



Rating
Buy

Asia
China

Health Care
Health Care

Company
Aier Eye Hospital

Reuters 300015.SZ Bloomberg 300015 CH Exchange SHZ Ticker 300015

Date
28 August 2017

Results

Price at 25 Aug 2017 (CNY)	22.44
Price target - 12mth (CNY)	28.70
52-week range (CNY)	35.58 - 21.20
Shenzhen Index	1,998

Growth acceleration driven by acquisition and organic growth

Growth acceleration led by consolidation, margin expansion underway

Aier reported revenue/core profit of RMB1.4bn/214m in 2Q17, representing YoY growth of 39%/41% respectively, vs. 31%/25% for revenue/core profit growth recorded in 1Q17. Excluding the contribution from 9 new hospitals and AW Healthcare, organic growth would be 31%/ 27% in 2Q17, vs. 24%/ 22% in 1Q17. We attribute the robust results to rapid ramp-up of the profitability of the new hospitals following asset injection, as well as solid performance from excimer and cataract segments. We expect higher contribution from new assets, with margin improvements driven by transition from low-end to high-end services.

Growth momentum continued in all three major segments

Excimer surgery, cataract surgery, and optometry achieved YoY growth of 46%/38%/29% in 2Q17, compared with 36%, 26%, and 32% in 1Q17, respectively. Management attribute the growth recovery of cataract business to deeper penetration from promotional efforts. On the acquisition front, the company is likely to take a pause but rather focus on integration of acquired assets. Management highlighted that acquisition of Clinica Baviera is completed, and expect the consolidation to add another leg of growth to 2H17.

Margin expansion achieved in 2Q17

Gross margin and operating margin stood at 49.4% and 21.7% respectively, in 2Q17, compared with 47.7% and 19.5% in 2Q16. We attribute the GM increase to improved service mix as customers switch to high-ASP excimer surgeries. The 220bps OPM improvement was driven by smooth ramp-up of new hospitals and lower admin expenses. We highlight newly acquired hospitals achieved 15% net margin in 2Q17 vs. 7% in 1Q17.

Maintaining price target of RMB28.7; risks

Our PT is based on 25x EV/EBITDA of 2018E EBITDA. We believe 25x is justified as its Asia-listed peers are trading at 18x with 6.5% EBITDA growth in 2019E (vs. 27% we model for Aier). Key risks include delays in geographical expansion and slower ASP/volume growth.

Valuation & Risks

Jack Hu, PhD

Research Analyst

+852-2203 6208

Key changes

Sales (FYE)	5,416 to 5,439	↑	0.4%
Op prof margin (FYE)	18.2 to 18.8	↑	3.2%
Net profit (FYE)	733.9 to 749.1	↑	2.1%

Source: Deutsche Bank

Price/price relative



Performance (%)	1m	3m	12m
Absolute	1.1	0.4	-36.2
Shenzhen Index	3.3	5.4	-5.4

Source: Deutsche Bank

Forecasts and ratios

Year End Dec 31	2015A	2016A	2017E	2018E	2019E
Sales (CNYm)	3,165.6	4,000.4	5,439.4	7,462.3	9,310.7
EBITDA (CNYm)	788.4	915.4	1,259.5	1,746.0	2,211.9
EV/EBITDA (x)	53.2	52.3	27.4	19.5	15.2

Source: Deutsche Bank estimates, company data

Deutsche Bank AG/Hong Kong

Distributed on: 27/08/2017 18:06:07 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.



Figure 1: Income statement

Income Statement (RMB millions)	2014	2015	1H16A	2H16A	2016	1H17	2H17E	2017E	2018E	2019E
Service - Excimer surgery	641	840	562	580	1,141	796	782	1,578	2,099	2,729
Service - cataract surgery	575	802	492	490	981	652	641	1,294	1,682	2,203
Service - anterior segment surgery	447	576	297	309	606	370	386	756	915	1,098
Service - posterior segment surgery	244	299	163	168	331	221	227	449	525	609
Service - diagnosis	0	0	-	-	0	-	-	0	0	0
Medical services	1,905	2,517	1,514	1,547	3,060	2,039	2,037	4,076	5,220	6,638
Optometry	494	638	382	490	872	498	627	1,125	1,429	1,787
Drug sales	0	0	-	-	0	-	-	0	0	0
Others	678	603	24	44	741	53	-	739	813	886
Total revenue	2,402	3,166	1,920	2,081	4,000	2,590	2,849	5,439	7,462	9,311
COGS	(1,323)	(1,691)	(1,024)	(1,131)	(2,156)	(1,374)	(1,550)	(2,924)	(4,079)	(5,044)
Gross profit - reported	1,079	1,475	895	949	1,845	1,216	1,300	2,516	3,383	4,267
Business tax and surplus	(3)	(3)	(2)	(4)	(7)	(5)	(6)	(11)	(11)	(11)
Selling expenses	(273)	(405)	(248)	(264)	(512)	(343)	(353)	(696)	(938)	(1,145)
General and administrative expenses	(381)	(466)	(285)	(343)	(627)	(359)	(428)	(787)	(1,060)	(1,313)
EBIT	422	601	361	338	699	510	512	1,022	1,374	1,797
Non-operating income	8	5	13	16	29	6	17	23	75	93
Non-operating expense	(30)	(55)	(21)	(24)	(46)	(25)	(31)	(56)	(37)	(47)
Finance income/expense	4	4	(4)	(1)	(5)	(6)	(15)	(21)	(56)	(62)
Fair value gain	17	10	8	13	21	10	-	12	-	-
Loss on asset impairment	(13)	(14)	(7)	(7)	(14)	(12)	-	(7)	-	-
Others	-	-	-	-	-	-	-	-	-	-
Net profit before tax	407	550	349	335	684	483	483	973	1,356	1,782
Income tax expenses	(94)	(114)	(68)	(49)	(117)	(91)	(85)	(176)	(243)	(319)
Tax rate	23.1%	20.6%	19.6%	14.5%	17.1%	18.8%	17.7%	18.1%	17.9%	17.9%
Net profit after tax	313	437	281	286	567	392	398	797	1,113	1,463
Minority interests	(4)	(9)	(8)	(2)	(10)	(30)	(18)	(48)	(48)	(59)
Reported net profit	309	428	273	285	557	362	380	749	1,065	1,404
Core earnings adjustments	7	32	(1)	(9)	(11)	3	(4)	(1)	(1)	(1)
Reported net profit - Core	316	460	271	275	547	365	376	748	1,064	1,403
EPS: Basic (RMB) - reported	0.21	0.29	0.18	0.19	0.37	0.24	0.23	0.47	0.65	0.86
EPS: Diluted (RMB) - reported	0.21	0.29	0.18	0.19	0.37	0.24	0.23	0.47	0.65	0.86
EPS: Basic (RMB) - core	0.21	0.31	0.18	0.18	0.36	0.24	0.23	0.47	0.65	0.86
EPS: Diluted (RMB) - core	0.21	0.31	0.18	0.18	0.36	0.24	0.23	0.47	0.65	0.86
Weighted average no. of shares - Basic (mill)	1,478	1,478	1,495	1,507	1,501	1,519	1,637	1,578	1,637	1,637
Weighted average no. of shares - Diluted (mill)	1,478	1,478	1,495	1,515	1,501	1,519	1,637	1,578	1,637	1,637
No. of shares outstanding (millions)	1,478	1,478	1,495	1,515	1,501	1,519	1,637	1,578	1,637	1,637

Source: Deutsche Bank, company data



Model updated: 27 August 2017

Running the numbers

Asia

China

Health Care

Aier Eye Hospital

Reuters: 300015.SZ Bloomberg: 300015 CH

Buy

Price (25 Aug 17) CNY 22.44

Target Price CNY 28.70

52 Week range CNY 21.20 - 35.58

Market cap (m) CNYm 36,730
USDm 5,511.1

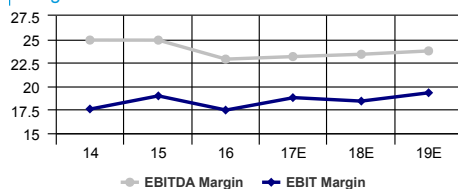
Company Profile

Aier Eye Hospital Group Co., Ltd. is a China-based ophthalmology medical institution. The company's services include ophthalmocare diagnosis, ophthalmocare treatment, pharmaceuticals distribution and medical optometry. The company provides excimer operations, cataract operations, anterior segment operations, and posterior segment operations and examinations.

Price Performance



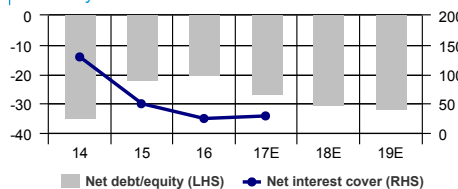
Margin Trends



Growth & Profitability



Solvency



Jack Hu, PhD

+852 2203 6208

jack.hu@db.com

Fiscal year end 31-Dec

Financial Summary

	2014	2015	2016	2017E	2018E	2019E
DB EPS (CNY)	0.21	0.31	0.36	0.47	0.65	0.86
Reported EPS (CNY)	0.21	0.29	0.37	0.47	0.65	0.86
DPS (CNY)	0.04	0.07	0.09	0.11	0.15	0.21
BVPS (CNY)	1.3	1.6	1.9	3.5	4.0	4.7
Weighted average shares (m)	1,478	1,478	1,501	1,578	1,637	1,637
Average market cap (CNYm)	24,553	42,646	49,066	36,730	36,730	36,730
Enterprise value (CNYm)	23,785	41,942	47,831	34,528	34,104	33,683

Valuation Metrics

P/E (DB) (x)	77.7	92.7	89.7	47.4	34.5	26.2
P/E (Reported) (x)	79.4	99.6	88.0	47.3	34.5	26.2
P/BV (x)	13.62	19.49	16.13	6.36	5.56	4.79
FCF Yield (%)	1.1	0.6	0.7	1.3	1.9	2.2
Dividend Yield (%)	0.3	0.2	0.3	0.5	0.7	0.9
EV/Sales (x)	9.9	13.2	12.0	6.3	4.6	3.6
EV/EBITDA (x)	39.8	53.2	52.3	27.4	19.5	15.2
EV/EBIT (x)	56.3	69.8	68.5	33.8	24.8	18.7

Income Statement (CNYm)

Sales revenue	2,402	3,166	4,000	5,439	7,462	9,311
Gross profit	1,079	1,475	1,845	2,516	3,383	4,267
EBITDA	598	788	915	1,259	1,746	2,212
Depreciation	114	122	141	148	306	366
Amortisation	62	66	76	90	66	49
EBIT	422	601	699	1,022	1,374	1,797
Net interest income/(expense)	4	4	-5	-21	-56	-62
Associates/affiliates	0	0	0	0	0	0
Exceptionals/extraordinary	3	-4	7	5	0	0
Other pre-tax income/(expense)	-22	-51	-16	-33	37	47
Profit before tax	407	550	684	973	1,356	1,782
Income tax expense	94	114	117	176	243	319
Minorities	4	9	10	48	48	59
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	309	428	557	749	1,065	1,404
DB adjustments (including dilution)	7	32	-11	-1	-1	-1
DB Net profit	316	460	547	748	1,064	1,403

Cash Flow (CNYm)

Cash flow from operations	454	522	675	1,013	1,458	1,844
Net Capex	-177	-261	-314	-544	-746	-1,024
Free cash flow	277	261	361	469	711	820
Equity raised/(bought back)	0	0	0	2,427	0	0
Dividends paid	-70	-105	-312	-178	-240	-341
Net inc/(dec) in borrowings	0	174	0	1,000	0	0
Other investing/financing cash flows	-106	-396	6	-1,703	0	0
Net cash flow	101	-66	55	2,015	472	479
Change in working capital	-37	-116	-106	-21	-27	-33

Balance Sheet (CNYm)

Cash and other liquid assets	720	721	776	2,791	3,262	3,742
Tangible fixed assets	575	646	769	1,591	2,032	2,690
Goodwill/intangible assets	265	465	471	1,747	1,745	1,743
Associates/investments	120	264	803	803	803	803
Other assets	871	1,160	1,246	1,401	1,562	1,701
Total assets	2,550	3,257	4,066	8,333	9,405	10,680
Interest bearing debt	0	177	188	1,188	1,188	1,188
Other liabilities	489	581	941	1,163	1,361	1,514
Total liabilities	489	757	1,129	2,351	2,549	2,702
Shareholders' equity	1,988	2,395	2,781	5,779	6,604	7,668
Minorities	73	104	156	203	251	310
Total shareholders' equity	2,061	2,499	2,937	5,982	6,855	7,977
Net debt	-720	-544	-588	-1,603	-2,074	-2,554

Key Company Metrics

Sales growth (%)	21.0	31.8	26.4	36.0	37.2	24.8
DB EPS growth (%)	33.8	45.5	17.1	30.0	37.2	31.9
EBITDA Margin (%)	24.9	24.9	22.9	23.2	23.4	23.8
EBIT Margin (%)	17.6	19.0	17.5	18.8	18.4	19.3
Payout ratio (%)	20.7	22.9	24.6	23.0	22.5	24.3
ROE (%)	16.9	19.5	21.5	17.5	17.2	19.7
Capex/sales (%)	7.4	8.2	7.9	10.0	10.0	11.0
Capex/depreciation (x)	1.0	1.4	1.5	2.3	2.0	2.5
Net debt/equity (%)	-34.9	-21.8	-20.0	-26.8	-30.3	-32.0
Net interest cover (x)	nm	nm	129.3	49.6	24.5	28.9

Source: Company data, Deutsche Securities estimates



Appendix 1

Important Disclosures

*Other information available upon request

Disclosure checklist

Company	Ticker	Recent price*	Disclosure
Aier Eye Hospital	300015.SZ	22.44 (CNY) 25 Aug 2017	NA

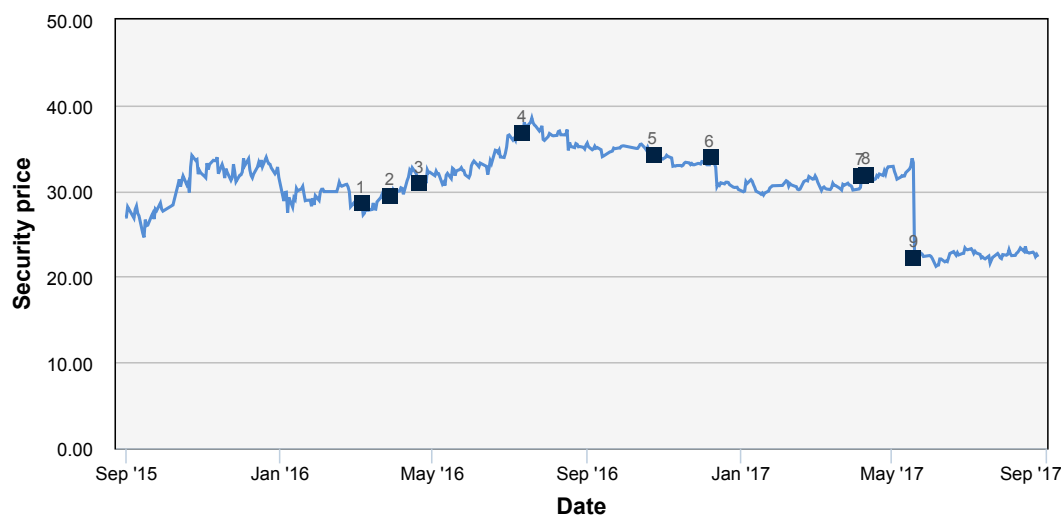
*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg, and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations 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/qcr/disclosure/DisclosureDirectory.eqsr>. Aside from within this report, important conflict disclosures can also be found at <https://gm/db.com/equities> under the "Disclosures Lookup" and "Legal" tabs. 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. Jack Hu

Historical recommendations and target price. Aier Eye Hospital (300015.SZ)

(as of 08/25/2017)



Current Recommendations

Buy
Hold
Sell
Not Rated
Suspended Rating

** Analyst is no longer at Deutsche Bank

1. 03/06/2016	Buy, Target Price Change CNY 33,00 Jack Hu, Ph.D	6. 12/08/2016	Buy, Target Price Change CNY 42,00 Jack Hu, Ph.D
2. 03/29/2016	Buy, Target Price Change CNY 34,00 Jack Hu, Ph.D	7. 04/07/2017	Buy, Target Price Change CNY 41,00 Jack Hu, Ph.D
3. 04/21/2016	Buy, Target Price Change CNY 36,00 Jack Hu, Ph.D	8. 04/11/2017	Buy, Target Price Change CNY 43,00 Jack Hu, Ph.D
4. 07/12/2016	Buy, Target Price Change CNY 39,50 Jack Hu, Ph.D	9. 05/19/2017	Buy, Target Price Change CNY 28,70 Linc Yiu**
5. 10/24/2016	Buy, Target Price Change CNY 39,00 Jack Hu, Ph.D		



Equity Rating Key

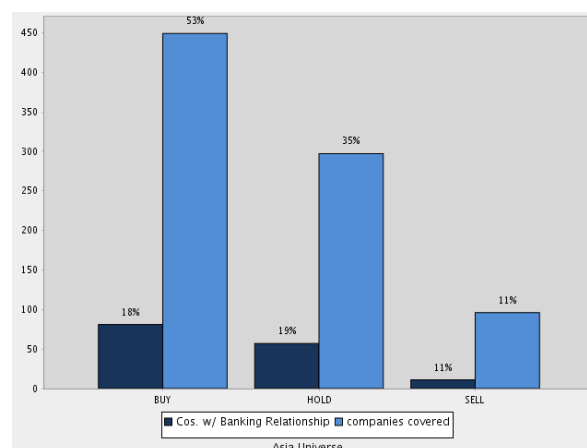
Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus pro-jected dividend yield) , we recommend that investors buy the stock.

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 these 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 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 are consistent or 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 sector delineated over a time frame of no less than two weeks. In addition to SOLAR ideas, the analysts named in this report may from time to time discuss with our clients, Deutsche Bank salespersons and Deutsche Bank 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 any opinion, forecast or estimate contained herein changes or subsequently 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 concerned or of the Research Department Management and as such 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. 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 sourced from Deutsche Bank, subject companies, and in some cases, other parties.

The Deutsche Bank Research Department is independent of other business areas 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 is 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 the liquidation of positions), and settlement issues related to local clearing houses are also important risk factors to be considered. 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. It is important to note that 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. It is also important to acknowledge that funding in a currency that differs from the currency in which coupons are denominated carries FX risk. Naturally, options on swaps (swaptions) also bear the risks typical to options in addition to the risks related to rates movements.

Derivative transactions involve numerous risks including, among others, market, counterparty default and illiquidity risk. The appropriateness or otherwise of these products for use by investors is dependent on the investors' own circumstances including their tax position, their regulatory environment and the nature of their other assets and liabilities, and 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. 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://gm.db.com/equities> under the "Disclosures Lookup" and "Legal" tabs. Investors are strongly encouraged to review this information before investing.

Deutsche Bank (which includes Deutsche Bank AG, its branches and all affiliated companies) is not acting as a financial adviser, consultant or fiduciary to you, any of your agents (collectively, "You" or "Your") with respect to any information provided in the materials attached hereto. 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.

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.

India: Prepared by Deutsche Equities India Pvt Ltd, which is registered by the Securities and Exchange Board of India (SEBI) as a stock broker. Research Analyst SEBI Registration Number is INH000001741. DEIPL may have received administrative warnings from the SEBI for breaches of Indian regulations.

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: 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 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 only undertake the financial services activities that fall within the scope of its existing QFCRA license. 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 to Business Customers, as defined by the Qatar Financial Centre Regulatory Authority.

Russia: This 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 only undertake the financial services activities that fall within the scope of its existing CMA license. 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 only available to Professional Clients, as defined by the Dubai Financial Services Authority.

Australia: Retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product. Please refer to Australian specific research disclosures and related information at <https://australia.db.com/australia/content/research-information.html>

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.

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 © 2017 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 locations

Deutsche Bank AG

Deutsche Bank Place
Level 16
Corner of Hunter & Phillip Streets
Sydney, NSW 2000
Australia
Tel: (61) 2 8258 1234

Deutsche Bank AG

Mainzer Landstrasse 11-17
60329 Frankfurt am Main
Germany
Tel: (49) 69 910 00

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

Deutsche Bank AG London

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

Deutsche Bank Securities Inc.

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