

# China Equity Strategy

## Could CDRs encourage a return home for tech giants and unicorns?

### Equity Strategy

#### China

#### CDRs—a new channel for A-share listing

The China Securities Regulatory Commission (CSRC) is planning to allow overseas-listed tech companies and unicorns (unlisted start-ups valued over US\$1bn) to list on the A-share market via the newly introduced Chinese Depositary Receipt (CDR), according to a Reuters report. Some Hong Kong- or US-listed tech giants have reportedly been selected for a pilot programme later this year—including Tencent, Sunny Optical, Alibaba, JD.com, Weibo, Ctrip and NetEase. The CDR launch could: 1) drive a potential re-rating for these tech giants; 2) pressure A-share market liquidity in the short term; and 3) reduce the positive impact of HKEX's recent weighted voting right (WVR) reform. While the CDR offers a new channel for Chinese companies in new-economy sectors to list, we believe it is unlikely to completely change the current IPO system.

#### The best way to bypass existing listing obstacles

Similar to an ADR, a CDR is a type of depositary receipt traded in the A-share market, which represents securities of a company incorporated outside of mainland China. The CSRC believes it could be the best approach to allow overseas-listed Chinese companies and unicorns to list on the A-share market since it can bypass existing restrictions, such as: prohibition on variable interest entity (VIE) structures and multiple share classes, requirement for a profitability track record, and a long approval process. We believe the CDR could be enforced in two possible ways, either by an "offering" or a "listing" facility. The former allows overseas-listed companies to refinance by issuing new shares (CDRs) to onshore investors (secondary offering), while the latter issues no additional shares and acts as an onshore trading derivative, backed by overseas-listed shares.

#### Potential re-rating for overseas listed companies; pressure on A-share liquidity

By issuing CDRs we believe overseas-listed tech companies will be able to: 1) generate sufficient proceeds to support operations/expansion; and 2) enjoy a valuation re-rating since onshore investors have a preference for growth stocks in new-economy sectors (A-share scarcity value). However, we consider these positives to be a double-edged sword since refinancing needs (if any) would increase the supply of stocks, putting pressure on A-share liquidity and sentiment. For example, if top 4 Internet giants in China issued an additional 5% of existing shares as CDRs, we estimate Rmb373bn (US\$59bn) could be diverted from the A-share secondary market. This is a sizeable amount, considering total IPO/secondary offering proceeds of Rmb1,722bn in 2017. Enabling onshore investors to access high-quality growth names more easily could also result in a potential increase in the market's risk appetite and potentially cause a sell-off in overvalued ChiNext stocks, in our view.

#### Reduces positive impact of HKEX's WVR reform

On 23 February, HKEX released a consultation paper aiming to attract more companies in emerging/innovative sectors to list in Hong Kong: 1) permit listing of biotech companies that do not meet Main Board financial eligibility tests; 2) permit listing of companies with WVR structures; and 3) establish a new concessionary secondary listing route for Greater China and international companies. We believe the launch of CDRs and the loosening of A-share IPO restrictions for unicorns could cast a shadow over the positive impact brought by HKEX's reform, given: 1) overlap of the targeted companies; 2) approval of CDRs also implies the CSRC's implicit acceptance of WVR and VIE structures; and 3) A-shares could warrant higher valuations than H-shares due to the scarcity of new-economy names, hence benefitting the issuers more.

#### Ting Gao

Strategist

S1460515090002

ting.gao@ubssecurities.com

+86-213-866 8856

#### Lei Meng

Strategist

S1460517080001

lei.meng@ubssecurities.com

+86-213-866 8939

#### Nina Yan

Analyst

S1460511080002

nina.yan@ubssecurities.com

+86-213-866 8884

#### Jingjing Weng

Strategist

S1460517110001

jingjing.weng@ubssecurities.com

+86-213-866 8986

## Introducing CDRs to the A-share market

According to a 5 March report from [Reuters](#), the CSRC is planning to allow overseas-listed technology giants to list on the A-share market through Chinese Depositary Receipts (CDRs), a new approach to listing that is similar to an American Depositary Receipt (ADR).

“Using the CDR approach is more suitable for overseas-listed companies to list in domestic equity markets”, said Qingmin Yan, CSRC vice chairman, during the annual Two Sessions meetings, according to Caixin. Jianjun Wang, general manager of Shenzhen Stock Exchange (SZSE), mentioned the exchange had been studying the topic for some time. Preparation of CDR issuance has basically been completed and pilot launches should be ready this year, according to the Reuters report.

Meanwhile, founders and CEOs of overseas-listed tech giants have expressed willingness to list on the A-share market via CDRs, during the Two Sessions, according to Caixin. JD.com's CEO Qiangdong Liu said the company is more willing to list on domestic exchanges. And William (Lei) Ding, CEO of NetEase, also expressed willingness to consider the CDR approach.

**CDR has been widely mentioned by the regulators**

**Many overseas-listed companies are interested in applying**

## What obstacles do companies face in listing on the A-share market?

Currently, only companies incorporated in mainland China are eligible to list on domestic exchanges (ie, an A-share listing). Many Chinese tech companies received investment from foreign funds before they underwent an IPO and, as a result, many of them were incorporated outside mainland China with a variable interest entity (VIE) structure, which is not permitted for A-share listings. Multiple share classes are also not permitted for companies listing on the A-share market. And there are numerous requirements for companies' financials, such as demonstrating a track record of profitability.

**Existing obstacles to listing include: VIE structure, multiple share classes, requirements on financials and regulatory approvals**

Only a few of China's technology giants that are listed overseas can meet all the existing A-share listing requirements. We believe this challenge is unlikely to be overcome, unless China's company law is amended. Even if an overseas-listed company has amended its ownership structure and taken efforts to meet all requirements, it will still need to wait to get the regulators' approval (which can take a long time).

In order to attract more “unicorns” (unlisted start-ups valued over US\$1bn) in new-economy sectors to list in the A-share market, securities regulators have recently accelerated the approval process and loosened certain listing requirements for qualified companies, as seen in Foxconn's recent A-share IPO (it was approved in little more than a month, according to a 5 March report from Bloomberg).

**Loosening IPO approval for unicorns**

Nevertheless, overseas-listed tech giants are not able to list on the A-share market given the abovementioned obstacles.

## What is a CDR and what is its purpose?

A Chinese Depositary Receipt (CDR) is a type of depositary receipt traded in China's domestic A-share market that represents securities of a company incorporated outside of mainland China. A CDR can be viewed as China's version of an American Depositary receipt (ADR) as they share a similar working mechanism.

The CDR concept was first proposed by the Hong Kong securities regulator and was designed to help Hong Kong-listed Chinese companies list on the A-share market. China Mobile, which listed in Hong Kong in 1997 as a "red chip", expressed its willingness to list on the A-share market at various times in the early 2000s. A CDR was proposed as a means for China Mobile to list on the A-share market, although the issuance plan was later dropped.

Now, China is targeting overseas-listed Chinese tech companies to encourage them to list on the A-share market—and 'return home'. Companies that do not comply with current A-share listing requirements will reportedly be allowed to apply for a CDR without, for example, changing their ownership structure.

CDRs can also offer a new option for unicorns in new-economy sectors to list on the A-share market, by bypassing the listing requirements under company and securities laws. Furthermore, the Shanghai and Shenzhen stock exchanges are competing with the Hong Kong stock exchange to attract IPOs of unicorns (please refer to Figure 2 for a list of unicorns in China).

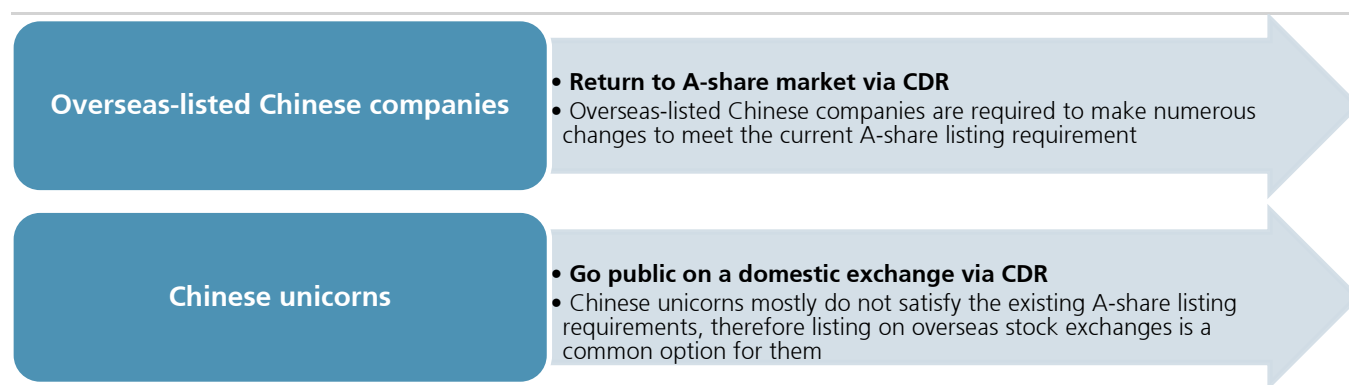
**China's version of an ADR**

**CDR was originally proposed to help HK-listed Chinese companies list A-shares**

**Now China wants to attract overseas-listed tech giants to the A-share market**

**Also a potential route for unicorns' onshore IPO**

**Figure 1: Purposes of the introduction of CDRs**



Source: UBS-S

**Figure 2: China's "unicorns"**

Company	Valuation (\$B)	Country	Industry	Select Investors
Didi Chuxing	56.0	China	On-Demand	Matrix Partners, Tiger Global Management, Softbank Corp.,
Xiaomi	46.0	China	Hardware	Digital Sky Technologies, QiMing Venture Partners, Qualcomm Ventures
Meituan Dianping	30.0	China	eCommerce/Marketplace	DST Global, Trustbridge Partners, Capital Today
Lu.com	18.5	China	Fintech	Ping An Insurance CDH Investments, Bank of China
Toutiao	11.0	China	Digital Media	Sequoia Capital China, SIG Asia Investments, Sina Weibo
DJI Innovations	10.0	China	Hardware	Accel Partners, Sequoia Capital
Lianjia	5.8	China	eCommerce/Marketplace	Tencent, Baidu, Huasheng Capital
EasyHome	5.7	China	Retail	Alibaba Group, Boyu Capital, Borui Capital
Ele.me	5.5	China	On-Demand	Sequoia Capital China, Alibaba Group, Horizons Ventures
United Imaging Healthcare	5.0	China	Healthcare	China Life Insurance, China Development Bank Capital, CITIC Securities International
NIO	5.0	China	AutoTech	Baidu Venture Capital, Capital Today, GIC
Meizu Technology	4.6	China	Hardware	Telling Telecommunication Holding Co., Alibaba Group
Kuaishou	3.0	China	Social	Morningside Venture Capital, Sequoia Capital, Baidu
Royole Corporation	3.0	China	Hardware	Warmsun Holding, IDG Capital Partners
Maoyan-Weiyang	3.0	China	eCommerce/Marketplace	Tencent Holdings, Enlight Media Group
VANCL	3.0	China	eCommerce/Marketplace	Ceyuan Ventures, QiMing Venture Partners, Temasek Holdings
Mobike	3.0	China	On-Demand	Tencent Holdings, Sequoia Capital China, TPG Capital
Ofo	3.0	China	On Demand	GSR Ventures, Matrix Partners China, Didi Chuxing
e-shang Redwood	2.8	China	Real Estate	SK Group, GF Investments, China Minsheng Banking Corp.
Meicai	2.8	China	Food & Grocery	Tiger Global Management, Blue Lake Capital, ZhenFund
Huimin	2.0	China	On-Demand	Zheshang Venture Capital, GP Capital, Western Capital Management
Trendy Group International	2.0	China	Clothing & Accessories	L Capital Partners
Weiyang	2.0	China	eCommerce/Marketplace	Tencent, iDreamSky Technology, GGV Capital
LaKala	1.6	China	Fintech	China Continent Property & Casualty Insurance, China Renaissance Capital Investment, China Taiping Life Insurance
CAOCAO	1.6	China	On Demand	People Electrical Appliance Group China, Zhongrong International Trust
DouyuTV	1.5	China	Internet Software & Services	CMB International Capital, Nanshan Capital, Tencent Holdings
Pindouduo	1.5	China	eCommerce	Tencent Holdings, Banyan Capital, Cathay Innovation
Vipkid	1.5	China	Edtech	Sequoia Capital China, Tencent Holdings, Sinovation Ventures
GuaHao	1.5	China	Healthcare	Tencent, Morningside Group
Tujia	1.5	China	eCommerce/Marketplace	GGV Capital, QiMing Venture Partners
SenseTime	1.5	China	Computer Vision/ AI	Star VC, IDG Capital, Infore Capital
Tuandaiwang	1.5	China	Fintech	Beihai Hongtai Investment, China Minsheng Investment, Yisheng Innovation
Koudai Gouwu	1.4	China	eCommerce/Marketplace	New Enterprise Associates, Tiger Global management, Tencent
URWork	1.3	China	Real Estate	Ant Financial Services Group, Dahong Group, Sequoia Capital China
NetEase Cloud Music	1.2	China	Internet Software & Services	China International Capital Corporation, Hunan TV & Broadcast Intermediary, Shanghai Media Group
Jiuxian	1.1	China	eCommerce/Marketplace	Sequoia Capital China, Rich Land Capital, Merrysunny Wealth
Cambricon	1.0	China	Chips & Semiconductors	Alibaba Entrepreneurs Fund, CAS Investment Management Co., Lenovo Ventures Group
Yuanfudao	1.0	China	Edtech	Tencent Holdings, Warbug Pincus, IDG Capital
Liepin	1.0	China	HR & Workforce Management	China Mobile, Matrix Partners China, Warbug Pincus
Yixia	1.0	China	Social	Sequoia Capital China, Sina Weibo, Kleiner Perkins Caufield & Byers, Redpoint Ventures
Apus Group	1.0	China	Mobile Software & Services	Redpoint Ventures, QiMing Venture Partners, Chengwei Capital
Fanli	1.0	China	eCommerce/Marketplace	QiMing Venture Partners, Steam boat Ventures
Mogujie	1.0	China	Social	IDG Capital Partners, QiMing Venture Partners, Banyan Capital
BeiBei	1.0	China	eCommerce/Marketplace	Banyan Capital, New Horizon Capital, IDG Capital Partners
Panshi	1.0	China	Adtech	WI Harper Group, Fang Fund Partners, NewMaring Ventures
Zhaogang	1.0	China	eCommerce/Marketplace	K2 Ventures, Matrix Partners China, IDG Capital
iTutorGroup	1.0	China	Ed Tech	QiMing Venture Partners, Temasek Holdings, Silverlink Capital
Dt Dream	1.0	China	Internet Software & Services	Alibaba Group, China Everbright Investment Management, Yinxinggu Capital
Dada	1.0	China	eCommerce	Sequoia Capital China, DST, Greenwood Asset Management
Mia.com	1.0	China	eCommerce/Marketplace	Sequoia Capital China, ZhenFund, K2 Ventures
Xiaohongshu	1.0	China	eCommerce/Marketplace	GGV Capital, ZhenFund, Tencent
iCarbonX	1.0	China	Healthcare	Tencent, Vcanbio
Mofang Gongyu	1.0	China	Facilities	Warburg Pincus, Aviation Industry Corporation of China
UBTECH Robotics	1.0	China	Robotics	CDH Investments, Goldstone Investments, QiMing Venture Partners
Hujiang	1.0	China	Edtech	China Minsheng Investment, Baidu, Wanxin Media
Guazi	1.0	China	eCommerce/Marketplace	Sequoia Capital China, GX Capital
Zhihu	1.0	China	Internet Software & Services	Tencent Holdings, Sinovation Ventures, QiMing Venture Partners
51Xinyongka	1.0	China	Fintech	GGV Capital, JD.com, Meridian Capital China
YH Global	1.0	China	Supplychain/ logistics	Co-Energy Finance, Grandland
Tongdun Technology	1.0	China	Cybersecurity	Advantech Capital, Temasek Holdings Ltd., Tiantu Capital Co.
Face++ (Megvii)	1.0	China	AI / Facial Recognition	Ant Financial Services Group, Russia-China Investment Fund, Foxconn Technology Company
XiaoZhu	1.0	China	eCommerce/Marketplace	Morningside Ventures, Capital Today, JOY Capital
17zuoye	1.0	China	EdTech	DST Global, Temasek Holdings

Source: CBInsights, UBS-S

## CDRs—two possible modes

In our view, while the CDR offers a new channel for overseas-listed Chinese companies and Chinese unicorns to list on the A-share market, it is unlikely to completely change the current A-share market IPO mechanism. Most companies will still need to go through the traditional A-share IPO approval process. We also believe the programme is designed for Chinese companies rather than foreign companies, since the renminbi is not yet freely convertible

According to the CSRC, a CDR pilot programme may be launched later this year, initially targeting high-quality Hong Kong-listed and US-listed Chinese tech companies. We expect only a few qualified blue chips would be eligible to apply for a CDR listing. However, whether or not such overseas-listed companies decide to list on the A-share market via CDR would be determined by the market itself.

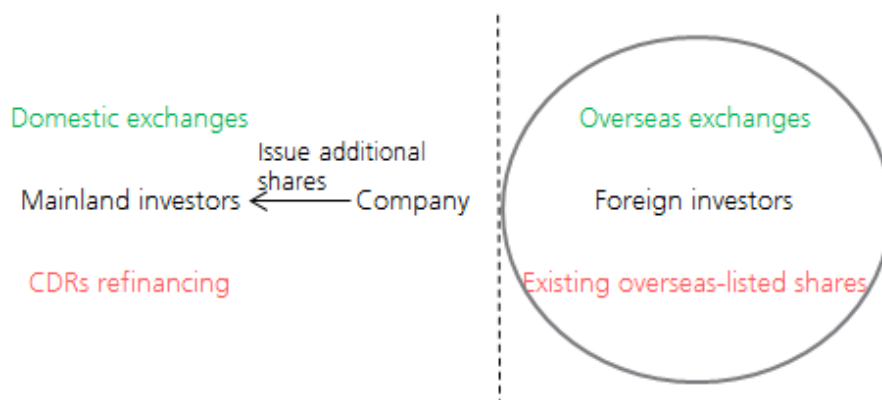
We believe the CDR could be enforced in two possible ways, either by an “offering” facility or a “listing” facility. The former allows overseas-listed companies to refinance by issuing new shares (CDRs) to onshore investors (secondary offering), while the latter issues no additional shares and acts as an onshore trading derivative, backed by overseas-listed shares.

### Mode 1: "offering" facility

Under the “offering” facility, which is the mainstream mode in the global equity market, overseas-listed companies would be able to refinance by issuing new shares (CDRs) to mainland investors. This mechanism is similar to a secondary offering, although most of the shares are still listed overseas and only part of the shares (CDRs) will be listed onshore.

This mode could be expanded to other unlisted companies, such as overseas-incorporated unicorns, hence allowing them to list on domestic exchanges. This would be similar to the IPOs of Chinese ADRs in the US market.

**Figure 3: Possible mode 1 – CDR “offering” facility**



Source: UBS-S

### Mode 2: "listing" facility

Companies without funding needs can list their CDRs on domestic exchanges, via a “listing” facility. No additional shares will be issued, while the onshore CDRs will mainly come from the existing overseas-listed ordinary shares. In other words, the CDR is like an onshore listed derivative backed by overseas-listed shares. Its

**Opening a new channel**

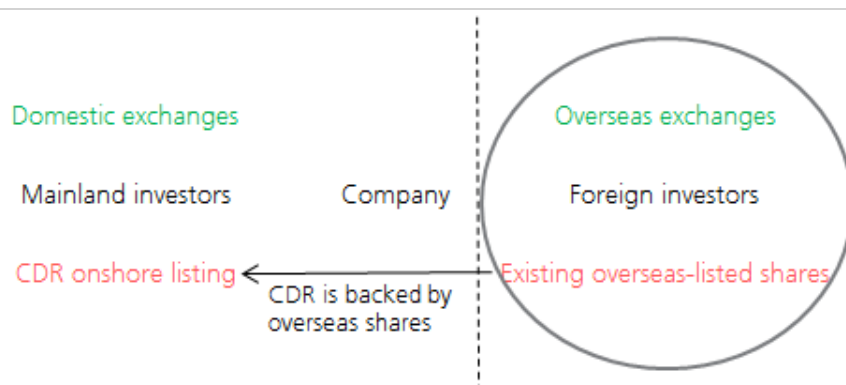
**There might be a pilot programme**

**Refinance by issuing new shares (CDRs)**

**Existing shares to be floated on domestic exchanges and no additional shares issued**

working mechanism is similar to the single stock version of the Stock Connect Scheme, except there is a financial instrument named CDR and listed on domestic exchanges.

**Figure 4: Possible mode 2 – CDR "listing" facility**



Source: UBS-S

## Can CDRs be converted into overseas shares?

In global markets, depositary receipts (DRs) can be converted into overseas listed shares. For the "offering" facility, it is unclear whether CDRs will be able to do the same as conversion will involve cross-border capital flows.

If conversion is not allowed, a CDR/overseas share premium may arise (similar to the "A/H premium" between A-shares and H-shares) since the onshore market is separated from the overseas market. If conversion is allowed, arbitrage activities will eliminate the pricing differences, while how will the regulators deal with cross-border capital flows and floating number of CDRs/shares remains unknown. In our view, a quota system is more likely to be included in the conversion framework.

For the "listing" facility, we think CDRs will be able to be converted into overseas listed shares, as the CDR is a financial instrument backed by overseas-listed shares and no additional shares are issued.

**Figure 5: Comparison of possible CDR modes**

Possible mode	For company	Mechanism	"Analogy"	Conversion allowed?	Other comments
"Offering" facility	Re-financing	Issuing new shares (CDRs)	Secondary offering to mainland investors	Unclear. If no, there might be a CDR premium to overseas shares. If yes, how regulators deal with cross-border capital flows and floating number of CDRs remains unknown	Can be expanded to unicorns' IPOs
"Listing" facility	No additional shares would be issued	Existing shares to be floated on domestic exchanges	Onshore listed derivative backed by overseas-listed shares	Yes	Two possible modes can be combined into one multi-level system

Source: UBS-S

The two possible modes are not mutually exclusive. Taking the ADR as a reference, there is a multi-level ADR system in the US. Companies can choose from different types of programmes or facilities, depending on how much effort and other resources they are willing to commit. In our view, a multi-level CDR system could expand the scope of application.

## Investment implications

### 1) Overseas-listed Chinese companies: potential valuation re-rating

Under the "offering" facility, overseas-listed companies could refinance by issuing additional shares (CDRs) on the onshore equity market. As A-share investors have a strong preference for growth stocks in new-economy sectors, we believe the newly issued CDRs would be warmly welcomed. As a result, the valuation of the CDRs could be higher than the overseas-listed shares at the initial stage. The issuer would not only get sufficient proceeds to support operation or expansion, but also enjoy a potential valuation re-rating since the rich valuation of onshore-listed CDRs could indirectly boost the trading multiples of its overseas-listed shares.

**Refinancing, valuation re-rating**

If only the "listing" facility is allowed for the CDR program, valuations of the overseas-listed shares could still expand as additional onshore mainland funds could access the CDRs backed by overseas shares. This would happen in particular if CDRs were convertible to overseas-listed shares.

According to Caixin (5 March 2018), eight Hong Kong or US-listed tech companies have been selected for the upcoming CDR pilot programme later this year, including Tencent, Sunny Optical, Alibaba, JD.com, Weibo, Ctrip and NetEase.

**Figure 6: Comparative valuations – potential participants in a CDR pilot programme**

Reuters Code	Name	Mkt cap (US\$m)	Trading currency	Rating	Price	Price target	Upside to target	PE (x)		P/BV (x)		ROE (%)		EPS grth (%)		Div. yield (%)	
								2018E	2019E	2018E	2019E	2018E	2019E	2018E	2019E	2018E	2019E
BABA.N	Alibaba	489,678	USD	Buy	188.41	240.00	27%	35.9	28.1	6.8	5.4	21.9	21.3	42.6	27.6	-	-
0700.HK	Tencent	551,565	HKD	Buy	463.60	525.00	13%	39.4	30.0	10.7	8.0	31.3	30.6	38.2	31.0	0.3	0.4
CTRP.O	Ctrip	23,089	USD	Buy	48.78	57.26	17%	30.2	16.6	3.2	2.8	11.0	17.7	51.4	81.4	-	-
JD.O	JD.com	63,054	USD	Buy	44.32	50.00	13%	52.2	31.0	6.7	5.5	13.7	19.5	53.4	68.7	-	-
WB.O	Weibo	28,670	USD	Buy	131.13	155.00	18%	46.8	33.6	9.7	7.2	29.8	25.1	53.3	39.3	-	-
NTES.O	NetEase	41,134	USD	Neutral	311.62	300.00	-4%	18.7	15.8	4.5	3.7	26.8	25.7	9.2	18.3	1.1	1.3
2382.HK	Sunny Optical	19,634	HKD	Neutral	143.30	126.50	-12%	28.0	21.6	11.4	8.1	48.6	43.7	57.9	29.3	0.7	1.1

Note: Data as of 14 March 2018. Source: Reuters, UBS and UBS-S estimates

### 2) A-share market: short-term liquidity pressure

If the CDR programme adopts the "offering" facility, the refinancing of overseas-listed companies will increase the supply of stocks in the A-share market, which could put some pressure on market liquidity and sentiment. Our scenario analysis in Figure 7 shows that if top 4 Internet giants in China were to issue an additional 5% of their total existing shares, Rmb373bn (US\$59bn) would be diverted from the A-share secondary market. This compares with the total amount raised via A-share IPO or secondary offering in 2017 of Rmb1,722bn.

**Pressure on market liquidity in the short term; negative for some overvalued ChiNext stocks**

**Figure 7: Scenario analysis: amount potentially to be raised by top 4 Internet giants via CDR refinancing (US\$bn)**

Additional CDR offering	Total
Total market cap (US\$bn)	1180.8
1%	11.8
3%	35.4
5%	59.0

Note: Data as of 9 March 2018.  
Source: Thomson Reuters, UBS-S estimates



Moreover, we believe some overvalued stocks on the ChiNext exchange with rich valuations but low earnings might face strong selling pressure since mainland investors would be able to access more high-quality growth names after the introduction of the CDR programme.

From a long-term perspective, the listing of quality overseas-listed companies, especially the well-known technology giants, could raise the market's risk appetite, while the launch of CDRs could further help China open up its domestic capital markets.

We expect regulators would launch a pilot programme first, for some high-quality overseas-listed blue-chips, potentially by the end of this year, before gradually expanding the CDR programme. In our view, while CDRs open up a new route for onshore listing, they are unlikely to completely change the current IPO mechanism. Whether an overseas-listed company decides to list in the A-share market via CDR will be determined by the market itself.

**Further opening up of A-share market**

### 3) H-share market: reduce positive impact of WVR reform

On 23 February 2018, HKEX released a consultation paper aiming to attract more companies in emerging/innovative sectors to list in Hong Kong. Three major areas are touched on in this reform (for details see Figure 10):

**HKEX's reform to attract companies from new-economy sectors**

- Permit listing of **biotech companies** that do not meet any of the financial eligibility tests of the Main Board
- Permit listing of companies with **weighted voting right (WVR) structures**
- Establish a new concessionary **secondary listing route for Greater China and international companies** that wish to make a secondary listing in Hong Kong

HKEX expects the new listing rules will become effective in late April 2018 and listing applications will also begin at that time. According to Reuters (30 January 2018), Xiaomi could be the first new-economy company to list in Hong Kong after the reform. If more new-economy companies list in Hong Kong overall market turnover could increase, theoretically benefiting HKEX.

However, the potential launch of CDRs and the loosening of A-share IPO restrictions for unicorns could cast a shadow over the positive impact brought by the recent HKEX reform, given: 1) overlap of the targeted companies; 2) approval of the CDR programme implies CSRC's implicit acceptance of WVR and VIE structures; and 3) scarcity of new-economy A-share names could warrant a higher valuation premium than H-shares, hence benefiting the issuing companies.

Companies reportedly in the first batch of a CDR trial approval list: Tencent, Sunny Optical, Alibaba, JD.com, Weibo, Ctrip and NetEase. If any of these overseas-listed new-economy companies decide to list on the A-share market via CDRs, we believe their interest in conducting secondary listings in Hong Kong will wane.

We expect the launch of CDRs and unicorn IPO reform will have only a limited near-term impact on the H-share market given:

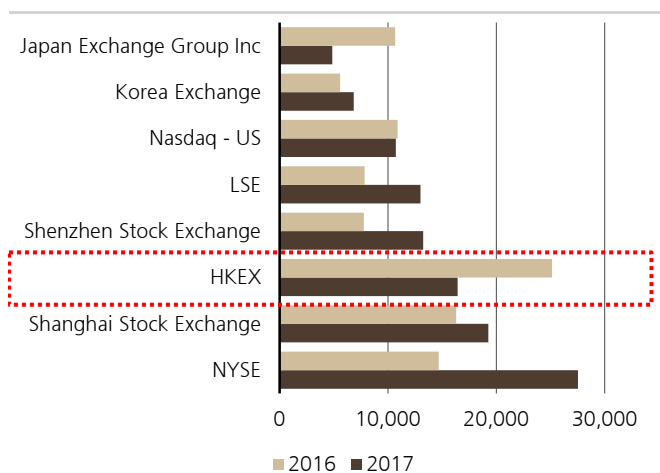
**The launch of CDR might have limited immediate impact on existing H-share trading landscape**

- In **international fund flows**, investors already have free access to Hong Kong and overseas-listed ordinary shares, hence they are likely to have only limited interest in investing in CDRs (except for unicorn stocks).



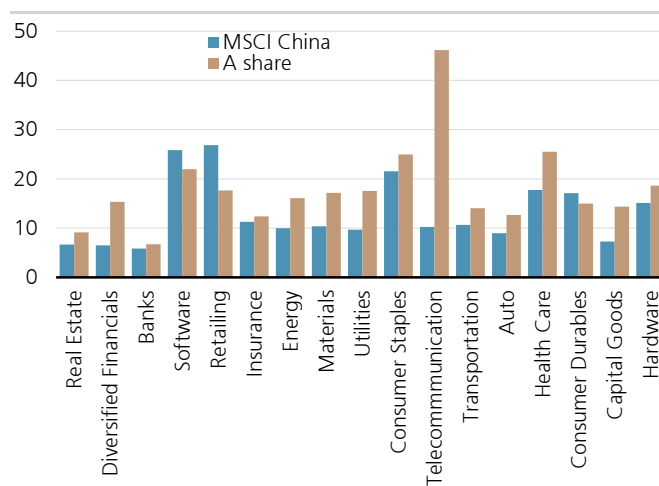
- **For southbound flows**, momentum from onshore institutional investors' asset allocation demand should remain strong, and attractive A/H-share valuation gaps will likely continue to drive inflow. Meanwhile, the Stock Connect programme will become an important tool for onshore investors to arbitrage the pricing differences between the Hong Kong-listed new-economy ordinary shares and their CDRs.

**Figure 8: Comparison of IPO equity funds raised (US\$m)**



Source: HKEX

**Figure 9: MSCI China vs A-share 2018E PE ratio, by sector (x)**



Note: Data based on MSCI China sector indices versus Wind GICS indices and SW Indices. Source: Go-goal, Datastream, UBS-S estimates

**Figure 10: Summary of HKEX's listing framework reform**

<b>1) Biotech companies: Permit listing of biotech companies that do not meet any of the financial eligibility tests of the Main Board</b>	
<b>Listing eligibility</b>	<ul style="list-style-type: none"> <li>- <b>Product:</b> At least one core product beyond concept stage; ie, pharmaceutical, biologics, medical devices and other biotech products</li> <li>- <b>R&amp;D:</b> Primarily engaged in R&amp;D of its core products for a minimum of 12 months</li> <li>- <b>IPO:</b> Primary reason for listing is to raise capital for R&amp;D to bring its core products to commercialisation</li> <li>- <b>Patents:</b> Durable patents, registered patents, patent applications and/or IP in relation to its core products</li> <li>- <b>Sophisticated investors:</b> Received meaningful investment for at least 6 months before IPO (which must remain at IPO)</li> </ul>
<b>Listing requirement</b>	<ul style="list-style-type: none"> <li>- <b>Market cap:</b> ≥HK\$1.5bn</li> <li>- <b>Track record:</b> In its current line of business for at least 2 financial years; substantially the same management</li> <li>- <b>Working capital:</b> 125% of the group's costs for at least next 12 months (after taking into account the proceeds of the IPO) which must substantially consist of: (a) general, administrative and operating costs; and (b) R&amp;D costs</li> </ul>
<b>Additional requirement</b>	<ul style="list-style-type: none"> <li>- <b>Cornerstones</b> will not count towards minimum initial public float requirement at listing or during 6 months lock-up</li> <li>- <b>Fundamental change of principal business</b> will require consent from the Exchange.</li> <li>- <b>Stock marker "B"</b> at the end of its stock name</li> </ul>
<b>2) Weighted voting right (WVR): Permit listing of companies with WVR structures</b>	
<b>Listing eligibility</b>	<ul style="list-style-type: none"> <li>- <b>New applicants only:</b> Only apply to innovative company for which success of core business is attributable to (1) new technologies; (2) innovations; and/or (3) a new business model, which also serves to differentiate the company from existing players</li> <li>- <b>R&amp;D</b> is a significant contributor of its expected value and constitutes a major activity and expense</li> <li>- <b>Intangible assets:</b> Has an outsized market capitalisation / intangible asset value relative to its tangible asset value; success is demonstrated to be attributable to its unique features or intellectual property.</li> <li>- With <b>track record of high business growth</b></li> <li>- Value of the company is largely attributable or attached to <b>intangible human capital</b></li> <li>- <b>External validation:</b> Received meaningful third-party investment from at least one sophisticated Investor (which must remain at IPO).</li> </ul>
<b>Listing requirement</b>	<ul style="list-style-type: none"> <li>- <b>Market cap:</b> ≥HK\$10bn; requires at least HK\$1bn in revenue, if market cap is &lt;HK\$40bn</li> </ul>
<b>WVR beneficiaries</b>	<ul style="list-style-type: none"> <li>- <b>Individuals only:</b> materially responsible for growth of the business.</li> <li>- <b>Directors only:</b> at listing and afterwards</li> <li>- <b>Shareholding:</b> Collectively hold ≥10% and ≤50% at listing</li> <li>- <b>Transfers prohibited:</b> With natural sunset; allow trusts and legitimate tax planning</li> </ul>
<b>Additional requirement</b>	<ul style="list-style-type: none"> <li>- <b>No increase in proportion</b> of WVRs after listing</li> <li>- Share-based WVR only with <b>maximum 10x voting power</b> vs. ordinary shares</li> <li>- Non-WVR shareholders must have <b>10% of voting power</b></li> <li>- <b>Fundamental matters</b> voted on a <b>"one-share, one-vote"</b> basis</li> <li>- <b>Stock marker "W"</b> at the end of its stock name</li> </ul>
<b>3) Secondary listing for Greater China and international companies: Establish a new concessionary secondary listing route for Greater China and international companies that wish to make a secondary listing in Hong Kong</b>	
<b>Listing eligibility</b>	<ul style="list-style-type: none"> <li>- <b>Listed on qualifying exchange:</b> NYSE, NASDAQ &amp; LSE's Main Market</li> <li>- With <b>at least 2 financial years</b> on qualifying exchange</li> </ul>
<b>Listing requirement</b>	<ul style="list-style-type: none"> <li>- <b>Market cap:</b> ≥HK\$10bn with ≥HK\$1bn in revenue if less than HK\$40bn</li> <li>- <b>Non-Greater China Issuers</b> can list with ≥HK\$10bn market cap only</li> </ul>
<b>Additional requirement</b>	<ul style="list-style-type: none"> <li>- Greater China Issuers that are primary listed on a Qualifying Exchange <b>before 15 December 2017 will be exempted</b> from HKEX's proposed WVR structures and VIE structures requirements</li> <li>- Greater China Issuers that are primary listed on a Qualifying Exchange <b>after 15 December 2017 will need to comply</b> with HKEX's proposed WVR structures and VIE structures requirements</li> <li>- <b>Non-Greater China Issuers:</b> Can secondary list with their existing WVR structures and VIE structures intact; no need to comply with WVR safeguards</li> </ul>

Source: HKEX

## Valuation Method and Risk Statement

We use a variety of valuation approaches for stocks we cover across industries in the Hong Kong and mainland China stock markets, including DCF, Gordon growth model analysis and relative valuation analysis using various multiples such as PE, EV/EBITDA and P/BV.

We think the risks facing China's equities include a hard landing for the property market, a capital exodus associated with currency depreciation and slow progress in structural reform. In our view, improper government policies to address these risks could shock the market. For example, an overdose of stimulus policies could threaten to derail the transition from an investment- to a consumption-driven economy and swell the debt of government and state-owned-enterprises.

## Required Disclosures

This report has been prepared by UBS Securities Co. Limited, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

For information on the ways in which UBS manages conflicts and maintains independence of its research product; historical performance information; and certain additional disclosures concerning UBS research recommendations, please visit [www.ubs.com/disclosures](http://www.ubs.com/disclosures). The figures contained in performance charts refer to the past; past performance is not a reliable indicator of future results. Additional information will be made available upon request. UBS Securities Co. Limited is licensed to conduct securities investment consultancy businesses by the China Securities Regulatory Commission. UBS acts or may act as principal in the debt securities (or in related derivatives) that may be the subject of this report. This recommendation was finalized on: 14 March 2018 12:17 PM GMT. UBS has designated certain Research department members as Derivatives Research Analysts where those department members publish research principally on the analysis of the price or market for a derivative, and provide information reasonably sufficient upon which to base a decision to enter into a derivatives transaction. Where Derivatives Research Analysts co-author research reports with Equity Research Analysts or Economists, the Derivatives Research Analyst is responsible for the derivatives investment views, forecasts, and/or recommendations.

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

### UBS Investment Research: Global Equity Rating Definitions

12-Month Rating	Definition	Coverage <sup>1</sup>	IB Services <sup>2</sup>
Buy	FSR is > 6% above the MRA.	46%	27%
Neutral	FSR is between -6% and 6% of the MRA.	39%	24%
Sell	FSR is > 6% below the MRA.	16%	13%
Short-Term Rating	Definition	Coverage <sup>3</sup>	IB Services <sup>4</sup>
Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%

Source: UBS. Rating allocations are as of 31 December 2017.

1: Percentage of companies under coverage globally within the 12-month rating category.

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

3: Percentage of companies under coverage globally within the Short-Term rating category.

4: Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

**KEY DEFINITIONS:** **Forecast Stock Return (FSR)** is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months. **Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium). **Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation. **Short-Term Ratings** reflect the expected near-term (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case. **Equity Price Targets** have an investment horizon of 12 months.

**EXCEPTIONS AND SPECIAL CASES:** **UK and European Investment Fund ratings and definitions are:** **Buy:** Positive on factors such as structure, management, performance record, discount; **Neutral:** Neutral on factors such as structure, management, performance record, discount; **Sell:** Negative on factors such as structure, management, performance record, discount. **Core Banding Exceptions (CBE):** Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

Research analysts contributing to this report who are employed by any non-US affiliate of UBS Securities LLC are not registered/qualified as research analysts with FINRA. Such analysts may not be associated persons of UBS Securities LLC and therefore are not subject to the FINRA restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account. The name of each affiliate and analyst employed by that affiliate contributing to this report, if any, follows.

**UBS Securities Co. Limited:** Ting Gao; Lei Meng; Nina Yan; Jingjing Weng.

#### Company Disclosures

Company Name	Reuters	12-month rating	Short-term rating	Price	Price date
<b>Alibaba Group</b> <sup>7, 16b, 22</sup>	BABA.N	Buy	N/A	US\$188.41	13 Mar 2018
<b>Ctrip.com International</b> <sup>16b</sup>	CTRP.O	Buy	N/A	US\$48.78	13 Mar 2018
<b>JD.com</b> <sup>7, 16b, 22</sup>	JD.O	Buy	N/A	US\$44.32	13 Mar 2018
<b>NetEase</b> <sup>16b</sup>	NTES.O	Neutral	N/A	US\$311.62	13 Mar 2018
<b>Sunny Optical Technology</b> <sup>2, 4, 5, 16a</sup>	2382.HK	Neutral	N/A	HK\$146.50	13 Mar 2018
<b>Tencent Holdings</b> <sup>16a, 22</sup>	0700.HK	Buy	N/A	HK\$462.80	13 Mar 2018
<b>Weibo Corp</b> <sup>16b</sup>	WB.O	Buy	N/A	US\$131.13	13 Mar 2018

Source: UBS. All prices as of local market close.

Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

2. UBS AG, its affiliates or subsidiaries has acted as manager/co-manager in the underwriting or placement of securities of this company/entity or one of its affiliates within the past 12 months.
4. Within the past 12 months, UBS AG, its affiliates or subsidiaries has received compensation for investment banking services from this company/entity or one of its affiliates.
5. UBS AG, its affiliates or subsidiaries expect to receive or intend to seek compensation for investment banking services from this company/entity within the next three months.
7. Within the past 12 months, UBS Securities LLC and/or its affiliates have received compensation for products and services other than investment banking services from this company/entity.
- 16a. UBS Securities (Hong Kong) Limited is a market maker in the HK-listed securities of this company.
- 16b. UBS Securities LLC makes a market in the securities and/or ADRs of this company.
22. UBS AG, its affiliates or subsidiaries held other significant financial interests in this company/entity as of last month's end (or the prior month's end if this report is dated less than 10 working days after the most recent month's end).

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report. For a complete set of disclosure statements associated with the companies discussed in this report, including information on valuation and risk, please contact UBS Securities LLC, 1285 Avenue of Americas, New York, NY 10019, USA, Attention: Investment Research.

## Global Disclaimer

This document has been prepared by UBS Securities Co. Limited, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

Global Research is provided to our clients through UBS Neo, in certain instances, UBS.com and any other system, or distribution method specifically identified in one or more communications distributed through UBS Neo or UBS.com as an approved means for distributing Global Research (each a "System"). It may also be made available through third party vendors and distributed by UBS and/or third parties via e-mail or alternative electronic means. The level and types of services provided by Global Research to a client may vary depending upon various factors such as a client's individual preferences as to the frequency and manner of receiving communications, a client's risk profile and investment focus and perspective (e.g., market wide, sector specific, long-term, short-term, etc.), the size and scope of the overall client relationship with UBS and legal and regulatory constraints.

All Global Research is available on UBS Neo. Please contact your UBS sales representative if you wish to discuss your access to UBS Neo.

When you receive Global Research through a System, your access and/or use of such Global Research is subject to this Global Research Disclaimer and to the terms of use governing the applicable System.

When you receive Global Research via a third party vendor, e-mail or other electronic means, you agree that use shall be subject to this Global Research Disclaimer, where applicable the UBS Investment Bank terms of business (<https://www.ubs.com/global/en/investment-bank/regulatory.html>) and to UBS's Terms of Use/Disclaimer (<http://www.ubs.com/global/en/legalinfo2/disclaimer.html>). In addition, you consent to UBS processing your personal data and using cookies in accordance with our Privacy Statement (<http://www.ubs.com/global/en/legalinfo2/privacy.html>) and cookie notice (<http://www.ubs.com/global/en/homepage/cookies/cookie-management.html>).

**If you receive Global Research, whether through a System or by any other means, you agree that you shall not copy, revise, amend, create a derivative work, provide to any third party, or in any way commercially exploit any UBS research provided via Global Research or otherwise, and that you shall not extract data from any research or estimates provided to you via Global Research or otherwise, without the prior written consent of UBS.**

This document is for distribution only as may be permitted by law. It is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or would subject UBS to any registration or licensing requirement within such jurisdiction.

This document is a general communication and is educational in nature; it is not an advertisement nor is it a solicitation or an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Nothing in this document constitutes a representation that any investment strategy or recommendation is suitable or appropriate to an investor's individual circumstances or otherwise constitutes a personal recommendation. By providing this document, none of UBS or its representatives has any responsibility or authority to provide or have provided investment advice in a fiduciary capacity or otherwise. Investments involve risks, and investors should exercise prudence and their own judgment in making their investment decisions. None of UBS or its representatives is suggesting that the recipient or any other person take a specific course of action or any action at all. By receiving this document, the recipient acknowledges and agrees with the intended purpose described above and further disclaims any expectation or belief that the information constitutes investment advice to the recipient or otherwise purports to meet the investment objectives of the recipient. The financial instruments described in the document may not be eligible for sale in all jurisdictions or to certain categories of investors. Options, derivative products and futures are not suitable for all investors, and trading in these instruments is considered risky. Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates or other market conditions. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument referred to in the document. For investment advice, trade execution or other enquiries, clients should contact their local sales representative.

The value of any investment or income may go down as well as up, and investors may not get back the full (or any) amount invested. Past performance is not necessarily a guide to future performance. Neither UBS nor any of its directors, employees or agents accepts any liability for any loss (including investment loss) or damage arising out of the use of all or any of the Information.

Prior to making any investment or financial decisions, any recipient of this document or the information should seek individualized advice from his or her personal financial, legal, tax and other professional advisors that takes into account all the particular facts and circumstances of his or her investment objectives.

Any prices stated in this document are for information purposes only and do not represent valuations for individual securities or other financial instruments. There is no representation that any transaction can or could have been effected at those prices, and any prices do not necessarily reflect UBS's internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by UBS or any other source may yield substantially different results.

No representation or warranty, either expressed or implied, is provided in relation to the accuracy, completeness or reliability of the information contained in any materials to which this document relates (the "Information"), except with respect to Information concerning UBS. The Information is not intended to be a complete statement or summary of the securities, markets or developments referred to in the document. UBS does not undertake to update or keep current the Information. Any opinions expressed in this document may change without notice and may differ or be contrary to opinions expressed by other business areas or groups, personnel or other representative of UBS. Any statements contained in this report attributed to a third party represent UBS's interpretation of the data, information and/or opinions provided by that third party either publicly or through a subscription service, and such use and interpretation have not been reviewed by the third party. In no circumstances may this document or any of the Information (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes:

- (i) valuation or accounting purposes;
- (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or
- (iii) to measure the performance of any financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees.

By receiving this document and the Information you will be deemed to represent and warrant to UBS that you will not use this document or any of the Information for any of the above purposes or otherwise rely upon this document or any of the Information.

UBS has policies and procedures, which include, without limitation, independence policies and permanent information barriers, that are intended, and upon which UBS relies, to manage potential conflicts of interest and control the flow of information within divisions of UBS and among its subsidiaries, branches and affiliates. For further information on the ways in which UBS manages conflicts and maintains independence of its research products, historical performance information and certain additional disclosures concerning UBS research recommendations, please visit [www.ubs.com/disclosures](http://www.ubs.com/disclosures).

Research will initiate, update and cease coverage solely at the discretion of UBS Research Management, which will also have sole discretion on the timing and frequency of any published research product. The analysis contained in this document is based on numerous assumptions. All material information in relation to published research reports, such as valuation methodology, risk statements, underlying assumptions (including sensitivity analysis of those assumptions), ratings history etc. as required by the Market Abuse Regulation, can be found on UBS Neo. Different assumptions could result in materially different results.

The analyst(s) responsible for the preparation of this document may interact with trading desk personnel, sales personnel and other parties for the purpose of gathering, applying and interpreting market information. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS into other areas, units, groups or affiliates of UBS. The compensation of the analyst who prepared this document is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues; however, compensation may relate to the revenues of UBS and/or its divisions as a whole, of which investment banking, sales and trading are a part, and UBS's subsidiaries, branches and affiliates as a whole.

For financial instruments admitted to trading on an EU regulated market: UBS AG, its affiliates or subsidiaries (excluding UBS Securities LLC) acts as a market maker or liquidity provider (in accordance with the interpretation of these terms in the UK) in the financial instruments of the issuer save that where the activity of liquidity provider is carried out in accordance with the definition given to it by the laws and regulations of any other EU jurisdictions, such information is separately disclosed in this document. For financial instruments admitted to trading on a non-EU regulated market: UBS may act as a market maker save that where this activity is carried out in the US in accordance with the definition given to it by the relevant laws and regulations, such activity will be specifically disclosed in this document. UBS may have issued a warrant the value of which is based on one or more of the financial instruments referred to in the document. UBS and its affiliates and employees may have long or short positions, trade as principal and buy and sell in instruments or derivatives identified herein; such transactions or positions may be inconsistent with the opinions expressed in this document.

**United Kingdom and the rest of Europe:** Except as otherwise specified herein, this material is distributed by UBS Limited to persons who are eligible counterparties or professional clients. UBS Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. **France:** Prepared by UBS Limited and distributed by UBS Limited and UBS Securities France S.A. UBS Securities France S.A. is regulated by the ACPR (Autorité de Contrôle Prudentiel et de Résolution) and the Autorité des Marchés Financiers (AMF). Where an analyst of UBS Securities France S.A. has contributed to this document, the document is also deemed to have been prepared by UBS Securities France S.A. **Germany:** Prepared by UBS Limited and distributed by UBS Limited and UBS Europe SE. UBS Europe SE is regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). **Spain:** Prepared by UBS Limited and distributed by UBS Limited and UBS Securities España SV, SA. UBS Securities España SV, SA is regulated by the Comisión Nacional del Mercado de Valores (CNMV). **Turkey:** Distributed by UBS Limited. No information in this document is provided for the purpose of offering, marketing and sale by any means of any capital market instruments and services in the Republic of Turkey. Therefore, this document may not be considered as an offer made or to be made to residents of the Republic of Turkey. UBS Limited is not licensed by the Turkish Capital Market Board under the provisions of the Capital Market Law (Law No. 6362). Accordingly, neither this document nor any other offering material related to the instruments/services may be utilized in connection with providing any capital market services to persons within the Republic of Turkey without the prior approval of the Capital Market Board. However, according to article 15 (d) (ii) of the Decree No. 32, there is no restriction on the purchase or sale of the securities abroad by residents of the Republic of Turkey. **Poland:** Distributed by UBS Limited (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce regulated by the Polish Financial Supervision Authority. Where an analyst of UBS Limited (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce has contributed to this document, the document is also deemed to have been prepared by UBS Limited (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce. **Russia:** Prepared and distributed by UBS Bank (OOO). **Switzerland:** Distributed by UBS AG to persons who are institutional investors only. UBS AG is regulated by the Swiss Financial Market Supervisory Authority (FINMA). **Italy:** Prepared by UBS Limited and distributed by UBS Limited and UBS Limited, Italy Branch. Where an analyst of UBS Limited, Italy Branch has contributed to this document, the document is also deemed to have been prepared by UBS Limited, Italy Branch. **South Africa:** Distributed by UBS South Africa (Pty) Limited (Registration No. 1995/011140/07), an authorised user of the JSE and an authorised Financial Services Provider (FSP 7328). **Israel:** This material is distributed by UBS Limited. UBS Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. UBS Securities Israel Ltd is a licensed Investment Marketer that is supervised by the Israel Securities Authority (ISA). UBS Limited and its affiliates incorporated outside Israel are not licensed under the Israeli Advisory Law. UBS Limited is not covered by insurance as required from a licensee under the Israeli Advisory Law. UBS may engage among others in issuance of Financial Assets or in distribution of Financial Assets of other issuers for fees or other benefits. UBS Limited and its affiliates may prefer various Financial Assets to which they have or may have Affiliation (as such term is defined under the Israeli Advisory Law). Nothing in this Material should be considered as investment advice under the Israeli Advisory Law. This Material is being issued only to and/or is directed only at persons who are Eligible Clients within the meaning of the Israeli Advisory Law, and this material must not be relied on or acted upon by any other persons. **Saudi Arabia:** This document has been issued by UBS AG (and/or any of its subsidiaries, branches or affiliates), a public company limited by shares, incorporated in Switzerland with its registered offices at Aeschenvorstadt 1, CH-4051 Basel and Bahnhofstrasse 45, CH-8001 Zurich. This publication has been approved by UBS Saudi Arabia (a subsidiary of UBS AG), a Saudi closed joint stock company incorporated in the Kingdom of Saudi Arabia under commercial register number 1010257812 having its registered office at Tawteer Towers, P.O. Box 75724, Riyadh 11588, Kingdom of Saudi Arabia. UBS Saudi Arabia is authorized and regulated by the Capital Market Authority to conduct securities business under license number 08113-37. **UAE / Dubai:** The information distributed by UBS AG Dubai Branch is only intended for Professional Clients and/or Market Counterparties, as classified under the DFSA rulebook. No other person should act upon this material/communication. The information is not for further distribution within the United Arab Emirates. UBS AG Dubai Branch is regulated by the DFSA in the DIFC. UBS is not licensed to provide banking services in the UAE by the Central Bank of the UAE, nor is it licensed by the UAE Securities and Commodities Authority. **United States:** Distributed to US persons by either UBS Securities LLC or by UBS Financial Services Inc., subsidiaries of UBS AG; or by a group, subsidiary or affiliate of UBS AG that is not registered as a US broker-dealer (a 'non-US affiliate') to major US institutional investors only. UBS Securities LLC or UBS Financial Services Inc. accepts responsibility for the content of a document prepared by another non-US affiliate when distributed to US persons by UBS Securities LLC or UBS Financial Services Inc. All transactions by a US person in the securities mentioned in this document must be effected through UBS Securities LLC or UBS Financial Services Inc., and not through a non-US affiliate. UBS Securities LLC is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule"), and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule. **Canada:** Distributed by UBS Securities Canada Inc., a registered investment dealer in Canada and a Member-Canadian Investor Protection Fund, or by another affiliate of UBS AG that is registered to conduct business in Canada or is otherwise exempt from registration. **Mexico:** This report has been distributed and prepared by UBS Casa de Bolsa, S.A. de C.V., UBS Grupo Financiero, an entity that is part of UBS Grupo Financiero, S.A. de C.V. and is a subsidiary of UBS AG. This document is intended for distribution to institutional or sophisticated investors only. Research reports only reflect the views of the analysts responsible for the reports. Analysts do not receive any compensation from persons or entities different from UBS Casa de Bolsa, S.A. de C.V., UBS Grupo Financiero, or different from entities belonging to the same financial group or business group of such. For Spanish translations of applicable disclosures, please go to [www.ubs.com/disclosures](http://www.ubs.com/disclosures). **Brazil:** Except as otherwise specified herein, this material is prepared by UBS Brasil CCTVM S.A. to persons who are eligible investors residing in Brazil, which are considered to be: (i) financial institutions, (ii) insurance firms and investment capital companies, (iii) supplementary pension entities, (iv) entities that hold financial investments higher than R\$300,000.00 and that confirm the status of qualified investors in written, (v) investment funds, (vi) securities portfolio managers and securities consultants duly authorized by Comissão de Valores Mobiliários (CVM), regarding their own investments, and (vii) social security systems created by the Federal Government, States, and Municipalities. **Hong Kong:** Distributed by UBS Securities Asia Limited and/or UBS AG, Hong Kong Branch. Please contact local licensed/registered representatives of UBS Securities Asia Limited and/or UBS AG, Hong Kong Branch in respect of any matters arising from, or in connection with, the analysis or document. **Singapore:** Distributed by UBS Securities Pte. Ltd. [MCI (P) 008/09/2017 and Co. Reg. No.: 198500648C] or UBS AG, Singapore Branch. Please contact UBS Securities Pte. Ltd., an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110); or UBS AG, Singapore Branch, an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110) and a wholesale bank licensed under the Singapore Banking Act (Cap. 19) regulated by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with, the analysis or document. The recipients of this document represent and warrant that they are accredited and institutional investors as defined in the Securities and Futures Act (Cap. 289). **Japan:** Distributed by UBS Securities Japan Co., Ltd. to professional investors (except as otherwise permitted). Where this document has been prepared by UBS Securities Japan Co., Ltd., UBS Securities Japan Co., Ltd. is the author, publisher and distributor of the document. Distributed by UBS AG, Tokyo Branch to Professional Investors (except as otherwise permitted) in relation to foreign exchange and other banking businesses when relevant. **Australia:** Clients of UBS AG: Distributed by UBS AG (ABN 47 088 129 613 and holder of Australian Financial Services License No. 231087). Clients of UBS Securities Australia Ltd: Distributed by UBS Securities Australia Ltd (ABN 62 008 586 481 and holder of Australian Financial Services License No. 231098). This Document contains general information and/or general advice only and does not constitute personal financial product advice. As such, the Information in this document has been prepared without taking into account any investor's objectives, financial situation or needs, and investors should, before acting on the Information, consider the appropriateness of the Information, having regard to their objectives, financial situation and needs. If the Information contained in this document relates to the acquisition, or potential acquisition of a particular financial product by a 'Retail' client as defined by section 761G of the Corporations Act 2001 where a Product Disclosure Statement would be required, the retail client should obtain and consider the Product Disclosure Statement relating to the product before making any decision about whether to acquire the product. The UBS Securities Australia Limited Financial Services Guide is available at: [www.ubs.com/ecs-research-fsg](http://www.ubs.com/ecs-research-fsg). **New Zealand:** Distributed by UBS New Zealand Ltd. UBS New Zealand Ltd is not a registered bank in New Zealand. You are being provided with this UBS publication or material because you have indicated to UBS that you are a "wholesale client" within the meaning of section 5C of the Financial Advisers Act 2008 of New Zealand (Permitted Client). This publication or material is not intended for clients who are not Permitted Clients (non-permitted Clients). If you are a non-permitted Client you must not rely on this publication or material. If despite this warning you nevertheless rely on this publication or material, you hereby (i) acknowledge that you may not rely on the content of this publication or material and that any recommendations or opinions in such this publication or material are not made or provided to you, and (ii) to the maximum extent permitted by law (a) indemnify UBS and its associates or related entities (and their respective Directors, officers, agents and Advisors) (each a 'Relevant Person') for any loss, damage, liability or claim any of them may incur or suffer as a result of, or in connection with, your unauthorised reliance on this publication or material and (b) waive any rights or remedies you may have against any Relevant Person for (or in respect of) any loss, damage, liability or claim you may incur or suffer as a result of, or in connection with, your unauthorised reliance on this publication or material. **Korea:** Distributed in Korea by UBS Securities Pte. Ltd., Seoul Branch. This document may have been edited or contributed to from time to time by affiliates of UBS Securities Pte. Ltd., Seoul Branch. This material is intended for professional/institutional clients only and not for distribution to any retail clients. **India:** Distributed by UBS Securities India Private Ltd. (Corporate Identity Number U67120MH1996PTC097299) 2/F, 2 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai (India) 400051. Phone: +912261556000. It provides brokerage services bearing SEBI Registration Numbers: NSE (Capital Market Segment): INB230951431, NSE (F&O Segment) INF230951431, NSE (Currency Derivatives Segment) INF230951431, BSE (Capital Market Segment) INB010951437; merchant banking services bearing SEBI Registration Number: INM000010809 and Research Analyst services bearing SEBI Registration Number: INH000001204. UBS AG, its affiliates or subsidiaries may have debt holdings or positions in the subject Indian company/companies. Within the past 12 months, UBS AG, its affiliates or subsidiaries may have received compensation for non-investment banking securities-related services and/or non-securities services from the subject Indian company/companies. The subject company/companies may have been a client/client of UBS AG, its affiliates or subsidiaries during the 12 months preceding the date of distribution of the research report with respect to investment banking and/or non-investment banking securities-related services and/or non-securities services. With regard to information on associates, please refer to the Annual Report at:



[http://www.ubs.com/global/en/about\\_ubs/investor\\_relations/annualreporting.html](http://www.ubs.com/global/en/about_ubs/investor_relations/annualreporting.html) Taiwan: Distributed by UBS Securities Pte. Ltd., Taipei Branch which is regulated by the Taiwan Securities and Futures Bureau.

The disclosures contained in research documents produced by UBS Limited shall be governed by and construed in accordance with English law.

UBS specifically prohibits the redistribution of this document in whole or in part without the written permission of UBS and in any event UBS accepts no liability whatsoever for any redistribution of this document or its contents or the actions of third parties in this respect. Images may depict objects or elements that are protected by third party copyright, trademarks and other intellectual property rights. © UBS 2018. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.

