

China Economic Perspectives

China by the Numbers (May 2018)

Our guide to Chinese monthly data

What the numbers are, what they mean, and the outlook going forward:

What's new

- April real activity data held up but weakness elsewhere implies moderation is underway. Industrial production surprised on the upside with a 7%y/y jump, exports saw a broad-based rebound and real estate investment stayed strong. Resumption of activities after a late start in March (post-NPC), resumption of production in China's industrial North after the clean air campaign's end, and firmer manufacturing activities all helped. But, FAI growth slid to a YTD low, property sales fell back into contraction, retail sales cooled and infrastructure FAI stayed weak.
- Some signs of pre-emptive policy fine-tuning have been sent, given global trade/growth uncertainties (e.g. April's RRR cut, Politburo language shift), but no large-scale easing has been announced.
- China and the US issued a joint statement on May 19 on "a consensus to take effective measures to substantially reduce US goods trade deficit with China", but no specific amount was mentioned. China pledged to ramp up its US good/service purchases, including "meaningful increase" in agriculture and energy exports, with details to be worked out later. US officials are due to visit China next to finalize a "framework".

What's next

- Big scale trade war seemingly averted for now, but fundamental differences remain, including China's industrial policy and "Made in China 2025". For now, we see the RMB still pivoting on USD movements. In the long run, trade deals may quicken the decline of China's current account surplus, adding depreciation pressure on the RMB. Recent events (e.g. ZTE) have led to concerns on how the global tech supply chain may be disrupted. Such uncertainty may lead to long-term shifts in trade & investment patterns.
- More downward pressure coming in H2, mainly from weakening property and infrastructure activities, remains intact, with more visible growth pressures emerging in H2. A manufacturing FAI revival, resilient consumption and firm exports should offer some offset, but worsening trade frictions and weakerthan-expected global growth mean downside trade risk has risen.
- What could see support? Household consumption and manufacturing/ emerging industries investment would rank high as priority support areas. What specific easing policy measures are used will be data dependent, but if growth slows notably, recently tightened PPP & infrastructure-related financing may ease. Property easing is unlikely but any monetary easing signal may bolster market sentiment. We still see up to another 200bp RRR cuts this year, slower overall credit growth, and elevated but range-bound market rates.

Economics

China

Donna Kwok

Economist donna.kwok@ubs.com +852-3712 3160

Ning Zhang

Economist ning.zhang@ubs.com +852-2971 8135

Jennifer Zhong

Associate jennifer-a.zhong@ubssecurities.com +86-105-832 8324

Lan Chen, CFA

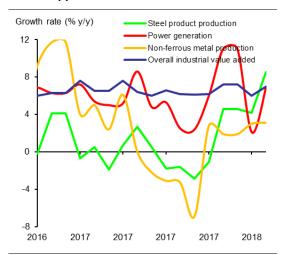
Economist \$1460516090001 lan.chen@ubssecurities.com +86-213-866 8802

Tao Wang

Economist wang.tao@ubs.com +852-2971 7525

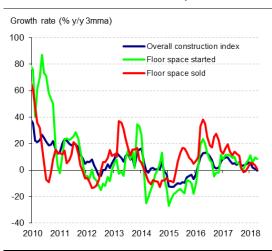
www.ubs.com/economics

Figure 1: April's 7%y/y IP rebound saw broad-based support...



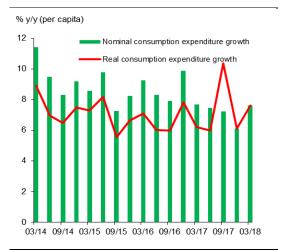
Source: CEIC, UBS estimates *chart is 3mma basis

Figure 3: Property investment stayed strong but sales continued to slide in April



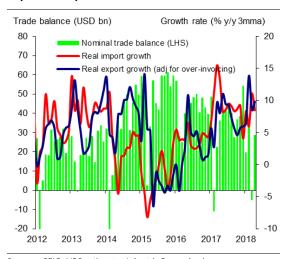
Source: CEIC, UBS estimates

Figure 5: Household consumption would rank high as a priority area if more easing is needed



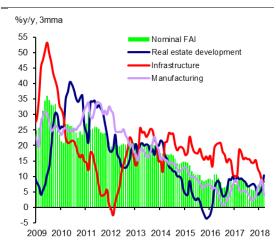
Source: CEIC, UBS estimates

Figure 2: ...as did April's stronger-thanexpected exports



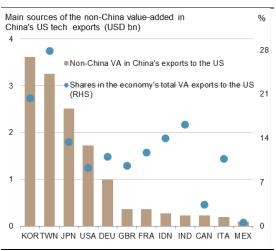
Source: CEIC, UBS estimates *chart is 3mma basis

Figure 4: Sharply slower "other" investment took YTD FAI down to 7%y/y



Source: CEIC, UBS estimates

Figure 6: Rising concerns on how trade frictions may disrupt the global tech supply chain



Source: WIOD, UBS estimates

Glossary

Activity Indicators		4
UBS Physical Activity Index	UBS Expenditure Index	
Business Indicators		5
NBS and Caixin PMI	Other business climate indices	
Property		6
Property indicators and UBS construction index	Property inventory	
Fixed Asset Investment		7
FAI by components	Infrastructure	
Industrial Production		8
Industrial Production	Industrial inventory	
Consumption		9
Retail sales	Household income and consumption	
<u>Inflation</u>		10
CPI	PPI	
Money & Credit		11
Money and credit growth	UBS credit impulse	
Base Money & Liquidity Operations		12
Base money growth	PBC liquidity provisions	
Interest Rates & Bond Market		13
Rates and yields	New bond issuance	
<u>Trade</u>		14
Exports and imports	China's market share	
FX Reserves & Capital Flows		15
FX reserve breakdown	Non-FDI outflows	
Exchange Rate		16
CNY against USD and basket	Exchange rate expectations	
Financial Markets		17
A/H share market	Sector performance	
<u>Fiscal</u>	•	18
Fiscal revenue and land sales	PPP projects	
<u>Data Tables</u>		19

UBS Activity Indicators

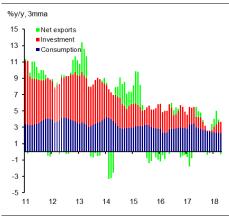
- UBS Physical Activity Index (3mma) held stable in April as stronger industry and transportation activities largely offset weaker power generation and construction. April's Li Keqiang index improved mainly on stronger power consumption (note Li Keqiang index is on monthly y/y basis).
- Our Expenditure Index (3mma) slid in April on the back of softer net export growth (on weaker exports), while consumption and investment growth stayed broadly stable.
- Our activity indices may ease later in 2018, as infrastructure investment slows more visibly on tightened local financing, property activities soften on marginally tighter policies and a fading uplift from shanty-town renovation subsidies, and credit growth stays weak. Moreover, while the US and China are moving towards a trade deal, we believe long-term trade relations remain challenging and uncertainties may pose downward pressures over time. That said, we expect short term activity indicators to hold steady at least until late Q2.

Figure 7: UBS Physical Activity Index



Source: CEIC, UBS estimates *chart is 3mma basis

Figure 9: UBS Expenditure Index



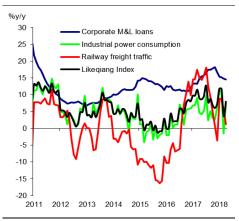
Source: CEIC, UBS estimates *chart is 3mma basis

Figure 8: Construction and industry



Source: CEIC, UBS estimates *chart is 3mma basis

Figure 10: Li Keqiang Index



Source: CEIC, UBS estimates. NB: Our Li Keqiang index uses industrial power consumption and new corporate M&L loans, <u>not</u> total RMB lending and total power generation.

Business Indicators

- April's NBS PMI edged down to 51.4 from 51.5 in March, as new orders and new export orders slid, while production stabilized. On the other hand, Caixin's PMI edged up to 51.1 in April on the back of improved output, whereas new orders and new export orders both dipped down. In particular, new export order sub-indices in both PMIs slid relatively more visibly, possible due to ongoing trade frictions.
- April's NBS non-manufacturing PMI edged up to 54.8, within which aviation transport, post & express, hotel, telecom, and internet grew strongly, while catering and real estate stayed below 50. Meanwhile, the banking climate index strengthened further in Q1, while a slightly lower PBC's 5000 entrepreneur expectation index suggests somewhat weaker sentiment (though still higher than that of Q317).
- China's business indicators may soften later in 2018, as property activities decelerate, tightening local financing rules further dampen infrastructure investment, and profit growth moderates slightly (albeit to still positive levels). Uncertainties related to trade frictions also remain over the short and long run. That said, we do not expect real activities to soften visibly until going into H2.

Figure 11: NBS and Caixin PMI



Source: CEIC, UBS estimates.

Figure 14: Input prices



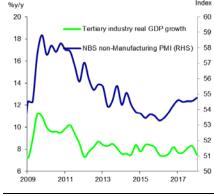
Source: CEIC, UBS estimates.

Figure 12: NBS PMI breakdown



Source: CEIC, UBS estimates

Figure 15: NBS non-manufacturing PMI



Source: CEIC, UBS estimates

Figure 13: Caixin PMI breakdown



Source: CEIC, UBS estimates

Figure 16: Other business climate indices



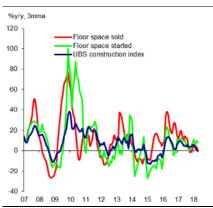
Source: CEIC, UBS estimates

Note: Both sets of PMIs have different sample sizes & coverage – Caixin's PMI covers ~420 enterprises and is more biased to eastern regions and smaller enterprises. The official NBS PMI covers >3000 enterprises nationwide, with more large companies represented. The NBS PMI sample coverage was expanded from 820 to 3000 in Jan 2013, which may undermine its comparability with historical data, making it harder to interpret the results of our additional layer of seasonal adjustments.

Property

- Property sales dipped, new starts slowed, while investment stayed strong in April. Property sales contracted by -4.1%y/y and new starts slowed to 2.9%. Real estate investment stayed resilient at 10.2%y/y, boosted again by strong land purchasing value growth of 65%. Non-land investment narrowed its y/y contraction. Our construction index thus weakened further to -0.5%y/y (3mma basis). Overall average new property prices grew at a faster sequential pace of 0.57%m/m in April, led by tier-2 and tier 3&4 cities.
- Lower-tier cities led the strength of property sales (7.7%y/y) in 2017 (14%) and YTD 2018. Lower tier YTD sales have lost steam since the start of Q2 but were still outpacing tier-1&2 cities as of April (4.1%y/y) thanks to low inventory, robust sentiment and lingering support from shanty-town renovation's "subsidy scheme". We estimate that this subsidy uplift accounted for 18% of total residential floor space sold and 40% of residential sales growth momentum in 2016, with an even higher contribution in 2017 (20% and 60%, respectively).
- Property sales may see a slight decline in 2018, as mortgage and property policies maintain a tightening bias, growth contribution from the subsidy scheme fades, and the <u>front-loading of home purchasing activities</u> cools. Despite market hopes, any impact from <u>rental housing pilot programs</u> may be limited in 2018, posing only a slight positive upside for construction but mildly negative downside for sales. We see property sales growth slowing from 7.7% in 2017 to -2~0% in 2018. That said, low property inventory, still firm underlying market sentiment and proactive land purchases by developers (15.8%y/y) should help limit the downside to the new starts and investment slowdown we see in 2018 (both to 3-5% from 2017's 7%).

Figure 17: April property sales dipped while new starts slowed



Source: CEIC, UBS estimates *chart is 3mma basis

Figure 20: Sales in lower-tier cities slowed but still outpacing high-tiers



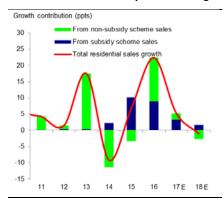
Source: CEIC, UBS estimates *chart is 3mma basis

Figure 18: Mortgage loan growth has slowed as average rates moved up



Source: CEIC, UBS estimates

Figure 21: Shanty-town subsidy has boosted sales but its uplift is fading



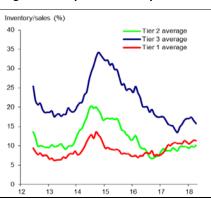
Source: CEIC, UBS estimates

Figure 19: Property construction vs. steel & cement demand



Source: CEIC, UBS estimates *chart is 3mma basis

Figure 22: Inventory-to-sales ratios edged back up after a sharp decline



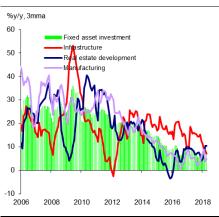
Fixed Asset investment

- April FAI growth edged down... to 5.9%y/y (vs. Q1: 8.3%) mostly on "other" FAI, taking the YTD print to 7%. Property investment growth stayed strong at 10.2%y/y, while manufacturing and infrastructure FAI growth edged up and stabilized respectively.
- ...mainly on "other" FAI. The reported resumption of construction work on local public projects after this year's longer-than-usual NPC meeting helped infrastructure investment to stabilize at a still weak 6.4%y/y in April as the sustained tightening of local financing rules continued to impose downward pressures. Manufacturing FAI edged up (6.6%y/y) as expected on a modestly low base and still solid industrial profit growth. But combined with last month's strong real estate investment, it was not enough to offset the softness of FAI from other sectors (excl. manufacturing, infrastructure, property) which slid sharply from 16.2%y/y in March to 4.2%, weighed down in particular by mining, education and healthcare services.
- Infrastructure and property FAI to moderate to a pace of 10% and 3~5% respectively this year. Property investment growth may hold up for a little while longer on the earlier momentum of property sales, before slowing modestly in H2 2018, somewhat offsetting headwinds from still cooling infrastructure investment growth. Only if domestic growth slows notably, the recent tightening of scrutiny over PPP and infrastructure-related financing may be eased. Manufacturing investment may improve later in 2018 on China's sustained profit revival, but higher borrowing costs and slightly softer demand may limit any upside.

Figure 23: April FAI slid on mostly on "other" investment...

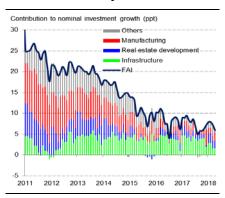


Figure 24: ...despite strong property and better manufacturing FAI



Source: CEIC, UBS estimates. *chart is 3mma basis

Figure 25: Infrastructure will be less critical for FAI this year



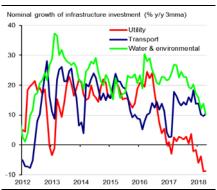
Source: CEIC, UBS estimates. *chart is 3mma basis

Figure 26: Private FAI tends to mirror property investment growth



Source: CEIC, UBS estimates

Figure 27: Transport & environmental FAI weighed down Q1 infrastructure



Source: CEIC, UBS estimates. *chart is 3mma basis

Industrial Production

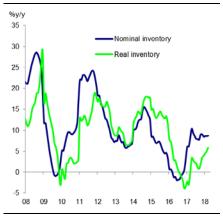
- April saw a broad based stronger-than-expected IP rebound, by 1ppt to 7%y/y (faster than Q1), as activities resumed after a late start in March (post-NPC), industrial Northern provinces resumed production following the air quality campaign's end in mid-March, and manufacturing production firmed up mirroring still solid external demand.
- Production in China still holding up. Value added activities in metal sectors stayed resilient (5%y/y), and rebounded in both the chemical and non-metal mineral sectors. Production of cement rebounded strongly to +3.2%y/y from >15% contraction previously despite a higher base, as that of crude oil and steel both improved. VA growth in transportation, textiles and electric machinery sectors all picked up. Both power generation and auto production sped up, the latter rebounding visibly to 10.8%y/y.
- **China's inventory growth improved** in March in both nominal and real terms, the former edging up to 8.7%y/y and the latter (for the 6th straight month) to 5.8%. China's inventory/sales ratio (seasonally adjusted) improved again in March, this time mainly on inventory-sales activities in the chemical/metals sector where inventory/sales did not contract for the first time in six months, and further pick-up in the light (including electronics) sector.

Figure 28: Industrial sales growth sped up in both real + nominal terms



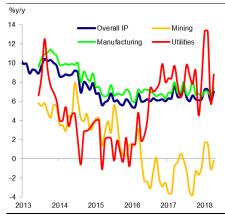
Source: CEIC, UBS estimates *chart is 3mma basis

Figure 30: Nominal/real inventory growth both picking up momentum



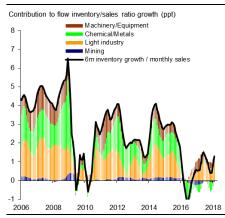
Source: CEIC, UBS estimates

Figure 29: April's IP saw broad-based support



Source: CEIC, UBS estimates

Figure 31: Flow-wise, inventory/sales ratio rose further



Source: CEIC, UBS estimates. NB: above chart is on a 6-month average, real, seasonally adjusted basis

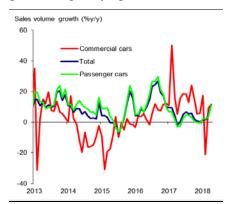
Consumption

- **April retail sales edged down** more than expected albeit to a still resilient 9.4%y/y in nominal and 7.9% in real terms (both by 0.7ppt), after March's upside surprise. Though weaker, real/nominal retail sales growth rates remain within the narrow band where they've hovered for the past 2 years.
- The picture on property-related retail sales was mixed, with sales of furniture and home appliances sliding to a high single digit pace while those of construction materials edged up on a low base (11.4%y/y). Auto sales stabilized at 3.5%y/y while communication appliance sales also rebounded from a weak March to 10.8%.
- Q1 household survey saw real consumption per capita pick up to 5.4%y/y, supported by stable real disposable income growth (6.6%). Nominal consumption per capita also edged up from 6.1%y/y to 7.6%, as nominal disposable income held largely stable at 8.8%. Sustained pro-consumption reforms (e.g. higher social safety net provisions such as the recently launched deferred pension insurance pilot) and a still positive corporate outlook should help underpin steady income and employment growth this year, underpinning resilient consumption to limit 2018's GDP growth downside.

Figure 32: Consumption edged down in both real and nominal terms

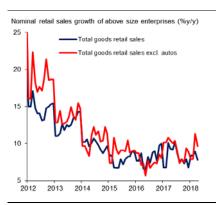
Source: CEIC, UBS estimates *chart is 3mma basis

Figure 33: Passenger car volume growth edged up again...



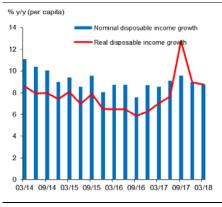
Source: CEIC, UBS estimates

Figure 34: ...while non-auto sales softened



Source: CEIC, UBS estimates

Figure 35: Q1 real income stayed firm...



Source: CEIC, UBS estimates

Figure 36: ...and real consumption per capita pick up



Inflation

- **CPI slid further to 1.8%y/y in April** from 2.1% in March as food price (0.7%) moderated on weaker pork (-16.1%), fresh vegetable (8.2%) and fresh fruit (4.2%) prices, while non-food price stabilized (2.1%) as faster fuel price inflation (8.7%) largely offset softening touring prices (3.1%). Core CPI remained stable at 2%.
- April PPI edged up to 3.4%y/y from 3.1% in March thanks to accelerating investment goods price (4.5%). Among which, mining sector (especially fuel) was a key driver, followed by raw material and manufacturing goods price. Consumer goods price inflation within PPI slipped further (0.1%), suggesting still limited transmission so far of earlier input price increases from upstream sectors.
- **Muted inflation pressures in 2018.** We expect 2018 CPI to print 2.4% on a modest food price rebound (2~3%), resilient non-food price largely similar to last year (~2.3%), and modest transmission of PPI to CPI. Rising global oil prices and trade frictions may bring some upside risk, but even if oil moves up to \$100/bbl, adding 30bp to our inflation forecast, that would still leave CPI at less than the government's 3% target, thus our sustained view for no benchmark rate hike this year. Trade frictions also pose some tariff-led inflation risk, but recent developments suggest that has eased. Average upstream PPI prices are expected to ease from current levels on less tight supply-demand fundamentals, and mid- and down-stream price inflation to rise (e.g. manufacturing goods) this year, thus our 2018E PPI call for 3.5%.

Figure 37: CPI and PPI



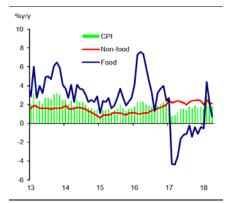
Source: CEIC, UBS estimates.

Figure 40: Non-food CPI by component



Source: CEIC, UBS estimates *chart is 3mma basis

Figure 38: Food / non-food inflation



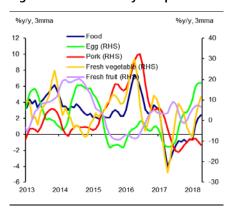
Source: CEIC, UBS estimates

Figure 41: Upstream price indices



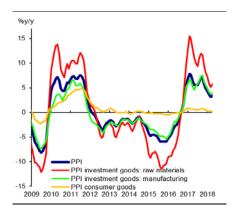
Source: CEIC, UBS estimates

Figure 39: Food CPI by component



Source: CEIC, UBS estimates *chart is 3mma basis

Figure 42: PPI by component



Money & Credit

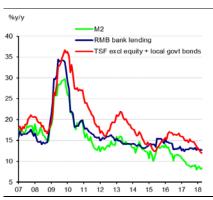
- Overall credit growth stabilized in April. Headline new bank loans edged up to RMB 1.18 trillion as expected. New TSF stood at RMB 1.56 trillion (+172bn y/y), as rebounding corporate bonds and revived undiscounted bills more than offset weakness from other shadow credit. Our adjusted overall credit growth (TSF excl. equity + local govt. bond outstanding) largely stabilized at 12%y/y in April.
- New credit flows and credit impulse both improved slightly. Our "new credit flow" (seasonally adjusted new credit as share of GDP, 3mma) edged up to 22% of GDP in April, and credit impulse (y/y change in y/y change of credit/GDP) narrowed its contraction slightly to -4.8% of GDP. M2 growth edged up to 8.3%y/y.
- Trade frictions, the government has sent some signals of pre-emptive policy fine-tuning, although risk containment remains a key policy priority. China's finalized new AMP rules were released with a longer transition period but selectively tougher rules (e.g. wider definition of non-standard debt assets) than the draft. Implementation of the new rules will likely reduce shadow credit (especially missing shadow credit), which combined with possibly still strong bank lending will see overall credit growth easing from 13.6% in 2017 to ~12% in 2018. Slower credit growth is likely to have a bigger negative impact in 2018 than last year, as corporate earnings growth eases. China's non-financial sector debt relative to GDP stabilized in 2017 at ~272%. With the government's explicit goal to "stabilize macro leverage" and expected slower overall credit growth, it's possible that China's debt/GDP ratio may stabilize on a sustained basis within the next 3-5 years, especially if key structural adjustments continue to make notable progress.

Figure 43: M1 and M2 growth both edged up in April



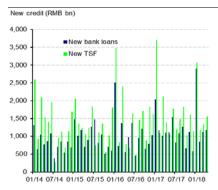
Source: CEIC, UBS estimates

Figure 46: Adjusted TSF growth largely stable at 12% in April



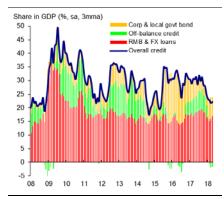
Source: CEIC, Wind, UBS estimates

Figure 44: New RMB loans and TSF both a bit stronger y/y



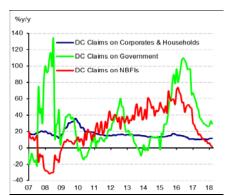
Source: CEIC, UBS estimates

Figure 47: Our new credit flow edged up in April...



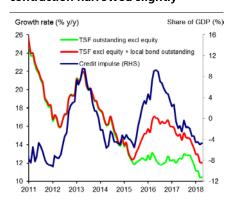
Source: CEIC, UBS estimates *chart is 3mma basis

Figure 45: Banks' domestic claims on NBFIs slowed further



Source: CEIC, UBS estimates

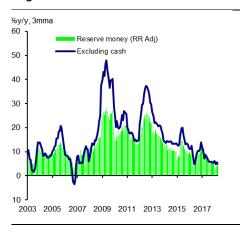
Figure 48: ...and credit impulse contraction narrowed slightly



Base Money & Liquidity Operations

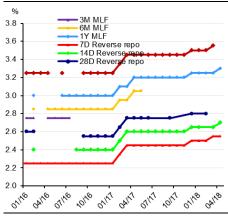
- Base money growth edged down to 7.2% in April from 8.1% in March, after adjusting for liquidity withdrawal following the expiration of CRA (Contingency Reserve Arrangement) facilities after the Chinese New Year. FX reserves continue to offer a slight positive contribution so far in 2018.
- **PBC announced a 100bp RRR cut on April 17,** releasing ~RMB 1.3 trillion in liquidity, RMB 900 billion of which was intended to "swap out" with banks' repayment of maturing Medium-term Lending Facility (MLF) previously borrowed from the PBC (note: total MLF outstanding at end-March: RMB 4.9 trillion). The remaining RMB 400 billion will be a net new liquidity injection, most of which will go to urban and rural commercial banks.
- Proactive liquidity management versus regulatory tightening. We see April's RRR cut as more of a move to normalize PBC liquidity operations and to lower banks' funding cost. With the implementation of the new Asset Management Product (AMP) rules keeping credit market liquidity tight, we expect the PBC to deliver up to another 200bps in RRR cuts this year, mostly to swap out matured MLFs. Together with other liquidity provision tools, this should help ensure adequate liquidity and stable rates in the market, and keep bank loans resilient as shadow credit weakens on ongoing deleverage measures.

Figure 49: April base money growth edged down on a 3mma basis



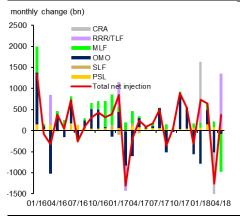
Source: CEIC, UBS estimates *chart is 3mma basis

Figure 51: PBC raised its repo and MLF rates after the last Fed rate hike



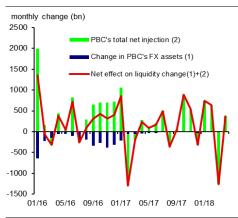
Source: CEIC, UBS estimates

Figure 50: PBC has kept provisioning largely stable (CNY liquidity adjusted)



Source: CEIC, Wind, UBS estimates. Note: Jun 17 is MTD.

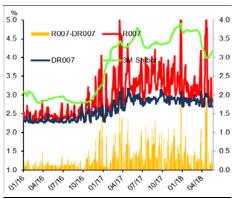
Figure 52: FX flows continue to offer a slight positive contribution



Interest Rates & Bond Market

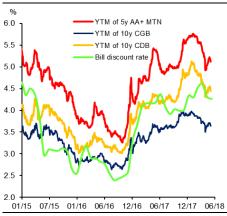
- Interbank market rates remain relatively stable, as the PBC combined use of its various instruments (e.g., CRA, a targeted RRR cut in Feb and broader 1% RRR cut in April) with higher frequency OMO transactions to keep overall liquidity provisioning prudent but stable. Short-term rates also remain broadly stable with the DR007 hovering between 2.6%~3.1% and R007 between 2.7%~6.2% (end-2017: 6.9%). The R007-DR007 gap typically widens towards month-end, but the gap has narrowed and volatility moderated since 2017.
- Bond yields have bounced back to levels before April RRR cut. Sustained supervisory tightening and additional financial rules kept yields elevated entering 2018, though yields have eased since mid-Jan on better-than-expected liquidity and relative interbank stability post-CNY. China's bond market was further boosted in late March by China-US trade war worries, and rallied again after April RRR cut. That said, bond yields more recently bounced back to its pre-April RRR cut levels, with the 10y CGB now trading at ~3.7% (albeit still 20-30bps lower than mid-Jan). The emergence of more reported credit event/cases has seen credit spreads widen, although sector/grade diversification remains. April total net bond issuance stayed strong at RMB 888bn (vs 1.1 trillion in March), mainly on continued local government issuance and resilient corporate bonds issuance thanks to improved market sentiment.
- Improved bond issuance but no benchmark rate hike this year. 2018 corporate bond issuance should rebound on improved liquidity & bond market sentiment. We still see no PBC benchmark interest rate hike in 2018 given <u>limited inflation pressure</u>, but operation rates (OMO, MLF, etc.) should keep edging up, typically post-US Fed rate hikes. The reported gradual easing of limits on banks' deposit rates should help narrow the gap between market and benchmark rates, offsetting somewhat any easing signal from RRR cuts. If CPI surprised to the upside alongside persistent USD strengthening on US Fed hikes, then PBC may potentially raise benchmark rates & guide market rates higher.

Figure 53: Interbank market rates still elevated but relatively stable



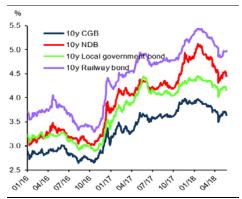
Source: CEIC, Wind, UBS estimates. NB: R007 is average 7-day repo traded by all Fls, whereas DR007 is 7-day repo only traded by depository institutions making it a less volatile benchmark.

Figure 55: Credit spreads widened again



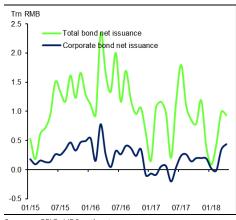
Source: CEIC, UBS estimates

Figure 54: Bond yields have bounced back to levels before April RRR cut



Source: CEIC, UBS estimates

Figure 56: April bond issuance strong



Trade

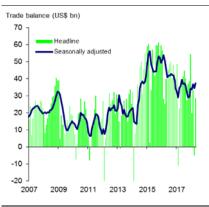
- April exports and imports both picked up thanks to low base. April's nominal USD exports jumped to 12.9%y/y while imports accelerated to 21.5%, leading to a trade surplus of \$28.8 billion. In real terms, April's exports picked up from -12% in March to +2% (vs Q1's 7%), and imports up from 5% to 12% (vs Q1's 10%).
- Resilient external demand and low base underpinned April's exports. The export uptick was broad-based, with shipments to the US (from -6%y/y to +10%), EU (10.9%), Japan, ASEAN, HKT and BRI all accelerated. Shipments of clothes, toys, autos and mobiles all rebounded too, partly on a low base.
- Big scale trade war seemingly averted for now, but fundamental differences remain, including China's industrial policy and "Made in China 2025". After several rounds of bilateral trade frictions (<u>USTR's tariff list</u> and <u>China's retaliation list</u>), China and the US have <u>initiated negotiations</u> and more recently issued <u>a joint statement</u> with a consensus to substantially reduce the US-China trade deficit; though no specific amount was mentioned. China pledged to significantly increase purchase of US goods and services, e.g. agricultural and energy exports. Further Chinese concessions will likely include: 1) more Chinese purchases of US goods + services; 2) further opening of China's domestic market; 3) strengthening of IP protection and reduced technology transfer requirements. That said, long-term trade relations remain challenging and related uncertainties have risen. Bigger Chinese purchases of US agriculture and energy products alone cannot reduce the trade deficit by \$200 bn. It's also not clear how China shifting imports away from other partners to the US may affect global trade flows and multilateral trade relations. Recent events (e.g. ZTE) have led to concerns on how the global tech supply chain may be disrupted. Such uncertainty may lead to long-term shifts in trade & investment patterns.

Figure 57: Real and nominal exports both jumped in April



Source: CEIC, UBS estimates *chart is 3mma basis

Figure 60: April saw a trade balance of \$29 billion



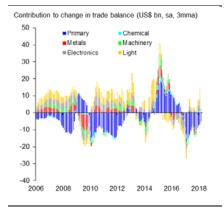
Source: CEIC, UBS estimates

Figure 58: Ordinary imports grew faster than processing imports



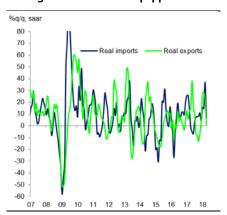
Source: CEIC, UBS estimates *chart is 3mma basis

Figure 61: Trade of primary goods fell back into deficit last year



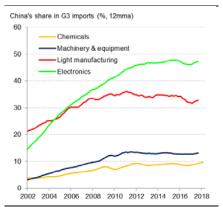
Source: CEIC, UBS estimates

Figure 59: Real exports and imports both grew at a slower q/q pace



Source: CEIC, UBS estimates

Figure 62: China's stagnating market share in selected G3 imports



Source: CEIC, Eurostat, UBS estimates

FX Reserves & Capital Flows

- China's FX reserves fell again in April by \$18 billion to \$3.125 trillion. YTD, China's FX reserves have slipped \$15 billion, compared with Q3 and Q4 2017's respective gains of \$51.7 billion and \$31.4 billion. Despite a \$1.4 billion loss in Q1 2017, China's FX reserves saw a full-year gain of \$129.4 billion in 2017, vs. 2016's full-year loss of \$320 billion.
- Capital outflows on valuation loss. Despite a positive trade surplus contribution, we estimate that non-FDI capital outflows reverted back to outflows of -\$3 billion in April from March's inflows of \$20 billion, mostly on a valuation loss of over \$20 billion attributed to weaker EUR/JPY/GBP vs USD.
- Outflow controls to stay in place and pressures contained. Despite recent RMB weakness and modest FX reserves decline, outflow pressures remain modest, allowing some marginal relaxation of PBC outflow controls (e.g. PBC recently lowered the RRR for CNH deposits back to 0%). That said, we don't see capital controls being lifted or a full capital account opening any time soon. Rather, we see more measures encouraging capital inflows to support longer-term objectives, including further capital market opening or Belt Road Initiatives. As expected, ongoing <u>US/China trade frictions</u> will likely see more/earlier opening of some domestic sectors (e.g. measures announced at Boao Forum to further open the financial sector and lift limits on foreign investor shareholdings in China's auto industry). A firmer USDCNY (rising on the back of sustained dollar weakness) and improved market sentiment plus various stabilizing measures should all keep China's headline FX reserve ~/>RMB 3 trillion through 2018.

Figure 63: China's headline FX reserves fell \$18 billion in April...

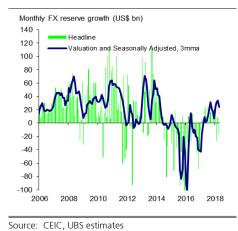


Figure 64: ...as USD strengthened against other major currencies

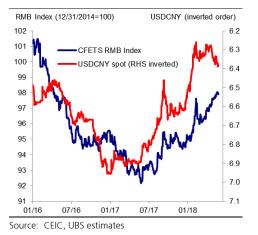
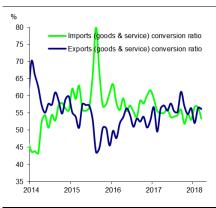
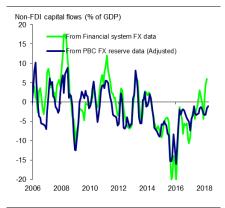


Figure 65: Exporters are still converting FX proceeds into RMB



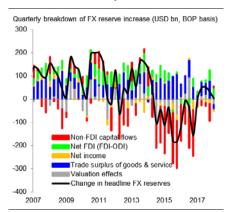
Source: CEIC, Wind, UBS estimates

Figure 66: Net non-FDI outflows still modest



Source: CEIC, UBS estimates

Figure 67: Beyond the near-term however, outflow pressures remain



Exchange Rate

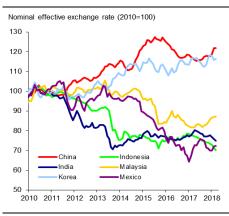
- CNY weakened from 6.3 in mid-April to around 6.38 at present. This modest depreciation was mostly due to USD strength, attributed to marginally weaker European economic data, and to a lesser extent the impact of escalating US-China trade frictions. On the other hand, the CFETS basket also strengthened modestly (by less than 1% during the same period) mostly against the weaker EUR.
- PBC exchange rate policy continues to target stability, not directional change. On the policy front, PBC suspended its daily fixing counter-cyclical factor in mid-January, which combined with its frequent stronger fixing since underscores our view that the authorities were moving to release appreciation pressure, not to push for a USDCNY directional change. Moreover, PBC's statement post-suspension suggests that the counter-cyclical factor has not been removed but simply neutralized, and may be restored if needed. A subsequent SAFE news release and other senior official statements have reinforced that two-way exchange rate fluctuations are to be expected, and capital outflow controls will continue to be managed to keep overall flows "in balance".
- Slight RMB appreciation later this year. For now, we see the RMB continuing to pivot on USD movements. In the long run, US-China trade frictions and any related trade deals may quicken the decline of China's current account surplus, adding depreciation pressure on the RMB. That said, further USD weakness and political pressures from the US will help provide some counterbalance. We think the PBC will try to avoid significant RMB depreciation as it would likely undermine domestic households and corporates' confidence in the RMB, and risk reviving capital outflow pressures. Further considering still resilient domestic demand this year and effective capital controls, we expect USDCNY to end this year at 6.2.

Figure 68: CNY weakened against USD more recently...



Source: Bloomberg, UBS estimates

Figure 70: RMB vs competitor currencies



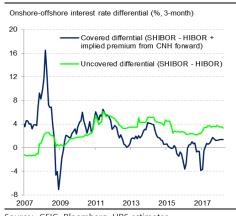
Source: CEIC, UBS estimates

Figure 69: ...while it strengthened in real effective terms



Source: CEIC, UBS estimates

Figure 71: Interest rate differential



Source: CEIC, Bloomberg, UBS estimates

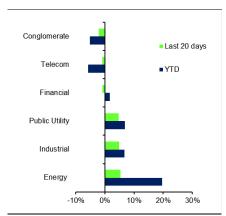
Financial Markets

- A-shares and H-shares bounced back recently. The January rally in A-shares was more than reversed towards the end of the month on heightened risk aversion amid a sharp US market selloff. The subsequent modest recovery was reversed in late March on growing US-China trade war concerns and later ZTE sanctions, onshore stock market sentiment turned positive in mid-April following the 100bp RRR cut and a few policy easing signals. This revival was further boosted by expectations for May's MSCI inclusion and the latest US-China joint statement, all of which has helped to narrow A-shares' YTD loss to 4.6%. In contrast, Chinext has YTD gained 4.9%, thanks to market discussion about easier IPO rules for "unicorns", and introduction of CDRs. Offshore, the Hang Seng index gained 9.9% in January, corrected sharply in February mainly on the US selloff, and stayed weak thereafter before a modest recovery in May, resulting in a 2.8% YTD gain. Compared with A-shares' 6.6% gain in 2017, H-shares ended last year with their best annual performance in 5 years (up 36%), thanks to a stable global outlook, ongoing tech cycle and improved south-bound flows.
- We see ongoing SOE and supply side reforms as positive for corporate revenues and margins against a modest GDP slowdown backdrop in 2018. Improved corporate profits and cash flows this past year have reduced corporates' reliance on external borrowing. If this trend is sustained via continued supply side reforms and additional SOE reform deliverables, the improvement in SOE performance may last for longer even as GDP slows more visibly later.
- **But 2018 will offer a less favourable PPI base to support profits.** YTD profit growth remains firm at 11.6%y/y, after 2017 full year profit growth rebounded sharply from 2016's 8.5% to 21.0%. <u>Supply side reforms</u> should continue to support corporate profits this year but PPI will be less favourable due to a higher base. We see China's profits revival rotating more to mid/lower-stream players in 2018, as commodity prices start to stagnate or decline.

Figure 72: A-Share small chips outperforming big chips

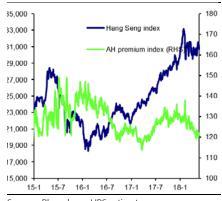


Figure 75: ...and in H-share market



Source: Bloomberg, UBS estimates. *as of May24

Figure 73: H-shares recovered modestly lately



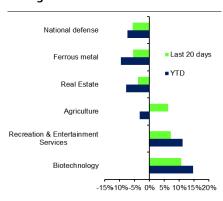
Source: Bloomberg, UBS estimates

Figure 76: Softer PPI signals possible headwinds for 2018 earnings



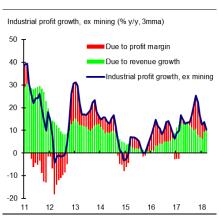
Source: Bloomberg, CEIC, UBS estimates

Figure 74: Sector performance divergence in A-share market...



Source: Bloomberg, UBS estimates. *as of May24

Figure 77: YTD corporate profit remain firm

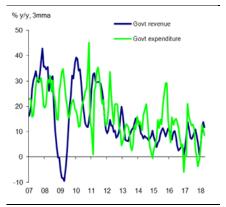


Source: CEIC, UBS estimates *chart is 3mma basis

Fiscal

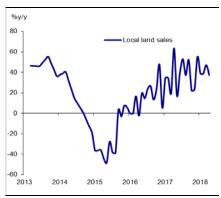
- **Fiscal revenue and expenditure growth both picked up.** China's fiscal revenue sped up from 8.4%y/y in March (14% in Q1) to 10.1% in April; fiscal expenditure rebounded from 4.2%y/y previously (11% in Q1) to 7.8%; and local land sales revenue edged down from 47.2% (42% in Q1) to 37.5%.
- Pace of PPP projects implementation jumped in Q1 2018, though projects have also been removed from database. As of end Q1 2018, RMB 5.5 trillion of outstanding PPP projects (48% of total management database) have started implementation. In terms of flow, RMB 0.9 trillion of projects initiated implementation in Q1, following RMB 2.37 trillion in 2017 (o/w RMB 0.5 trillion in Q4). Meanwhile, RMB 1.2 trillion of projects have been removed from the PPP database since December due to tighter management rules.
- Headline fiscal deficit/GDP to narrow, as quasi-fiscal financing faces greater headwinds in 2018. 2018's official general fiscal deficit was set at 2.6% of GDP (accrual basis), 0.4% lower than 2017's budget plan and 1.1% lower than 2017's actual outturn. Including government funds' budget (greater issuance of special local government bonds), 2018's planned overall government deficit is ~4.5% of GDP (cash basis), largely at par with 2017's budget. However, most of China's fiscal stimulus/financing of infrastructure investment comes from quasi-fiscal channels, which will likely see greater headwinds this year on a sustained policy push to tighten local government financing and enforce local debt discipline. PPP project progress will likely slow this year, delivering ~RMB 2 trillion in newly initiated new PPP investment, versus RMB 2.2-2.4 trillion annually in 2016-2017. On the other hand, the government has also announced corporate and household tax cuts of >RMB 800 billion (~1% of GDP). The total scale of tax and fee reductions will be similar to 2017's over RMB 1 trillion, which should support corporate investment and household consumption.

Figure 78: Fiscal revenue and spending rebounded in April



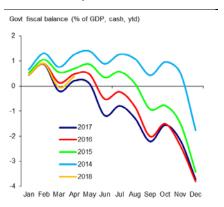
Source: CEIC, UBS estimates. NB: above 3mma basis.

Figure 80: Local land sales revenue growth edged down to 38% in April



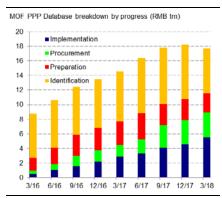
Source: CEIC, Wind, UBS estimates

Figure 79: YTD Fiscal balance (cash basis) at a surplus 0.4% of GDP



Source: CEIC, UBS estimates

Figure 81: RMB 5.5trn of PPP projects were being implemented at Q1 2018



Macroeconomic data tables

		Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18
Physical Activity Index (SARS-adjusted)		9.7	9.7	6.4	5.9	6.3	5.7	6.3	6.3	6.1	2.7	1.9	2.7	3.9	3.9	0.6	1.7
Industry		11.1	11.1	6.7	4.7	7.8	6.8	6.6	8.5	8.8	2.9	-1.0	-2.3	4.0	4.0	-4.1	-1.3
Elec		7.8	7.8	8.5	8.4	7.0	5.2	9.0	5.6	6.5	3.3	3.4	8.3	9.9	9.9	3.0	6.9
Trans		12.8	12.8	2.3	8.5	7.5	8.8	8.3	5.7	3.7	-3.2	1.8	2.8	-3.3	-3.3	9.0	1.5
Cons		8.9	8.9	9.4	7.3	4.8	5.0	3.9	5.8	3.2	3.7	4.0	5.6	3.9	3.9	0.9	-0.5
Agri		4.8	4.8	3.4	3.5	3.8	3.6	4.0	3.6	3.8	3.8	4.3	4.4	3.9	3.9	3.2	3.7
CPI sa	02=100	145.9	145.8	146.0	146.2	146.6	146.8	146.9	147.5	147.6	148.2	148.4	148.7	149.0	149.4	148.8	148.9
Food	02=100	222.5	218.0	219.6	219.5	221.7	221.7	221.3	222.1	221.3	223.5	223.3	223.5	224.8	224.8	223.4	221.0
Goods	02=100	107.9	108.1	108.4	108.6	108.8	108.9	109.0	109.5	110.1	110.4	110.5	110.7	110.9	111.1	111.0	111.3
Services	02=100	130.7	130.7	130.8	131.1	131.5	131.7	131.9	132.1	132.4	132.7	132.9	133.2	133.6	133.9	133.7	133.9
CPI	y/y%	2.5	0.8	0.9	1.2	1.5	1.5	1.4	1.8	1.6	1.9	1.7	1.8	1.5	2.9	2.1	1.8
Food	y/y%	3.8	-1.4	-1.5	-0.8	0.4	0.3	0.2	1.2	0.2	1.1	0.6	1.0	0.6	4.5	2.6	1.9
Goods	y/y%	2.2	1.8	2.0	2.1	2.1	2.2	2.1	2.2	2.3	2.3	2.3	2.2	1.9	2.5	2.0	2.0
Services	y/y%	2.7	-4.3	-4.4	-3.5	-1.6	-1.2	-1.1	-0.2	-1.4	-0.4	-1.1	-0.4	-0.5	4.4	2.1	0.7
PPI	96=100	116.3	116.7	117.4	116.8	116.4	116.6	116.9	118.2	119.3	119.9	120.4	120.8	121.1	121.1	121.0	120.7
RMI	96=100	148.7	149.7	150.9	150.3	149.8	149.6	149.5	151.2	152.9	153.9	154.7	155.5	156.3	156.3	156.2	155.8
CGPI	96=100	115.2	115.5	115.9	115.5	115.3	115.5	115.6	116.9	117.7	118.4	118.5	119.0	119.7	119.1	118.9	118.7
Import	96=100	124.3	128.5	127.9	128.5	127.1	126.1	125.8	128.1	131.2	131.4	132.3	135.0	137.4	135.4	135.0	134.0
PPI	y/y%	6.9	7.8	7.6	6.4	5.5	5.5	5.5	6.3	6.9	6.9	5.8	4.9	4.3	3.7	3.1	3.4
RMI	y/y%	8.4	9.9	10.0	9.0	8.0	7.3	7.0	7.7	8.5	8.4	7.1	5.9	5.2	4.4	3.7	3.7
CGPI	y/y%	8.5	9.3	8.4	6.8	6.2	6.1	5.8	6.7	6.9	6.8	5.3	4.4	3.9	3.4	2.7	2.8
Import	y/y%	5.3	9.1	8.2	6.6	5.0	4.1	3.5	5.8	8.6	7.9	7.8	8.9	10.6	5.0	5.7	4.7
M0	RMB bn sa	7,029	6,965	6,852	6,880	6,962	6,997	7,003	7,047	7,109	7,110	7,111	7,047	6,870	7,048	7,185	7,187
M1	RMB bn sa	47,009	48,665	49,023	49,881	50,225	50,387	51,311	51,647	52,220	52,454	52,815	52,795	53,108	53,134	53,226	53,475
M2	RMB bn sa	156,894	158,445	159,116	159,979	159,942	161,946	162,958	164,264	166,040	167,384	169,110	169,006	171,132	171,402	172,309	173,391
Loans	RMB bn sa	108,344	109,762	110,397	111,772	112,953	114,032	115,311	116,477	117,636	118,811	120,173	121,078	122,574	123,572	124,790	125,983
Deposits	RMB bn sa	153,513	155,058	155,279	156,233	156,837	158,067	159,458	160,630	162,255	163,509	164,980	165,808	168,375	168,548	169,388	170,225
M0	y/y%	19.4	3.3	6.1	6.2	7.3	6.6	6.1	6.5	7.2	6.3	5.7	3.4	-13.8	13.5	6.0	4.5
M1	y/y%	14.5	21.4	18.8	18.5	17.0	15.0	15.3	14.0	14.0	13.0	12.7	11.8	15.0	8.5	7.1	7.2
M2	y/y%	10.7	10.4	10.1	9.8	9.1	9.1	8.9	8.6	9.0	8.9	9.1	8.1	8.6	8.8	8.2	8.3
Loans	y/y%	12.6	13.0	12.4	12.9	12.9	12.9	13.2	13.2	13.1	13.0	13.3	12.7	13.2	12.8	12.8	12.7
Deposits	y/y%	10.4	11.4	10.3	9.8	9.2	9.2	9.4	9.0	9.3	9.1	9.6	9.0	10.5	8.6	8.7	8.9
Reserve money Reserve money (adjusted)	RMB bn sa	29427	30057	30050	30248	30373	30299	30406	30658	30769	31009	31219	31159	30709	30524	31701	31061
	y/y%	9.0	7.1	7.1	7.5	7.7	5.4	5.6	6.1	5.6	5.5	5.5	4.4	-0.1	5.4	6.6	5.7
Fixed asset investment	y/y%	8.9	8.9	9.4	8.3	7.9	8.6	6.8	4.9	5.7	5.8	6.3	7.2	7.9	7.9	7.2	5.9
Real FAI	y/y%	3.7	3.7	3.7	2.7	2.3	3.1	1.5	-0.6	0.0	-0.1	0.5	1.4	3.1	3.1	3.1	2.5
Industrial sales Industrial sales real growth Industrial value added growth	RMB bn %y/y %y/y	4.7 6.3	3.9 6.3	5.6 7.6	5.5 6.5	6.8 6.5	7.4 7.6	4.2 6.4	3.1 6.0	3.7 6.6	4.3 6.2	-4.9 6.1	2.8 6.2	5.8 7.2	6.3 7.2	6.0 6.0	#N/A 7.0
Industrial inventories	RMB bn	3,747	3,747	3,881	3,988	4,028	4,013	4,085	4,121	4,124	4,217	4,261	4,204	3,900	3,900	4,034	#N/A
Inventory/sales ratio	%	43.7	43.8	43.4	43.8	43.9	43.8	43.6	43.6	43.9	43.9	44.8	45.2	45.1	44.1	#N/A	#N/A
Industrial profits	RMB bn	835	835	1,392	2,278	2,905	3,634	4,248	4,921	5,585	6,245	6,875	7,519	969	969	1,553	#N/A
Profit margin (sa)	%	6.0	6.2	6.6	6.5	6.4	6.3	6.4	6.5	6.7	6.8	6.8	6.3	6.4	6.4	6.7	#N/A
Retail sales	RMB bn	2,784	2,784	2,652	2,609	2,946	2,981	2,961	3,033	3,087	3,424	3,411	3,473	3,054	3,054	2,919	2,854
Real retail sales	%y/y SARS	8.2	8.2	10.5	10.0	9.7	10.1	9.7	8.9	9.3	8.6	8.9	8.0	7.8	7.8	8.4	7.9
Urban per capita disposable income	RMB sa	2,025	2,043	2,056	2,073	2,081	2,091	2,102	2,114	2,143	2,132	2,139	2,146	2,156	2,161	2,171	#N/A
Urban per capita ex penditure	RMB sa	1,391	1,392	1,395	1,400	1,402	1,404	1,407	1,410	1,413	1,419	1,425	1,454	1,434	1,438	1,442	#N/A
Rural cash income	RMB sa	707	714	719	723	724	729	734	737	742	744	748	746	755	760	768	#N/A
Rural cash consumption ex penditure	RMB sa	582	585	591	588	590	594	599	604	609	609	610	595	619	627	640	#N/A
Composite construction index	% y/y	8.2	9.7	9.4	7.3	4.8	5.0	3.9	5.8	3.2	3.7	4.0	5.6	5.5	2.2	0.9	-0.5
Ex ports	USD bn	180.2	118.8	179.0	177.6	189.0	194.8	192.2	198.1	197.9	187.8	215.8	231.7	200.1	171.1	174.1	200.4
Imports	USD bn	131.6	129.8	156.5	141.3	149.2	153.5	147.3	157.9	170.4	150.9	177.3	177.4	180.4	137.8	179.1	171.7
Trade balance	USD bn	48.6	-11.0	22.5	36.3	39.8	41.3	44.9	40.2	27.5	36.9	38.6	54.3	19.7	33.2	-5.0	28.8
Real export growth Real import growth	% y/y	11.4	-2.3	16.5	7.0	9.6	11.6	6.9	3.9	6.2	3.7	7.0	6.9	5.4	38.9	-12.2	2.3
	% y/y	11.0	27.1	11.1	4.5	8.6	12.4	7.5	7.6	9.7	8.7	9.3	-3.9	23.9	1.2	4.8	11.8
FDI utilized YTD	USD bn	12.0	20.7	33.8	42.7	50.8	65.6	72.1	81.5	92.1	101.1	119.9	136.3	12.1	21.1	34.5	43.6
FDI utilized monthly sa	USD bn	12.3	10.1	10.3	10.3	8.5	11.0	7.5	10.7	11.5	10.5	19.9	6.8	12.3	10.4	10.6	10.5
FX reserves	USD bn	2,998	3,005	3,009	3,030	3,054	3,057	3,081	3,092	3,109	3,109	3,119	3,140	3,161	3,134	3,143	3,125
Monthly intervention (adj sa)	USD bn	57.6	-12.0	15.5	26.6	21.1	39.7	52.4	42.1	38.0	6.4	52.5	43.0	74.6	60.1	-4.1	24.6
Current account (est) FDI "Other" capital (residual)	% GDP	1.4	0.3	0.5	0.2	1.7	1.7	1.7	1.4	1.2	1.1	1.2	1.7	0.9	0.7	-0.9	-0.7
	% GDP	1.5	1.5	1.2	1.1	1.1	1.1	1.0	1.0	0.9	0.9	1.2	1.4	1.5	1.1	1.0	0.9
	% GDP	-7.3	-4.3	-3.5	-1.1	-2.9	-3.3	-3.1	-2.9	-1.6	-1.3	-1.9	-3.0	-3.4	-3.2	-1.6	-1.1
CN NDF 3M		-1.5%	-0.9%	-0.9%	-0.8%	-0.8%	-0.6%	-0.5%	-0.5%	-0.6%	-0.6%	-0.7%	-0.6%	-0.6%	-0.6%	-0.5%	-0.4%
CN NDF 12M		-4.0%	-3.3%	-3.1%	-2.8%	-2.8%	-2.5%	-2.2%	-2.3%	-2.1%	-2.3%	-2.4%	-2.3%	-2.1%	-2.0%	-1.9%	-1.5%
CN Average CIBOR and REPO 7-day		2.63	2.86	3.08	3.07	3.12	3.22	3.15	3.27	3.27	3.15	3.24	3.34	3.13	3.03	3.17	3.34
CN average long yield		3.48	3.63	3.62	3.64	3.86	3.84	3.85	3.97	4.04	4.06	4.17	4.17	4.18	4.12	4.03	3.89
SH market		3,137	3,204	3,239	3,215	3,098	3,143	3,223	3,282	3,362	3,379	3,387	3,294	3,455	3,271	3,245	3,121

Source: UBS estimates

World and APAC snapshot

		Real Gro	wth (%y	/y)	(Consumer p	orices (%y/y	Indu	Industrial production (%y/y)				
	2016	2017	2018E	2019E	2016	2017	2018E	2019E	2016	2017	2018E	2019E	
World	3.2	3.9	4.1	4.1	2.6	2.7	3.0	2.9	2.2	3.5	4.6	4.1	
Major economi	ies												
US	1.5	2.3	2.8	3.0	1.3	2.1	2.7	2.2	-2.0	1.6	3.4	2.0	
Eurozone	1.8	2.5	2.2	2.0	0.2	1.5	1.6	1.6	1.7	2.9	4.2	3.4	
Asia Pacific													
China	6.7	6.9	6.6	6.4	2.0	1.6	2.4	2.2	6.0	6.4	6.2	6.0	
Hong Kong	2.1	3.8	4.0	3.5	2.4	1.5	2.2	3.1	-0.5	0.2	0.2	0.4	
India	7.1	6.6	7.4	7.7	4.5	3.6	4.7	4.4	7.9	5.0	7.5	7.5	
Indonesia	5.0	5.1	5.4	5.7	3.5	3.8	3.6	3.8	4.3	4.3	3.9	5.6	
Japan	0.9	1.7	1.7	1.1	-0.1	0.5	1.3	2.1	-0.2	0.0	4.6	3.5	
Malaysia	4.2	5.9	5.4	5.2	2.1	3.8	2.6	2.4	4.4	6.0	7.1	6.6	
Philippines	6.9	6.7	6.8	6.6	1.3	2.9	4.1	3.6	7.1	8.4	6.8	6.6	
Singapore	2.4	3.6	3.6	3.2	-0.5	0.6	1.0	1.8	3.7	10.1	5.5	3.0	
Korea	2.9	3.1	3.0	3.0	1.0	1.9	1.8	1.9	3.2	2.3	2.9	3.0	
Taiwan	1.4	2.9	3.0	2.8	1.4	0.6	1.5	1.4	1.5	3.0	4.0	3.6	
Thailand	3.3	3.9	4.2	3.8	0.2	0.7	1.3	1.3	2.3	2.5	4.0	3.6	
Australia	6.2	6.8	6.8	7.0	2.7	3.5	4.3	3.7	7.7	10.0	12.9	13.7	

	Curr	ent acco	ount (% o	f GDP)	Exchan	ge rate (LC	per \$, end	Policy rate (%p.a. end period)				
	2016	2017	2018E	2019E	Current	2017	2018E	2019E	Current	2017	2018E	2019E
Major Economies												
US	-2.4	-2.4	-2.5	-2.9					1.38	1.38	2.38	3.13
Eurozone	3.6	3.5	2.7	2.5	1.23	1.18	1.30	1.35	0.00	-0.40	-0.40	0.00
Asia Pacific												
China	1.8	1.3	0.9	0.8	6.34	6.53	6.20	6.10	1.50	1.50	1.50	1.50
HK	4.0	4.2	3.8	4.0	7.82	7.82	7.80	7.80	0.91	1.31	1.90	2.60
India*	-0.7	-1.8	-2.0	-2.1	64.8	65.0	64.0	65.5	6.00	6.00	6.00	6.00
Indonesia	-1.8	-1.7	-1.8	-1.8	13,659	13,548	13,600	13,600	4.25	4.25	4.75	5.00
Japan	3.8	0.0	4.6	4.2	106.9	112.7	108.0	113.0	-0.05	-0.06	0.00	0.00
Malaysia	2.3	3.0	3.8	3.5	3.91	4.06	4.00	3.80	3.25	3.00	3.25	3.50
Philippines	-0.4	-0.8	-2.5	-2.9	52.1	49.9	54.0	54.0	3.00	3.00	3.75	4.25
Singapore	19.1	18.8	15.0	12.4	1.32	1.34	1.28	1.25	1.13	1.50	2.32	2.94
Korea	7.3	4.9	5.5	5.5	1,077	1,071	1,030	1,010	1.50	1.50	2.00	2.50
Taiwan	13.6	12.3	12.4	12.8	29.3	29.8	28.5	28.3	1.38	1.38	1.63	1.88
Thailand	11.7	10.6	8.2	7.8	31.5	32.6	30.0	29.5	1.50	1.50	1.75	2.25
Australia	4.2	2.1	3.4	3.9	22,443	22,894	22,700	22,700	6.25	6.25	6.25	6.25

Data source: CEIC, Haver and UBS forecasts. *FY Beginning April

Key global indicators

	2015	2016	2017F	2018F	2019F	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17F
Real Growth													
World	3.6	3.2	3.9	4.1	4.1	3.7	3.8	4.0	4.0	4.1	4.1	4.0	4.1
US	2.9	1.5	2.3	2.8	3.0	2.0	2.2	2.3	2.6	2.9	2.8	2.8	2.9
Eurozone	2.0	1.8	2.5	2.2	2.0	2.1	2.4	2.7	2.8	2.5	2.4	2.1	2.0
Japan	1.4	0.9	1.7	1.7	1.1	1.3	1.6	1.9	1.8	1.0	1.9	1.5	1.4
China	6.9	6.7	6.9	6.6	6.4	6.9	6.9	6.8	6.8	6.8	6.6	6.6	6.5
Industrial Production													
World	2.7	2.2	3.5	4.6	4.1								
US	-0.7	-2.0	1.6	3.4	2.0								
Eurozone	2.5	1.7	2.9	4.2	3.4								
Japan	-1.2	-0.2	0.0	4.6	3.5								
China	6.0	6.0	6.4	6.2	6.0	6.5	6.6	6.3	6.2	6.2	6.2	6.2	6.1
Inflation													
World	2.6	2.6	2.7	3.0	2.9								
US	0.1	1.3	2.1	2.7	2.2	2.6	1.9	2.0	2.1	2.3	2.8	2.9	2.7
Eurozone	0.0	0.2	1.5	1.6	1.6	1.8	1.5	1.4	1.4	1.3	1.5	1.7	1.7
Japan	0.8	-0.1	0.5	1.3	2.1	0.3	0.4	0.6	0.6	1.3	1.2	1.3	1.5
China	1.4	2.0	1.6	2.4	2.2	1.4	1.4	1.6	1.8	2.1	2.1	2.6	2.6
Key commodity prices													
Brent Oil (USD/barrel)	53.6	45.7	54.9	63.0	62.0	55.1	51.3	51.5	54.0	65.0	61.0	61.0	65.0
Thermal Coal (US\$/t)	58	67	88	84	79	81	80	95	90				
CRB Index	410.3	405.0	433.1			432.6	431.9	438.0	429.8	441.1			
Key interest rates													
US Fed Funds rate	0.38	0.55	1.33	2.38	3.13	0.82	1.06	1.06	1.33	1.67	1.88	2.13	2.38
3M USD Libor	0.61	1.00	1.69	2.72	3.34	1.15	1.30	1.33	1.69	2.31	2.22	2.47	2.72
ECB refinancing rate	0.05	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10-year US treasury	2.27	2.10	2.40	2.90	3.00	2.25	2.30	2.40	2.40	2.70	2.75	2.80	2.90
10-year German bond	0.59	0.30	0.45	1.00	1.30	0.40	0.50	0.60	0.45	0.60	0.70	0.85	1.00
Key exchange rates													
USD/Euro	1.12	1.09	1.18	1.30	1.35	1.07	1.14	1.18	1.20	1.2			
Yen/USD	125.0	108.0	115.0	108.0	113.0	111.8	112.1	112.5	112.7	106.2			
CNY/USD	6.5	6.9	6.5	6.2	6.1	6.9	6.8	6.6	6.5	6.3	6.3	6.2	6.2

Data source: CEIC, Haver and UBS forecasts.

Notes:		

Required Disclosures

This report has been prepared by UBS Securities Asia 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. 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: 25 May 2018 09:58 AM 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.

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 Asia 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 (http://www.ubs.com/global/en/investment-bank/regulatory.html) and to UBS's Terms of Use/Disclaimer (http://www.ubs.com/global/en/investment-bank/regulatory.html) and to UBS's Terms of Use/Disclaimer (http://www.ubs.com/global/en/investment-bank/regulatory.html) and cookie notice (<a href="http://www.ubs.com/global/en/investment-bank/regulatory.ht

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, structured derivative products and futures (including OTC derivatives) are not suitable for all investors. Trading in these instruments is considered risky and may be appropriate only for sophisticated investors. Prior to buying or selling an option, and for the complete risks relating to options, you must receive a copy of "The Characteristics and Risks of Standardized Options." You may read the document at http://www.theocc.com/publications/risks/riskchap1.jsp or ask your salesperson for a copy. Various theoretical explanations of the risks associated with these instruments have been published. Supporting documentation for any claims, comparisons, recommendations, statistics or other technical data will be supplied upon request. Past performance is not necessarily indicative of future results. Transaction costs may be significant in option strategies calling for multiple purchases and sales of options, such as spreads and straddles. Because of the importance of tax considerations to many options transactions, the investor considering options should consult with his/her tax advisor as to how taxes affect the outcome of contemplated options transactions.

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.

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.

Within the past 12 months UBS AG, its affiliates or subsidiaries may have received or provided investment services and activities or ancillary services as per MiFID II which may have given rise to a payment or promise of a payment in relation to these services from or to this company.

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 fur 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 (spolka z ograniczona odpowiedzialnoscia) Oddzial w Polsce regulated by the Polish Financial Supervision Authority. Where an analyst of UBS Limited (spolka z ograniczona odpowiedzialnoscia) Oddzial w Polsce has contributed to this document, the document is also deemed to have been prepared by UBS Limited (spolka z ograniczona odpowiedzialnoscia) Oddzial 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 Ássets or in distribution of Financial Ássets 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 Tatweer 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 prépared 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. **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. 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. **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. Malaysia: This

material is authorized to be distributed in Malaysia by UBS Securities Malaysia Sdn. Bhd (Capital Markets Services License No.: CMSL/A0063/2007). 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 (Capital Market Segment) INB010951437; merchant banking services bearing SEBI Registration Number: INH00001204. 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/clients 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 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.

