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Japan's Economy: Monthly Outlook (March 2020)

Principle battlefield of “Corona Crisis” shifts to collapse of demand & credit crunch

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Summary

- The COVID-19 outbreak has now reached global pandemic proportions. We have no choice but to expect that, on the extreme end in terms of economic impact, demand could simply vanish in a manner of months in all countries and regions of the world. Meanwhile, there are fears that the downturn in demand could also cause employment and corporate willingness to carry out capital expenditure to deteriorate, thereby generating the hysteresis effect and pushing the long-term potential growth rate down further. Both the global economy and Japan's economy are headed toward a major downward refraction in their growth paths.
- While keeping in mind the long-term outlook, we also look back on recent developments where there are three points deserving special mention. These are (1) the geographic spread of the COVID-19 infection, (2) the shift of the focal point of the crisis from supply to demand, and (3) concerns of a coming credit crunch. The first two points are not a big problem as they will most likely have a cumulative effect on the Japanese economy as a whole, but on an industry specific basis, there could be a shake-out in the short-term. What was most feared in the past was the decline in factory operating rates of local Japanese subsidiaries in China and the effect this could have on the materials and electrical equipment related industries. Since the latter part of February, the epicenter of the crisis shifted to Japan's domestic industries associated with the consumption of services. Now it has shifted to final demand in Europe and the US, affecting especially the capital goods related industries.
- As for the third factor mentioned above, the low price of crude oil due to the failure of oil producing countries to agree on a production cut, has led to a rise on corporate bond yields. This in turn is generating a reverse leverage situation in leverages accumulated since the global financial crisis of 2008. In response, central banks are continuing to struggle with the effects. The fact that the Fed is providing put options to commercial paper is a development worthy of note here. Concerns about financial uncertainty remain strong. There is a need to pay close attention to the growing turbulence in the low-rated corporate bond market, and the possibility that financial instability originating in Europe could occur as a result of insufficient response on the part of the ECB.

Principle battlefield of “Corona Crisis” shifts to collapse of demand & credit crunch

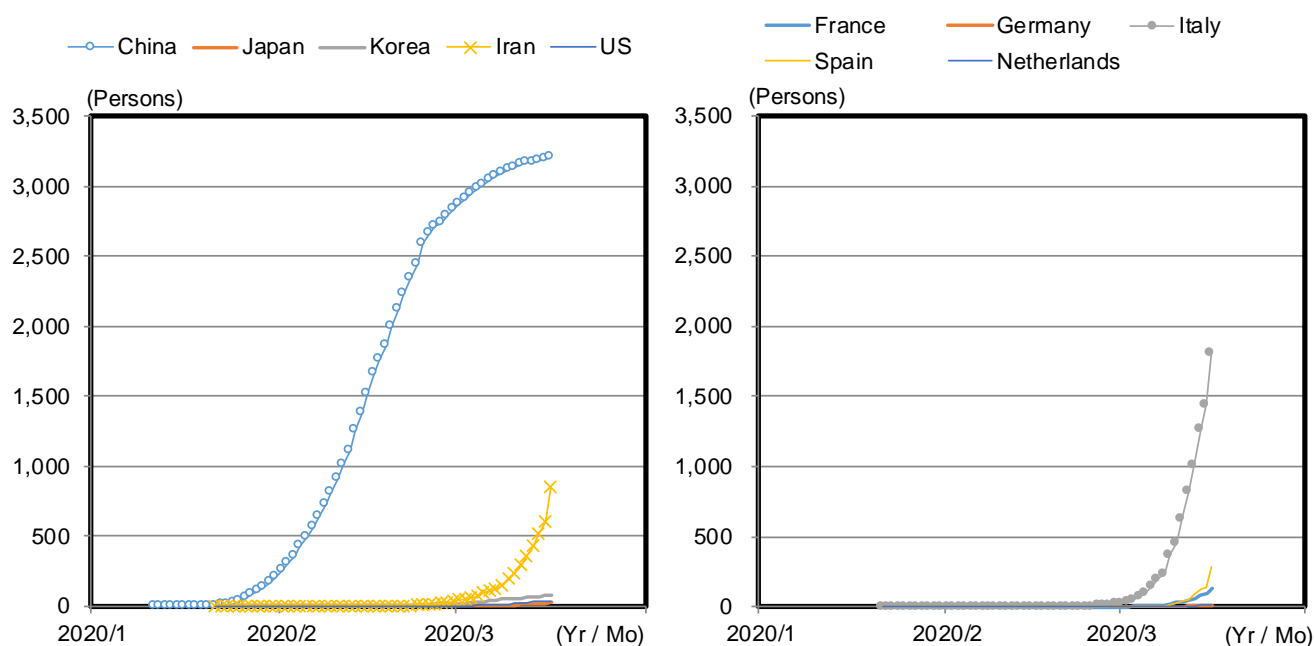
The “Corona Crisis” continues. Currently the number of infected persons is still growing, and needless to say, the real economy is deteriorating with the financial markets in turmoil in a chain reaction of sell-offs. Below we offer a simple summary of events which have occurred since the first infections were reported in China, divided into three phases.

1. Epicenter of Infection Moves from China to Japan and other Asian countries, then to Europe and the US

First, looking at the geographic spread, the problem began in China toward the end of 2019, and by the end of January it had spread to the other Asian countries including Japan. Since the end of February the disease has spread to the US and Europe (Chart 1). It has been reported that during that time the spread of infections within China, the source of the original infections, has gradually slowed down. But the turmoil has just begun in the US and Europe, and there is not much room for doubt that the impact in the near future will be worrisome. Meanwhile, the disease is expected to continue spreading to the southern hemisphere, leaving the possibility that the population in the northern hemisphere could be re-infected next season.

Time Series Transition of Number of Fatalities by Country

Chart 1



Source: WHO; compiled by DIR.

2. Problem Extends from Supply Side to Demand

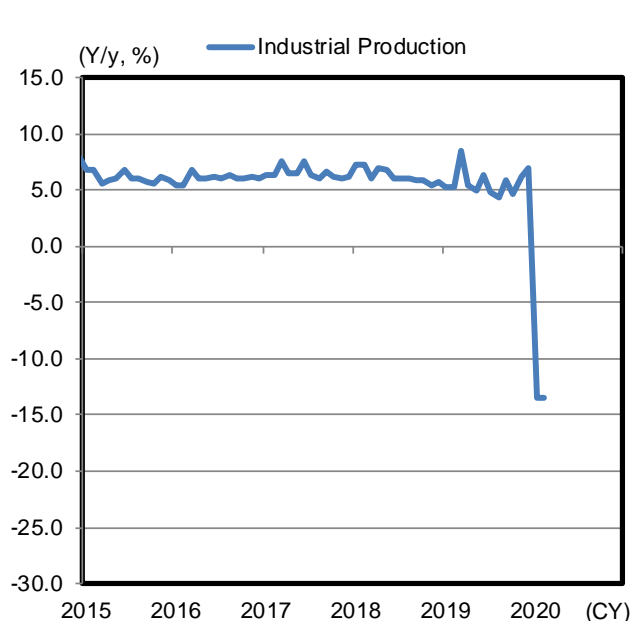
Secondly, the supply crisis then grew into a crisis of demand. At first, when the disease was spreading in China, it was assumed that the problem was limited to the supply chain for the domestic manufacturing industry in China. But now the infection is spreading in Japan and the US, the location of final demand. This makes it more difficult to paint a future scenario where pent-up demand occurs once the turmoil has been brought under control. According to Chinese economic statistics for January and February published just the other day, while industrial production (supply side) fell by -13.5% in comparison with the previous year, retail sales (representing demand) fell even more at -20.5%, with fixed asset investment also down steeply at -24.5%. This fact strengthens the pessimistic argument outlined previously (Chart 2). Then declining demand could also cause employment and corporate willingness to carry out capital expenditure to deteriorate, thereby generating the hysteresis effect and pushing the long-

term potential growth rate down on a global basis. Fears are growing that the situation is developing into one where this very well could occur.

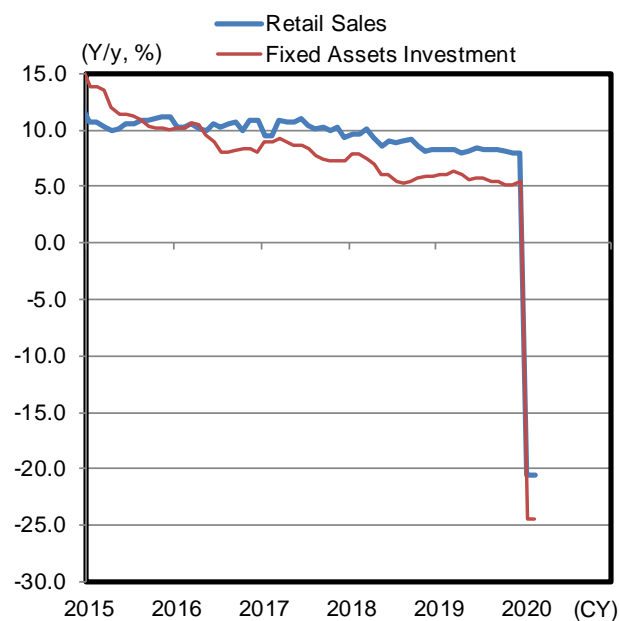
Applying the above logic to the effects that Japan's economy could experience, roughly speaking, whether domestic demand or overseas demand, and in the area of overseas demand whether China related or trade with third countries, on the extreme end there would not be much difference in the effect. Final demand will be lost for a period of at least several months before the epidemic is finally brought under control. Even after things die down, the impact will have a lasting effect due to the hysteresis effect. Economic activities in all of the world's countries will decline a certain amount, and recovery after it's all over will likely be slow. How long that will be depends on the time it takes for the epidemic to be brought under control. At this time it is impossible to tell.

Major Chinese Statistics

Chart 2



Source: National Bureau of Statistics of China; compiled by DIR.



Source: National Bureau of Statistics of China; compiled by DIR.

Temporary shake-out likely to occur in some industries

That said, it doesn't hurt to take a closer look and get an estimate. First of all, starting with a survey of overseas demand, exports totaled 76.9 trillion yen in 2019, so there should be nothing strange if we see a decline of around two digits in comparison to the previous year by the time things settle down. Then, as has already been mentioned, there will be some differences depending on region. Plus, the concern when it comes to the supply chain issue is that in exports to China and Asia, the materials industry including items such as chemical products, and products requiring the import of raw materials, and electrical machinery carry the most weight (Chart 3). Fears associated with these industries were the biggest before February. But then manufacturing facilities in China, depending on when factories can start operating again, may be getting production activities going again to a certain extent beginning in March and beyond.

Export Value by Major Country or Region (2019 Results)

Chart 3

	China		Asia (Ex.China)		US		EU	
	Value (Y tril)	Share	Value (Y tril)	Share	Value (Y tril)	Share	Value (Y tril)	Share
Total	14.7	100%	26.6	100%	15.3	100%	9.0	100%
Foodstuff	0.1	1%	0.4	2%	0.1	1%	0.0	0%
Raw Materials	0.2	2%	0.6	2%	0.1	1%	0.1	1%
Mineral Fuels	0.2	1%	0.5	2%	0.1	1%	0.1	1%
Chemicals	2.5	17%	3.9	15%	1.1	7%	0.9	9%
Manufactured Goods	1.7	11%	4.0	15%	1.0	6%	0.5	6%
Machinery	3.4	23%	4.6	17%	3.6	24%	2.0	23%
Electrical Machinery	3.0	21%	5.9	22%	2.0	13%	1.5	17%
Transport Equipment	1.5	10%	2.4	9%	5.6	37%	2.5	27%
Others	2.0	14%	4.3	16%	1.6	11%	1.4	16%

Source: Ministry of Finance; Compiled by DIR.

Future concerns are directed more toward the decline in exports to the US and Europe. Transport equipment and machinery carry a fair amount of weight in exports to these countries and regions. When viewed by country and region, it becomes evident that with the next regions of concern being the US and Europe, what this also means is that, in other words, looked at by industry, it is the durable goods and capital goods industries mentioned earlier that are becoming more worrisome at this time.

We should also consider here on the same level the effects on the business activities of overseas subsidiaries of Japanese companies (sales 288 trillion yen, current net income 10.4 trillion yen). Charts 4-7 show performance values in each country and region, and the impact expected by industry on corporate earnings due to the decline in business activities.

Business Activities in China (Including Hong Kong) and Estimate of Impact of COVID-19

Chart 4

FY2017 Results of Local Japanese Subsidiaries in China (Including Hong Kong) (Unit: ¥100bil, %)							
	Sales	Cost of Sales	Cost Ratio	Current Net Profit	Corporate Tax Etc.	Corporate Tax Rate	Amount in Exports from Japan
Total	548,167	382,970	69.9	28,138	7,592	21.2	230,360
Manufacturing	337,836	231,802	68.6	19,090	5,803	23.3	115,020
Beverages and Foods	18,313	5,555	30.3	789	443	36.0	446
Textile products	4,644	3,358	72.3	253	75	22.9	774
Pulp, paper and wooden products	2,973	2,398	80.6	334	35	9.4	962
Chemical products	11,206	7,880	70.3	593	211	26.2	7,291
Petroleum and coal products	5,903	917	15.5	-30	-	-	424
Ceramic, stone and clay products	2,873	1,599	55.7	162	25	13.4	1,655
Iron and steel	10,544	9,645	91.5	205	71	25.8	4,617
Non-ferrous metals	10,076	6,824	67.7	345	75	17.8	3,488
Metal products	5,835	4,822	82.6	179	55	23.4	1,369
General-purpose machinery	12,405	10,138	81.7	692	188	21.4	2,025
Production machinery	9,759	7,062	72.4	647	124	16.1	4,836
Business oriented machinery	11,128	7,829	70.4	250	111	30.7	1,490
Electrical machinery	21,502	15,817	73.6	995	300	23.2	4,696
Information and communication electronics equipment	51,530	45,224	87.8	1,611	484	23.1	34,044
Transportation equipment	143,238	90,631	63.3	11,146	3,416	23.5	42,984
Miscellaneous manufacturing products	15,907	12,103	76.1	919	-	-	3,919
Non-manufacturing	210,331	151,168	71.9	9,047	1,789	16.5	115,340
Agriculture, forestry and fishery	249	212	85.4	16	2	12.4	37
Mining	-	-	-	-	-	-	1
Construction	1,560	1,012	64.9	32	10	23.8	132
Information and communications	2,296	1,488	64.8	77	23	23.1	424
Transport and postal services	7,593	4,906	64.6	177	74	29.3	878
Wholesale trade	177,061	130,562	73.7	7,349	1,313	15.2	110,095
Retail trade	8,933	6,192	69.3	35	40	53.5	1,372
Services	7,832	4,056	51.8	687	106	13.3	2,169
Other non-manufacturing	-	-	-	-	222	-	233

Effects if Quarterly Sales Changed by 10% (Unit: ¥100bil, %)				
	Sales	Operating Profit	Current Net Profit	Amount in Exports from Japan
Total	13,704	4,130	3,252	5,759
Manufacturing	8,446	2,651	2,033	2,875
Beverages and Foods	458	319	204	11
Textile products	116	32	25	19
Pulp, paper and wooden products	74	14	13	24
Chemical products	280	83	61	182
Petroleum and coal products	148	125	-	11
Ceramic, stone and clay products	72	32	28	41
Iron and steel	264	22	17	115
Non-ferrous metals	252	81	67	87
Metal products	146	25	19	34
General-purpose machinery	310	57	45	51
Production machinery	244	67	57	121
Business oriented machinery	278	82	57	37
Electrical machinery	538	142	109	117
Information and communication electronics equipment	1,288	158	121	851
Transportation equipment	3,581	1,315	1,007	1,075
Miscellaneous manufacturing products	398	95	-	98
Non-manufacturing	5,258	1,479	1,235	2,884
Agriculture, forestry and fishery	6	1	1	1
Mining	-	-	-	-
Construction	39	14	10	3
Information and communications	57	20	16	11
Transport and postal services	190	67	47	22
Wholesale trade	4,427	1,162	986	2,752
Retail trade	223	69	32	34
Services	196	94	82	54
Other non-manufacturing	-	-	-	-

Source: Ministry of Economy, Trade and Industry; compiled by DIR.

Business Activities in Asia (Excluding China) and Estimate of Impact of COVID-19

Chart 5

FY2017 Results of Local Japanese Subsidiaries in Asia (Excluding China) (Unit: ¥100bil, %)								Effects if Quarterly Sales Changed by 10% (Unit: ¥100bil, %)				
	Sales	Cost of Sales	Cost Ratio	Current Net Profit	Corporate Tax Etc.	Corporate Tax Rate	Amount in Exports from Japan	Sales	Operating Profit	Current Net Profit	Amount in Exports from Japan	
Total	751,382	482,098	64.2	24,799	7,057	22.2	124,447	18,785	6,732	4,816	311	
Manufacturing	436,289	294,164	67.4	16,361	5,220	24.2	65,664	10,907	3,553	2,420	164	
Beverages and Foods	11,116	6,656	59.9	638	199	23.8	208	278	111	77	1	
Textile products	4,722	3,751	79.4	196	40	17.0	460	118	24	19	1	
Pulp, paper and w ooden products	4,936	3,712	75.2	240	56	18.8	657	123	31	24	2	
Chemical products	39,755	29,780	74.9	2,805	515	15.5	5,292	994	249	204	13	
Petroleum and coal products	8,000	462	5.8	54	-	-	108	200	188	-	0	
Ceramic, stone and clay products	5,853	2,823	48.2	241	64	21.1	1,159	146	76	56	3	
Iron and steel	12,298	10,914	88.7	222	82	27.0	3,570	307	35	22	9	
Non-ferrous metals	14,898	13,217	88.7	469	87	15.6	2,876	372	42	34	7	
Metal products	6,057	4,391	72.5	260	57	18.1	854	151	42	32	2	
General-purpose machinery	9,328	7,909	84.8	332	109	24.8	1,371	233	35	24	3	
Production machinery	12,370	9,249	74.8	902	163	15.3	3,022	309	78	64	8	
Business oriented machinery	8,955	4,351	48.6	298	52	14.9	615	224	115	95	2	
Electrical machinery	21,303	16,412	77.0	1,474	208	12.4	2,576	533	122	105	6	
Information and communication electronics equipment	46,067	34,363	74.6	1,138	216	16.0	15,588	1,152	293	237	39	
Transportation equipment	215,745	134,871	62.5	6,404	3,177	33.2	25,430	5,394	2,022	1,019	64	
Miscellaneous manufacturing products	14,887	11,302	75.9	688	-	-	1,879	372	90	-	5	
Non-manufacturing	315,093	187,933	59.6	8,438	1,837	17.9	58,784	7,877	3,179	2,487	147	
Agriculture, forestry and fishery	206	112	54.2	-1	-	-	30	5	2	-	0	
Mining	-	-	-	-	-	-	-	-	-	-	-	
Construction	8,633	6,675	77.3	216	109	33.5	111	216	49	24	0	
Information and communications	7,467	2,355	31.5	-37	33	-	166	187	128	-	0	
Transport and postal services	8,691	4,620	53.2	164	74	31.1	706	217	102	56	2	
Wholesale trade	239,924	154,367	64.3	6,184	1,194	16.2	55,253	5,998	2,139	1,726	138	
Retail trade	15,405	8,486	55.1	271	66	19.6	965	385	173	131	2	
Services	25,945	7,654	29.5	337	143	29.8	1,376	649	457	263	3	
Other non-manufacturing	-	-	-	-	185	-	176	-	-	-	0	

Source: Ministry of Economy, Trade and Industry; compiled by DIR.

Common to all of these countries and regions is that the impact on transportation equipment and wholesale trade is especially large. The impact on the question of shake-outs on an industry by industry basis as the COVID-19 infection spreads in these regions is not that big (although in the US it may be necessary to remain aware of the large weight that services carry). In this sense, we may be able to assume that the effect on the earnings of Japanese subsidiaries in the US and Europe where the infection is now quickly spreading, will simply double in size.

Business Activities in North America and Estimate of Impact of COVID-19

Chart 6

FY2017 Results of Local Japanese Subsidiaries in North America (Unit: ¥100bil, %)								Effects if Quarterly Sales Changed by 10% (Unit: ¥100bil, %)				
	Sales	Cost of Sales	Cost Ratio	Current Net Profit	Corporate Tax Etc.	Corporate Tax Rate	Amount in Exports from Japan	Sales	Operating Profit	Current Net Profit	Amount in Exports from Japan	
Total	870,019	507,952	58.4	19,897	8,250	29.3	221,013	21,750	9,052	6,399	5,525	
Manufacturing	312,378	211,987	67.9	6,272	3,475	35.7	53,642	7,809	2,510	1,615	1,341	
Beverages and Foods	12,220	6,790	55.6	1,958	167	7.8	648	306	136	125	16	
Textile products	1,120	774	69.1	19	21	52.4	-	28	9	4	-	
Pulp, paper and w ooden products	1,291	1,769	137.0	20	31	60.5	67	32	-	-	2	
Chemical products	27,231	13,025	47.8	1,044	746	41.7	5,346	681	355	207	134	
Petroleum and coal products	1,436	-	-	24	-	-	29	36	-	-	1	
Ceramic, stone and clay products	-	3,324	-	99	61	38.0	223	-	-	-	6	
Iron and steel	5,662	4,858	85.8	274	55	16.7	311	142	20	17	8	
Non-ferrous metals	-	2,933	-	159	-	-	651	-	-	-	16	
Metal products	-	1,290	-	68	38	36.0	330	-	-	-	8	
General-purpose machinery	6,498	5,473	84.2	186	113	37.9	1,313	162	26	16	33	
Production machinery	14,309	11,618	81.2	869	169	16.3	3,262	358	67	56	82	
Business oriented machinery	3,621	1,776	49.0	125	48	27.9	-	91	46	33	-	
Electrical machinery	10,484	7,747	73.9	-18	108	-	2,976	262	68	-	74	
Information and communication electronics equipment	22,540	15,947	70.8	-573	517	-	7,807	563	165	-	195	
Transportation equipment	172,280	130,000	75.5	1,803	1,223	40.4	28,590	4,307	1,057	630	715	
Miscellaneous manufacturing products	23,290	-	-	216	-	-	1,415	582	-	-	35	
Non-manufacturing	557,641	295,964	53.1	13,625	4,775	26.0	167,371	13,941	6,542	4,844	4,184	
Agriculture, forestry and fishery	-	130	-	18	7	27.3	0	-	-	-	0	
Mining	-	-	-	-	-	-	-	-	-	-	-	
Construction	6,368	5,573	87.5	-27	30	-	24	159	20	-	1	
Information and communications	8,452	2,591	30.7	125	87	41.1	122	211	147	86	3	
Transport and postal services	4,089	3,149	77.0	70	73	50.8	65	102	24	12	2	
Wholesale trade	360,256	223,854	62.1	984	3,112	76.0	143,841	9,006	3,410	819	3,596	
Retail trade	65,811	26,935	40.9	965	147	13.2	7,465	1,645	972	843	187	
Services	75,222	10,635	14.1	4,844	768	13.7	15,854	1,881	1,615	1,394	396	
Other non-manufacturing	-	-	-	-	425	-	1	-	-	-	-	

Source: Ministry of Economy, Trade and Industry; compiled by DIR.

Business Activities in Europe and Estimate of Impact of COVID-19

Chart 7

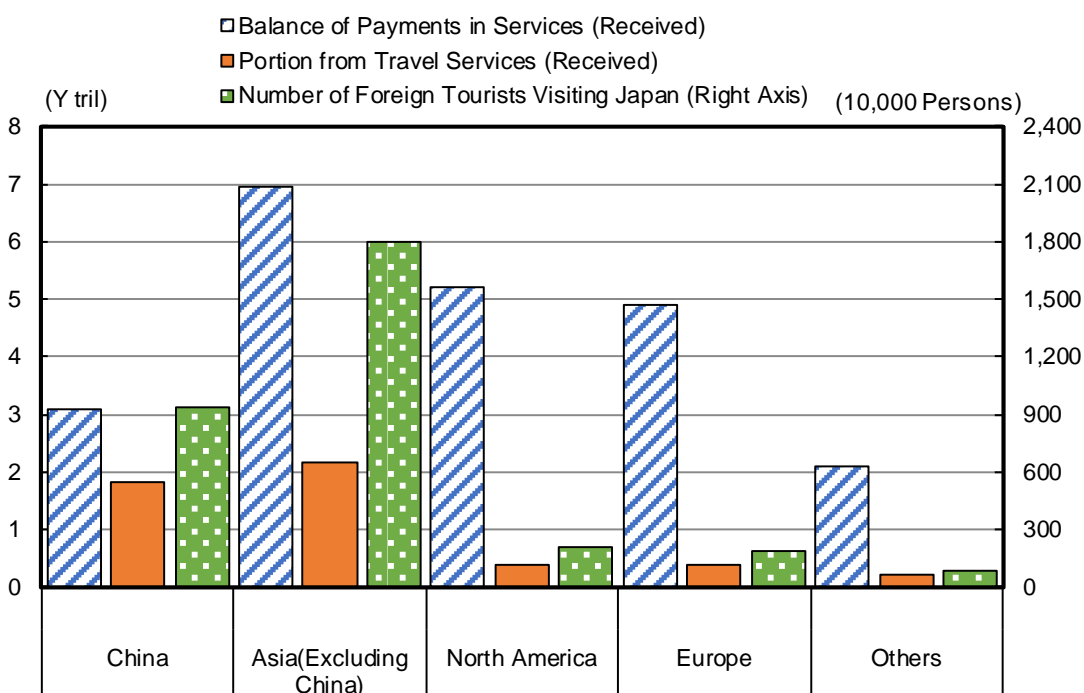
FY2017 Results of Local Japanese Subsidiaries in Europe (Unit: ¥100bil, %)								Effects if Quarterly Sales Changed by 10% (Unit: ¥100bil, %)				
	Sales	Cost of Sales	Cost Ratio	Current Net Profit	Corporate Tax Etc.	Corporate Tax Rate	Amount in Exports from Japan		Sales	Operating Profit	Current Net Profit	Amount in Exports from Japan
Total	431,985	232,016	53.7	12,261	3,477	22.1	116,898	Total	10,800	4,999	3,895	2,922
Manufacturing	157,008	93,436	59.5	3,306	1,659	33.4	23,911	Manufacturing	3,925	1,589	1,058	598
Beverages and Foods	9,765	4,150	42.5	555	191	25.6	37	Beverages and Foods	244	140	104	1
Textile products	2,682	1,766	65.9	222	-	-	167	Textile products	67	23	-	4
Pulp, paper and wooden products	814	695	85.3	114	6	5.3	-	Pulp, paper and wooden products	20	3	3	-
Chemical products	17,974	11,409	63.5	1,033	316	23.4	2,310	Chemical products	449	164	126	58
Petroleum and coal products	-	-	-	-	-	-	-	Petroleum and coal products	-	-	-	-
Ceramic, stone and clay products	7,866	3,656	46.5	71	127	64.0	818	Ceramic, stone and clay products	197	105	38	20
Iron and steel	6,235	4,311	69.1	125	-	-	15	Iron and steel	156	48	-	0
Non-ferrous metals	1,302	1,205	92.5	-	4	-	37	Non-ferrous metals	33	2	-	1
Metal products	2,332	577	24.7	-5	10	-	241	Metal products	58	44	-	6
General-purpose machinery	4,722	3,835	81.2	142	44	23.5	692	General-purpose machinery	118	22	17	17
Production machinery	8,605	6,815	79.2	91	42	31.4	1,414	Production machinery	215	45	31	35
Business oriented machinery	3,929	1,942	49.4	139	67	32.6	679	Business oriented machinery	98	50	34	17
Electrical machinery	6,850	4,787	69.9	215	108	33.4	1,572	Electrical machinery	171	52	34	39
Information and communication electronics equipment	11,859	9,229	77.8	151	186	55.2	2,694	Information and communication electronics equipment	296	66	29	67
Transportation equipment	63,281	36,438	57.6	320	291	47.6	12,689	Transportation equipment	1,582	671	352	317
Miscellaneous manufacturing products	8,792	2,622	29.8	105	132	55.8	545	Miscellaneous manufacturing products	220	154	-	14
Non-manufacturing	274,977	138,579	50.4	8,955	1,818	16.9	92,988	Non-manufacturing	6,874	3,410	2,834	2,325
Agriculture, forestry and fishery	1,652	189	11.4	203	1	0.4	12	Agriculture, forestry and fishery	41	37	36	0
Mining	1,719	377	21.9	810	60	6.9	1	Mining	43	-	-	0
Construction	1,005	907	90.3	-6	9	-	4	Construction	25	2	-	0
Information and communications	13,835	7,570	54.7	160	137	46.1	11	Information and communications	346	157	84	0
Transport and postal services	3,554	2,175	61.2	207	46	18.1	42	Transport and postal services	89	34	28	1
Wholesale trade	224,862	110,395	49.1	2,114	1,040	33.0	89,989	Wholesale trade	5,622	2,862	1,918	2,250
Retail trade	7,241	5,426	74.9	233	54	18.7	1,027	Retail trade	181	45	37	26
Services	12,411	5,080	40.9	2,585	332	11.4	1,884	Services	310	183	162	47
Other non-manufacturing	8,697	6,459	74.3	2,649	139	5.0	19	Other non-manufacturing	217	-	-	0

Source: Ministry of Economy, Trade and Industry; compiled by DIR.

Problem of decline in inbound tourism consumption moves from shopping to a broad range of services

Geographic change in the COVID-19 disaster has brought with it a change in how inbound demand is affected (i.e. whether said demand increases or decreases). When the virus first began to spread in China the worry was only that tourists from China would decline, but now travel from all the countries and regions of the world will unavoidably have to suffer a drastic decrease. Travel services in Japan providing services to foreign tourists brought in a total of 5.0 trillion yen last year (most recent four quarters, results from Oct. 2018 to Sept. 2019). A major decline will occur in this industry over the next several months. However, the weight of expenditure differs drastically based on country of origin. Consumption per person by Chinese tourists totaled 213,000 yen according to actual results for 2019. This is considerably more than the average for tourists from all countries which totaled 158,000 yen during the same year. Moreover, the amount of spending going toward shopping was also extremely high for Chinese tourists at 109,000 yen as compared to the average of 53,000 yen. Hence the area of greatest concern when the number of tourists from China declined was the decline in earnings for department stores etc. However, as was explained above, the problem is no longer limited to Chinese tourists. What this also means is that the range of businesses suffering the extremes of the effects has also grown larger, including accommodation fees, eating and drinking, and transport fees. Looking at data currently available, sales of major department stores in February suffered declines of -20% y/y (total including both foreign visitors and domestic business). Meanwhile, the number of airline passengers on international flights also suffered a decline of -20% y/y on both of Japan's major carriers, Japan Airlines and All Nippon Airways.

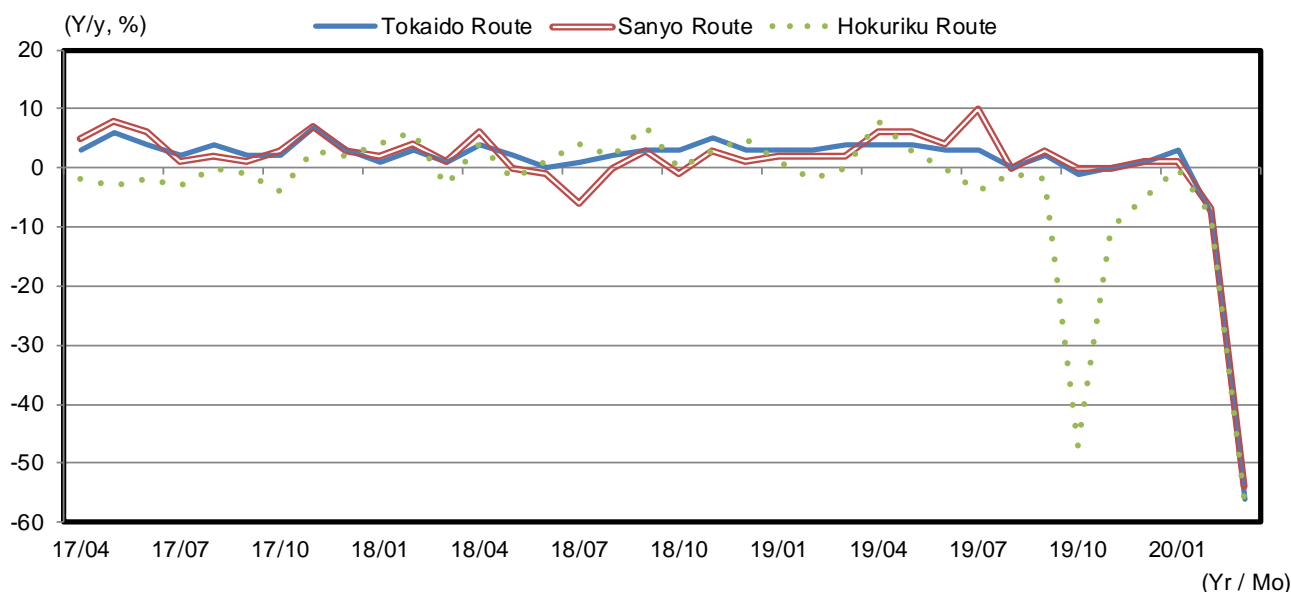
Amounts Received for Services, Travel Services, and Number of Tourists Visiting Japan by Major Country or Region (Actual Results for Most Recent Quarter) Chart 8



Source: Ministry of Finance, Bank of Japan, Japan Tourism Agency; compiled by DIR.
 Note: Figures are totals from most recent four quarters (Oct. 2018 – Sept. 2019).

However, in the context of impact on the transportation industry, the biggest shock was the decline in the number of passengers riding the Shinkansen (the Bullet Train) in the first week of March (Chart 9). Year-to-year decline was already noticeable beginning in February, but moving into March, according to data available at this time, the number of passengers dropped by half of what it normally would be in the first week of March on all Shinkansen routes. This is not due to the decline in inbound tourist demand alone, but rather to the issuance of government advice to Japanese citizens requesting that they practice “self-restraint” in their activities.

Changes in Number of Passengers Riding the Shinkansen Chart 9



Source: Japan Railways websites; compiled by DIR.
 Note: Figures for March are actual results of first week of March.

Japanese consumer sentiment at lowest level since the 2011 Tohoku earthquake and tsunami

The example of the Shinkansen shown above may be more of a symbolic element, but the fact is that consumer sentiment is rapidly deteriorating in Japan. According to the February 2020 Economy Watchers Survey published by the Cabinet Office (Chart 10, survey period Feb. 25-29), major components (diffusion indices) are rapidly declining, with the current economic conditions DI at 27.4 and the future economic conditions DI having fallen to 24.6. This level is almost the same as the results seen in the same survey taken in March 2011, immediately after the Great East Japan Earthquake (current economic conditions DI at 24.0 and future economic conditions DI at 25.1).

In many ways there is no comparison, but to list major points of difference, what catches the eye is that the assessment of the future is more severe than for the current situation. This tendency can be seen especially for food and beverages as well as services in the case of households, and across the board in all areas for corporations. As for characteristic reasons for these assessments, the path of influence is as described earlier, but in addition, the decline in consumer sentiment is also associated with the fact that it is completely unknown when the COVID-19 infection will stop spreading, and it is also unknown when related problems will be brought under control.

Predicting the future with this in mind, it is becoming increasingly certain that there will be an unavoidably major contraction of several months for the leisure market which has an annual scale of 100 trillion yen when we include both domestic and overseas related activity and includes eating out, travel, and other industries, until there is a better idea of when the spread of the virus will be brought under control.

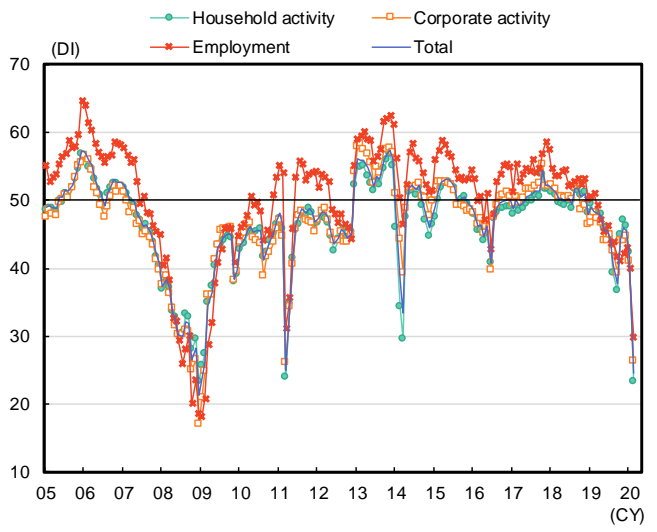
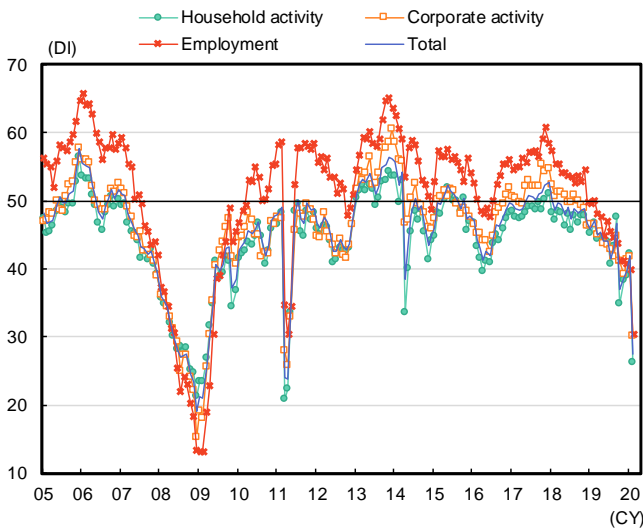
To summarize the above arguments in broad terms, geographic transition of the virus will likely generate a temporary shake-out. On the extreme end exports in the broad sense (capital goods, services, income received) is expected to take a hit of around 100 trillion yen, while leisure related consumption could see losses of around 100 trillion yen as well, totaling 200 trillion yen. Until the epidemic is brought under control, notable impact will be unavoidable. We will have to say that it is highly likely the growth path of Japan's economy will incur a downward refraction with the multiplication of these problems by the worsening employment situation and deterioration of corporate willingness to engage in capital expenditure.

Changes in Economy Watchers Survey

Chart 10

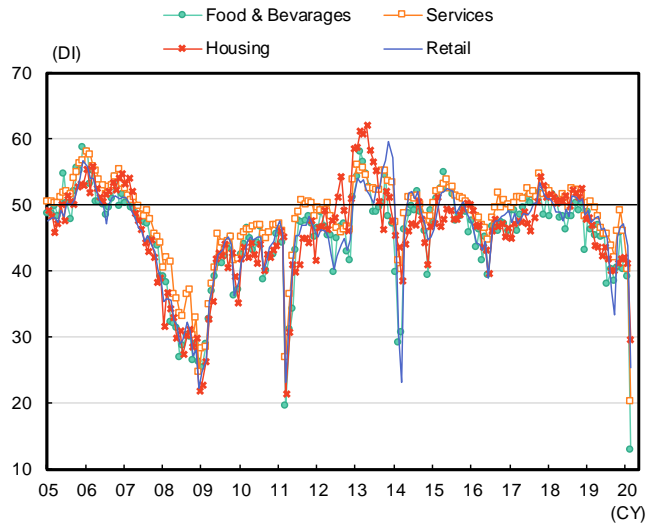
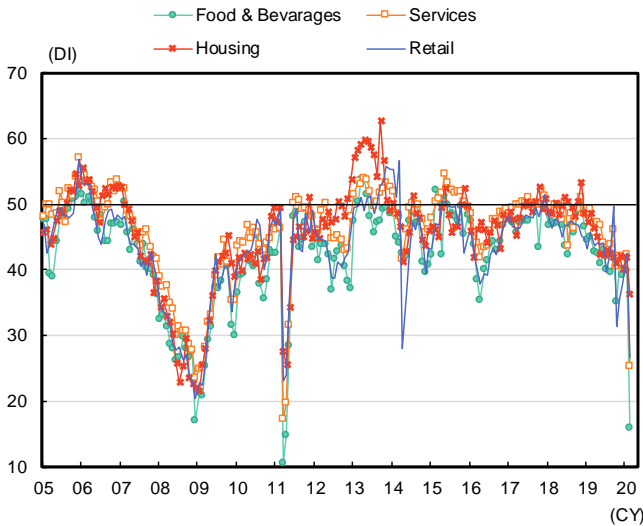
Current conditions DI

Future conditions DI



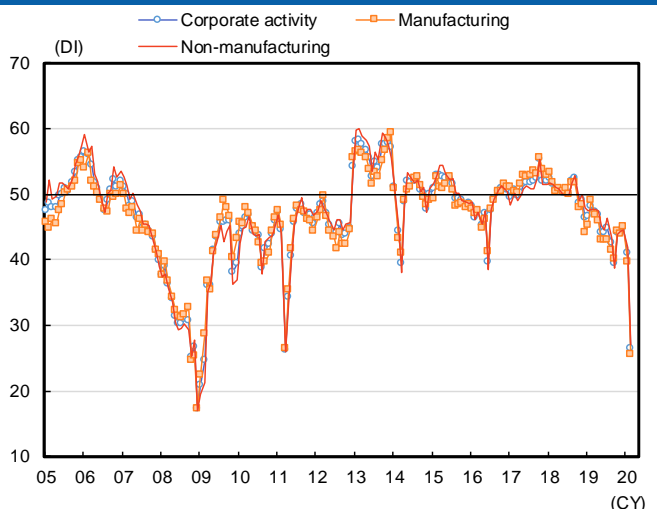
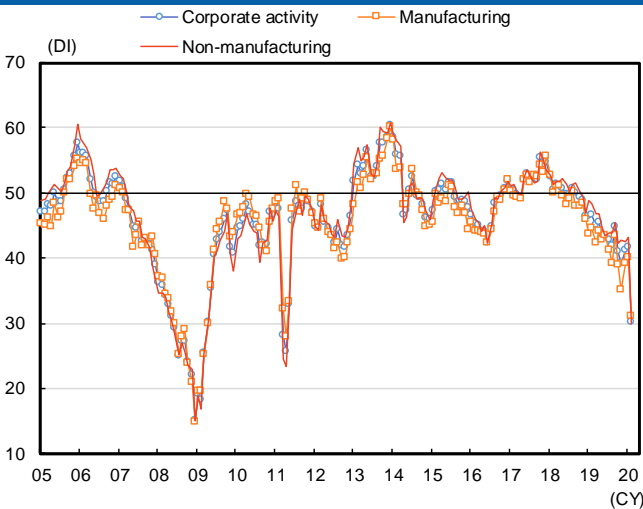
Household Activity Related DI (Current)

Household Activity Related DI (Future)



Corporate Activity Related DI (Current)

Corporate Activity Related DI (Future)



Source: Cabinet Office; compiled by DIR.

Note: Figures are seasonally adjusted.

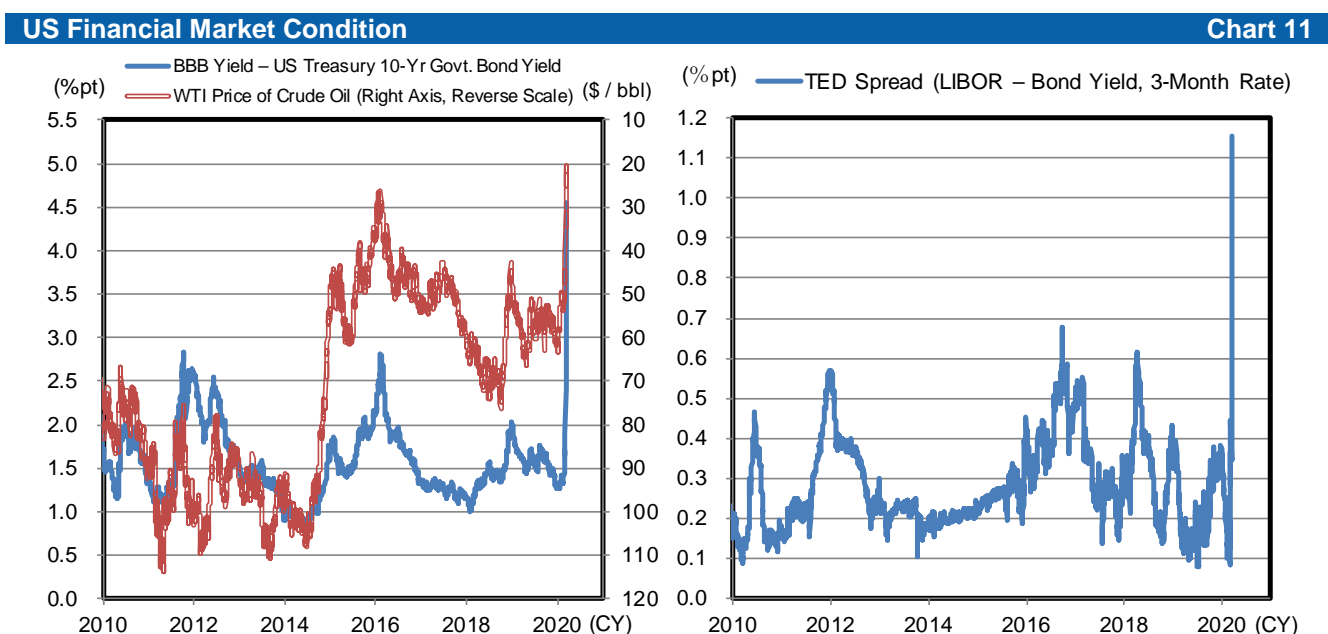
3. Concern Shifts from Problems of Real Economy to Credit Crunch

The third area of concern is the downward spiral of the real economy and the financial markets. Although it is self-evident that the worsening economy pushes yield on bonds higher, the additional element of the low price of crude oil as a result of the failure of oil producing countries to come to an agreement on reducing production also comes into play (Chart 11 (left)). This has encouraged the rise of yields (meaning lower prices) on high yield bonds issued by shale oil companies and others.

Rising bond yields centering on the US are a vital part of the financial market and can be fatal. Looking back on past events, we see that one of the consequences of extremely low interest policies which have continued since the global financial crisis of 2008 is the accumulation of corporate leverages. Looking at debt held by US corporations as a proportion of GDP, we see that the level now exceeds that seen just before the global financial crisis of 2008 and the collapse of the IT bubble (also known as the dot-com boom) in 2002 (Chart 12). This is also the result of share buybacks financed by corporate bonds. This created an asset effect associated with the rise in stock prices resulting from this activity, and it is also something which undeniably helped to push up the real economy as well. However, the rise in bond yields is also causing the bubble equilibrium to head toward a reverse yield situation.

Concern is also spreading in regard to capital loss and counterparty risk. During the second week of March there were signs of upheaval in the supply of capital between banks (Chart 11 (right)). This typical of the beginnings of a credit crunch. As this problem becomes more serious, it could bring about a credit crunch along the lines of the global financial crisis of 2008. This is why the FRB and other central banks around the world have become anxious about crisis containment. For Japan, which has increased the volume of its investments in foreign bonds in recent years, this is not just somebody else's problem.

Reviewing the responses of central banks, we'll have to say that the initial response was off-target. It's not as if to say that the emergency interest rate cut on the part of the FRB had no effect at all on the mid to long-term economic situation, but neither did it handle the problem just up ahead – the credit crunch. Next, a decision was made on additional asset purchases. This has been interpreted as having a certain amount of significance from the viewpoint of liquidity supply, but it has a limited effect from the viewpoint of easing credit. The resumption of purchases of mortgage-backed securities comes in handy for credit easing in certain specific areas, but it is too round-about an approach to be effective in easing the epicenter of the problem in this case – the bond market.



Source: Haver Analytics; compiled by DIR

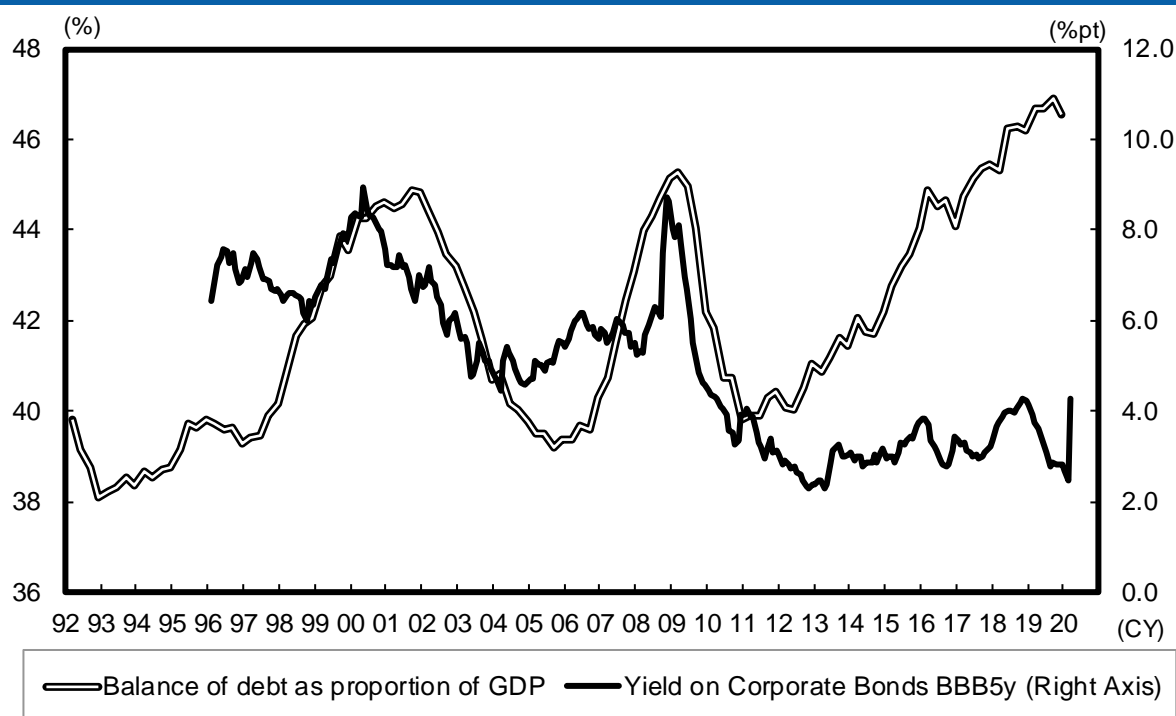
On March 17, the FRB played its trump card, introducing the following: (1) Purchase of commercial paper (CP), (2) Provision of a credit facility for primary dealers, and (3) Easing of requirements for bank capital and liquidity buffer. These measures are aimed precisely at the problem mentioned previously – the credit crunch and depletion of liquidity. It is especially important to note that there is virtually no upper limit set for (1) and (2) in this list¹. Instead, the price has been set. In other words, logically speaking, the FRB has decided to provide unlimited capital input, and then provide put options for the applicable assets.

Of course, some concerns remain. First, the particular assets involved in this program are basically, mainly highly rated ones, so even if it may be meaningful to hold down future costs such as moral hazard and possible recurrence of a bubble associated with these assets, the turmoil may continue for bonds with lower ratings.

Second, in relation to this, there is the fundamental reason bond yields have risen in the first place – the deteriorating economy and low crude oil price resulting from the COVID-19 disaster. These problems have not yet been resolved. In regard to the latter item, it has been suggested that ulterior motives on the part of Russia may also exist. There is the desire to implement a supplementary budget before the national election on May 9, which will question the pros and cons of revising the constitution. Along with the continuing COVID-19 disaster, it is highly likely that the price of crude oil will continue to decline for the next several months.

Outstanding Debt of US Corporations as a Proportion of GDP, and Interest on Corporate Bonds²

Chart 12



Source: FRB, BEA, S&P, Haver Analytics; compiled by DIR.

¹ As for (1), there is a maximum limit set for issue balances between March 19, 2019 and March 19, 2020. Meanwhile, there is no rating requirement.

² This report uses credit ratings assigned by Standard & Poor's, which is not registered with Japan's Financial Services Agency pursuant to Article 66, Paragraph 27 of the Financial Instruments and Exchange Act.

Finally, central banks other than the US – chiefly the ECB, does not appear to have the same sense of urgency as does the FRB. The ECB is of course making decisions on issues such as (1) shoring up the supply of liquidity, (2) easing TLTRO requirements, and (3) asset purchases centering on private sector bonds. As for (1), the problem of interbank credit will probably be eased. Meanwhile, (3) will probably have an easing effect on the credit crunch. However, the sense remains that these measures are insufficient. Unlike the FRB, (3) does not set a price. Instead there is a clear maximum amount. As for (2), there's a catch. If capital is injected into banks right when they are in the midst of a credit crunch, lending will not increase. Considering President Lagarde's statement after the monetary policy meeting, there is the sense that some risk remains that the ECB may be too slow in responding to these problems.

To summarize the above, the points which require attention in the future from the viewpoint of the financial markets are the deterioration of the economy due to the Corona crisis, and the decline in the price of crude oil as a result of the failure of oil producing countries to come to an agreement on reducing production. These issues may become manifest in the future in the form of increasing turmoil in the lower ratings bond market, and financial instability in Europe due to an insufficient response on the part of the ECB.

Japan's Economic Outlook No.204 Update

	FY19 (Estimate)	FY20 (Estimate)	FY20 (Estimate)	CY19	CY20 (Estimate)	CY20 (Estimate)
Main economic indicators						
Nominal GDP (y/y %)	0.7	1.3	1.3	1.2	0.2	1.7
Real GDP (chained [2011]; y/y %)	-0.1	0.1	0.8	0.7	-1.1	1.2
Domestic demand (contribution, % pt)	-0.0	-0.1	0.7	0.8	-1.3	1.1
Foreign demand (contribution, % pt)	-0.1	0.2	0.1	-0.2	0.2	0.0
GDP deflator (y/y %)	0.9	1.2	0.5	0.6	1.3	0.6
Index of All-industry Activity (y/y %)*	-1.5	-0.9	0.8	-0.3	-3.0	1.5
Index of Industrial Production (y/y %)	-3.3	-1.3	1.8	-2.8	-3.0	1.9
Index of Tertiary Industry Activity (y/y %)	-1.1	-0.7	0.6	0.5	-3.0	1.5
Corporate Goods Price Index (y/y %)	-0.1	-1.6	0.8	0.2	-1.5	0.3
Consumer Price Index (excl. fresh food; y/y %)	0.6	-0.1	0.4	0.7	0.1	0.2
Unemployment rate (%)	2.3	2.5	2.5	2.4	2.5	2.5
Government bond yield (10 year; %)	-0.13	-0.16	-0.16	-0.11	-0.15	-0.16
Balance of payments						
Trade balance (Y tril)	1.6	7.2	7.7	0.6	6.7	7.5
Current balance (\$100 mil)	1,956	2,665	2,723	1,840	2,584	2,698
Current balance (Y tril)	21.4	28.2	28.8	20.1	27.3	28.3
(% of nominal GDP)	3.9	5.0	5.1	3.6	4.9	5.0
Real GDP components (Chained [2011]; y/y %; figures in parentheses: contribution, % pt)						
Private final consumption	-1.0 (-0.5)	-0.1 (-0.1)	0.8 (0.4)	0.2 (0.1)	-2.0 (-1.1)	1.5 (0.8)
Private housing investment	1.4 (0.0)	-1.5 (-0.0)	0.1 (0.0)	2.0 (0.1)	-1.8 (-0.1)	-0.0 (-0.0)
Private fixed investment	-0.8 (-0.1)	-1.4 (-0.2)	1.4 (0.2)	0.7 (0.1)	-2.8 (-0.4)	1.4 (0.2)
Government final consumption	2.6 (0.5)	1.2 (0.2)	1.0 (0.2)	1.9 (0.4)	1.7 (0.3)	1.0 (0.2)
Public fixed investment	3.7 (0.2)	0.7 (0.0)	-0.8 (-0.0)	2.9 (0.1)	1.8 (0.1)	-0.6 (-0.0)
Exports of goods and services	-2.2 (-0.4)	1.0 (0.2)	1.6 (0.3)	-1.8 (-0.3)	-1.1 (-0.2)	2.3 (0.4)
Imports of goods and services	-1.6 (0.3)	0.0 (-0.0)	1.2 (-0.2)	-0.8 (0.1)	-2.3 (0.4)	2.3 (-0.3)
Major assumptions:						
1. World economy						
Economic growth of major trading partners	2.7	3.1	3.3	3.0	2.8	3.2
Crude oil price (WTI futures; \$/bbl)	55.6	40.0	40.0	57.0	42.3	40.0
2. US economy						
US real GDP (chained [2012]; y/y %)	2.2	1.9	2.0	2.3	1.9	2.0
US Consumer Price Index (y/y %)	2.0	2.0	2.0	1.8	2.1	1.9
3. Japanese economy						
Nominal public fixed investment (y/y %)	5.4	1.8	0.0	4.5	3.2	0.2
Exchange rate (Y/\$)	108.5	105.0	105.0	109.0	105.8	105.0
(Y/€)	120.8	118.0	118.0	122.2	118.4	118.0

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- 1) Duty of good faith.
- 2) Establishment of control systems (fairness of the rating process, and prevention of conflicts of interest, etc.).
- 3) Prohibition of the ratings in cases where Credit Rating Agencies have a close relationship with the issuers of the financial instruments to be rated, etc.
- 4) Duty to disclose information (preparation and publication of rating policies, etc. and public disclosure of explanatory documents).

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■ **Credit Rating Agencies**

[Standard & Poor's]

The Name of the Credit Rating Agencies group, etc

The name of the Credit Rating Agencies group: S&P Global Ratings ("Standard & Poor's")

The name and registration number of the Registered Credit Rating Agency in the group: S&P Global Ratings Japan Inc. (FSA commissioner (Rating) No.5)

How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings

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Credit ratings may change depending on various factors, including issuers' performance, changes in external environment, performance of underlying assets, creditworthiness of counterparties and others. Standard & Poor's conducts rating analysis based on information it believes to be provided by the reliable source and assigns credit ratings only when it believes there is enough information in terms of quality and quantity to make a conclusion. However, Standard & Poor's does not perform an audit, due diligence or independent verification of any information it receives from the issuer or a third party, or guarantee its accuracy, completeness or timeliness of the results by using the information. Moreover, it needs to be noted that it may incur a potential risk due to the limitation of the historical data that are available for use depending on the rating.

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[Moody's]

The Name of the Credit Rating Agencies Group, etc

The name of the Credit Rating Agencies group: Moody's Investors Service ("MIS")

The name and registration number of the Registered Credit Rating Agency in the group: Moody's Japan K.K. (FSA commissioner (Rating) No.2)

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[Fitch]

The Name of the Credit Rating Agencies group, etc

The name of the Credit Rating Agencies group: Fitch Ratings ("Fitch")

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