China's Industrial Economy
2019 Q1 Report[1]

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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.

Executive Summary

Business Sentiment Index continued to be in a slight expansion in Q1, making the first five consecutive quarters the first period of expansion since the survey was launched five years ago. On the other hand, there is a slight contraction in production and electricity consumption, possibly due to the Lunar New Year. This contraction was mainly concentrated on the private, small and consumer goods firms. Investment was still sluggish and overcapacity remains prevalent, involving two-thirds of the firms. Export shrank slightly, with 17% of firms being affected by the trade war. But merely 3% of firms reported a large impact.

With the escalation of the trade war, the economy is slowing down and there is substantial uncertainty in 2019. Policy should focus on promoting long-term growth. Loosening of monetary policy can only be a short-term tool to prevent financial instability. The government needs to formulate systematic policies to promote technology innovation, which is the only path to long-term growth of the industrial economy.

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 fifth year. Our results are important in understanding the Chinese economy, because, if we exclude real estate and finance, the industrial sector now accounts for about 50% of China's non-agricultural GDP.

Our survey design ensures that our sample fully represents industry, region and company size. As a result, we are able to construct business indices that are, to the best of our knowledge, the most informative ones available. Furthermore, our survey questions allow us to understand the underlying mechanisms behind the data and analyze why the economy is doing well or not.

There were a total of 2,035 firms surveyed in 2019 Q1, of which 1,766 firms were also polled in our 2018 Q4 survey. The initial survey sample was based on stratified random sampling by industry, region and size from the 2008 Economic Census. Starting from 2017 Q2, we have also surveyed additional firms from the 2013 Industrial Enterprises database, which allows us to cover firms founded after 2008. Appendix A details the sampling procedure and compares our sample with the population.

I. 2019 Q1 Key Findings

I.1 Operating Conditions Continued to Improve

In Q1, the Business Sentiment Index[2] stood at 52, indicating a slight expansion. This signifies the industry's first period of expansion, which has lasted for five consecutive quarters, since the survey was launched in 2014 Q2 (Figure 1)[3]. The operating conditions continued to improve, reaching a four-year high of 58 (Q4: 59). The diffusion index for investment timing also stood at historical high of 45 (Q4: 45), although still below the turning point of 50.

Similarly to last quarter, this quarter's expansion was mainly driven by state-owned and

[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 * % of firms answering "good" + 50 * % 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.

foreign firms, with the diffusion indices being 61 and 56 respectively. Large firms outperformed small firms (54 versus 49). Private firms – the vast majority of industrial firms – stayed nearly flat (diffusion index: 51). It's also noteworthy that there is a slight contraction in production and electricity consumption, with diffusion indices being 46 (Q4: 53), possibly due to the Lunar New Year. This contraction was mainly driven by consumer goods, private, and small firms, with diffusion indices of, respectively, 45 and 44 (Q4: 52 and 51).

Investments were still weak in Q1. Only 5% of the firms made expansionary investments (Figure 2).

Costs continued to rise in Q1, but to a lesser extent, with the diffusion index of unit costs being 61. Firms with a significant increase in costs (i.e. quarterly costs rise above 5%) continued to decrease from 3% in last quarter to 1% in Q1 (Figure 3).

Unit cost increases were driven by raw material costs: the diffusion index of which was 59. The labor cost index increased by 1 point to 55.

I.2 Impact of Trade War Continued in Q1

The impact of the Sino-US trade war was similar to that in Q4. 17% of the firms were affected (Figure 11), whereas the proportion of firms reporting a significant impact stayed nearly flat at 3%. Moreover, 2% of firms expected to be affected significantly by the trade war within the next two years.

Affected firms were mainly export firms, which accounted for 33% of our sample. Among these export firms, 31% were affected in Q1 and 6% reported a significant impact.

The top five most affected industries included Rubber & Plastic Products, Textile, Cultural & Sports Products, Paper Products, and Smelting and Pressing of Non-ferrous Metals. 29% to 41% of firms in these industries were affected. Among industries with a significant impact, the two most affected ones were Rubber & Plastic Products (8%) and Cultural & Sports Products (10%).

In addition, the diffusion index for export share (of total sales) dropped by 1 point to 49, indicating a slight contraction. This contraction is mainly concentrated in small firms and consumer goods producers (47 and 48 respectively).

I.3 Industry & Regional Distribution

As shown in Table 2.2, the top three industries based on BSI were Production & Supply of Water (65), Power Production & Supply (61) and Manufacturing of Railways, Ships & Other Transportation (56). The top two industries have been on the list for nine and

twelve consecutive quarters, respectively. The worst performing industries were Coal Mining and Washing (45), Smelting & Pressing of Ferrous Metals (45), Repair of Metal Products, Machinery & Equipment (46), Metal Products (47) and Non-metallic Mineral Products (47). Smelting & Pressing of Ferrous Metals and Non-metallic Mineral Products have been persistently on this list for seven and eleven consecutive quarters, respectively.

Table 3.1 displays regional business conditions. In Q1, the BSI ranged from 44 (Ningxia) to 58 (Xinjiang). Specifically, among the top-performing list of Q1, Shanghai and Hubei appeared for three and two consecutive quarters respectively. The bottom five provinces were Ningxia (44), Hebei (47), Guizhou (47), Heilongjiang (48) and Shanxi (50). Ningxia and Hebei have appeared on the list eleven and twelve times respectively in the seventeen quarters since 2015 Q1.

II. Challenges and Priorities

Weak demand is still by far the biggest challenge for the industrial economy (Figure 5). 60% of the firms surveyed in Q1 cited a lack of orders. Costs were listed as the second largest issue, with raw material and labor costs cited by 21% and 14% of firms, respectively. 12% of firms cited macroeconomic and industrial policies as limiting factors while another 13% of firms cited environmental concerns. In addition, financing was not found to be a bottleneck, with only 2% replying that financing was a limiting factor, a finding consistent with past surveys.

II.1 Overcapacity Still Prevalent

In 2019 Q1, two-thirds (66%) of the firms reported oversupply in the domestic market, with a diffusion index of 83 (Q4: 83), still close to historically high levels. 30% of the firms reported that their excess capacity was above 10% (Q4: 31%), while 12% (Q4: 12%) reported that their excess capacity was above 20% (Figure 6A).

We categorize an industry as having severe excess capacity if more than 10% of firms in the industry report an excess capacity of more than 20%. There are 38 industries and 31 regions in total. In Q1, the number of industries and regions with severe excess capacity accounted for about half of the total firms respectively (15 industries and 17 regions in 2019 Q1) (Figure 6B).

It is also worth noting that overcapacity in the international market was substantially better than in the domestic market, with the diffusion index 9 points lower (Figure 6A).

Weak demand has not caused inventory problems: thanks to the “order-based” production model adopted by many Chinese firms. In Q1, for example, as many as 42% of firms said they did not have significant levels of inventory because they started

production only after receiving orders. For those carrying inventories, 84% said that they expected their inventory to be digested within three months, with a further 12% saying it would take between four to six months. This leaves only 4% of the whole sample who said they expected to carry inventory for more than six months.

II.2 Curtailment of Overcapacity

Each quarter, we attempt to call back all the firms that have been surveyed in the previous quarter. In Q1, about 3.3% of firms had suspended production or were suspected to have suspended production. Those suspected of having suspended production included cases where, after between five to nine attempts to reach them, the phone number was either wrong, suspended or did not exist, and the line could not be connected or was busy (Figure 7A).

As shown in Figure 7B, the proportion of firms reducing workers by more than 10% was 1.7% in Q1, while the proportion of firms reducing workers by more than 20% was 1.1%. Based on the size distribution of firms with employment reduction and the number of industrial workers in 2017 being 218 million, we estimate that a total of 960,000 jobs were cut in 2019 Q1.

Consistent with an improved industrial structure, firms with severe overcapacity are more likely to reduce employment and production. Among those with severe overcapacity (above 20%), the proportions of firms reducing production by more than 5% and 10% were 31% and 22%, respectively, both significantly more than that of the whole sample (10% and 6%). Moreover, the proportions of firms reducing employment by more than 5% and 10% were 9% and 8% respectively, also higher than that of the whole sample (2.6% and 1.7%).

Same as 2018 Q4, about 60% of firms reported a capacity utilization rate above 90%, whereas, the proportion of firms with capacity utilization rate below 70% was 16% (Figure 8). There is no consensus as to what level of capacity utilization should be considered healthy. However, if we take the examples of the two largest western industrial nations, the US and Germany, their monthly average capacity utilizations were 79% (1994-2015) and 83% (1992-2015), respectively. Their lowest points after the financial crisis in 2008 were 67% and 70%, respectively, both measured in June 2009. Given the low profit margin of Chinese industrial firms, their sustainable utilization rate may be higher than that of their western counterparts.

Consistent with overcapacity and the resulting lack of orders, 24% of firms reported difficulties in collecting trade receivables from their customers in 2019 Q1. This problem was more prominent among private firms (26%) and firms producing capital goods and intermediate goods (34% and 27%, respectively; Q4: 38% and 28%). SOEs were disproportionally more likely to delay payment, accounting for about 15% of all firms that have done so.

II.3 Low Margins

Overcapacity means a lack of pricing power, which, combined with rising costs, results in low profit margins. As shown in Figure 9, as many as 19% of the firms surveyed had gross margins below 10%, while the proportion of firms with gross margins above 15% was 36%. Low margins may make it difficult for firms to invest in R&D and industrial upgrading.

II.4 Financing is Not a Bottleneck

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 Q1, only 2% of firms cited financing as a constraining factor. 18% of firms said they had sufficient funds, 81% answered "neutral", while only 2% reported insufficient funds (Figure 10A). Of those, the vast majority (92%) reported insufficient funds for production, not for expansion.

The diffusion index reflecting an "accommodating" bank lending attitude was 54 (Q4: 55) (Figure 10C). Although the overall liquidity is still relatively loose, it is significantly tightened compared to 2018. Moreover, the diffusion index for small firms was 46 (Q4: 48), below the threshold of 50 for two consecutive quarters and for the first time since this survey was launched in 2014, indicating tightened financing for small firms.

Table 6.2 provides an overview of how Chinese firms have been financed. Internally-generated funds were, by far, the most important source of financing, with 97% of surveyed firms reporting this as their primary funding source. The second most important source of funds is bank loans and the founder's own capital, reported by 72% and 29%, respectively, in Q1. Sources of financing were highly concentrated in Chinese firms: in the case of internal funds, 97% of firms reported that this largest financing source accounted for more than 50% of their total funds. These patterns have been highly consistent over time.

Taken together, against the background of overcapacity, investment opportunity has been scarce, resulting in low loan demand. Thus, financing is not a bottleneck for the industrial economy at the moment. While some easing in monetary policy may be needed to prevent a systemic meltdown, it is unwise to further stimulate the economy through leverage and money printing.

III. Conclusion

Q1 Business Sentiment Index continued to be in a slight expansion, making the first five consecutive quarters the first period of expansion since the survey was launched in

2014 Q2. On the other hand, possibly due to the seasonal effect of the Lunar New Year, there is a noticeable contraction in production and electricity consumption. This contraction was mainly driven by consumer goods, private, and small firms. Investment was still sluggish and 5% of firms made expansionary investment.

The biggest challenge facing the industrial economy was overcapacity. Its prevalence remained at historically high level. Financing was not a main limiting factor for the industrial economy. However, small firms faced tightened financing, due to the overall tightening of liquidity.

With the escalation of the trade war, the economy is slowing down and there is substantial uncertainty in 2019. Policy should focus on promoting long-term growth. Loosening of monetary policy can only be a short-term tool to prevent financial instability. The government needs to formulate systematic policies to promote technology innovation, which is the only path to long-term growth of the industrial economy.

Figure 1. Business Sentiment Index

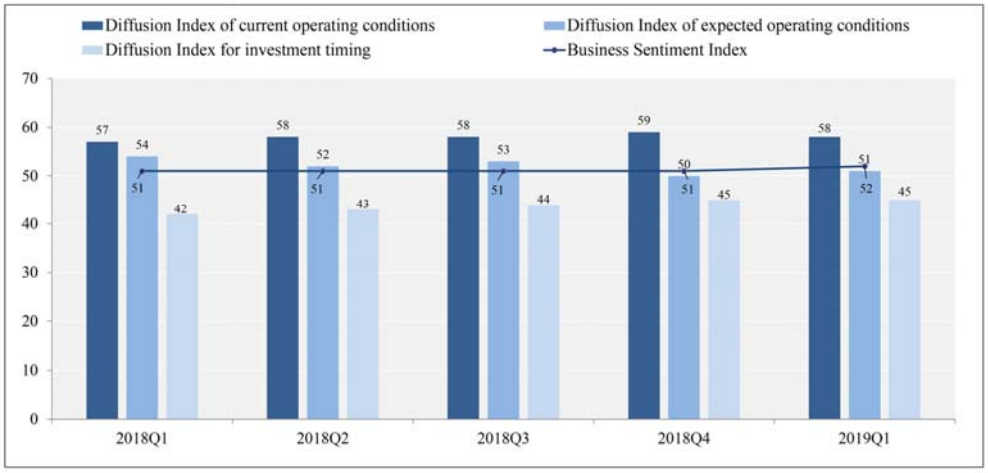

Figure 2. Investment

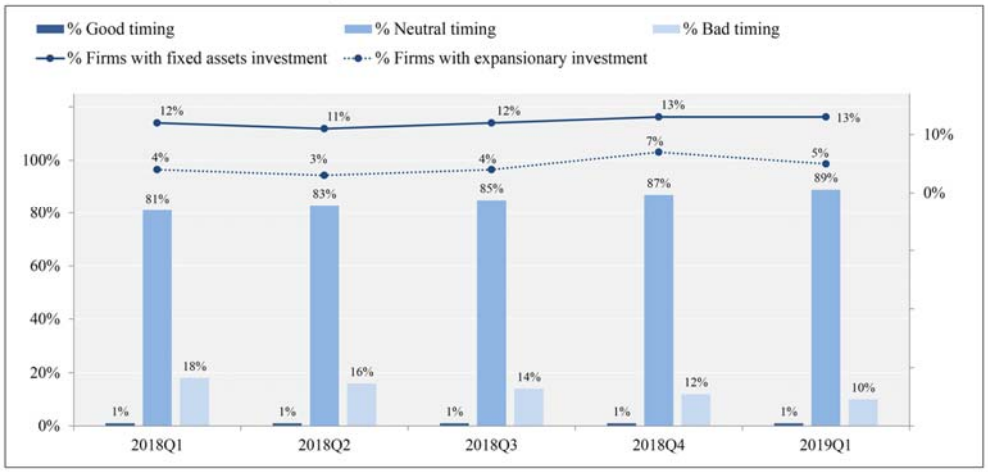

Figure 3. Costs

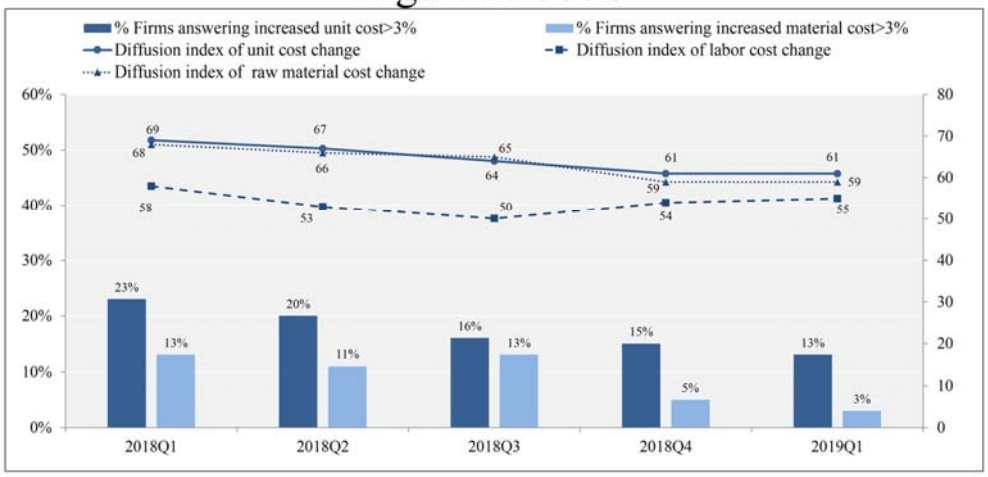

Figure 4. Other Main Economic Indices

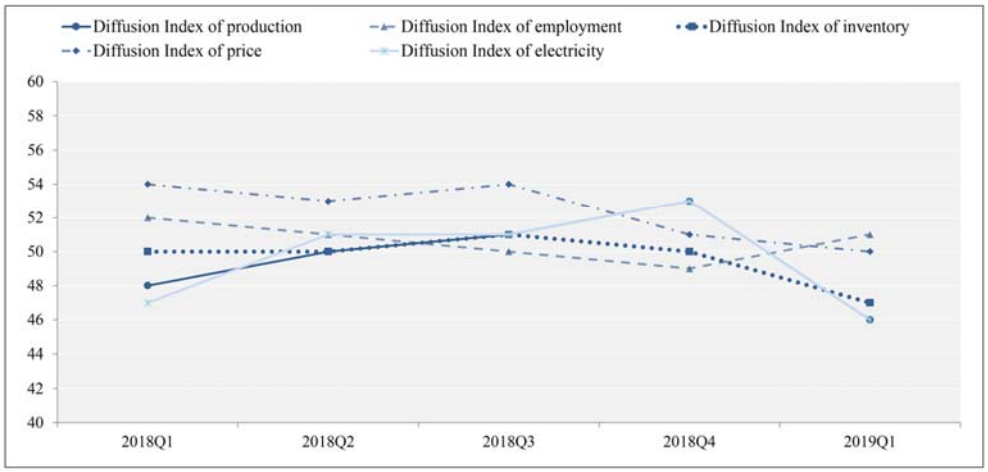

Figure 5. Factors Constraining Production of Next Quarter

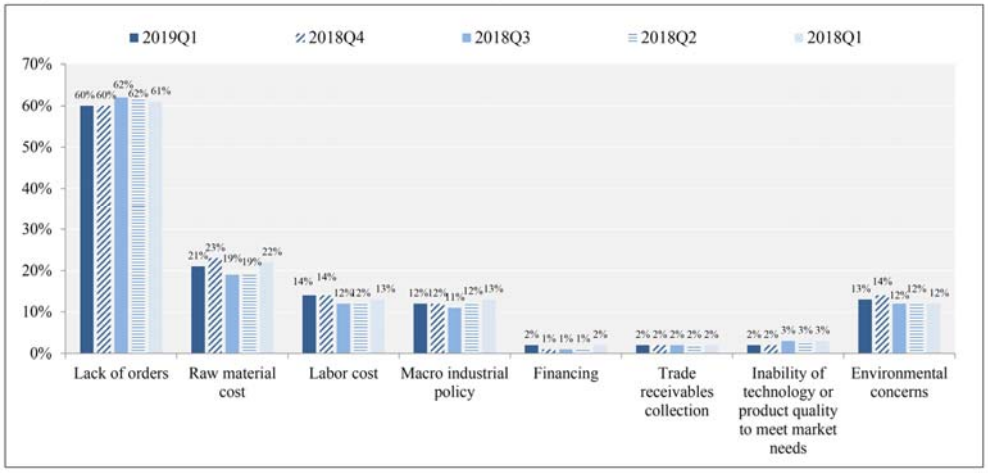

Figure 6A. Excess Capacity

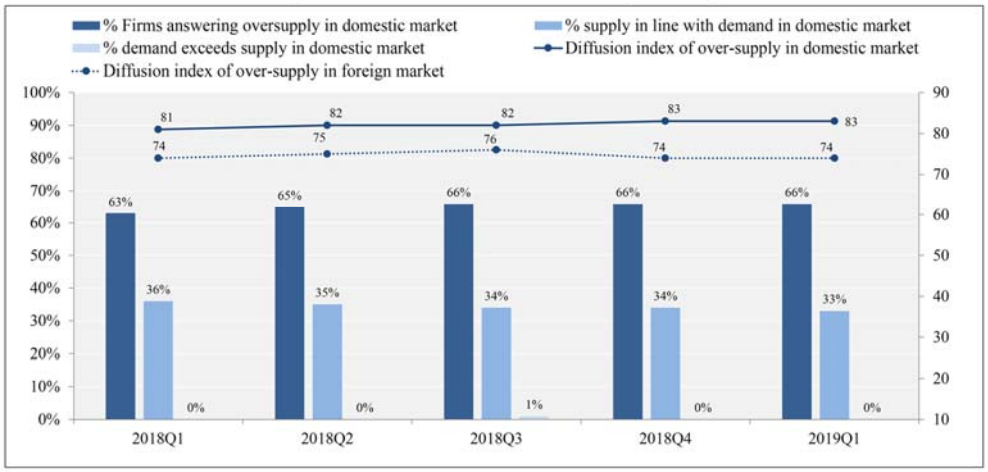

Figure 6B. Firms with Severe Excess Capacity

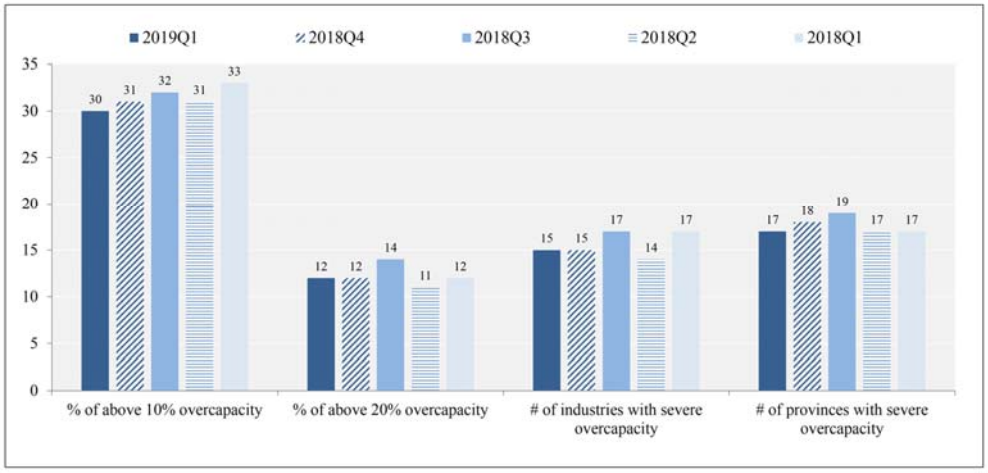

Figure 7A. Suspended Production

Figure 7B. Firms with Employment Reduction

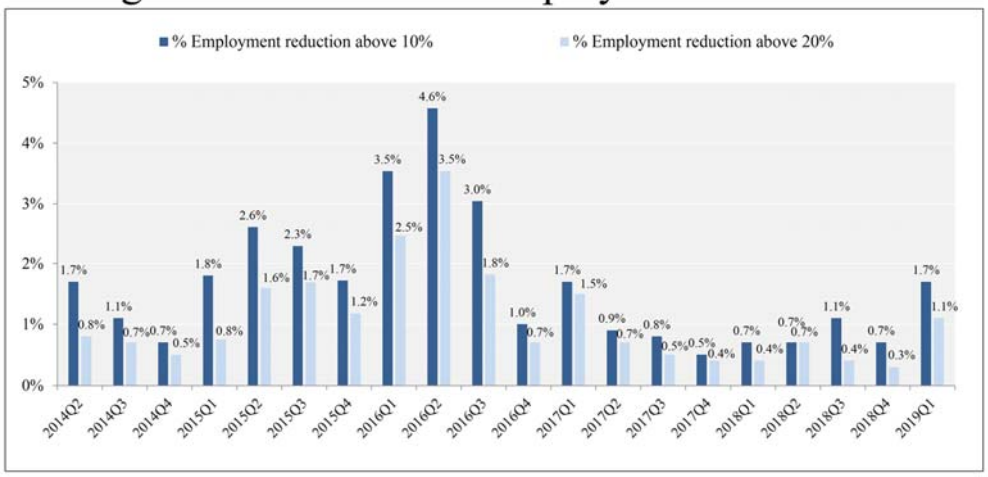

Figure 8. Capacity Utilization

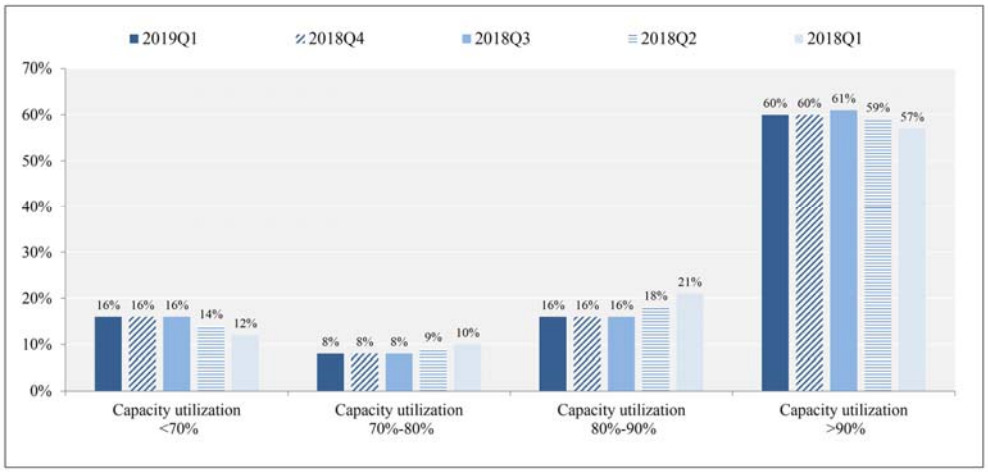

Figure 9. Gross Margins

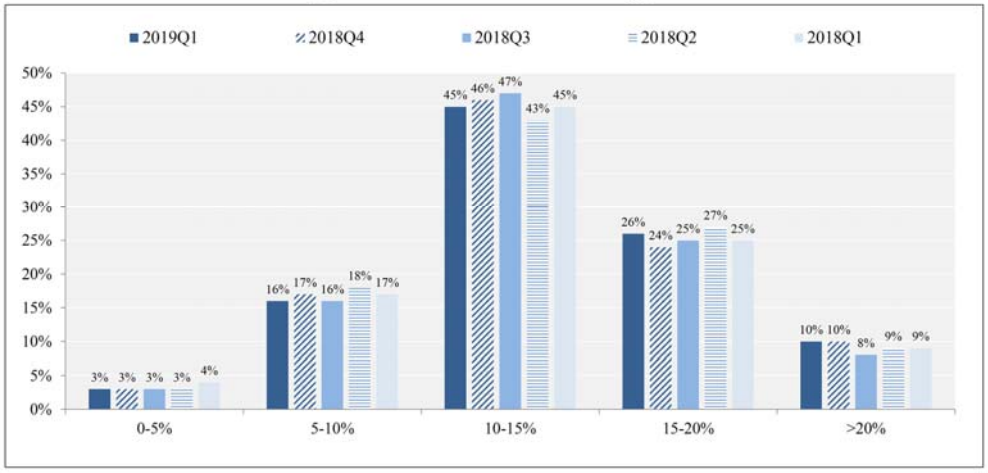

Figure 10. Financing

Figure 10A. Sufficient Capital

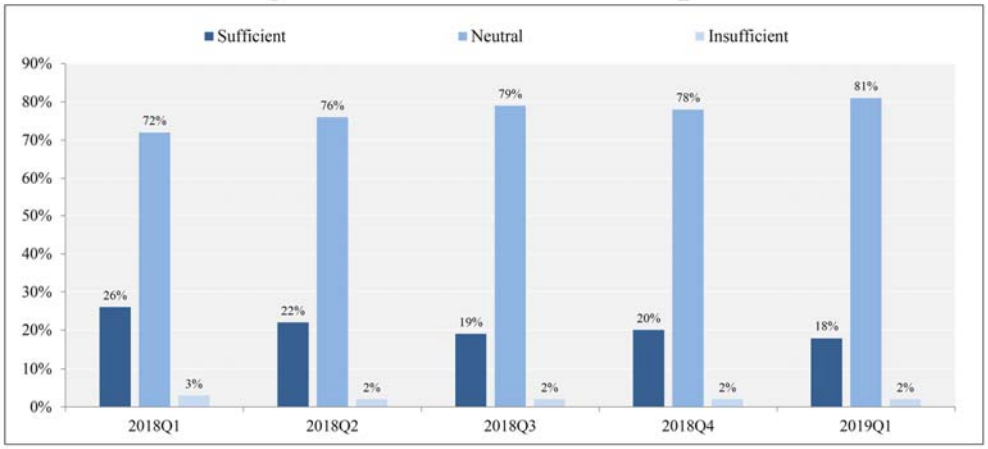

Figure 10B. New Loans

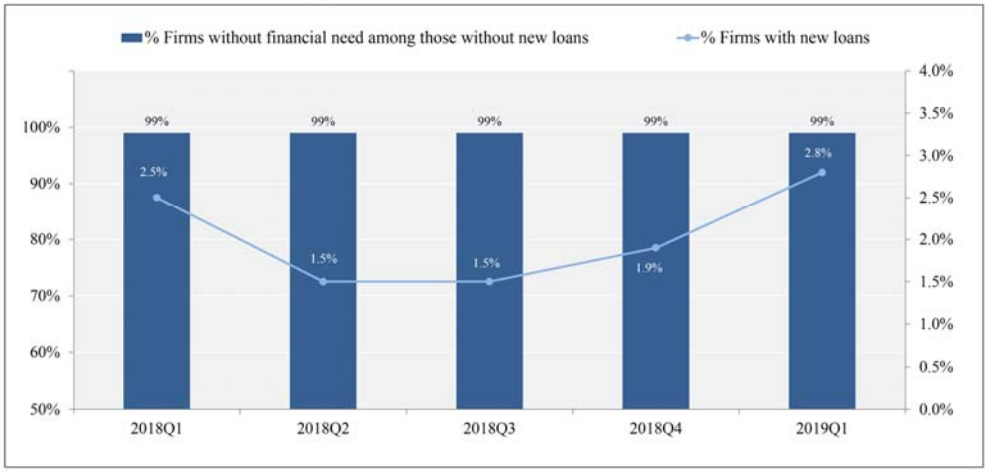

Figure 10C. Lending Attitude

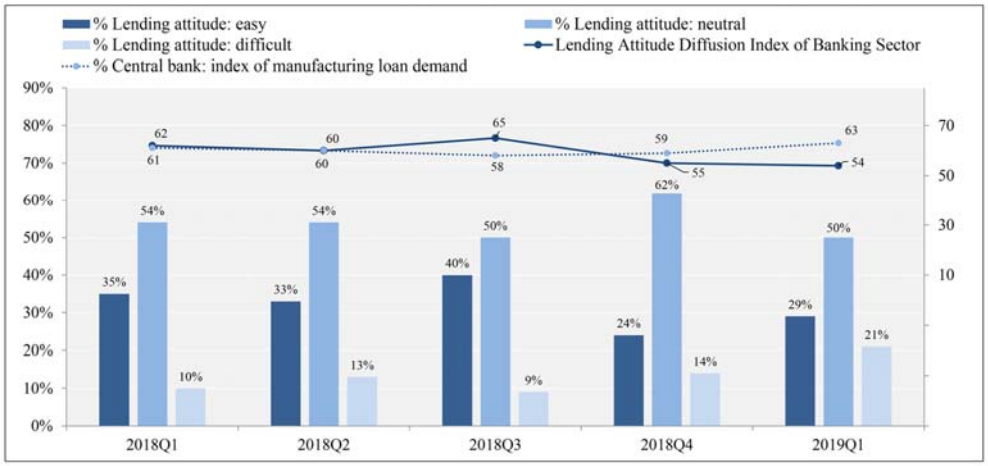

Figure 11. % of Firms Affected by Trade War

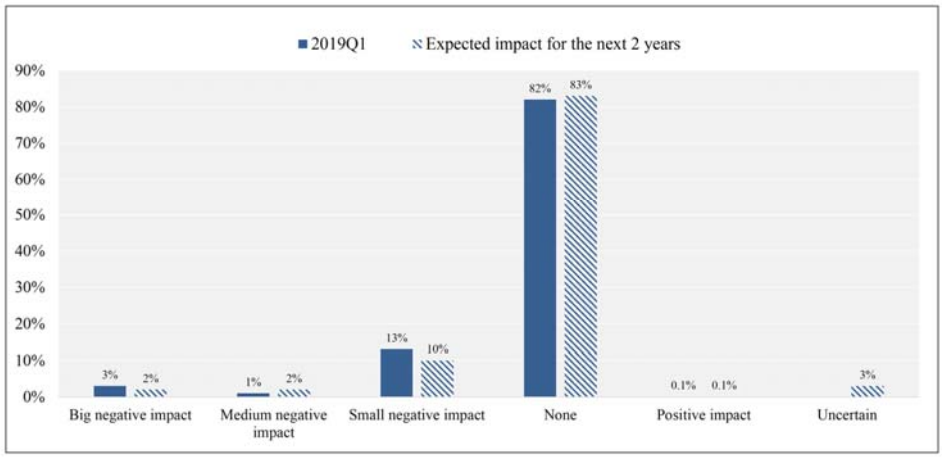

Table 1. Operating Conditions of Industrial Firms
Table 1.1

	Number of Firms		Business Sentiment Index		Diffusion Index - Operating Conditions		Diffusion Index - Expected Change in Operating Conditions		Diffusion Index - Good Timing for Investment	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	2,035	2,027	52	51	58	59	51	50	45	45
By Size										
Large	679	676	54	53	63	64	52	49	48	46
Medium	678	675	51	51	57	58	51	50	46	46
Small	678	676	49	49	55	55	51	49	43	42
By Ownership										
State-owned	102	94	61	59	81	79	54	49	48	47
Collectively-owned	15	19	50	46	60	53	53	53	37	34
Private	1,710	1,706	51	50	56	57	51	49	45	44
Foreign-owned	208	208	56	56	67	69	52	50	48	47
By Product Type										
Consumer Goods - Durable	281	272	51	50	58	58	51	48	43	42
Consumer Goods - Nondurable	598	596	53	53	62	63	52	51	46	45
Capital Goods	139	131	54	54	63	62	51	52	48	47
Intermediate Goods	1,017	1,028	51	50	55	56	51	49	45	45

Table 1.2

	% of Firms with Fixed Investment		% of Firms with Expansionary Investment		Diffusion Index - Production		Diffusion Index - Employment		Diffusion Index - Price	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	13	13	5	7	46	53	51	49	50	51
By Size										
Large	13	14	5	7	47	55	51	50	50	52
Medium	15	14	6	8	46	52	51	50	50	50
Small	9	10	4	6	44	51	50	49	50	52
By Ownership										
State-owned	8	11	2	2	48	55	50	51	50	52
Collectively-owned	7	5	0	5	50	58	50	50	50	50
Private	12	12	5	7	45	52	51	49	50	51
Foreign-owned	18	16	7	11	50	54	53	51	50	50
By Product Type										
Consumer Goods - Durable	13	13	4	8	42	51	51	47	49	51
Consumer Goods - Nondurable	14	11	5	4	47	57	51	51	50	51
Capital Goods	20	17	6	8	49	53	55	49	50	51
Intermediate Goods	11	13	5	9	46	50	50	49	50	51

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.

Table 2. Operating Conditions by Industry
Table 2.1 Operating Conditions of All Industries

	Number of Firms		Business Sentiment Index		Diffusion Index - Operating Conditions		Diffusion Index - Expected Change in Operating Conditions		% of Firms with Fixed Investment		Diffusion Index - Good Timing for Investment	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	2,035	2,027	52	51	58	59	51	50	13	13	45	45
Mining												
Coal Mining and Washing	11	18	45	45	36	36	50	50	9	11	50	50
Mining and Processing of Ferrous Metal Ores	11	14	52	51	55	61	50	46	0	36	50	46
Mining and Processing of Non-ferrous Metal	9	9	48	50	56	56	50	56	33	22	39	39
Mining and Processing of Nonmetal Ores	18	16	49	47	44	44	53	47	6	6	50	50
Production and Supply of Electricity, Heat, Gas and Water												
Power Production and Supply	65	55	61	58	76	72	57	51	3	11	50	50
Gas Production and Supply	13	13	54	64	92	92	19	50	8	0	50	50
Production and Supply of Water	22	23	65	62	93	91	57	48	5	13	45	46
Light Manufacturing												
Processing of Agricultural and Related Products	94	85	50	51	54	58	48	49	15	19	48	46
Manufacturing of Foods	77	71	54	54	62	64	54	54	19	4	46	45
Manufacturing of Beverage	34	32	52	57	57	63	54	64	21	9	44	44
Textiles	110	113	55	51	60	60	56	45	15	16	47	47
Textile Wearing and Apparel	74	70	52	50	55	57	53	45	7	16	47	46
Leather Related Products and Footwear	32	29	52	49	56	60	55	48	22	7	45	38
Processing of Wood Products	32	28	52	52	56	59	52	50	13	11	48	48
Manufacturing of Furniture	34	33	54	54	71	68	49	50	0	21	43	42
Paper and Paper Products	54	53	52	52	61	61	54	53	6	13	42	42
Printing, Reproduction of Recording Media	46	51	54	53	61	62	57	53	13	12	46	45
Cultural and Sports Products	50	48	52	51	59	58	51	49	10	13	45	45
Manufacturing of Medicines	58	67	53	54	60	65	48	49	19	7	49	49
Manufacturing of Others	10	13	47	47	50	54	50	50	30	8	40	38
Recycling and Disposal of Wastes	5	5	50	50	50	50	50	50	0	20	50	50
Chemical Industry												
Processing of Petroleum and Nuclear Fuel	14	16	56	58	68	72	50	53	7	31	50	50
Manufacturing of Chemical Products	126	131	49	49	50	50	50	50	6	8	48	48
Manufacturing of Chemical Fibers	8	9	54	54	56	56	56	56	25	11	50	50
Rubber and Plastic Products	87	92	52	52	59	62	53	52	16	14	44	43
Equipment Manufacturing												
General-purpose Machinery	91	102	50	50	54	55	51	49	25	31	45	45
Special-purpose Machinery	122	119	56	56	67	66	52	53	21	9	50	49
Manufacturing of Automotive	73	73	51	53	60	63	51	54	18	26	44	42
Manufacturing of Railways, Ships and Other Transportation	36	31	56	58	63	65	54	55	14	0	53	53
Electric Machinery and Apparatus	143	147	52	53	66	68	51	51	4	3	39	39
Computers, Communication and Electric Equipment	80	79	51	52	53	53	51	53	18	10	50	51
Manufacturing of Measuring Instruments	33	33	54	52	61	61	53	50	21	21	47	45
Repair of Metal Products, Machinery and Equipment	4	4	46	46	50	50	50	50	0	0	38	38
Other Heavy Manufacturing												
Non-metallic Mineral Products	150	135	47	41	46	44	51	38	5	5	43	41
Smelting and Pressing of Ferrous Metals	66	66	45	43	44	41	45	45	12	12	45	44
Smelting and Pressing of Non-ferrous Metals	28	33	53	52	61	61	48	48	14	36	50	45
Metal Products	115	111	47	45	53	54	51	50	11	9	35	33

Table 2.2 Industry Ranking of Operating Conditions

	Number of Firms		Business Sentiment Index		Diffusion Index - Operating Conditions		% of Firms with Fixed Investment		Diffusion Index - Good Timing for Investment	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	2,035	2,027	52	51	58	59	13	13	45	45
Top Five										
Production and Supply of Water	22	23	65	62	93	91	5	13	45	46
Power Production and Supply	65	55	61	58	76	72	3	11	50	50
Manufacturing of Railways, Ships and Other Transportation	36	31	56	58	63	65	14	0	53	53
Processing of Petroleum and Nuclear Fuel	14	16	56	58	68	72	7	31	50	50
Special-purpose Machinery	122	119	56	56	67	66	21	9	50	49
Bottom Five										
Coal Mining and Washing	11	18	45	45	36	36	9	11	50	50
Smelting and Pressing of Ferrous Metals	66	66	45	43	44	41	12	12	45	44
Repair of Metal Products, Machinery and Equipment	4	4	46	46	50	50	0	0	38	38
Metal Products	115	111	47	45	53	54	11	9	35	33
Non-metallic Mineral Products	150	135	47	41	46	44	5	5	43	41

Notes:
1. Ranking includes industries with more than three firms.

Table 3. Operating Conditions by Region

Table 3.1 Operating Conditions of All Regions

	Number of Firms		Business Sentiment Index		Diffusion Index - Operating Conditions		Diffusion Index - Expected Operating Conditions		% of Firms with Fixed Investment		Diffusion Index - Good Timing for Investment	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	2,035	2,027	52	51	58	59	51	50	13	13	45	45
North China												
Beijing	30	31	50	49	53	55	52	52	17	3	45	42
Tianjin	42	45	52	50	56	56	54	49	19	13	45	44
Hebei	102	93	47	45	52	52	49	45	9	13	41	39
Northeast												
Liaoning	83	87	51	52	57	60	50	48	5	13	46	47
Jilin	18	18	55	51	67	61	50	50	0	17	47	42
Heilongjiang	29	25	48	48	50	52	50	50	7	8	43	42
Northwest												
Inner Mongolia	23	24	51	51	57	52	46	50	9	8	50	50
Shaanxi	38	32	52	49	57	56	54	47	13	13	46	45
Gansu	13	9	50	54	58	56	42	56	8	22	50	50
Qinghai	2	2	50	50	50	50	50	50	0	0	50	50
Ningxia	6	6	44	44	50	50	42	50	0	0	42	33
Xinjiang	11	12	58	50	64	58	59	42	9	17	50	50
Central North												
Shanxi	18	22	50	52	56	55	53	57	11	36	42	43
Shandong	222	223	53	51	60	60	52	48	12	12	47	46
Henan	85	87	52	50	60	59	52	48	13	14	45	44
Southwest												
Chongqing	32	32	52	51	55	56	55	50	16	16	45	45
Sichuan	75	73	52	52	58	59	51	51	8	4	48	47
Guizhou	13	14	47	49	46	50	46	46	8	14	50	50
Yunnan	25	21	55	51	60	60	60	52	16	14	44	40
East China												
Shanghai	65	70	53	52	62	63	52	51	8	10	45	43
Jiangsu	246	236	52	52	58	60	51	50	15	10	46	45
Zhejiang	224	222	52	51	59	60	53	50	17	21	43	42
South China												
Fujian	94	98	51	52	58	59	50	52	15	14	45	45
Guangdong	233	231	52	52	58	60	52	50	10	8	46	46
Guangxi	43	41	53	52	58	57	52	50	19	17	49	48
Hainan	2	2	50	58	75	75	50	50	0	0	25	50
Central South												
Anhui	90	92	51	52	58	60	50	51	13	11	45	45
Jiangxi	50	50	50	49	55	57	48	46	16	16	47	45
Hubei	61	71	54	54	65	66	53	51	13	15	43	44
Hunan	60	58	53	51	60	60	53	49	17	14	47	45

Table 3.2 Regional Ranking of Operating Conditions

	Number of Firms		Business Sentiment Index		Diffusion Index - Operating Conditions		% of Firms with Fixed Investment		Diffusion Index - Good Timing for Investment	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	2,035	2,027	52	51	58	59	13	13	45	45
Top Five										
Xinjiang	11	12	58	50	64	58	9	17	50	50
Yunnan	25	21	55	51	60	60	16	14	44	40
Jilin	18	18	55	51	67	61	0	17	47	42
Hubei	61	71	54	54	65	66	13	15	43	44
Shanghai	65	70	53	52	62	63	8	10	45	43
Bottom Five										
Ningxia	6	6	44	44	50	50	0	0	42	33
Hebei	102	93	47	45	52	52	9	13	41	39
Guizhou	13	14	47	49	46	50	8	14	50	50
Heilongjiang	29	25	48	48	50	52	7	8	43	42
Shanxi	18	22	50	52	56	55	11	36	42	43

Notes:

1. Ranking includes regions with more than three firms.

Table 4. Oversupply

Table 4.1 Overall

	Number of Firms		Diffusion Index for Oversupply in Domestic Markets		Diffusion Index for Oversupply in Overseas Markets		Diffusion Index for Finished Goods	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	2,035	2,027	83	83	74	74	47	50
By Size								
Large	679	676	80	80	73	75	48	51
Medium	678	675	84	83	72	73	47	49
Small	678	676	86	86	76	75	47	51
By Ownership								
State-owned	102	94	58	60	59	63	47	53
Collectively-owned	15	19	79	81	50	63	50	50
Private	1,710	1,706	85	84	74	75	47	50
Foreign -owned	208	208	82	82	73	74	49	52
By Product Type								
Consumer Goods - Durable	281	272	81	80	70	68	45	54
Consumer Goods - Nondurable	598	596	80	81	74	77	47	49
Capital Goods	139	131	77	77	66	63	47	46
Intermediate Goods	1,017	1,028	86	86	76	78	48	50

Table 4.2 Industries with Severe Excess Capacity

Industry	Number of Firms	% of Firms with 20% excess capacity and above	% of Firms with 10% excess capacity and above
Mining and Processing of Ferrous Metal Ores	11	55	64
Mining and Processing of Nonmetal Ores	18	44	56
Processing of Petroleum and Nuclear Fuel	14	36	36
Non-metallic Mineral Products	150	34	39
Smelting and Pressing of Ferrous Metals	66	32	47
Processing of Wood Products	32	25	47
Mining and Processing of Non-ferrous Metal	9	22	44
Smelting and Pressing of Non-ferrous Metals	28	21	29
Metal Products	115	17	39
Manufacturing of Furniture	34	15	24
Printing, Reproduction of Recording Media	46	13	33
Manufacturing of Medicines	58	12	26
Electric Machinery and Apparatus	143	11	24
Manufacturing of Automotive	73	11	38
Manufacturing of Others	10	10	50

Notes:
1. This table reports industries that have at least 10% of firms with 20% or above excess capacity.
2. This table includes industries with more than three firms.

Table 4.3 Regions with Severe Excess Capacity

Province	Number of Firms	% of Firms with 20% excess capacity and above	% of Firms with 10% excess capacity and above
Xinjiang	11	36	45
Ningxia	6	33	50
Guizhou	13	23	46
Hebei	102	21	44
Henan	85	20	39
Sichuan	75	19	39
Inner Mongolia	23	17	30
Shanxi	18	17	33
Jilin	18	17	33
Liaoning	83	16	36
Fujian	94	15	29
Shandong	222	15	31
Shaanxi	38	13	34
Jiangxi	50	12	28
Yunnan	25	12	20
Tianjin	42	12	33
Heilongjiang	29	10	41

Notes:
1. This table reports regions that have at least 10% of firms with 20% or above excess capacity.
2. This table includes regions with more than three firms.

Table 5. Cost and Price

Table 5.1 Overall

	Number of Firms		Diffusion Indices							
			Unit Cost Index		Labor Cost Index		Raw Material Cost Index		Price Index	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	2,035	2,027	61	61	55	54	59	59	50	51
By Size										
Large	679	676	60	61	56	55	58	59	50	52
Medium	678	675	60	60	54	54	58	58	50	50
Small	678	676	62	62	54	54	61	60	50	52
By Ownership										
State-owned	102	94	52	55	51	52	53	58	50	52
Collectively-owned	15	19	60	61	53	50	61	61	50	50
Private	1710	1706	61	61	55	54	59	59	50	51
Foreign -owned	208	208	61	60	58	56	59	58	50	50
By Product Type										
Consumer Goods - Durable	281	272	65	67	57	54	64	64	49	51
Consumer Goods - Nondurable	598	596	56	57	54	53	56	57	50	51
Capital Goods	139	131	60	63	64	52	59	62	50	51
Intermediate Goods	1017	1028	62	62	53	55	59	59	50	51

Table 5.2 Industries with Unit Cost Increase More Significant than National Average

		Diffusion Indices			
	Number of Firms	Unit Cost Index	Labor Cost Index	Raw Material Cost Index	Price Index
Nation	2,035	61	55	59	50
Manufacturing of Measuring Instruments	33	80	59	73	50
Processing of Wood Products	32	72	56	66	47
Computers, Communication and Electric Equipment	80	71	56	64	45
General-purpose Machinery	91	69	54	64	51
Cultural and Sports Products	50	69	60	65	48
Electric Machinery and Apparatus	143	68	56	64	43
Textile Wearing and Apparel	74	68	55	63	49
Non-metallic Mineral Products	150	67	50	65	53
Leather Related Products and Footwear	32	64	48	65	50
Manufacturing of Chemical Fibers	8	63	50	63	50
Repair of Metal Products, Machinery and Equipment	4	63	63	63	50
Processing of Agricultural and Related Products	94	61	56	59	49
Mining and Processing of Non-ferrous Metal	9	61	67	61	50

Notes:

1. Industries are sorted by Diffusion Index for Unit Cost in descending order.
The table includes industries with more than three firms.

Table 5.3 Regions with Unit Cost Increase More Significant than National Average

		Diffusion Indices			
	Number of Firms	Unit Cost Index	Labor Cost Index	Raw Material Cost Index	Price Index
Nation	2,035	61	55	59	50
Gansu	13	73	50	75	58
Henan	85	66	53	64	51
Jiangsu	246	64	58	62	48
Hunan	60	63	52	63	50
Fujian	94	63	60	60	49
Guangdong	233	63	55	61	50
Hubei	61	63	56	62	50
Heilongjiang	29	62	55	63	48
Shaanxi	38	61	51	60	49
Anhui	90	61	56	58	51

Notes:
1. Provinces are sorted by Diffusion Index for Unit Cost in descending order.
The table includes provinces with more than three firms.

Table 6. Financing Environment
Table 6.1 Overall

	Number of Firms		% Firms with Loans		% Firms with New Loans		Diffusion Index - Lending Attitude		Diffusion Index - Interest Rate	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	2,035	2,027	29	26	3	2	54	55	51	51
With or Without Investment										
Firms with Investment	255	257	36	33	6	5	61	60	53	50
Firms without Investment	1,780	1,770	27	25	2	1	52	52	51	52
By Size										
Large	679	676	30	28	2	1	63	62	50	50
Medium	678	675	28	26	4	2	55	55	53	53
Small	678	676	27	25	3	2	46	48	50	52
By Ownership										
State-owned	102	94	20	20	1	1	50	50	50	50
Collectively-owned	15	19	20	26	0	0	100	100	50	50
Private	1,710	1,706	29	27	3	2	53	53	51	52
Foreign -owned	208	208	26	23	3	2	56	63	50	50
By Product Type										
Consumer Goods - Durable	281	272	32	27	4	0	50	80	50	50
Consumer Goods - Nondurable	598	596	28	27	1	2	56	54	53	52
Capital Goods	139	131	42	38	5	1	42	25	50	50
Intermediate Goods	1,017	1,028	26	24	3	2	57	53	51	52

Notes:
1. A higher Diffusion Index for lending attitude reflects easier lending.
2. A higher Diffusion Index for interest rate reflects higher interest rate.

Table 6.2 Sources of Financing

The most important source of financing

Sources	Number of Firms	% of Firms
Internal Funds	1972	97
Founder	66	3
Relatives and friends	0	0
Bank	9	0
Stock market	1	0
Non-official finance institution	0	0
Others	0	0

The second most important source of financing

Sources	Number of Firms	% of Firms
Bank	573	72
Founder	228	29
Others	1	0
Internal Funds	1	0
Stock market	1	0
Non-official finance institution	0	0
Relatives and friends	0	0

Appendix 1. Industry and Regional Ranking of Excess Capacity

Table A1.1 Industry Ranking of Excess Capacity

Industry	Number of Firms		% of Firms with 20% excess capacity and above		% of Firms with 10% excess capacity and above	
	Q1	Q4	Q1	Q4	Q1	Q4
Mining and Processing of Ferrous Metal Ores	11	14	55	71	64	79
Mining and Processing of Nonmetal Ores	18	16	44	38	56	44
Processing of Petroleum and Nuclear Fuel	14	16	36	31	36	31
Non-metallic Mineral Products	150	135	34	40	39	46
Smelting and Pressing of Ferrous Metals	66	66	32	24	47	42
Processing of Wood Products	32	28	25	25	47	54
Mining and Processing of Non-ferrous Metal	9	9	22	22	44	44
Smelting and Pressing of Non-ferrous Metals	28	33	21	24	29	33
Metal Products	115	111	17	17	39	41
Manufacturing of Furniture	34	33	15	12	24	27
Printing, Reproduction of Recording Media	46	51	13	12	33	31
Manufacturing of Medicines	58	67	12	13	26	31
Electric Machinery and Apparatus	143	147	11	14	24	29
Manufacturing of Automotive	73	73	11	11	38	29
Manufacturing of Others	10	13	10	8	50	46
Coal Mining and Washing	11	18	9	17	9	17
General-purpose Machinery	91	102	8	7	30	28
Processing of Agricultural and Related Products	94	85	7	7	48	41
Rubber and Plastic Products	87	92	7	8	36	29
Textile Wearing and Apparel	74	70	7	7	12	13
Manufacturing of Foods	77	71	6	10	19	23
Cultural and Sports Products	50	48	6	6	12	10
Special-purpose Machinery	122	119	4	6	13	17
Manufacturing of Chemical Products	126	131	4	2	47	46
Computers, Communication and Electric Equipment	80	79	4	3	21	22
Paper and Paper Products	54	53	4	4	26	28
Textiles	110	113	4	4	19	21
Leather Related Products and Footwear	32	29	3	3	28	31
Power Production and Supply	65	55	3	2	3	2
Manufacturing of Railways, Ships and Other Transportation	36	31	3	3	22	26
Manufacturing of Chemical Fibers	8	9	0	0	38	33
Repair of Metal Products, Machinery and Equipment	4	4	0	0	25	25
Recycling and Disposal of Wastes	5	5	0	0	20	20
Manufacturing of Beverage	34	32	0	3	12	13
Production and Supply of Water	22	23	0	0	5	4
Manufacturing of Measuring Instruments	33	33	0	9	3	9
Gas Production and Supply	13	13	0	0	0	0

Notes:

Industries are sorted based on the percentage of firms with over 20% excess capacity in descending order. The ranking includes industries with more than three firms.

Table A1.2 Regional Ranking of Excess Capacity

Province	Number of Firms		% of Firms with 20% excess capacity and above		% of Firms with 10% excess capacity and above	
	Q1	Q4	Q1	Q4	Q1	Q4
Xinjiang	11	12	36	25	45	33
Ningxia	6	6	33	50	50	67
Guizhou	13	14	23	7	46	29
Hebei	102	93	21	19	44	44
Henan	85	87	20	24	39	41
Sichuan	75	73	19	22	39	38
Inner Mongolia	23	24	17	21	30	33
Shanxi	18	22	17	14	33	27
Jilin	18	18	17	17	33	39
Liaoning	83	87	16	13	36	36
Fujian	94	98	15	11	29	29
Shandong	222	223	15	15	31	32
Shaanxi	38	32	13	25	34	38
Jiangxi	50	50	12	12	28	28
Yunnan	25	21	12	14	20	24
Tianjin	42	45	12	16	33	33
Heilongjiang	29	25	10	12	41	44
Hubei	61	71	10	13	20	24
Chongqing	32	32	9	6	28	19
Guangxi	43	41	9	7	16	20
Anhui	90	92	8	10	24	22
Gansu	13	9	8	0	31	22
Jiangsu	246	236	7	9	25	28
Beijing	30	31	7	16	20	26
Guangdong	233	231	6	6	25	25
Zhejiang	224	222	5	5	19	23
Hunan	60	58	5	5	25	24
Shanghai	65	70	3	7	29	29

Notes:

Provinces are sorted based on the percentage of firms with over 20% excess capacity in descending order.

Appendix 2. Industry and Regional Diffusion Index for Cost and Price

Table A2.1 Industry Diffusion Index for Cost and Price

	Diffusion Indices									
	Number of Firms		Unit Cost Index		Labor Cost Index		Raw Material Cost Index		Price Index	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	2035	2027	61	61	55	54	59	59	50	51
Mining										
Coal Mining and Washing	11	18	45	53	55	44	45	53	41	53
Mining and Processing of Ferrous Metal Ores	11	14	55	50	55	50	55	50	50	46
Mining and Processing of Non-ferrous Metal	9	9	61	67	67	61	61	67	50	50
Mining and Processing of Nonmetal Ores	18	16	58	56	50	50	53	50	53	50
Production and Supply of Electricity, Heat, Gas and Water										
Power Production and Supply	65	55	50	52	50	53	50	50	50	50
Gas Production and Supply	13	13	54	50	54	65	50	NA	50	50
Production and Supply of Water	22	23	52	50	52	52	NA	NA	50	50
Light Manufacturing										
Processing of Agricultural and Related Products	94	85	61	66	56	63	59	63	49	52
Manufacturing of Foods	77	71	56	56	58	56	57	56	51	50
Manufacturing of Beverage	34	32	56	59	54	50	54	59	49	55
Textiles	110	113	57	53	49	47	58	53	51	49
Textile Wearing and Apparel	74	70	68	64	55	57	63	61	49	50
Leather Related Products and Footwear	32	29	64	72	48	45	65	75	50	50
Processing of Wood Products	32	28	72	55	56	50	66	55	47	50
Manufacturing of Furniture	34	33	56	68	50	48	56	67	53	58
Paper and Paper Products	54	53	56	56	61	50	56	56	47	50

Table A2.1 Industry Diffusion Index for Cost and Price（Continued）

	Diffusion Indices									
	Number of Firms		Unit Cost Index		Labor Cost Index		Raw Material Cost Index		Price Index	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Printing, Reproduction of Recording Media	46	51	57	55	45	49	56	55	49	49
Cultural and Sports Products	50	48	69	66	60	54	65	63	48	53
Manufacturing of Medicines	58	67	54	53	53	54	54	51	50	50
Manufacturing of Others	10	13	60	65	50	50	60	65	55	54
Recycling and Disposal of Wastes	5	5	50	50	40	50	50	50	50	50
Chemical Industry										
Processing of Petroleum and Nuclear Fuel	14	16	54	56	46	47	54	53	50	50
Manufacturing of Chemical Products	126	131	59	61	52	54	58	61	52	55
Manufacturing of Chemical Fibers	8	9	63	78	50	56	63	78	50	56
Rubber and Plastic Products	87	92	51	57	52	46	51	55	48	51
Equipment Manufacturing										
General-purpose Machinery	91	102	69	74	54	68	64	70	51	51
Special-purpose Machinery	122	119	59	58	71	47	59	58	50	50
Manufacturing of Automotive	73	73	55	62	53	50	55	62	51	51
Manufacturing of Railways, Ships and Other Transportation	36	31	51	58	58	48	51	58	49	50
Electric Machinery and Apparatus	143	147	68	72	56	70	64	61	43	51
Computers, Communication and Electric Equipment	80	79	71	65	56	66	64	57	45	49
Manufacturing of Measuring Instruments	33	33	80	67	59	52	73	67	50	52
Repair of Metal Products, Machinery and Equipment	4	4	63	63	63	50	63	63	50	50
Other Heavy Manufacturing										
Non-metallic Mineral Products	150	135	67	67	50	51	65	66	53	54
Smelting and Pressing of Ferrous Metals	66	66	58	54	50	50	59	53	55	52
Smelting and Pressing of Non-ferrous Metals	28	33	55	59	50	52	55	59	50	52
Metal Products	115	111	60	55	58	54	55	54	50	51

Notes: The table includes industries with more than three firms.

Table A2.2 Regional Diffusion Index for Cost and Price

	Diffusion Indices									
	Number of Firms		Unit Cost Index		Labor Cost Index		Raw Material Cost Index		Price Index	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Nation	2,035	2,027	61	61	55	54	59	59	50	51
North China										
Beijing	30	31	60	66	58	53	60	65	48	52
Tianjin	42	45	55	53	56	48	54	53	48	47
Hebei	102	93	58	59	51	52	56	56	49	49
Northeast										
Liaoning	83	87	60	59	53	53	59	57	49	50
Jilin	18	18	50	58	50	53	47	59	42	53
Heilongjiang	29	25	62	48	55	50	63	48	48	46
Northwest										
Inner Mongolia	23	24	52	54	52	52	53	52	43	44
Shaanxi	38	32	61	59	51	58	60	59	49	47
Gansu	13	9	73	61	50	56	75	56	58	50
Ningxia	6	6	42	42	50	50	42	42	50	50
Xinjiang	11	12	55	50	55	54	55	50	50	46
Central North										
Shanxi	18	22	56	59	61	57	56	59	47	57
Shandong	222	223	60	62	53	56	59	61	52	53
Henan	85	87	66	65	53	53	64	62	51	53
Southwest										
Chongqing	32	32	59	63	59	63	58	62	50	56
Sichuan	75	73	57	60	54	54	55	59	51	52
Guizhou	13	14	58	57	54	54	55	58	50	54
Yunnan	25	21	58	55	54	48	60	56	48	50
East China										
Shanghai	65	70	58	62	55	56	56	60	50	54
Jiangsu	246	236	64	61	58	54	62	59	48	50
Zhejiang	224	222	59	63	53	56	58	62	49	51
South China										
Fujian	94	98	63	63	60	57	60	61	49	54
Guangdong	233	231	63	62	55	53	61	60	50	52
Guangxi	43	41	59	54	56	55	57	53	52	50
Central South										
Anhui	90	92	61	66	56	54	58	63	51	53
Jiangxi	50	50	60	61	56	54	57	61	49	50
Hubei	61	71	63	59	56	56	62	59	50	51
Hunan	60	58	63	60	52	55	63	59	50	52

Notes:

The table includes provinces with more than three firms.

Appendix 3. Survey Sampling

3.1 The Population

Staring from 2017Q2, we have included firms in the 2013 Industrial Enterprises database in our sampling. This is the most complete and reliable economic census data available.

Although the 2013 Industrial Enterprises database is our best option, it was still compiled six years ago. A firm's core characteristics, such as industry, might have changed significantly in that time. Thus, we also surveyed firms about their main products and product types.

3.2 Sampling Procedure

Previously, our sampling was based on the population of sizable industrial firms (with sales above 5 million RMB) in the 2008 Economic Census. In order to ensure the comparability of this quarter's survey with those in the previous quarters, we used a sampling procedure as described below:

1. We started from the 2027 firms in our last response sample, which was the result of a random sampling stratified by industry, region and size (see our previous reports for details). Of those, we obtained responses from 1766 firms. Steps 2-3 below describe how we obtain a supplement sample of 1170 firms from the 2013 Industrial Enterprise database, which, assuming a 20% response rate, would yield an additional 234 firms so that the total size of the survey sample is 2,000 firms.

2. We stratified by three size categories, 41 industries and 31 provinces to obtain 3,813 strata in both the 2008 Economic Census and 2013 Industrial Enterprises database populations. Then we compute, in each stratum, the percentage of new firms founded after 2008.

3. Assuming random responses across the above 3,813 strata, we compute the number of firms across strata and the proportion of new firms (founded after 2008) in each stratum, so that the final response sample could match (or approach) the population in terms of industry, region and size, as well as the proportion of new firms. Out of the 1170 firms in our supplementary sample, we obtained 269 responses, resulting in a total of 2035 firms in our final survey sample.

However, we note that to ensure a smooth transition across quarters, this quarter's sample does not match well with the 2013 Industrial Enterprise database population in two dimensions. First, the weight of new firms founded after 2008 is lower. Second, given that the National Bureau of Statistics changed its definition of sizable firms between 2008 and 2013, from sales totaling 5 million RMB up to 20 million RMB, the average firm size is between the two databases. We will resolve these discrepancies gradually in the coming surveys. Moreover, in our data analysis, we have cross-checked that the results relative to those of the last quarter have not been driven by the new sample.

3.3 Survey Process

The survey is conducted through phone interviews. Figure A1 reports the distribution of the number of phone calls, duration of the calls and the interviewees' positions in their companies.

3.4. Sample Representativeness

Tables A3.1-A3.3 show the distribution of the population and the Q1 response sample, as well as the 1766 firms that were also in the Q4 sample, in terms of industry, region and size. Note that as we are sampling 2.1% of the population, some small strata may not be sampled. Specifically, Tibet is a region that has not been sampled, while Mining of other Ores, Extraction of Petroleum & Natural Gas and Manufacture of Tobacco are three industries not sampled. Overall, however, we feel our response sample represents the population quite well.

3.5 Seasonality

Theoretically, there are no obvious ways to adjust for seasonality, especially given the relatively small number of surveys we have conducted. We deal with this issue by directly asking the firms about seasonality and its impact. As shown in Figure A1.4, the majority of firms (88%) reported no seasonality, while for 9% of the firms, the seasonality impact was below 5%. Most importantly, the impact of seasonality has been distributed symmetrically around zero in the past. Thus, in aggregate, seasonality is not likely to bias our results and we do not adjust for seasonality.

It is worth noting that, in Q1, the seasonal impact is overall slightly negative, possibly caused by the Lunar New Year.

Figure A1. Phone Interviews – number of calls, duration and interviewees

Figure A1.1 Number of Calls

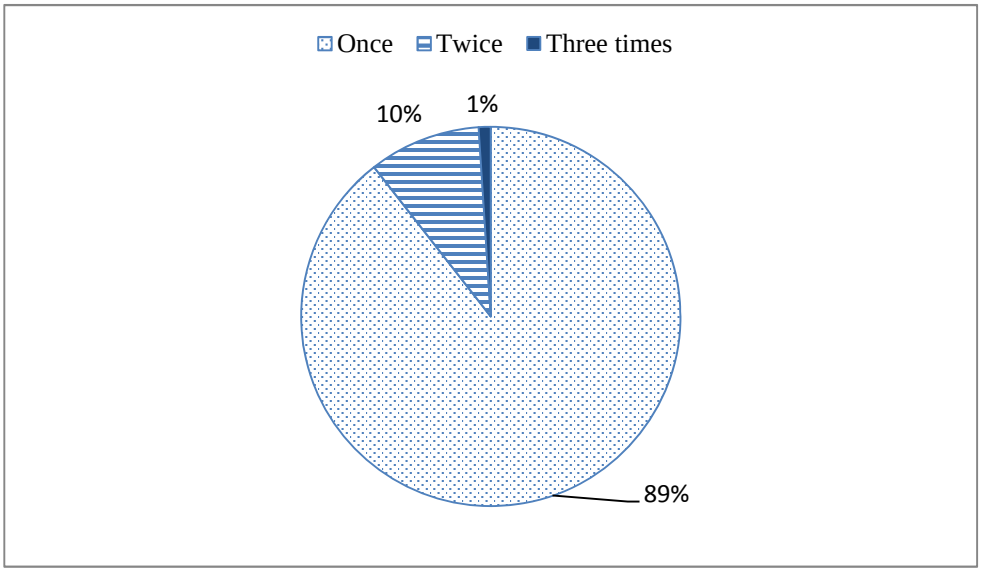

Figure A1.2 Duration of Calls

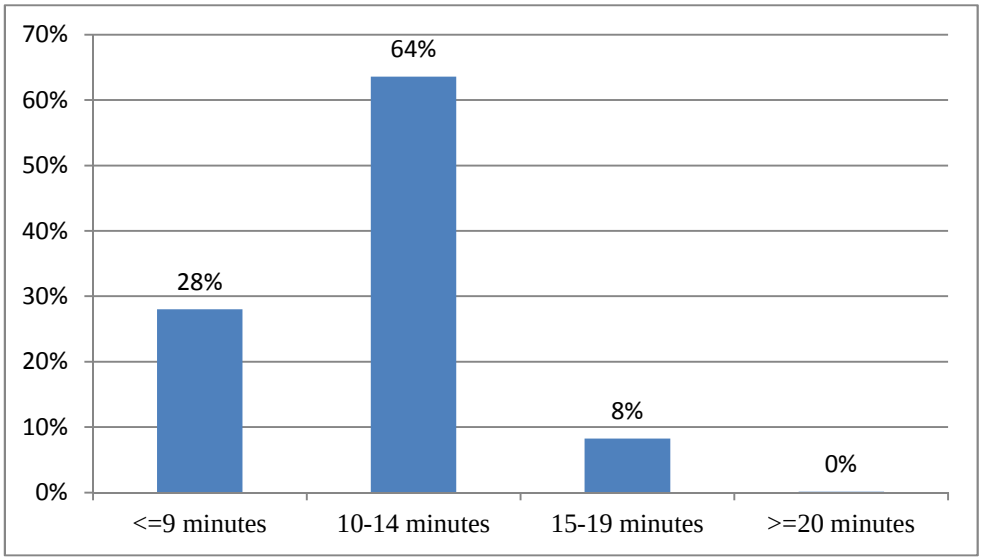

Figure A1.3 Interviewees' Positions

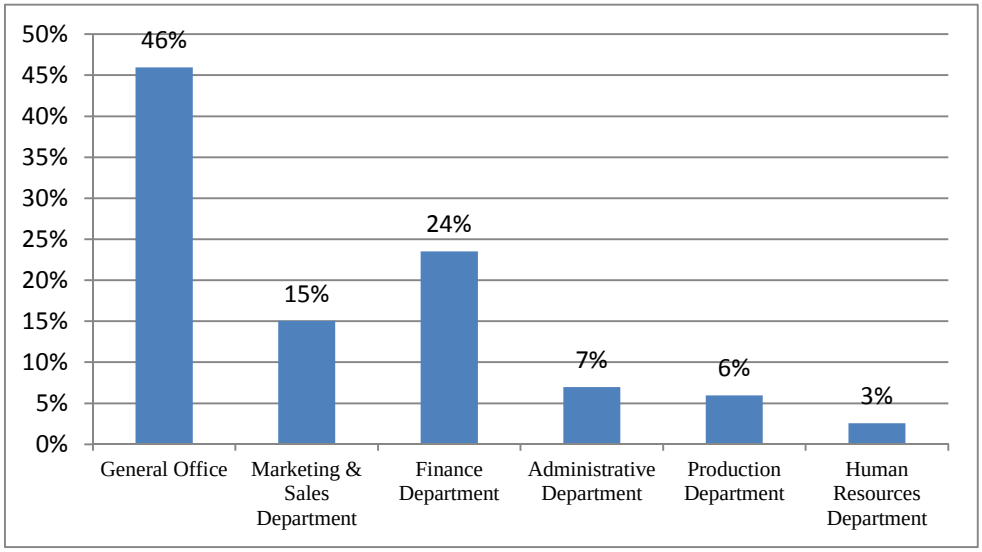

Figure A1.4 Seasonality

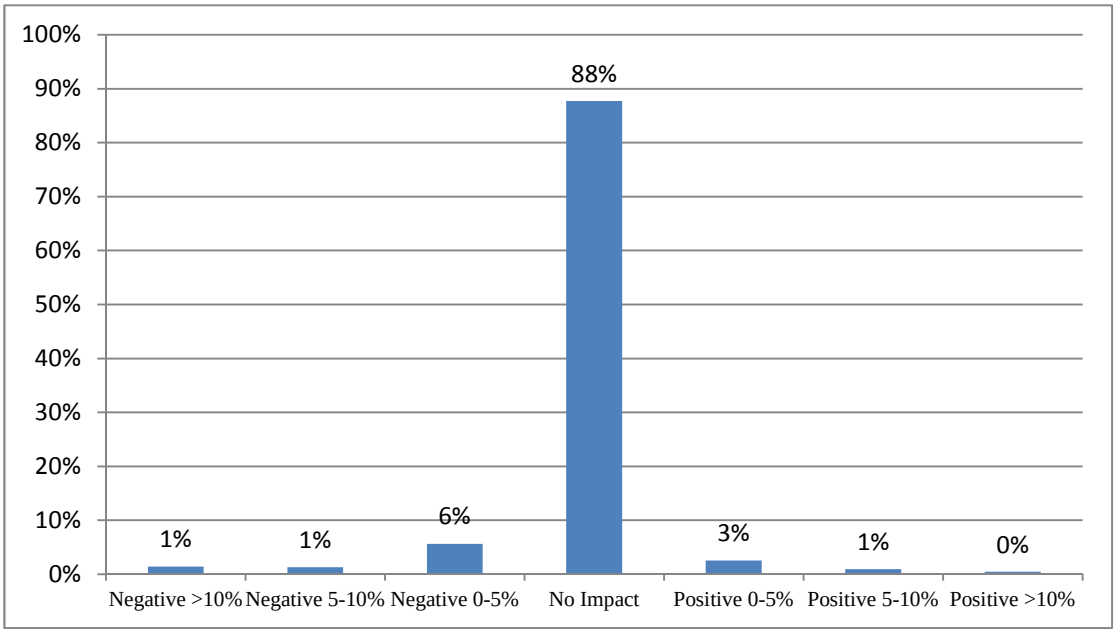

Table A3. Comparisons between Survey Sample and the Population

Table A3.1 Industry Distribution

Industry	Population		1766 Firms From Q4 Survey		Final Q1 Response Sample	
	Number of Firms	Percent	Number of Firms	Percent	Number of Firms	Percent
Power Production and Supply	5,701	1.7	53	3.0	65	3.2
Electric Machinery and Apparatus	21,012	6.2	131	7.4	143	7.0
Textile Wearing and Apparel	14,147	4.2	59	3.3	74	3.6
Textiles	19,591	5.8	103	5.8	110	5.4
Mining and Processing of Nonmetal Ores	3,363	1.0	15	0.9	18	0.9
Non-metallic Mineral Products	29,429	8.7	121	6.9	150	7.4
Recycling and Disposal of Wastes	1,256	0.4	5	0.3	5	0.3
Mining and Processing of Ferrous Metal Ores	3,100	0.9	9	0.5	11	0.5
Smelting and Pressing of Ferrous Metals	10,190	3.0	57	3.2	66	3.2
Manufacturing of Chemical Fibers	1,859	0.6	8	0.5	8	0.4
Manufacturing of Chemical Products	23,402	6.9	108	6.1	126	6.2
Computers, Communication and Electric Equipment	12,540	3.7	68	3.9	80	3.9
Manufacturing of Furniture	4,656	1.4	30	1.7	34	1.7
Repair of Metal Products, Machinery and Equipment	381	0.1	4	0.2	4	0.2
Metal Products	18,498	5.5	105	6.0	115	5.7
Manufacturing of Beverage	5,496	1.6	28	1.6	34	1.7
Other Ancillary Activities of Mining	153	0.1	0	0.0	0	0.0
Coal Mining and Washing	6,680	2.0	11	0.6	11	0.5
Processing of Wood Products	8,154	2.4	27	1.5	32	1.6
Processing of Agricultural and Related Products	22,485	6.7	67	3.8	94	4.6
Leather Related Products and Footwear	7,714	2.3	22	1.3	32	1.6
Mining of other Ores	17	0.0	0	0.0	0	0.0
Manufacturing of Others	1,527	0.5	10	0.6	10	0.5
Manufacturing of Automotive	11,733	3.5	58	3.3	73	3.6
Gas Production and Supply	1,095	0.3	13	0.7	13	0.6
Extraction of Petroleum and Natural Gas	135	0.0	0	0.0	0	0.0
Processing of Petroleum and Nuclear Fuel	1,941	0.6	13	0.7	14	0.7
Manufacturing of Foods	7,388	2.2	68	3.9	77	3.8
Production and Supply of Water	1,310	0.4	22	1.3	22	1.1
Manufacturing of Railways, Ships and Other Transportation	4,277	1.3	31	1.8	36	1.8
General-purpose Machinery	22,163	6.6	80	4.5	91	4.5
Cultural and Sports Products	7,513	2.2	44	2.5	50	2.5
Rubber and Plastic Products	16,327	4.8	79	4.5	87	4.3
Manufacture of Tobacco	122	0.0	0	0.0	0	0.0
Manufacturing of Medicines	6,483	1.9	44	2.5	58	2.9
Manufacturing of Measuring Instruments	3,805	1.1	29	1.6	33	1.6
Printing, Reproduction of Recording Media	4,734	1.4	45	2.6	46	2.3
Mining and Processing of Non-ferrous Metal	1,552	0.5	8	0.5	9	0.4
Smelting and Pressing of Non-ferrous Metals	3,728	1.1	22	1.3	28	1.4
Paper and Paper Products	6,580	2.0	51	2.9	54	2.7
Special-purpose Machinery	15,443	4.6	118	6.7	122	6.0
Total	337,680	100	1,766	100	2,035	100

Table A3.2 Regional Distribution

Province	Population		1766 Firms From Q4 Survey		Final Q1 Response Sample	
	Number of Firms	Percent	Number of Firms	Percent	Number of Firms	Percent
Anhui	14,533	4.3	77	4.4	90	4.4
Beijing	3,506	1.0	25	1.4	30	1.5
Fujian	15,206	4.5	85	4.8	94	4.6
Gansu	1,723	0.5	9	0.5	13	0.6
Guangdong	37,831	11.2	203	11.5	233	11.5
Guangxi	4,919	1.5	36	2.0	43	2.1
Guizhou	2,901	0.9	11	0.6	13	0.6
Hainan	358	0.1	2	0.1	2	0.1
Hebei	12,818	3.8	87	4.9	102	5.0
Henan	18,410	5.5	76	4.3	85	4.2
Heilongjiang	3,882	1.2	24	1.4	29	1.4
Hubei	13,520	4.0	54	3.1	61	3.0
Hunan	12,170	3.6	52	2.9	60	3.0
Jilin	5,136	1.5	15	0.9	18	0.9
Jiangsu	45,138	13.4	211	12.0	246	12.1
Jiangxi	7,424	2.2	45	2.6	50	2.5
Liaoning	15,591	4.6	74	4.2	83	4.1
Inner Mongolia	3,975	1.2	21	1.2	23	1.1
Ningxia	940	0.3	5	0.3	6	0.3
Qinghai	448	0.1	2	0.1	2	0.1
Shandong	37,272	11.0	195	11.0	222	10.9
Shanxi	3,433	1.0	16	0.9	18	0.9
Shaanxi	4,103	1.2	29	1.6	38	1.9
Shanghai	9,101	2.7	60	3.4	65	3.2
Sichuan	11,753	3.5	61	3.5	75	3.7
Tianjin	4,972	1.5	39	2.2	42	2.1
Tibet	54	0.0	0	0.0	0	0.0
Xinjiang	2,031	0.6	9	0.5	11	0.5
Yunnan	3,147	0.9	20	1.1	25	1.2
Zhejiang	36,363	10.8	196	11.1	224	11.0
Chongqing	5,022	1.5	27	1.5	32	1.6
Total	337,680	100	1,766	100	2,035	100

Table A3.3 Comparison of Company Characteristics

	Population 2008		Population 2013		1766 Firms From Q4 Survey		Final Q1 Response Sample	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Assets	90,050	12,920	243,118	45,165	245,749	57,191	237,954	56,514
Sales	104,697	20,072	295,142	85,344	248,631	75,922	249,613	78,483
Total	488,017		337,680		1,766		2,035	