

Rating Buy

Asia China

Consumer

Alcohol & Tobacco

Company Kweichow Moutai

Reuters 600519.SS Bloomberg 600519 CG Exchange Ticker SHH 600519

Date 16 July 2018

Forecast Change

Price at 16 Jul 2018 (CNY)	754.55
Price target - 12mth (CNY)	820.00
52-week range (CNY)	799.50 - 449.96
Shanghai Composite	2,832

Strong 2Q18 growth; reiterating Buy

Sales and profit before tax up 43% and 41%, respectively, in 2Q18

Moutai reported preliminary results with growth of 43% for sales and 41% for PBT in 2Q18 (vs. 32% for sales and 39% for earnings in 1Q18). The 43% sales growth was supported by:

- 18% ASP increase, on the back of the Dec 2017 price hike from Rmb819 to Rmb969 (high end Moutai);
- 12% volume growth of high end Moutai. We estimate Feitian Moutai sales volume was around 6500-7000 tons (vs. 7600 in 1Q18);
- 8% from mid-low end Moutai. We estimate mid-low end Moutai grew 60% yoy in 1H18 to Rmb4bn, accounting for 12% of total sales.

PBT growth was lower than sales growth in 2Q18, even though gross margin rose for high end Moutai after ex-factory price hike, mainly due to a higher sales contribution from mid-low end sales.

Near-term outlook: Moutai group to achieve over Rmb90bn in 2018

According to the Moutai Group (the controlling shareholder of Kweichow Moutai), it is highly likely that group sales will achieve Rmb90bn in 2018, implying 18% yoy growth. The group will not set any upside limits for sales growth. The group targets to move the company's scale up to a new level. We think this illustrates the group's high confidence in Moutai's 2H18 growth.

Revising up TP to Rmb820 and reiterating Buy

Moutai's PBT growth at 40% yoy in 1H18 was higher than consensus/DB's 34%/27% earnings growth for 2018. We expect sales growth to remain strong in 3Q and expand further thanks to higher demand for "Feitian Moutai" during peak season. We are revising up our earnings forecasts by 6-8% in 2018-20 to factor in better than expected volume growth. We revise up our target price to Rmb820 based on DCF model (factoring in 9.5% WACC and 2.0% terminal growth rate). We reiterate Buy. Downside risk: earlier-than-expected channel de-stocking.

Valuation & Risks

Mark Yuan

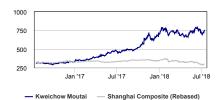
Research Analyst +852-2203 6181

Anne Ling

Research Analyst +852-2203 6177

Key changes			
TP	790.00 to 820.00	↑	3.8%
Sales (FYE)	63,808 to 67,702	1	6.1%
Op prof margin (FYE)	-	\downarrow	-0.0%
Net profit (FYE)	34,274.0 to 36,261.7	1	5.8%
Source: Deutsche Bank			

Price/price relative



Performance (%)	1m	3m	12m
Absolute	-2.4	10.7	65.3
Shanghai Composite	-6.3	-9.0	-12.1
Source: Deutsche Bank			

Source: Deutsche Bank	
Key indicators (FY1)	
ROE (%)	35.3
Net debt/equity (%)	-78.6
Book value/share (CNY)	90.67
Price/book (x)	8.3
Net interest cover (x)	-
Operating profit margin (%)	73.3
Source: Deutsche Bank	

Deutsche Bank AG/Hong Kong

Deutsche Bank does and seeks to do business with companies covered in its res/Distributed on: 16/07/2018 11:51:07 GMT 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. DISCLOSURES AND ANALYST CERTIFICATIONS ARE LOCATED IN APPENDIX 1. MCI (P) 091/04/2018. THE CONTENT MAY NOT BE DISTRIBUTED IN THE PEOPLE'S REPUBLIC OF CHINA ("THE PRC") (EXCEPT IN COMPLIANCE WITH THE APPLICABLE LAWS AND REGULATIONS OF PRC), EXCLUDING SPECIAL ADMINISTRATIVE REGIONS OF HONG KONG AND MACAU.



Model updated: 16 July 2018			
Running the numbers Asia			
China			
Alcohol & Tobacco			

Kweichow Moutai

Reuters: 600519.SS Bloomberg: 600519 CG

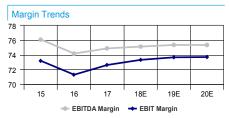
Buy

Price (16 Jul 18)	CNY 754.6
Target Price	CNY 820.0
52 Week range	CNY 449.96 - 799.50
Market cap (m)	CNYm 947,866 USDm 141,825

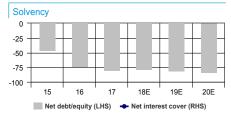
Company Profile

Kweichow Moutai is China's largest local spirit brand/producer by sales value.









Mark Yuan

+852 2203 6181 mark.yuan@db.com

Fiscal year end 31-Dec	2015	2016	2017	2018E	2019E	2020E
Financial Summary						
DB EPS (CNY) Reported EPS (CNY) DPS (CNY) BVPS (CNY)	12.34	13.31	21.56	28.87	33.93	38.65
	12.34	13.31	21.56	28.87	33.93	38.65
	6.17	6.79	11.00	15.67	18.42	20.98
	50.9	58.0	72.8	90.7	108.9	129.2
Weighted average shares (m)	1,256	1,256	1,256	1,256	1,256	1,256
Average market cap (CNYm)	256,416	346,172	601,050	947,866	947,866	947,866
Enterprise value (CNYm)	225,583	290,095	523,644	852,933	828,223	801,559
Valuation Metrics						
P/E (DB) (x) P/E (Reported) (x) P/BV (x)	16.5	20.7	22.2	26.1	22.2	19.5
	16.5	20.7	22.2	26.1	22.2	19.5
	4.28	5.76	9.57	8.32	6.93	5.84
FCF Yield (%)	6.0	10.5	3.5	3.3	4.7	5.3
Dividend Yield (%)	3.0	2.5	2.3	2.1	2.4	2.8
EV/Sales (x) EV/EBITDA (x) EV/EBIT (x)	7.7	9.0	10.5	12.6	10.5	9.0
	10.2	12.1	14.0	16.8	13.9	11.9
	10.6	12.6	14.5	17.2	14.2	12.1
Income Statement (CNYm)						
Sales revenue Gross profit EBITDA	29,210 26,672 22,223	32,353 28,943 23,997	49,814 43,873 37,300	67,702 60,129 50,860	79,022 70,237 59,544 1.337	89,530 79,518 67,453 1,476
Depreciation Amortisation EBIT	848 0 21,375	934 0 23.063	1,126 0 36,175	1,225 0 49,635	1,337 0 58,207	0 65,977
Net interest income(expense) Associates/affiliates Exceptionals/extraordinaries	780	1,203	2,765	2,046	2,484	3,102
	0	0	0	0	0	0
	0	0	0	0	0	0
Other pre-tax income/(expense) Profit before tax	-153	-308	-200	-246	-240	-218
	22,002	23,958	38,740	51,435	60,452	68,862
Income tax expense Minorities Other post-tax income/(expense)	5,547	6,027	9,734	12,859	15,113	17,215
	952	1,212	1,927	2,315	2,720	3,099
	0	0	0	0	0	0
Net profit	15,503	16,718	27,079	36,262	42,618	48,547
DB adjustments (including dilution) DB Net profit	0	0	0	0	0	0
	15,503	16,718	27,079	36,262	42,618	48,547
Cash Flow (CNYm)						
Cash flow from operations	17,436	37,451	22,153	34,093	46,770	52,491
Net Capex	-2,053	-1,019	-1,125	-2,749	-2,378	-2,693
Free cash flow	15,384	36,432	21,028	31,344	44,392	49,798
Equity raised/(bought back)	0	0	0	0	0	0
Dividends paid	-5,554	-8,351	-8,905	-13,817	-19,683	-23,134
Net inc/(dec) in borrowings	1,948	4,811	-316	0	0	0
Other investing/financing cash flows	56	5	21	0	0	0
Net cash flow	11,834	32,899	11,828	17,527	24,709	26,664
Change in working capital	471	19,162	-8,318	-5,746	95	-631
Balance Sheet (CNYm)						
Cash and other liquid assets Tangible fixed assets	36,801	66,855	87,869	105,396	130,105	156,769
	16,312	17,199	17,261	18,868	19,993	21,294
Goodwill/intangible assets Associates/investments	3,582	3,532	3,459	3,386	3,312	3,239
	29	29	29	29	29	29
Other assets	29,577	25,320	25,956	41,595	47,717	54,355
Total assets	86,301	112,935	134,573	169,274	201,156	235,686
Interest bearing debt	5,967	10,779	10,463	10,463	10,463	10,463
Other liabilities	14,100	26,257	28,128	38,032	44,258	50,276
Total liabilities	20,067	37,036	38,590	48,495	54,721	60,738
Shareholders' equity	63,926	72,894	91,452	113,896	136,832	162,246
Minorities Total shareholders' equity	2,308	3,004	4,568	6,883	9,603	12,702
	66,234	75,899	96,020	120,779	146,435	174,947
Net debt	-30,833	-56,076	-77,406	-94,933	-119,642	-146,306
Key Company Metrics						
Sales growth (%) DB EPS growth (%)	1.5	10.8	54.0	35.9	16.7	13.3
	1.0	7.8	62.0	33.9	17.5	13.9
EBITDA Margin (%)	76.1	7.0	74.9	75.1	75.4	75.3
EBIT Margin (%)	73.2	71.3	72.6	73.3	73.7	73.7
	50.0	51.0	51.0	54.3	54.3	54.3
Payout ratio (%) ROE (%)	26.4	24.4	33.0	54.3 35.3	54.3 34.0	32.5
Capex/sales (%)	7.1	3.2	2.3	4.1	3.0	3.0
Capex/depreciation (x) Net debt/equity (%)	2.4	1.1	1.0	2.2	1.8	1.8
	-46.6	-73.9	-80.6	-78.6	-81.7	-83.6
Net interest cover (x)	nm	nm	nm	nm	nm	nm
Source: Company data. Deutsche Bank es	timates					

Source: Company data, Deutsche Bank estimates



Appendix 1

Important Disclosures

*Other information available upon request

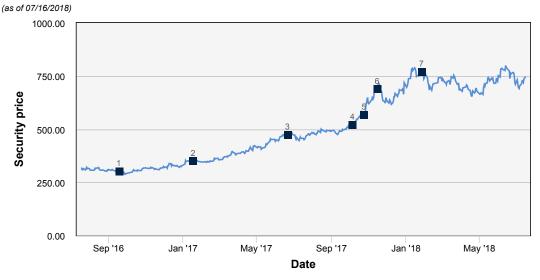
Kwaichaw Mautai	600519.55	754 55 (CNV) 16 Jul 2019	NΙΛ
Company	Ticker	Recent price*	Disclosure
Disclosure checklist			

^{*}Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at https://research.db.com/ Research/Disclosures/CompanySearch. Aside from within this report, important risk and conflict disclosures can also be found at https://research.db.com/Research/Topics/Equities? topicId=RB0002. Investors are strongly encouraged to review this information before investing.

Analyst Certification

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst(s) about the subject issuer and the securities of the issuer. In addition, the undersigned lead analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report. Mark Yuan

Historical recommendations and target price. Kweichow Moutai (600519.SS)



Current Recommendations

Buy Hold Sell Not Rated Suspended Rating

** Analyst is no longer at Deutsche Bank

1.	09/19/2016	Buy, Target Price Change CNY 385.00 Charlie Chen**	5.	10/25/2017	Buy, Target Price Change CNY 650.00 Mark Yuan
2.	01/18/2017	Buy, Target Price Change CNY 410.00 Charlie Chen**	6.	11/16/2017	Buy, Target Price Change CNY 745.00 Mark Yuan
3.	06/22/2017	Buy, Target Price Change CNY 550.00 Mark Yuan	7.	01/28/2018	Buy, Target Price Change CNY 790.00 Mark Yuan
4.	10/06/2017	Buy, Target Price Change CNY 610.00 Mark Yuan			



Equity Rating Key

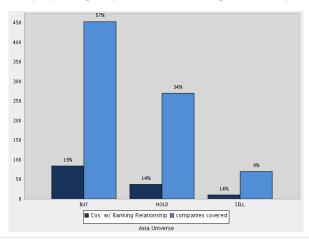
Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus pro-jected dividend yield), we recommend that investors buy the stock.

Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock.

Hold: We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

Newly issued research recommendations and target prices supersede previously published research.

Equity rating dispersion and banking relationships





Additional Information

The information and opinions in this report were prepared by Deutsche Bank AG or one of its affiliates (collectively "Deutsche Bank"). Though the information herein is believed to be reliable and has been obtained from public sources believed to be reliable, Deutsche Bank makes no representation as to its accuracy or completeness. Hyperlinks to third-party websites in this report are provided for reader convenience only. Deutsche Bank neither endorses the content nor is responsible for the accuracy or security controls of those websites.

If you use the services of Deutsche Bank in connection with a purchase or sale of a security that is discussed in this report, or is included or discussed in another communication (oral or written) from a Deutsche Bank analyst, Deutsche Bank may act as principal for its own account or as agent for another person.

Deutsche Bank may consider this report in deciding to trade as principal. It may also engage in transactions, for its own account or with customers, in a manner inconsistent with the views taken in this research report. Others within Deutsche Bank, including strategists, sales staff and other analysts, may take views that are inconsistent with those taken in this research report. Deutsche Bank issues a variety of research products, including fundamental analysis, equity-linked analysis, quantitative analysis and trade ideas. Recommendations contained in one type of communication may differ from recommendations contained in others, whether as a result of differing time horizons, methodologies, perspectives or otherwise. Deutsche Bank and/or its affiliates may also be holding debt or equity securities of the issuers it writes on. Analysts are paid in part based on the profitability of Deutsche Bank AG and its affiliates, which includes investment banking, trading and principal trading revenues.

Opinions, estimates and projections constitute the current judgment of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank and are subject to change without notice. Deutsche Bank provides liquidity for buyers and sellers of securities issued by the companies it covers. Deutsche Bank research analysts sometimes have shorter-term trade ideas that may be inconsistent with Deutsche Bank's existing longer-term ratings. Some trade ideas for equities are listed as Catalyst Calls on the Research Website (https://research.db.com/Research/), and can be found on the general coverage list and also on the covered company 's page. A Catalyst Call represents a high-conviction belief by an analyst that a stock will outperform or underperform the market and/or a specified sector over a time frame of no less than two weeks and no more than three months. In addition to Catalyst Calls, analysts may occasionally discuss with our clients, and with Deutsche Bank salespersons and traders, trading strategies or ideas that reference catalysts or events that may have a near-term or medium-term impact on the market price of the securities discussed in this report, which impact may be directionally counter to the analysts' current 12-month view of total return or investment return as described herein. Deutsche Bank has no obligation to update, modify or amend this report or to otherwise notify a recipient thereof if an opinion, forecast or estimate changes or becomes inaccurate. Coverage and the frequency of changes in market conditions and in both general and company-specific economic prospects make it difficult to update research at defined intervals. Updates are at the sole discretion of the coverage analyst or of the Research Department Management, and the majority of reports are published at irregular intervals. This report is provided for informational purposes only and does not take into account the particular investment objectives, financial situations, or needs of individual clients. It is not an offer or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Target prices are inherently imprecise and a product of the analyst's judgment. The financial instruments discussed in this report may not be suitable for all investors, and investors must make their own informed investment decisions. Prices and availability of financial instruments are subject to change without notice, and investment transactions can lead to losses as a result of price fluctuations and other factors. If a financial instrument is denominated in a currency other than an investor's currency, a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Performance calculations exclude transaction costs, unless otherwise indicated. Unless otherwise indicated, prices are current as of the end of the previous trading session and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is also sourced from Deutsche Bank, subject companies, and other parties.

The Deutsche Bank Research Department is independent of other business divisions of the Bank. Details regarding our organizational arrangements and information barriers we have to prevent and avoid conflicts of interest with respect to our research are available on our website (https://research.db.com/Research/) under Disclaimer.



Macroeconomic fluctuations often account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor who is long fixed-rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or liquidation of positions), and settlement issues related to local clearing houses are also important risk factors. The sensitivity of fixedincome instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates - these are common in emerging markets. The index fixings may - by construction - lag or mis-measure the actual move in the underlying variables they are intended to track. The choice of the proper fixing (or metric) is particularly important in swaps markets, where floating coupon rates (i.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. Funding in a currency that differs from the currency in which coupons are denominated carries FX risk. Options on swaps (swaptions) the risks typical to options in addition to the risks related to rates movements.

Derivative transactions involve numerous risks including market, counterparty default and illiquidity risk. The appropriateness of these products for use by investors depends on the investors' own circumstances, including their tax position, their regulatory environment and the nature of their other assets and liabilities; as such, investors should take expert legal and financial advice before entering into any transaction similar to or inspired by the contents of this publication. The risk of loss in futures trading and options, foreign or domestic, can be substantial. As a result of the high degree of leverage obtainable in futures and options trading, losses may be incurred that are greater than the amount of funds initially deposited – up to theoretically unlimited losses. Trading in options involves risk and is not suitable for all investors. Prior to buying or selling an option, investors must review the "Characteristics and Risks of Standardized Options", at http://www.optionsclearing.com/about/publications/character-risks.jsp. If you are unable to access the website, please contact your Deutsche Bank representative for a copy of this important document.

Participants in foreign exchange transactions may incur risks arising from several factors, including the following: (i) exchange rates can be volatile and are subject to large fluctuations; (ii) the value of currencies may be affected by numerous market factors, including world and national economic, political and regulatory events, events in equity and debt markets and changes in interest rates; and (iii) currencies may be subject to devaluation or government-imposed exchange controls, which could affect the value of the currency. Investors in securities such as ADRs, whose values are affected by the currency of an underlying security, effectively assume currency risk.

Unless governing law provides otherwise, all transactions should be executed through the Deutsche Bank entity in the investor's home jurisdiction. Aside from within this report, important conflict disclosures can also be found at https://research.db.com/Research/ on each company 's research page. Investors are strongly encouraged to review this information before investing.

Deutsche Bank (which includes Deutsche Bank AG, its branches and affiliated companies) is not acting as a financial adviser, consultant or fiduciary to you or any of your agents (collectively, "You" or "Your") with respect to any information provided in this report. Deutsche Bank does not provide investment, legal, tax or accounting advice, Deutsche Bank is not acting as your impartial adviser, and does not express any opinion or recommendation whatsoever as to any strategies, products or any other information presented in the materials. Information contained herein is being provided solely on the basis that the recipient will make an independent assessment of the merits of any investment decision, and it does not constitute a recommendation of, or express an opinion on, any product or service or any trading strategy.

The information presented is general in nature and is not directed to retirement accounts or any specific person or account type, and is therefore provided to You on the express basis that it is not advice, and You may not rely upon it in making Your decision. The information we provide is being directed only to persons we believe to be financially sophisticated, who are capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies, and who understand that Deutsche Bank has financial interests in the offering of its products



and services. If this is not the case, or if You are an IRA or other retail investor receiving this directly from us, we ask that you inform us immediately.

In July 2018, Deutsche Bank revised its rating system for short term ideas whereby the branding has been changed to Catalyst Calls ("CC") from SOLAR ideas; the rating categories for Catalyst Calls originated in the Americas region have been made consistent with the categories used by Analysts globally; and the effective time period for CCs has been reduced from a maximum of 180 days to 90 days.

United States: Approved and/or distributed by Deutsche Bank Securities Incorporated, a member of FINRA, NFA and SIPC. Analysts located outside of the United States are employed by non-US affiliates that are not subject to FINRA regulations.

Germany: Approved and/or distributed by Deutsche Bank AG, a joint stock corporation with limited liability incorporated in the Federal Republic of Germany with its principal office in Frankfurt am Main. Deutsche Bank AG is authorized under German Banking Law and is subject to supervision by the European Central Bank and by BaFin, Germany 's Federal Financial Supervisory Authority.

United Kingdom: Approved and/or distributed by Deutsche Bank AG acting through its London Branch at Winchester House, 1 Great Winchester Street, London EC2N 2DB. Deutsche Bank AG in the United Kingdom is authorised by the Prudential Regulation Authority and is subject to limited regulation by the Prudential Regulation Authority and Financial Conduct Authority. Details about the extent of our authorisation and regulation are available on request.

Hong Kong: Distributed by Deutsche Bank AG, Hong Kong Branch or Deutsche Securities Asia Limited (save that any research relating to futures contracts within the meaning of the Hong Kong Securities and Futures Ordinance Cap. 571 shall be distributed solely by Deutsche Securities Asia Limited). The provisions set out above in the "Additional Information" section shall apply to the fullest extent permissible by local laws and regulations, including without limitation the Code of Conduct for Persons Licensed or Registered with the Securities and Futures Commission.

India: Prepared by Deutsche Equities India Private Limited (DEIPL) having CIN: U65990MH2002PTC137431 and registered office at 14th Floor, The Capital, C-70, G Block, Bandra Kurla Complex Mumbai (India) 400051. Tel: + 91 22 7180 4444. It is registered by the Securities and Exchange Board of India (SEBI) as a Stock broker bearing registration nos.: NSE (Capital Market Segment) - INB231196834, NSE (F&O Segment) INF231196834, NSE (Currency Derivatives Segment) INE231196834, BSE (Capital Market Segment) INB011196830; Merchant Banker bearing SEBI Registration no.: INM000010833 and Research Analyst bearing SEBI Registration no.: INH000001741. DEIPL may have received administrative warnings from the SEBI for breaches of Indian regulations. The transmission of research through DEIPL is Deutsche Bank's determination and will not make a recipient a client of DEIPL. Deutsche Bank and/or its affiliate(s) may have debt holdings or positions in the subject company. With regard to information on associates, please refer to the "Shareholdings" section in the Annual Report at: https://www.db.com/ir/en/annual-reports.htm.

Japan: Approved and/or distributed by Deutsche Securities Inc.(DSI). Registration number - Registered as a financial instruments dealer by the Head of the Kanto Local Finance Bureau (Kinsho) No. 117. Member of associations: JSDA, Type II Financial Instruments Firms Association and The Financial Futures Association of Japan. Commissions and risks involved in stock transactions - for stock transactions, we charge stock commissions and consumption tax by multiplying the transaction amount by the commission rate agreed with each customer. Stock transactions can lead to losses as a result of share price fluctuations and other factors. Transactions in foreign stocks can lead to additional losses stemming from foreign exchange fluctuations. We may also charge commissions and fees for certain categories of investment advice, products and services. Recommended investment strategies, products and services carry the risk of losses to principal and other losses as a result of changes in market and/or economic trends, and/or fluctuations in market value. Before deciding on the purchase of financial products and/or services, customers should carefully read the relevant disclosures, prospectuses and other documentation. "Moody's", "Standard & Poor's", and "Fitch" mentioned in this report are not registered credit rating agencies in Japan unless Japan or "Nippon" is specifically designated in the name of the entity. Reports on Japanese listed companies not written by analysts of DSI are written by Deutsche Bank Group's analysts with the coverage companies specified by DSI. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan. Target prices set by Deutsche Bank's equity analysts are based on a 12-month forecast period..



Korea: Distributed by Deutsche Securities Korea Co.

South Africa: Deutsche Bank AG Johannesburg is incorporated in the Federal Republic of Germany (Branch Register Number in South Africa: 1998/003298/10).

Singapore: This report is issued by Deutsche Bank AG, Singapore Branch or Deutsche Securities Asia Limited, Singapore Branch (One Raffles Quay #18-00 South Tower Singapore 048583, +65 6423 8001), which may be contacted in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated by Deutsche Bank in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), they accept legal responsibility to such person for its contents.

Taiwan: Information on securities/investments that trade in Taiwan is for your reference only. Readers should independently evaluate investment risks and are solely responsible for their investment decisions. Deutsche Bank research may not be distributed to the Taiwan public media or quoted or used by the Taiwan public media without written consent. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation to trade in such securities/instruments. Deutsche Securities Asia Limited, Taipei Branch may not execute transactions for clients in these securities/instruments.

Qatar: Deutsche Bank AG in the Qatar Financial Centre (registered no. 00032) is regulated by the Qatar Financial Centre Regulatory Authority. Deutsche Bank AG - QFC Branch may undertake only the financial services activities that fall within the scope of its existing QFCRA license. Its principal place of business in the QFC: Qatar Financial Centre, Tower, West Bay, Level 5, PO Box 14928, Doha, Qatar. This information has been distributed by Deutsche Bank AG. Related financial products or services are only available only to Business Customers, as defined by the Qatar Financial Centre Regulatory Authority.

Russia: The information, interpretation and opinions submitted herein are not in the context of, and do not constitute, any appraisal or evaluation activity requiring a license in the Russian Federation.

Kingdom of Saudi Arabia: Deutsche Securities Saudi Arabia LLC Company (registered no. 07073-37) is regulated by the Capital Market Authority. Deutsche Securities Saudi Arabia may undertake only the financial services activities that fall within the scope of its existing CMA license. Its principal place of business in Saudi Arabia: King Fahad Road, Al Olaya District, P.O. Box 301809, Faisaliah Tower - 17th Floor, 11372 Riyadh, Saudi Arabia.

United Arab Emirates: Deutsche Bank AG in the Dubai International Financial Centre (registered no. 00045) is regulated by the Dubai Financial Services Authority. Deutsche Bank AG - DIFC Branch may only undertake the financial services activities that fall within the scope of its existing DFSA license. Principal place of business in the DIFC: Dubai International Financial Centre, The Gate Village, Building 5, PO Box 504902, Dubai, U.A.E. This information has been distributed by Deutsche Bank AG. Related financial products or services are available only to Professional Clients, as defined by the Dubai Financial Services Authority.

Australia and New Zealand: This research is intended only for "wholesale clients" within the meaning of the Australian Corporations Act and New Zealand Financial Advisors Act, respectively. Please refer to Australia-specific research disclosures and related information at https://australia.db.com/australia/content/research-information.html Where research refers to any particular financial product recipients of the research should consider any product disclosure statement, prospectus or other applicable disclosure document before making any decision about whether to acquire the product. In preparing this report, the primary analyst or an individual who assisted in the preparation of this report has likely been in contact with the company that is the subject of this research for confirmation/clarification of data, facts, statements, permission to use company-sourced material in the report, and/or site-visit attendance. Without prior approval from Research Management, analysts may not accept from current or potential Banking clients the costs of travel, accommodations, or other expenses incurred by analysts attending site visits, conferences, social events, and the like. Similarly, without prior approval from Research Management and Anti-Bribery and Corruption ("ABC") team, analysts may not accept perks or other items of value for their personal use from issuers they cover.



Additional information relative to securities, other financial products or issuers discussed in this report is available upon request. This report may not be reproduced, distributed or published without Deutsche Bank's prior written consent. Copyright © 2018 Deutsche Bank AG



David Folkerts-Landau

Group Chief Economist and Global Head of Research

Raj Hindocha Global Chief Operating Officer Research

Michael Spencer Head of APAC Research Global Head of Economics

Steve Pollard Head of Americas Research Global Head of Equity Research

Anthony Klarman Global Head of Debt Research

Paul Reynolds Head of EMEA **Equity Research**

Dave Clark Head of APAC **Equity Research**

Pam Finelli Global Head of **Equity Derivatives Research**

Andreas Neubauer Head of Research - Germany

Spyros Mesomeris Global Head of Quantitative and QIS Research

International Production Locations

Deutsche Bank AG

Deutsche Bank Place Level 16

Corner of Hunter & Phillip Streets Sydney, NSW 2000 Australia

Tel: (61) 2 8258 1234

Tel: (49) 69 910 00

Deutsche Bank AG London

1 Great Winchester Street London EC2N 2EQ United Kingdom Tel: (44) 20 7545 8000

Deutsche Bank AG

Mainzer Landstrasse 11-17 60329 Frankfurt am Main

Germany

Deutsche Bank Securities Inc.

60 Wall Street New York, NY 10005 United States of America Tel: (1) 212 250 2500

Deutsche Bank AG

Filiale Hongkong International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong Tel: (852) 2203 8888

Deutsche Securities Inc.

2-11-1 Nagatacho Sanno Park Tower Chiyoda-ku, Tokyo 100-6171 Japan

Tel: (81) 3 5156 6770