

UBS Investment Research

Power sector

UMPP re-bid possible

■ **UMPP 1: Sasan project could be re-bid**

According to media reports, this project may be re-bid due to charges of: a) misrepresentation of ownership at the time of the bid; and b) a change in the lead partner after the project was awarded. In our opinion, a re-bid can only be based on the charge of a change in ownership of the lead partners. We do not rule out a re-bid, but allotting the project to L2, Reliance Energy, seems unlikely.

■ **UMPP 2: Tata Power's (TPC) bid for Mundhra depends on Bumi**

The key assumptions underlying TPC's bid was a coal FOB price of US\$34/te and calorific value of 6,300kcal/kg. As per press reports, TPC has bid for Bumi Resources' coal assets. Given the already low estimated ROE (sub-15%) of the UMPP at a tariff of Rs2.26/Kwh, we think a bid >US\$1.1-1.2bn for coal prices >US\$34/te would be value-destroying.

■ **UMPP 3: Only 2 out of 5 projects could take-off**

Of the seven new projects in the pipeline, only two are likely to be bid out in the next four months: Krishnapatnam (imported coal) and Jharkhand (domestic coal). In our opinion, a maximum of two projects could be awarded in this calendar year.

■ **We retain a Buy 2 on BHEL and Reliance Energy**

TPC has underperformed recently because of press reports about the over-bid for Bumi, in our opinion. A coal contract for US\$34/te and a bid of less than US\$1.3bn could be positive news for the stock price, in our view. We recently upgraded REL to Buy 2 based on valuation gap and newsflow on new projects.

30 March 2007

www.ubs.com/investmentresearch

Sahas Harinarayanan

Analyst

sahas.hari@ubs.com

+91-22-2286 2091

Anand Agarwal

Analyst

anand.agarwal@ubs.com

+91-22-2286 2035

This report has been prepared by UBS Securities
India Private Ltd

ANALYST CERTIFICATION AND REQUIRED DISCLOSURES BEGIN ON PAGE 4

UBS 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.

UMPP 1: Sasan project could be re-bid

As per media reports, various parties have asked for a re-bid or allotment of the project to the second lowest bidder, Reliance Energy, based on: a) a change in ownership at Globeleq, Singapore, which was the lead partner in the project, to Lanco and Jindal Steel and Power (JSP); and b) alleged misrepresentation of financial data in order to qualify (ie, when Globeleq, Singapore, used the balance sheet of Globeleq, UK, to qualify for bidding).

In our opinion, the latter charge might be weak as the bids were evaluated by an expert committee and hence qualification might not be questioned at this stage. On the other hand, experts do not rule out a re-bid based on the second point.

While the bid conditions for the Sasan project put conditions on the shareholding structure of the lead partner for the project, it did not specify any restrictions on changes to ownership of the lead partner itself. Globeleq, Singapore, was the lead partner at the time of bid for the Sasan UMPP.

After the project was awarded to Lanco, Globeleq, UK, Globeleq's parent company expressed an interest in exiting its assets globally and the stake in its Singapore unit was bought by Lanco Infratech and Jindal Steel and Power (JSPL).

Furthermore, given the media interest and the political nature of the situation, we do not rule out re-bids for the same. However, we do not expect the project to be allotted to L2, Reliance Energy.

UMPP 2: TPC's bid for Mundhra depends on Bumi

As we highlighted in our 23 February 2007 report: *Tata Power: Reported bid price for Bumi looks high*, meeting ROE depends on attaining a coal FOB price of US\$34/te for coal at a calorific value of 6,300kcal/kg.

We estimate UMPP's ROE at 12-15% depending on the cost of equipment and fuel costs. Equipment costs are unlikely to be lower than the traditional Rs22m/MW benchmark and, given the strong thermal coal market, fuel cost savings are unlikely unless TPC secures long-term supply at a contracted price through Bumi.

As per our estimate, including the possibility of savings in fuel costs for the UMPP of US\$5-6/te, we estimate a bid level for Bumi at about US\$1.3bn could be value-accretive. Hence, with lower savings in fuel costs, which is a more likely scenario, we think a bid price of US\$1.1-1.2bn would be value-accretive.

Table 1: Potential Bumi bid analysis

	US\$ m	Assumptions
Value of Bumi (30%)	795	For 12mtpa that will be used in UMPP, margins are US\$3-4/te after 2012 vs. normal margins of US\$10-15/te for the balance coal.
Savings in fuel costs over 2012-2037 (discounted to now)	515	UMPP fuel cost bid of US\$34-35/te vs. cost of coal from Bumi at US\$28/te, inflation 4%, discounted by cost of debt of 11%
Total	1,310	

Source: UBS estimates

UMPP 3: Only 2 out of 5 projects could take-off

Of the seven new projects in the pipeline, only two are likely to be bid out in the next four months: Krishnapatnam (imported coal) and Jharkhand (domestic coal).

Table 2: Status of UMPP

Project	Status
Krishnapatnam (imported coal)	Bidding date 2 nd week April 2007
Jharkhand (domestic coal)	Bidding date-July 2007
Chennai (Cheyyur)	Site not identified
Orissa	Site not identified. Free power issue to be sorted out.
Chattisgarh	Site not identified. Free power issue to be sorted out.
Maharashtra	Site not identified. Likely ruled out.
Karnataka	Site not identified. Likely ruled out.

Source: Ministry of Power, UBS

We retain a Buy 2 on BHEL and Reliance Energy

Among stocks under our coverage exposed to the UMPP, we have Buy 2 ratings for BHEL and Reliance Energy and Neutral ratings for NTPC, TPC, Larsen and Toubro.

Table 3: Stocks exposed to UMPP

Stock	CMP (Rs), Rating	PT (Rs)	PT Derivation	UBS Remarks
BHEL	2,278, Buy 2	2,950	Based on DCF	Strong order book of 2.5x sales. However, execution worries and delays in orders could lead to underperformance in near term. Did not participate in the 1 st UMPP. Unlikely to be a strong contender in new UMPPs unless pricing is sorted out. Order backlog and high visibility of profit growth of near 25% over next 2 years should sustain stock performance in a weak market.
Larsen & Toubro	1,616, Neutral 2	1,710	Based on: 1) EV/E of 13.5x for the core business; 2) LTIT at 15x; and 3) Ultratech at US\$100/te.	Strong order book of 1.7x sales. Exposure to power sector very minimal. Was a bidder in Mundhra UMPP. Was one of the highest bidders.
NTPC	145.5, Neutral 1	162	Based on DCF	Strong project pipeline even without the UMPP. Estimate addition to nearly 18,338MW in XI Plan. No immediate term trigger unless government gives mandate to NTPC to set up bulk power projects to enable technology transfer.
Reliance Energy	486, Buy 2	560	Based on sum-of-the-parts valuation	Net cash at Rs234/share is nearly 50% of the value. Mumbai business makes up rest of the value. Expect strong performance in the next round of UMPP bids.
Tata Power	511, Neutral 2	637	Based on sum-of-the-parts valuation	Won the Mundhra UMPP. Unlikely to bid for more UMPPs. Overhang of Bumi bid tempers stock price performance. We expect a bid outcome very soon. Any bid of US\$1.1.-1.2bn and a firm coal contract could be value enhancing.

Source: UBS estimates

■ Statement of Risk

The main risks in the power sector are related to: a) fuel linkages; b) payment security; and c) tariff uncertainty. In addition, execution risks and equipment shortages are also hampering growth.

■ Analyst Certification

Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

Required Disclosures

This report has been prepared by UBS Securities India Private Ltd, an affiliate of UBS AG (UBS).

For information on the ways in which UBS manages conflicts and maintains independence of its research product; historical performance information; and certain additional disclosures concerning UBS research recommendations, please visit www.ubs.com/disclosures.

UBS Investment Research: Global Equity Ratings Definitions and Allocations

UBS rating	Definition	UBS rating	Definition	Rating category	Coverage ¹	IB services ²
Buy 1	FSR is > 6% above the MRA, higher degree of predictability	Buy 2	FSR is > 6% above the MRA, lower degree of predictability	Buy	44%	36%
Neutral 1	FSR is between -6% and 6% of the MRA, higher degree of predictability	Neutral 2	FSR is between -6% and 6% of the MRA, lower degree of predictability	Hold/Neutral	43%	36%
Reduce 1	FSR is > 6% below the MRA, higher degree of predictability	Reduce 2	FSR is > 6% below the MRA, lower degree of predictability	Sell	13%	26%

1: Percentage of companies under coverage globally within this rating category.

2: Percentage of companies within this rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS. Ratings allocations are as of 31 December 2006.

KEY DEFINITIONS

Forecast Stock Return (FSR) is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.

Market Return Assumption (MRA) is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium).

Predictability Level The predictability level indicates an analyst's conviction in the FSR. A predictability level of '1' means that the analyst's estimate of FSR is in the middle of a narrower, or smaller, range of possibilities. A predictability level of '2' means that the analyst's estimate of FSR is in the middle of a broader, or larger, range of possibilities.

Under Review (UR) Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation.

EXCEPTIONS AND SPECIAL CASES

US Closed-End Fund ratings and definitions are: Buy: Higher stability of principal and higher stability of dividends; Neutral: Potential loss of principal, stability of dividend; Reduce: High potential for loss of principal and dividend risk.

UK and European Investment Fund ratings and definitions are: Buy: Positive on factors such as structure, management, performance record, discount; Neutral: Neutral on factors such as structure, management, performance record, discount; Reduce: Negative on factors such as structure, management, performance record, discount.

Core Banding Exceptions (CBE): Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Companies Mentioned or Company Disclosure table in the relevant research piece.

Companies mentioned

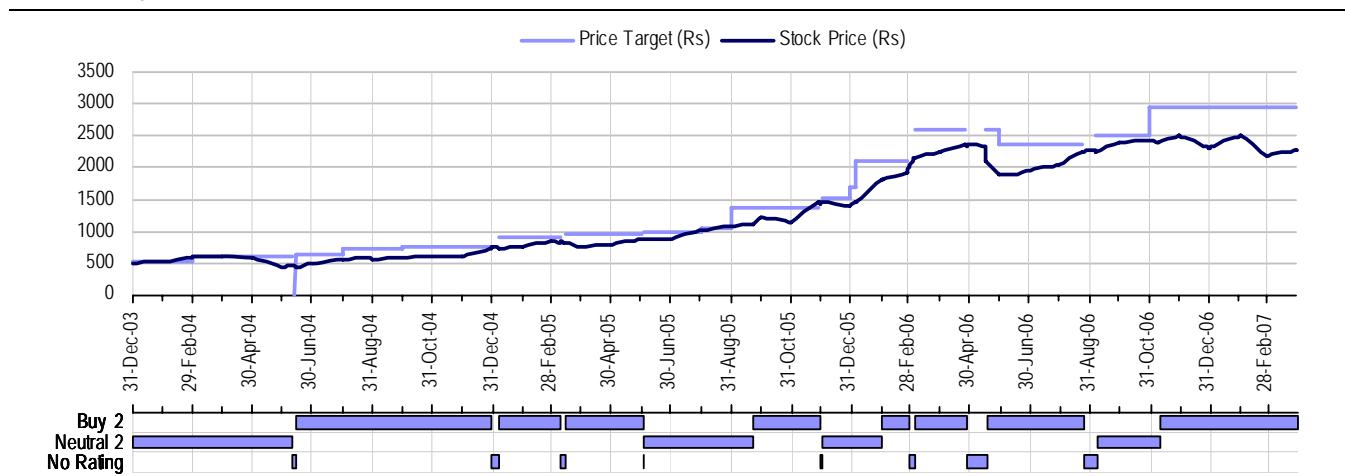
Company Name	Reuters	Rating	Price	Price date/time
Bharat Heavy Elec.	BHEL.BO	Buy 2	Rs2,278.90	29 Mar 2007 23:39 HKT
L & T	LART.BO	Neutral 2	Rs1,616.10	29 Mar 2007 23:39 HKT
NTPC	NTPC.BO	Neutral 1	Rs145.30	29 Mar 2007 23:39 HKT
Reliance Energy	RLEN.BO	Buy 2	Rs488.15	29 Mar 2007 23:39 HKT
Tata Power⁵	TTPW.BO	Neutral 2	Rs511.50	29 Mar 2007 23:39 HKT

Source: UBS. HKT: Hong Kong time.

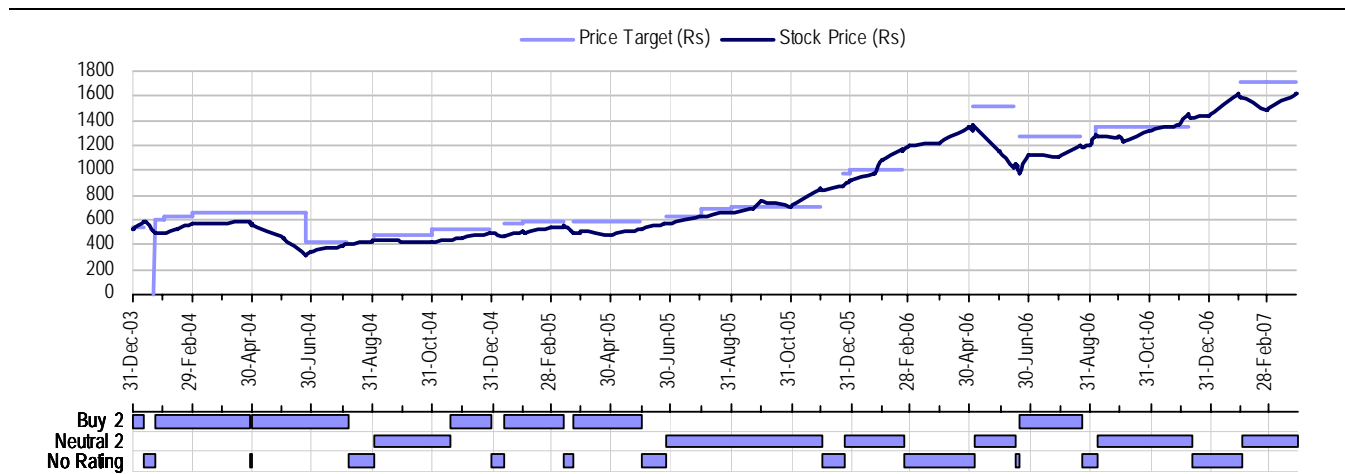
5. UBS AG, its affiliates or subsidiaries expect to receive or intend to seek compensation for investment banking services from this company/entity within the next three months.

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.

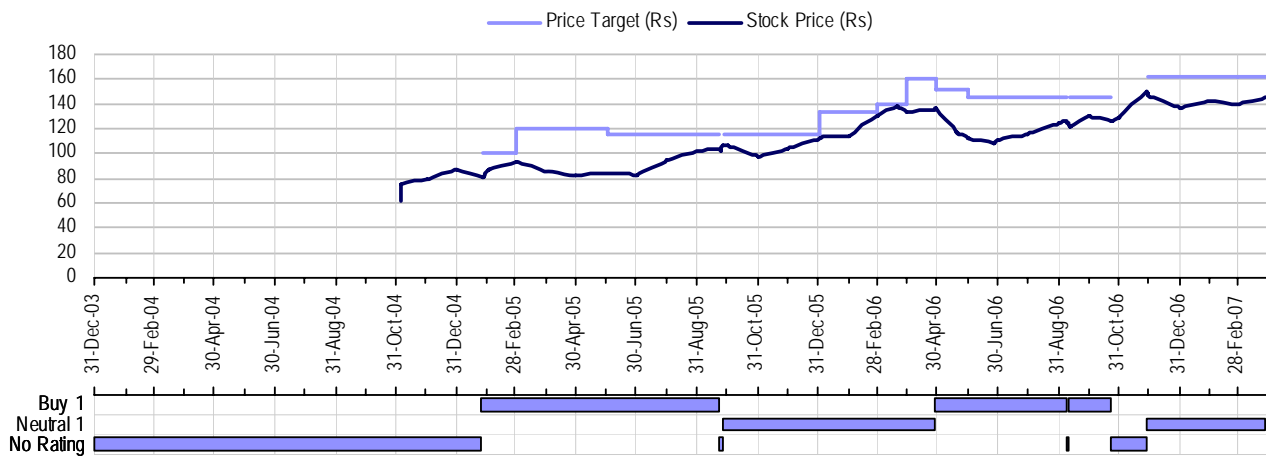
Bharat Heavy Electricals Limited (Rs)



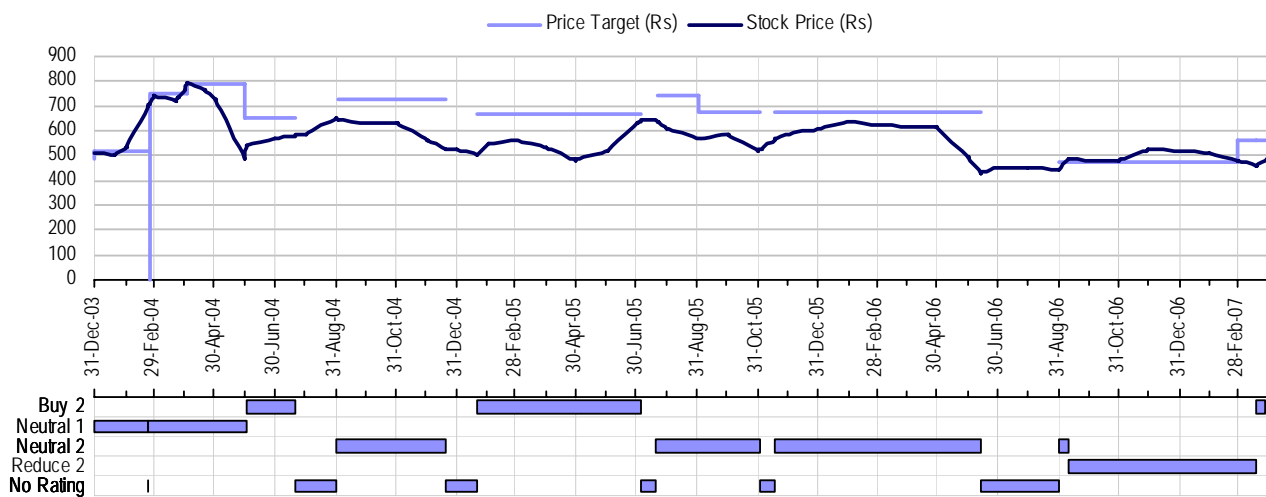
L & T (Rs)



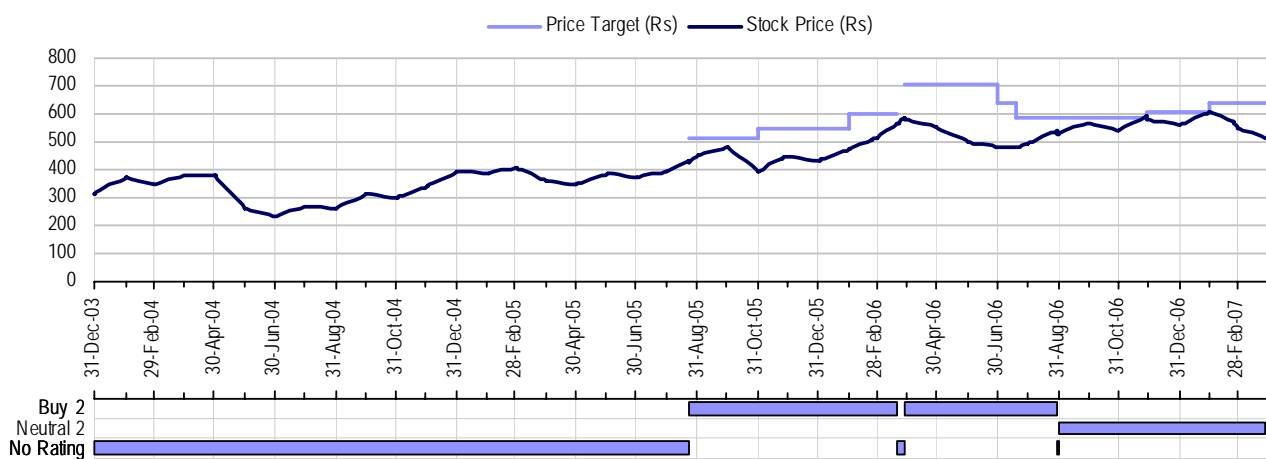
National Thermal Power Corporation Ltd. (Rs)



Reliance Energy (Rs)



Tata Power (Rs)



Source: UBS; as of 29 March 2007.

Note: On September 9, 2006, UBS adopted new percentage band criteria for its rating system. (See 'UBS Investment Research: Global Equity Ratings Definitions and Allocations' table for details). Between October 13, 2003 and September 9, 2006 the percentage band criteria used in the rating system was 10%. Prior to October 13, 2003, the UBS ratings and their definitions were: Buy 1: Excess return potential >15%, smaller range around price target; Buy 2: Excess return potential >15%, larger range around price target; Neutral 1: Excess return potential between -15% and 15%, smaller range around price target; Neutral 2: Excess return potential between -15% and 15%, larger range around price target; Reduce 1: Excess return potential < -15%,

smaller range around price target; Reduce 2: Excess return potential < -15%, larger range around price target. Excess return is defined as the difference between the FSR and the one-year local market interest rate.

Global Disclaimer

This report has been prepared by UBS Securities India Private Ltd, an affiliate of UBS AG (UBS). In certain countries UBS AG is referred to as UBS SA.

This report is for distribution only under such circumstances as may be permitted by applicable law. It has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient. It is published solely for informational purposes and is not to be construed as a solicitation or an offer to buy or sell any securities or related financial instruments. No representation or warranty, either express or implied, is provided in relation to the accuracy, completeness or reliability of the information contained herein, except with respect to information concerning UBS AG, its subsidiaries and affiliates, nor is it intended to be a complete statement or summary of the securities, markets or developments referred to in the report. The report should not be regarded by recipients as a substitute for the exercise of their own judgement. Any opinions expressed in this report are subject to change without notice and may differ or be contrary to opinions expressed by other business areas or groups of UBS as a result of using different assumptions and criteria. The analysis contained herein is based on numerous assumptions. Different assumptions could result in materially different results. The analyst(s) responsible for the preparation of this report may interact with trading desk personnel, sales personnel and other constituencies for the purpose of gathering, synthesizing and interpreting market information. UBS is under no obligation to update or keep current the information contained herein. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS, into other areas, units, groups or affiliates of UBS. The compensation of the analyst who prepared this report is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues, however, compensation may relate to the revenues of UBS Investment Bank as a whole, of which investment banking, sales and trading are a part.

The securities described herein may not be eligible for sale in all jurisdictions or to certain categories of investors. Options, derivative products and futures are not suitable for all investors, and trading in these instruments is considered risky. Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates and other market conditions. Past performance is not necessarily indicative of future results. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument mentioned in this report. For investment advice, trade execution or other enquiries, clients should contact their local sales representative. Neither UBS nor any of its affiliates, nor any of UBS' or any of its affiliates, directors, employees or agents accepts any liability for any loss or damage arising out of the use of all or any part of this report. **Additional information will be made available upon request.**

For financial instruments admitted to trading on an EU regulated market: UBS AG, its affiliates or subsidiaries (excluding UBS Securities LLC and/or UBS Capital Markets LP) acts as a market maker or liquidity provider (in accordance with the interpretation of these terms in the UK) in the financial instruments of the issuer save that where the activity of liquidity provider is carried out in accordance with the definition given to it by the laws and regulations of any other EU jurisdictions, such information is separately disclosed in this research report.

United Kingdom and the rest of Europe: Except as otherwise specified herein, this material is communicated by UBS Limited, a subsidiary of UBS AG, to persons who are market counterparties or intermediate customers (as detailed in the FSA Rules) and is only available to such persons. The information contained herein does not apply to, and should not be relied upon by, private customers. UBS Limited is regulated by the FSA. **France:** Prepared by UBS Limited and distributed by UBS Limited and UBS Securities France SA. UBS Securities France S.A. is regulated by the the Autorité des Marchés Financiers (AMF). Where an analyst of UBS Securities France S.A. has contributed to this report, the report is also deemed to have been prepared by UBS Securities France S.A. **Germany:** Prepared by UBS Limited and distributed by UBS Limited and UBS Deutschland AG. UBS Deutschland AG is regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). **Spain:** Prepared by UBS Limited and distributed by UBS Limited and UBS Securities España SV, SA. UBS Securities España SV, SA is regulated by the Comisión Nacional del Mercado de Valores (CNMV). **Russia:** Prepared and distributed by the Moscow Representative Office of UBS Cyprus Moscow Limited. **Switzerland:** Distributed by UBS AG to persons who are institutional investors only. **Italy:** Prepared by UBS Limited and distributed by UBS Limited and UBS Italia Sim S.p.A.. UBS Italia Sim S.p.A. is regulated by the Bank of Italy and by the Commissione Nazionale per le Società e la Borsa (CONSOB). Where an analyst of UBS Italia Sim S.p.A. has contributed to this report, the report is also deemed to have been prepared by UBS Italia Sim S.p.A.. **South Africa:** UBS South Africa (Pty) Limited (Registration No. 1995/011140/07) is a member of the JSE Limited, the South African Futures Exchange and the Bond Exchange of South Africa. UBS South Africa (Pty) Limited is an authorised Financial Services Provider. **United States:** Distributed to US persons by either UBS Securities LLC or by UBS Financial Services Inc., subsidiaries of UBS AG; or by a group, subsidiary or affiliate of UBS AG that is not registered as a US broker-dealer (a "non-US affiliate"), to major US institutional investors only. UBS Securities LLC or UBS Financial Services Inc. accepts responsibility for the content of a report prepared by another non-US affiliate when distributed to US persons by UBS Securities LLC or UBS Financial Services Inc. All transactions by a US person in the securities mentioned in this report must be effected through UBS Securities LLC or UBS Financial Services Inc., and not through a non-US affiliate. **Canada:** Distributed by UBS Securities Canada Inc., a subsidiary of UBS AG and a member of the principal Canadian stock exchanges & CIPF. A statement of its financial condition and a list of its directors and senior officers will be provided upon request. **Hong Kong:** Distributed by UBS Securities Asia Limited. **Singapore:** Distributed by UBS Securities Pte. Ltd or UBS AG, Singapore Branch. **Japan:** Distributed by UBS Securities Japan Ltd to institutional investors only. **Australia:** Distributed by UBS AG (Holder of Australian Financial Services Licence No. 231087) and UBS Securities Australia Ltd (Holder of Australian Financial Services Licence No. 231098) only to "Wholesale" clients as defined by s761G of the Corporations Act 2001. **New Zealand:** Distributed by UBS New Zealand Ltd.

© 2007 UBS. All rights reserved. This report may not be reproduced or redistributed, in whole or in part, without the written permission of UBS and UBS accepts no liability whatsoever for the actions of third parties in this respect.