
Mizuho Economic Outlook & Analysis

September 2, 2016

What are the factors behind China's sharp investment slowdown?

The rise of uncertainty over economic policy may have affected investment in China

< Summary >

- ◆ Investment is currently slowing down in China mainly in the manufacturing industry. Government efforts, such as the dispatch of survey teams to various parts of the country and the announcement of measures to stimulate private investment, indicate the growing concerns of the Chinese government regarding the slowdown of investment.
- ◆ Over the medium term, the progress of deleveraging mainly among private enterprises is driving manufacturers to restrain investment. As short-term factors, “uncertainties regarding economic policy” may have served as downward pressures on investment among manufacturers.
- ◆ Looking forward, the overall investment slowdown will likely remain gradual, supported mainly by infrastructure investment. However, should uncertainty rise over the nation's policy to eliminate overcapacity, there is a risk that manufacturing investment will contract even further.

Mizuho Research Institute Ltd.

Yoshino Tamai, Senior Economist, China Unit, Research Department – Asia

yoshino.tamai@mizuho-ri.co.jp

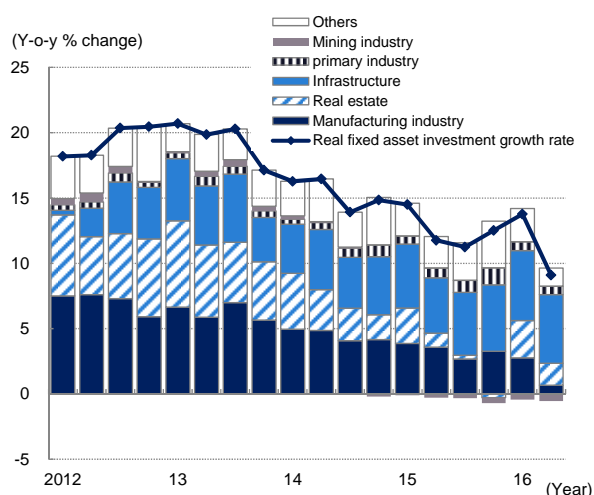
This publication is compiled solely for the purpose of providing readers with information and is in no way meant to encourage readers to buy or sell financial instruments. Although this publication is compiled on the basis of sources which Mizuho Research Institute Ltd. (MHRI) believes to be reliable and correct, MHRI does not warrant its accuracy and certainty. Readers are requested to exercise their own judgment in the use of this publication. Please also note that the contents of this publication may be subject to change without prior notice.

1. Investment in China is slowing down mainly among manufacturers and private enterprises

Investment in China is slowing down at a faster pace. Fixed asset investment in the Apr-Jun quarter of 2016 grew +9.1% y-o-y in real terms, showing a significant slowdown from the +13.8% y-o-y growth marked in the previous (**Chart 1**). Looking at the breakdown by industry, in addition to the decline in contribution by real estate investment, the slowdown of investment in the manufacturing sector is particularly notable. Also, by investment entity we can see that private investment has declined sharply (**Chart 2**). The Chinese government promptly reacted to falling investment by dispatching a survey team to each region at the end of May and July this year, and announced stimulus measures to boost private sector investment¹ on July 4, demonstrating its growing concern over the sharp deceleration of investment.

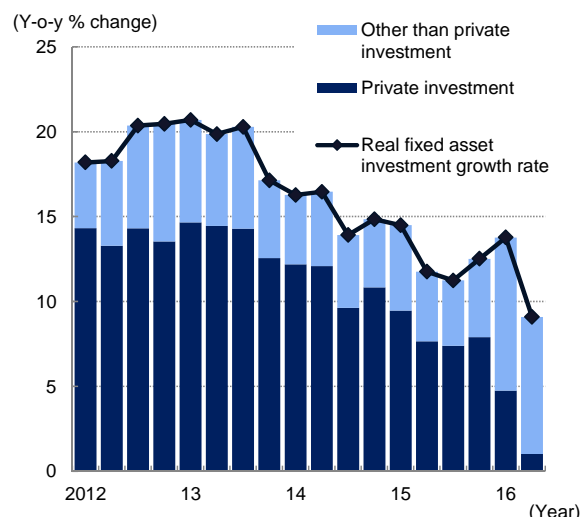
What are the underlying factors behind the sharp slowdown of investment mainly among manufacturers and private enterprises? In this report, we seek to shed light upon such factors and set forth our views on the outlook on investment in China.

Chart 1: Fixed asset investment (by industry)



Note: Real growth rate was calculated using the fixed asset price index.
Source: Made by MHRI based on the National Bureau of Statistics of China.

Chart 2: Fixed asset investment (by investment entity)



Note: Real growth rate was calculated using the fixed asset price index. Private investment is the sum of collective enterprises, private enterprises and sole proprietorships.
Source: Made by MHRI based on the National Bureau of Statistics of China.

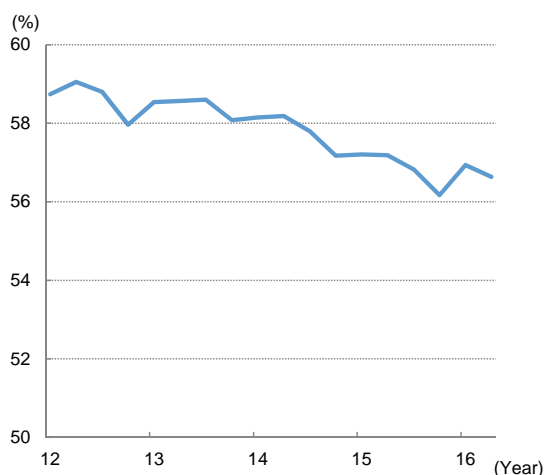
¹ 国务院办公厅「国务院办公厅关于进一步做好民间投资有关工作的通知」(General Office of the State Council of the People's Republic of China, "Notification on further improving the work of private investment") (Established on July 1, 2016, announced on July 4)

2. Deleveraging has probably pushed down investment among manufacturers

Investment in China's manufacturing sector has been slowing down for several years affected by the adjustment of excess debt that has piled up thus far. The background of this trend includes the Xi Jinping administration's recognition since 2014 that China's economy is in an transition to a "new normal" and its latest policy to moderate the pace of growth and transform the economic structure. In fact, if we look at the debt to total assets ratio of industrial enterprises, we see it has also been declining since 2014 (**Chart 3**). Therefore, it is likely that the slump in investment this time is a result of deleveraging (debt reduction).

Furthermore, a closer look at the industries with slowing investment shows that the debt ratio has generally fallen from the previous year, with the exception of automobile and non-ferrous metal industries, where the ratio of state-owned enterprises is high (**Chart 4**). From this, we can infer that the deleveraging trend mainly among private enterprises is driving investment down.

Chart 3: Debt to total assets ratio of industrial enterprises)



Note: Debt to total assets ratio = debt / total assets
Source: Made by MHRI based on the National Bureau of Statistics of China.

Chart 4: Manufacturing sectors with falling investment and debt to total assets ratio / state-owned enterprise ratio

	Contribution to fixed asset investment by manufacturing sector Q1 2016 -> Q2 2016 (%pt)	Change in debt ratio Q1 2015 -> Q1 2016 (%pt)	State-owned enterprise ratio 2014 (%)
Manufacturing industry	-4.6		
Automobile	-1.5	0.5	43.6
General purpose machinery	-0.7	-1.6	10.6
Specialized purpose machinery	-0.7	-0.9	14.2
Computer / communication / electronic products	-0.6	-1.4	8.5
Non-metallic mineral products	-0.4	-0.4	8.7
Rubber / plastics	-0.4	-1.7	4.2
Electrical machinery / apparatus	-0.3	-0.2	8.3
Chemicals	-0.3	-1.0	16.0
Lumber	-0.3	-0.6	1.6
Apparel / accessories	-0.2	-0.5	0.9
Liquor / beverages	-0.2	-0.8	16.0
Non-ferrous metals	-0.2	1.4	32.5
Printing / recording media	-0.2	-1.3	7.5

Note: The table depicts the manufacturing sectors whose contribution to manufacturing investment dropped by more than 0.2%pt from Q1 to Q2 2016. The state-owned enterprise ratio shows the share of revenue from principal activities by state-owned enterprises in the total revenue from principal activities by all enterprises.

Source: Made by MHRI based on the National Bureau of Statistics of China.

However, it is difficult to explain the recent sharp slowdown of investment solely by deleveraging, since it is only a medium term factor placing downward pressure upon investment. While the Chinese government has cited (1) the entry barrier facing private enterprises in certain industries (such as airports, communications infrastructure, medical care and education), (2) the high cost of fund procurement for small and medium sized private enterprises, and (3) the complexity of administrative procedures as the reasons behind the investment slowdown, these problems have always existed in China. Despite the certainty that these serve as factors restraining investment, there are no signs of a sudden exacerbation of such problems.² Thus, these factors are insufficient to explain the short-term trend of investment.

3. The rise of “uncertainty over economic policy” may have driven down investment among manufacturers

To ascertain the short-term factors that have led to the investment slowdown, we conducted the Granger-causal analysis on manufacturers’ investment and related indices (**Chart 5**).³ As related indices, we selected (1) manufacturing enterprises’ earnings, (2) base lending rate (index representing investment cost), and (3) the economic policy uncertainty index (**Chart 6**). As a result, while we could not confirm any evidence of a direct relationship between lending interest rates as well as enterprises’ earnings and investment, we were able to confirm a causal relationship between the “economic policy uncertainty index” and manufacturing investment based on the Granger analysis. This means that heightening uncertainty over the nation’s economic policy may be responsible for the recent slowdown of investment growth. Even within China, some analysts point out that the recent slump in investment may be due to the difficulty of projecting the degree to which the government will support the economy, and the extent to which structural reform will proceed, given that the current policy of the Chinese government aims at maintaining stable growth while advancing structural reform.⁴ However, results

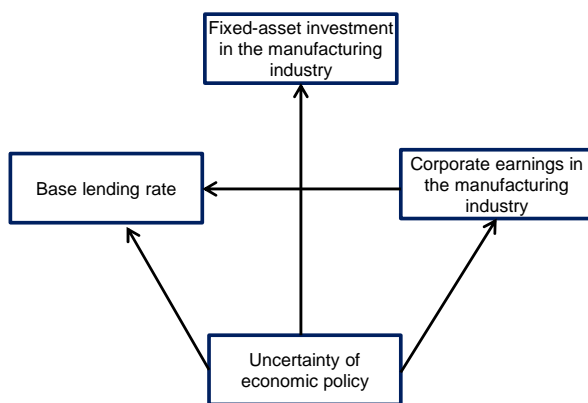
² For example, looking at the current situation of the fund procurement cost, the weighted average general lending rate announced by the People’s Bank of China was 5.58% at the end of June 2016, lower than 5.67% recorded at the end of March. We estimated the lending rate to enterprises other than state-owned enterprises using the lending rate to state-owned enterprises (assumed to be 0.9x of the base lending rate) and the share of lending to state-owned enterprises out of the total lending to domestic enterprises. But the figure derived by our estimation as of the end of June 2016 was lower than that at the end of March, and we could not produce any results that implied an increase in the current fund procurement cost.

³ With a view to clarifying how manufacturing industry investment is affected by various investment-related indices, we estimated a VAR (vector autoregressive) model using the four variables of (1) corporate earnings of the manufacturing industry, (2) base lending rate, (3) the economic policy uncertainty index, and (4) fixed asset investment in the manufacturing industry. Prior to estimating the model, we tested the Granger-causal relationship to confirm the connection between those variables. For example, we selected variable X and variable Y, and if employment of Y’s past data improves X’s expected performance in the future, these two variables are considered to have a Granger-causal relationship. In addition, we also estimated the impulse response function to see how external shock may affect the variables that constitute the VAR model compared to when no external shock is given.

⁴ For example, 「政策不确定性、产权歧视和杠杆率国进民退」『财新网』 (“policy uncertainty, discrimination based on the ownership

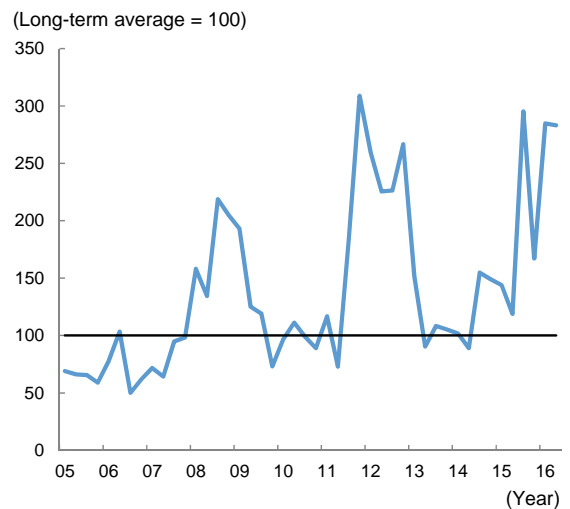
of impulse response analysis shows that the downward impact of such uncertainty will last only for a short period of about two quarters. This implies that while the ongoing deleveraging trend and various factors cited by the Chinese government are dragging down investment over the medium term, the rise of uncertainty regarding economic policy may have pushed investment down in the short term.

Chart 5: Granger-causal relationship between manufacturing investment and related indices



Notes: 1. The estimation period is Q1 2005 to Q2 2016. The lag order is one quarter. The arrows show the Granger-causal relationship with at least a 10% significance level.
 2. We used quarterly changes from the previous year for fixed asset investment in the manufacturing industry, y-o-y change for corporate earnings in the manufacturing industry, and raw data for the base lending rate and uncertainty over economic policy.
 Source: Made by MHRI based on the People’s Bank of China, National Bureau of Statistics of China and Economic Policy Uncertainty.

Chart 6: Economic policy uncertainty index



Note: The above index was calculated with 100 as the average share of articles in which the uncertainty-related words of “China,” “economic policy” and “uncertainty” appear at the same time in the South China Morning Post newspaper from January 1995 through December 2011.
 Source: Made by MHRI based on Economic Policy Uncertainty.

One of the reasons why investment-related indices such as interest rates and earnings show no clear relationship with manufacturing investment is that state-owned enterprises undertaking government-led projects may be conducting investment irrespective of interest rates and earnings conditions because they are backed by the government’s “implicit government guarantee.”⁵ Furthermore, it may be the case that even enterprises able to benefit from a favorable investment environment, such as low interest rates and

structure in enterprises, the rise of leverage in the state-owned sector in contrast to deleveraging in the private sector”, Caixin Online (July 26, 2016), 「流动性陷阱还是不确定性陷阱：为何 M1 增速还在攀升」『财新网』 (“Liquidity trap or Uncertainty trap: Why M1 growth is still rising”) (July 5, 2016), among others.

⁵ To verify the presence of such plausibility, it is necessary to confirm the Granger-causal relationship between the related indices for investment by state-owned enterprises and private enterprises, respectively. This remains an issue for us to address in the future, including which indices to employ in the analysis.

high earnings, are now refraining from making new investments as their investment appetite becomes negatively affected by the growing uncertainty over the government's economic policy, as mentioned earlier. Sheng Songcheng, head of Statistics and Analysis Department at the People's Bank of China, also stated recently that even with ample funds injected into the economy and lower interest rates, weak investment appetite by firms is weighing down on investment recovery.⁶

4. Investment may decline even further should uncertainty heighten over the pace of eliminating overcapacity

What specifically are the uncertainties that may affect investment in the manufacturing sector? Given that the uncertainty index hovered in the upper range in mid-2015 and early 2016 when stock prices in Shanghai and the value of Chinese yuan fell sharply, it is highly likely that financial market turmoil will heighten uncertainty over the nation's economic policy and have a negative impact on investment. Going forward, given the string of events that may impact the entire global financial market, such as the potential interest rate hike in the US, the US presidential election and Brexit, fluctuation in the Chinese financial market may easily grow larger. In the event the financial market turmoil grows larger than expected, existing monetary and fiscal policies may face adjustment, making firms that prefer to watch policy developments hesitate to undertake immediate investment.

Furthermore, uncertainty over the elimination of overcapacity also exists. Currently, the Chinese government has announced the 2016 year-round target and medium-term target for the next three to five years concerning the elimination of overcapacity in the steel and iron / coal industries (**Chart 7**), but the pace of adjustment in other industries burdened with overcapacity, such as non-metallic mineral products (cement and glass) and shipbuilding, remains unclear. The elimination of overcapacity in the steel and iron / coal industries has fallen behind their respective targets with an achievement rate of 47% and 38% respectively from January through July 2016. In order to realize their targets, enterprises in these industries are expected to restrain new investment. However, since the share of investment made by these two industries accounts for only 1% of total investment, their impact on the overall investment landscape will likely be limited. Even so, since total investment by industrial sectors saddled with overcapacity is estimated to account for about 10% of total fixed asset investment as of 2015 (**Chart 8**), in the event

⁶ 「专访央行调统司司长盛松成：降税优于降息」『第一财经』(Interview with Sheng Songcheng, head of Statistics and Analysis Department at the People's Bank of China, "Lowering taxes is better than cutting interest rates" Yicai Online) (August 21, 2016)

of the rise of uncertainties regarding economic policy, its impact upon overall investment through the dampening of investment appetite may no longer be ignored.

In the future, while overall investment in China is expected to continue slowing under the deleveraging trend, the pace of slowdown will likely remain gradual supported by further investment in infrastructure and new industrial fields. Nevertheless, we need to remain alert to the risk of a further decline in manufacturing investment if uncertainty over the government’s economic policy deepens, particularly related to financial market turmoil and how the elimination of overcapacity will develop in the future.

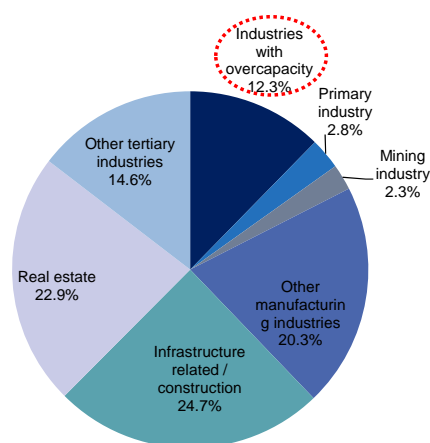
Chart 7: Target and achievement of overcapacity elimination in the steel and iron / coal industries

	Iron & steel	Coal
Production capacity	1.2 billion tons	5.7 billion tons
Production volume	0.8 billion tons	3.7 billion tons
Overcapacity	0.4 billion tons	2.0 billion tons
Operating rate	67%	65%
Medium-term elimination target	0.1 – 0.15 billion tons in 5 years from 2016 (about 6% to 13% of production capacity)	More than 0.5 billion tons in 3 to 5 years from 2016 (about 12% of production capacity)
Elimination target in 2016	45 million tons	More than 0.25 billion tons
Actual elimination results from January through July 2016	21 million tons (about 47% of the full-year target)	95 million tons (about 38% of the full-year target)

Note: Production capacity of iron and steel is taken from the China Iron and Steel Association. Production capacity of coal is taken from a statement by Lian Weiliang from the National Development and Reform Commission. Production volume is taken from the National Bureau of Statistics of China. Overcapacity = (production capacity) – (production volume). Operating rate = production volume / production capacity.

Source: Made by MHRI based on the China Iron and Steel Association, National Development and Reform Commission, National Bureau of Statistics of China, and various media coverage.

Chart 8: Share of fixed asset investment by sector (2015)



Note: Industries with overcapacity include coal / petroleum processing, iron and steel, non-ferrous metals, non-metallic mineral products, chemical raw materials / products, paper manufacturing, leather products, apparel / accessories, electrical machinery / electric goods, transportation machinery such as railways, ships and aircraft.

We classified investment based on 「工业和信息化部关于下达 2015 年重点行业淘汰落后和过剩产能目标任务的通知」 (“Notification by the Ministry of Industry and Information Technology on Formulating Targets for Eliminating Backward and Excess Capacity in Key Industries in 2015”) (2015), which sets the elimination target by industry with overcapacity. “Other manufacturing industries” exclude those industries with overcapacity. “Other tertiary industries” exclude those industries related to infrastructure and real estate.

Source: Made by MHRI based on the Ministry of Industry and Information Technology and National Bureau of Statistics of China.