

21 March 2018

The Credit Suisse EM consumer survey 2018: A new direction for the Chinese and Indian consumer

Richard Kersley, Head of Global Thematic Research

Research Analyst, +44 20 7888 0313/ richard.kersley@credit-suisse.com

DISCLOSURE APPENDIX AT THE BACK OF THIS REPORT CONTAINS IMPORTANT DISCLOSURES, ANALYST CERTIFICATIONS, LEGAL ENTITY DISCLOSURE AND THE STATUS OF NON-US ANALYSTS. US Disclosure: Credit Suisse does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

The Emerging Consumer Survey 2018

- In collaboration with leading market research firm Nielsen, the Credit Suisse Research Institute publishes the 8th edition of The Emerging Consumer Survey.
- The survey reflects the results of 14,000 face-to-face detailed interviews with consumers across **Brazil, China, India, Indonesia, Mexico, Russia, South Africa and Turkey.**
- The study delivers unique insights for investors on the key influences that are shaping the nature of consumer spending across the emerging world.
- The accompanying playbook provides stock selections that have a strong exposure to The Emerging Consumer theme.

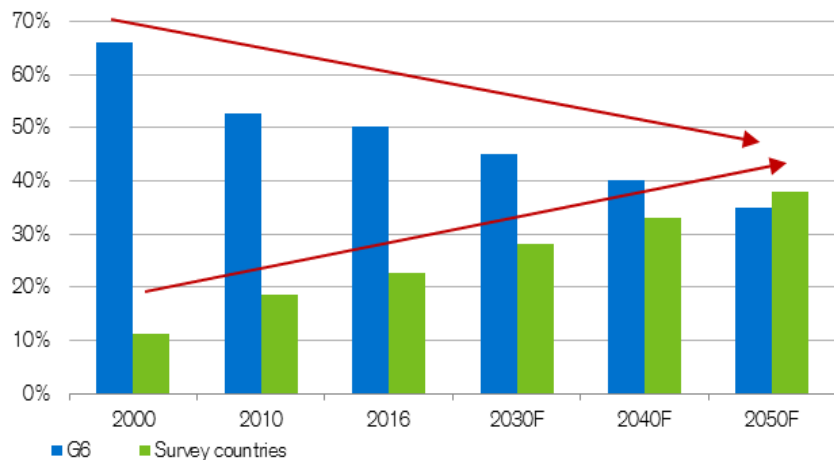
Source: Credit Suisse Emerging Consumer Survey



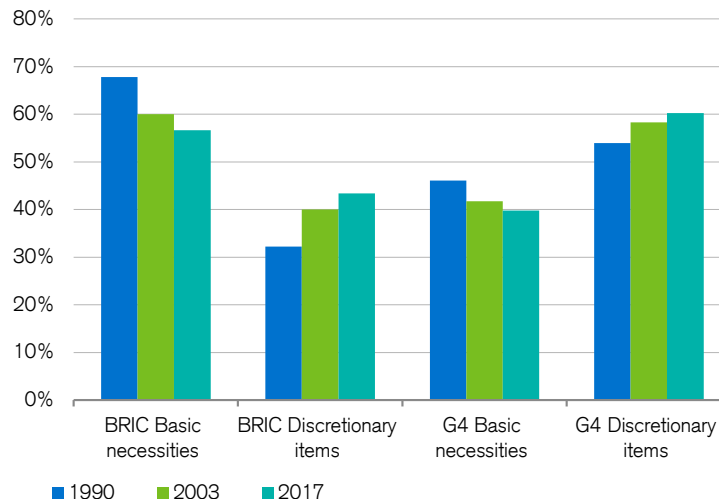
The Supertrend: The rebalancing of consumption

- Global consumption is rebalancing between DM and EM, with the mix in EM to become more discretionary. The consumption share of global GDP for our 8 EM countries has more than doubled from 11% to 23%, while in DM (G6) it has softened from 66% to 50% since the turn of the millennium.
- Consumption of basic necessities in BRIC economies has declined by more than 10% as a share of consumer spending with a corresponding increase in discretionary spend.

Consumption share of GDP (%)



Consumer expenditure breakdown

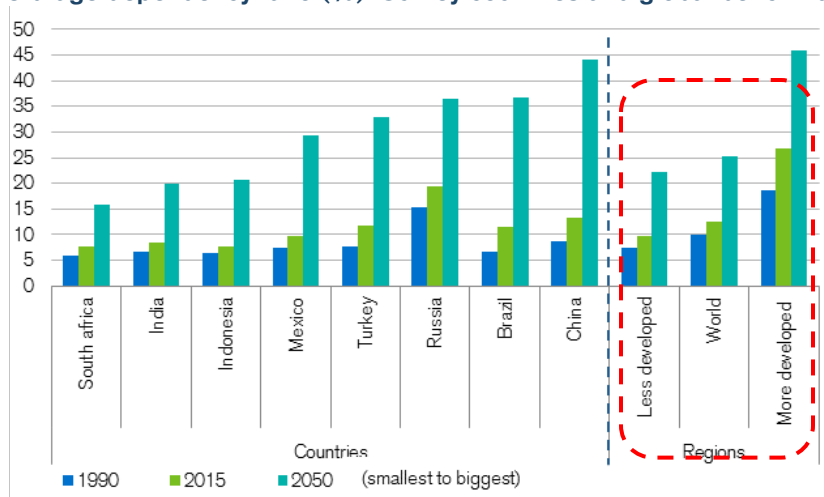


Source: Source: World Bank (World Development Indicators), Credit Suisse forecasts, Emerging Consumer Survey 2018

Superior income outlook: A demographic dividend

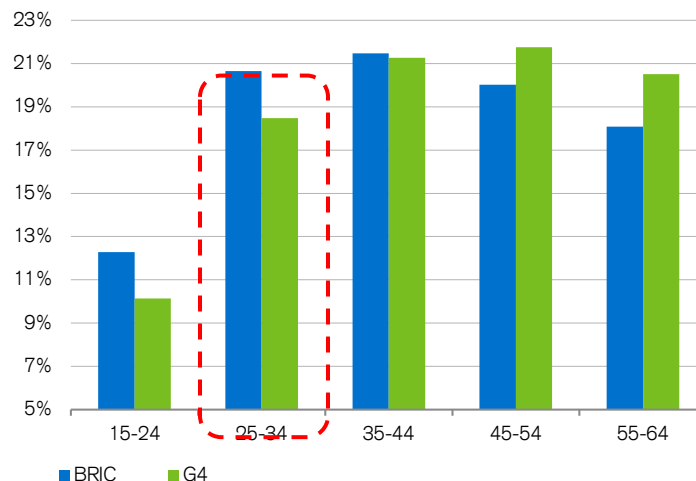
- Stagnant demographics and poor income prospects in DM with the opposite in EM will drive this convergence long-term.
- Ageing and rising fiscal costs squeeze income outlook in DM. The opposite is the case in EM with the kicker of urbanisation.
- The spending power of the young consumer is a key influence.

Old-age dependency ratio (%): Survey countries and global benchmarks



Source: UN, 2017 Revision of World Population Prospects, Emerging Consumer Survey 2018

Distribution of average income by age group, 2017*



Income distribution by age groups represents the proportion of income each age cohort has as a share of total income (average income earned by age bracket/sum of average income across all age groups)

The Emerging Consumer Scorecard 2018

- Our Asia countries hold the top 3 positions, with India at the top, followed by China and Indonesia.
- However, we would note in absolute if not relative there have been significant improvements in Brazil, Mexico, Russia and Turkey where consumers are growing increasingly optimistic about their income prospects.

Rankings (6-

12 month
horizon)

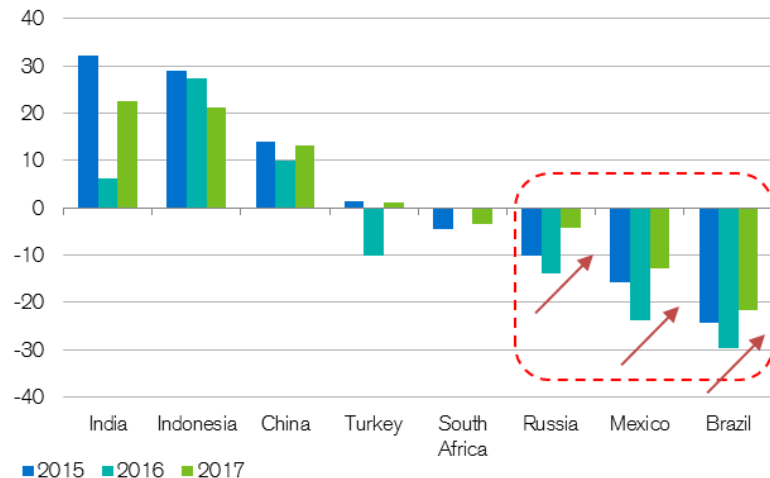
	Personal finances	Inflation expectations	Time for a major purchase	Income expectations	Income history	2018 Rank	2017 Rank
India	1	6	1	2	1	1 →	1
China	2	3	2	4	3	2 ↑	3
Indonesia	5	5	3	1	2	3 ↓	2
Brazil	3	2	8	3	8	4 →	4
Turkey	7	1	7	7	4	5 ↑	6
Mexico	4	7	5	6	7	6 →	6
Russia	8	4	4	8	6	7 ↓	6
South Africa	6	8	6	5	5	8 ↓	5

Source: Credit Suisse Emerging Consumer Survey

“ECS 2018”: Taking the temperature

- In our 2018 survey, we find ongoing improvement in consumer sentiment across the surveyed countries. We have seen an improvement in four out of five of the metrics we track.
- We have seen an increase in the proportion of people recording positive income momentum last year, exceeding the number recording declines and thus reversing the picture from last year’s survey.

Net % of respondents who have seen household income increase over the last 12 months



Survey sentiment indicators average readings

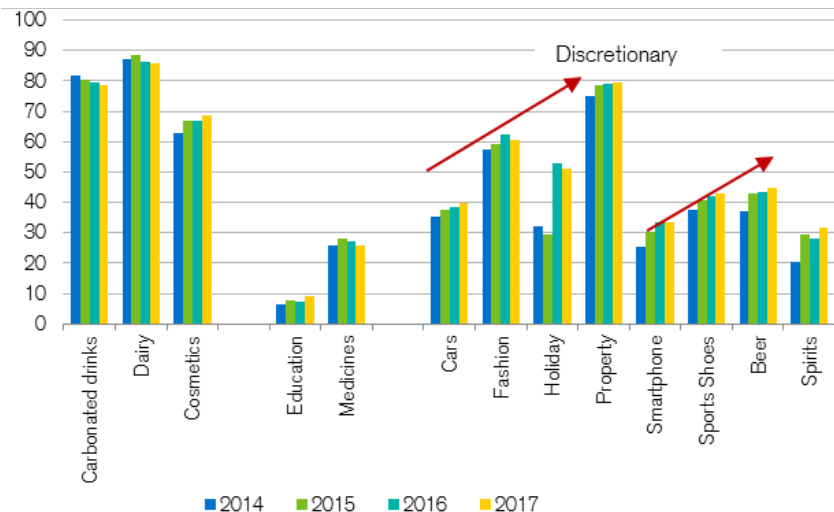
	Personal finances	Inflation Expectations	Good time to make a major purchase	Income Expectations	Income change in last 12m
	Net balance, better vs. worse	Net balance higher vs lower	Net balance, excellent time vs bad time	Net balance increase vs decrease	Net balance increase vs decrease
2017	21.8	41.3	-6.4	24.5	2.0
2016	19.6	39.3	-10.4	19.1	-4.2
2015	15.3	46.4	-13.0	24.5	2.7
2014	25.5	46.1	-7.4	31.3	10.3

Source: Credit Suisse Emerging Consumer Survey

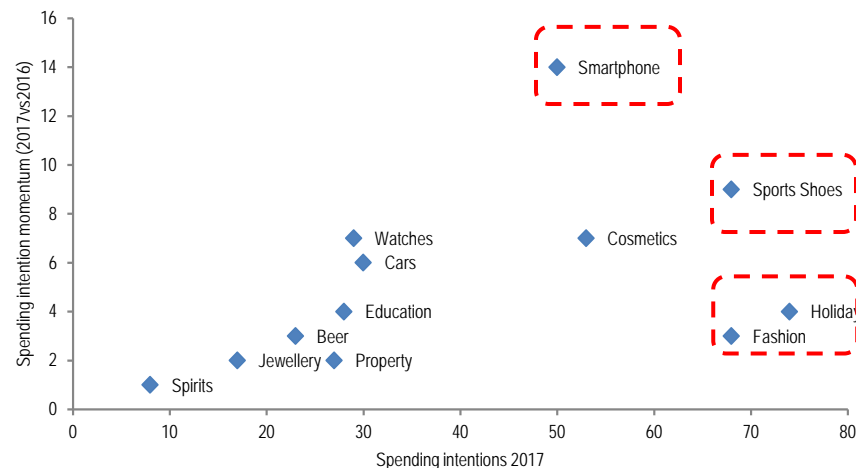
Discretionary switch continues

- The momentum in discretionary categories is clear from our survey and continuing as we look ahead to 2018. Staples items may be the first spending decision but this isn't where the momentum lies. Sports shoes, fashion and holidays standing out.
- The spending patterns of the young and urban consumer show the strongest growth and momentum. Focusing on the spending of this demographic is key.

Consumer purchases in the last 3-12 months



Purchase intentions in China 18-29 year old versus momentum



Source: Credit Suisse Emerging Consumer Survey

Changing behaviour: Key themes

■ The dynamics of the young consumer: An active and virtual lifestyle

- With purchasing power in the hands of the young, the survey focuses on their spending patterns. End markets that benefit are “lifestyle” related: sports, healthier products, gaming, travel.

■ E-commerce: A facilitator not a disruptor

- On-line economy remains a key component of the consumer theme. It facilitates growth rather than simply disrupts. Potential market size is still huge with a conservative scenario of \$2.7 tn by 2025 (vs \$1.3 tn) for our countries.

■ The emerging “saver”

- The CS Research Institute Global Wealth Report highlights EM as the greatest region of growth in wealth. China should see a further accumulation of \$10 tn of wealth by 2022 and India \$2 tn. How it is saved is key for financial markets and institutions.

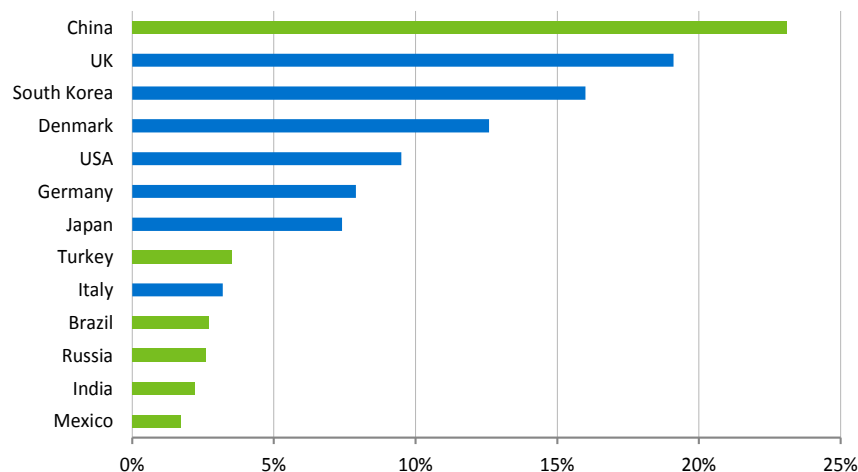
■ The Consumer Titans: India and China top the scorecard

- The young Chinese consumer is driving a consumption/lifestyle upgrade but with a domestic brand bias, amidst a degree of “nationalism”. The Indian consumer continues to “premiumise”. Greater diversification in savings is a feature of both.

E-commerce: A facilitator not a disruptor I

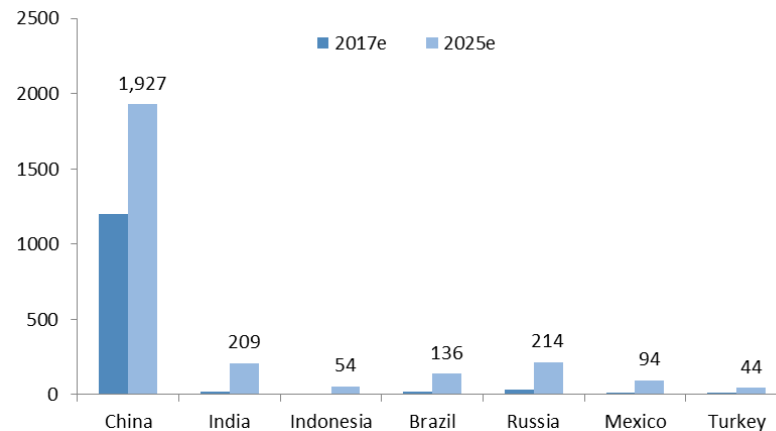
- Online retail penetration rates remain low despite the relatively high readings in China (>20% of retail done on line). In all other surveyed countries it is less than 5%.
- Total online retail spending across our surveyed economies reached US\$1.3 tn last year on our estimates. China accounts for more than 90% of this. The upside to online retail is substantial. A conservative estimate for our countries is close to \$3 tn by 2025.

Despite the strong growth seen to date we find that online retail spending remains underdeveloped in most countries



The potential online retail market could reach US\$2.7 tn by 2025

Assumptions: 5% nominal retail growth. Online share to 25% for China and 15% elsewhere by 2025

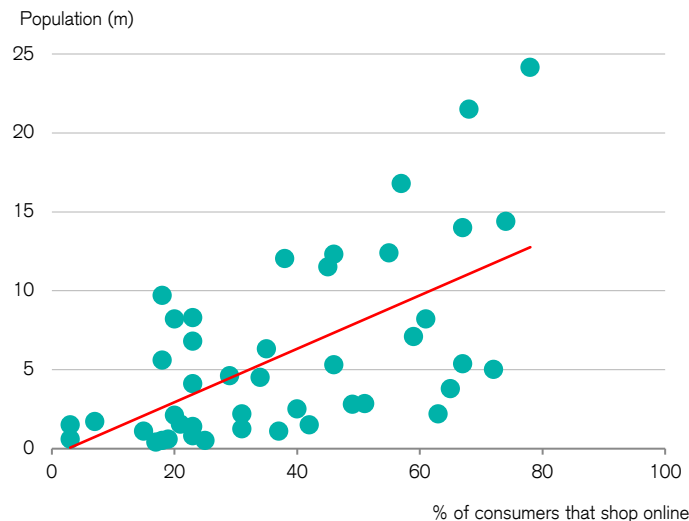


Source: Credit Suisse Emerging Consumer Survey, eMarketer, Credit Suisse research

E-commerce: A facilitator not a disruptor II

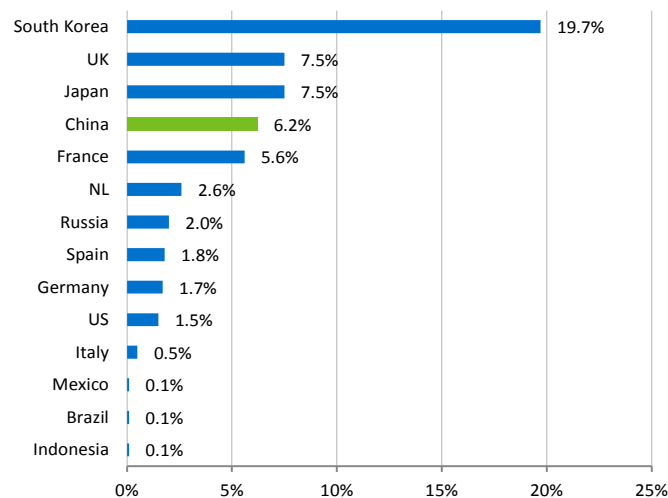
- Urbanisation: The number 1 reason for consumers to buy online is convenience. For this to work online companies must get their logistics in place. Increased urbanisation lowers these logistical challenges.
- Expansion of products: We expect future growth in online retail to benefit from increased sales of Fast Moving Consumer Goods and greater usage of online food delivery services.
- Greater competition as off-line retailers develop online capabilities and e-commerce becomes increasingly cross-border.

Urbanisation is one of the megatrends impacting emerging markets. It allows for greater online shopping penetration



Source: Credit Suisse Emerging Consumer Survey

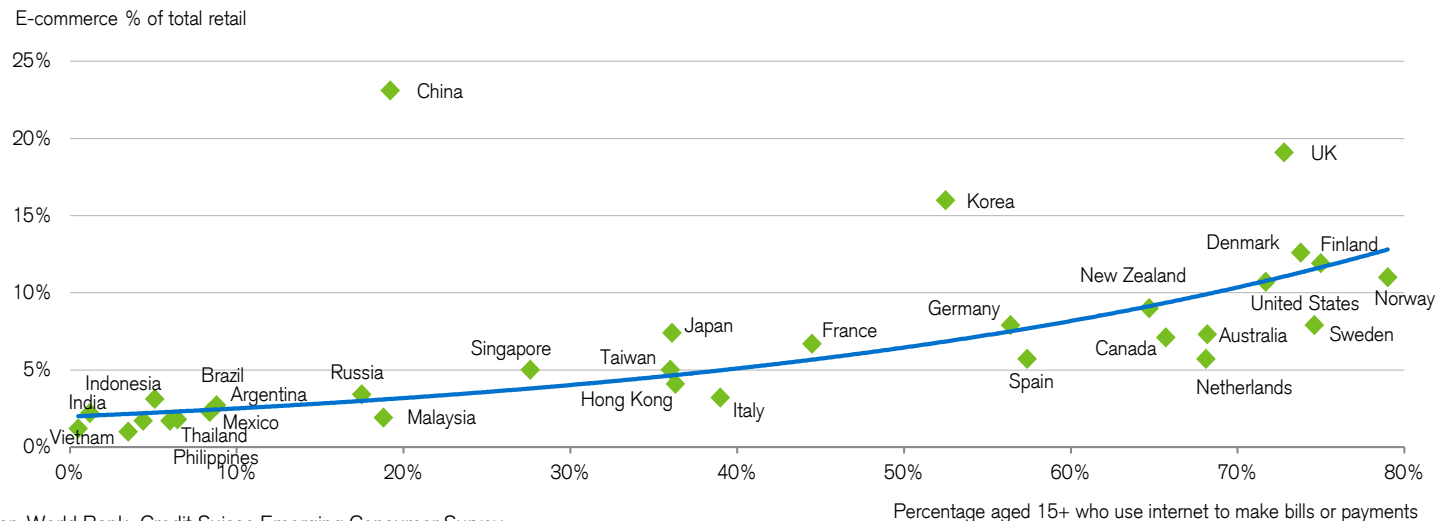
Greater penetration of online sale of FMCG and online food delivery adds significant growth potential to e-commerce in EM, in our view



E-commerce: A facilitator not a disruptor III

- Emerging Markets remain cash-driven economies; however, we notice strong changes not least in China and India.
- **China:** Mobile payments have increased 16x since 2013 to well over US\$3 tn. **India:** mobile payments set to grow 5x to US\$1 tn by 2023 owing to demonetisation, Unified Payment Interface and entry of tech giants Google, Samsung and Amazon
- Data more broadly suggest that greater willingness to use internet-based payment systems acts as facilitator to greater E-commerce intensity.

Data for a range of countries suggests that consumer willingness to embrace digital payment systems coincides with greater E-commerce penetration.

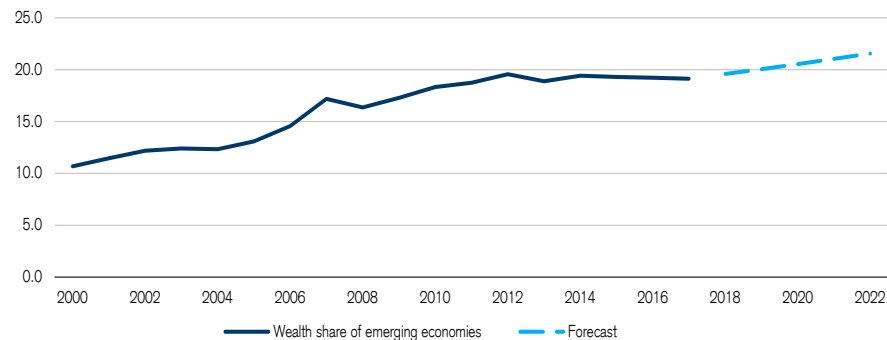


Source: eMarketer, World Bank, Credit Suisse Emerging Consumer Survey

The emerging “saver” I

- Wealth accumulating rapidly in EM with its share increasing from 11% to 19% since 2000. China now the second largest source of global wealth after the US.
- CSRI Global Wealth Report 2017 projects this rising to 22% with increases to 2022 in China of 34%, India of 42% and Brazil of 63% as it recovers from recession. China and India represent the largest absolute sources of increase at US\$9.8 tn and US\$2.1 tn respectively.

Wealth share history and forecasts of emerging markets (in % of global wealth)



Change in total wealth (%)

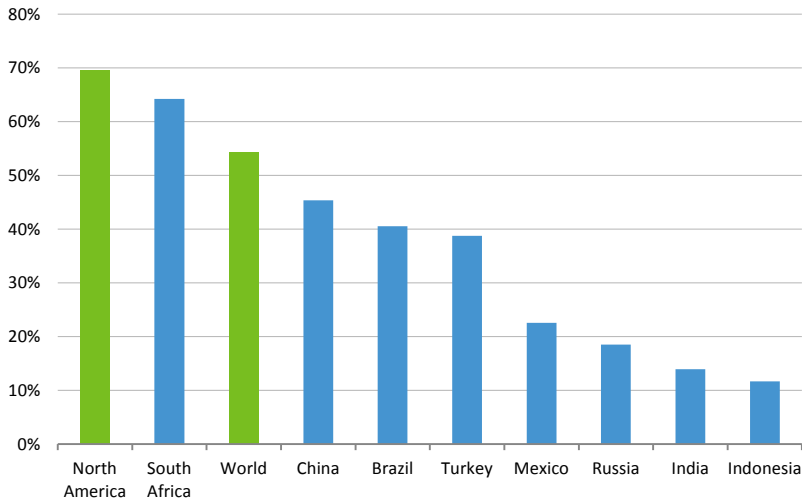
	Total wealth (USD trn.)				Change (USD trn.) 2017-2022E	Change (%) 2017-2022E
	2015	2016	2017	2022E		
Brazil	2.0	2.6	2.6	4.2	1.6	63%
China	26.8	27.4	29.1	38.8	9.8	34%
India	4.4	4.6	5.0	7.1	2.1	42%
Indonesia	1.6	1.8	1.9	2.8	0.9	50%
Mexico	1.7	1.5	1.9	2.0	0.1	6%
Russia	1.5	1.8	1.9	2.7	0.8	43%
South Africa	0.6	0.7	0.8	1.0	0.2	30%
Turkey	1.0	1.0	1.1	1.2	0.1	7%
WORLD	253.8	263.5	280.3	341.4	61.1	22%

Source: Credit Suisse Global Wealth Report 2017

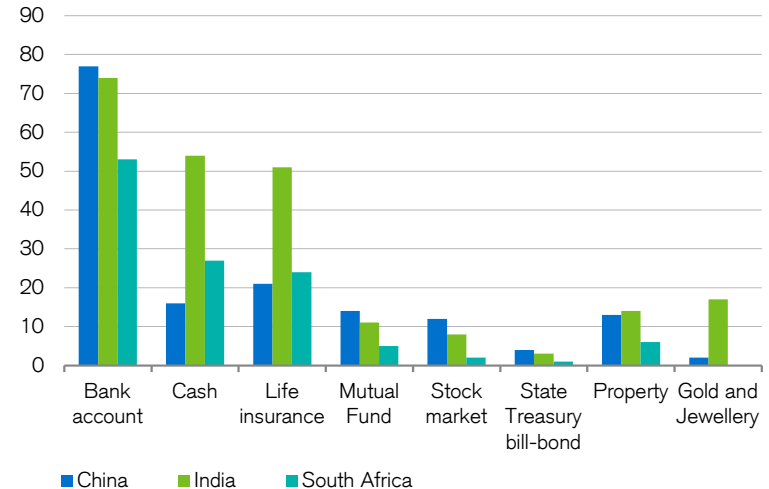
The emerging “saver” II

- The wealth accumulation forecast is concentrating in the countries recording the highest savings ratios in our survey (China and India).
- In the savings mix, holdings of financial assets as a percentage of total wealth are lower in countries in EM, notably India where wealth is expected to accumulate rapidly. There are important implications for financial markets and institutions as assets are re-allocated.
- Greater sophistication of savings behaviour becoming apparent in the survey with wider range of savings channels being recorded.

Financial assets as a % of gross wealth



Savings distribution mix across China, India and South Africa (% of respondents saving by each method)



Source: Credit Suisse Emerging Consumer Survey 2018, Global Wealth Report 2017

21 March 2018

India consumption on an upswing, upper income leading the growth

Arnab Mitra, +91 22 67773806, arnab.mitra@credit-suisse.com

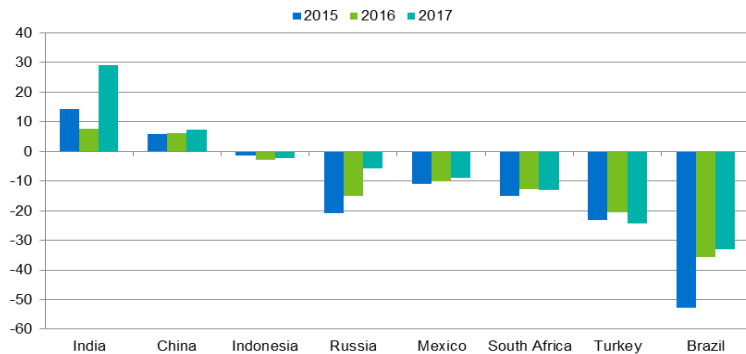
DISCLOSURE APPENDIX AT THE BACK OF THIS REPORT CONTAINS IMPORTANT DISCLOSURES, ANALYST CERTIFICATIONS, LEGAL ENTITY DISCLOSURE AND THE STATUS OF NON-US ANALYSTS. US Disclosure: Credit Suisse does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

EM consumer survey: India tops the scorecard

- Fourth consecutive year when India has ranked the scorecard. Still there was a marked improvement in sentiment over 2016.
- Upper income segment more optimistic than lower income which could be due to latter's linkage to agriculture
- Penetration and premiumisation themes continue to play out. Indians moving towards branded goods; shift aided by GST rate cuts
- Major shift seen in modes of savings for Indian households. Indian's moving away from gold, property towards financial assets

Indians most upbeat on making major purchases; pick up in sentiment

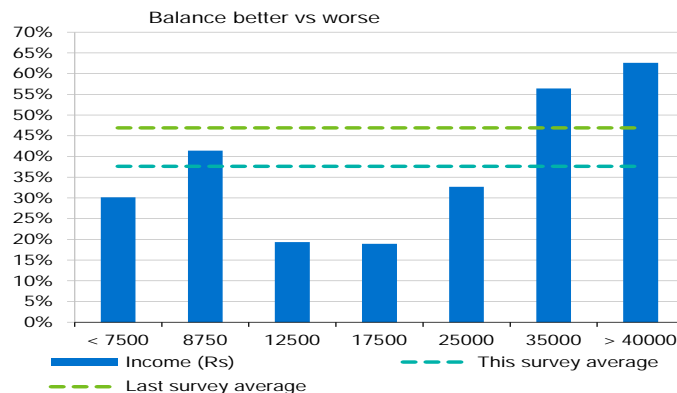
Net percentage of respondents agreeing that it is a good time to make a purchase



Source: Credit Suisse Emerging Consumer Survey

However, sentiment improvement not secular with upper income more positive on state of finances versus lower income

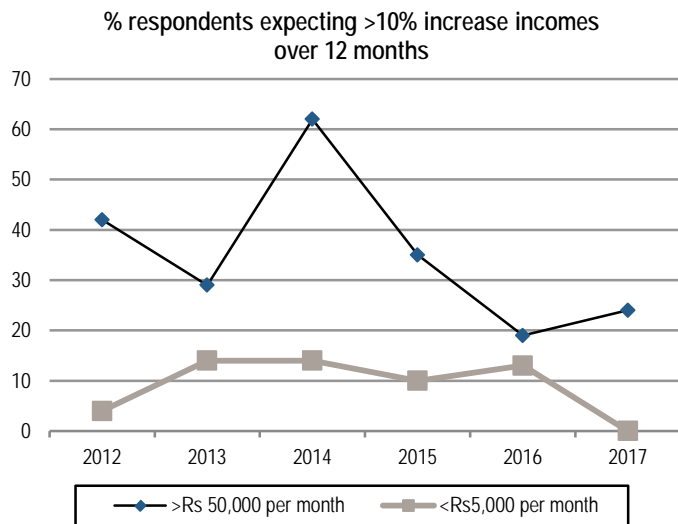
State of personal finances over the next six months



A tale of two income classes

- Consumer survey suggested that the upper income segment is more optimistic on income expectations versus lower income
- Upper income indicators like QSR sales have been very strong for the last few quarters

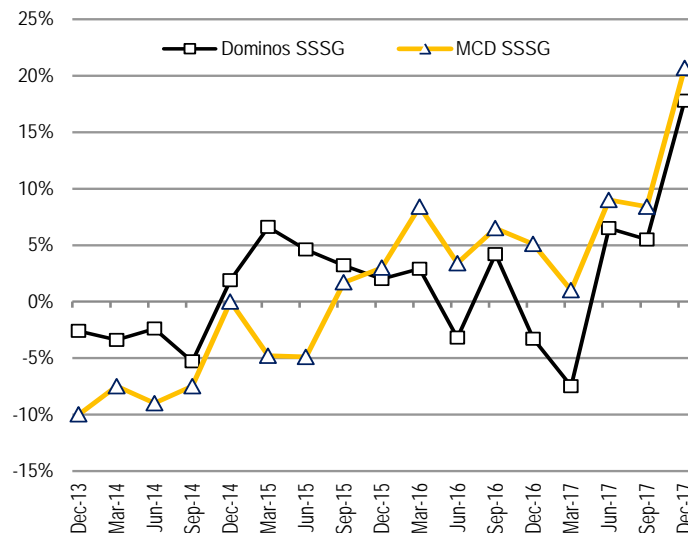
25% of upper income respondents expect >10% increase in incomes; versus almost zero for lower income



Source: Credit Suisse Emerging Consumer Survey

Quick service restaurants which are largely consumed by upper income consumers are seeing growth acceleration

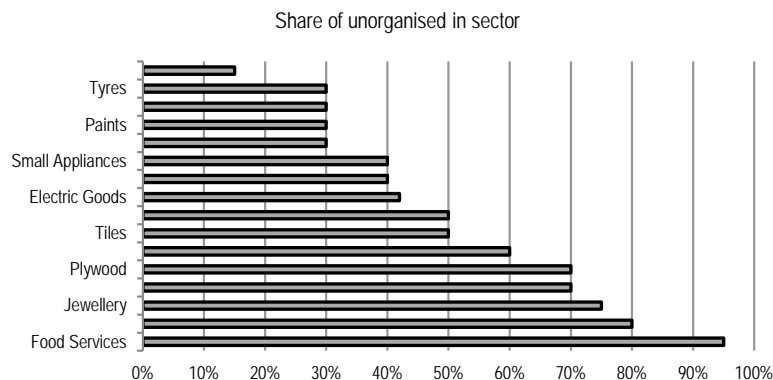
State of personal finances over the next six months



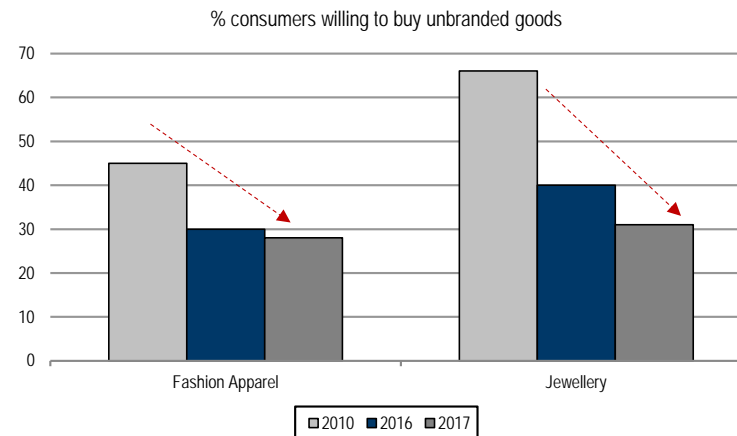
Unbranded to branded shift accelerating post GST

- Gradual shift from unbranded to branded goods across many categories like Jewellery, quick service restaurants and detergents
- GST a fundamental shift which will gradually over 3-4 years lower the scope of tax evasion by unorganised players

Unbranded/ unorganised sector is dominant across most categories in India



But Indian consumers fast moving towards branded goods; results from the consumer survey validate this

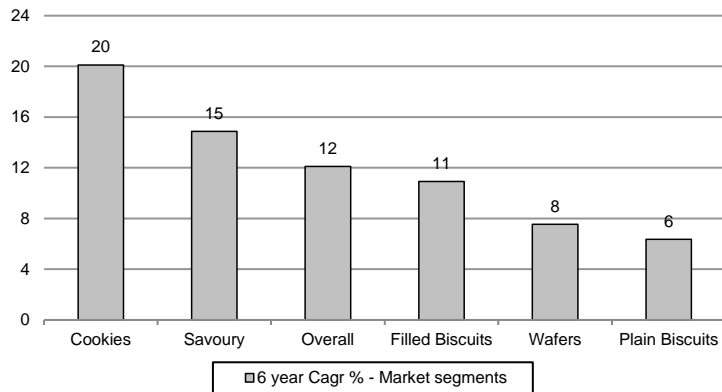


Source: Credit Suisse Emerging Consumer Survey, Credit Suisse Estimates

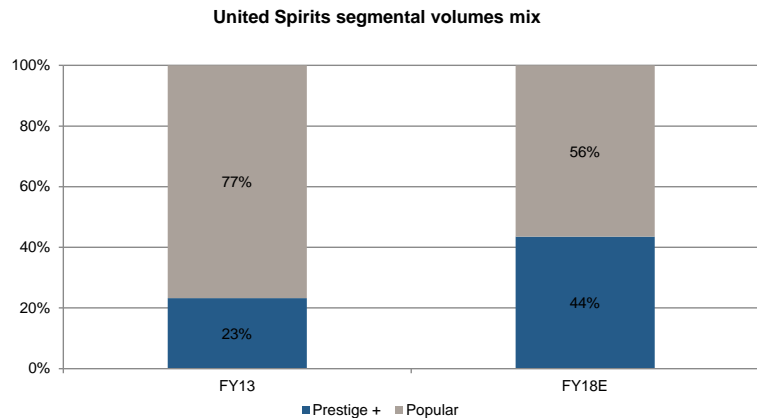
Share within branded shifting to premium brands

- Masked within the unbranded to branded shift is an even more remarkable shift, that of rapid premiumisation
- While this has been a secular trend over the years, we expect this to accelerate with improving consumer sentiment and rising incomes
- Indians upgrading across categories – biscuits, dairy, spirits, jewelry few examples

Premium (cookies) growing much faster than economy segments such as plain biscuits



United Spirits (India's largest spirits company) has been premiumising its portfolio

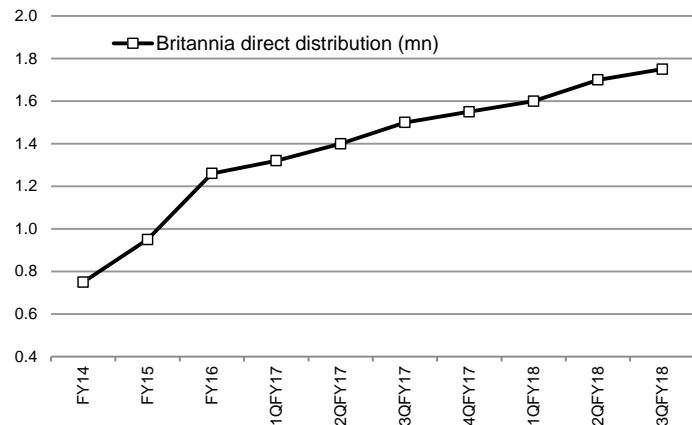


Source: Credit Suisse Emerging Consumer Survey, Credit Suisse Estimates

Companies making efforts to grow and premiumise





- Hindustan Unilever, has doubled its direct distribution by ~2.5x since 2011. Britannia, India's largest biscuit company has increased distribution reach by ~2.5x in 4 years.
- Godrej Consumer has worked on attractive single use price points for premium hair colours and air fresheners which have driven growth
- Jubilant Foodworks, which owns the Dominos India franchisee, has worked on improving affordability of pizzas to make it more competitive with street food options

Increase in direct distribution reach for Britannia (India's leading biscuits company)



Source: Credit Suisse Emerging Consumer Survey, Credit Suisse Estimates

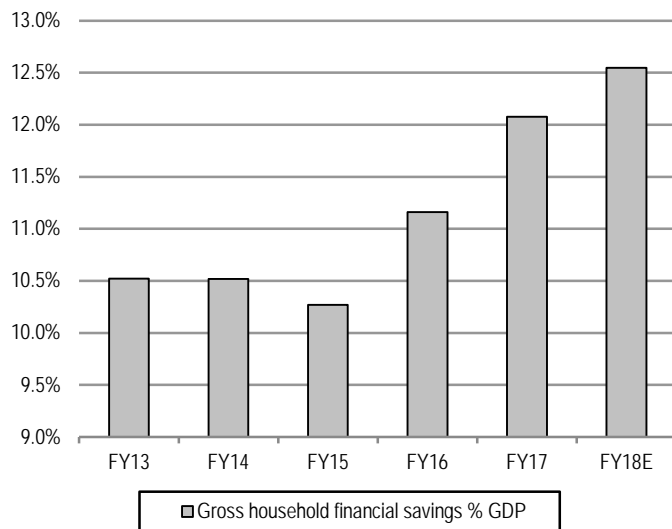
Domino's every day value offer

TODAY'S OFFERS	EVERYDAY VALUE DEALS	COUPONS
 <p>2 Pizzas at ₹199 each. Select any 2 Medium Pizzas Worth ₹305 @ ₹199 each.</p> <p>Avail Now</p>	 <p>2 Pizzas at ₹299 each. Select any 2 Medium Pizzas Worth ₹450 @ ₹299 each.</p> <p>Avail Now</p>	
 <p>2 Pizzas at ₹249 each. Select any 2 Medium Pizzas Worth ₹385 @ ₹249 each.</p> <p>Avail Now</p>	 <p>2 Pizzas at ₹399 each. Select any 2 Medium Pizzas Worth ₹555 @ ₹399 each.</p> <p>Avail Now</p>	

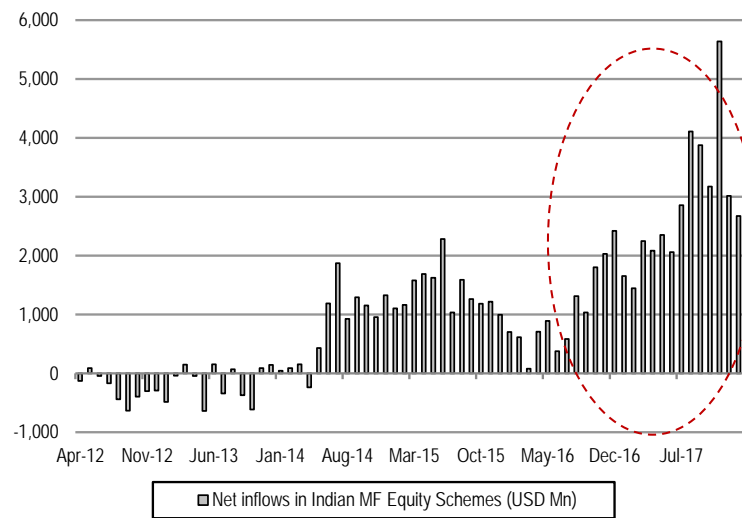
Move towards financial savings

- India's historically have been largely dependent on physical assets with very low reliance on financial assets
- However, there is a clear shift in household savings from hard assets like gold and property to financial assets like equities
- India's gross household financial savings as share a GDP have risen steadily for the last three years

Household financial savings have been on an uptrend



Domestic equity mutual fund have been seeing large inflows



Source: Credit Suisse Emerging Consumer Survey, Credit Suisse Estimates

Stock picks

- Amongst staples, we prefer GCPL (GOCP.BO), Nestle (NEST.BO) and Britannia (BRIT.BO)
- On the discretionary side we expect consumer electrical companies like Crompton Consumer (CROP.BO) and Havells (HVEL.BO).
- We like Jubilant (JUBL.BO) as a play on upper income discretionary consumption and also major strategy changes executed by the management
- We also like ITC as tobacco tax hikes have been relatively rational and valuations are attractive

Company	CMP	M Cap (USD Bn)	PER (FY19)	PER (FY20)	Rating	Target Price	Upside (%)	Earnings CAGR (FY17- 20E)	ROE (FY18)
FMCG									
Nestle	7620	11.3	46.7	38.0	OUTPERFORM	9000	18%	24.5%	43.6%
GCPL	1079	11.3	42.6	36.6	OUTPERFORM	1175	9%	15.4%	23.4%
Britannia	4872	9.0	48.6	40.3	OUTPERFORM	5550	14%	17.9%	29.7%
ITC	270	50.7	25.8	22.5	OUTPERFORM	350	30%	12.6%	19.7%
Discretionary									
Jubilant Foodworks	2084	2.1	48.3	36.4	OUTPERFORM	2750	32%	59.9%	18.1%
Havells	505	4.9	35.5	28.9	OUTPERFORM	635	26%	22.3%	18.2%
Crompton Consumer	234	2.3	31.8	27.1	OUTPERFORM	315	35%	20.5%	45.3%

Source: Credit Suisse Emerging Consumer Survey, Credit Suisse Estimates

March 2018

China Consumer Sector

China: A more confident generation of consumers

Charlie Chen, Head of China Consumer Research

Research Analyst, +852 2101 6165/ charlie.chen@credit-suisse.com

DISCLOSURE APPENDIX AT THE BACK OF THIS REPORT CONTAINS IMPORTANT DISCLOSURES, ANALYST CERTIFICATIONS, LEGAL ENTITY DISCLOSURE AND THE STATUS OF NON-US ANALYSTS. US Disclosure: Credit Suisse does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

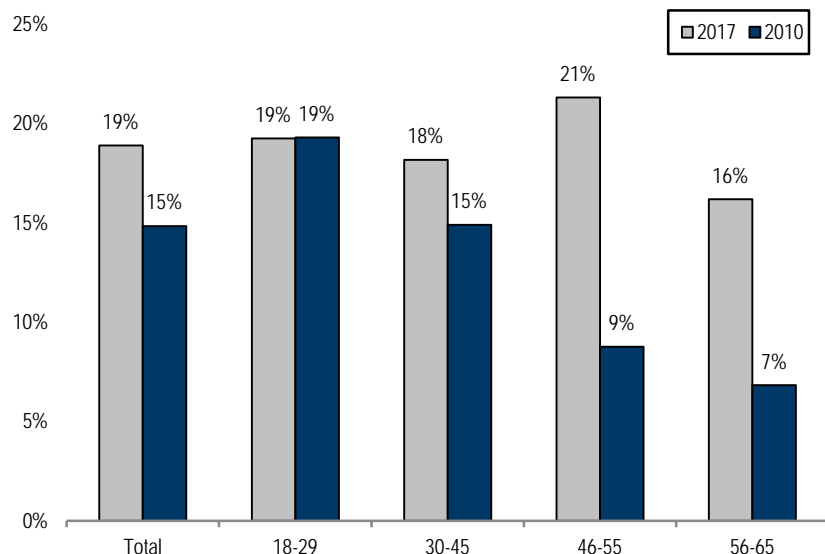
Consumption upgrade and a generation of confident Chinese consumer

- Chinese consumer market is in the middle of a multi-year consumption upgrade, we are surprised to see the rising of a more confident generation of consumers in China.
- The young Chinese consumers in our survey have displayed some characteristics:

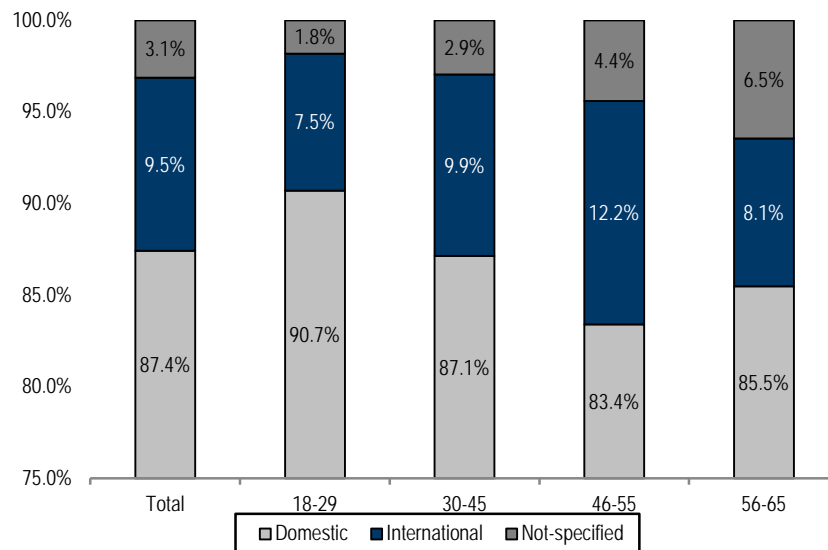


Rising “nationalism” in China’s consumption upgrade

Mentions of Chinese brands as percentage of total answers for question “which brands (in sportswear) do you think worth paying more for”



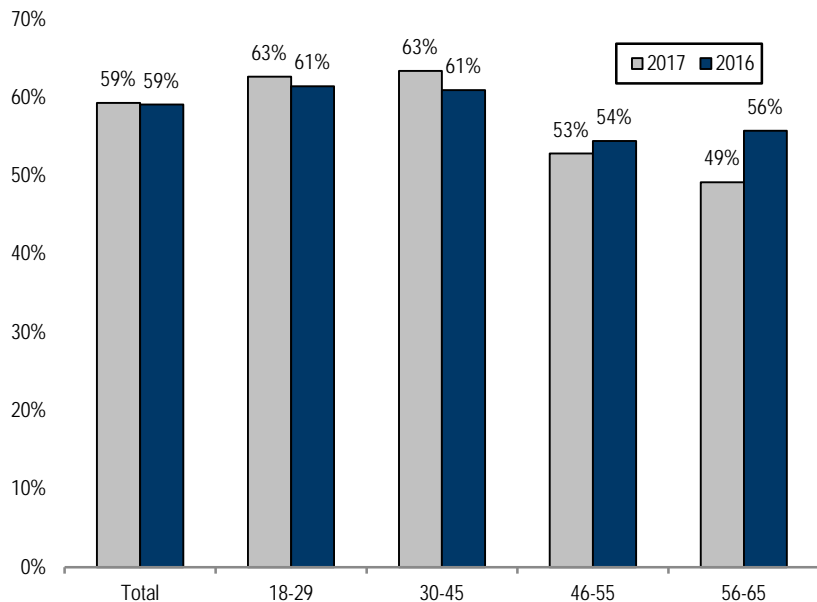
Youngest consumer group prefers Chinese home appliance brands the most



Source: Credit Suisse Emerging Consumer Survey

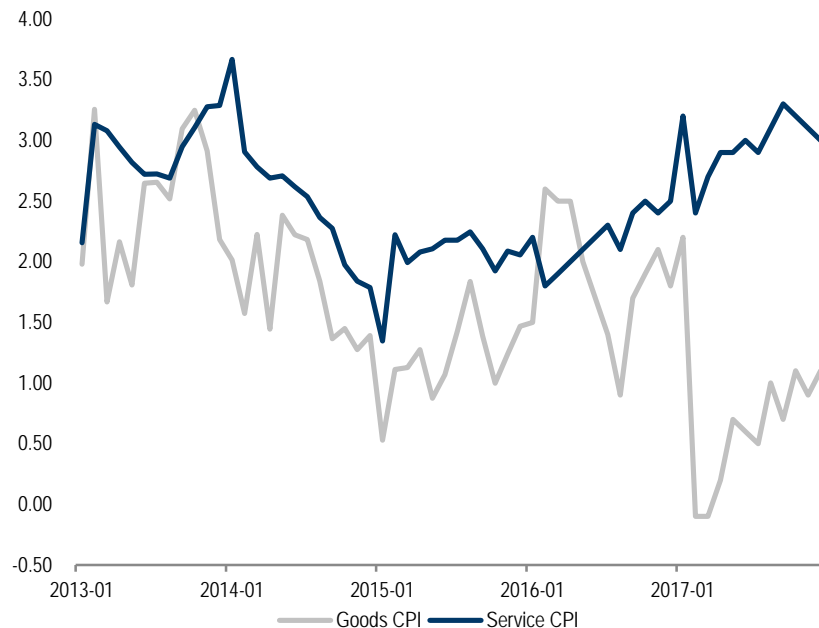
Rising time value in China's consumption upgrade

Younger generation increasing their spending on travel: % of respondents who had travel in the past 12 months



Source: Credit Suisse Emerging Consumer Survey, Credit Suisse research

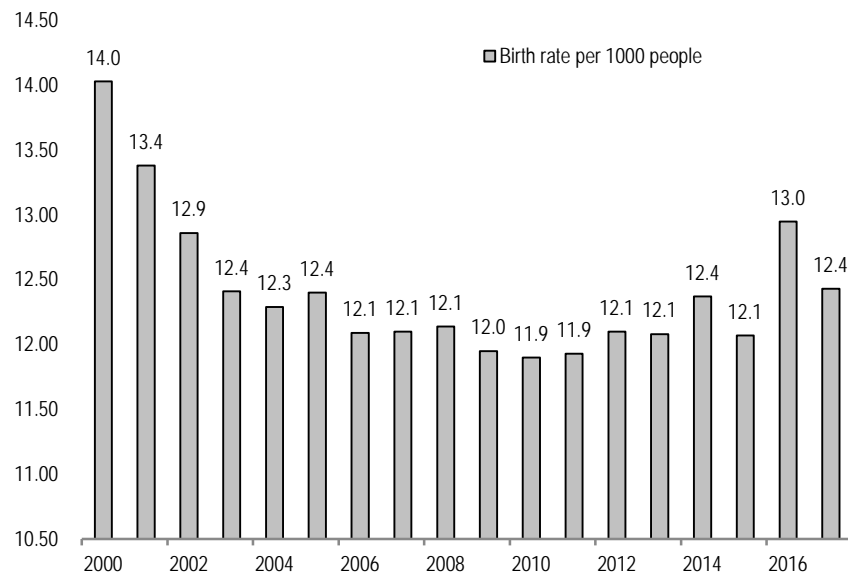
Service CPI has mostly outperformed Goods CPI, gap widened in 2017



Two-child policy: Effect below expectations

- Chinese government started to lift the birth control policy in 2013, and moved to the 2-child policy started on 1 January 2016
- After a temporary hike in baby birth in 2016, the new born baby population declined 3.5% to 17.2 mn, and birth rate declined 0.05 pp to 12.4%.
- High cost of raising babies, abnormal gender ratio of new born babies in the past two decades, no government incentives are three reasons

Birth rate dropped in 2017 after a rebound in 2016

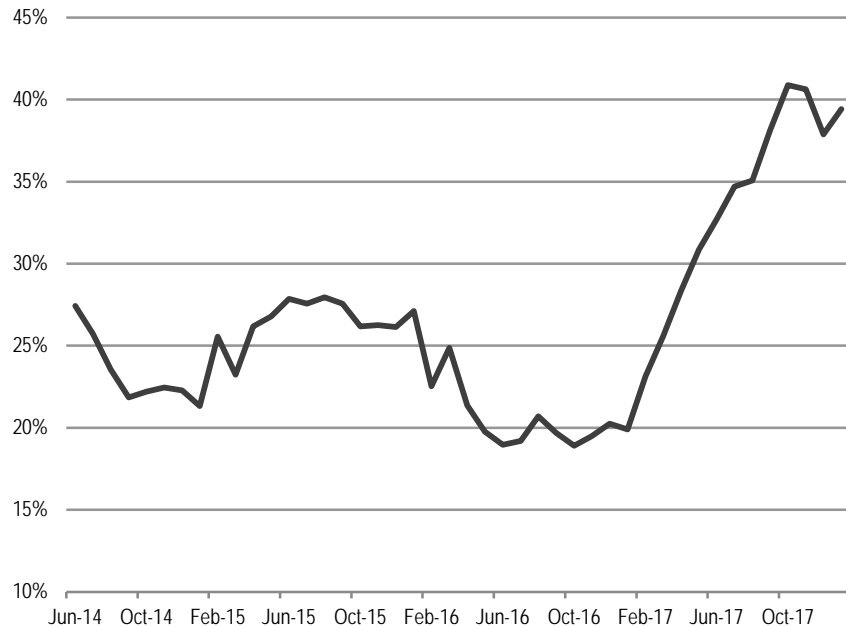


Source: National Bureau of Statistics

A more confident and aggressive consumer generation

- More confident on their choice
- More willing to pay service to have more own time to enjoy life
- Set aside part of their income in insurance to protect later stage of their lives
- Swipe credit card without hesitation
- A more individualism and consumerism centric generation...

Credit card balance YoY growth



Source: Credit Suisse research

Companies Mentioned (Price as of 15-Mar-2018)

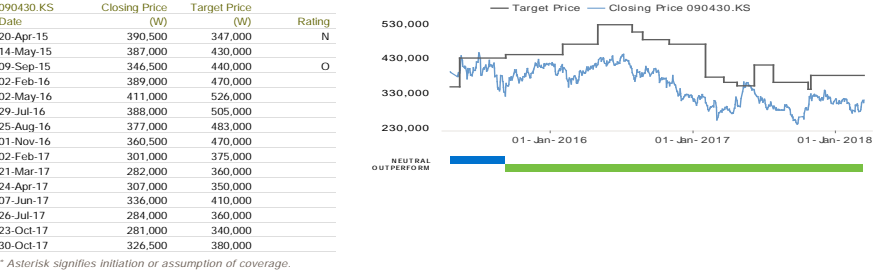
AAC Technologies Holdings Inc (2018.HK, HK\$155.0)
AXA (AXAF.PA, €22.56)
Adani Ports & SEZ (APSE.BO, Rs382.1)
Adidas AG (ADSGn.F, €192.05)
Ajinomoto (2802.T, ¥1,972)
Alsea (ALSEA.MX, MXN65.28)
AmBev (ABEV.SA, R\$23.88)
Amorepacific Corp (090430.KS, ₩309,000)
Anheuser-Busch InBev (ABSI.BR, €91.8)
Anta Sports Products Limited (2020.HK, HK\$41.75)
BAIC Motor Corporation Limited (1958.HK, HK\$10.62)
Beiersdorf (BEIG.DE, €87.46)
Britannia Bk (BBLKF.PK, \$0.003)
Britannia Industries Limited (BRIT.BO, Rs4853.15)
C.P. ALL PCL (CPALL.BK, Bt87.0)
Carnival (CCLN, \$66.73)
Carnival (CCLL, 4700.06)
Catcher Technology (2474.TW, NT\$361.0)
China Int'l Travel Service (601888.SS, Rmb56.86)
Coca-Cola HBC (CCHL, 2548.09)
Coloplast B (COLOB.CO, Dkr\$11.0)
Crompton Greaves Consumer Electrical Limited (CROP.BO, Rs222.8)
Dall Foods Group (DFG.HK, HK\$7.52)
Essilor International SA (ESSI.PA, €111.85)
Estacio (ESTCS.SA, R\$33.4)
Femsa (FMSAUB.MX, MXN73.15)
Femsa (FMX.N, \$92.42)
Feiyu S.A. (FLFY.SA, R\$27.28)
Global Cap Part (GCP.LPK, \$0.02)
Global Payments Inc. (GPN.N, \$118.21)
Gree Electric Appliances Inc of Zhuhai (000651.SZ, Rmb53.8)
HDFC Bank (HDBK.BO, Rs1880.1)
Hangzhou Hikvision Digital Technology Co., Ltd. (002415.SZ, Rmb43.09)
Havells India Ltd (HVEL.BO, Rs20.5)
Hengan International (1044.HK, HK\$76.0)
Hindustan Unilever Ltd (HLL.BO, Rs1297.4)
Huayu Automotive Systems Co., Ltd (600741.SS, Rmb27.47)
Hypera Pharma (HYPE.SA, R\$36.96)
ICICI Prudential Life Insurance Company Limited (ICIR.BO, Rs382.45)
ITC Ltd (ITC.BO, Rs265.55)
Isuzu Motors (7202.T, ¥1,648)
Jiangsu Yanghe Brewery Joint-stock Co., Ltd (002304.SZ, Rmb114.5)
Jubilant Foodworks (JULB.BO, Rs2144.7)
L'Oreal (OREP.PA, €179.75)
LG Household & Healthcare (051900.KS, ₩1,153,000)
Largan Precision (3006.TW, NT\$3785.0)
Lojas Americanas S.A. (LAME4.SA, R\$17.21)
Lojas Renner S.A. (LREN3.SA, R\$36.45)
Maruti Suzuki India Ltd (MRF11.BO, Rs8832.9)
MercadoLibre Inc. (MELI.OQ, \$387.11)
Midea Group Co Ltd (000333.SZ, Rmb81.41)
Monster Beverage Corp (MNST.OQ, \$58.19)
Nestle India (NESTI.BO, Rs7717.3)
New Oriental Education (EDU.N, \$93.78)
Nexon (3659.T, ₩3,650)
Nike Inc. (NKE.N, \$66.39)
PT Bank Central Asia Tbk (BBCA.JK, Rp23,375)
PT Telkom (Telekomunikasi Indo.) (TLKM.JK, Rp3,930)
Ping An (2318.HK, HK\$88.95)
Ping An (601318.SS, Rmb70.49)
Qingdao Haier Co., Ltd. (600690.SS, Rmb20.79)
RD (RADL3.SA, R\$77.9)
Sanofi (SANYP.PA, €66.23)
Shenzhen International (2313.HK, HK\$79.7)
Straumann (STMN.S, SF7633.0)
Suofeiya Home Collection Co Ltd (002572.SZ, Rmb35.08)
Swatch Group (UHR.S, SF98.9)
The Estee Lauder Companies Inc. (ELN, \$144.12)
The Walt Disney Company (DIS.N, \$103.24)
UBS Group AG (UBSG.S, SF17.52)
Visa Inc. (V.N, \$123.41)
WH Group Limited (0288.HK, HK\$9.57)
Wuliangye Yibin Co., Ltd (000858.SZ, Rmb78.0)
X5 Retail Group (XPR.L, \$34.04)
Yonghui Superstores (601933.SS, Rmb10.94)
Zee Entertainment Enterprise (ZEE.BO, Rs70.75)

Disclosure Appendix

Analyst Certification

The analysts identified in this report each certify, with respect to the companies or securities that the individual analyzes, that (1) the views expressed in this report accurately reflect his or her personal views about all of the subject companies and securities and (2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

3-Year Price and Rating History for Amorepacific Corp (090430.KS)



3-Year Price and Rating History for LG Household & Healthcare (051900.KS)



The analyst(s) responsible for preparing this research report received Compensation that is based upon various factors including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse's investment banking activities

As of December 10, 2012 Analysts' stock rating are defined as follows:

Outperform (O) : The stock's total return is expected to outperform the relevant benchmark* over the next 12 months.

Neutral (N) : The stock's total return is expected to be in line with the relevant benchmark* over the next 12 months.

Underperform (U) : The stock's total return is expected to underperform the relevant benchmark* over the next 12 months.

* Relevant benchmark by region: As of 10th December 2012, Japanese ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. As of 2nd October 2012, U.S. and Canadian as well as European ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. For Latin American and Asia stocks (excluding Japan and Australia), ratings are based on a stock's total return relative to the average total return of the relevant country or regional benchmark (India - S&P BSE Sensex Index); prior to 2nd October 2012 U.S. and Canadian ratings were based on (1) a stock's absolute total return potential to its current share price and (2) the relative attractiveness of a stock's total return potential within an analyst's coverage universe. For Australian and New Zealand stocks, the expected total return (ETR) calculation includes 12-month rolling dividend yield. An Outperform rating is assigned where an ETR is greater than or equal to 7.5%; Underperform where an ETR less than or equal to 5%. A Neutral may be assigned where the ETR is between -5% and 15%. The overlapping rating range allows analysts to assign a rating that puts ETR in the context of associated risks. Prior to 18 May 2015, ETR ranges for Outperform and Underperform ratings did not overlap with Neutral thresholds between 15% and 7.5%, which was in operation from 7 July 2011.

Restricted (R) : In certain circumstances, Credit Suisse policy and/or applicable law and regulations preclude certain types of communications, including an investment recommendation, during the course of Credit Suisse's engagement in an investment banking transaction and in certain other circumstances.

Not Rated (NR) : Credit Suisse Equity Research does not have an investment rating or view on the stock or any other securities related to the company at this time.

Not Covered (NC) : Credit Suisse Equity Research does not provide ongoing coverage of the company or offer an investment rating or investment view on the equity security of the company or related products.

Volatility Indicator [V] : A stock is defined as volatile if the stock price has moved up or down by 20% or more in a month in at least 8 of the past 24 months or the analyst expects significant volatility going forward.

Analysts' sector weightings are distinct from analysts' stock ratings and are based on the analyst's expectations for the fundamentals and/or valuation of the sector' relative to the group's historic fundamentals and/or valuation:

Overweight : The analyst's expectation for the sector's fundamentals and/or valuation is favorable over the next 12 months.

Market Weight : The analyst's expectation for the sector's fundamentals and/or valuation is neutral over the next 12 months.

Underweight : The analyst's expectation for the sector's fundamentals and/or valuation is cautious over the next 12 months.

"An analyst's coverage sector consists of all companies covered by the analyst within the relevant sector. An analyst may cover multiple sectors."

Credit Suisse's distribution of stock ratings (and banking clients) is:

Global Ratings Distribution

Rating	Versus universe (%)	Of which banking clients (%)
Outperform/Buy*	47%	(62% banking clients)
Neutral/Hold*	37%	(55% banking clients)
Underperform/Sell*	13%	(55% banking clients)
Restricted	2%	

"For purposes of the NYSE and FINRA ratings distribution disclosure requirements, our stock ratings of Outperform, Neutral, and Underperform most closely correspond to Buy, Hold, and Sell, respectively; however, the meanings are not the same, as our stock ratings are determined on a relative basis. (Please refer to definitions above.) An investor's decision to buy or sell a security should be based on investment objectives, current holdings, and other individual factors."

Important Global Disclosures

Credit Suisse's research reports are made available to clients through our proprietary research portal on CS PLUS. Credit Suisse research products may also be made available through third-party vendors or alternate electronic means as a convenience. Certain research products are only made available through CS PLUS. The services provided by Credit Suisse's analysts to clients may depend on a specific client's preferences regarding the frequency and manner of receiving communications, the client's risk profile and investment, the size and scope of the overall client relationship with the Firm, as well as legal and regulatory constraints. To access all of Credit Suisse's research that you are entitled to receive in the most timely manner, please contact your sales representative or go to <https://plus.credit-suisse.com>.

Credit Suisse's policy is to update research reports as it deems appropriate, based on developments with the subject company, the sector or the market that may have a material impact on the research views or opinions stated herein.

Credit Suisse's policy is only to publish investment research that is impartial, independent, clear, fair and not misleading. For more detail please refer to Credit Suisse's Policies for Managing Conflicts of Interest in connection with Investment Research: <https://www.credit-suisse.com/sites/disclaimers-ib/en/managing-conflicts.html>.

Credit Suisse does not provide any tax advice. Any statement herein regarding any US federal tax is not intended or written to be used, and cannot be used, by any taxpayer for the purposes of avoiding any penalties.

Credit Suisse has decided not to enter into business relationships with companies that Credit Suisse has determined to be involved in the development, manufacture, or acquisition of anti-personnel mines and cluster munitions. For Credit Suisse's position on the issue, please see <https://www.credit-suisse.com/media/assets/corporate/docs/about-us/responsibility/banking/policy-summaries-en.pdf>.

See the Companies Mentioned section for full company names

Credit Suisse currently has, or had within the past 12 months, the following as investment banking client(s): 000333.SZ, BBCA.JK, ZEE.BO, OREP.PA, PJPq.L, CPALL.BK, FMSAUBD.MX, ESTC3.SA, STMN.S, COLOB.CO, MELI.OO, EDU.N, TLKM.JK, 051900.KS, SASY.PA, 2318.HK, AXAF.PA, FMX.N, 601318.SS, ABEV3.SA, ADSGn.F, HLL.BO, ICIR.BO, ABI.BR, 1044.HK, 2313.HK, BEIG.DE, LAME4.SA, UBSG.S, 600690.SS, ALSEA.MX, CCHL.V, N, HDBK.BO, CROP.BO, 0288.HK.

Credit Suisse provided investment banking services to the subject company (EDU.N, AXAF.PA, UHR.S, FLY3.SA, 2313.HK, BEIG.DE, LAME4.SA, NEST.BO, JUBI.BO, CROP.BO) within the past 12 months.

Credit Suisse currently has, or had within the past 12 months, the following issuer(s) as client(s), and the services provided were non-investment-banking, securities-related: 000333.SZ, BBCA.JK, APSE.BO, ZEE.BO, PJPq.L, CPALL.BK, HYPE3.SA, 051900.KS, 2318.HK, AXAF.PA, 601318.SS, ICIR.BO, BEIG.DE, UBSG.S, NEST.BO, CCHL.V, HDBK.BO

Credit Suisse has managed or co-managed a public offering of securities for the subject company (FLY3.SA, 2313.HK, NEST.BO, JUBI.BO) within the past 12 months.

Within the past 12 months, Credit Suisse has received compensation for investment banking services from the following issuer(s): EDU.N, AXAF.PA, UHR.S, 2313.HK, BEIG.DE, LAME4.SA, CROP.BO

Credit Suisse expects to receive or intends to seek investment banking related compensation from the subject company (2018.HK, 002415.SZ, 000333.SZ, GPN.N, BBCA.JK, ZEE.BO, 2020.HK, OREP.PA, PJPq.L, CPALL.BK, MRTI.BO, 3008.TW, FMSAUBD.MX, ESTC3.SA, STMN.S, COLOB.CO, MELI.OO, EDU.N, TLKM.JK, HYPE3.SA, 051900.KS, SASY.PA, 2318.HK, AXAF.PA, FMX.N, 601318.SS, UHR.S, ABEV3.SA, FLY3.SA, ADSGn.F, HLL.BO, EL.N, ICIR.BO, ABI.BR, 2474.TW, 1958.HK, 1044.HK, 2313.HK, 3799.HK, BEIG.DE, LAME4.SA, UBSG.S, 600690.SS, ALSEA.MX, CCHL.V, N, HDBK.BO, JUBI.BO, CROP.BO, 0288.HK) within the next 3 months.

Within the last 12 months, Credit Suisse has received compensation for non-investment banking services or products from the following issuer(s): 000333.SZ, BBCA.JK, APSE.BO, ZEE.BO, PJPq.L, CPALL.BK, HYPE3.SA, 051900.KS, 2318.HK, AXAF.PA, 601318.SS, ICIR.BO, BEIG.DE, UBSG.S, NEST.BO, CCHL.V, HDBK.BO

Credit Suisse acts as a market maker in the shares, depositary receipts, interests or units issued by, and/or any warrants or options on these shares, depositary receipts, interests or units of the following subject issuer(s): 2018.HK, 2020.HK, 2318.HK, 1958.HK, 1044.HK, 0288.HK.

Credit Suisse or a member of the Credit Suisse Group is a market maker or liquidity provider in the securities of the following subject issuer(s):

2018.HK, AXAF.PA, APSE.BO, ADSGn.F, ALSEA.MX, ABEV3.SA, 090430.KS, ABI.BR, 2020.HK, 1958.HK, BEIG.DE, BRTI.BO, CPALL.BK, CCL.N, CCL.L, 2474.TW, 601318.SS, CCHL.V, COLOB.CO, CROP.BO, 3799.HK, ESTC3.SA, FMSAUBD.MX, FMX.N, FLY3.SA, GPN.N, 000651.SZ

CREDIT SUISSE

HDBK.BO, 002415.SZ, HVEL.BO, 1044.HK, HLL.BO, 600741.SS, HYPE3.SA, ICIR.BO, ITC.BO, 7202.T, 002304.SZ, JUBI.BO, OREP.PA, 051900.KS, 3008.TW, LAME4.SA, LREN3.SA, MRTI.BO, MELI.OO, 000333.SZ, NEST.BO, EDU.N, 3659.T, NKE.N, BBCA.JK, TLKM.JK, 2318.HK, 601318.SS, 600690.SS, RADL3.SA, SASY.PA, 2313.HK, STMN.S, 002572.SZ, UHR.S, EL.N, UBSG.S, V.N, 0288.HK, 000858.SZ, PJPq.L, 601933.SS, ZEE.BO.

A member of the Credit Suisse Group is party to an agreement with, or may have provided services set out in sections A and B of Annex I of Directive 2014/65/EU of the European Parliament and Council ("MIFID Services") to, the subject issuer (000651.SZ, 601933.SS, 002415.SZ, 000333.SZ, LREN3.SA, 090430.KS, GPN.N, BBCA.JK, APSE.BO, ZEE.BO, 2020.HK, OREP.PA, PJPq.L, CPALL.BK, 002572.SZ, MRTI.BO, 600741.SS, 3008.TW, FMSAUBD.MX, ESTC3.SA, RADL3.SA, STMN.S, EDU.N, HYPE3.SA, 051900.KS, CCL.N, 7202.T, 002304.SZ, FMX.N, CCL.L, UHR.S, ABEV3.SA, FLY3.SA, ADSGn.F, EL.N, BRTI.BO, ICIR.BO, ABI.BR, 2474.TW, 1958.HK, 1044.HK, 2313.HK, 3799.HK, BEIG.DE, LAME4.SA, UBSG.S, 600690.SS, NEST.BO, ALSEA.MX, 3659.T, CCHL.V, N, HDBK.BO, JUBI.BO, HVEL.BO, CROP.BO, 0288.HK, 000858.SZ) within the past 12 months.

Credit Suisse may have interest in (BBCA.JK, TLKM.JK)

As of the end of the preceding month, Credit Suisse beneficially own 1% or more of a class of common equity securities of (2318.HK, CCL.L, UHR.S, 2474.TW, JUBI.BO).

As of the end of the preceding month, Credit Suisse beneficially owned between 1% and 3% of the equity and related equity derivatives of (STMN.S, UBSG.S).

Credit Suisse beneficially holds > 0.5% long position of the total issued share capital of the subject company (090430.KS, BBCA.JK, TLKM.JK, 051900.KS, UBSG.S, JUBI.BO).

Credit Suisse beneficially holds > 0.5% short position of the total issued share capital of the subject company (HYPE3.SA, ADSGn.F).

As at 29-May-2017, Credit Suisse has a position in the debt securities of (HDBK.BO)

Credit Suisse has a material conflict of interest with the subject company (UHR.S) . Credit Suisse AG is acting as an agent in relation to The Swatch Group (UHR.S) ongoing share buy-back program.

Arnab Mitra worked as an employee in Hindustan Unilever.

For date and time of production, dissemination and history of recommendation for the subject company(ies) featured in this report, disseminated within the past 12 months, please refer to the link: <https://rave.credit-suisse.com/disclosures/view/report?l=353469&v=-33f6gv9y9cniqgcm6a458bh7>.

Important Regional Disclosures

Singapore recipients should contact Credit Suisse AG, Singapore Branch for any matters arising from this research report.

The analyst(s) involved in the preparation of this report may participate in events hosted by the subject company, including site visits. Credit Suisse does not accept or permit analysts to accept payment or reimbursement for travel expenses associated with these events.

Restrictions on certain Canadian securities are indicated by the following abbreviations: NVS=Non-Voting shares; RVS=Restricted Voting Shares; SVS=Subordinate Voting Shares.

Individuals receiving this report from a Canadian investment dealer that is not affiliated with Credit Suisse should be advised that this report may not contain regulatory disclosures the non-affiliated Canadian investment dealer would be required to make if this were its own report.

For Credit Suisse Securities (Canada), Inc.'s policies and procedures regarding the dissemination of equity research, please visit <https://www.credit-suisse.com/sites/disclaimers-ib/en/canada-research-policy.html>.

Credit Suisse International (Credit Suisse) acts as broker to (CCH.L).

Principal is not guaranteed in the case of equities because equity prices are variable.

Commission is the commission rate or the amount agreed with a customer when setting up an account or at any time after that.

For Thai listed companies mentioned in this report, the independent 2016 Corporate Governance Report survey results published by the Thai Institute of Directors Association are being disclosed pursuant to the policy of the Office of the Securities and Exchange Commission: C.P. ALL PCL ()

This research report is authored by:

Credit Suisse InternationalRichard Kersley ; Eugene Kleik ; Brandon Vair ; Maria Bhatti

To the extent this is a report authored in whole or in part by a non-U.S. analyst and is made available in the U.S., the following are important disclosures regarding any non-U.S. analyst contributors: The non-U.S. research analysts listed below (if any) are not registered/qualified as research analysts with FINRA. The non-U.S. research analysts listed below may not be associated persons of CSSU and therefore may not be subject to the FINRA 2241 and NYSE Rule 472 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Credit Suisse InternationalRichard Kersley ; Eugene Kleik ; Brandon Vair ; Maria Bhatti

Important MSCI Disclosures

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

The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of Morgan Stanley Capital International Inc. and Standard & Poor's. GICS is a service mark of MSCI and S&P and has been licensed for use by Credit Suisse.

Important Credit Suisse HOLT Disclosures

The HOLT methodology does not assign ratings or a target price to a security. It is an analytical tool that involves use of a set of proprietary quantitative algorithms and warranted value calculations, collectively called the HOLT valuation model, that are consistently applied to all the companies included in its database. Third-party data (including consensus earnings estimates) are systematically translated into a number of default variables and incorporated into the algorithms available in the HOLT valuation model. The source financial statement, pricing, and earnings data provided by

data vendors are subject to quality control and may also be adjusted to more closely measure the underlying economics of firm performance. These adjustments provide consistency when analyzing a single company across time, or analyzing multiple companies across industries or national borders. The default scenario that is produced by the HOLT valuation model establishes a warranted price for a security, and as the third-party data are updated, the warranted price may also change. The default variables may also be adjusted to produce alternative warranted prices, any of which could occur.

The warranted price is an algorithmic output applied systematically across all companies based on historical levels and volatility of returns. Additional information about the HOLT methodology is available on request.

CFROI, CFROE, HOLT, HOLT Lens, HOLTfolio, "Clarity is Confidence" and "Powered by HOLT" are trademarks or registered trademarks of Credit Suisse Group AG or its affiliates in the United States and other countries.

HOLT is a corporate performance and valuation advisory service of Credit Suisse.

© 2018 Credit Suisse Group AG and its subsidiaries and affiliates. All rights reserved.

Important disclosures regarding companies that are the subject of this report are available by calling +1 (877) 291-2683. The same important disclosures, with the exception of valuation methodology and risk discussions, are also available on Credit Suisse's disclosure website at <https://rawe.credit-suisse.com/disclosures>. For valuation methodology and risks associated with any recommendation, price target, or rating referenced in this report, please refer to the disclosures section of the most recent report regarding the subject company.

This report is produced by subsidiaries and affiliates of Credit Suisse operating under its Global Markets Division. For more information on our structure, please use the following link: <https://www.credit-suisse.com/about-us/en>. This report may contain material that is not directed to, or intended for distribution to, be used by, any person or who is located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Credit Suisse or its affiliates ("CS") to any registration or licensing requirement within such jurisdiction. All material presented in this report, unless specifically indicated otherwise, is under copyright of CS. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to copy or distributed to any other party, without the prior express written permission of CS. All trademarks, service marks and logos used in this report are trademarks or service marks or registered trademarks or service marks of CS or its affiliates. The information, tools and material presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or the solicitation of an offer to sell or to buy or subscribe for securities or other financial instruments. CS may not have taken any steps to ensure that the securities referred to in this report are suitable for any particular investor. CS will not treat recipients of this report as its advisers by virtue of its providing this report. The investments and services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment adviser if you are in doubt about such investments or investment services. Nothing in this report constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. CS does not advise on the tax consequences of investments and you are advised to contact an independent tax adviser. Please note in particular that the taxes and levels of taxation may change, information and opinions presented in this report have been obtained or derived from sources believed by CS to be reliable, but CS makes no representation as to their accuracy or completeness. CS accepts no liability for loss arising from the use of the material presented in this report, except that this exclusion of liability does not apply to the extent that such liability arises under specific statutes or regulations applicable to CS. This report is not to be relied upon in satisfaction for the exercise of independent judgment. CS may have revised its views in the future based on new information and/or other different conclusions from the information presented in this report. These communications reflect the different assumptions, views and analytical methods of the analysts who prepared them and CS is under no obligation to ensure that such other communications are brought to the attention of any recipient of this report. Some investments referred to in this report will be offered solely by a single entity and in the case of some investments solely by CS, or an associate of CS or CS may be the only market maker in such investments. Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information contained in this report reflects data as of the original date of publication by CS and are subject to change without notice. The price, value and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments is subject to exchange rate fluctuations that may have a positive or adverse effect on the price or income of such securities or financial instruments as ADRs, the values of which are influenced by currency volatility. Structured securities are complex instruments, typically involve a high degree of risk and are intended for sale only to sophisticated investors who are capable of understanding and assessing the risks involved. The market value of any structured security may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility, and the credit quality of any issuer or reference issuer. Any investor involved in purchasing a structured product should conduct their own investigation and analysis of the product and consult with their own independent adviser. Some investments discussed in this report may have a high level of volatility. High volatility investments may experience sudden and large falls in their value causing losses when that investment is realized. Those losses may require your original investment. Indeed, in the case of some investments the potential losses may exceed the amount of initial investment and, in such circumstances, you may be required to pay more money to receive your money back. Yields from investments, including initial capital paid to make an investment, may be used as part of the income yield. Some investments may not be readily realizable and it may be difficult to sell or realize those investments, similarly any prove difficult for you to obtain reliable information about the value, or risks, to which such investments are exposed. This report may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the report refers to website material of CS, CS has not reviewed any such site and takes no responsibility for the content contained therein. Such address or hyperlink (including addresses or hyperlinks to CS own website) is provided solely for your convenience and information and the content of any such website does not in any way form part of this document. Accessing such website, following such link through this report or CS's website shall be at your own risk.

This report is issued and distributed in European Union (except Switzerland) by Credit Suisse Securities (Europe) Limited, One Cabot Square, London E14 4QJ, England, which is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, Germany: Credit Suisse (Deutschland) Allgemeine Dienstleistungs-GmbH, registered by the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin"), United States and Canada: Credit Suisse Securities (USA) LLC, Switzerland: Credit Suisse AG, Braubühl 49, D-8002 Zürich, Credit Suisse (Brasil) SA or its affiliates, Mexico: Banco Credit Suisse (Mexico) SA, (transactions related to the securities mentioned in this report will only be effected in compliance with applicable regulation); Japan: by Credit Suisse Securities (Japan) Limited, Financial Instruments Firm, Director General of Kanto Local Finance Bureau (Kishido) No. 66, a member of Japan Securities Dealers Association (Japan) Financial Futures Association of Japan, Japan Investment Advisers Association, Type II Financial Instruments Firm; Association: Hong Kong: Credit Suisse (Hong Kong) Limited, Australia: Credit Suisse Equities (Australia) Limited, Thailand: Credit Suisse Securities (Thailand) Limited, regulated by the Office of the Securities and Exchange Commission, Thailand, having registered address at 990 Abirathani Place, 27th Floor, Unit 2701, Rama IV Road, Siam, Bangkok, Bangkok 10500, Thailand, Tel: +66 2614 6000; Malaysia: Credit Suisse Securities (Malaysia) Sdn Bhd; Singapore: Credit Suisse AG, Singapore Branch; India: Credit Suisse Securities (India) Private Limited (CNSIL) UIN/DP/1996PFT/1001992 regulated by the Securities and Exchange Board of India as Research Analyst (registration no. INH0000103) and as Stock Broker (registration no. INE03970637; INF20970637; INF010970631; having registered address at 9th Floor, Cessy House, Dr.A.B. Road, West, Mumbai - 18, India - 1 - 401 226 7177; South Korea: Credit Suisse Securities (Europe) Limited, Seoul Branch; Taiwan: Credit Suisse AG; Taipei Securities Branch; Indonesia: PT Credit Suisse Securities Indonesia; Philippines: Credit Suisse Securities (Philippines) Inc., and elsewhere in the world by the relevant authorised affiliate of the above.

Additional Regional Disclosures
Hong Kong: Credit Suisse (Hong Kong) Limited ("CSHK") is licensed and regulated by the Securities and Futures Commission of Hong Kong under the laws of Hong Kong, which differ from Australian laws. CSHK does not hold an Australian financial services licence (AFSL) and is exempt from the requirement to hold an AFSL under the Corporations Act 2001 (the Act) under Class Order 03/103 published by the ASIC in respect of financial services provided to Australian wholesale clients (within the meaning of section 761G of the Act). Research on Taiwanese securities produced by Credit Suisse AG, Taipei Securities Branch has been prepared by a registered Senior Business Person.
Australia: To the extent services are offered in Australia, Credit Suisse Securities (Europe) Limited ("CSSE") and Credit Suisse International ("CSI") are authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority ("FCA") and the Prudential Regulation Authority under UK laws, which differ from Australian laws. CSSE and CSI do not hold an Australian Financial Services Licence (AFSL) and are exempt from the requirement to hold an AFSL under the Corporations Act (CPI) 2001 ("Corporations Act") under Class Order 03/103 published by the Australian Securities and Investments Commission ("ASIC"). In respect of the financial services provided to Australian wholesale clients (within the meaning of section 761G of the Corporations Act), this material is not for distribution to retail clients and is directed exclusively at Credit Suisse's professional clients and eligible counterparties as defined by the FCA and Australian clients as defined under section 761G of the Corporations Act. Credit Suisse (Hong Kong) Limited ("CSHK") is licensed and regulated by the Securities and Futures Commission of Hong Kong under the laws of Hong Kong, which differ from Australian laws. CSHK does not hold an AFSL and is exempt from the requirement to hold an AFSL under the Corporations Act under Class Order 03/103 published by the ASIC. In respect of financial services provided to Australian wholesale clients (within the meaning of section 761G of the Corporations Act), Credit Suisse Securities (USA) LLC ("CSSA") and Credit Suisse Asset Management LLC ("CSAM LLC") are licensed and regulated by the Securities Exchange Commission of the United States under the laws of the United States, which differ from Australian laws. CSSA and CSAM LLC do not hold an AFSL and is exempt from the requirement to hold an AFSL under the Corporations Act under Class Order 03/103 published by the ASIC in respect of financial services provided to Australian wholesale clients (within the meaning of section 761G of the Corporations Act).

Malaysia: Research provided to residents of Malaysia is authorised by the Head of Research for Credit Suisse Securities (Malaysia) Sdn Bhd, to whom they should direct any queries on +603 2723 2020.
Singapore: This report has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (each as defined under the Financial Advisers Regulations) only, and is also distributed by Credit Suisse AG, Singapore Branch to overseas investors (as defined under the Financial Advisers Regulations). Credit Suisse AG, Singapore Branch may distribute reports produced by its foreign entities or affiliates pursuant to an arrangement under Regulation 22C of the Financial Advisers Regulations. Singapore residents should contact Credit Suisse AG, Singapore Branch at +65 621 2000 for matters arising from, or in connection with, this report. By virtue of your status as an institutional investor, accredited investor, expert investor or overseas investor, Credit Suisse AG, Singapore Branch is exempted from complying with certain compliance requirements under the Financial Advisers Act, Chapter 110 of Singapore (the "FAA"), the Financial Advisers Regulations and the relevant Notices and Guidelines issued hereunder. In respect of any financial advisory service which Credit Suisse AG, Singapore Branch may provide to you.
UAE: This information is being distributed by Credit Suisse AG (DIFC Branch), duly licensed and regulated by the Dubai Financial Services Authority (DFSA). Related financial services or products are also made available to Professional Clients or Market Counterparties, as defined by the DFSA, and are not intended for any other persons. Credit Suisse AG (DIFC Branch) is located on Level 9, The Gate Building, DIFC, Dubai, United Arab Emirates.
EU: This report has been produced by subsidiaries and affiliates of Credit Suisse operating under its Global Markets Division.

In jurisdictions where CS is not already registered or licensed to trade in securities, transactions will only be effected in accordance with applicable securities legislation, which may vary from jurisdiction to jurisdiction and may require that the trade be made in accordance with applicable exemptions from registration or licensing requirements.

This material is issued and distributed in the U.S. by CS&IA, a member of NYSE, FINRA, SIPC and the NFA, and CS&IA accepts responsibility for its contents. Clients should contact analysts and execute transactions through a Credit Suisse subsidiary or affiliate in their home jurisdiction unless governing law permits otherwise.

Please note that this research was originally prepared and issued by CS for distribution to its market professional and institutional investor customers. Recipients who are not market professional or institutional investor customers of CS should seek the advice of their independent financial advisor prior to taking any investment decision based on this report or for any necessary explanation of its contents. This research may relate to investments or services of a person outside of the UK or to other matters which are not authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority or in respect of which the protections of the Prudential Regulation Authority and Financial Conduct Authority for private customers under the UK may not be applicable, and further advice as to when this may be the case is available upon request in respect of this report. CS may provide various services to US municipal entities or obligated persons ("municipalities"), including suggesting individual transactions or trades and entering into such transactions. Any services CS provides to municipalities are not viewed as "advice" within the meaning of Section 5(d)(4) of the Securities Exchange Act of 1934, and are not intended to be construed as such. CS does not provide any such services to municipalities. In connection with the provision of the any such services, there is no agreement, direct or indirect, between any municipality (including the official management, employees or agents thereof) and CS to provide advice to the municipality. Municipalities should consult with their financial, accounting and legal advisors regarding any such services provided by CS. In addition, CS is not acting for direct or indirect compensation to solicit the municipality on behalf of an unaffiliated broker, dealer, municipal securities dealer, municipal advisor, or issuer, or to provide any such services to the municipality for the purpose of entering into a transaction with the municipality for or in connection with Municipal Financial Products, the issuance of municipal securities, or of an investment adviser to provide investment advisory services to or on behalf of the municipality. If this report is being distributed by a financial institution other than Credit Suisse AG, or its affiliates, that financial institution is solely responsible for distribution. Clients of that institution should contact their institution for further information. This report and any related investment advice by Credit Suisse to the client is provided solely by Credit Suisse to the client and is not to be distributed to any other person, financial institution, and neither Credit Suisse AG, its affiliates, and their respective officers, and employees accept any liability whatsoever for any direct or consequential loss arising from their use of this report or its content. Principal is not guaranteed. Commission is the commission rate or the amount agreed with a customer when selling up an account or at any time after that. No information or communication provided herein or otherwise is intended to be, or should be construed as, a recommendation within the meaning of the U.S. Department of Labor's final regulation defining "investment advisor" for purposes of the Employee Retirement Income Security Act of 1974, as amended and Section 407(a) of the Internal Revenue Code of 1986, as amended, and the information provided herein is intended to be general information, and should not be construed as, providing investment advice (impartial or otherwise).

Copyright © 2018 CREDIT SUISSE AG and/or its affiliates. All rights reserved.
Investment principal on bonds can be eroded depending on sale price or market price. In addition, there are bonds on which investment principal can be eroded due to changes in redemption amounts. Care is required when investing in such instruments