

PMI Quarterly on China Manufacturing

China Federation of Logistics & Purchasing

China Federation of Logistics & Purchasing (CFLP) is the logistics and purchasing industry association approved by the State Council. CFLP's mission is to push forward the development of the logistics industry and the procurement businesses of both government and enterprises, as well as the circulation of factors of production in China. The government authorizes the CFLP to produce industry statistics and set industry standards. CFLP is also China's representative in the Asian-Pacific Logistics Federation (APLF) and the International Federation of Purchasing and Supply Management (IFPSM).

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PMI indicates slower contraction of the manufacturing sector

- Output growth reaccelerates.
- New orders index shows an improvement in demand for industrial products.
- Backlogs of orders index drops to five-month low in September.
- Destocking activities continue.
- Purchasing activities decrease.
- Input prices continue to fall.
- Imports of production inputs continue to contract.
- Employment in the manufacturing sector decreases at a steady pace.
- Suppliers' delivery accelerates.
- Chinese manufacturers remain optimistic.

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1. PMI indicates slower contraction of the manufacturing sector

China's manufacturing PMI dropped from 50.0 in July to 49.7 in August, dipping into the contractionary zone. Afterwards, the PMI rose to 49.8 in September, indicating a slower contraction of the manufacturing sector. (See exhibit 1)

It is noteworthy to recognize the discrepancy by size of enterprises. The PMI of 'large enterprises' dropped from 50.6 in July to 49.9 in August, but then rebounded to 51.1 in September, returning to the expansionary zone. In fact, the PMI of 'large enterprises' has been consistently higher than the headline PMI in the past few months, indicating that large enterprises have been doing relatively well. The PMI of 'medium enterprises' fell from 50.0 in July to 49.8 in August, and further dropped to 48.5 in September, indicating that the performance of 'medium enterprises' has worsened lately. Meanwhile, the PMI of 'small enterprises' has stayed in the contractionary zone in recent months, registering 46.9, 48.1 and 46.8 in July, August and September respectively. The figures suggest that 'small enterprises' have been facing tough situations. (See exhibit 2)

The latest set of PMI data suggests that the economy has slightly improved, attributable to the positive impact of the pro-growth policies introduced by the government. The output index rebounded from 51.7 in August to 52.3 in September, indicating that the output growth reaccelerated in the month. Meanwhile, the new orders index rose above the critical 50-mark in September, indicating that the growth of overall new orders has turned positive recently.

Since November last year, the government has taken a series of actions to support the economic growth. For example, China's central bank has cut the benchmark interest rates and the required reserve ratio (RRR) for financial institutions a few times, and mortgage policies have been relaxed. Also noteworthy is that, on 1 October, the government reduced the purchase tax rate on passenger-vehicles with less than 1.6 litre engines to 5%.

Looking ahead, we expect that the government will continue its efforts to support the economic growth in coming future. On the monetary front, we expect to see further interest rate reductions and RRR cuts this year. On the fiscal front, the government is likely to speed up the construction of railways, highways, airports and national underground pipe systems, as well as the redevelopment of shanty towns and the renovation of dilapidated houses in near future. Meanwhile, the government will still place heavy emphasis on structural reforms. It is expected that reform packages on fiscal and taxation systems, financial system and legal system will be introduced in near future.

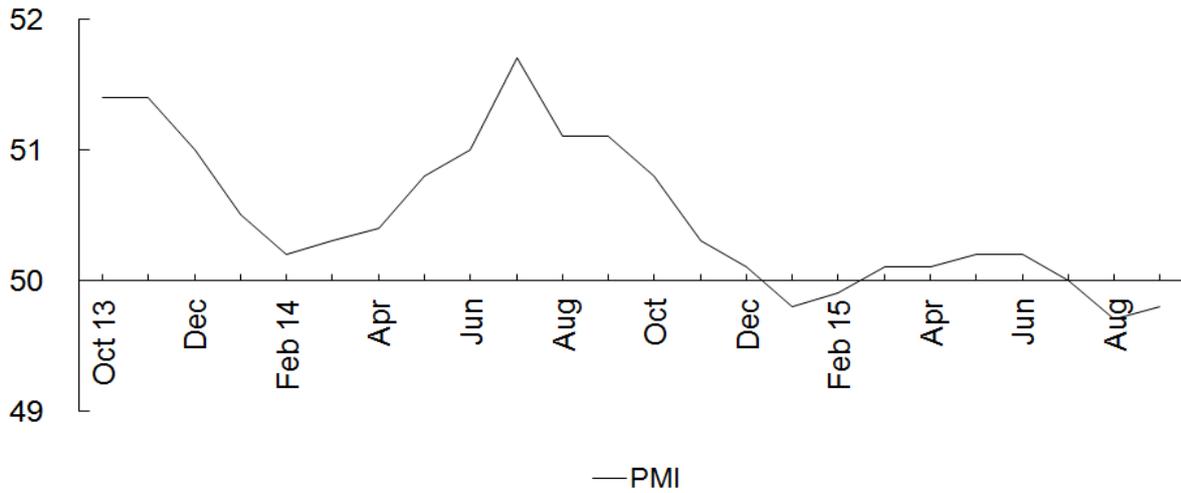
With the pro-growth policies continuing to take effect, we predict that China's economic growth

will stay stable or even show a slight improvement in 4Q15. Going forward, we expect the headline PMI to hover around 50 in 4Q15. We also forecast the real GDP growth to be around 6.9% yoy in 4Q15. In the coming months, industrial activities will be supported by the positive impact of the accommodative monetary policy and the accelerating construction of infrastructure. Negative factors, however, include the rising labour and environmental costs, intense competition in the international market, foreign protectionism, weaker luxury spending and the overcapacity problem. Overall, we expect the industrial production (VAIO) growth to be around 6% yoy in 4Q15.

Exhibit 3 shows that the slight improvement in the headline PMI in September was mainly attributed to the rise in the output index (which weighs 25% in the computation of the headline PMI) and the new orders index (weighs 30%). Among the 11 sub-indices (i.e. excluding the suppliers' delivery time index), 2 stayed in the expansionary zone over the past three months (output and business expectations). The indices of new export orders, backlogs of orders, stocks of finished goods, stocks of major inputs, imports, input prices and employment were below 50 throughout the past three months. (See exhibit 4)

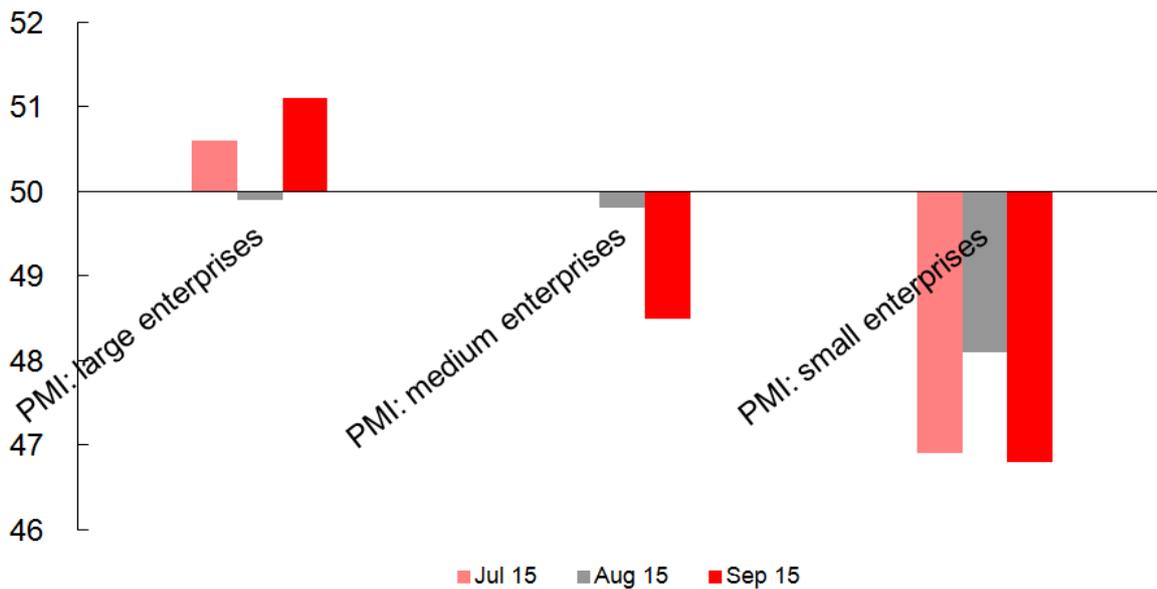
China's manufacturing PMI has so far done a satisfactory job in predicting economic growth. Exhibit 5 plots the quarterly real GDP yoy growth rates versus the monthly PMIs since its inception. It could be seen that the PMI demonstrates a fairly good track record of forecasting the growth trend of the economy at least over the next few months. Based on this chart we project that the real GDP growth will be around 6.9% yoy in 4Q15.

Exhibit 1: Headline PMI, October 2013 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

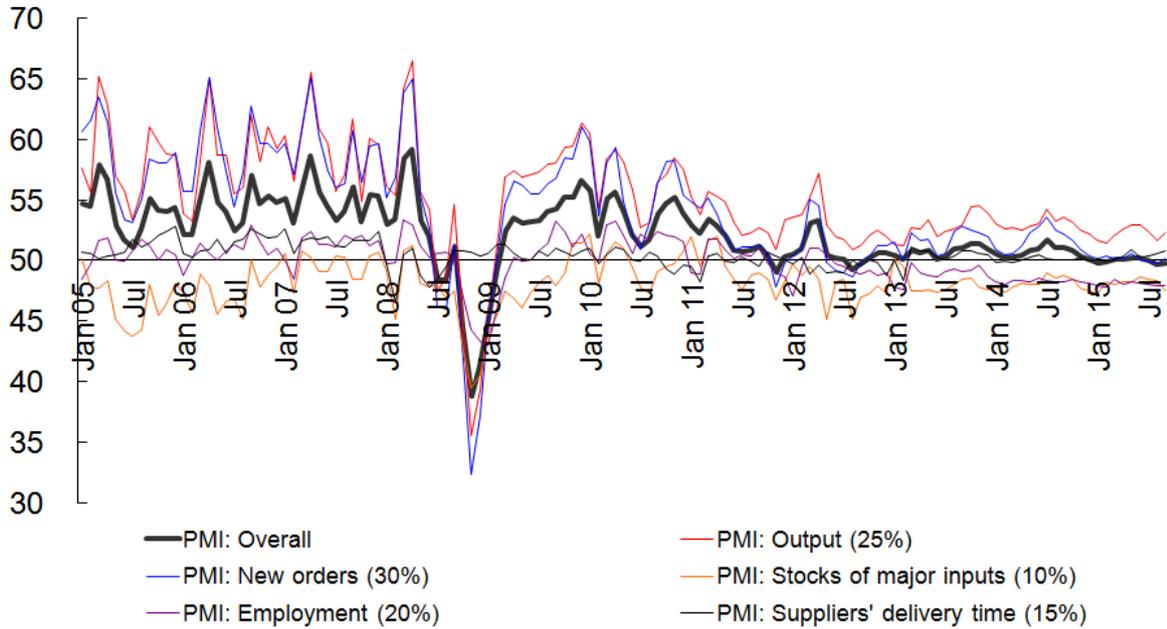
Exhibit 2: PMIs of large enterprises, medium enterprises and small enterprises, July to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

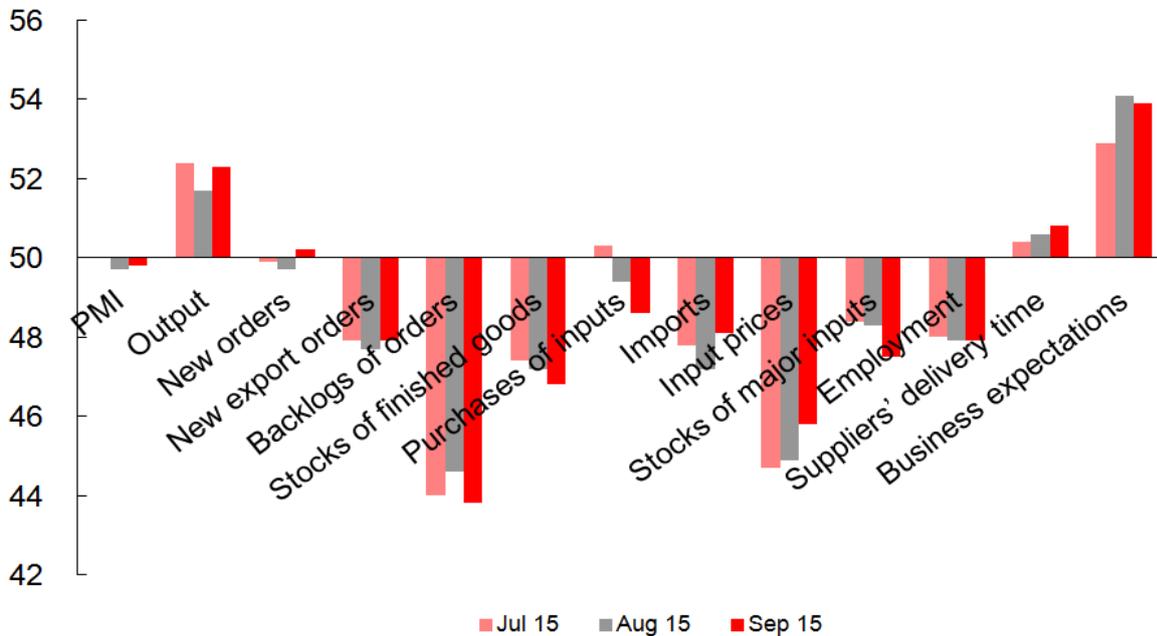
Exhibit 3: Headline PMI and sub-indices, January 2005 to September 2015

PMI = Output x 25% + New Orders x 30% + Stocks of Major Inputs x 10% + Employment x 20% + (100 - Suppliers' Delivery Time) x 15%



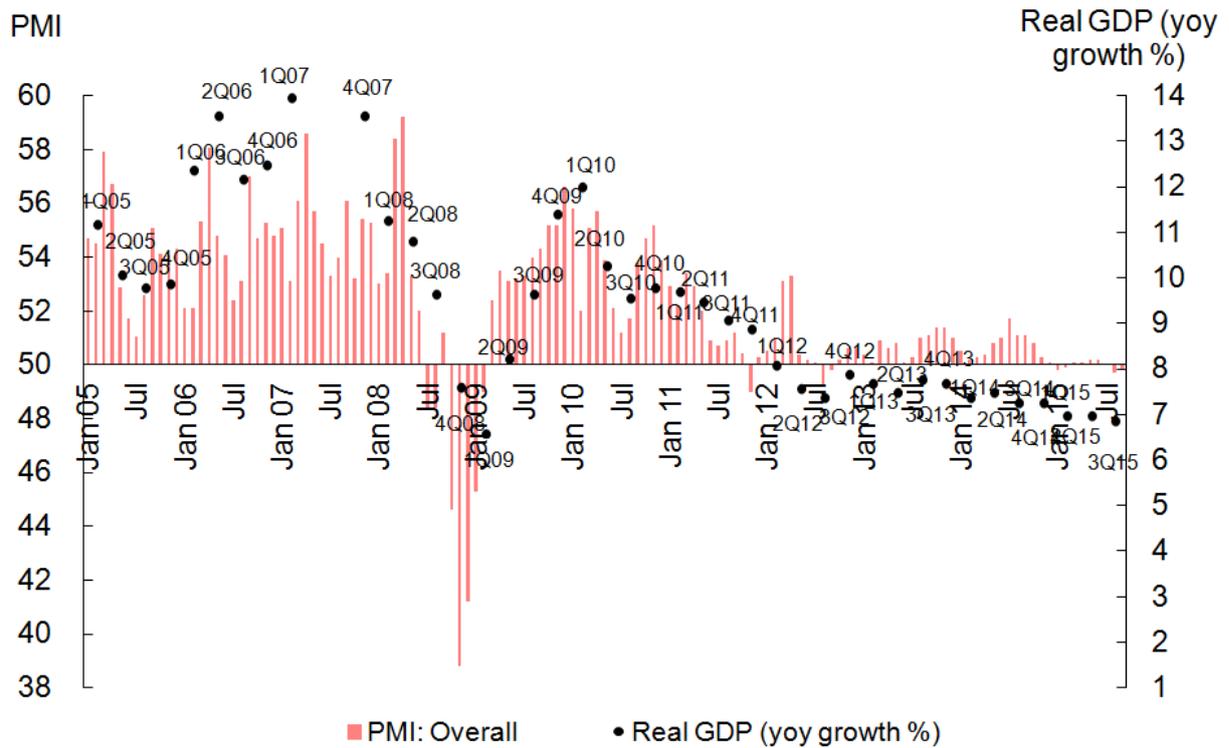
Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 4: Headline PMI and all sub-indices, July to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 5: Headline PMI and real GDP growth, January 2005 to September 2015



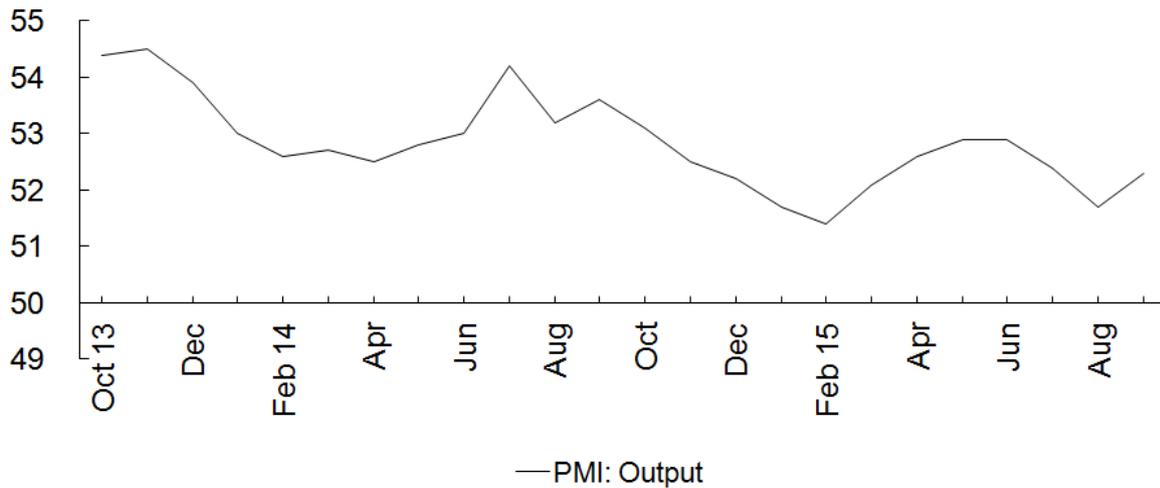
Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

2. Output growth reaccelerates

The output index dropped from 52.4 in July to 51.7 in August. In September, the index rebounded to 52.3, indicating that the output growth reaccelerated in the month. (See exhibit 6)

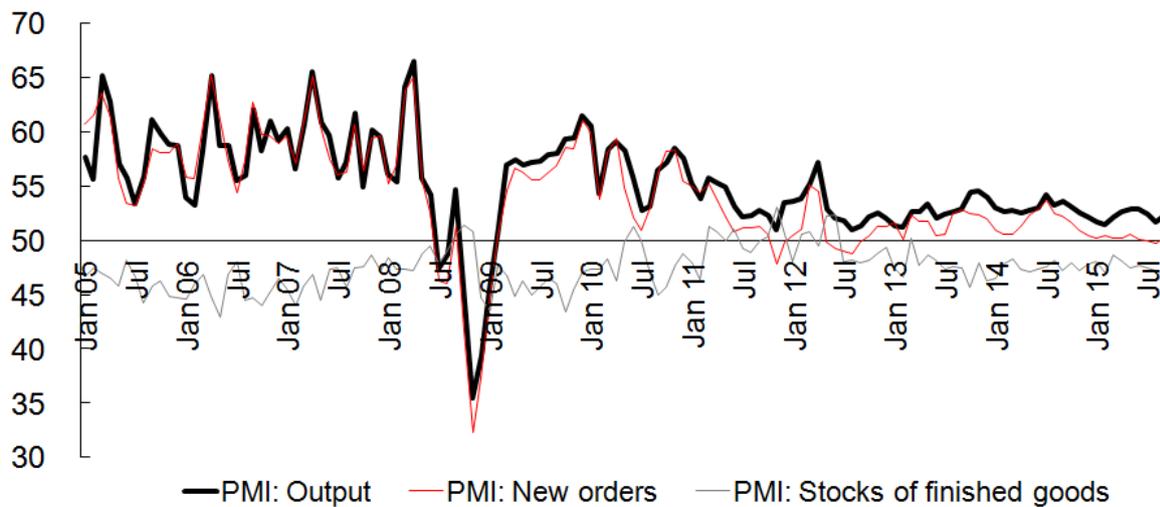
Exhibit 7 shows that the output growth was mainly fuelled by new orders growth instead of restocking activities, as the stocks of finished goods index has stayed in the contractionary zone for thirty consecutive months. However, output may grow strongly later when manufacturers have finally run out of their inventory or regained confidence to restock.

Exhibit 6: Output index, October 2013 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

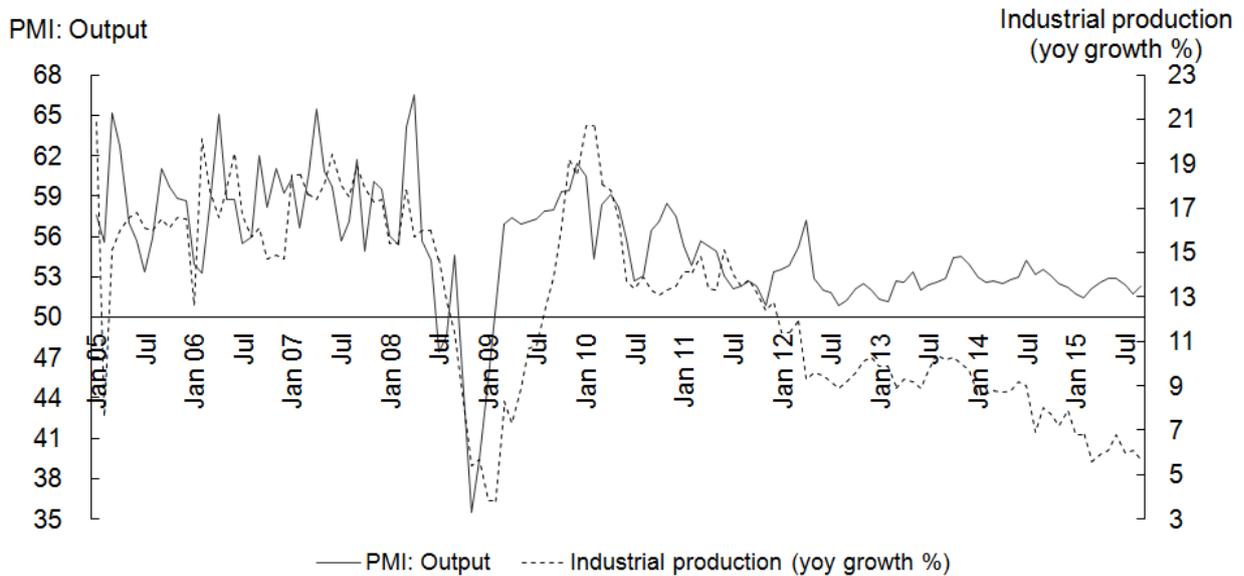
Exhibit 7: Output, new orders and stocks of finished goods, January 2005 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 8 demonstrates the correlation (with some lags) between the output index and the yoy growth of value-added of industrial output (VAIO). Looking ahead, we expect the VAIO growth to improve from 5.7% yoy in September to around 6% yoy in 4Q15, as the output index has risen lately. In the coming months, industrial activities will be supported by the positive impact of a more accommodative monetary policy and accelerating construction of infrastructure. Negative factors, however, include the rising labour and environmental costs, intense competition in the international market, foreign protectionism, weaker luxury spending and the overcapacity problem.

Exhibit 8: Output index and industrial production growth, January 2005 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

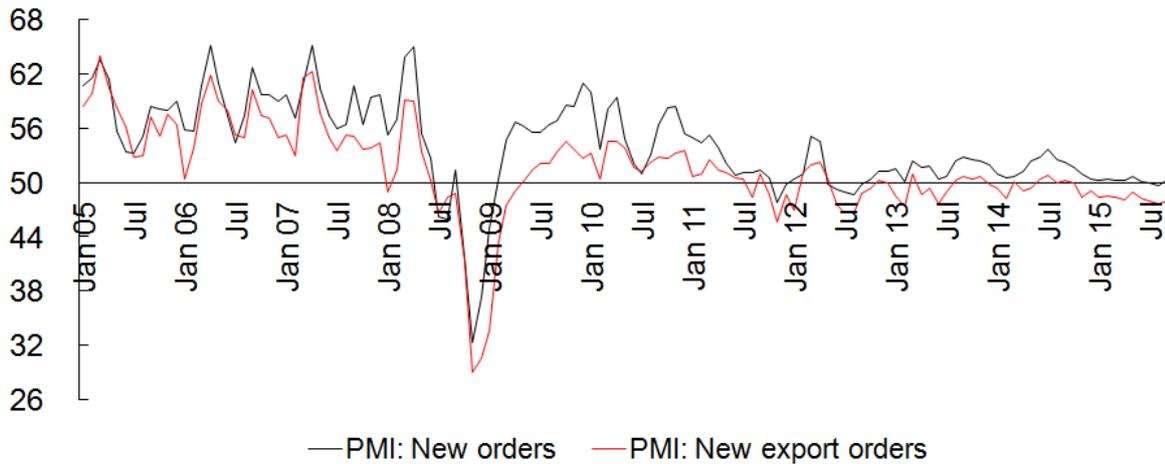
3. New orders index shows an improvement in demand for industrial products

After having dropped for three consecutive months, the new orders index rebounded by 0.5 pts from the previous month to 50.2 in September. The index returned to the expansionary zone in September, indicating that the growth of overall new orders has turned positive recently.¹ This shows that the demand for industrial products has improved.

Meanwhile, the new export orders index rose slightly from 47.7 in August to 47.9 in September, still below the neutral level of 50. The September reading indicates the contraction of the new export orders. (See exhibit 9)

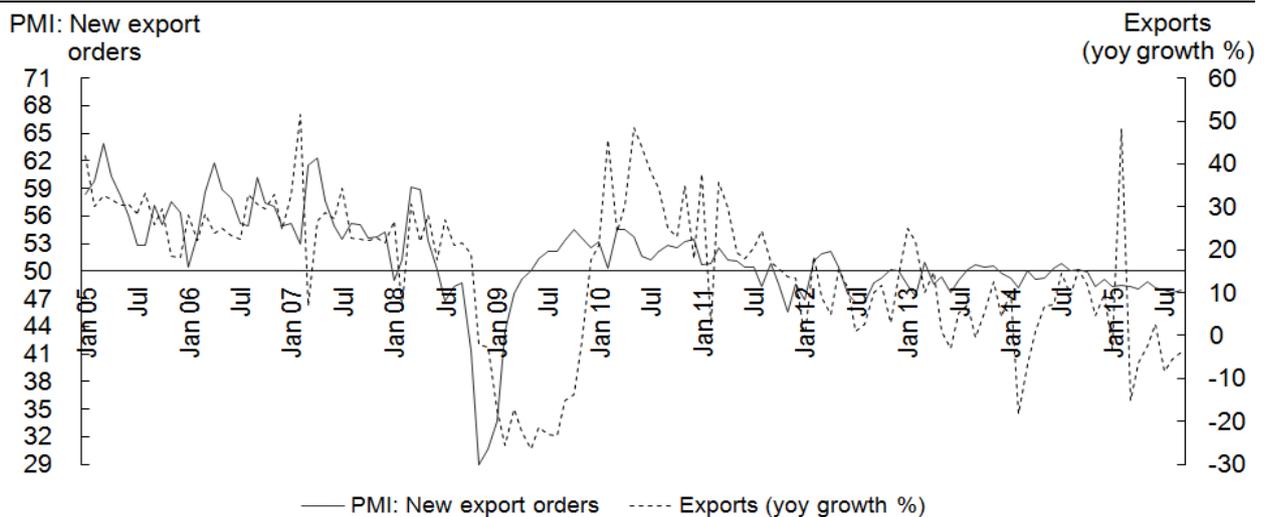
¹ We have received a number of enquiries on this point. The 'new orders index' covers both domestic orders and export orders. That is to say, the manufacturers are not asked to differentiate between domestic orders and export orders when filing in the questionnaires.

Exhibit 9: New orders index and new export orders index, January 2005 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 10: New export orders index and export growth, January 2005 to September 2015



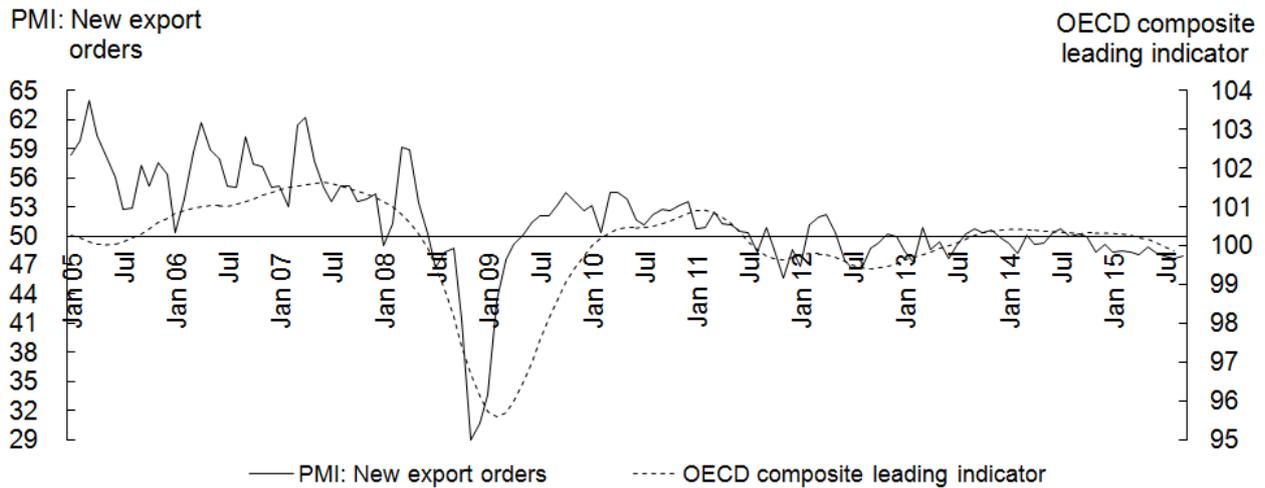
Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics, China Customs

Exhibit 10 plots the new export orders index against the yoy growth rates of China’s exports. The correlation between the two is fairly high, with the new export orders index leading the export yoy growth rate by about 3 months. As the new export orders index has dropped below the critical 50-mark since October last year, we have been slightly pessimistic over China’s export outlook. Besides, from exhibit 11 we can see that the new export orders index has been strongly correlated to the external economies, especially the developed economies. The OECD composite leading indicator² has continued its downward trend in recent months, which confirms our

2 The OECD composite leading indicator, compiled by the Organization for Economic Cooperation and Development, is designed to provide early signals of turning points (peaks and troughs) between expansions and slowdowns of economic activity, and covers Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

relatively pessimistic outlook for China’s exports. All in all, we expect to see single-digit decline in China’s exports in 4Q15.

Exhibit 11: New export orders index and OECD composite leading indicator, January 2005 to September 2015



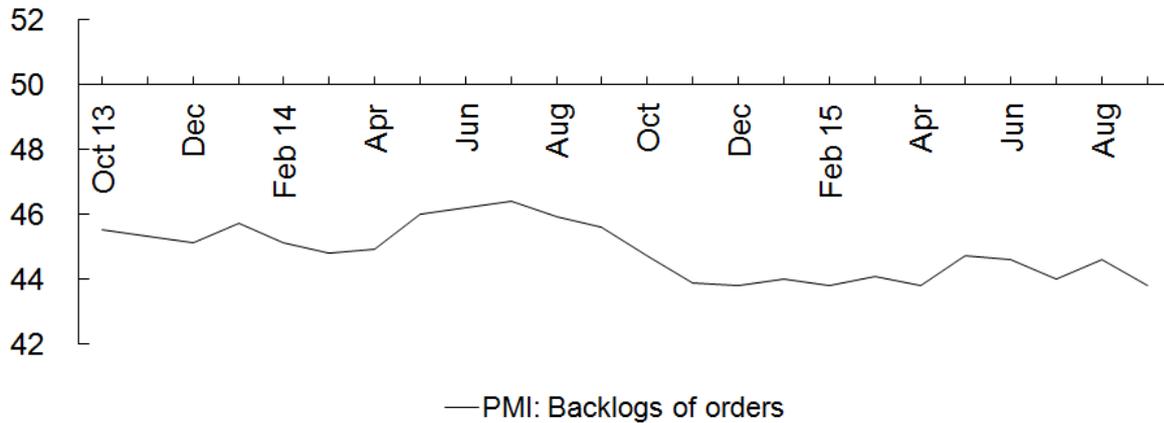
Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics, Organization for Economic Cooperation and Development

4. Backlogs of orders index drops to five-month low in September

The backlogs of orders index rose from 44.0 in July to 44.6 in August, but then dropped to a five-month low of 43.8 in September. The index has been in the contractionary zone since April 2012, indicating that backlogs of orders have continued to drop. (See exhibit 12)

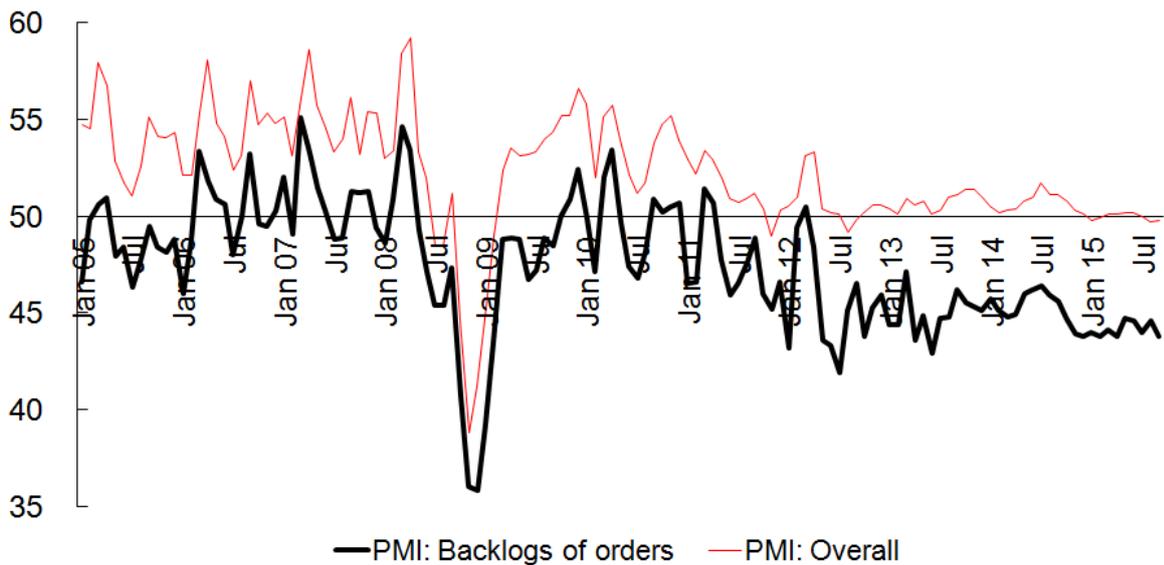
Looking ahead, we expect the index to stay relatively stable in the near term, as indicated by the apparently very high correlation between the sub-index and the headline PMI, and the recent stabilization of the headline PMI. (See exhibit 13)

Exhibit 12: Backlogs of orders index, October 2013 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 13: Backlogs of orders index and headline PMI, January 2005 to September 2015

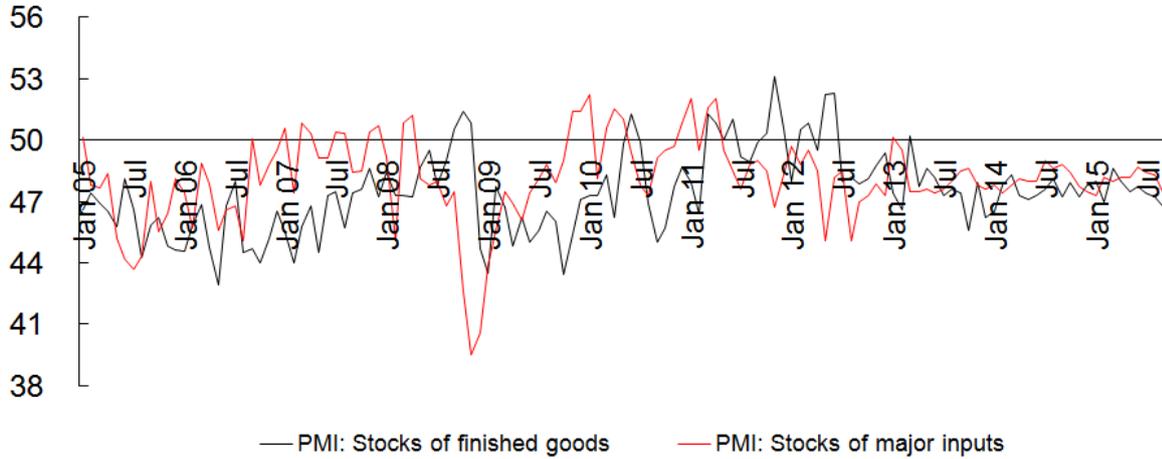


Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

5. Destocking activities continue

The stocks of major inputs index fell from 48.4 in July to 48.3 in August and 47.5 in September, while the stocks of finished goods index went down from 47.4 in July to 47.2 in August and 46.8 in September. These two indices stayed below the critical 50-mark in 3Q15, indicating that destocking activities have continued. (Exhibit 14) This also suggests that the inventories of major inputs and finished goods are now at relatively low levels. Any improvement in the confidence of manufacturers can easily drive up their restocking demand for major inputs.

Exhibit 14: Stocks of finished goods index and stocks of major inputs index, January 2005 to September 2015



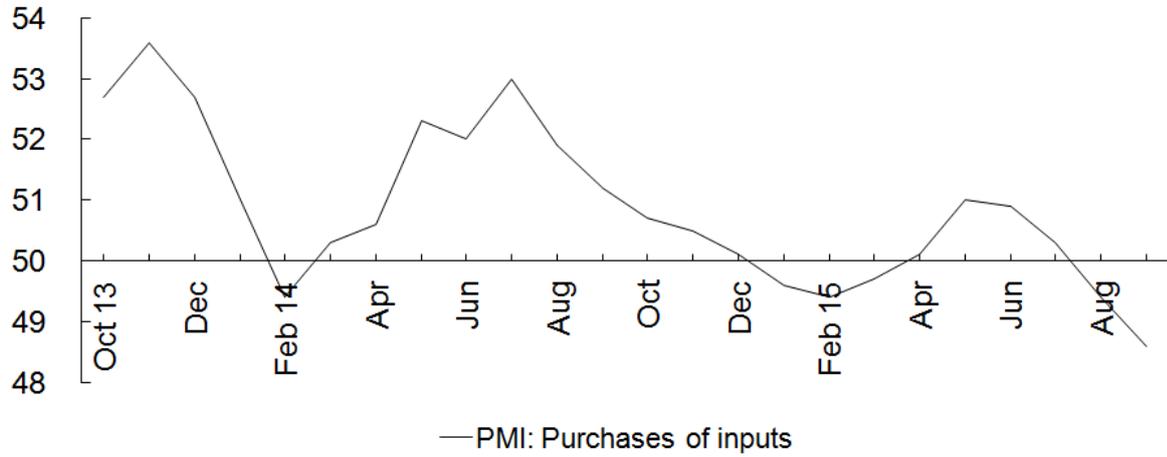
Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

6. Purchasing activities decrease

The purchases of inputs index dropped from 50.3 in July to 49.4 in August, and further fell to 48.6 in September, the lowest level since August 2012. (Exhibit 15) The index readings indicate that purchasing activities of manufacturers have decreased recently.

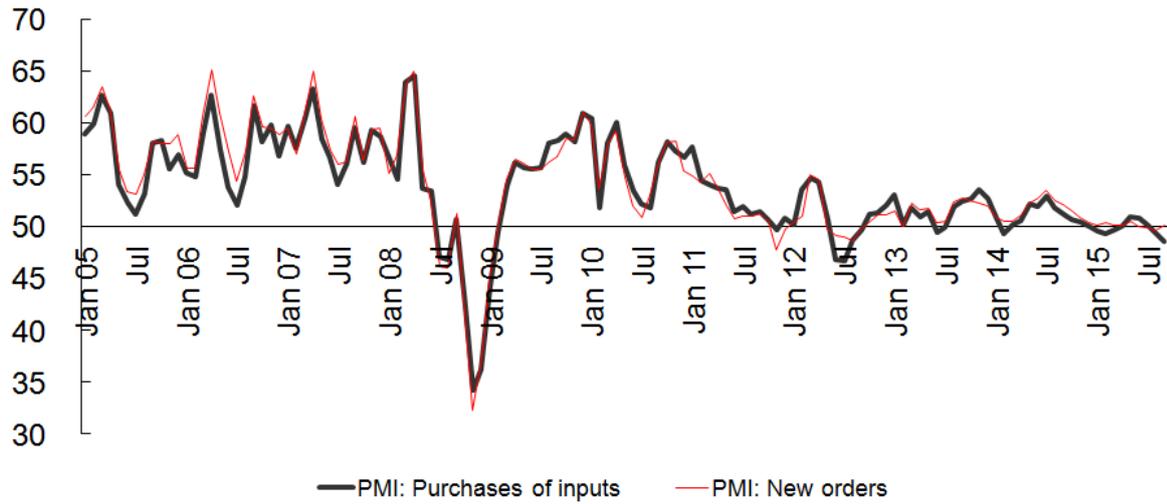
A number of factors affect the purchasing activities of manufacturers, among which the amount of new orders received by manufacturers has been the most important factor. Exhibit 16 plots the purchases of inputs index against the new orders index. The correlation between the two sub-indices is very strong. This is intuitively easy to explain – as manufacturers usually need to purchase extra inputs to cope with new orders. Looking ahead, we expect to see a recovery in purchasing activities, as the new orders index rose above the critical 50-mark in September, indicating that the month-on-month growth of new orders has turned positive lately. The purchasing activities also reflect business confidence. Exhibit 17 shows the association between the purchases of inputs index and the business expectations index. Credit conditions could be another factor. Finally, exhibit 18 shows that input prices, as well as the expected trend of input prices, are also important considerations when making purchasing decisions.

Exhibit 15: Purchases of inputs index, October 2013 to September 2015



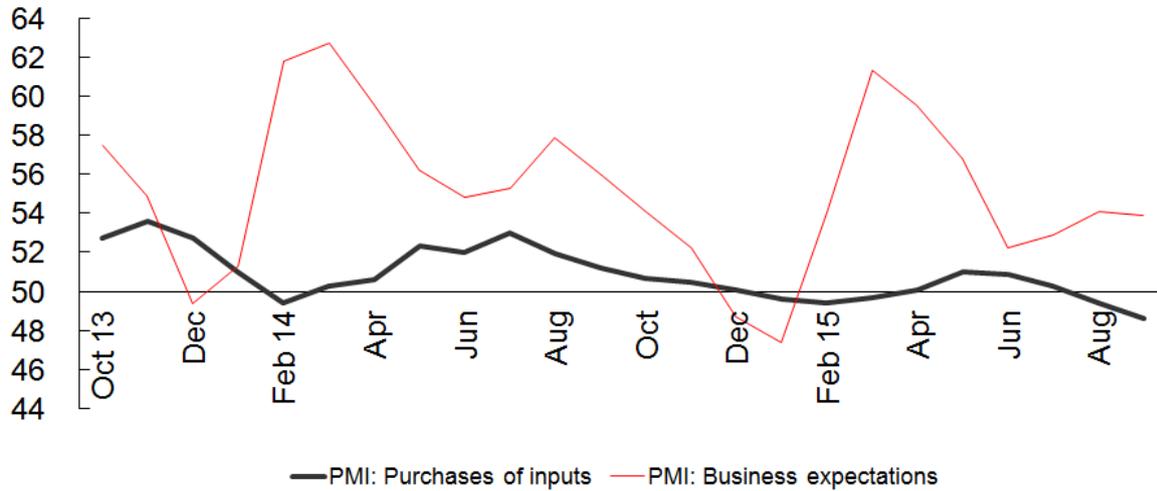
Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 16: Purchases of inputs and new orders, January 2005 to September 2015



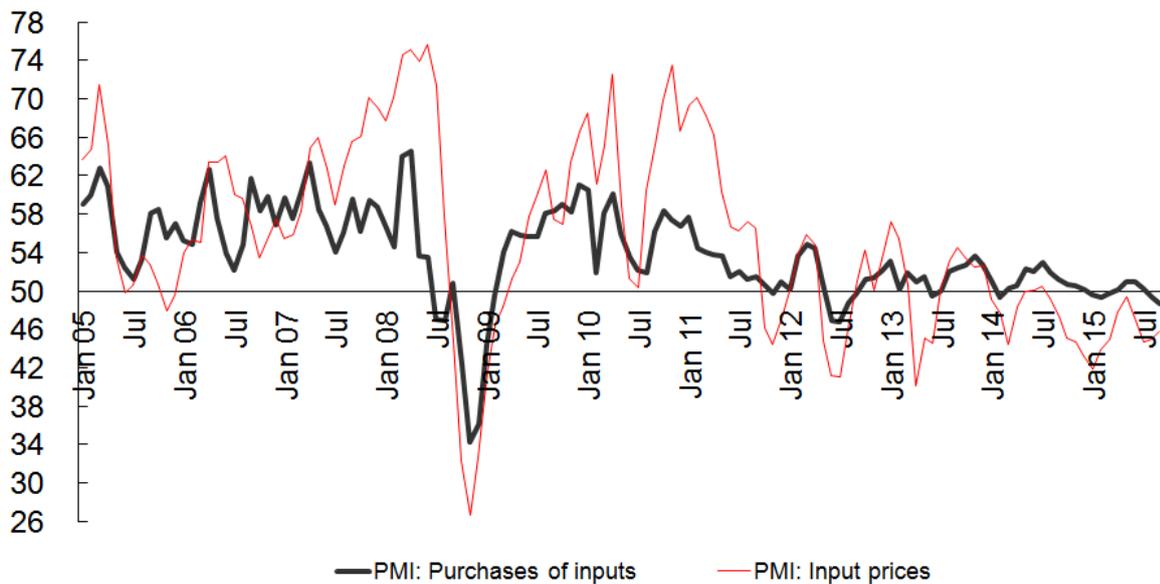
Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 17: Purchases of inputs and business expectations, October 2013 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 18: Purchases of inputs and prices of major inputs, January 2005 to September 2015

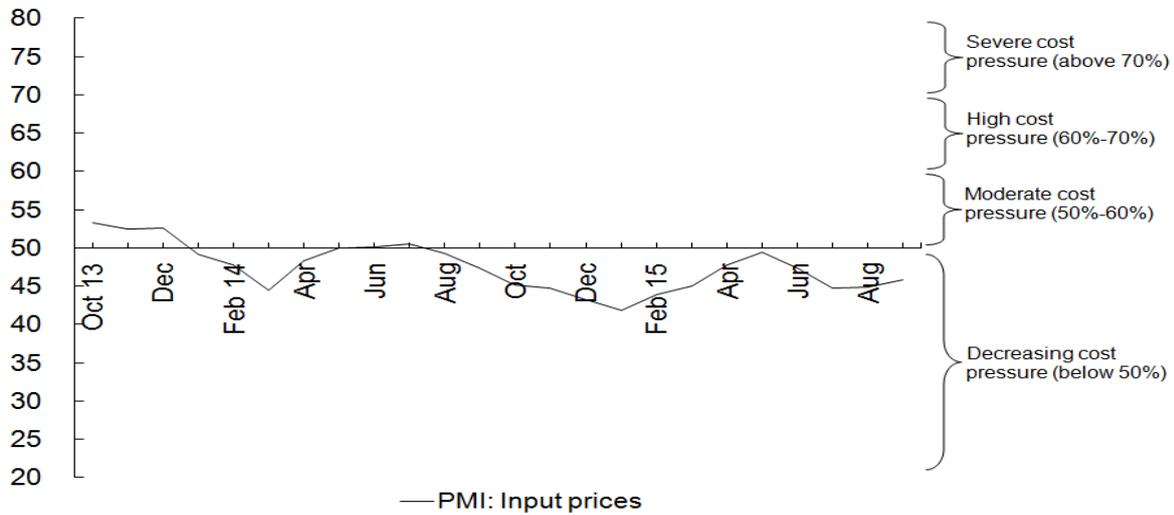


Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

7. Input prices continue to fall

The input prices index stayed low at 44.7, 44.9 and 45.8 in July, August and September, respectively. The index has been below the critical 50-mark since August last year, indicating that the domestic prices of major inputs have continued to fall. (Exhibit 19) In our view, the prolonged downtrend of prices of major inputs reflects the weak demand for industrial products.

Exhibit 19: Input prices index, October 2013 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

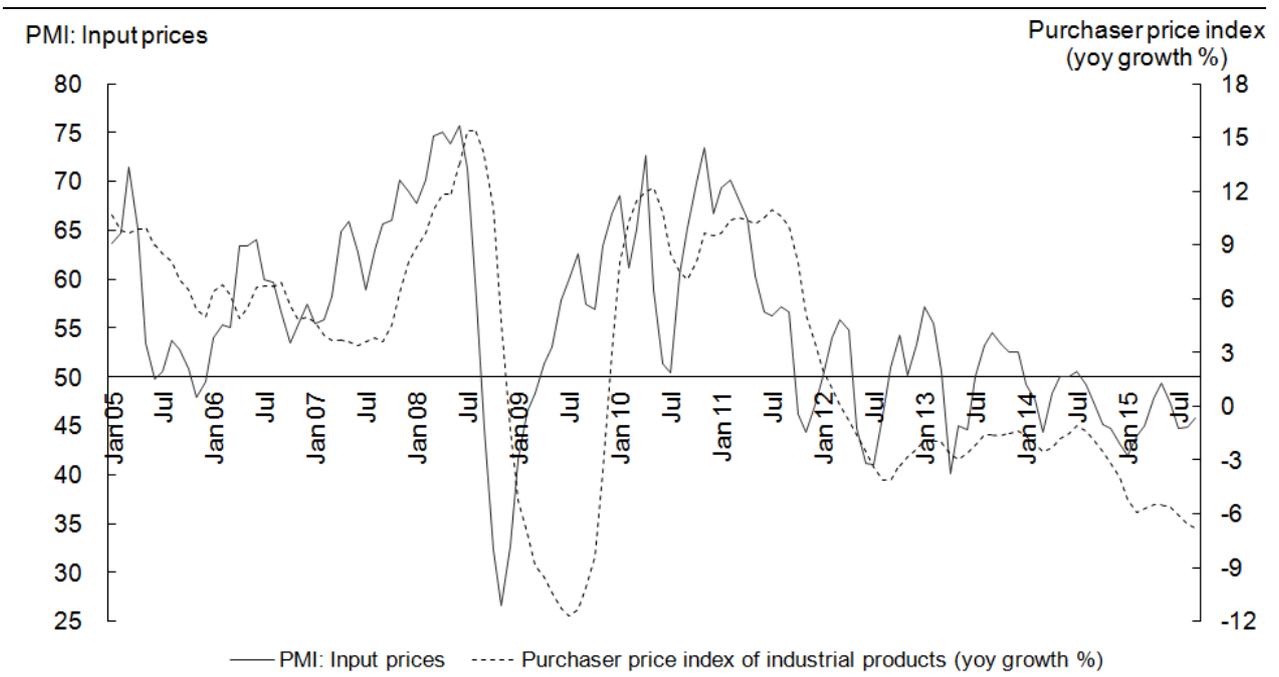
Exhibit 20 shows that the input prices index is useful as a leading indicator of upstream prices. The input prices index generally leads the yoy growth of the purchaser price index of industrial products³ by about 2 to 4 months. To show the association between the input prices index and ‘midstream’ prices, we plot the input prices index against the yoy growth of the producer price index (PPI)⁴ in exhibit 21. Going forward, we expect the yoy growth rates for both the purchaser price index and the PPI to stay low in near future. We also forecast the CPI growth to fluctuate between 1.3-2.0% yoy in 4Q15. Finally, to see the extent to which input costs of Chinese manufacturers are affected by global commodity prices, exhibit 22 puts together the input prices index and the Thomson Reuters/ CoreCommodity CRB index.⁵

3 The purchasing price index for raw material, fuel and power was renamed the purchaser price index of industrial products, effective from January 2011. The price index, compiled by the National Bureau of Statistics of China, measures the prices of production inputs such as raw materials, fuels and power, purchased by industrial enterprises.

4 The producer price index of industrial goods (PPI), compiled by China National Bureau of Statistics, measures the prices of industrial products when they are sold for the first time after production.

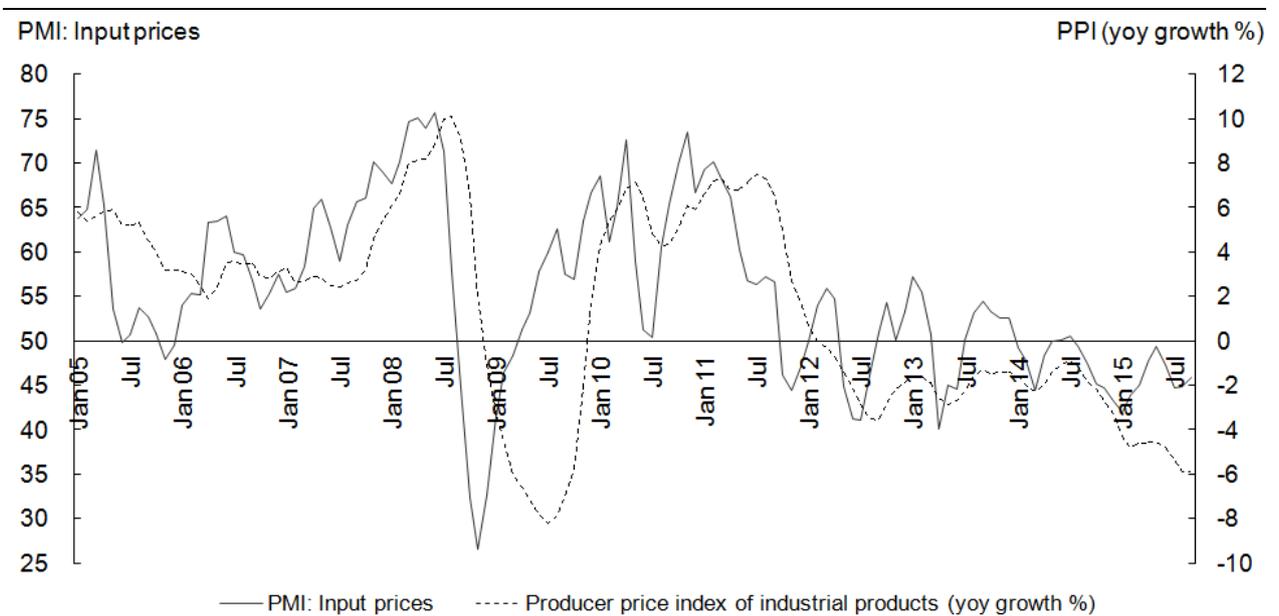
5 The Thomson Reuters/ CoreCommodity CRB Index, which comprises 19 commodities such as crude oil, aluminum, corn, cotton, gold, natural gas, soybeans, etc, has served as one of the most recognized measures of global commodities markets.

Exhibit 20: Input prices index and purchaser price index of industrial products, January 2005 to September 2015



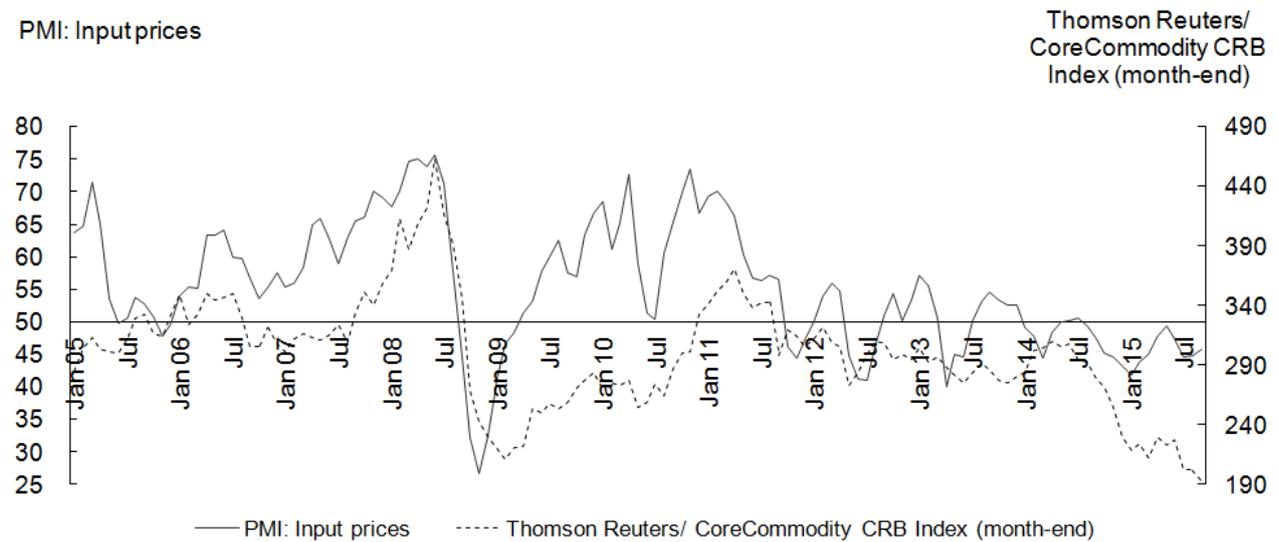
Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 21: Input prices index and producer price index, January 2005 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

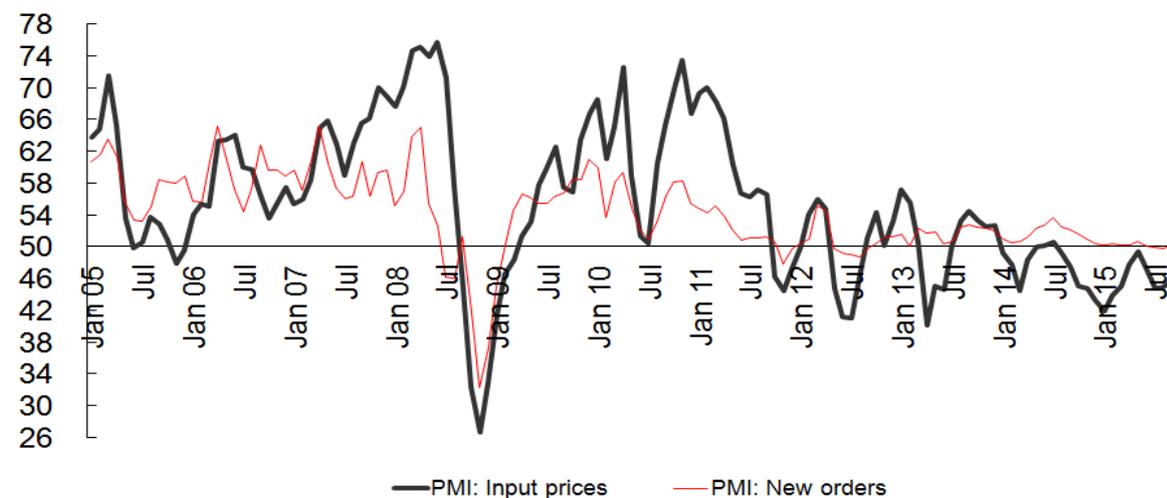
Exhibit 22: Input prices index and Thomson Reuters/ CoreCommodity CRB Index, January 2005 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics, Thomson Reuters

Exhibit 23 tries to give a convenient way of assessing and analyzing the profitability of Chinese manufacturers – since new orders represent source of new revenue and input prices represent production cost. If the former rises faster than the latter, profitability tends to improve, and vice versa. Recently, new orders have increased, while input prices have continued the downward trend. This bodes well for manufacturers’ profit margins in the coming future.

Exhibit 23: Input prices and new orders, January 2005 to September 2015

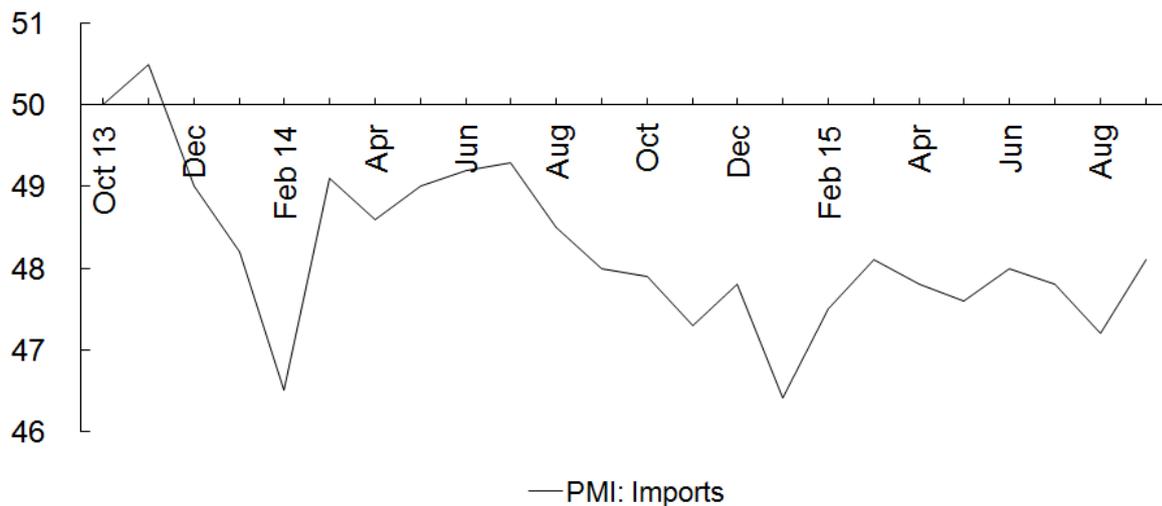


Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

8. Imports of production inputs continue to contract

The imports index stayed between 47.2 and 48.1 in July to September. In fact, the index has stayed below 50 for twenty two months, indicating that the imports of production inputs by Chinese manufacturers have been contracting. This also points to the sluggish domestic demand for raw materials and parts used in manufacturing. (Exhibit 24)

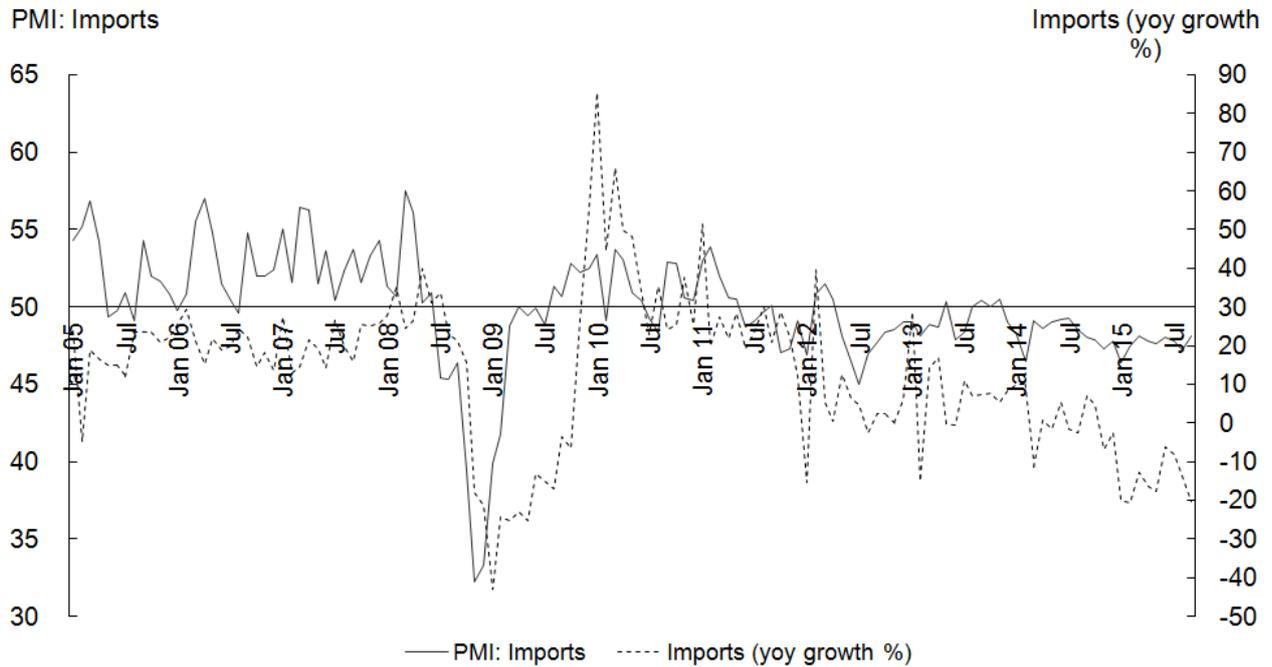
Exhibit 24: Imports index, October 2013 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

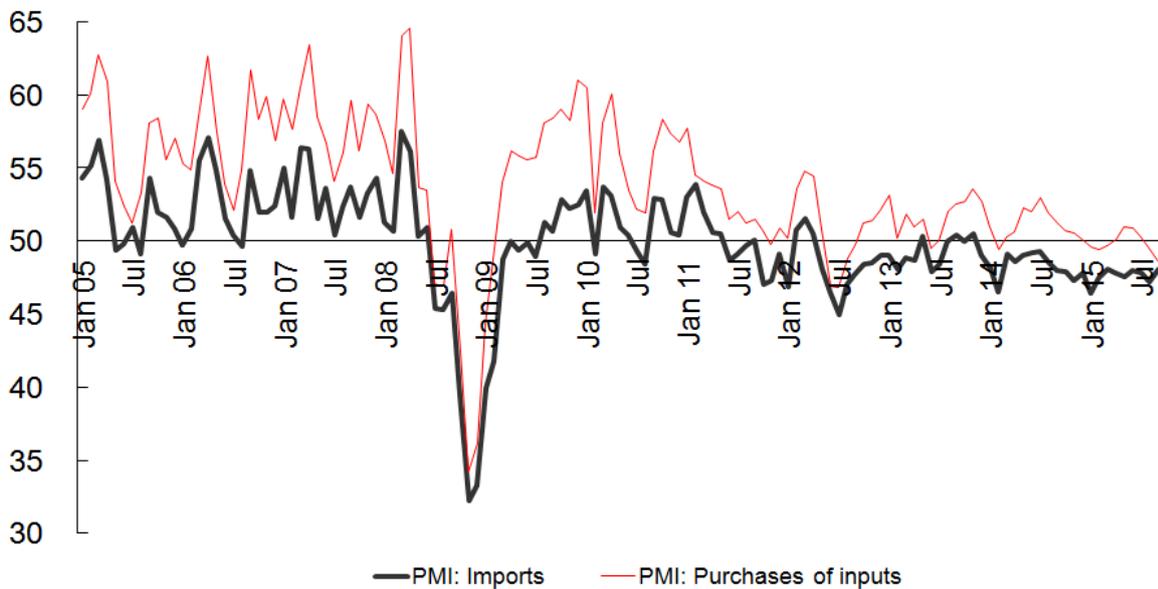
Exhibit 25 shows that the imports index is highly correlated (with some lags) to the import yoy growth rate. We expect import growth to stay weak in 4Q15. Exhibit 26 illustrates the strong association between the imports index and the purchases of inputs index – as Chinese manufacturers purchase a large amount of production inputs and parts from overseas. Besides, China is a major importer of oil, iron ore and other raw materials. To see how heavily China’s imports of inputs are affected by world commodity prices, we plot the imports index against the Thomson Reuters/ CoreCommodity CRB index. It is found that the imports index is positively related to global commodity prices. (Exhibit 27)

Exhibit 25: Imports index and import growth, January 2005 to September 2015



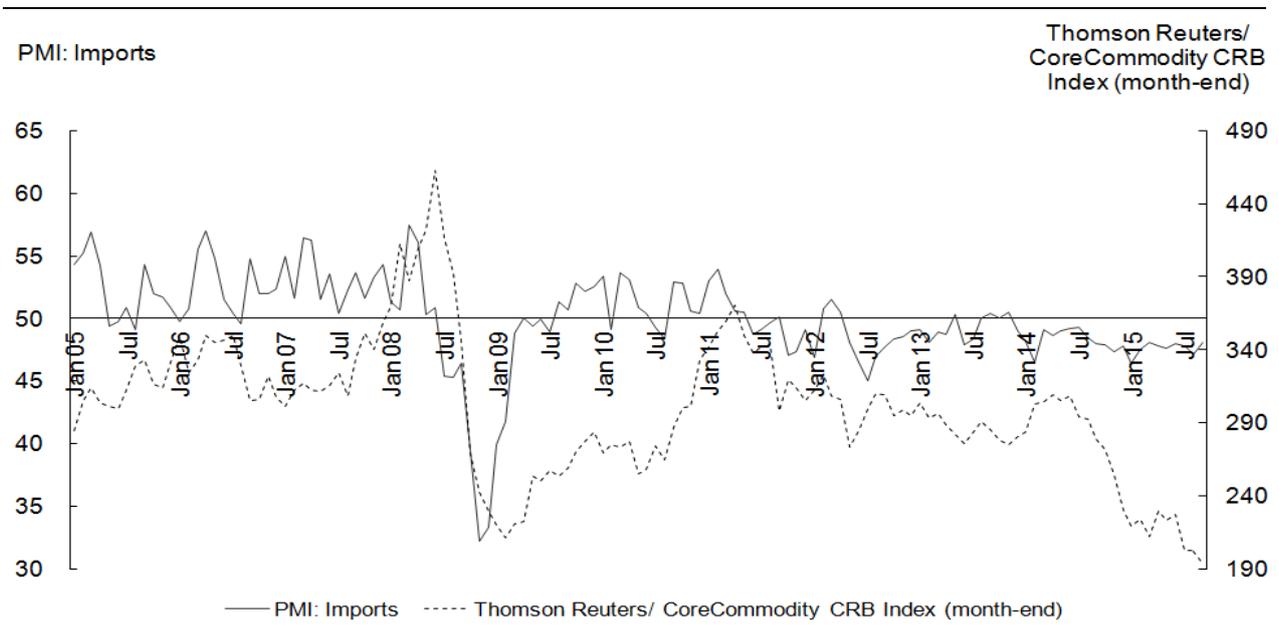
Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics, China Customs

Exhibit 26: Imports and purchases of inputs, January 2005 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 27: Imports index and Thomson Reuters/ CoreCommodity CRB Index, January 2005 to September 2015

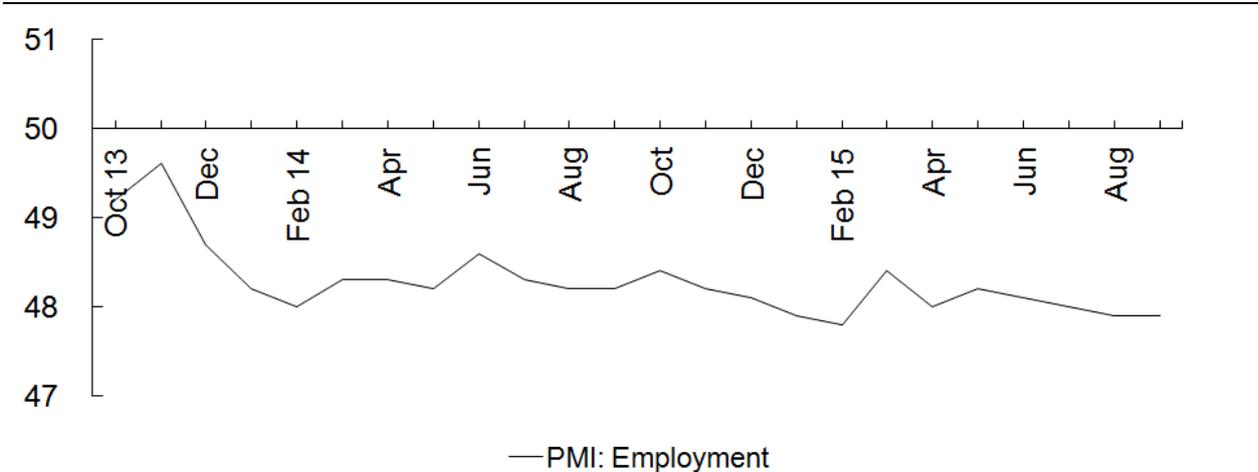


Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics, Thomson Reuters

9. Employment in the manufacturing sector decreases at a steady pace

The employment index stayed relatively stable at 47.9-48.0 in July to September, below the neutral level of 50. (Exhibit 28) This indicates that employment in the manufacturing sector has been decreasing at a steady pace.

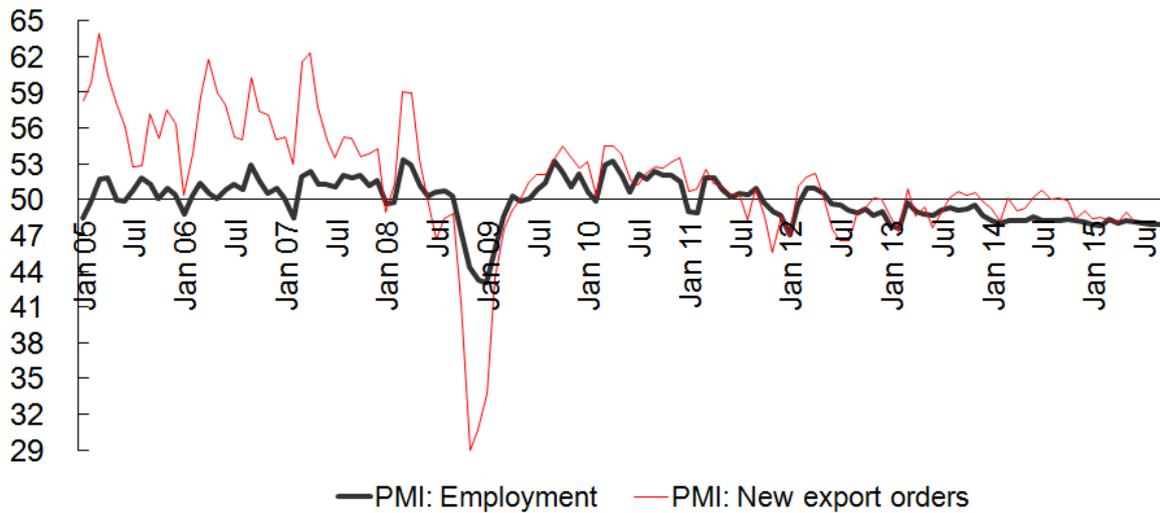
Exhibit 28: Employment index, October 2013 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

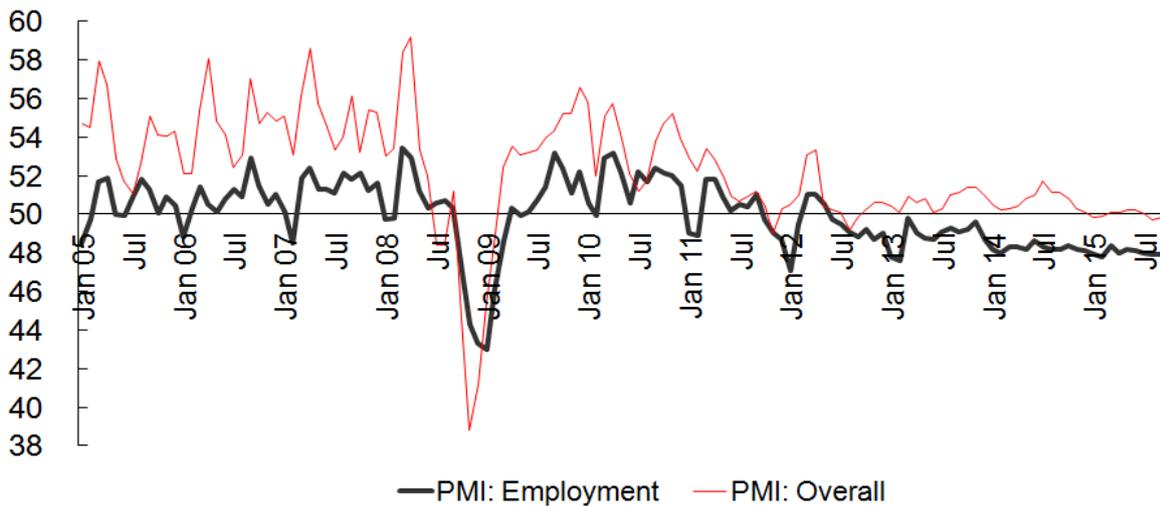
Exhibit 29 proves that the employment in China’s manufacturing sector has relied heavily on the export sector. Exhibit 30 and 31 give our readers some ideas about the extent to which the employment situation improves or deteriorates with the manufacturing sector and the overall economy.

Exhibit 29: Employment and new export orders, January 2005 to September 2015



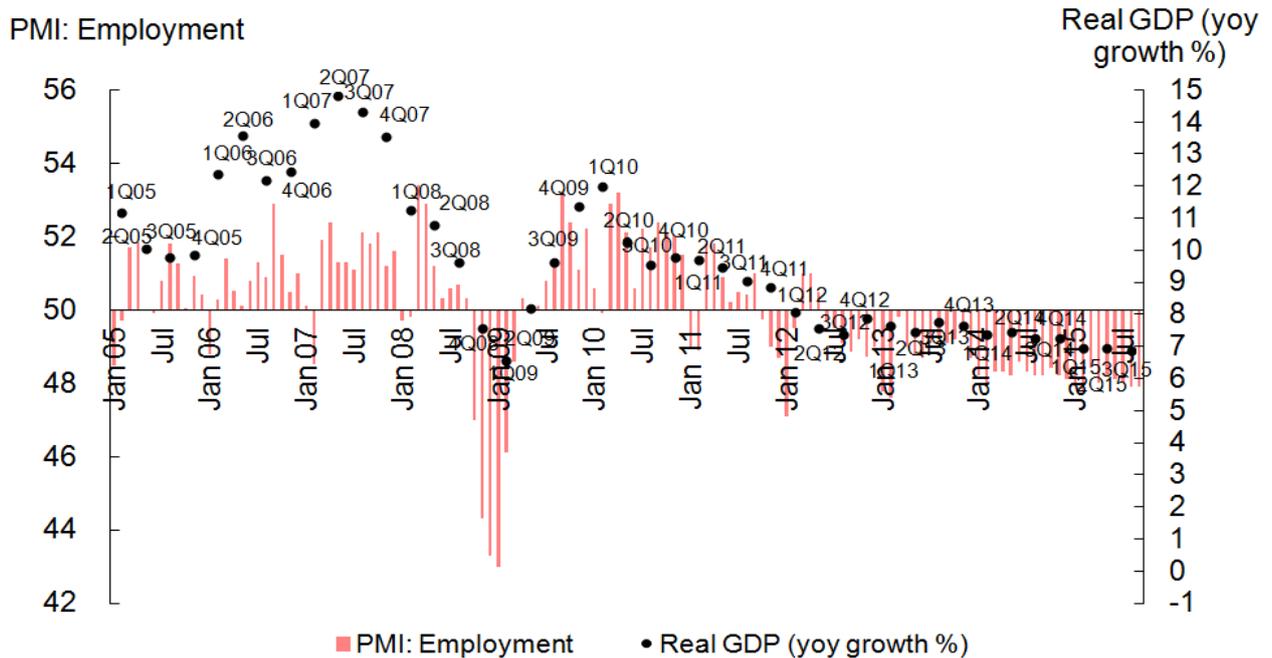
Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 30: Employment index and headline PMI, January 2005 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

Exhibit 31: Employment index and real GDP growth, January 2005 to September 2015

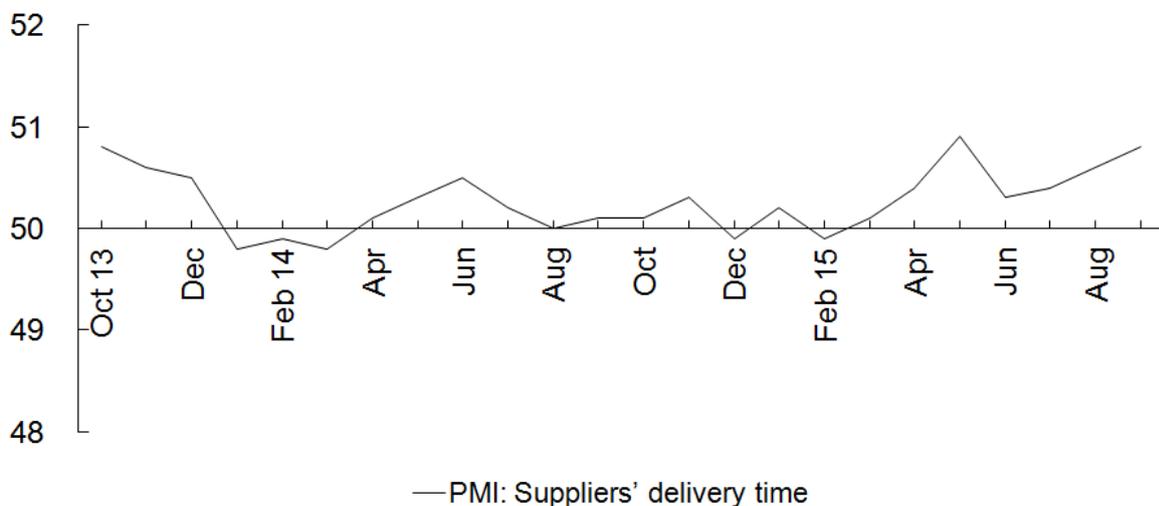


Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

10. Suppliers' delivery accelerates

The suppliers' delivery time index stayed above the neutral level of 50 in the past few months, registering 50.4, 50.6 and 50.8 in July, August and September respectively. The index readings suggest that suppliers' delivery has been accelerating. (Exhibit 32)

Exhibit 32: Suppliers' delivery time index, October 2013 to September 2015

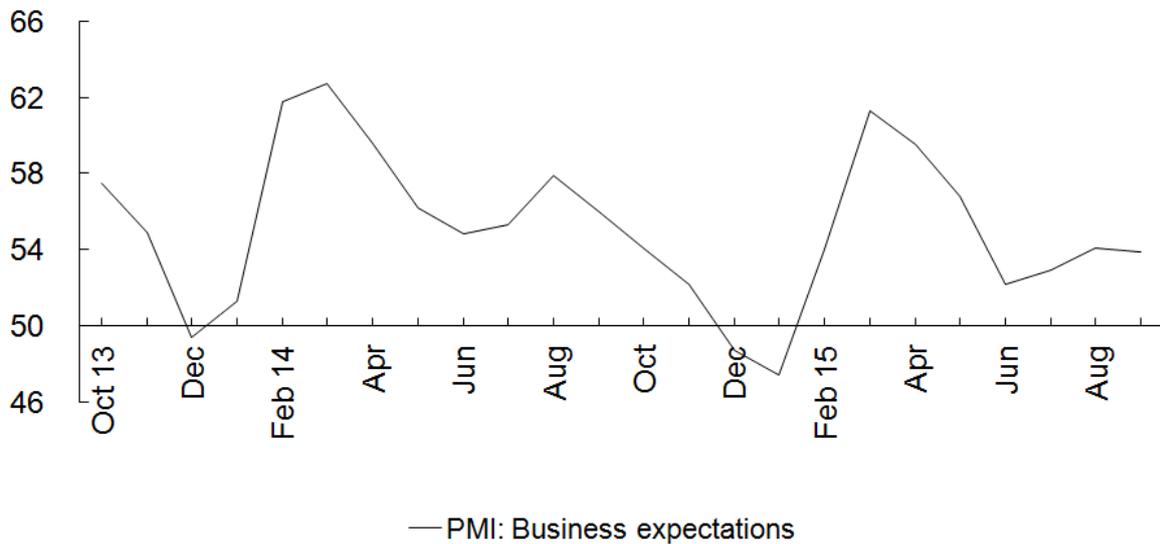


Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

11. Chinese manufacturers remain optimistic

The business expectations index improved from 52.9 in July to 54.1 in August, before edging down to 53.9 in September. (See exhibit 33) The index has stayed above 50 in recent months, suggesting that Chinese manufacturers have remained optimistic about the near term outlook for their respective industries.

Exhibit 33: Business expectations index, October 2013 to September 2015



Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics

About China Manufacturing PMI:

China Manufacturing Purchasing Managers' Index (PMI) provides an early indication each month of economic activities in the Chinese manufacturing sector. It is jointly published by China Federation of Logistics & Purchasing (CFLP) and the National Bureau of Statistics (NBS). The Fung Business Intelligence Centre is responsible for drafting and disseminating the English PMI report.

Every month questionnaires are sent to 3,000 manufacturing enterprises all over China. The data presented herein is compiled from the enterprises' responses about their purchasing activities and supply situations. CFLP makes no representation regarding the data collection procedures, nor does it disclose any data of individual enterprises. The PMI should be compared to other economic data sources when used in decision-making.

3,000 manufacturing enterprises in 21 industries from Eastern, Northeastern, Central and Western China are surveyed. The sampling of the enterprises involves the use of Probability Proportional to Size Sampling (PPS), which means the selection of enterprises surveyed is largely based on each industry's contribution to GDP, and the representation of each geographical region.

There are 12 sub-indicators in the survey: Output, New Orders, New Export Orders, Backlogs of Orders, Stocks of Finished Goods, Purchases of Inputs, Imports, Input Prices, Stocks of Major Inputs, Employment, Suppliers' Delivery Time and Business Expectations. A reading above 50 indicates an overall positive change in a sub-indicator; below 50, an overall negative change.

The PMI is a composite index based on the seasonally adjusted indices for five of the sub-indicators with varying weights: New Orders—30%; Output—25%; Employment—20%; Suppliers' Delivery Time—15%; and Stocks of Major Inputs—10%. A PMI reading above 50 indicates an overall expansion in the manufacturing sector; below 50, an overall contraction.

Currently there are more than twenty countries and regions conducting the PMI survey and compilation, based on an internationally standardized methodology.

About the Organisations:

China Federation of Logistics & Purchasing

China Federation of Logistics & Purchasing (CFLP) is the logistics and purchasing industry association approved by the State Council. CFLP's mission is to push forward the development of the logistics industry and the procurement businesses of both government and enterprises, as well as the circulation of factors of production in China. The government authorizes the CFLP to produce industry statistics and set industry standards. CFLP is also China's representative in the Asian-Pacific Logistics Federation (APLF) and the International Federation of Purchasing and Supply Management (IFPSM).

Fung Group

The Fung Group is a privately held multinational group of companies headquartered in Hong Kong whose core businesses are trading, logistics, distribution and retailing. The Fung Group employs over 46,800 people across 40 economies worldwide, generating total revenue of over US\$24.65 billion in 2014. Fung Holdings (1937) Limited, a privately held business entity headquartered in Hong Kong, is the major shareholder of the Fung group of companies.

Please visit www.funggroup.com for more about the Fung Group.

Fung Business Intelligence Centre (FBIC)

The Fung Business Intelligence Centre (FBIC) collects and analyses market data on sourcing, supply chains, distribution and retail. It also provides thought leadership on technology and other key issues shaping their future.

Headquartered in Hong Kong, FBIC leverages unique relationships and information networks to track and report on trends and developments in China and other Asian countries. In addition, its New York-based Global Retail & Technology research team follows broader retail and technology trends, specialising in how they intersect and building collaborative knowledge communities around the revolution occurring worldwide at the retail interface.

Since its establishment in 2000, the FBIC (formerly known as the Li & Fung Research Centre) has served as the knowledge bank and think tank for the Fung Group. Through regular research reports and other publications, it makes its market data, impartial analysis and expertise available to businesses, scholars and governments around the world. It also provides advice and consultancy services to colleagues and business partners of the Fung Group on issues related to doing business in China, ranging from market entry and company structure, to tax, licensing and other regulatory matters.



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