PMI Quarterly on China Manufacturing

PMI 3Q20
Strong recovery of industrial production and economic activity

Policy Outlook
China likely to focus on full implementation of economic stimulus policies

4Q20 Forecasts
Real GDP growth to go up to 6.0% yoy while PMI to fluctuate within 51.0 to 51.5

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PMI points to strong recovery of industrial production and economic activity in 3Q20

Our observations

• The recovery of small enterprises lags behind that of large and medium enterprises but shows marked improvement in September.
• Output expands at a relatively fast pace as overall demand picks up fast.
• New export orders increase amid improvement in external demand.
• Prices of production inputs jump, adding cost pressures on Chinese manufacturers.
• Manufacturers raise ex-factory prices of their products amid increasing cost pressures and improving sales environment.
• Manufacturing employment remains steady.

Policy outlook

• We expect that the central government will focus on ensuring the full implementation of stimulus policies to stabilize economic growth.
• China will pursue a more proactive and effective fiscal policy that meets the funding requirements for construction of major projects, and a more flexible and appropriate monetary policy to enable M2 money supply and aggregate financing to grow reasonably.
• These policies will help alleviate the downward pressure on the Chinese economy and promote its continued recovery.

Our forecasts for 4Q20

• We project a further expansion of industrial production and economic activity in 4Q20.
• The headline PMI will stay above 50 and fluctuate within 51.0 to 51.5.
• Real GDP growth will rise to 6.0% yoy.
• VAIO growth will climb to 6.6% yoy.
• Exports will record single-digit year-on-year growth in 4Q20.
• Year-on-year growth rates for both the purchaser price index and the PPI will pick up further.

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IN THIS ISSUE:

PMI points to strong recovery of industrial production and economic activity 4

What the PMI tells us about the performance of enterprises of different sizes 8

What the PMI tells us about manufacturing production 9

What the PMI tells us about the overall market demand 11

What the PMI tells us about upstream and midstream prices 13

What the PMI tells us about manufacturing employment 16
1. PMI points to strong recovery of industrial production and economic activity

China’s manufacturing sector and economy in 3Q20

China’s manufacturing PMI edged down from 51.1 in July to 51.0 in August, and then rose to 51.5 in September. The headline PMI readings have stayed high in recent months, indicating that the manufacturing sector is continuing its strong recovery from the COVID-induced slowdown. (See exhibit 1)

Production activities have expanded at a relatively fast pace in recent months, as shown by the strong output index throughout July to September. The expansion was supported by a fast growth in overall new orders: The new orders index rose from 51.7 in July to 52.8 in September, indicating a quicker pick up in the overall market demand lately.

Prices of industrial products have risen: The ex-factory prices index stayed above 52.0 in the quarter. The rise in product prices was partly attributed to the surge in the prices of materials: The input prices index went up from 58.1 in July to 58.5 in September, well above the neutral level of 50.

Exhibit 2 shows the contributions of the sub-indices to the change in the headline PMI. The rise in the headline PMI in 3Q20 was due largely to the increase in the new orders index (which weighs 30% in the computation of the headline PMI). Among the 12 sub-indices (i.e. excluding the suppliers’ delivery time index), the indices of output, new orders, purchases of inputs, input prices, ex-factory prices and business expectations have remained in the expansionary zone over the past three months. Meanwhile, the indices of backlogs of orders, stocks of finished goods, stocks of major inputs and employment have stayed in the contractionary zone over the same period. (See exhibit 3)

Policy outlook and forecasts for 4Q20

Looking ahead, the Chinese economy is still under downward pressure amid the COVID-19 global pandemic and the resulting global economic recession. To stabilize growth, we expect that the central government will focus on ensuring that the stimulus fiscal and monetary policies introduced earlier in the year are fully implemented. A meeting of the Political Bureau of the Communist Party of China (CPC) Central Committee was held on 30 July. While requiring full implementation of macroeconomic policies, the meeting called for pursuing a more proactive and effective fiscal policy that meets the funding requirements for the construction of major projects, and a more flexible and appropriate monetary policy to enable M2 money supply and aggregate financing to grow reasonably. We believe that these policies will help alleviate the downward pressure on the Chinese economy and promote its continued recovery.
China's economic recovery from the COVID-19 is accelerating. The manufacturing sector is doing particularly well as international buyers are shifting their orders to China amid the COVID-19 outbreak in alternative production countries. The positive impact of China's stimulus policies has also started to unfold. In our view, China's industrial production is set to expand further in the near term. Overall, we predict that the headline PMI will fluctuate within 51.0 to 51.5 and the industrial production (VAIO) growth will rise to around 6.6% yoy in 4Q20.

As for China's real GDP growth, the manufacturing PMI has so far done a satisfactory job in predicting economic growth. Exhibit 4 plots the quarterly real GDP yoy growth rates versus the monthly PMIs since July 2015. 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 and the analysis above, we project that China's real GDP growth will go up to 6.0% in 4Q20.
Exhibit 1: Headline PMI, October 2018 to September 2020

Exhibit 2: Headline PMI and sub-indices, January 2005 to September 2020

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

Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics
Exhibit 3: Headline PMI and all sub-indices, July to September 2020

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

Exhibit 4: Headline PMI and real GDP growth, October 2015 to September 2020

Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics
2. What the PMI tells us about the performance of enterprises of different sizes

Recovery of large and medium enterprises continues

The PMI of ‘large enterprises’ went up from 52.0 in July and August to 52.5 in September, showing an accelerated expansion of ‘large enterprises’. The PMI of ‘medium enterprises’ rose from 51.2 in July to 51.6 in August before retreating to 50.7 in September, indicating a continued yet slower recovery of ‘medium enterprises’ lately.

Small enterprises return to expansion after three months of contraction

After dropping from 48.6 in July to 47.7 in August, the PMI of ‘small enterprises’ picked up to 50.1 in September. The index reading rose above the critical 50-mark in September for the first time since May, indicating that the situations facing ‘small enterprises’ have been improving.

The recovery of small enterprises has lagged behind that of large and medium enterprises since June. Although it remains to be seen whether small businesses could sustain their growth momentum in the coming months, the marked improvement in September is a positive sign of recovery. (See exhibit 5)

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Exhibit 5: PMIs of large enterprises, medium enterprises and small enterprises, July to September 2020

Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics
3. What the PMI tells us about manufacturing production

Manufacturing production expands at a relatively fast pace

The output index stayed high and fluctuated within a narrow range of 53.5 to 54.0 throughout July to September, indicating that production activities have expanded at a relatively fast pace as the overall demand has continued to improve. (See exhibit 6)

New order growth fuels the growth in manufacturing production

Exhibit 7 shows that the output growth in 3Q20 was mainly fuelled by new orders growth instead of restocking activities, as the stocks of finished goods index had stayed in the contractionary zone for 90 consecutive months as of September. However, output may grow strongly later when manufacturers finally run out of their inventory or regain confidence to restock.

Exhibit 6: Output index, October 2018 to September 2020

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 2020

Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics
Growth in manufacturing production to accelerate further in 4Q20

Exhibit 8 demonstrates the correlation (with some lags) between the output index and the year-on-year growth of value-added of industrial output (VAIO). Looking ahead, we expect that the VAIO growth will climb to 6.6% yoy in 4Q20, given an improving domestic and external demand. In particular, the manufacturing sector is benefiting from order shifts from alternative production countries amid the COVID-19 pandemic. Moreover, the government’s stimulus policies are likely to partly offset the negative impact of the global economic slowdown on China’s industrial activities. Still, challenges facing Chinese manufacturers include weak external demand caused by the COVID-19 pandemic, ongoing trade frictions between China and the US, and intense competition in the international market.

Exhibit 8: Output index and industrial production growth, October 2015 to September 2020

Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics
4. What the PMI tells us about the overall market demand

**Overall market demand picks up faster**

The new orders index rose from 51.7 in July to 52.0 in August and further to 52.8 in September, signalling that the growth of new orders has accelerated recently. This indicates a faster pick up in the overall market demand lately.

Meanwhile, the new export orders rebounded from 48.4 in July to 49.1 in August and further to 50.8 in September, returning to the expansionary zone for the first time since December last year. The latest figure indicates that new export orders have increased lately. (See exhibit 9)

**Exhibit 9: New orders index and new export orders index, January 2005 to September 2020**

![Graph showing new orders index and new export orders index from January 2005 to September 2020.](image)

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

**Improvement in external demand bodes well for exports in 4Q20**

Exhibit 10 plots the new export orders index against the year-on-year growth rates of China’s exports. The correlation between the two indices is fairly high. As the new export orders index has continued to go up lately, we are now taking a more optimistic view about the near-term prospects of China’s exports.

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 indicator\(^1\) rebounded strongly in 3Q20 after collapsing to unprecedented levels in the previous quarter, suggesting a recovery in external demand for China’s exports. All in all, we forecast that China’s exports will record single-digit year-on-year growth in 4Q20.

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\(^1\) 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.
Exhibit 10: New export orders index and export growth, October 2015 to September 2020

PMI: New export orders

Exports (yoy growth %)

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

Exhibit 11: New export orders index and OECD composite leading indicator, January 2005 to September 2020

PMI: New export orders

OECD composite leading indicator

Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics, Organization for Economic Cooperation and Development
5. What the PMI tells us about upstream and midstream prices

Rapid increase in upstream prices exerts cost pressures on manufacturers

The input prices index went up from 58.1 in July to 58.3 in August and 58.5 in September. The index readings were well above the critical 50-mark, indicating a rapid rise in the prices of production inputs recently, which would increase the cost pressures on Chinese manufacturers. (Exhibit 12)

Exhibit 12: Input prices index, October 2018 to September 2020

To see the extent to which input costs of Chinese manufacturers are affected by global commodity prices, exhibit 13 puts together the input prices index and the Thomson Reuters/ CoreCommodity CRB index.2

2 The Thomson Reuters/ CoreCommodity CRB Index, which comprises 19 commodities such as crude oil, aluminium, corn, cotton, gold, natural gas, soybeans, etc, has served as one of the most recognized measures of global commodities markets.
Manufacturers raise ex-factory prices of their products

The ex-factory prices index stayed above 50 and fluctuated within a range of 52.2 to 53.2 throughout July to September, indicating that Chinese manufacturers have continued to raise the ex-factory prices of their finished products lately amid rising cost pressures and improving sales environment.3 (Exhibit 14)

Exhibit 14: Ex-factory prices index, October 2018 to September 2020

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3 The ex-factory prices index has been published since January 2017.
Purchaser price index and PPI to pick up further

Exhibit 15 shows that the input prices index is useful as a leading indicator of upstream prices. To show the association between the input prices index and ‘midstream’ prices, we plot the input prices index against the year-on-year growth of the producer price index (PPI)\(^4\) in exhibit 16.

Going forward, we expect that the month-on-month growth rates for both the purchaser price index and the PPI will stay positive in the near term, and the year-on-year growth rates for both the purchaser price index and the PPI will pick up further in 4Q20.

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\(^4\) 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.
6. What the PMI tells us about manufacturing employment

Stabilization of employment index indicates steady employment situations in the manufacturing sector

The employment index registered 49.3 in July, 49.4 in August and 49.6 in September respectively. The index has stabilized above 49, indicating the relatively steady employment situations in the manufacturing sector in the past few months. (Exhibit 17)

Exhibit 17: Employment index, October 2018 to September 2020

![Employment index chart](chart.png)

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

Exhibit 18 proves that the employment in China’s manufacturing sector has relied heavily on the export sector. Exhibit 19 and 20 give our readers some ideas about the extent to which the employment situation improves or deteriorates with the manufacturing sector and the overall economy. Given a strong recovery in the export sector and the overall economy, we expect that the employment situations in the manufacturing sector will remain steady in 4Q20.

Given a strong recovery in the export sector and the overall economy, we expect that the employment situations in the manufacturing sector will remain steady in 4Q20.
Exhibit 18: Employment and new export orders, January 2005 to September 2020

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

Exhibit 19: Employment index and headline PMI, January 2005 to September 2020

Source: China Federation of Logistics & Purchasing, China National Bureau of Statistics
Exhibit 20: Employment index and real GDP growth, October 2015 to September 2020

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). Fung Business Intelligence 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 31 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 13 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, Ex-factory Prices, Employment, Suppliers’ Delivery Time and Business Expectations. An index 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 Business Intelligence

Fung Business Intelligence collects, analyses and interprets global market data on sourcing, supply, distribution, retail and technology.

Headquartered in Hong Kong, it leverages unique relationships and information networks to monitor, research and report on these global issues with a particular focus on business trends and developments in China. Fung Business Intelligence makes its data, impartial analysis and specialist knowledge available to businesses, scholars and governments through regular research reports and business publications.

As the knowledge bank and think tank for the Fung Group, a Hong Kong-based multinational corporation, Fung Business Intelligence also provides expertise, advice and consulting services to the Group and its business partners on issues related to doing business in China, ranging from market entry and company structure, to tax, licensing and other regulatory matters.

Fung Business Intelligence was established in the year 2000.

Fung Group

Fung Holdings (1937) Limited, a privately-held business entity headquartered in Hong Kong, is the major shareholder of the Fung Group of companies, whose core businesses operate across the entire global supply chain for consumer goods including sourcing, logistics, distribution and retail. The Fung Group comprises over 34,000 people working in more than 40 economies worldwide. We have a rich history and heritage in export trading and global supply chain management that dates back to 1906 and traces the story of how Hong Kong and the Pearl River Delta emerged as one of the world’s foremost manufacturing and trading regions. We are focused on both creating the Supply Chain of the Future to help brands and retailers navigate the digital economy as well as creating new opportunities, product categories and market expansion for brands on a global scale.

Listed entities of the Group include Global Brands Group Holding Limited (SEHK: 00787) and Convenience Retail Asia Limited (SEHK: 00831). Privately-held entities include Li & Fung Limited, LH Pegasus, Branded Lifestyle Holdings Limited, Fung Kids (Holdings) Limited, Toys “R” Us (Asia) and Suhyang Networks.

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