged in the trading of swaps and other derivative products, any of which may be the subject of this report.

Any authors named in this report are research analysts unless otherwise indicated. *Industry Specialists* identified in some Nomura International plc research reports are employees within the Firm who are responsible for the sales and trading effort in the sector for which they have coverage. Industry Specialists do not contribute in any manner to the content of research reports in which their names appear. *Marketing Analysts* identified in some Nomura research reports are research analysts employed by Nomura International plc who are primarily responsible for marketing Nomura’s Equity Research product in the sector for which they have coverage. Marketing Analysts may also contribute to research reports in which their names appear and publish research on their sector.

Distribution of ratings (Global)

The distribution of all ratings published by Nomura Global Equity Research is as follows:
43% have been assigned a Buy rating which, for purposes of mandatory disclosures, are classified as a Buy rating; 40% of companies with this rating are investment banking clients of the Nomura Group*.
46% have been assigned a Neutral rating which, for purposes of mandatory disclosures, is classified as a Hold rating; 48% of companies with this rating are investment banking clients of the Nomura Group*.
11% have been assigned a Reduce rating which, for purposes of mandatory disclosures, are classified as a Sell rating; 23% of companies with this rating are investment banking clients of the Nomura Group*.
As at 31 March 2013. **The Nomura Group as defined in the Disclaimer section at the end of this report.*

Explanation of Nomura's equity research rating system in Europe, Middle East and Africa, US and Latin America

The rating system is a relative system indicating expected performance against a specific benchmark identified for each individual stock. Analysts may also indicate absolute upside to target price defined as (fair value - current price)/current price, subject to limited management discretion. In most cases, the fair value will equal the analyst's assessment of the current intrinsic fair value of the stock using an appropriate valuation methodology such as discounted cash flow or multiple analysis, etc.

STOCKS

A rating of '**Buy'**, indicates that the analyst expects the stock to outperform the Benchmark over the next 12 months. A rating of '**Neutral'**, indicates that the analyst expects the stock to perform in line with the Benchmark over the next 12 months. A rating of '**Reduce'**, indicates that the analyst expects the stock to underperform the Benchmark over the next 12 months. A rating of '**Suspended'**, indicates that the rating, target price and estimates have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including, but not limited to, when Nomura is acting in an advisory capacity in a merger or strategic transaction involving the company. Benchmarks are as follows: **United States/Europe**: please see valuation methodologies for explanations of relevant benchmarks for stocks, which can be accessed at: http://go.nomuranow.com/research/globalresearchportal/pages/disclosures/disclosures.aspx; **Global Emerging Markets (ex-Asia):** MSCI Emerging Markets ex-Asia, unless otherwise stated in the valuation methodology.

SECTORS

A '**Bullish'** stance, indicates that the analyst expects the sector to outperform the Benchmark during the next 12 months. A '**Neutral'** stance, indicates that the analyst expects the sector to perform in line with the Benchmark during the next 12 months. A '**Bearish'** stance, indicates that the analyst expects the sector to underperform the Benchmark during the next 12 months. Benchmarks are as follows: **United States**: S&P 500; **Europe**: Dow Jones STOXX 600; **Global Emerging Markets (ex-Asia)**: MSCI Emerging Markets ex-Asia.

Explanation of Nomura's equity research rating system in Japan and Asia ex-Japan

STOCKS

Stock recommendations are based on absolute valuation upside (downside), which is defined as (Target Price - Current Price) / Current Price, subject to limited management discretion. In most cases, the Target Price will equal the analyst's 12-month intrinsic valuation of the stock, based on an appropriate valuation methodology such as discounted cash flow, multiple analysis, etc. A '**Buy'** recommendation indicates that potential upside is 15% or more. A '**Neutral'** recommendation indicates that potential upside is less than 15% or downside is less than 5%. A '**Reduce'** recommendation indicates that potential downside is 5% or more. A rating of '**Suspended'** indicates that the rating and target price have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including when Nomura is acting in an advisory capacity in a merger or strategic transaction involving the subject company. Securities and/or companies that are labelled as '**Not rated'** or shown as '**No rating'** are not in regular research coverage of the Nomura entity identified in the top banner. Investors should not expect continuing or additional information from Nomura relating to such securities and/or companies.

SECTORS

A '**Bullish'** rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a positive absolute recommendation. A '**Neutral'** rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a neutral absolute recommendation. A '**Bearish'** rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a negative absolute recommendation.

Target Price

A Target Price, if discussed, reflects in part the analyst's estimates for the company's earnings. The achievement of any target price may be impeded by general market and macroeconomic trends, and by other risks related to the company or the market, and may not occur if the company's earnings differ from estimates.

Disclaimers

This document contains material that has been prepared by the Nomura entity identified at the top or bottom of page 1 herein, if any, and/or, with the sole or joint contributions of one or more Nomura entities whose employees and their respective affiliations are specified on page 1 herein or identified elsewhere in the document. The term "Nomura Group" used herein refers to Nomura Holdings, Inc. or any of its affiliates or subsidiaries and may refer to one or more Nomura Group companies including: Nomura Securities Co., Ltd. ('NSC') Tokyo, Japan; Nomura International plc ('NIplc'), UK; Nomura Securities International, Inc. ('NSI'), New York, US; Nomura International (Hong Kong) Ltd. ('NIHK'), Hong Kong; Nomura Financial Investment (Korea) Co., Ltd. ('NFIK'), Korea (Information on Nomura analysts registered with the Korea Financial Investment Association ('KOFIA') can be found on the KOFIA Intranet at http://dis.kofia.or.kr); Nomura Singapore Ltd. ('NSL'), Singapore (Registration number 197201440E, regulated by the Monetary Authority of Singapore); Nomura Australia Ltd. ('NAL'), Australia (ABN 48 003 032 513), regulated by the Australian Securities and Investment Commission ('ASIC') and holder of an Australian financial services licence number 246412; P.T. Nomura Indonesia ('PTNI'), Indonesia; Nomura Securities Malaysia Sdn. Bhd. ('NSM'), Malaysia; NIHK, Taipei Branch ('NITB'), Taiwan; Nomura Financial Advisory and Securities (India) Private Limited ('NFASL'), Mumbai, India (Registered Address: Ceejay House, Level 11, Plot F, Shivsagar Estate, Dr. Annie Besant Road, Worli, Mumbai- 400 018, India; Tel: +91 22 4037 4037, Fax: +91 22 4037 4111; SEBI Registration No: BSE INB011299030, NSE INB231299034, INF231299034, INE 231299034, MCX: INE261299034) and NIplc, Madrid Branch ('NIplc, Madrid'). 'CNS Thailand' next to an analyst's name on the front page of a research report indicates that the analyst is employed by Capital Nomura Securities Public Company Limited ('CNS') to provide research assistance services to NSL under a Research Assistance Agreement. CNS is not a Nomura entity.

THIS MATERIAL IS: (I) FOR YOUR PRIVATE INFORMATION, AND WE ARE NOT SOLICITING ANY ACTION BASED UPON IT; (II) NOT TO BE CONSTRUED AS AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITY IN ANY JURISDICTION WHERE SUCH OFFER OR SOLICITATION WOULD BE ILLEGAL; AND (III) BASED UPON INFORMATION FROM SOURCES THAT WE CONSIDER RELIABLE, BUT HAS NOT BEEN INDEPENDENTLY VERIFIED BY NOMURA GROUP.

Nomura Group does not warrant or represent that the document is accurate, complete, reliable, fit for any particular purpose or merchantable and does not accept liability for any act (or decision not to act) resulting from use of this document and related data. To the maximum extent permissible all warranties and other assurances by Nomura group are hereby excluded and Nomura Group shall have no liability for the use, misuse, or distribution of this information.

Opinions or estimates expressed are current opinions as of the original publication date appearing on this material and the information, including the opinions and estimates contained herein, are subject to change without notice. Nomura Group is under no duty to update this document. Any comments or statements made herein are those of the author(s) and may differ from views held by other parties within Nomura Group. Clients should consider whether any advice or recommendation in this report is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. Nomura Group does not provide tax advice.

Nomura Group, and/or its officers, directors and employees, may, to the extent permitted by applicable law and/or regulation, deal as principal, agent, or otherwise, or have long or short positions in, or buy or sell, the securities, commodities or instruments, or options or other derivative instruments based thereon, of issuers or securities mentioned herein. Nomura Group companies may also act as market maker or liquidity provider (within the meaning of applicable regulations in the UK) in the financial instruments of the issuer. Where the activity of market maker is carried out in accordance with the definition given to it by specific laws and regulations of the US or other jurisdictions, this will be separately disclosed within the specific issuer disclosures.

This document may contain information obtained from third parties, including ratings from credit ratings agencies such as Standard & Poor's. Reproduction and distribution of third party content in any form is prohibited except with the prior written permission of the related third party. Third party content providers do not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. Third party content providers give no express or implied warranties, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use. Third party content providers shall not be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs) in connection with any use of their content, including ratings. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice.

Any MSCI sourced information in this document is the exclusive property of MSCI Inc. ('MSCI'). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, re-disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI and the MSCI indexes are services marks of MSCI and its affiliates.

Investors should consider this document as only a single factor in making their investment decision and, as such, the report should not be viewed as identifying or suggesting all risks, direct or indirect, that may be associated with any investment decision. Nomura Group produces a number of different types of research product including, among others, fundamental analysis, quantitative analysis and short term trading ideas; recommendations contained in one type of research product may differ from recommendations contained in other types of research product, whether as a result of differing time horizons, methodologies or otherwise. Nomura Group publishes research product in a number of different ways including the posting of product on Nomura Group portals and/or distribution directly to clients. Different groups of clients may receive different products and services from the research department depending on their individual requirements. Clients outside of the US may access the Nomura Research Trading Ideas platform (Retina) at http://go.nomuranow.com/equities/tradingideas/retina/

Figures presented herein may refer to past performance or simulations based on past performance which are not reliable indicators of future performance. Where the information contains an indication of future performance, such forecasts may not be a reliable indicator of future performance. Moreover, simulations are based on models and simplifying assumptions which may oversimplify and not reflect the future distribution of returns.

Certain securities are subject to fluctuations in exchange rates that could have an adverse effect on the value or price of, or income derived from, the investment.

The securities described herein may not have been registered under the US Securities Act of 1933 (the '1933 Act'), and, in such case, may not be offered or sold in the US or to US persons unless they have been registered under the 1933 Act, or except in compliance with an exemption from the registration requirements of the 1933 Act. Unless governing law permits otherwise, any transaction should be executed via a Nomura entity in your home jurisdiction.

This document has been approved for distribution in the UK and European Economic Area as investment research by NIplc. NIplc is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. NIplc is a member of the London Stock Exchange. This document does not constitute a personal recommendation within the meaning of applicable regulations in the UK, or take into account the particular investment objectives, financial situations, or needs of individual investors. This document is intended only for investors who are 'eligible counterparties' or 'professional clients' for the purposes of applicable regulations in the UK, and may not, therefore, be redistributed to persons who are 'retail clients' for such purposes. This document has been approved by NIHK, which is regulated by the Hong Kong Securities and Futures Commission, for distribution in Hong Kong by NIHK. This document has been approved for distribution in Australia by NAL, which is authorized and regulated in Australia by the ASIC. This document has also been approved for distribution in Malaysia by NSM. In Singapore, this document has been distributed by NSL. NSL accepts legal responsibility for the content of this document, where it concerns securities, futures and foreign exchange, issued by their foreign affiliates in respect of recipients who are not accredited, expert or institutional investors as defined by the Securities and Futures Act (Chapter 289). Recipients of this document in Singapore should contact NSL in respect of matters arising from, or in connection with, this document. Unless prohibited by the provisions of Regulation S of the 1933 Act, this material is distributed in the US, by NSI, a US-registered broker-dealer, which accepts responsibility for its contents in accordance with the provisions of Rule 15a-6, under the US Securities Exchange Act of 1934.

This document has not been approved for distribution to persons other than 'Authorised Persons', 'Exempt Persons' or 'Institutions' (as defined by the Capital Markets Authority) in the Kingdom of Saudi Arabia ('Saudi Arabia') or to clients other than 'professional clients' (as defined by the Dubai Financial Services Authority) in the United Arab Emirates ('UAE') by Nomura Saudi Arabia, NIplc or any other member of Nomura Group, as the case may be. Neither this document nor any copy thereof may be taken or transmitted or distributed, directly or indirectly, by any person other than those authorised to do so into Saudi Arabia or in the UAE or to any person other than 'Authorised Persons', 'Exempt Persons' or 'Institutions' located in Saudi Arabia or to clients other than 'professional clients' in the UAE. By accepting to receive this document, you represent that you are not located in Saudi Arabia or that you are an 'Authorised Person', an 'Exempt Person' or an 'Institution' in Saudi Arabia or that you are a 'professional client' in the UAE and agree to comply with these restrictions. Any failure to comply with these restrictions may constitute a violation of the laws of the UAE or Saudi Arabia.

NO PART OF THIS MATERIAL MAY BE (I) COPIED, PHOTOCOPIED, OR DUPLICATED IN ANY FORM, BY ANY MEANS; OR (II) REDISTRIBUTED WITHOUT THE PRIOR WRITTEN CONSENT OF A MEMBER OF NOMURA GROUP. If this document has been distributed by electronic transmission, such as e-mail, then such transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this document, which may arise as a result of electronic transmission. If verification is required, please request a hard-copy version.

Nomura Group manages conflicts with respect to the production of research through its compliance policies and procedures (including, but not limited to, Conflicts of Interest, Chinese Wall and Confidentiality policies) as well as through the maintenance of Chinese walls and employee training.

Additional information is available upon request and disclosure information is available at the Nomura Disclosure web page: http://go.nomuranow.com/research/globalresearchportal/pages/disclosures/disclosures.aspx