CHINA

Inside

Nov Data Forecasts

Date	Indicator	Nov (fcst)	Prior
	Activities		
31- Nov	NBS mfg PMI	51.8	51.6
01- Dec	Caixin mfg PMI	50.8	51.0
08- Dec	Exports, %yoy	**6.0**	6.9
08- Dec	Imports, %yoy	**12.0**	17.2
08- Dec	Trade bal., US$ bn	**31.4**	38.2
14- Dec	Industrial prod. % yoy,	**6.0**	6.2
14- Dec	FAI, ytd % yoy	**7.1**	7.3
14- Dec	Retail Sales, % yoy	**10.2**	10.0
	Inflation		
09- Dec	CPI, % yoy	**1.7**	1.9
09- Dec	PPI, % yoy	**5.9**	6.9
	Monetary		
7- Dec	FX reserves, US$bn	**310.0**	310.9
10-15 Dec	M2, % yoy	**9.0**	8.8
10-15 Dec	RMB loans, Rmb bn	**850**	663

Publications in Dec:

Will growth target be lowered? Nov 7

After-thoughts from the 19th Party Congress: What's next? Dec 26

China unlikely to grow 7% in 2H17, more likely to slow to 6% in 2018, Dec 19

Analyst(s)
Larry Hu, PhD
+852 3922 3778 larry.hu@macquarie.com

5 December 2017
Macquarie Capital Limited

State of China's economy

Feedback from recent marketing: Sentiment turning even better

Over the past three weeks, we met with investors in Europe and Asia to discuss China macro and markets. The sentiment is even better than six months ago when we did the previous round of global marketing (our takeaways back then: Highest sentiment in two years). Investors are no longer concerned about traditional risks such as debt, property, currency and capital outflows. Instead the key interests include the macro outlook for 2018 (the consensus is a gradual and modest slowdown), the ongoing financial tightening, the risk of inflation and rate hike, also the medium-term outlook after the Party Congress. The note covers the main topics of conversation.

Sentiment: Turning even better

Sentiment is upbeat now as investors cited various reasons to stay bullish: the global economy is recovering in a synchronized way; The rally so far is driven by EPS growth, so valuation is higher but not crazy; The breadth of rally is so limited that there is room for chasing laggards; The rally has concentrated on sector leaders and junk stocks haven't moved much. The valuation for China financials and SOEs are much lower compared with their global peers; global EM funds still underweight China and more southbound money from mainland China will come to HK next year…

Interestingly, during the trip, the amount of time we spent on debt is probably the least since 2011. The views expressed in our note, China's Debt: Myths and Realities, which used to be quite controversial, have become the consensus. Also our positive RMB view, which used to receive close to 100% pushback 12 months ago, has also become the consensus.

Overall, our impression as economists is that while the consensus used to be overly pessimistic toward China, now it is starting to turn a bit too optimistic. But we could be too sobering as the sentiment is still far from being extreme and could move even higher. Toward the year end, financials is a consensus buy to park the cash, due to reasonable valuation and solid earnings, while some look to rotate into late-cycle names such as utility and consumer staples, or even small caps at some point next year.

Economy: What the market could miss

Consensus at year-end often gets wrong the most important thing for the year ahead. At the end of 2015, the consensus was expecting a further slowdown or even a hard landing for China. But it turns out that at that time China was just under recovery with a new earnings up-cycle ahead. At the end of 2016, the consensus was expecting further depreciation of the RMB against the US$. But it turns out that the RMB has strengthened against the US$ in 2017. The reversal underpins the EM bull run this year as the RMB is the anchor of the whole EM currency space.

At this point, what could the consensus miss? In our view, the most likely candidate is the downside risk from infrastructure investment, which grew much faster than other investments in the past five years. Back in 2012, infrastructure investment was 60% of manufacture investment and 80% of property investment. In 2017, it's 90% of manufacturing investment and 20% larger than property investment. (*To be continued on the next page*)

Infrastructure spending is the main tool for the government to set a stable economic backdrop for the power reshuffle. Now the 19th Party Congress is done and China is about to enter a new five-year political cycle which leads to 2022. As such, policy makers might be able to accept slower growth for infrastructure spending from next year, as the growth in the past five years is unsustainable.

Relatedly, infrastructure spending is largely funded by local government debt. In the past two years, local governments leveraged up quickly with the new tools such as PPP. As such, it should be an area of great concern for policy makers and the market. **Therefore, it is significant that the subway projects at Baotao were halted recently and the government started tightening PPP approvals. It could be just the beginning.**

For other key drivers of the economy, we expect **consumption** growth to remain relatively stable as it did in the past three years. **Exports** is the biggest delta this year, rising 7% in 2017 after dropping 7% in 2016, adding 1.5ppt to GDP growth this year. For next year, the ongoing global recovery is a tailwind. However, we still expect export growth to slow to low-single-digit growth next year, given the strengthening of the RMB this year. Moreover, the potential slowdown of China, which has led the global recovery in the past two years, could weigh on global growth from 2H18.

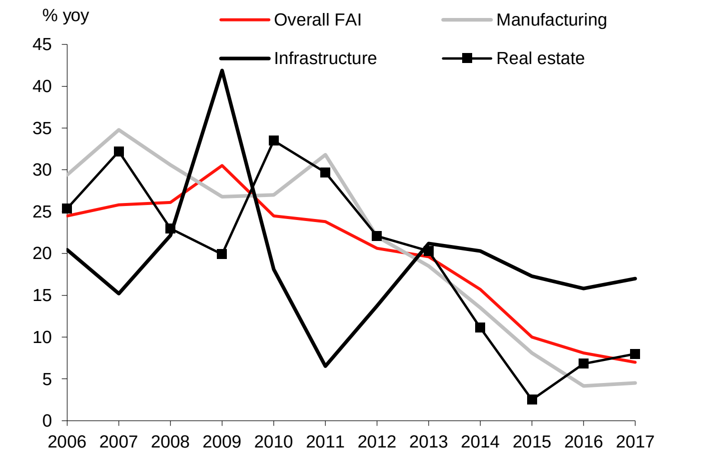
For **property**, GFA sales at national level saw negative yoy growth from Sep 2017, after staying positive for 29 months since May 2015. The down-cycle will likely continue next year. Given the concerns on high home prices, policy makers are not very likely to loosen property measures next year even if growth headwinds could strengthen in 2H18. Due to lower inventory level and strong land sales this year, we expect property investment to slow modestly from 8% in 2017 to low-single-digit growth in 2018. More pressure for property investment will come in 2019 as land sales would be much weaker next year.

Implications for equity and commodity markets

For the stock market, the impact from a slower economic growth is mixed. Lower GDP growth could lead to lower EPS growth. However, it's very hard for policy makers to tighten liquidity amid an economic slowdown, so the deceleration could ease the domestic liquidity overhang and cause a rotation of from EPS driven to liquidity driven, and from large cap to small cap.

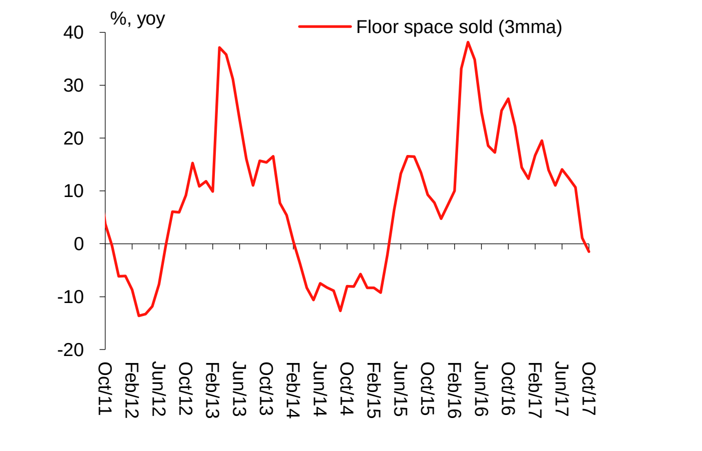
For the commodity market, it could be negative. The commodity market is pretty choppy this year as it is more driven by supply-side factors such as environment inspection. Looking ahead, both commodity supply and demand should weaken, but demand-side factors such as weaker infrastructure and property FAI might become a driving force again, especially after the impact of the winter environment inspection fades.

Fig 1 Infrastructure investment growth have been strong over the past five years



Source: CEIC, Macquarie Research, December 2017

Fig 2 GFA sales growth could stay negative in 2018



Source: CEIC, Macquarie Research, December 2017

How to read the rising yields in the bond market

Some investors are concerned about the jitters in the bond market recently. Relatedly, there are also some concerns on upside risks for inflation next year and potential rate hikes by the PBoC. Our view is that inflation pressure in 2018 should remain muted and the chance for benchmark rate hikes is low. In other words, for the bond market, now might be the darkest moment before the dawn.

Our view on inflation is based on our view on economic growth. Given the very low base this year, CPI inflation could rise to close to 3.0% in certain months next year but for the whole year, CPI inflation should be contained in 2.0-2.5%. Meanwhile, PPI inflation could moderate significantly to 2-3% due to the high base this year. As such, nominal GDP growth, which correlates closely with the 10-year treasury yields, could fall to 8-9% from 11% this year.

In our view, the recent bond market jitters are mainly driven by the speculation on regulation instead of fundamentals. To be sure, given economic growth still steady, now remains as the window for policy makers to deleverage the bond market. Now is also the vacuum between two political cycles. Unsurprisingly, investors feel uncertain about the policy stance for the new regulators. But fundamentals should dominate in the medium term.

Some might be concerned whether China will be forced to hike next year if the Fed hikes. We are not too worried, given that the 10-year treasury yield in the US is largely as same as 12 months ago, while that in China rose by over 100bps.

RMB and capital flows

The most important thing 12 months ago was the RMB, but no longer so. The depreciation expectation has much eased as during this trip we didn't spend much time on the topic. For the next six months, we expect the USD/CNY to range-bound between 6.4 and 7.0.

In 2016, the main battle for the PBoC was to curb capital outflows, as FX reserves dropped over US$100bn each month in early 2016. In 2017, the battle was to fight depreciation expectation. For next year, the battle is to restore the confidence on the financial openness and the RMB internationalization, which were disrupted in the past couple of years by capital outflows and currency depreciation.

Structural trends in the economy

As sentiment is getting better this year, investors now pay less attention to macro risks but more towards micro opportunities. The market performance over the past 12 months also makes it clear that, for equity investors, it is important to capture structural trends in the economy.

In a thematic report published in Aug 2016 titled Micro vs Macro Trends, we discussed five major structural trends, which all have performed very well this year. While it is hard to forecast the cyclical movement of the economy, we believe these five themes would persist for years to come.

They are: (1) Rise of the services (education, health care, asset management…), (2) the digital transformation of the economy (internet, AI…), (3) consumption upgrading (SUV, Moutai…), (4) the formation of city clusters and (5) corporate transformation including consolidation, globalization and industrial upgrading.

What to expect after the Party Congress

It's also a question which investors are interested in. In our view, the below five items might top the priority for China's policy makers in the next five years.

Curb tail risks: Top leaders spent lots of time in the past five years stimulating the economy. It works, but at the cost of surging home prices and leverage ratio. It is unsustainable and has posed big risks to the whole system. Since the power reshuffle is done, policy makers might be more tolerant about growth volatility but focus more on curbing tail risks. Indeed, in his opening speech for the 19th Party Congress, President Xi did not mention any growth target. Also recently, the PBoC governor Zhou Xiaochun warned about a "Minsky Moment").

Make people happy: Economic growth, which is the most important source of legitimacy of the Party, is set to slow down in the coming years. So top leaders need to find other ways to make people happy. To make poor people happy, poverty reduction is the key. To make the middle class happy, environment, education and health care are important. We also expect anti-corruption to be more institutionalized compared with the past five years.

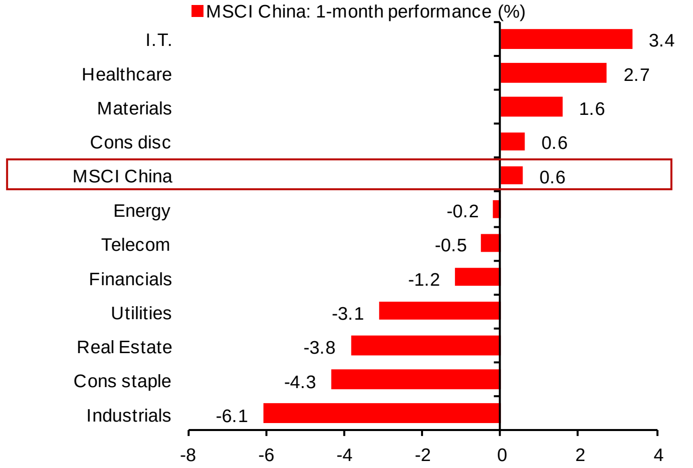
Property tax: Property tax, which is highly controversial and risky, is likely to be rolled out in the next two to three years, which could be the most important reform during this period. Meanwhile, SOE reform, which is the hardest among all reforms, is still far from certain. Historical experience suggests that an adverse growth "shock" may be needed to get things really moving. We are not there yet.

Industrial policy: Economic growth is still the biggest source of legitimacy for the ruling party. As both infrastructure and property investment are set to slow, we believe policy makers will continue to be supportive of the new economy as well as a dozen key industrial sectors such as semiconductors, new energy cars, commercial airplanes and so on.

Xi's agenda: As political power has become more centralized, President Xi's agenda will be pivotal. Other than environmental protection and poverty reduction, One-belt-one-road (OBOR) will be pushed forward, too. RMB internationalization, a key input of OBOR, will regain momentum.

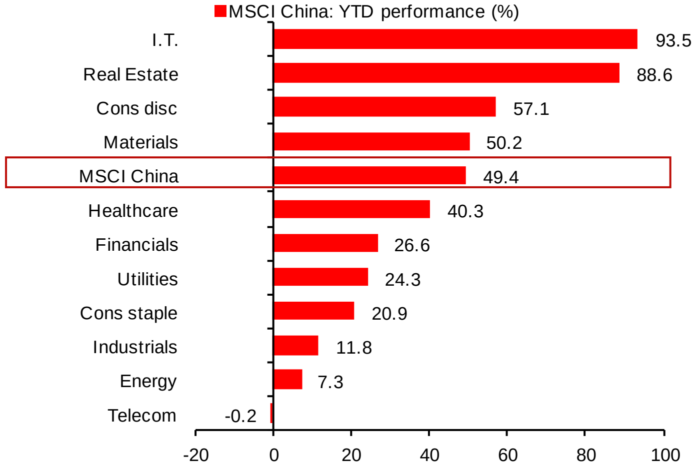
Market & Sector Performance (MSCI China)

Fig 3 MSCI China performance: one-month



Source: Bloomberg, Macquarie Research, Dec2017

Fig 4 MSCI China sector performance: YTD

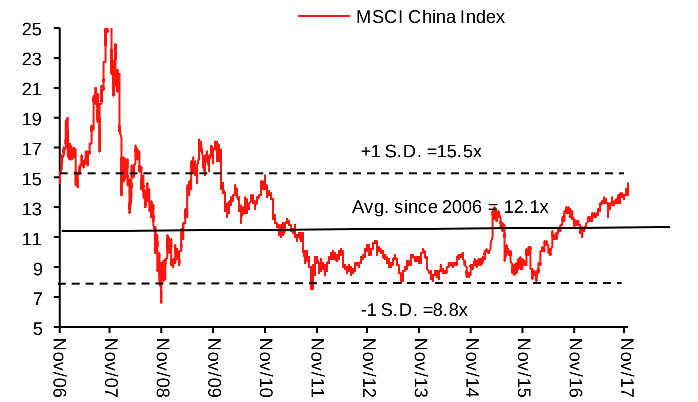


Source: Bloomberg, Macquarie Research, Dec2017

Fig 5 MSCI China index

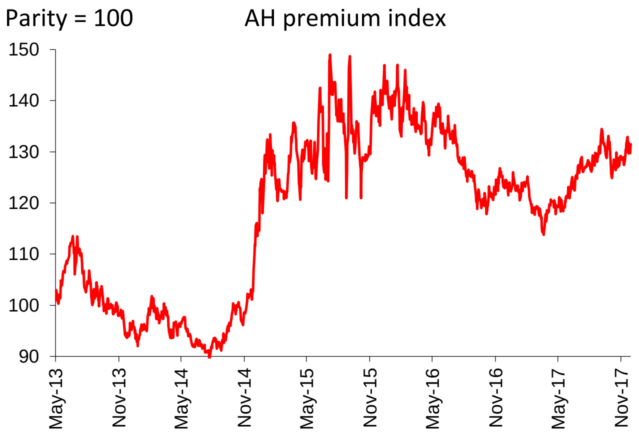
Source: Bloomberg, Macquarie Research, Dec2017

Fig 6 Valuation above historical average



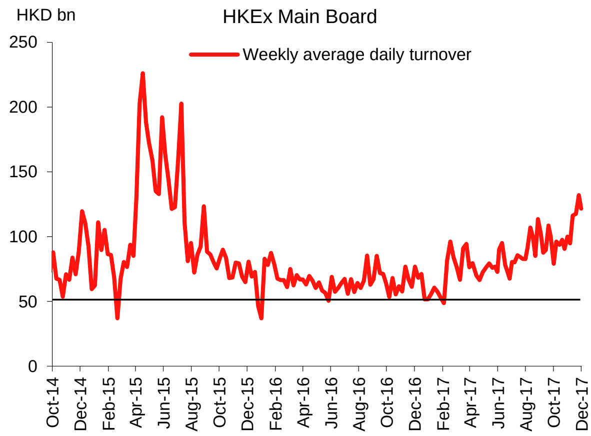
Source: Bloomberg, Macquarie Research, Dec2017

Fig 7 A-H premium Index



Source: CEIC, Macquarie Research, Dec2017

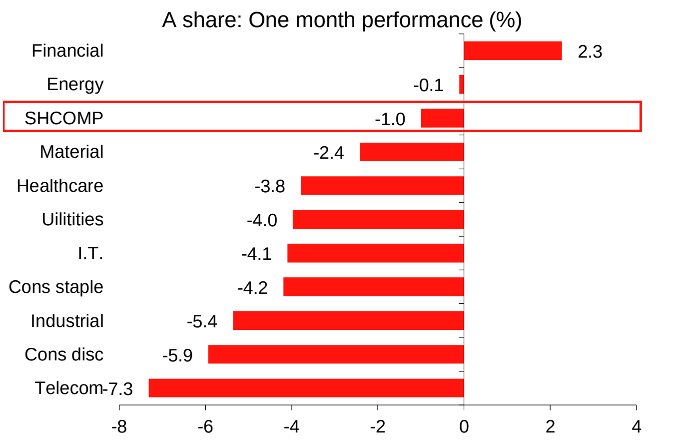
Fig 8 HKEX turnover



Source: Bloomberg, Macquarie Research, Dec2017

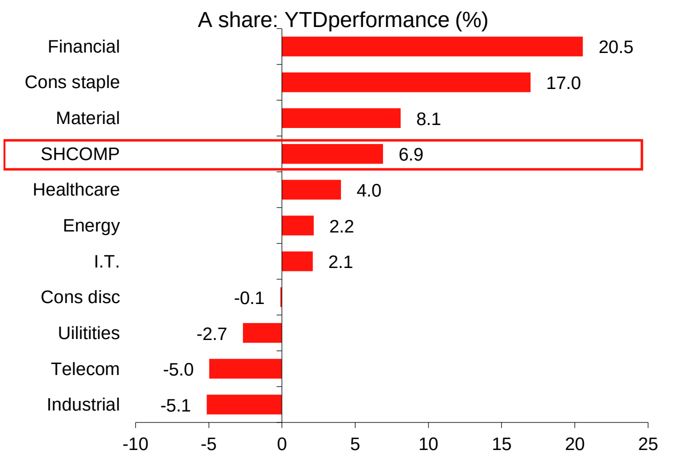
Market & Sector Performance (A-share)

Fig 9 A-share performance: one-month



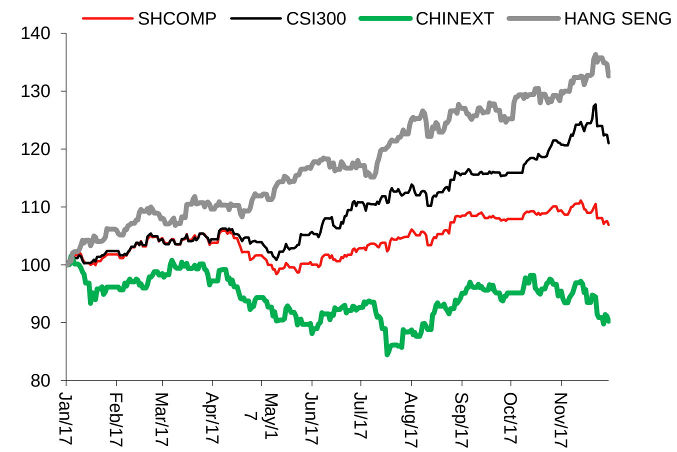
Source: Wind, Macquarie Research, Dec2017

Fig 10 A-share performance: YTD



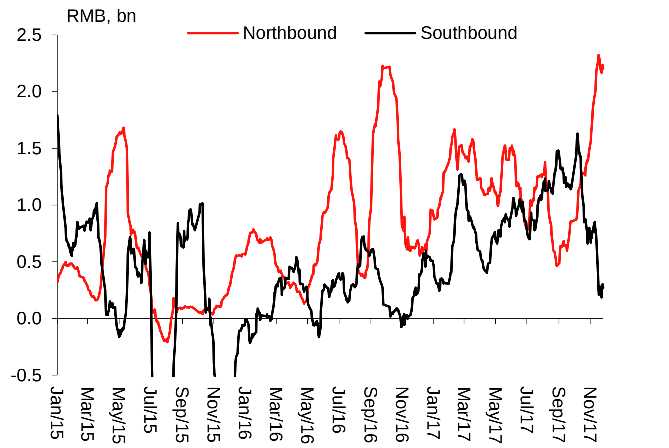
Source: Wind, Macquarie Research, Dec2017

Fig 11 A-share performances by various indices



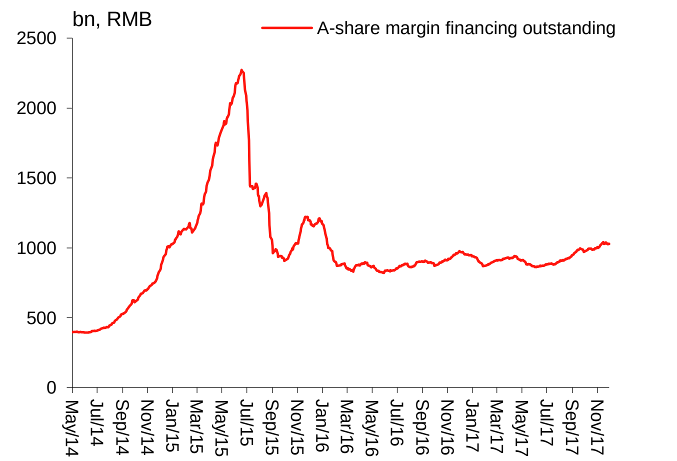
Source: Wind, Macquarie Research, Dec2017

Fig 12 Net inflows from Stock Connect (30-day moving average)



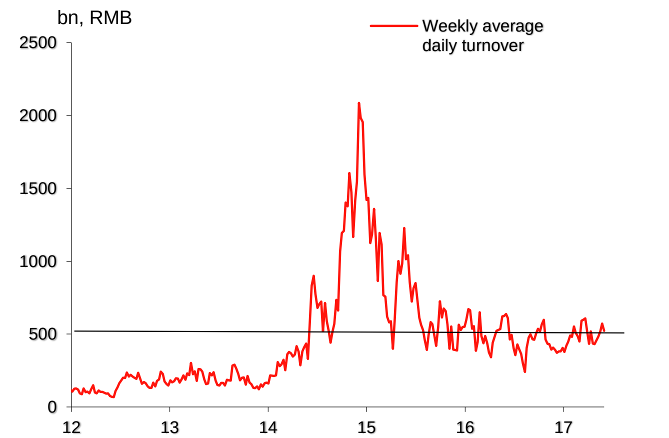
Source: Wind, Macquarie Research, Dec2017

Fig 13 A-share margin financing outstanding



Source: Wind, Macquarie Research, Dec2017

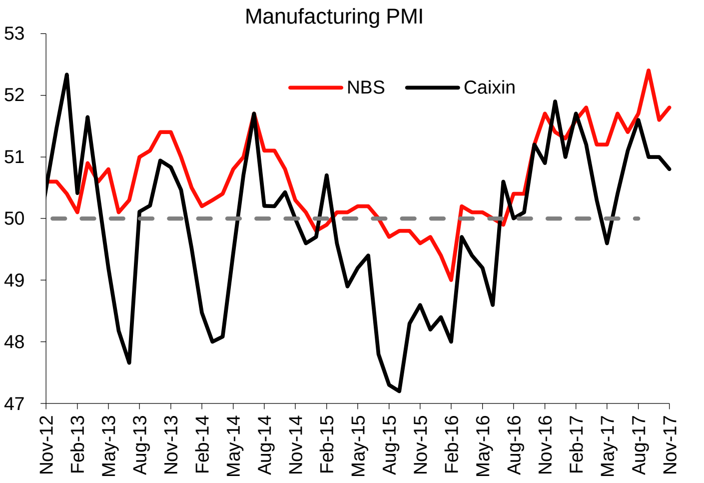
Fig 14 A-share market daily turnover



Source: Wind, Macquarie Research, Dec2017

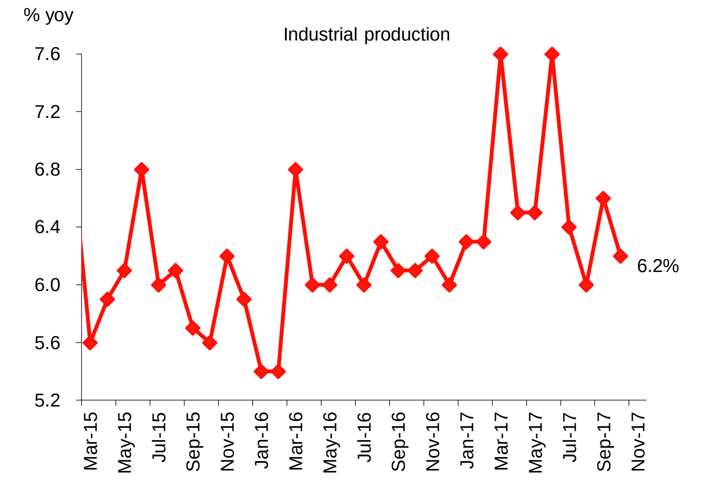
Activity data watch

Fig 15 NBS vs Caixin Manufacturing PMI



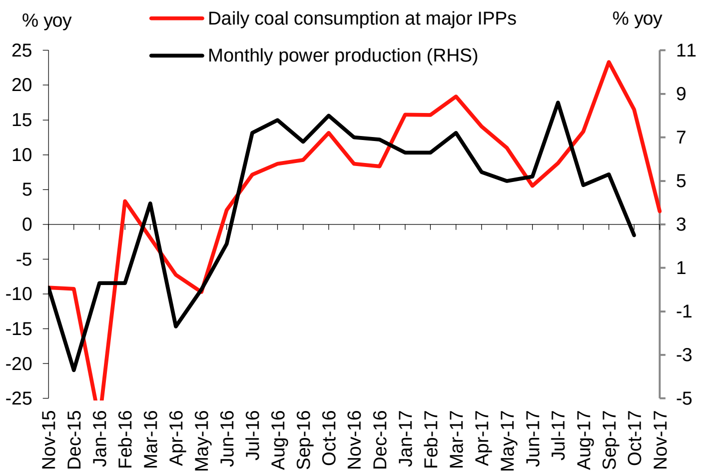
Source: CEIC, Macquarie Research, Dec2017

Fig 16 Industrial production growth



Source: CEIC, Macquarie Research, Dec2017

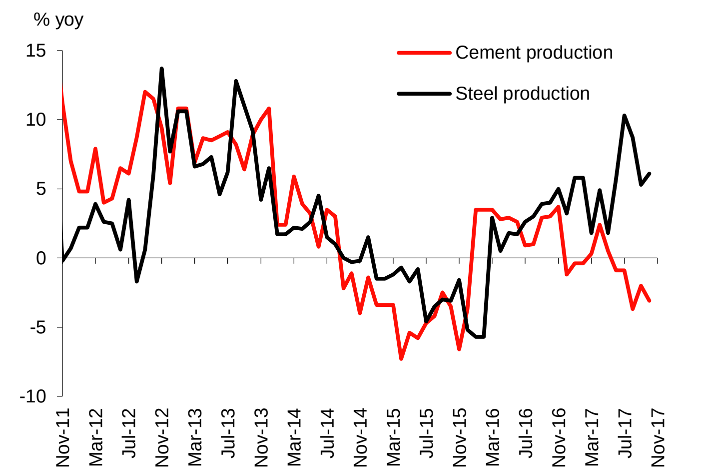
Fig 17 Coal usage vs power production



Note: The latest coal-consumption figure represents the month-to-date average daily coal consumption growth from a year ago.

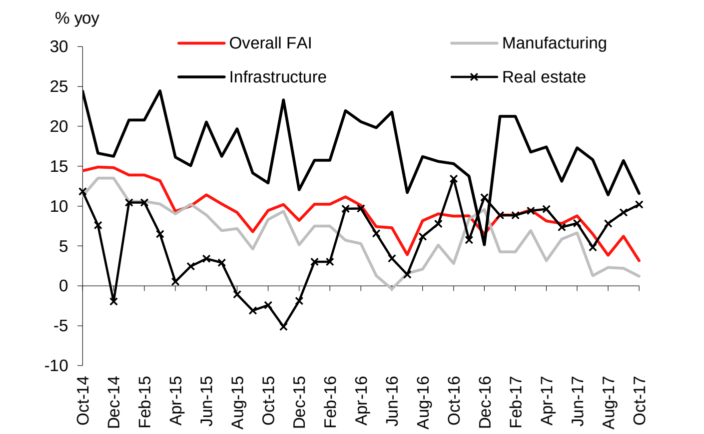
Source: Wind, Macquarie Research, Dec2017

Fig 18 Steel and cement production



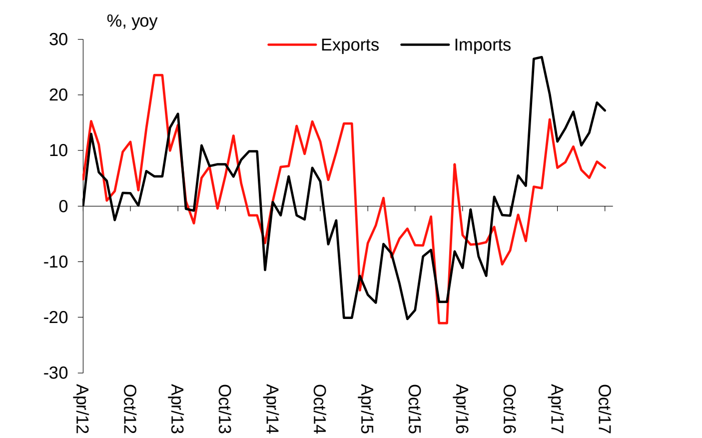
Source: CEIC, Macquarie Research, Dec2017

Fig 19 FAI growth breakdown



Source: CEIC, Macquarie Research, Dec2017

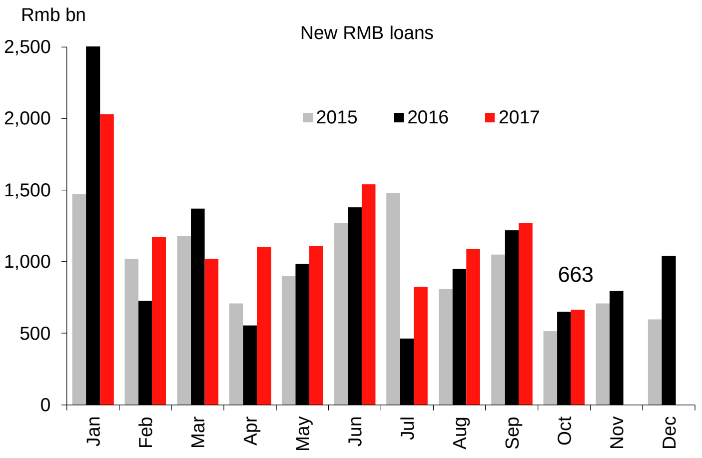
Fig 20 Export and import growth



Source: CEIC, Macquarie Research, Dec2017

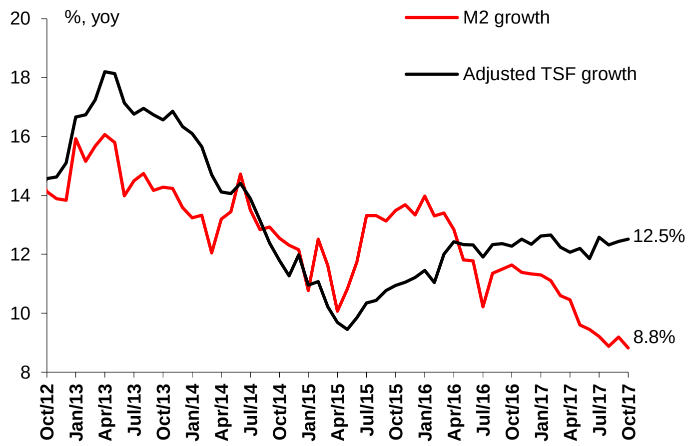
Policy watch

Fig 21 Monthly new RMB loans



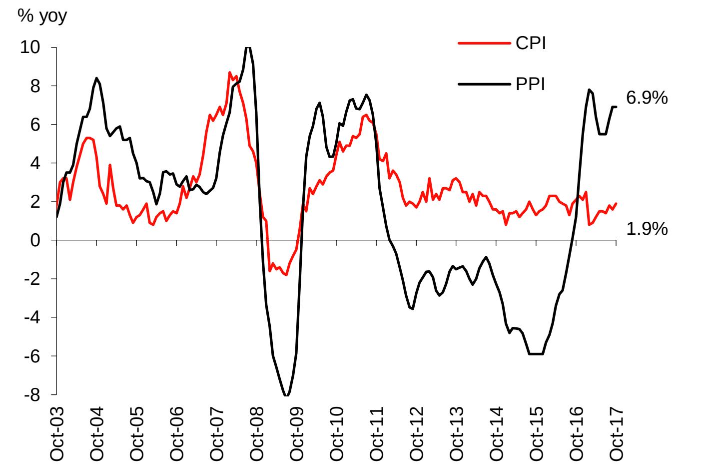
Source: CEIC, Macquarie Research, Dec2017

Fig 22 Monthly credit growth



Source: CEIC, Macquarie Research, Dec2017

Fig 23 Rising inflation in Aug

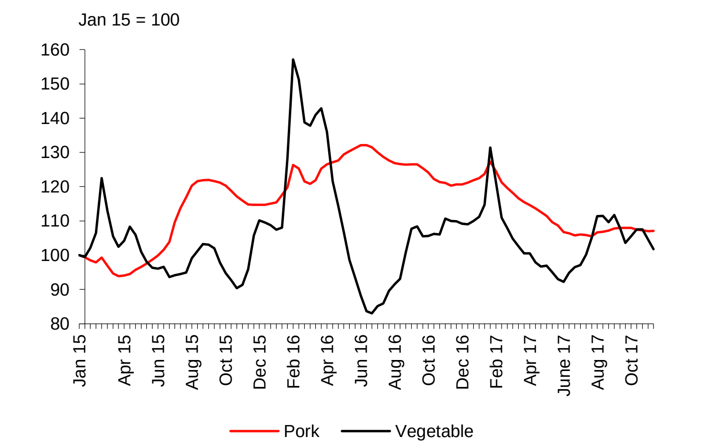


Source: CEIC, Macquarie Research, Dec2017

Fig 24 Nanhua industry index

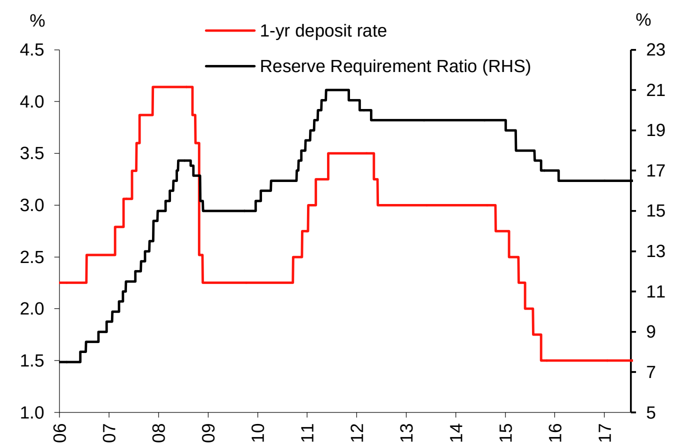
Source: Price index for futures, including Aluminum, copper, coking coal, rebar, PTA, Zinc and others. Wind, Macquarie Research, Dec2017

Fig 25 Pork and vegetable prices



Source: CEIC, Macquarie Research, Dec2017

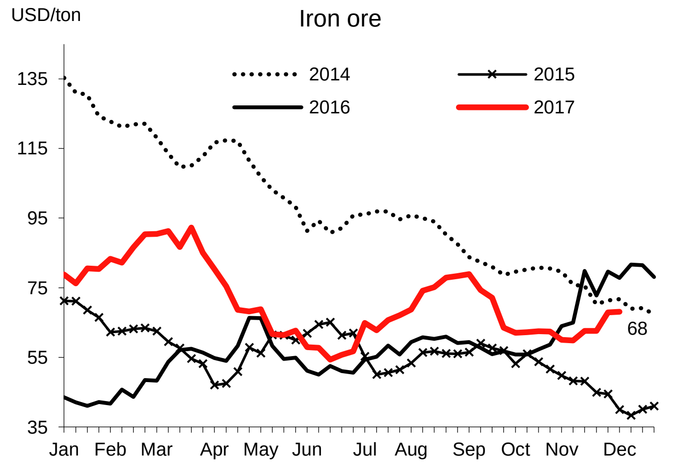
Fig 26 Benchmark policy rate and RRR



Source: CEIC, Macquarie Research, Dec2017

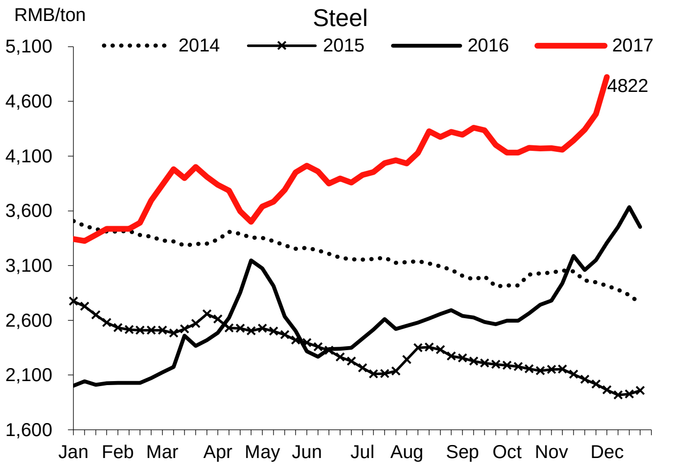
Commodities space

Fig 27 Iron ore prices



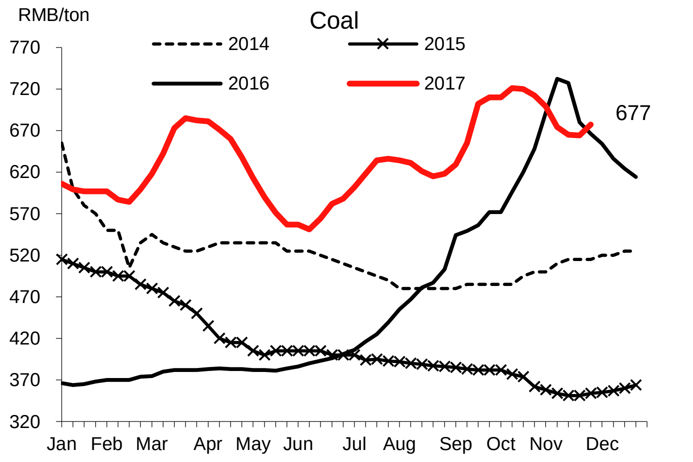
Source: Wind, Macquarie Research, Dec2017

Fig 28 Steel prices



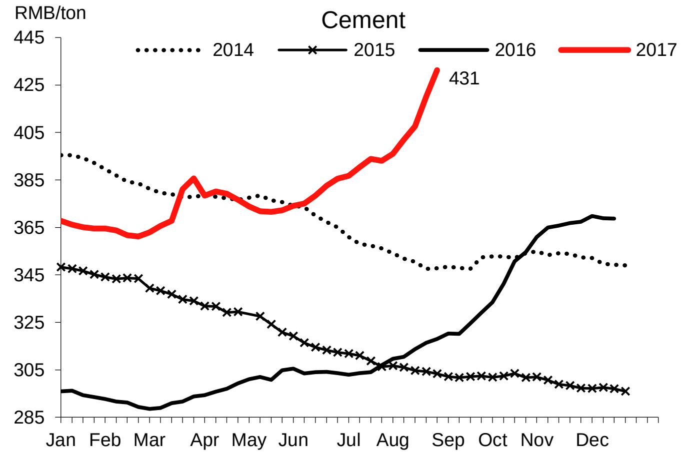
Source: Wind, Macquarie Research, Dec2017

Fig 29 Coal prices



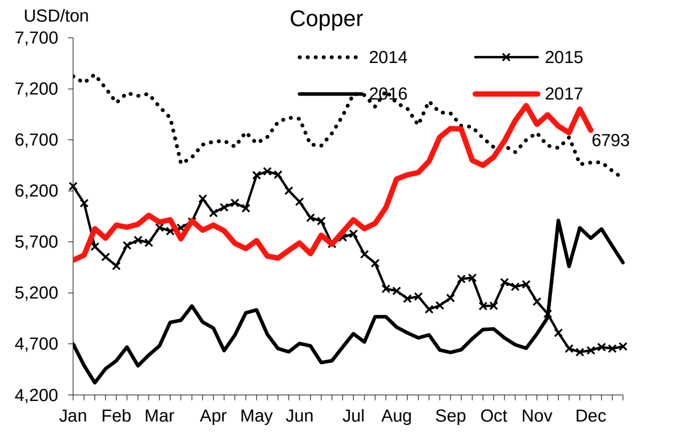
Source: Wind, Macquarie Research, Dec2017

Fig 30 Cement prices



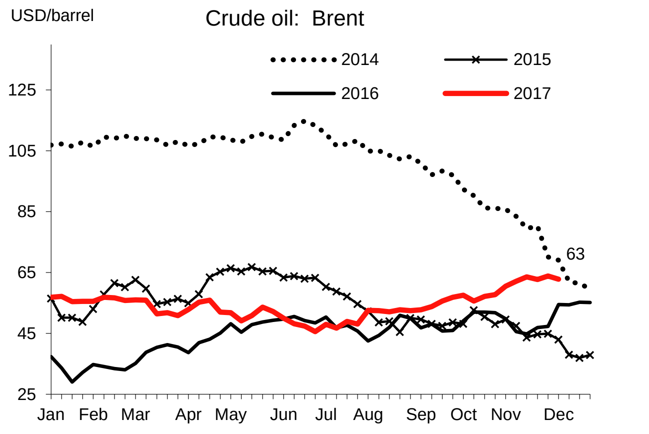
Source: Wind, Macquarie Research, Dec2017

Fig 31 Copper price



Source: Wind, Macquarie Research, Dec2017

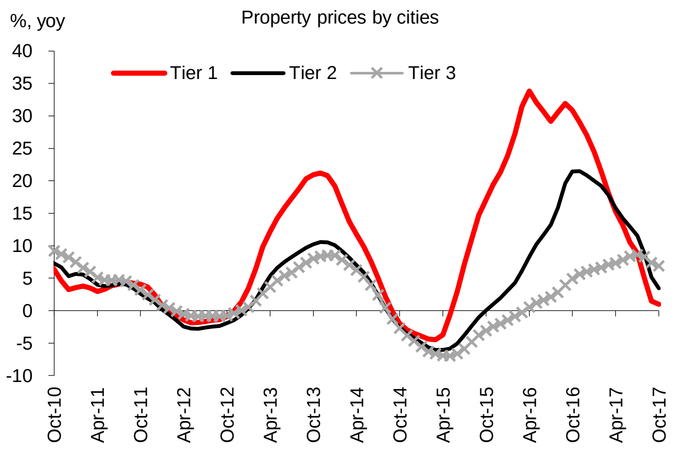
Fig 32 Brent crude oil price



Source: Wind, Macquarie Research, Dec2017

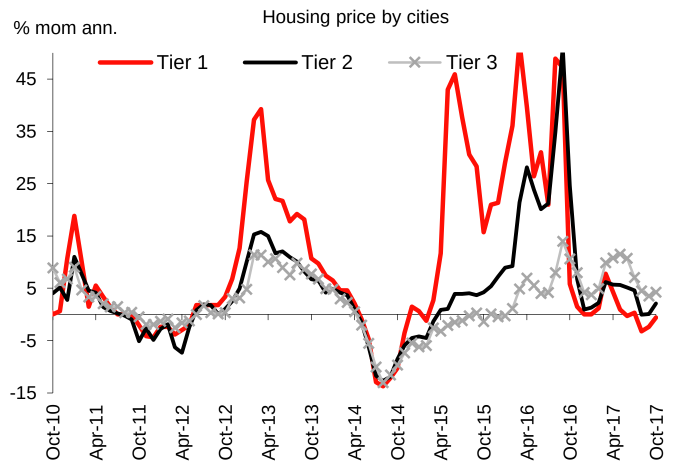
Property market

Fig 33 Home prices, YoY



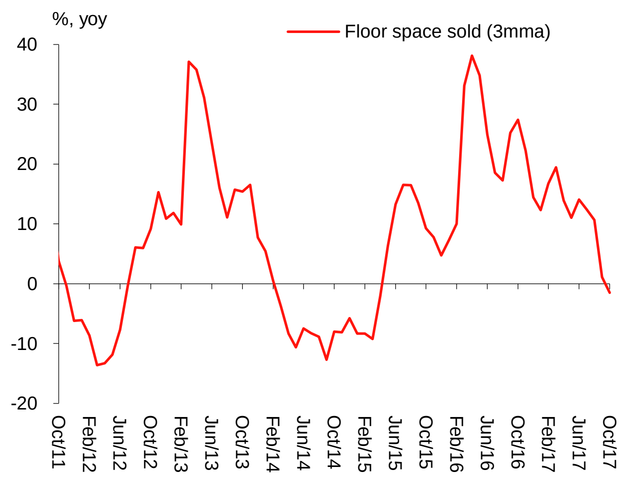
Source: CEIC, Macquarie Research, Dec2017

Fig 34 Home prices, MoM



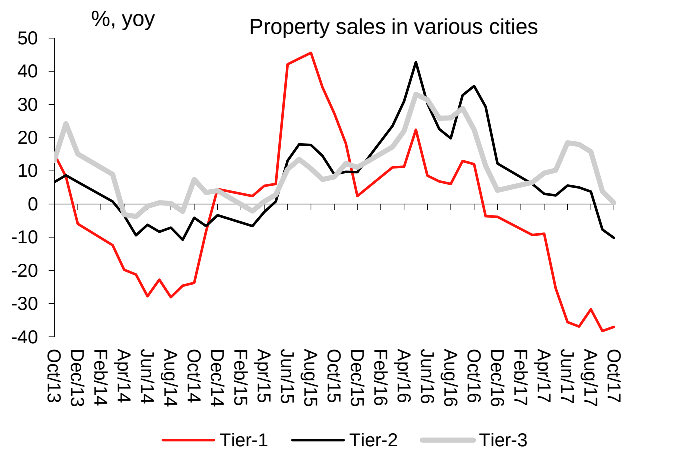
Source: CEIC, Macquarie Research, Dec2017

Fig 35 New home sales at national level



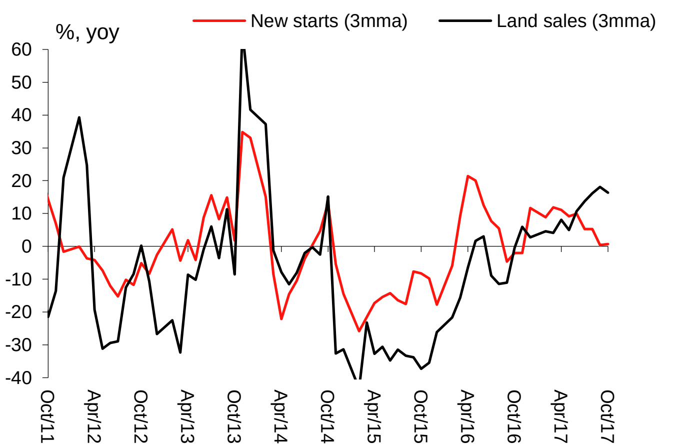
Source: CEIC, Macquarie Research, Dec2017

Fig 36 New home sales in 40 cities (3mma)



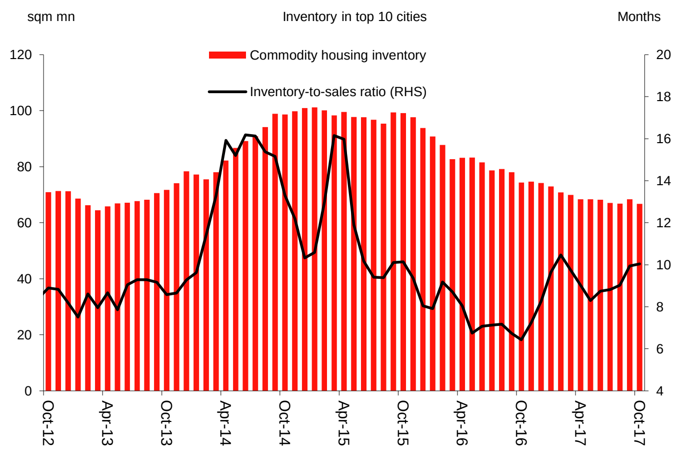
Source: CEIC, Macquarie Research, Dec2017

Fig 37 New starts and land sales at national level



Source: Wind, Macquarie Research, Dec2017

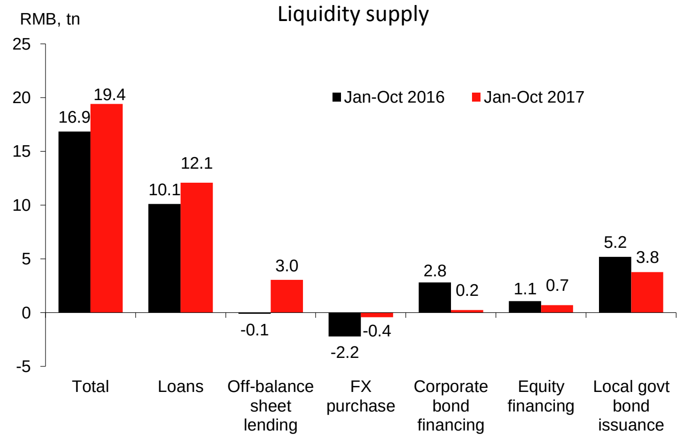
Fig 38 Inventory in top 10 cities



Source: Wind, Macquarie Research, Dec2017

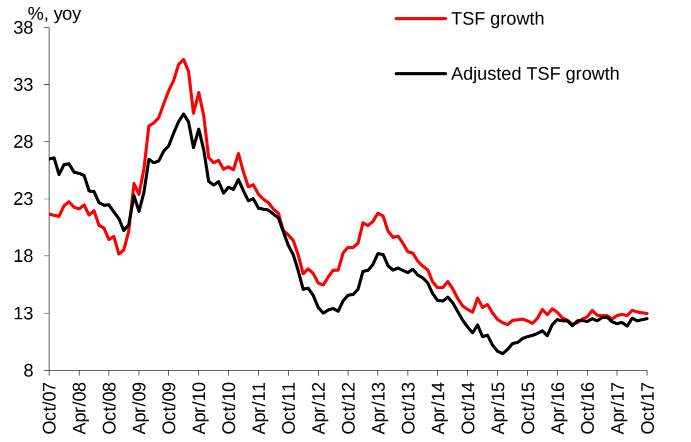
Liquidity watch

Fig 39 Total liquidity supply to the real economy



Source: Wind, Macquarie Research, Dec2017

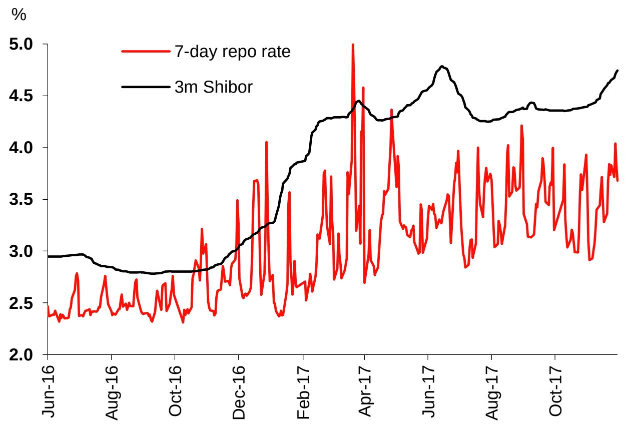
Fig 40 Total social financing growth



Adjusted for local government debt swap and FX purchase changes.

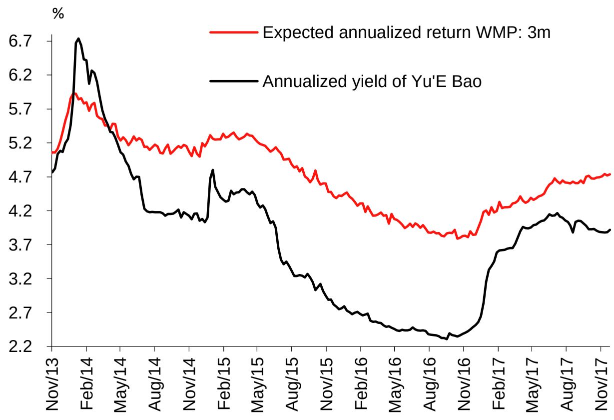
Source: CEIC, Macquarie Research, Dec2017

Fig 41 Interbank interest rates



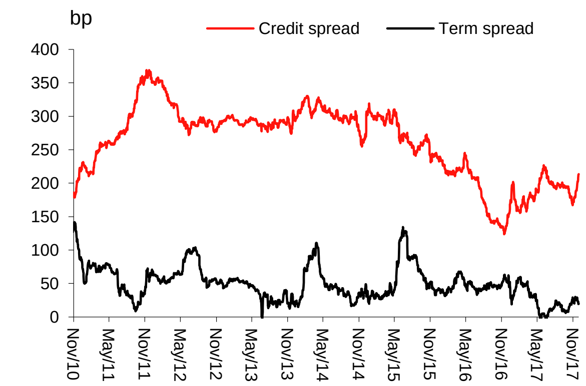
Source: Wind, Macquarie Research, Dec2017

Fig 42 Market interest rates



Source: CEIC, Wind, Macquarie Research, Dec2017

Fig 43 Credit spread and term spread



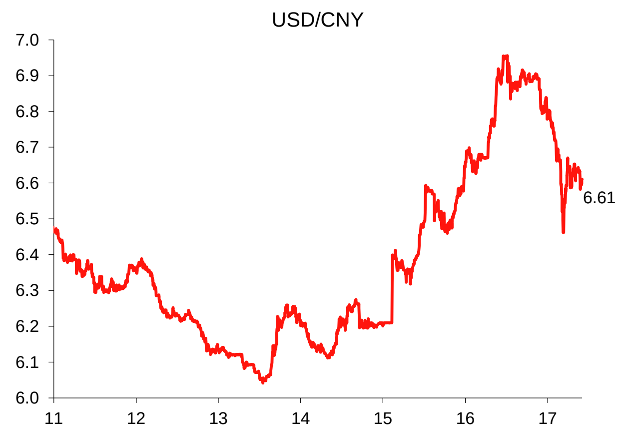
Note: Credit spread is calculated as the difference between 10-yr treasury and 10-yr AA-rated corporate bond. Term spread is calculated as the difference between 10-yr and 2-yr treasury.
Source: Wind, Macquarie Research, Dec2017.

Fig 44 China vs US 10-year Treasury yields

Source: Wind, Macquarie Research, Dec2017

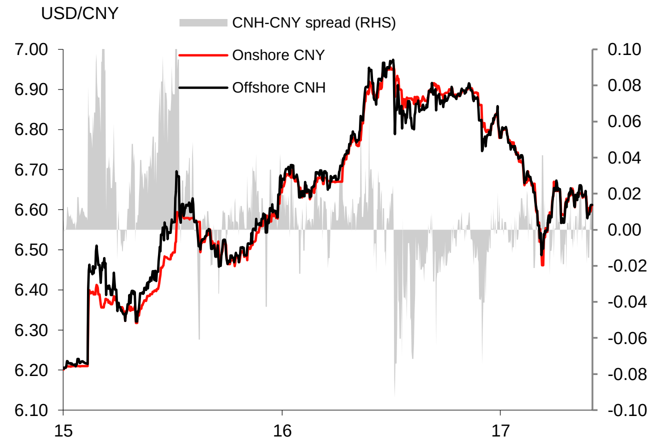
Exchange rate

Fig 45 Onshore RMB, fixing and spot closing



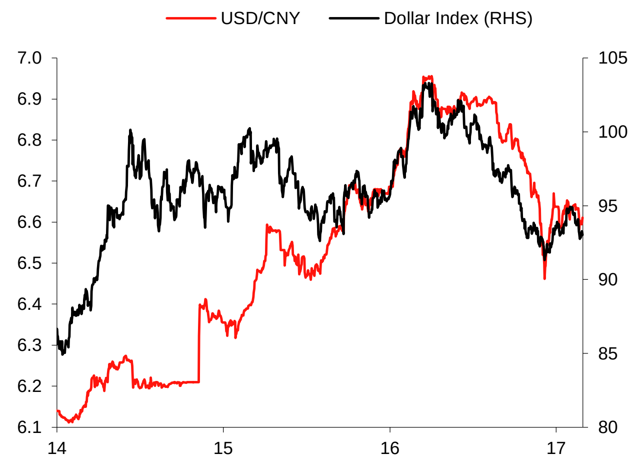
Source: Wind, Macquarie Research, Dec2017

Fig 46 CNY vs CNH



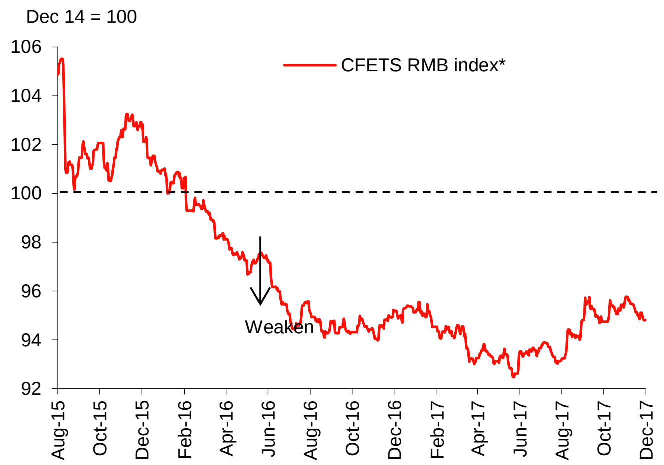
Source: Wind, Macquarie Research, Dec2017

Fig 47 The dollar index and the USD/CNY



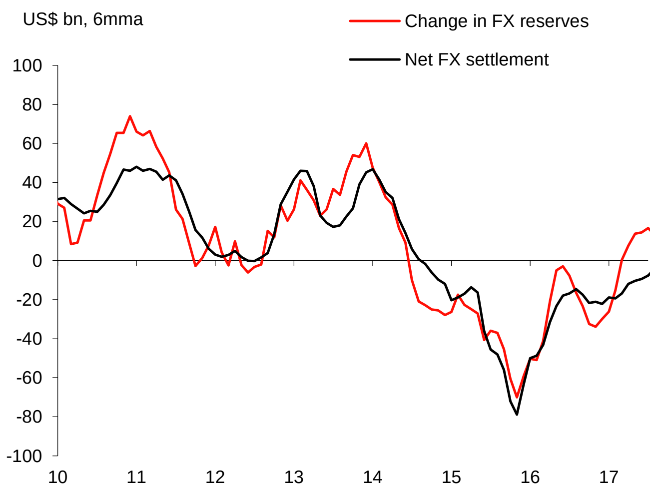
Source: Bloomberg, Macquarie Research, Dec2017

Fig 48 CFETS RMB index



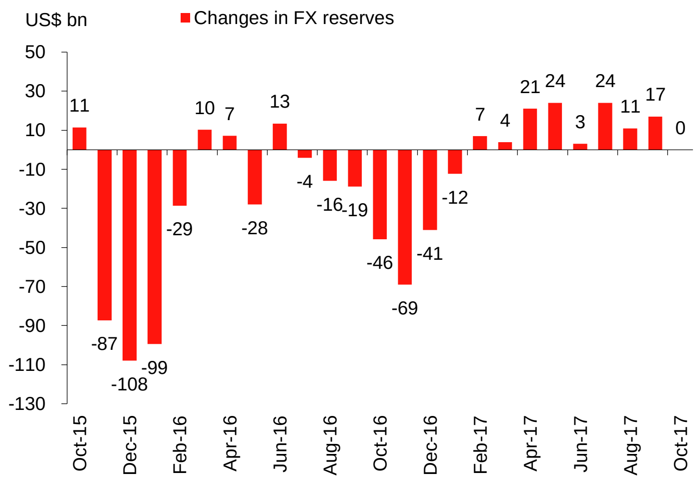
*Staff estimate using the currency basket published by CFETS.
Source: Wind, Macquarie Research, Dec2017

Fig 49 Net FX settlement and FX reserves



Source: Bloomberg, Macquarie Research, Dec2017

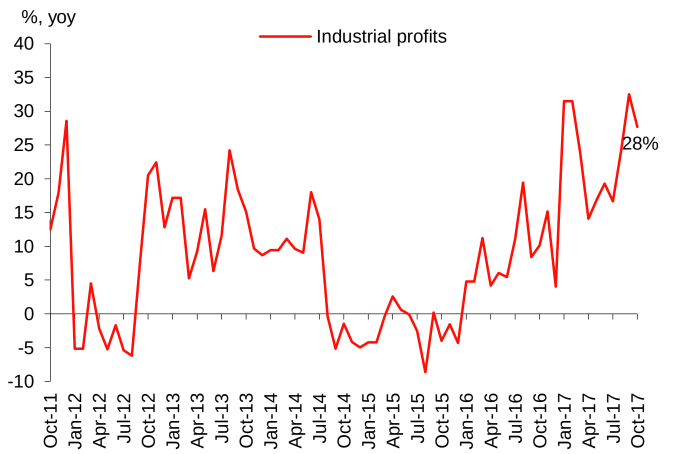
Fig 50 FX reserves m/m change



Source: CEIC, Macquarie Research, Dec2017

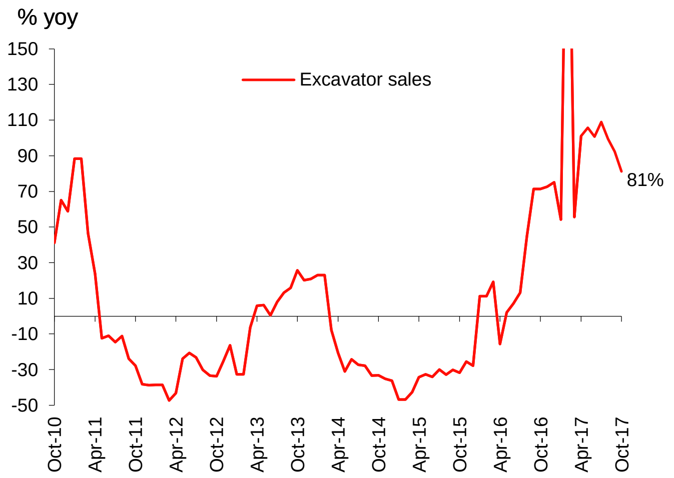
Industrial indicators

Fig 51 Industrial earnings growth



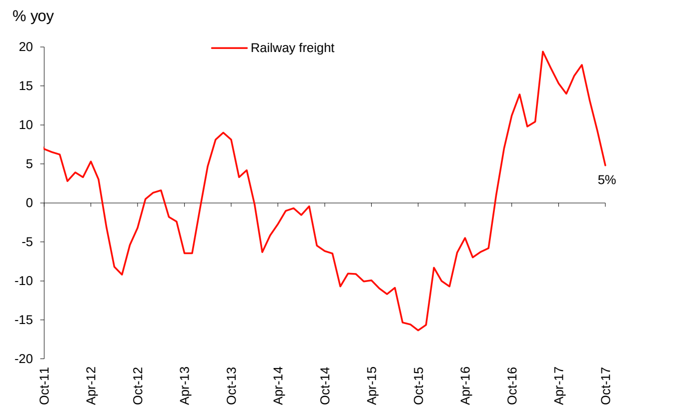
Source: CEIC, Macquarie Research, Dec2017

Fig 52 Excavator sales growth



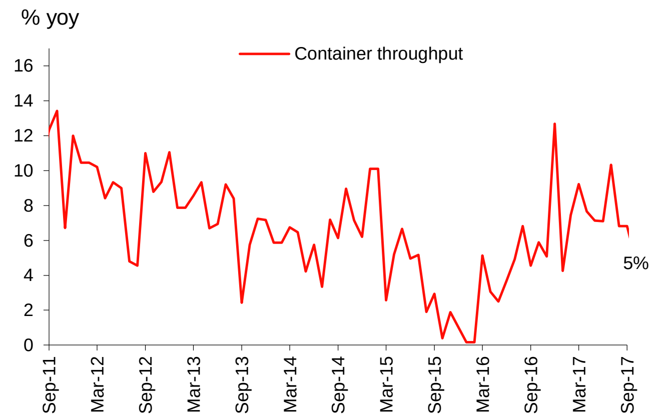
Source: Wind, Macquarie Research, Dec2017

Fig 53 Railway freight growth



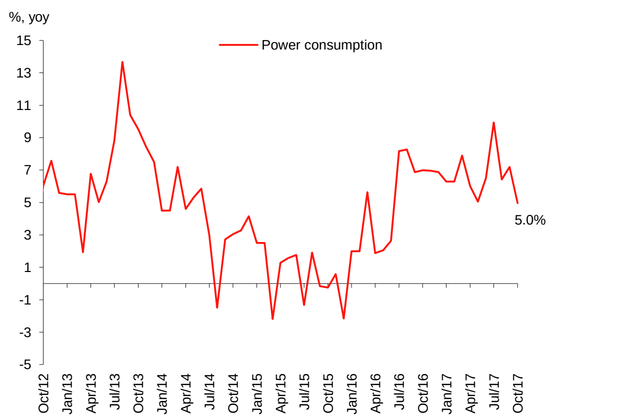
Source: Wind, Macquarie Research, Dec2017

Fig 54 Container throughput growth



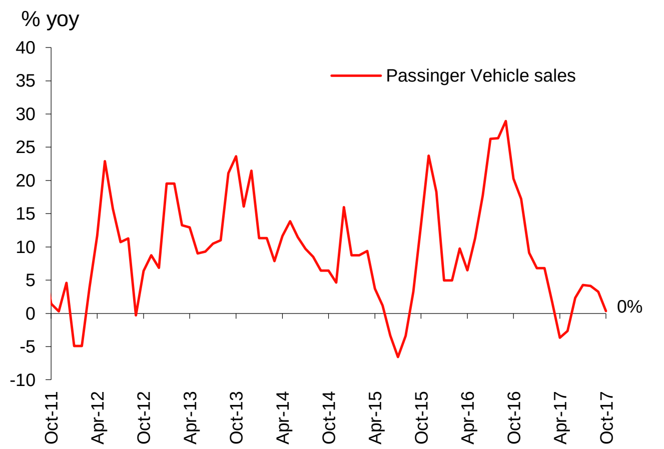
Source: Wind, Macquarie Research, Dec2017

Fig 55 Power consumption growth



Source: Wind, Macquarie Research, Dec2017

Fig 56 Passenger vehicle sales growth



Source: Wind, Macquarie Research, Dec2017

China in a snapshot

Fig 57 GDP composition

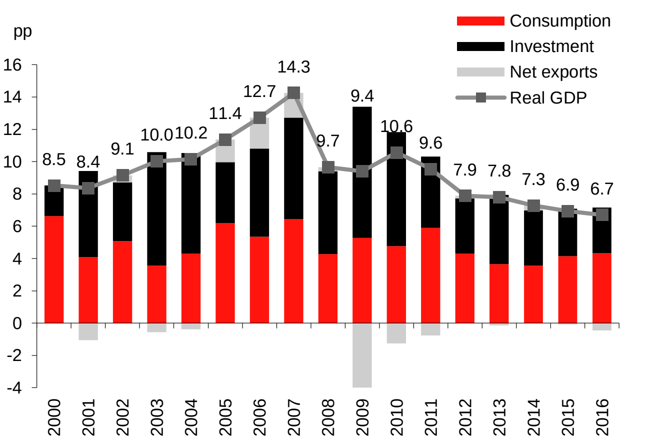
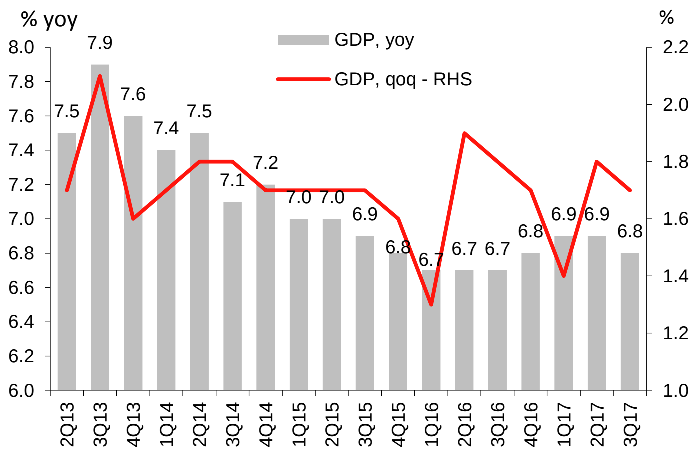
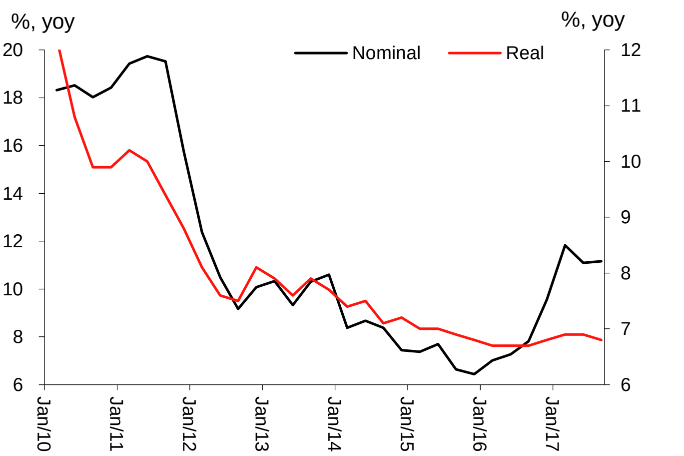


Fig 58 Quarterly GDP growth



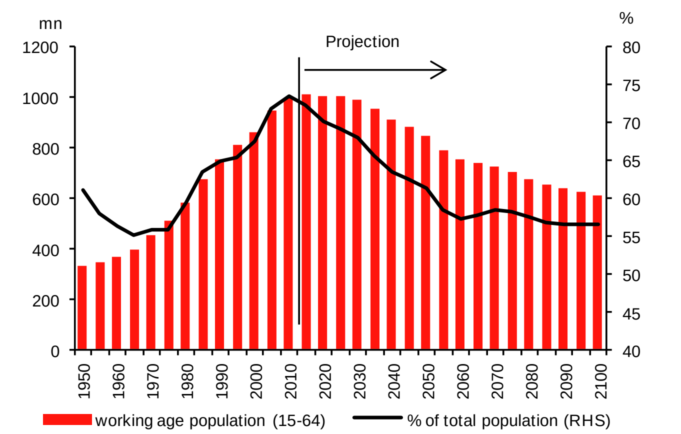
Source: CEIC, Macquarie Research, Dec2017

Fig 59 Nominal and real GDP growth



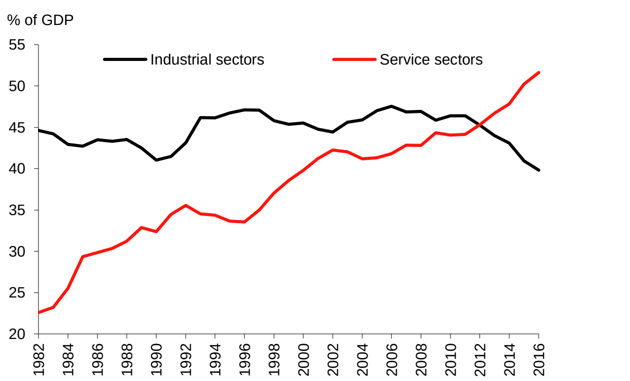
Source: CEIC, Macquarie Research, Dec2017

Fig 60 Working-age population has peaked



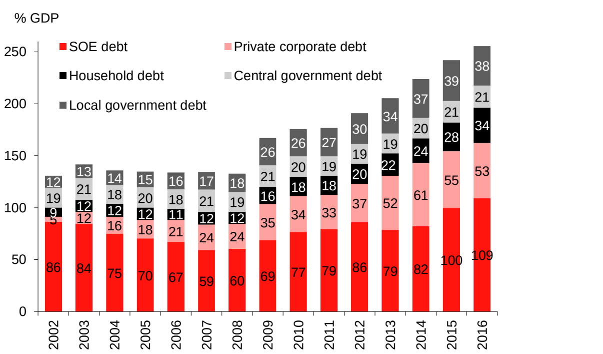
Source: UN, Macquarie Research, Dec2017

Fig 61 Service sectors gaining weight in the economy



Source: CEIC, Macquarie Research, Dec2017

Fig 62 China's debt breakdown



Source: CEIC, Macquarie Research, Dec2017

China economic forecasts

Macquarie China Economic forecasts													
	Unit	1Q16	2Q16	3Q16	4Q16	**1Q17**	**2Q17**	**3Q17**	**4Q17**	2015	2016	**2017**	**2018**
Growth													
GDP	YoY, %	6.7	6.7	6.7	6.8	6.9	6.9	6.8	**6.6**	6.9	6.7	**6.8**	**6.4**
GDP	QoQ,%	1.3	1.9	1.8	1.7	1.4	1.8	1.7	**1.6**	--	--	--	--
Inflation													
CPI	YoY, %	2.1	2.1	1.7	2.1	1.4	1.4	1.6	**1.9**	1.4	2.0	**1.6**	
PPI	YoY, %	-4.8	-2.9	-0.8	3.3	7.4	5.8	6.2	**5.0**	-5.2	-1.4	**6.0**	
Activities													
Industrial production	YoY, %	5.8	6.1	6.1	6.1	6.8	6.9	6.3	--	6.1	6.0	**6.7**	--
Retail sales	YoY, %	10.3	10.2	10.5	10.6	10.0	10.8	10.3	--	10.7	10.4	**10.5**	--
Fixed asset investment (ytd)	YoY, %	10.7	8.2	7.0	7.8	9.2	8.3	5.5	--	10.0	8.1	**7.0**	--
Manufacturing	YoY, %	6.4	1.8	2.8	7.1	5.8	5.4	1.9	--	8.1	4.2		--
Property	YoY, %	6.2	6.0	5.2	10.0	9.1	8.2	7.4	--	2.5	7.0		--
Infrastructure	YoY, %	19.2	20.8	14.6	10.7	18.7	16.0	14.3	--	17.3	15.7		--
Trade													
Exports	YoY, %	-12.9	-6.4	-7.0	-5.2	7.8	8.7	6.8	--	-2.6	-7.7	**8.0**	--
Imports	YoY, %	-13.9	-7.0	-4.6	2.1	24.0	14.2	14.5	--	-14.4	-5.6	**13.0**	--
Trade balance	US$ bn	110	130	140	134	64	120	117	--	602	513	**471**	--
Monetary													
M2 (period-end)	YoY, %	13.4	11.8	11.5	11.3	10.6	9.4	9.2	--	13.3	11.3	**9.0**	--
1-yr deposit rate (period-end)	%	1.50	1.50	1.50	1.50	1.50	1.50	1.50	--	1.50	1.50	**1.50**	--
RRR (period-end)	%	16.5	16.5	16.5	16.5	16.5	16.5	16.5	--	17.5	16.5	**16.5**	--
Exchange rate (spot, period end)	USDCNY	6.47	6.66	6.67	6.95	6.89	6.78	6.64	--	6.49	6.95	**6.70**	--

Note: Numbers in bold are forecast values.

Source: CEIC, Wind, Macquarie Research, Dec 2017

Important disclosures:

Recommendation definitions

Macquarie - Australia/New Zealand
Outperform – return >3% in excess of benchmark return
Neutral – return within 3% of benchmark return
Underperform – return >3% below benchmark return

Benchmark return is determined by long term nominal GDP growth plus 12 month forward market dividend yield

Macquarie – Asia/Europe
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie – South Africa
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie - Canada
Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

Macquarie - USA
Outperform (Buy) – return >5% in excess of Russell 3000 index return
Neutral (Hold) – return within 5% of Russell 3000 index return
Underperform (Sell)– return >5% below Russell 3000 index return

Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low–medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.
* Applicable to Asia/Australian/NZ/Canada stocks only

Recommendations – 12 months
Note: Quant recommendations may differ from Fundamental Analyst recommendations

Financial definitions

All "Adjusted" data items have had the following adjustments made:
Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*
ROA = adjusted ebit / average total assets
ROA Banks/Insurance = adjusted net profit /average total assets
ROE = adjusted net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation
*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendation proportions – For quarter ending 30 September 2017

	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	50.38%	56.22%	40.70%	46.21%	63.85%	41.61%	(for global coverage by Macquarie, 4.18% of stocks followed are investment banking clients)
Neutral	37.50%	28.16%	43.02%	47.52%	30.00%	39.51%	(for global coverage by Macquarie, 2.68% of stocks followed are investment banking clients)
Underperform	12.12%	15.62%	16.28%	6.27%	6.15%	18.88%	(for global coverage by Macquarie, 1.08% of stocks followed are investment banking clients)

Company-specific disclosures:

Important disclosure information regarding the subject companies covered in this report is available at www.macquarie.com/research/disclosures.

Analyst certification:
We hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report. The Analysts responsible for preparing this report receive compensation from Macquarie that is based upon various factors including Macquarie Group Ltd total revenues, a portion of which are generated by Macquarie Group's Investment Banking activities.

General disclaimers:
Macquarie Securities (Australia) Ltd; Macquarie Capital (Europe) Ltd; Macquarie Capital Markets Canada Ltd; Macquarie Capital Markets North America Ltd; Macquarie Capital (USA) Inc; Macquarie Capital Limited and Macquarie Capital Limited, Taiwan Securities Branch; Macquarie Capital Securities (Singapore) Pte Ltd; Macquarie Securities (NZ) Ltd; Macquarie Equities South Africa (Pty) Ltd; Macquarie Capital Securities (India) Pvt Ltd; Macquarie Capital Securities (Malaysia) Sdn Bhd; Macquarie Securities Korea Limited and Macquarie Securities (Thailand) Ltd are not authorized deposit-taking institutions for the purposes of the Banking Act 1959 (Commonwealth of Australia), and their obligations do not represent deposits or other liabilities of Macquarie Bank Limited ABN 46 008 583 542 (MBL) or MGL. MBL does not guarantee or otherwise provide assurance in respect of the obligations of any of the above mentioned entities. MGL provides a guarantee to the Monetary Authority of Singapore in respect of the obligations and liabilities of Macquarie Capital Securities (Singapore) Pte Ltd for up to SGD 35 million. This research has been prepared for the general use of the wholesale clients of the Macquarie Group and must not be copied, either in whole or in part, or distributed to any other person. If you are not the intended recipient you must not use or disclose the information in this research in any way. If you received it in error, please tell us immediately by return e-mail and delete the document. We do not guarantee the integrity of any e-mails or attached files and are not responsible for any changes made to them by any other person. MGL has established and implemented a conflicts policy at group level (which may be revised and updated from time to time) (the "Conflicts Policy") pursuant to regulatory requirements (including the FCA Rules) which sets out how we must seek to identify and manage all material conflicts of interest. Nothing in this research shall be construed as a solicitation to buy or sell any security or product, or to engage in or refrain from engaging in any transaction. In preparing this research, we did not take into account your investment objectives, financial situation or particular needs. Macquarie salespeople, traders and other professionals may provide oral or written market commentary or trading strategies to our clients that reflect opinions which are contrary to the opinions expressed in this research. Macquarie Research produces a variety of research products including, but not limited to, fundamental analysis, macro-economic analysis, quantitative analysis, and trade ideas. Recommendations contained in one type of research product may differ from recommendations contained in other types of research, whether as a result of differing time horizons, methodologies, or otherwise. Before making an investment decision on the basis of this research, you need to consider, with or without the assistance of an adviser, whether the advice is appropriate in light of your particular investment needs, objectives and financial circumstances. There are risks involved in securities trading. The price of securities can and does fluctuate, and an individual security may even become valueless. International investors are reminded of the additional risks inherent in international investments, such as currency fluctuations and international stock market or economic conditions, which may adversely affect the value of the investment. This research is based on information obtained from sources believed to be reliable but we do not make any representation or warranty that it is accurate, complete or up to date. We accept no obligation to correct or update the information or opinions in it. Opinions expressed are subject to change without notice. No member of the Macquarie Group accepts any liability whatsoever for any direct, indirect, consequential or other loss arising from any use of this research and/or further communication in relation to this research. Clients should contact analysts at, and execute transactions through, a Macquarie Group entity in their home jurisdiction unless governing law permits otherwise. The date and timestamp for above share price and market cap is the closed price of the price date. #CLOSE is the final price at which the security is traded in the relevant exchange on the date indicated.

Country-specific disclaimers:
Australia: In Australia, research is issued and distributed by Macquarie Securities (Australia) Ltd (AFSL No. 238947), a participating organisation of the Australian Securities Exchange. **New Zealand**: In New Zealand, research is issued and distributed by Macquarie Securities (NZ) Ltd, a NZX Firm. **Canada**: In Canada, research is prepared, approved and distributed by Macquarie Capital Markets Canada Ltd, a participating organisation of the Toronto Stock Exchange, TSX Venture Exchange & Montréal Exchange. Macquarie Capital Markets North America Ltd., which is a registered broker-dealer and member of FINRA, accepts responsibility for the contents of reports issued by Macquarie Capital Markets Canada Ltd in the United States and sent to US persons. Any US person wishing to effect transactions in the securities described in the reports issued by Macquarie Capital Markets Canada Ltd should do so with Macquarie Capital Markets North America Ltd. The Research Distribution Policy of Macquarie Capital Markets Canada Ltd is to allow all clients that are entitled to have equal access to our research. **United Kingdom**: In the United Kingdom, research is issued and

Asia Research

Head of Equity Research

Peter Redhead (Global – Head)	(44 20) 3037 4263
Jake Lynch (Asia – Head)	(852) 3922 3583
David Gibson (Japan – Head)	(813) 3512 7880
Conrad Werner (ASEAN – Head)	(65) 6601 0182

Automobiles, Auto Parts

Janet Lewis (China, Japan)	(813) 3512 7856
Allen Yuan (China)	(8621) 2412 9009
James Hong (Korea)	(822) 3705 8661
Amit Mishra (India)	(9122) 6720 4084

Banks and Financials

Scott Russell (Asia)	(852) 3922 3567
Dexter Hsu (China, Taiwan)	(8862) 2734 7530
Keisuke Moriyama (Japan)	(813) 3512 7476
Chan Hwang (Korea)	(822) 3705 8643
Suresh Ganapathy (India)	(9122) 6720 4078
Jayden Vantarakis (Indonesia)	(6221) 2598 8310
Anand Pathmakanthan (Malaysia)	(603) 2059 8833
Gilbert Lopez (Philippines)	(632) 857 0892
Ken Ang (Singapore)	(65) 6601 0836
Passakorn Linmaneechote (Thailand)	(662) 694 7728

Commodities and Basic Materials

Jim Lennon (Global)	(44 20) 3037 4271
Polina Diyachkina (Asia, Japan)	(813) 3512 7886
Matthew Turner (Global)	(44 20) 3037 4340
Vivienne Lloyd (Global)	(44 20) 3037 4530
Serafino Capoferri (Global)	(44 20) 3037 2517
Lynn Zhao (Global)	(86 21) 2412 9035
Yasuhiro Nakada (Japan)	(813) 3512 7862
Anna Park (Korea)	(822) 3705 8669
Sumangal Nevatia (India)	(9122) 6720 4093
Jayden Vantarakis (Indonesia)	(6221) 2598 8310

Conglomerates

David Ng (China, Hong Kong)	(852) 3922 1291
Conrad Werner (Singapore)	(65) 6601 0182
Gilbert Lopez (Philippines)	(632) 857 0892

Consumer, Gaming

Linda Huang (Asia)	(852) 3922 4068
Zibo Chen (China, Hong Kong)	(852) 3922 1130
Terence Chang (China, Hong Kong)	(852) 3922 3581
Sunny Chow (China, Hong Kong)	(852) 3922 3768
Stella Li (China, Taiwan)	(8862) 2734 7514
Satsuki Kawasaki (Japan)	(813) 3512 7870
Kwang Cho (Korea)	(822) 3705 4953
KJ Lee (Korea)	(822) 3705 9935
Amit Sinha (India)	(9122) 6720 4085
Karisa Magpayo (Philippines)	(632) 857 0899
Chalinee Congmuang (Thailand)	(662) 694 7993

Emerging Leaders

Jake Lynch (Asia)	(852) 3922 3583
Kwang Cho (Korea)	(822) 3705 4953
Corinne Jian (Greater China)	(8862) 2734 7522
Conrad Werner (ASEAN)	(65) 6601 0182

Industrials, Transport and Infrastructure

Patrick Dai (China)	(8621) 2412 9082
Eric Zong (China, Hong Kong)	(852) 3922 4749
Kunio Sakaida (Japan)	(813) 3512 7873
William Montgomery (Japan)	(813) 3512 7864
James Hong (Korea)	(822) 3705 8661
Corinne Jian (Taiwan)	(8862) 2734 7522
Inderjeetsingh Bhatia (India)	(9122) 6720 4087
Azita Nazrene (ASEAN)	(65) 6601 0560

Internet, Media and Software

Wendy Huang (Asia)	(852) 3922 3378
Ivy Luo (Greater China)	(852) 3922 1507
Marcus Yang (Greater China)	(8862) 2734 7532
David Gibson (Japan)	(813) 3512 7880
Soyun Shin (Korea)	(822) 3705 8659
Alankar Garude (India)	(9122) 6720 4134

Oil, Gas and Petrochemicals

Aditya Suresh (Asia)	(852) 3922 1265
Polina Diyachkina (Asia, Japan)	(813) 3512 7886
Yasuhiro Nakada (Japan)	(813) 3512 7862
Anna Park (Korea)	(822) 3705 8669
Corinne Jian (Taiwan)	(8862) 2734 7522
Yupapan Polpornprasert (Thailand)	(662) 694 7729

Pharmaceuticals and Healthcare

Wei Li (China, Hong Kong)	(852) 3922 5494
Alankar Garude (India)	(9122) 6720 4134
Patti Tomaitrichitr (Thailand)	(662) 694 7727

Property, REIT

Tuck Yin Soong (Asia, Singapore)	(65) 6601 0838
David Ng (China, Hong Kong)	(852) 3922 1291
Wilson Ho (China)	(852) 3922 3248
Keisuke Moriyama (Japan)	(813) 3512 7476
William Montgomery (Japan)	(813) 3512 7864
Corinne Jian (Taiwan)	(8862) 2734 7522
Abhishek Bhandari (India)	(9122) 6720 4088
Aiman Mohamad (Malaysia)	(603) 2059 8986
Kervin Sisayan (Philippines)	(632) 857 0893
Patti Tomaitrichitr (Thailand)	(662) 694 7727

Technology

Damian Thong (Asia, Japan)	(813) 3512 7877
Allen Chang (Greater China)	(852) 3922 1136
Jeffrey Ohlweiler (Greater China)	(8862) 2734 7512
Chris Yu (Greater China)	(8621) 2412 9024
Kaylin Tsai (Greater China)	(8862) 2734 7523
Louis Cheng (Greater China)	(8862) 2734 7526
Lynn Luo (Greater China)	(8862) 2734 7534
Patrick Liao (Greater China)	(8862) 2734 7515
Verena Jeng (Greater China)	(852) 3922 3766
Chenyu Yao (Japan)	(813) 3512 7849
Daniel Kim (Korea)	(822) 3705 8641
Abhishek Bhandari (India)	(9122) 6720 4088

Telecoms

Allen Chang (Greater China)	(852) 3922 1136
Soyun Shin (Korea)	(822) 3705 8659
Prem Jearajasingam (ASEAN)	(603) 2059 8989
Kervin Sisayan (Philippines)	(632) 857 0893
Nathania Nurhalim (Indonesia)	(6221) 2598 8365

Utilities, Renewables

Patrick Dai (China)	(8621) 2412 9082
Yingying Tang (China)	(852) 3922 3289
Inderjeetsingh Bhatia (India)	(9122) 6720 4087
Karisa Magpayo (Philippines)	(632) 857 0899

Economics and Macro

Ric Deverell	(612) 8232 4307
(Chief Economist & Head of Macro Research)	
Peter Eadon-Clarke (Global)	(813) 3512 7850
Larry Hu (China, Hong Kong)	(852) 3922 3778
Upasana Chachra (India)	(9122) 6720 4355

Quantitative, CPG

Gurvinder Brar (Global)	(44 20) 3037 4036
Alvin Chao (Asia)	(852) 3922 1108
Tracy Chow (Asia)	(852) 3922 4285
YingYing Hou (Asia)	(852) 3922 5422

Strategy, Country

Viktor Shvets (Asia, Global)	(852) 3922 3883
David Ng (China, Hong Kong)	(852) 3922 1291
Peter Eadon-Clarke (Japan)	(813) 3512 7850
Chan Hwang (Korea)	(822) 3705 8643
Jeffrey Ohlweiler (Taiwan)	(8862) 2734 7512
Inderjeetsingh Bhatia (India)	(9122) 6720 4087
Jayden Vantarakis (Indonesia)	(6221) 2598 8310
Anand Pathmakanthan (Malaysia)	(603) 2059 8833
Gilbert Lopez (Philippines)	(632) 857 0892
Conrad Werner (ASEAN, Singapore)	(65) 6601 0182
Passakorn Linmaneechote (Thailand)	(662) 694 7728

Find our research at

Macquarie:	www.macquarieresearch.com
Thomson:	www.thomson.com/financial
Reuters:	www.knowledge.reuters.com
Bloomberg:	MAC GO
Factset:	http://www.factset.com/home.aspx
CapitalIQ	www.capitaliq.com

Email macresearch@macquarie.com for access

Asia Sales

Regional Heads of Sales

Miki Edelman (Global)	(1 212) 231 6121
Amelia Mehta (Asia)	(65) 6601 0211
Jeff Evans (Boston)	(1 617) 598 2508
Jeffrey Shiu (China, Hong Kong)	(852) 3922 2061
Sandeep Bhatia (India)	(9122) 6720 4101
Thomas Renz (Geneva)	(41 22) 818 7712
Tomohiro Takahashi (Japan)	(813) 3512 7823
John Jay Lee (Korea)	(822) 3705 9988
Nik Hadi (Malaysia)	(603) 2059 8888
Gino C Rojas (Philippines)	(632) 857 0861

Regional Heads of Sales cont'd

Paul Colaco (San Francisco)	(1 415) 762 5003
Angus Kent (Thailand)	(662) 694 7601
Ben Musgrave (UK/Europe)	(44 20) 3037 4882
Christina Lee (UK/Europe)	(44 20) 3037 4873

Sales Trading

Adam Zaki (Asia)	(852) 3922 2002
Stanley Dunda (Indonesia)	(6221) 515 1555

Sales Trading cont'd

Suhaida Samsudin (Malaysia)	(603) 2059 8888
Michael Santos (Philippines)	(632) 857 0813
Chris Reale (New York)	(1 212) 231 2555
Marc Rosa (New York)	(1 212) 231 2555
Justin Morrison (Singapore)	(65) 6601 0288
Daniel Clarke (Taiwan)	(8862) 2734 7580
Brendan Rake (Thailand)	(662) 694 7707
Mike Keen (UK/Europe)	(44 20) 3037 4905

This publication was disseminated on 04 December 2017 at 16:52 UTC.