

China's Industrial Economy in 2020¹

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¹ This report is based on a nationwide quarterly survey of industrial firms, which is implemented by Beijing Allinfo Co., based on the questionnaire and sample provided by Professor Gan Jie, Director of the Center on Finance and Economic Growth. We thank Beijing Allinfo for its hard work and professionalism. We acknowledge the able research assistance of Harry Leung and Jessy Yao who provided support to the data analysis.

Introduction

This report is based on data collected from our quarterly surveys of around 2,000 industrial firms in China. Conducted through telephone interviews, this survey, launched in 2014 Q2, is now in its sixth year. To ensure the representativeness of our survey, we construct our sample based on a stratified random sampling by industry, region and size from the National Bureau of Statistics' (NBS) population of about 377,000 industrial firms that have sales of more than twenty million RMB.

Our 2020Q4 survey sample contains 2051 firms, covering 41 industries and 31 provinces and municipalities directly under the Central Government. According to NBS classification, the majority of the firms (96%) are small and medium companies (with the number of employees below 1000 and sales below 400 million RMB), and 17% are micro and small businesses (with the number of employees below 300 and sales below 20 million RMB).

A representative sample, combined with a rich set of survey questions, allows us not only to construct business indices that are, to the best of our knowledge, the most informative ones available, but also to understand why the economy is doing well or not.

I. 2020 Annual Review

Against the backdrop of COVID-19, China's economy has shown strong resilience. Except for a slight contraction in Q1, the business sentiment remained flat in the last three quarters, with our Business Sentiment Index² standing at 50 (Figure 1)³. The diffusion indices reflecting the real output, including production, electricity consumption, and domestic orders, were between 50 and 55 in Q4, indicating neutral to slight

² Our BSI is the simple average of three diffusion indices, including current operating conditions, expected change in operating conditions and investment timing. Compared with other economic indices, our BSI is more forward-looking and is a reflection of the absolute level of economic activities.

³ Specifically, the three questions underlying our Business Sentiment Index are the following: 1. How are current operating conditions – “good”, “neutral” or “difficult”? 2. What is the expected change in operating conditions during the next quarter – “up”, “same” or “down”? 3. To what extent is it now a good time to invest – “good”, “medium” or “bad?” The diffusion index is based on answers to multiple-choice questions, with the choices in analog to “good,” “neutral” and “bad”, or “up,” “same” and “down.” The diffusion index is computed as $100 * \% \text{ of firms answering "good"} + 50 * \% \text{ of firms answering "neutral"}$. The diffusion index ranges between 0 and 100. A larger value indicates better operating conditions, with 50 marking the turning point between expansion and contraction.

expansion (Table 1). On the other hand, foreign orders shrank, with a diffusion index of 44.

Fixed investment remained sluggish throughout the year of 2020. The proportion of firms making fixed investment decreased from 8% in 2019 Q4 to 5% in 2020 Q4. Meanwhile, the proportion of firms with expansionary investment dropped from 2% in 2019 Q4 to 1%.

Weak demand continued to pose the biggest challenge for the industrial economy. The diffusion index rose persistently from 87 in 2019 Q4 to 93 in 2020 Q4 (Figure 2), hitting a record high. Notably and related to the trade war, overcapacity for foreign market rose from 81 in 2019 Q4 to 91 in 2020 Q4.

The second biggest challenge facing the industrial economy, cost rises became more prominent in 2020 Q4, with the diffusion index being 68. The cost rises were mainly driven by increased raw materials costs (Figure 3). Consistent with rising costs, the diffusion index of product prices rose to 54 in 2020 Q4.

Our survey has consistently found, since its inception in the second quarter of 2014, that financing is not a bottleneck for the industrial economy. In each quarter of 2020, only less than 1% of firms cited financing as a constraining factor.

In line with the overall tightening of liquidity, however, the diffusion index reflecting an “accommodating” bank lending attitude declined during the year, from 52 in 2019 Q4 to 43 in 2020 Q4, hitting a historical low. Notably, for foreign firms, private firms and durable goods producers, the index were 40, 43 and 39, respectively, below the turning point of 50, indicating that lending altitude was in the realm of “being tight.”

II. Going Forward: Outlook, Institutions and Innovation

When asked about confidence about economic outlook over the next three to five years, half of the firms (68%) were either “optimistic” (5%) or “cautiously optimistic” (63%) (2019: 9% and 50%) (Figure 4). Among those who were “not optimistic”, 62% cited competition and overcapacity as their top concerns, 14% higher than 2019 (2019: 48%). 37% of firms cited concerns over macroeconomic environment.

The proportion of firms without any R&D spending increased significantly from 65% in 2019 to 80% in 2020. Moreover, none of firms reported R&D spending over 5% of sales.

Contrary to the skeptical opinions of some in the west, the legal institutions in China

have provided reasonably good protections for business operations. In answering the question “On a scale of 0-10, what is the likelihood that the legal system will uphold your contract and property rights in business disputes (0 being the worst)?”, the firms’ average rating of the legal environment increased from 7.7 in 2019 to 8.4 in 2020. The proportion of firms which gave a rating above 7 increased significantly from 84% to 97%, whereas those who gave a rating below 5 declined from 6% in 2019 to 1% in 2020. These changes suggest that the government’s effort to promote private firms has taken effect. There was not much variation in the rating across regions.

The Chinese government plays an active role in promoting growth. Due to COVID-19 related subsidies, the proportion of firms receiving support from the government increased significantly from 22% in 2019 to 67% in 2020. The most common form of COVID-19 subsidy is tax reduction. As a result, the proportion of firms receiving tax reduction increased, from 17% in 2019 to 67% in 2020.

In summary, China's industrial economy showed strong resilience in 2020. With COVID vaccines and a healthier global economy, the Chinese industrial economy is expected to recover further in 2021. Rising costs and inflation, however, are risks that deserve attention.

Table 1. Operating Conditions of Industrial Firms**Table 1.1**

	Number of Firms		Business Sentiment Index		Diffusion Index - Operating Conditions		Diffusion Index - Expected Change in Operating Conditions		Diffusion Index - Good Timing for Investment	
	Q4	Q3	Q4	Q3	Q4	Q3	Q4	Q3	Q4	Q3
Nation	2,051	2,027	50	50	55	55	49	50	45	45
<i>By Size</i>										
Large	684	676	51	51	57	57	49	50	47	47
Medium	683	675	50	50	56	55	49	49	45	45
Small	684	676	48	49	52	53	48	50	44	43
<i>By Ownership</i>										
State-owned	103	104	60	61	84	83	49	54	47	47
Collectively-owned	7	8	50	50	50	56	50	50	50	44
Private	1,791	1,761	49	49	53	53	49	49	45	45
Foreign-owned	150	154	52	53	59	62	49	50	46	46
<i>By Product Type</i>										
Consumer Goods - Durable	241	245	48	49	52	53	49	50	43	43
Consumer Goods - Nondurable	649	631	52	52	60	61	49	50	45	45
Capital Goods	118	108	51	52	55	58	50	50	48	49
Intermediate Goods	1,043	1,043	49	49	52	52	48	49	46	45

Table 1.2

	% of Firms with Fixed Investment		% of Firms with Expansionary Investment		Diffusion Index - Production		Diffusion Index - Employment		Diffusion Index - Electricity Consumption	
	Q4	Q3	Q4	Q3	Q4	Q3	Q4	Q3	Q4	Q3
Nation	5	6	1	1	54	62	49	49	50	55
<i>By Size</i>										
Large	6	7	1	1	55	65	50	50	51	56
Medium	5	6	1	2	54	62	49	49	50	55
Small	4	5	0	1	53	59	50	49	50	55
<i>By Ownership</i>										
State-owned	3	3	1	1	52	66	50	50	49	63
Collectively-owned	0	0	0	0	36	69	50	50	36	50
Private	5	6	1	2	54	62	49	49	51	55
Foreign-owned	3	6	1	1	55	62	49	49	50	53
<i>By Product Type</i>										
Consumer Goods - Durable	2	3	1	2	57	61	49	48	51	51
Consumer Goods - Nondurable	7	8	1	1	51	60	49	49	49	54
Capital Goods	5	9	1	3	40	72	50	50	47	56
Intermediate Goods	4	5	1	1	57	62	50	49	51	56

Notes:

1. Diffusion Index (DI) is computed using the percentage of firms that answer "increase" (% increase) and "same" (% same) according to the formula: (% increase + 0.5 * % same). The index ranges between 0 and 100. A larger value indicates a better operating condition.

2. Business Sentiment Index is the average of DIs for Operating Conditions, Expected Operating Conditions and Good Timing for Investment.

Figure 1. Business Sentiment Index

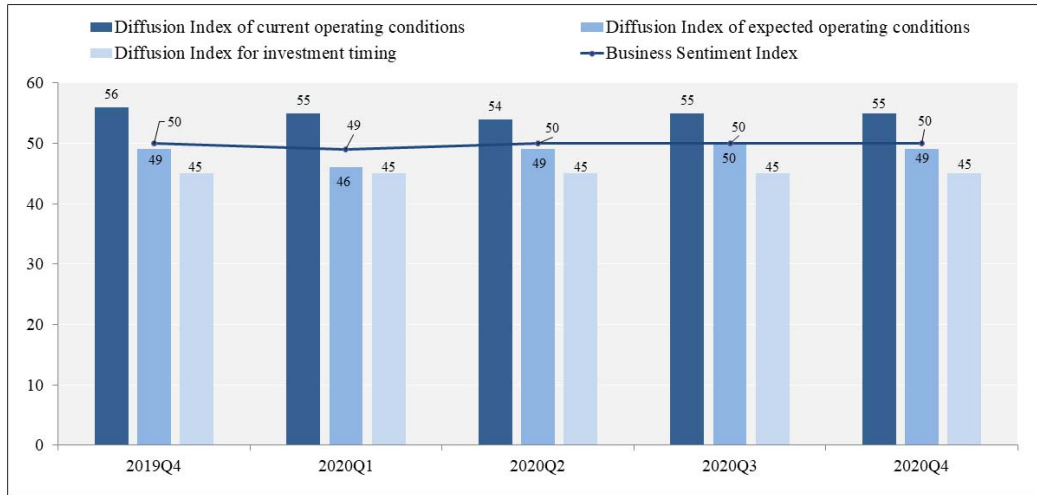


Figure 2. Excess Capacity

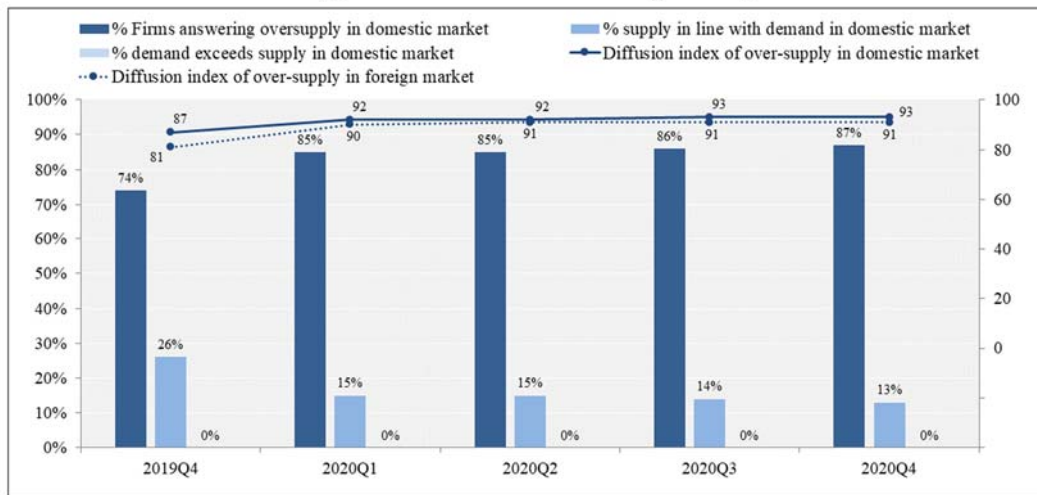


Figure 3. Costs

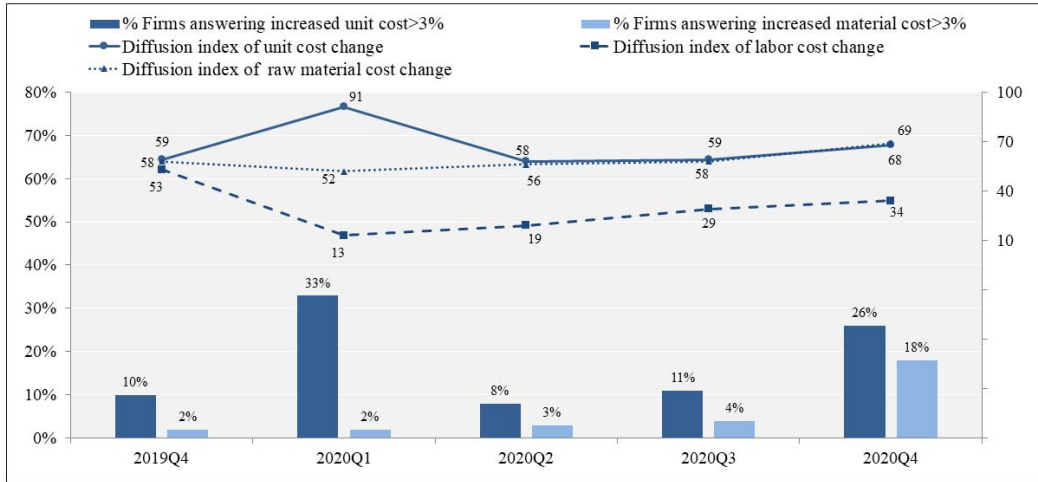


Figure 4. Business Outlook in 3-5 Years

