

AT A GLANCE | Japan

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“Inflation Expectations and Terms of Trade in the Tankan”

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Recovery in Expected Inflation Amid Continued K-Shaped Recovery

The Bank of Japan's (BOJ) Tankan survey released on July 1 confirmed a “K-shaped recovery”. The business conditions diffusion index (DI) rose from -8 in March to -3 in June (Figure 1). The DI for the manufacturing sector turned positive, indicating that the recovery is continuing, driven by the manufacturing sector.

On the other hand, from the beginning of the year to June, the metropolitan area declared a state of emergency for almost all periods, so the decline in the face-to-face service industry was significant, and the non-manufacturing industry was held back. In particular, the slump in lodging and eating and drinking services was remarkable, and it gave the impression that the economic recovery from the novel coronavirus (COVID-19) pandemic was not robust (Figure 2).

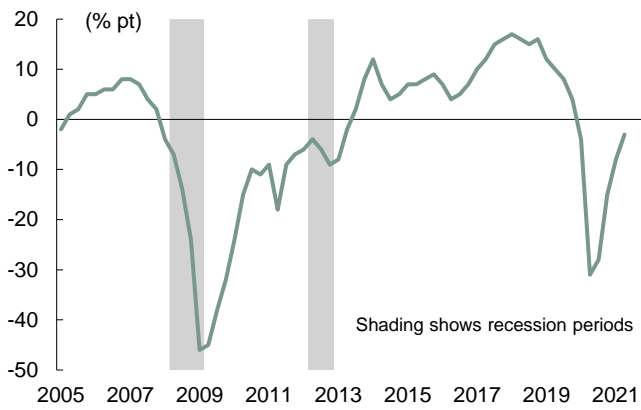
It is unclear to central bank officials and market participants around the world how prices and expected inflation will operate. Considering the supply-demand gap, we conclude that inflation is unlikely to rise as the negative gap widens significantly. On the other hand, if we focus on the issue of supply constraints due to the COVID-19 pandemic, prices will rise. In particular, in the early stages of recovery from the COVID-19 pandemic, such as in the U.S., there is a possibility that price pressure will become noticeable, even temporarily, due to a surge in demand.

On the other hand, in Japan, it has been pointed out that deflationary pressure did not intensify in the wake of the coronavirus. In its April 2021 Outlook Report, the BOJ revealed that in the early days of the COVID-19 pandemic, price cuts were limited in the face-to-face services sector, while some goods were under pressure to boost prices as a result of widespread stay-at-home demand.

Against this backdrop, the BOJ's latest Tankan survey focused on a recovery in expected inflation. One part of the BOJ's Tankan, which examines price forecasts one, three, and five years from now, is the trend of expected inflation, but the outlook for sales prices and prices in general one year from now has largely recovered to the same level as before the coronavirus outbreak (Figure 3 and Figure 4). Resource prices also appear to have played a role.

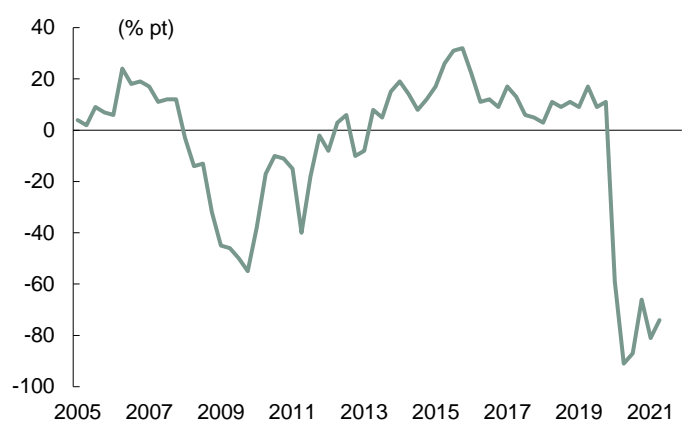
In this report, we discuss the cost structure that Japanese firms currently face and the future of corporate profits by looking back on the input prices and terms of trade of firms.

Figure 1: Business Conditions DI (all sizes and all industries)



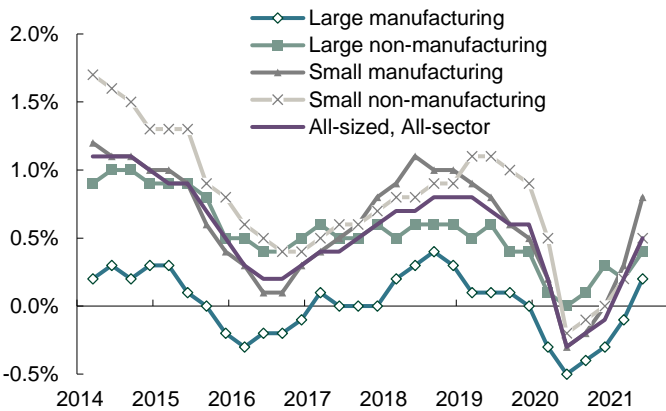
Sources: BOJ, CAO

Figure 2: Business Conditions DI (accommodation/restaurants)



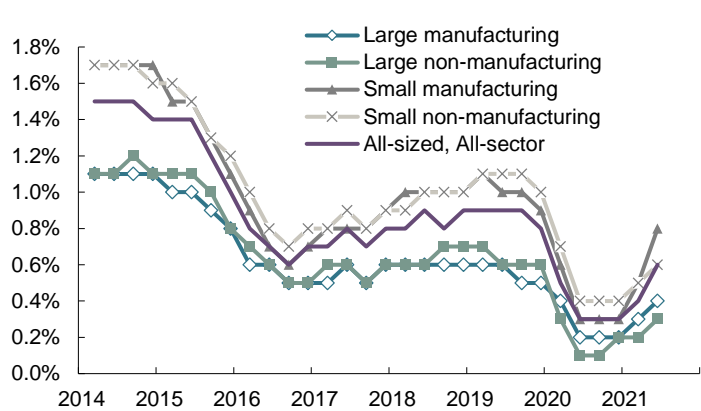
Source: BOJ

Figure 3: Sales Price After 1 Year



Source: BOJ

Figure 4: Overall Price Outlook in 1 Year



Source: BOJ

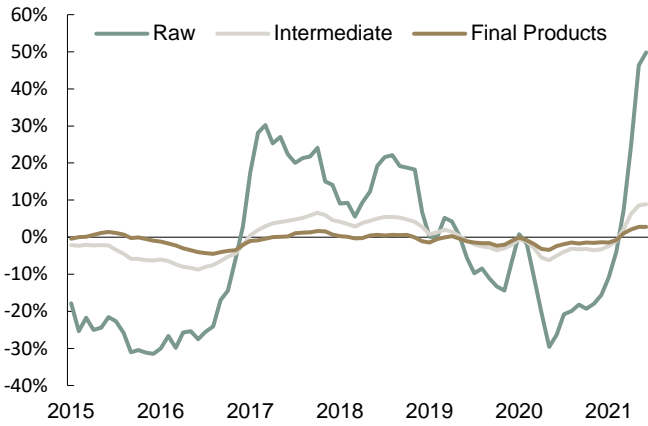
Corporate Goods Prices: Increase in Raw Material Prices

Rising resource prices have led to higher raw material prices for manufacturers. Looking at the Corporate Goods Price Index by demand stage, the sharp rise in raw materials prices is evident (Figure 5). According to the June Corporate Goods Price Index released on July 12, domestic raw material prices rose 50% from the previous year. Such upward pressure on upstream prices is expected to spread downstream to finished products.

By product, the rise in products near raw materials was noticeable (Figure 6). Looking at corporate goods prices by product in June 2021 from the previous year, the largest increase was in oil and coal products (+42%), followed by non-ferrous metals (+38%). In addition, wood (+19%), chemicals (+10%), and steel (+9%) were identified. Prices of these products are under upward pressure as international commodity prices rise.

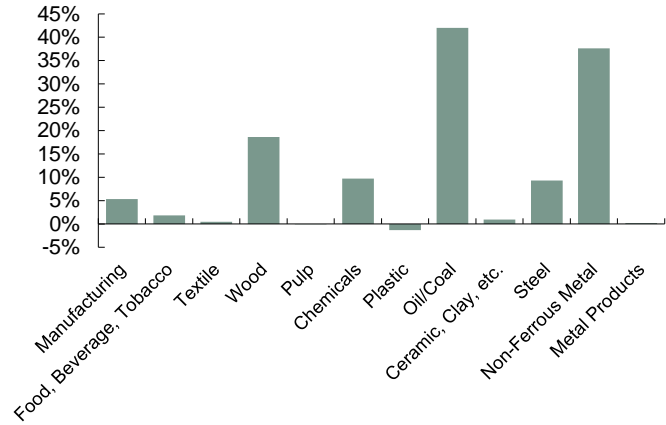
On the other hand, by product, all of the processing machines showed a year-over-year decline in May 2021. Negative growth in products included in finished products, such as general machinery (-0.1%), electrical machinery and equipment (-0.6%), and information and communications (-2.0%), indicates that companies are not passing on prices smoothly. If raw material prices do not smoothly pass on the increase to the sales price, the company will have a hard time making profits.

Figure 5: Corporate Goods Price Index (YoY)



Sources: BOJ, SMBC

Figure 6: Corporate Goods Prices by Product (YoY) in June 2021



Sources: BOJ, SMBC

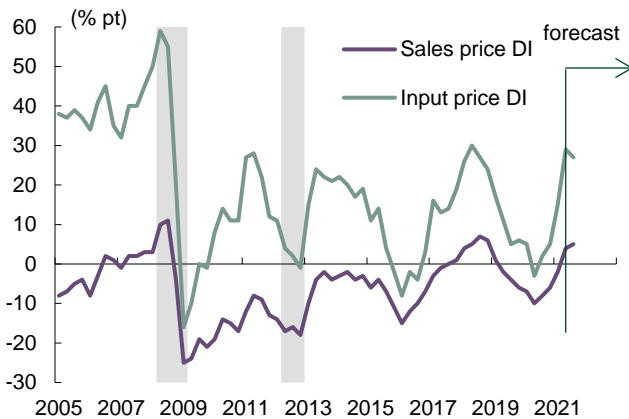
Terms of Trade Starting to Deteriorate

The BOJ's Tankan also released a DI for companies' input and sales prices (Figure 7). The input price DI for large manufacturers has risen to the highest level in 10 years. As we saw in the previous section, the rise in resource prices has led to an increase in the cost of investment by manufacturers of raw materials.

The problem is that the rise in sales prices is limited. If the sales price rises and falls by the same degree as the input price, the company's profits will not change. On the other hand, if the input price rises remarkably as it is doing now, but the sales price does not rise, corporate profits are likely to be damaged.

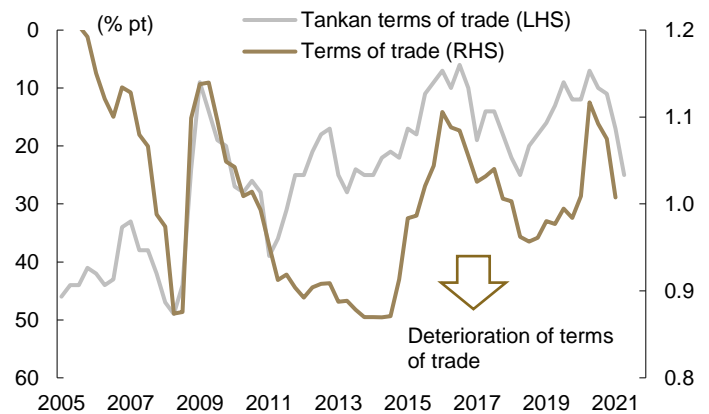
Since Japan imports a large amount of natural resources, it is possible to replace the rise in input prices caused by the rise in resource prices with terms of trade. Therefore, when the difference between the input price DI and the sales price DI (y-axis in reverse order in Figure 8) is arranged as the "Tankan terms of trade" and the terms of trade calculated by export price/import price, it is confirmed that there is a high correlation between the two (Figure 8).

Figure 7: Input and Sales Prices in the BOJ's Tankan



Source: BOJ

Figure 8: Terms of Trade for Japan



Source: BOJ

Corporate Revenue: Low Historical Correlation With Terms of Trade, but Caution Needed

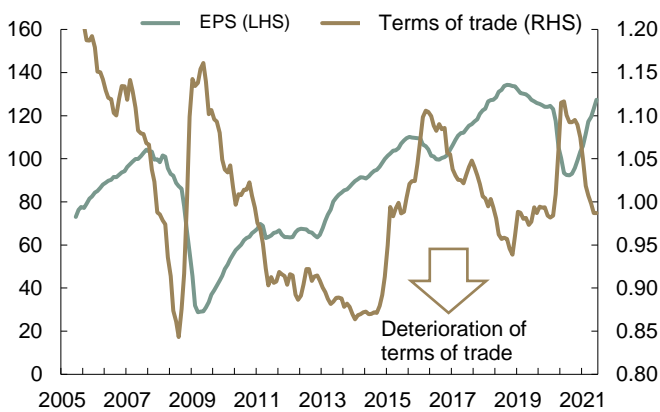
The terms of trade have started to deteriorate since the middle of last year due to the rise in the prices of natural resources, including the reversal of crude oil prices, the upward pressure on the prices of containers and other supply constraints, and the weak yen. Although there are differences in the level of investment in each sector, this is a factor behind the tightening of corporate earnings in terms of the profit structure of firms' input and shipment on a semi-macroeconomic basis.

On the other hand, looking at the relationship between past terms of trade and corporate profits, there is no forward correlation (that is, the relationship in which corporate profits deteriorate when terms of trade deteriorate) (Figure 9). The relationship is rather close to an inverse correlation. Looking back on the past deterioration in terms of trade, it seems that the background is that Japan's external demand environment is favorable in many cases, as the global economic recovery occurs during the period of rising resource prices, and that although there are trade losses when the currency is depreciating, on the surface, the benefits of currency depreciation are more likely to be reflected in corporate profits.

Rather, it is the yen against the U.S. dollar that has a high correlation with corporate profits (Figure 10). Japanese companies, which still have a large exporter presence, are likely to benefit from a weaker currency. On the whole, although the terms of trade are deteriorating, there is still a distance from the worst period in the past, and corporate profits are expected to remain strong in terms of the macroeconomic environment, while the exchange rate of the dollar against the yen remains at around 110 yen to the dollar.

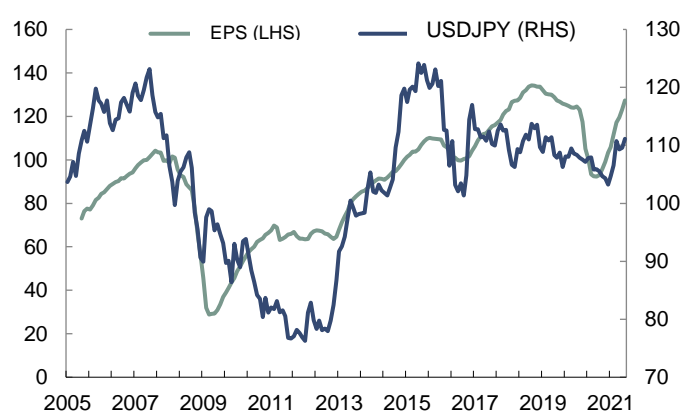
However, when the Tankan was released, some BOJ officials said they were concerned about rising raw material prices for wood, wood products and chemicals. Wood prices have peaked out, but crude oil prices have continued to rise. It is premature to underestimate the rise in resource prices and deterioration in terms of trade based on past correlations alone. It should be noted that both the profit structure of firms' investment and shipment from a sector-by-sector semi-macroeconomic perspective and the macroeconomic environment, such as exchange rates and terms of trade, influence the outlook for corporate earnings in the recovery phase from the COVID-19 pandemic and that its importance may change from moment to moment.

Figure 9: TOPIX EPS and Terms of Trade



Sources: BOJ, Bloomberg

Figure 10: TOPIX EPS and Yen Versus the U.S. Dollar



Source: Bloomberg

Economic Outlook: 2021-2022 Forecast

Figure 1: Forecasts for Economic Growth, Inflation, and Unemployment Rates

		2020			2021				2022				2019	2020	2021	2022
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
US	Real GDP	-31.4	33.4	4.3	6.4	8.9	10.3	5.1	2.5	2.6	2.4	2.5	2.3	-3.5	6.9	4.3
	Inflation	1.0	1.4	1.4	1.6	3.2	3.0	3.1	3.2	2.2	1.8	1.7	1.6	1.4	2.7	2.2
	Unemployment	13.0	8.8	6.8	6.2	5.3	4.2	4.0	3.9	3.8	3.7	3.6	3.7	6.8	4.9	3.8
Euro Area	Real GDP	-11.5	12.6	-0.6	-0.3	1.2	2.4	1.2	1.0	0.8	0.6	0.4	1.3	-6.7	4.5	4.5
	Inflation	0.2	0.0	-0.3	1.0	1.8	2.2	2.2	1.6	1.4	1.4	1.4	1.2	0.3	1.8	1.5
	Unemployment	7.6	8.6	8.3	8.2	8.3	8.2	8.1	8.0	7.9	7.8	7.7	7.6	7.9	8.2	7.9
Japan	Real GDP	-28.6	22.9	11.6	-5.1	-0.8	4.3	4.8	3.1	2.1	1.4	1.3	0.0	-4.7	1.9	2.8
	Inflation	-0.1	-0.2	-0.9	-0.4	0.0	-0.1	0.3	0.1	0.4	0.8	0.7	0.7	-0.2	0.0	0.5
	Unemployment	2.8	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.8	2.8	2.7	2.4	2.8	3.0	2.8
China	Real GDP	3.2	4.9	6.5	18.3	7.9	6.5	4.0	5.8	5.9	5.5	5.5	6.0	2.3	8.9	5.7
	Inflation	2.7	2.3	0.1	-0.0	1.1	0.7	1.3	1.4	1.4	1.6	1.9	2.9	2.7	0.8	1.6
	Unemployment	5.9	5.6	5.3	5.4	5.0	5.0	5.0	4.9	4.9	4.8	4.8	5.2	5.3	5.1	4.9

Real GDP growth is in QoQ annualized for U.S. and Japan, QoQ for euro area and YoY for China and India. Inflation rate is in YoY%. Inflation rate is YoY, % of core index (ex. fresh food) for Japan, YoY % of PCE deflator for U.S., and total YoY% for the rest.

Figure 2: Forecast for Rates

	Interest rate	2020	2021				2022				2020	2021	2022	
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
US	Policy rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	2yr	0.12	0.16	0.25	0.25	0.25	0.30	0.40	0.45	0.50	0.12	0.25	0.50	
	10yr	0.91	1.74	1.47	1.70	1.80	1.90	2.00	2.05	2.10	0.91	1.80	2.10	
Germany	Policy rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Deposit rate	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50
	2yr	-0.70	-0.67	-0.66	-0.60	-0.60	-0.55	-0.55	-0.55	-0.55	-0.70	-0.60	-0.55	
	10yr	-0.57	-0.29	-0.21	-0.20	-0.15	-0.10	-0.10	-0.05	0.00	-0.57	-0.15	0.00	
Japan	Policy rate	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
	2yr	-0.12	-0.13	-0.12	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.12	-0.10	-0.10	
	10yr	0.02	0.09	0.06	0.10	0.10	0.10	0.10	0.10	0.10	0.02	0.10	0.10	
China	Policy rate	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85
	2yr	2.70	2.77	2.65	2.71	2.81	2.85	2.85	2.85	2.90	2.70	2.81	2.90	
	10yr	3.14	3.19	3.08	3.15	3.25	3.30	3.30	3.30	3.35	3.14	3.25	3.35	

Figure 3: Forecast for FX and Oil Price

		2020	2021				2022				2020	2021	2022
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
USD/JPY	Range	103.56 ~ 106.11	102.59 ~ 110.97	107.48 ~ 111.12	106.00 ~ 115.00	106.00 ~ 115.00	105.00 ~ 115.00	105.00 ~ 115.00	104.00 ~ 112.00	104.00 ~ 112.00	99.00 ~ 112.23	99.00 ~ 112.00	100.00 ~ 110.00
	End of quarter	103.25	110.72	111.11	112.00	112.00	110.00	110.00	108.00	108.00	103.25	112.00	108.00
EUR/USD	Range	1.1603 ~ 1.2310	1.1704 ~ 1.2349	1.1713 ~ 1.2266	1.1500 ~ 1.2400	1.1700 ~ 1.2600	1.1800 ~ 1.2700	1.1800 ~ 1.2700	1.1900 ~ 1.2800	1.1900 ~ 1.2800	1.0636 ~ 1.2300	1.1500 ~ 1.2600	1.1800 ~ 1.2800
	End of quarter	1.2216	1.1730	1.1858	1.1800	1.2000	1.2100	1.2100	1.2300	1.2300	1.2216	1.2000	1.2300
EUR/JPY	Range	121.62 ~ 127.49	125.09 ~ 130.67	129.57 ~ 134.13	128.00 ~ 138.00	130.00 ~ 140.00	129.00 ~ 139.00	129.00 ~ 139.00	129.00 ~ 139.00	128.00 ~ 138.00	114.43 ~ 128.00	125.09 ~ 140.00	128.00 ~ 139.00
	End of quarter	126.18	129.86	131.75	132.16	134.40	133.10	133.10	132.84	132.84	126.18	134.40	132.84
Crude Oil Prices (WTI)		42.70	58.14	66.10	68.00	65.00	63.00	62.50	62.50	60.00	39.20	64.31	62.00

※ Crude oil prices are averages for each period. Source: SMBC.

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