

Rating Buy

Company Aoyuan

3883 HK

Asia China

Property Property Reuters 3883.HK Exchange Ticker HSI 3883

Sales are on fire, earnings expected to follow suit

Target price up to HKD7.00 with stronger-than-expected sales

We raise our target price for Aoyuan to HKD7.00 driven by: 1) better-thanexpected sales of RMB45.6bn in 2017; 2) the new landbank acquisition in the last two months; and 3) higher sales and earnings estimates (raised FY18-19F earnings by 1-8%). We continue to favor the stock and reiterate it as one of our top picks among mid/small cap developers. The stock now trades at only 3.8x FY18F P/E and 65% discount to NAV (the cheapest name in our coverage), which we view is at a good defensive level compared with other small caps.

Sales on fire in December, 2018F could further surprise on the upside

In December, Aoyuan recorded sales worth RMB11.2bn, making its full-year figure reach RMB45.6bn, up 78% y-y. We believe the company's strong sales momentum will continue to surprise on the upside; thus, we raise our 2018 sales forecast by 24% to RMB65bn.

Quality M&As to help stable margin and asset turnover; potential redevelopment projects in Guangzhou/Zhuhai to be included in landbank

In the last two months, Aoyuan acquired another 1.5mn sqm of new projects, which contribute RMB12.8bn to saleable resources. Leveraging on its strong M&A capability (accounts for >80% of its landbanking since IPO), we believe it will remain proactive to acquire more projects via M&As (generate >30% gross margin and double-digit net margin), as well as expand its exposure in eastern and central regions. In addition, management expects two redevelopment sites in Zhuhai (1.46mn sqm GFA) and one in Guangzhou (310k sqm GFA) to likely be included into the landbank in 2018, which we estimate should add >RMB50bn to saleable resources.

Significant earnings growth over next three years implies high ROE and dividend yield

With RMB55bn sold but unbooked revenue at end-2017 (after 2017F booking), we expect Aoyuan to achieve >50% earnings growth in 2018 and 2019, implying 24-29% ROE and 9-14% dividend yields over the next two years.

One of the cheapest name under our coverage

Our TP is based on 50% of end-FY18F NAV of HKD14.00. The stock trades at 3.8x FY18F P/E and a 65% NAV discount, which we view as a good defensive level compared with other small-caps at 5-6x P/E and 40-50% NAV discounts. Key downside risks: 1) slower sales growth and 2) failure to acquire quality landbank.

Forecasts And Ratios					
Year End Dec 31	2015A	2016A	2017E	2018E	2019E
Sales (CNYm)	9,572.4	11,827.3	18,888.9	27,301.2	38,459.3
DB EPS FD (CNY)	0.34	0.45	0.68	1.08	1.63
DB EPS growth (%)	29.2	32.8	49.6	58.9	50.9
PER (x)	3.2	2.8	6.1	3.8	2.5
DPS (net) (CNY)	0.11	0.15	0.24	0.38	0.57
Yield (net) (%)	9.8	11.7	5.8	9.1	13.8
Source: Deutsche Bank estimates, company data					

Date

2 January 2018

Company Update

Price at 2 Jan 2018 (HKD)	4.95
Price target - 12mth (HKD)	7.00
52-week range (HKD)	5.23 - 1.60
HANG SENG INDEX	29,919

Jeffrey Gao, CFA

Research Analyst (+852) 2203 6256 jeffrey.gao@db.com

Jason Ching, CFA

Research Analyst (+852) 2203 6205 jason.ching@db.com

Stephen Cheung, CFA

Research Analyst (+852) 2203 6182 stephen-a.cheung@db.com

Foo Leung

Research Associate (+852) 2203 6239 foo.leung@db.com

Key changes			
TP	6.74 to 7.00	1	3.9%
Op prof margin(FYE)	20.2 to 20.5	1	1.5%
Net profit(FYE)	1,943.5 to 1,949.4	1	0.3%
Source: Deutsche Bank			

Price/price relative



Performance (%)	1m	3m	12m
Absolute	14.6	13.5	198.2
HANG SENG INDEX	2.9	8.6	36.0
Source: Deutsche Bank			

Deutsche Bank AG/Hong Kong

Distributed on: 03/01/2018 00:00:00 GMT

Deutsche Bank does and seeks to do business with companies covered in its research reports. Thus, 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. DISCLOSURES AND ANALYST CERTIFICATIONS ARE LOCATED IN APPENDIX 1. MCI (P) 083/04/2017.



Model	updated:02	January	2018
-------	------------	---------	------

Running the	numbers		
Asia			
China			
Property			

Aoyuan

Reuters: 3883.HK Bloomberg: 3883 HK

Buy

Duy	
Price (2 Jan 18)	HKD 4.95
Target Price	HKD 7.00
52 Week range	HKD 1.60 - 5.23
Market Cap (m)	HKDm 13,249
	USDm 1,695

Company Profile

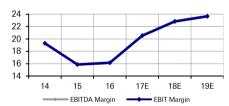
Aoyuan was founded in 1996 and has been listed since October 2007. Aoyuan is regionally focused on the Pearl River Delta, Bohai Rim, Yangtze River Delta, the core region of Central and Western China, and Beibuwan, and has gradually developed overseas property markets, including Australia and Canada. As of 1H17, the company has a total land bank of 17msqm.

Price Performance

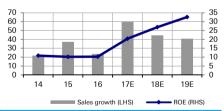


— Aoyuan — HANG SENG INDEX (Rebased)

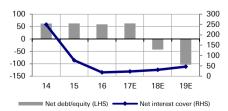
Margin Trends



Growth & Profitability



Solvency



Jeffrey Gao, CFA +852 2203 6256

jeffrey.gao@db.com

Fiscal year end 31-Dec	2014	2015	2016	2017E	2018E	2019E
Financial Summary						
DB EPS (CNY)	0.26	0.34	0.45	0.68	1.08	1.63
Reported EPS (CNY)	0.29	0.29	0.32	0.73	1.13	1.67
DPS (CNY)	0.09	0.11	0.15	0.24	0.38	0.57
BVPS (CNY)	2.8	3.0	3.3	3.8	4.6	5.7
Weighted average shares (m)	2,784	2,784	2,728	2,673	2,677	2,677
Average market cap (CNYm)	2,354	3,005	3,496	11,041	11,041	11,041
Enterprise value (CNYm)	9,161	13,308	17,647	33,873	12,316	-5,321
Valuation Metrics	0.0	0.0	0.0	0.1	0.0	0.5
P/E (DB) (x) P/E (Reported) (x)	3.2 2.9	3.2 3.7	2.8 4.0	6.1 5.7	3.8 3.7	2.5 2.5
P/BV (x)	0.29	0.39	0.43	1.08	0.90	0.73
FCF Yield (%)	nm	nm	151.8	nm	214.1	181.9
Dividend Yield (%)	10.3	9.8	11.7	5.8	9.1	13.8
EV/Sales (x)	1.3	1.4	1.5	1.8	0.5	-0.1
EV/EBITDA (x)	6.8	8.8	9.2	8.7	2.0	-0.6
EV/EBIT (x)	6.8	8.8	9.2	8.7	2.0	-0.6
Income Statement (CNYm)						
Sales revenue	6,976	9,572	11,827	18,889	27,301	38,459
Gross profit	2,067	2,646	3,277	5,296	8,037	11,409
EBITDA Depreciation	1,347 0	1,520 0	1,911 0	3,880 0	6,235 0	9,101 0
Amortisation	0	0	0	0	0	0
EBIT	1,347	1,520	1,911	3,880	6,235	9,101
Net interest income(expense)	-5	-20	-103	-168	-201	-197
Associates/affiliates Exceptionals/extraordinaries	9 98	28 356	-32 310	36 181	-4 182	10 155
Other pre-tax income/(expense)	0	350	0	0	0	0
Profit before tax	1,449	1,884	2,085	3,929	6,212	9,069
Income tax expense	666	977	1,078	1,864	2,758	3,675
Minorities	-26	95	126	115	432	925
Other post-tax income/(expense) Net profit	0 809	0 812	0 881	0 1,949	0 3,022	0 4,470
·						
DB adjustments (including dilution) DB Net profit	-73 736	139 951	357 1,238	-135 1,814	-136 2,886	-116 4,354
Cash Flow (CNYm)						
Cash flow from operations	-1,581	-2,944	5,999	-6,728	23,837	20,538
Net Capex	-324	-867	-692	-780	-201	-453
Free cash flow	-1,905	-3,811	5,307	-7,507	23,636	20,085
Equity raised/(bought back)	1 -223	0 -292	-156 -245	0 -635	1 010	0 -1,524
Dividends paid Net inc/(dec) in borrowings	-223 2,793	4,849	1,442	9,784	-1,010 0	-1,324
Other investing/financing cash flows	-306	2,111	-3,665	3,951	375	-1,328
Net cash flow	360	2,856	2,683	5,593	23,002	17,233
Change in working capital	-1,430	-3,170	6,092	-8,833	20,341	15,101
Balance Sheet (CNYm)						
Cash and other liquid assets	5,917	9,036	10,956	16,550	39,551	56,784
Tangible fixed assets	3,229	4,998	5,930	6,668	6,827	7,238
Goodwill/intangible assets	0 88	0 292	5 173	5 195	5 192	5 202
Associates/investments Other assets	27,551	34,501	49,353	76,551	89,473	85,793
Total assets	36,786	48,827	66,418	99,969	136,047	150,021
Interest bearing debt	11,497	16,298	19,568	29,352	29,352	29,352
Other liabilities	16,254	20,953	32,219	50,159	82,784	94,206
Total liabilities Shareholders' equity	27,752 7,719	37,251 8,243	51,787 8,918	79,511 10,233	112,136 12,245	123,558 15,191
Minorities	1,315	3,333	5,713	10,236	11,666	11,273
Total shareholders' equity	9,034	11,576	14,631	20,458	23,911	26,464
Net debt	5,580	7,262	8,611	12,802	-10,200	-27,432
Key Company Metrics						
Sales growth (%)	21.8	37.2	23.6	59.7	44.5	40.9
DB EPS growth (%)	5.7	29.2	32.8	49.6	58.9	50.9
EBITDA Margin (%)	19.3	15.9	16.2	20.5	22.8	23.7
EBIT Margin (%) Payout ratio (%)	19.3 29.9	15.9 36.3	16. <u>2</u> 46.4	20.5 32.5	22.8 33.4	23.7 34.1
ROE (%)	10.8	10.2	10.3	20.4	26.9	32.6
Capex/sales (%)	4.6	9.1	5.9	4.1	0.7	1.2
Capex/depreciation (x)	nm	nm	nm	nm	nm	nm
Net debt/equity (%) Net interest cover (x)	61.8 249.6	62.7 77.1	58.9 18.6	62.6 23.1	-42.7 31.0	-103.7 46.2
		//.1	10.0	20.1	31.0	70.2
Source: Company data, Deutsche Bank esti	inates					



Investment Thesis

Outlook

We raise our target price for Aoyuan to HKD7.00 on the back of: 1) better-than-expected sales of RMB45.6bn in 2017; 2) the new landbank acquisition in the last two months; and 3) higher sales and earnings estimates (raised FY18-19F earnings by 1-8%). We continue to favor the stock and reiterate it as one of our top picks among mid/small cap developers. The stock now trades at only 3.8x FY18F P/E and 65% discount to NAV (the cheapest name in our coverage), which we view is at a good defensive level compared with other small caps.

Valuation

Our target price is based on 50% of end-FY18F NAV of HKD14.00/share. This comprises HKD9.04/share of development properties, HKD0.38/share of investment properties, and HKD4.58/share of net cash.

Our NAV estimate values the existing landbank and properties using a sum-of-the-parts methodology: 1) we use DCF to value the company's development properties, with a WACC of 11.7% (we apply a risk-free rate of 3.0%, beta of 2.0, risk premium of 6.0% and cost of debt of 7.6%); and 2) we use a cap-rate approach (5-9%) to value investment properties. We assume full prepayment of the land appreciation tax.

In terms of property price assumptions, we assume prices in T1, T2 and T3 cities should increase 5% in FY17 and remain flat thereafter.

Our target price implies 5.4x FY18F P/E (EPS: RMB1.08) and 1.5x FY17F P/B. The benchmark index for the stock is MSCI China.

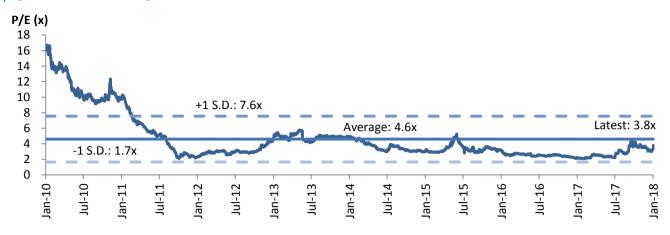
Risks

Macro risks: The government's property tightening measures may be stricter than expected, resulting in volatility in housing transaction volumes, housing prices, land prices, and the financing available to developers and homebuyers. Unexpected economic fluctuations in the Chinese economy would also add risks to the sector.

Company-specific: The major downside risks are: 1) weaker sales due to further policy tightening; 2) faster margin contraction due to higher land prices; and 3) higher gearing due to aggressive land acquisitions.

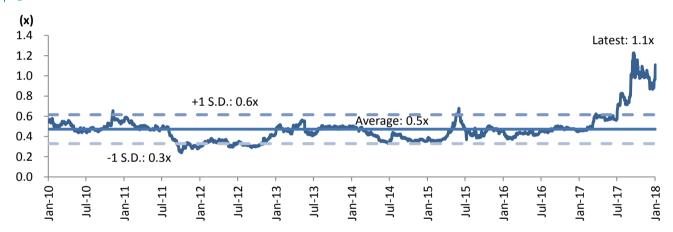


Figure 1: 12-month rolling forward P/E chart



Source: Bloomberg Finance LP, Company data, Deutsche Bank

Figure 2: P/B chart



Source: Bloomberg Finance LP, Company data, Deutsche Bank



Appendix 1

Important Disclosures

*Other information available upon request

Disclosure checklist			
Company	Ticker	Recent price*	Disclosure
Aoyuan	3883.HK	4.95 (HKD) 2 Jan 18	1,7,13,14

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 http://gm.db.com/ger/disclosure/Disclo

Important Disclosures Required by U.S. Regulators

Disclosures marked with an asterisk may also be required by at least one jurisdiction in addition to the United States. See Important Disclosures Required by Non-US Regulators and Explanatory Notes.

- Within the past year, Deutsche Bank and/or its affiliate(s) has managed or co-managed a public or private offering for this company, for which it received fees.
- 7. Deutsche Bank and/or its affiliate(s) has received compensation from this company for the provision of investment banking or financial advisory services within the past year.
- Deutsche Bank and/or its affiliate(s) has received non-investment banking related compensation from this company within the past year.

Important Disclosures Required by Non-U.S. Regulators

Please also refer to disclosures in the Important Disclosures Required by US Regulators and the Explanatory Notes.

- 1. Within the past year, Deutsche Bank and/or its affiliate(s) has managed or co-managed a public or private offering for this company, for which it received fees.
- 7. Deutsche Bank and/or its affiliate(s) has received compensation from this company for the provision of investment banking or financial advisory services within the past year.
- 13. As of the end of the preceding week, Deutsche Bank and/or its affiliate(s) owns one percent or more of a class of common equity securities of this company.

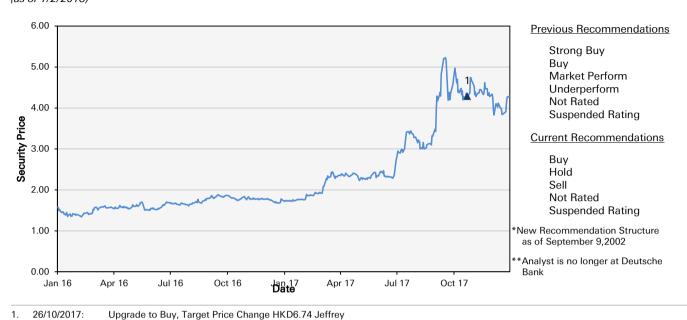
For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at http://gm.db.com/ger/disclosure/Disclosure.egsr?ricCode=3883.HK

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. Jeffrey Gao/Jason Ching/Stephen Cheung/Foo Leung



Historical recommendations and target price: Aoyuan (3883.HK) (as of 1/2/2018)



Equity rating key

Gao

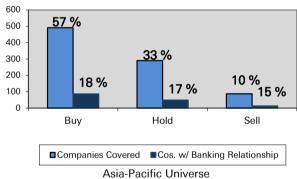
Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus pro-jected dividend yield), we recommend that investors buy the stock.

Sell: Based on a current 12-month view of total shareholder 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



2 January 2018 Property Aoyuan



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. Trade ideas for equities can be found at the SOLAR link at http://gm.db.com. A SOLAR idea 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 six months. In addition to SOLAR ideas, 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 parties.

The Deutsche Bank Research Department is independent of other business divisions of the Bank. Details regarding organizational arrangements and information barriers we have established to prevent and avoid conflicts of interest with respect to our research are available on our website under Disclaimer, found on the Legal tab.



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 fixed-income 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 the risks related 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: (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.

Deutsche Bank is not acting as a financial adviser, consultant or fiduciary to you or any of your agents with respect to any information provided in this report. Deutsche Bank does not provide investment, legal, tax or accounting advice, and is not acting as an impartial adviser. Information contained herein is being provided on the basis that the recipient will make an independent assessment of the merits of any investment decision, and is not meant for retirement accounts or for any specific person or account type. The information we provide is 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 or your agent are an IRA or other retail investor receiving this directly from us, we ask that you inform us immediately.

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 risk and conflict disclosures can also be found at https://gm.db.com on each company's research page and under the "Disclosures Lookup" and "Legal" tabs. Investors are strongly encouraged to review this information before investing.

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, including those regarding contacts with issuer companies.

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. 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 analysts based 12-month forecast period.. equity are on а

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 undertake only the financial services activities that fall within the scope of its existing DFSA license. Its 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.

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 Commerce Centre,

1 Austin Road West, Kowloon,

Deutsche Bank AG

Tel: (852) 2203 8888

Filiale Hongkong

Hong Kong

International locations

Deutsche Bank AG

Deutsche Bank Place

Level 16 Corner of Hunter & Phillip Streets

Sydney, NSW 2000

Deutsche Bank AG London

1 Great Winchester Street

Australia

Tel: (61) 2 8258 1234

London EC2N 2EQ

Tel: (44) 20 7545 8000

United Kingdom

Mainzer Landstrasse 11-17

Deutsche Bank AG

60329 Frankfurt am Main Germany

Tel: (49) 69 910 00

Deutsche Bank Securities Inc.

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

Deutsche Securities Inc.

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

Japan

Tel: (81) 3 5156 6770