Daiwa Institute of Research

27 Dec 2019 (No. of pages: 20)

Japanese report: 19 Dec 2019

Outlook for Japan's Economy in 2020

The key to regaining accelerated growth: recovery scenario for the global manufacturing industry

Economic Research Dept.
Shunsuke Kobayashi
Yutaro Suzuki

Summary

- With overseas demand shifting into decline due to the slowdown in the global economy centering on the manufacturing industry, Japan's economic growth was supported by domestic demand. However, at least a portion of domestic demand, which was especially favorable during the first half of FY2019, included last minute demand prior to the consumption tax hike. Now, with the reactionary decline in response to last minute demand, and the negative income effect associated with the consumption tax hike coupled with the slowdown of improvements in employment and income, it is highly probable that contribution to growth from domestic demand centering on consumption will begin to shrink. However, the effects of the tax hike will be temporary. Moreover, new economic measures are expected to shore up domestic demand to a certain extent. Hence we expect that the contribution of domestic demand to the overall economy will be able to avoid falling into decline.

- At the same time, however, in order for the Japanese economy to shift into the positive direction and regain accelerated growth, it will first be necessary for the effects of the consumption tax hike to dissipate, or for the contribution rate of overseas demand to Japan's economic growth to move clearly onto the positive side. There are some bright spots beginning to appear for overseas demand. These include a recovery in demand for semiconductors centering on Asia, global inventory adjustment coming to completion, and the signing of a "Phase 1" agreement in the US-China trade talks. However, considering all the factors that remain, including the risk that US-China conflict could reignite in areas where agreement is more difficult, such as military and ideological questions, and the possibility that a lagging slowdown could occur in demand for capital goods and durables centering on the advanced countries due to low global factory operating rates, there is a good possibility that more time will be required before overseas demand moves toward recovery. We therefore expect Japan's economic growth rate to gradually slow in the future, with +0.3% y/y seen in CY2020, and +0.5% expected in comparison with the previous fiscal year in FY2020.

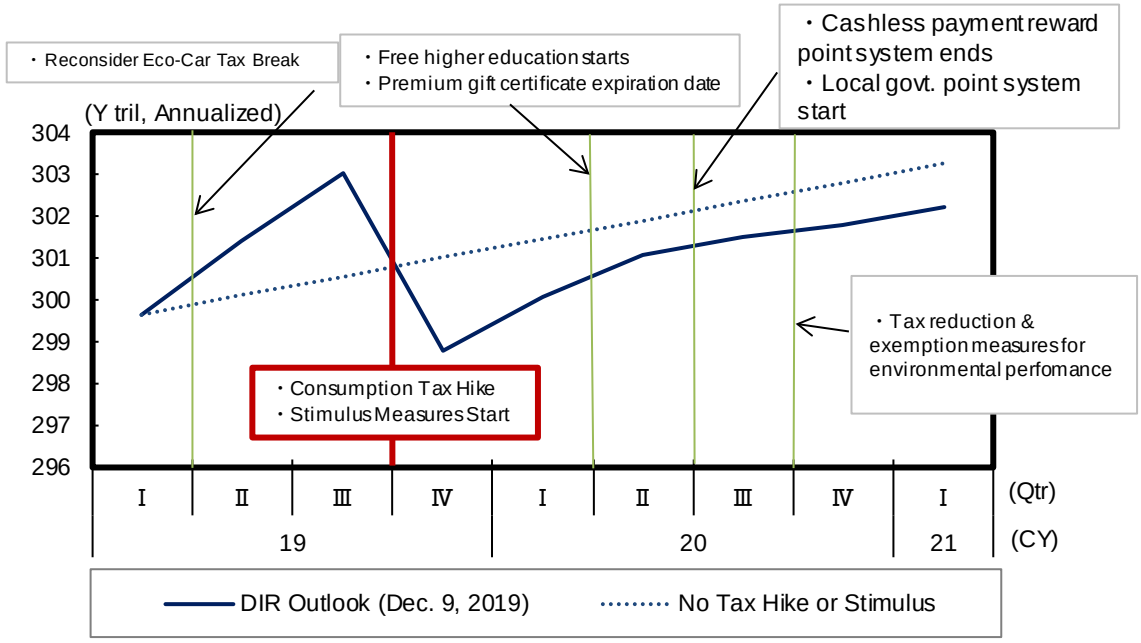
Sustainability of scenario assuming that favorable domestic demand will offset stagnant overseas demand is questionable

Exports of Japanese corporations have been in decline since 2018 due to the slowdown in the global economy centering on the manufacturing industry. To sum up the developments of the last two years, Japan's economic growth was supported by domestic demand as overseas demand shifting into decline. This tendency grew even stronger once into FY2019. The contribution of overseas demand to the +1.3% y/y growth rate of the first half came to -0.5%pt, while domestic demand contributed +1.8%pt, a result that contrasted greatly with overseas demand.

However, at least a portion of domestic demand, which was extremely favorable during the first half of FY2019, included last minute demand prior to the consumption tax hike. Now, with the reactionary decline in response to last minute demand, and the negative income effect associated with the consumption tax hike coupled with the slowdown of improvements in employment and income, it is highly probable that contribution to growth from domestic demand centering on consumption will begin to shrink. In order for the Japanese economy to shift into the positive direction and regain accelerated growth, it will first be necessary for the effects of the consumption tax hike to dissipate, or for the contribution rate of overseas demand to Japan's economic growth to move clearly onto the positive side.

At the same time, however, it should be noted that the effects of the consumption tax hike are temporary. New economic measures are expected to shore up domestic demand to a certain extent. Meanwhile, there are some bright spots beginning to appear for overseas demand. These include a recovery in demand for semiconductors centering on Asia, global inventory adjustment coming to completion, and the signing of a "Phase 1" agreement in the US-China trade talks. However, considering all the factors that remain, including the risk that US-China conflict could reignite in areas where agreement is more difficult, such as military and ideological questions, and the possibility that a lagging slowdown could occur in demand due to low global factory operating rates, there is a good possibility that more time will be required before demand for capital goods, a major export for Japan, move toward recovery.

Outlook for Real Household Consumption **Chart 1**



Source: Cabinet Office, News Reports; compiled by DIR.

Note: The effect of local government points is assumed to be the same as premium gift certificates.

Therefore being that there is a good possibility that more time will be required before both overseas and domestic demand move toward recovery, we expect Japan's economic growth rate to mark time for the time being, though the overall economy should be able to avoid falling into decline in 2020. In this report we provide an outlook for Japan's economy in 2020 formed in consideration of current conditions in domestic and overseas demand.

Impact of major downward revision of GDP forecast

First let's take a look at domestic demand. To what extent was the past strength of domestic demand due to true economic strength as opposed to the strength of a trend? Another way to put this would be to consider to what degree was the temporary factor of last minute demand responsible. There is room for argument here. On this note, there are serious questions raised by the fact that the primary annual estimate of economic strength, the FY2018 Annual Estimates of GDP were revised significantly downwards.

Chart 2 shows the FY2018 growth rate before revision at +0.7% y/y. The largest contributors to growth appears to have been private sector consumption expenditure and private sector capital investment. However, the revised version reveals the major component of domestic demand to have been revised downwards considerably, declining to the level of +0.3% of the overall growth rate. Taking this into consideration, we take another look at the FY2019 first half growth rate and find that there is notable acceleration in private sector consumption, private sector housing, and private sector capital investment. Taking the downward revision at face value, the domestic demand trend was not as strong as had been assumed. In other words, growth in the first half of FY2019 was largely associated with last minute demand. Not surprisingly, opinion that this was actually the case is on the rise.

Details of Growth Rate Revision Associated with Primary Estimate (GDP Preliminary Report) Chart 2

	FY2018 Results (%, %pt)				FY2019 First Half Results (y/y, %)
	Before Revision of Primary Estimate	After Revision	Extent of Revision	Based on Contribution	
Real GDP growth	0.7	0.3	-0.4	-0.4	1.3
Private final consumption	0.4	0.1	-0.4	-0.2	1.1
Private housing investment	-4.3	-4.9	-0.6	0.0	3.7
Private fixed investment	3.5	1.7	-1.7	-0.3	2.9
Government final consumption	0.9	0.9	0.0	0.0	2.4
Public fixed investment	-4.0	0.6	4.5	0.2	2.5
Exports of goods and services	1.6	1.6	0.0	0.0	-1.6
imports of goods and survices	2.2	2.2	0.0	0.0	1.2

Source: Cabinet Office; compiled by DIR.
Notes: Due to rounding, actual figures may differ from those released by the government.

Substitution effect (last minute demand and reactionary decline) may have been half that experienced the last time the consumption tax was raised

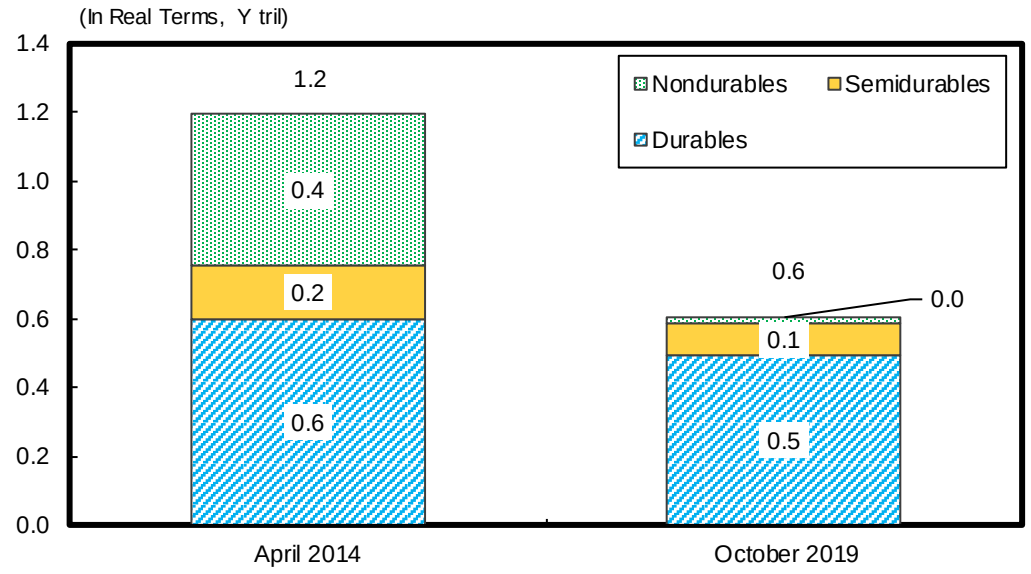
The question is to what degree did last minute demand take place? A detailed analysis of this question was carried out in the DIR report dated 31 October 2019, *Thorough Analysis of Last-Minute Demand (by Industry & Product): Most prominent in areas that fell through the cracks. Be on the alert for future reactionary decline*. Below are summarized findings of that report.

First of all, the scale of last minute demand was more inhibited than the last time the consumption tax was raised. It appears that the introduction of demand leveling measures as represented by the reduced tax rate on foods and other items, as well as the reduction of the automobile tax and the reward points system for use of cashless payment, were a success. According to DIR analysis, the scale of last minute demand and reactionary decline were around half of what they were the last time the consumption tax was raised (Chart 3).

However, last minute demand was found to have occurred in sectors which were overlooked by the consumption tax countermeasures (Chart 4). In the area of motor vehicles, standard-sized cars and light vehicles experienced growth in demand just before the tax hike, while in the area of housing, owned dwellings and those built for sale were affected. In the area of retailing, department stores saw a spike in demand just before the tax hike, as well as major household electronics and drugstore chains.

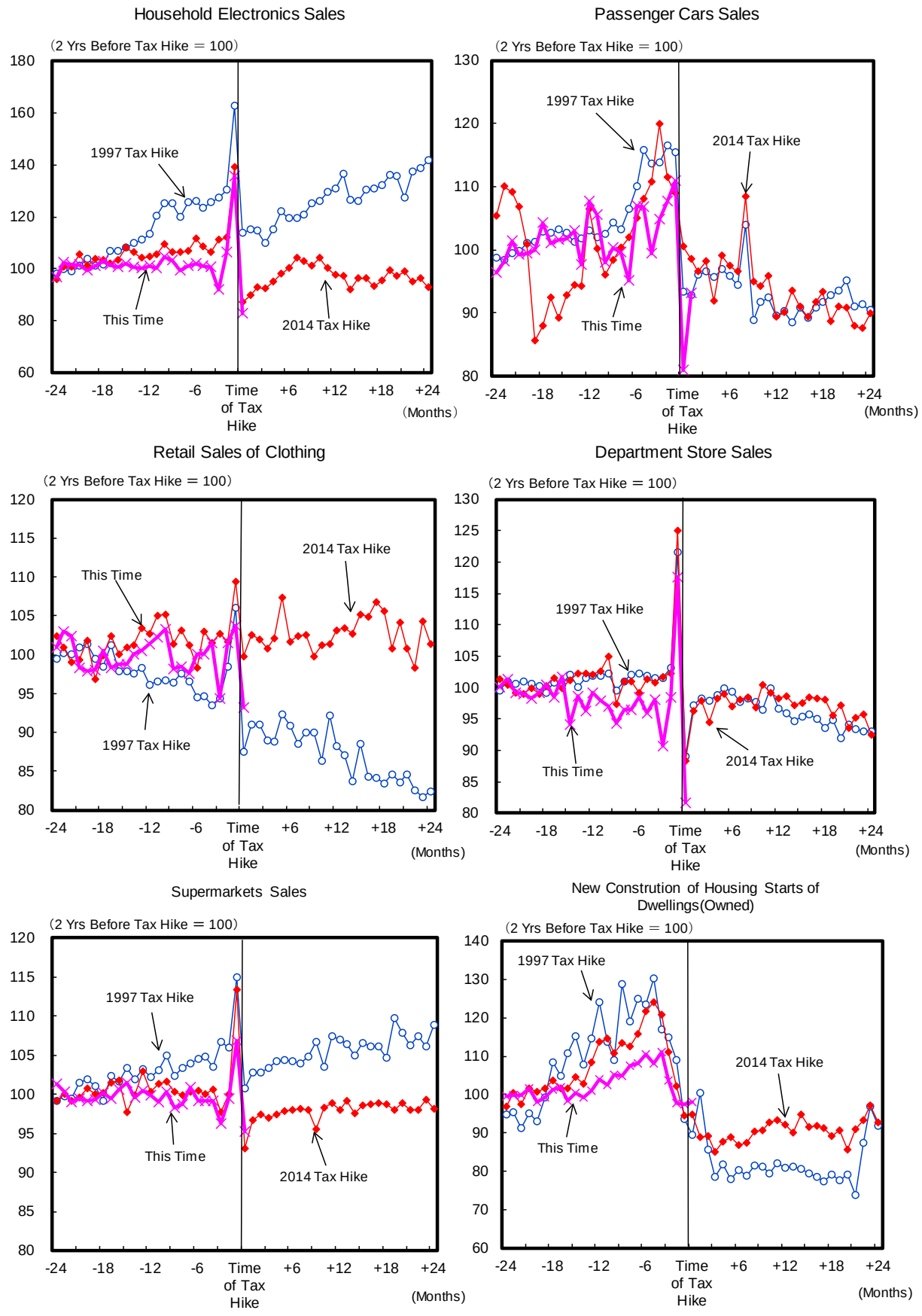
Therefore, little is left for skepticism as to whether or not last minute demand contributed to the acceleration of growth during the first half of FY2019. Meanwhile, the occurrence of reactionary decline is inevitable. However, reactionary decline was also at a smaller scale than the last time the consumption tax was raised. Moreover, it should be noted that it does not have the characteristics of something that could last over a period of several quarters.

Scale of Last Minute Demand and Reactionary Decline around Time of Consumption Tax Hike Chart 3



Source: Cabinet Office, Bank of Japan; compiled by DIR.
Note: Calculation based on rate of deviation from trend in propensity to consume (four-quarterly centered moving average).

Change in Demand for Items Subject to Tax Hike (Comparison with Last Two Times Consumption Tax was Increased) Chart 4



Source: Japan Automobile Dealers Association, Ministry of Economy, Trade and Industry, Ministry of Internal Affairs and Communications, Ministry of Land, Infrastructure, Transport and Tourism; compiled by DIR.

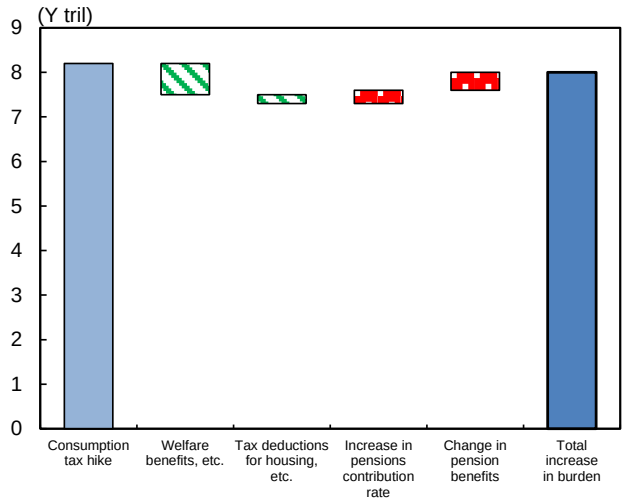
Note: Seasonally adjusted. Seasonal adjustment of new car sales volume by DIR. Other items are real value obtained using CPI and then deflating.

Negative income effect around a quarter less than last time consumption tax was raised

The negative income effect associated with the tax hike no doubt holds great importance in forecasting the course of the economy throughout 2020. Of course, this time around a portion of household burden associated with the tax hike has been offset by social security enhancement measures, including free education and the reduced tax rate. As a result, the net amount by which the budget will be reduced is expected to be smaller than last time, or approximately 2 tril yen in comparison with the previous consumption tax hike when it was around 8 tril yen (Charts 5 & 6). The negative income effect will be softened by other measures as well, but the effects of these measures will gradually disappear during FY2020, while the residual effects will continue to be a drag on consumption[1].

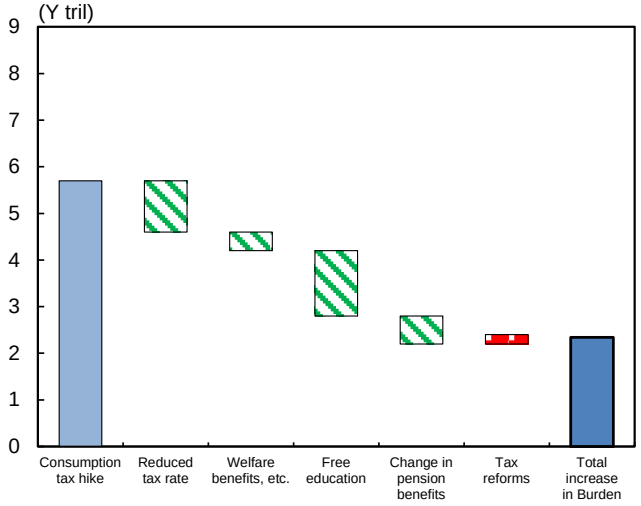
The negative income effect becomes manifest in the passing along of tax burden to households in the form of higher sales prices. However, as of this writing, using price data now available, the extent of price pass-through does not seem to be much in comparison to the extent of the tax hike. For households, this means that the negative effect on real income is being inhibited, while at the same time, corporate profit margins are being squeezed, especially in retailing.

Household Burden (April 2014 Tax Hike) **Chart 5**



Source: Ministry of Finance, Ministry of Health, Labour and Welfare, Bank of Japan; Compiled by DIR.

Household Burden (October 2019 Tax Hike) **Chart 6**



Source: Ministry of Finance, Bank of Japan; Compiled by DIR.

[1] For details see the DIR Report dated 20 September 2019, *Thorough analysis of consumption tax hike countermeasures and their effects: Comprehensive examination of income effect and substitution effect by age group, and industry*, by Shunsuke Kobayashi and Yutaro Suzuki.

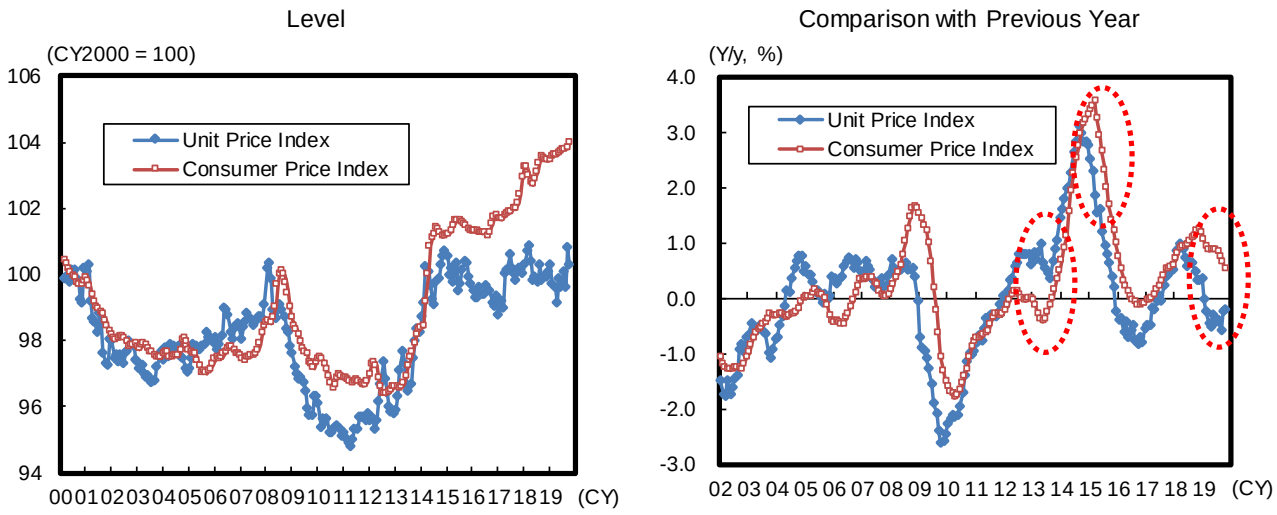
Consumer tendency to become more budget-minded holds down prices as well as corporate profitability

Consumers can easily become more budget-minded after a tax hike. Chart 7 shows the unit price index, which expresses change in the price of consumer goods actually purchased by households. The index is similar to the consumer price index (CPI), but its significance is quite different. The divergence of the two indices can be described thus: in the case of the consumer price index, the basket weight is fixed in principle, and excludes sales items. In contrast, basket weight the unit price index is not fixed, and items bought on sale are included. Therefore, in contrast to CPI, when the unit price index exhibits weak performance, this means that households are showing a tendency to purchase cheaper goods. One of the signs is that the household is able to buy as much as it wants without worry during a sale. The reverse also is true.

Keeping in mind the differences between the two indices as explained above, we now take a look at the actual numbers as they have changed over time. In the case of 2014, the unit price index began to rise before the consumption tax hike earlier than did the consumer price index. Then after the tax was increased, the unit price index was the first to begin to decline. In other words, before the increase in consumption tax, purchases of luxury items that one would normally not buy, as well as purchases of items that are not on sale increased, while after the tax hike there was a stronger tendency to be budget-minded, while at the same time showing a preference for lower priced goods. Later, with this tendency toward budget-mindedness on the part of households, the consumer price index also began to decline somewhat behind unit price index.

During this most recent consumption tax hike as well, the growth rate of the unit price index stopped declining just prior to the tax increase in contrast to the consumer price index, whose growth rate began declining. The reaction to the last minute demand will likely be expressed in the future in the form of the unit price falling again. Ultimately, there is a good possibility that this will be a factor in generally holding down the consumer price index.

Changes in Unit Price Index and Consumer Price Index **Chart 7**



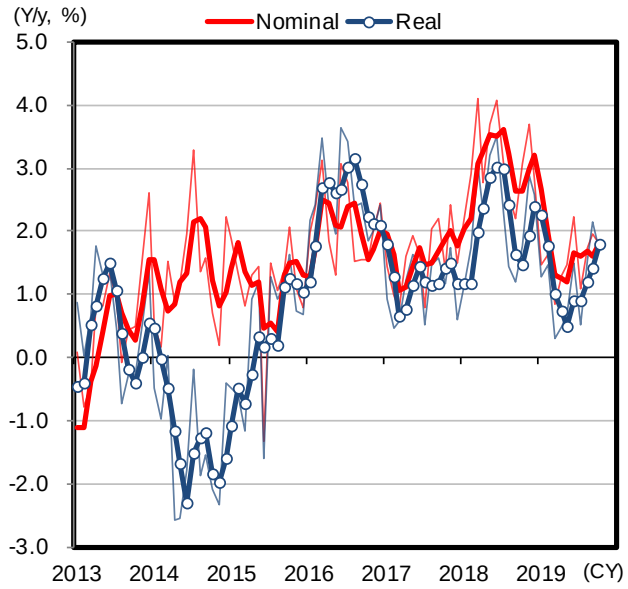
Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Notes: 1) The unit price index was prepared with reference to the method explained in the Cabinet Office document “Annual Report on the Japanese Economy and Public Finance 2013”
2) Figures shown in the left side chart labeled “Level” were found with a three-month moving average using seasonally adjusted values by DIR. The y/y comparison is based on a 12-month moving average value.

Sluggish growth in corporate earnings will affect pace of improvement in employment and income

Along with fears regarding the possibility that corporate profitability may decline due to sales prices having weakened via the mechanism described above, we must take heed of the fact that sluggish growth in corporate earnings centering on manufacturing is causing a delay in the pace of improvement in employment and income, causing these areas to stagnate as well[2]. As is shown in Chart 8, growth in total wage of employees has continued to decline since 2018. On a nominal basis, growth in total employee compensation has hovered at around +1% y/y to +2% y/y. While positive growth has been maintained, it is unsatisfactory in comparison to its most recent peak of +3% y/y in the first half of 2018.

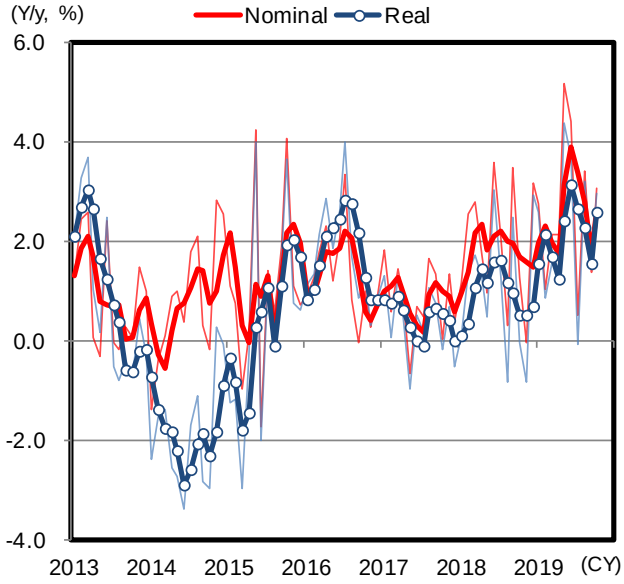
The major causes of stagnant growth in total wage of employees can be found in (1) stagnant growth in employed population (Chart 10), and (2) decline in working hours per person (Chart 11). The second factor mentioned here tends to be more influenced by factors having no relation to the business cycle, such as the increase in number of holidays this year associated with the inauguration of the new imperial era. In contrast, factor (1), which is unassociated with any special factors, is thought to be a reflection of the downward revision in corporate business results associated with sluggish overseas demand. Meanwhile, another factor hovering in the background is that the recent tendency of corporations to shift the status of non-regular employees to that of regular employees has lost its momentum[3].

Change in Total wage income of employees **Chart 8**



Source: Cabinet Office; compiled by DIR.
Note: The bold line is the 3-month moving average.

Change in Hourly Wage **Chart 9**



Source: Cabinet Office, Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare; compiled by DIR.
Notes: 1) Reverse calculation taking Cabinet Office total and dividing by Ministry of Internal Affairs and Communications total and Ministry of Health, Labour and Welfare total.
2) Bold line is the 3-month moving average.

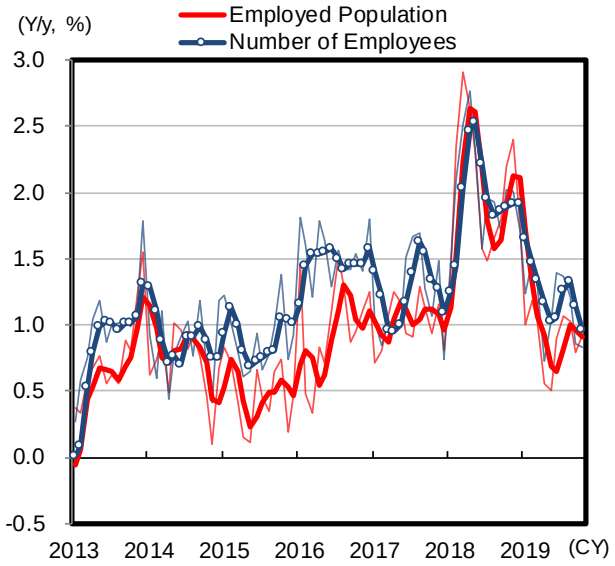
[2] For details see the DIR report dated June 25, 2019, *Japan's Economy: Monthly Outlook (June 2019): No recovery for domestic demand without growth in overseas demand*, by Shunsuke Kobayashi and Yota Hirono.
[3] For details see the DIR report dated 27 August 2019, *Japan's Economy: Monthly Outlook (August 2019): 1. The statistical trick in the superior GDP results: last-minute shipping, 2. The consumption tax hike and free education: some age groups will be winners, while others will lose out, 3. Revised economic outlook: FY2019 +0.9%, FY2020 +0.4%, 4. US-China negotiations break down again: moving toward additional tariff of 10% on remaining 300 billion dollars,* by Shunsuke Kobayashi and Yutaro Suzuki.

Impact of overtime regulations with penalty

In regard to the decline in working hours per person, it is impossible to ignore the primary factor in this case – that is the influence of the new overtime regulations with penalty which went into effect as of April 2019. Said policy sets an upper limit on overtime (not including work performed on holidays), which in principle is 45 hours per month or 360 hours per year. Meanwhile, under special circumstances, even with labor-management agreement, overtime plus holiday work has an upper limit of 100 hours per month, or an average of 80 hours over a period of 2-6 months. In other words, we can logically deduce from this that the upper limit of overtime is in actual practice 100 hours per month or 960 hours per year. If a company goes above these limits and is in violation of the regulations, the penalty is six months or less in jail or a fine of 300,000 yen or less. Small and medium-sized enterprises will be subject to the new regulations starting a year later in April 2020, and certain special types of business operations (drivers of various kinds of motor vehicles, construction, doctors, etc.) have another five years before the new regulations are applied in April 2024.

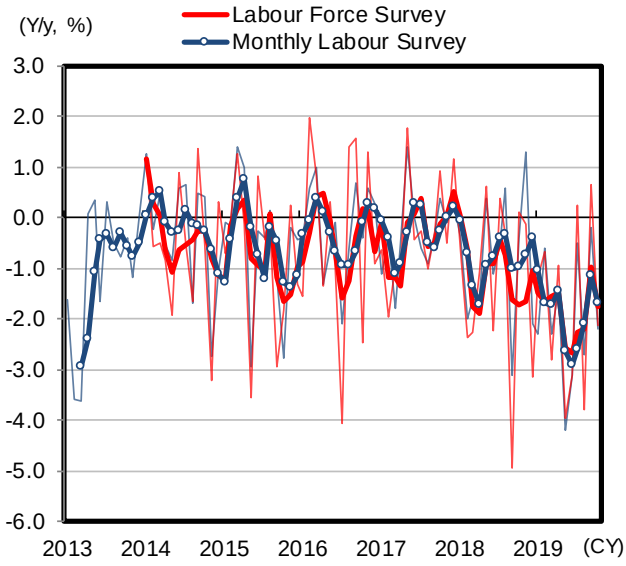
Looking at the figures from FY2018, the latest data available based on the fiscal year shown in Chart 12, we see that, with the exception of businesses and operations to whom the law is not applicable until five years from now as was explained above, the employed population putting in an average of 241 hours per month or more in working hours (overtime averages 80 hours per month or 960 hours per year) totaled 3,160,000 persons. Meanwhile, the employed population putting in 261 hours per month or more (with overtime averaging 100 hours per month) totaled 1,910,000. This data covers enterprises of all sizes, including small and medium-sized enterprises. This data does not allow us to differentiate between those persons putting in long work hours who were working for a corporation subject to the Revised Labor Standards Act implemented in April 2019, or who were working for a corporation to which the law is not applicable until April 2020. Even so, the significance of these figures is huge, being that after April 2020, all corporations whether they are small and medium-sized enterprises or not, will be required to take corrective measures regarding long work hours.

Change in Employed population **Chart 10**



Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Note: The bold line is the 3-month moving average.

Change in Working Hours per Person **Chart 11**



Source: Cabinet Office, Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare; compiled by DIR.
Notes: 1) Monthly labor statistics make use of a common data set.
2) The bold line is the 3-month moving average.

Next, working under certain assumptions[4], we calculate what the impact would be if 3,160,000 workers performing especially long work hours were to cut back on overtime, keeping it within the stipulated limit of 960 hours per month. This would mean cutting back on work hours by a total of about 1.13 billion hours per year. Annual average working hours per employee was 1,894 hours in FY2018, or a total of approximately 1.13 billion hours. This is the equivalent of the total working hours of around 600,000 persons. This is the equivalent of around 0.9% of the total employed population (Chart 13). Next, when we calculate under certain assumptions[5] what the impact would be if the monthly overtime hours of 1,910,000 persons currently in conflict with the monthly regulations, and whose situation is most urgently in need of handling, were to be cut back to the 100 hours as stipulated by law. This would mean cutting back on work hours by a total of about 0.52 billion hours per year, or 0.2% of the total employed population.

Of course, the overtime regulations came about because of the demands of society, so it may seem inappropriate to approach the question only in terms of its economic and monetary effects. To begin with the problem was that excessively long work hours had become the norm for many Japanese workers, and at some point the day of reckoning was going to come for Japan's corporations that would force them to do something to resolve the problem. The "birth pangs" of this new approach to work will take the form of an economic cost which be at least short-term if not somewhat longer.

Employed Population by Industry and by Monthly Working Hours (FY2018) **Chart 12**

Monthly Work Hours	221-240	241-260	261-280	281-	Workers with Long Work Hours	Workers with Especially Long Work Hours	Number of Workers in Conflict with Monthly Regulations
Total Industries	289	173	97	168	727	438	265
Industries Effected by New Regulations	210	125	70	121	526	316	191
Mining and Quarrying of Stone and Gravel	0	0	0	0	0	0	0
Construction	32	19	9	15	75	43	24
Manufacturing	49	24	12	14	99	50	26
Electricity, Gas, Heat Supply and Water	1	0	0	1	2	1	1
Information and communications	9	4	3	4	20	11	7
Transport and postal activities	28	19	12	22	81	53	34
Wholesale and retail trade	45	27	16	26	114	69	42
Finance and insurance	6	3	2	1	12	6	3
Real estate and goods rental and leasing	5	3	1	3	12	7	4
Scientific research, professional and technical services	10	6	4	7	27	17	11
Accommodations, eating and drinking services	16	14	7	19	56	40	26
Living-related and personal services and amusement services	12	8	4	6	30	18	10
Education, learning support	15	11	7	13	46	31	20
Medical, health care and welfare	19	10	6	10	45	26	16
Compound services	2	1	1	0	4	2	1
Services, N.E.C.	15	8	5	7	35	20	12
Government, except elsewhere classified	10	6	4	6	26	16	10
Services, not elsewhere classified	4	2	1	3	10	6	4

Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Notes: 1) The industry total includes employed population of the agriculture, forestry, and fisheries industry, and hence does not match with the actual total of industries as shown in the table.
2) Unit: 10,000 persons.

[4] Assumptions used in calculations: Average overtime of employees putting in 241-260 working hours per month is 90 hours (cutback in working hours required is 10 hours), average overtime of employees putting in 261-280 working hours per month is 110 hours (cutback in working hours required is 30 hours), average overtime of employees putting in 281 or more working hours per month is 130 hours (cutback in working hours required is 50 hours).
[5] Assumptions used in calculations: Average overtime of employees putting in 261-280 working hours per month is 110 hours (cutback in working hours required is 10 hours), average overtime of employees putting in 281 or more working hours per month is 130 hours (cutback in working hours required is 30 hours).

Calculation of Economic Effects of Overtime Regulations — Chart 13

	Number of Workers	Cutbacks in Annual Working Hours	Cutbacks in Labor Inputs and Income
Annual overtime of 720 hrs or more	3,160,000	1.13 Bil Hrs	0.9%
Monthly overtime of 100 hrs or more	1,910,000	0.52 Bil Hrs	0.2%

Source: Ministry of Internal Affairs and Communications; compiled by DIR.

Effects of economic measures will be modest but long-lasting

With the possibility that domestic demand may weaken as a driving force in the economy, comprehensive economic measures were formed and then passed by the cabinet "Comprehensive Economic Measures to Create a Future with Security and Growth" (Chart 14). The new measures involve government spending of 13 trillion yen in what is being called "fresh resources." However, 13 trillion yen will not have a big enough effect to increase the economic growth rate much.

First of all, included in national and regional expenditure, the revised budget for FY2019 is 4.3 trillion yen, which is only a bit more than the FY2018 revised budget of 3.9 trillion yen. Considering the fact that 0.7 trillion yen is earmarked for special accounts in FY2019, with another 0.8 trillion yen in FY2020, though we can expect a certain amount of leverage for economic growth, this still has to be assessed in the context of the total including the regular budget to be determined in the future. Meanwhile, as is indicated by past experience, such as the economic package put together in 2016 making up the supplementary budget, and used for government expenditure including public works projects throughout FY2017, but ultimately not increasing government spending all that much, considering the longer construction periods required by the construction industry in association with the shortage of labor (the slow pace of filling orders), it is unclear to what extent the above budget can be consumed.

Though the effect of increasing the economic growth rate is limited, it can also be said that the measures are enough to provide underlying support. In either case, demand for construction and so on associated with the 2020 Tokyo Olympics and Paralympics will eventually fade away. Looking at it from the viewpoint of making the next "fiscal cliff" less precipitous, the current measures have a lot to handle even when we add on the three-year emergency response plan for disaster prevention, disaster mitigation, and building national resilience put together at the end of 2018. It is therefore possible that the fiscal investment and loan program included in the current measures will have a modest but long-lasting effect. This framework provides for the disbursement of funds to projects meeting with government policy such as the expansion of airports and seaports by entities which have received government financing. Considering the fact that it takes time to select companies and carry out the bidding process, this government program is not one which can be expected to have the effect of causing rapid growth in demand right away. However, looking at it from the other way around, we may be able to expect the effect of its providing long-term support for private investment.

Comprehensive Economic Measures to Create a Future with Security and Growth **Chart 14**

	Scale (Approx Y tril)		
	Fiscal Expenditure	National & Regional Expenditure	FILP
Restoration & Reconstruction from Natural Disasters and Ensuring Safety & security	5.8	5.4	0.3
Intensive Support to Those Striving to Overcome Economic Downside Risks	3.1	2.1	1.1
Investing for the Future, Maintaing/Enhancing Economic Vitality Beyond 2020 Olympics and Paralympics	4.3	1.9	2.4
Total	13.2	9.4 (Note 1)	3.8 (Note 2)

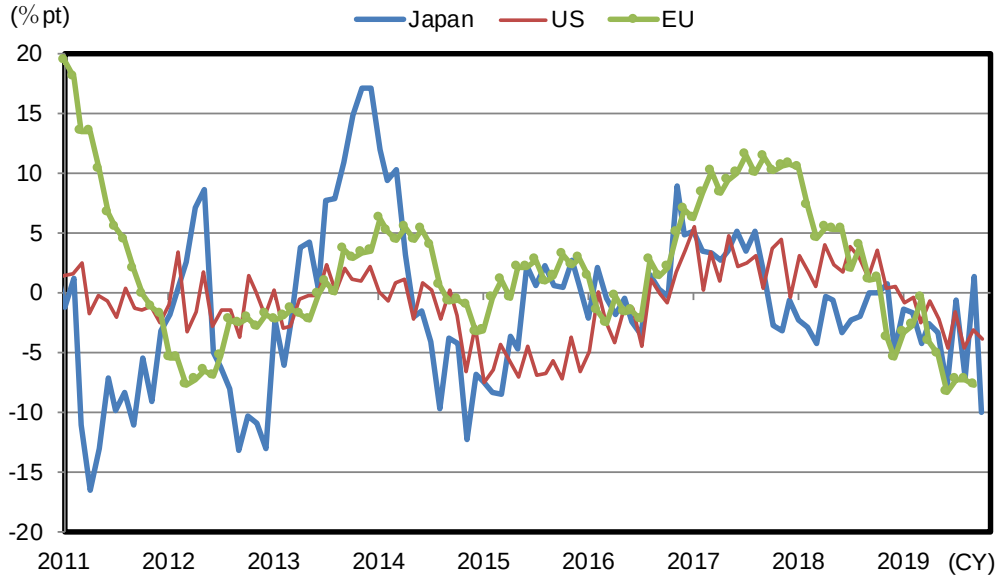
Source: Cabinet Office; compiled by DIR.
Notes: 1) Including National Expenditure of 7.6 tril yen.
General Account: FY2019 4.4 tril yen (Including Supplemental Budget 4.3 tril yen, Reserves 0.1 tril yen).
Including Special Accounts: FY2019 0.7 tril yen, FY2020 and beyond 0.8 tril yen.
2) Including FY2019 1.4 tril yen, FY2020 and beyond 2.4 tril yen.

The key to regaining accelerated growth: recovery scenario for the global manufacturing industry

Next, shifting our view to overseas demand, there are some bright spots beginning to appear in three areas. The first bit of good news is the recovery of demand for semiconductors, which had been in an adjustment phase. Exports to Asia and exports of electrical equipment have continued in a declining trend for nearly two years, since early in 2018. The declines stopped just recently and the trend has shifted into a gradual recovery. Factors behind the recovery include expected installation of new 5G capability in various devices in the near future and their sale, in addition to falling global inventory levels after two years of continual production adjustments[6].

The next piece of good news is that global inventory adjustment pressures are gradually easing up. During the long period of economic expansion after the global financial crisis of 2008, the inventory cycle has lasted 3-4 years, and within those parameters has been behind the acceleration/deceleration of the global economy. As can be seen in the balance of shipping and inventory as shown in Chart 15, the inventory cycle has been in an adjustment phase since 2017 in the major advanced nations. There have been signs that the economy is moving toward bottoming out since mid-2019. This is a leading indicator about one year ahead of actual corporate activity, hence it will still take some time before we see actual recovery in production and trade, but this does give one the feeling that the downturn in the global manufacturing industry is moving toward bottoming out, perhaps somewhere around the middle of 2020.

US, Japan, and Europe: Balance of Inventory and Shipments **Chart 15**



Source: Major statistics from each of the above mentioned countries; compiled by DIR.
Notes: 1) Shipment and inventory balance = shipments (y/y) – inventory (y/y).
2) Due to natural disasters in Japan in 2018, data is averaged for the months of September and October.
3) Europe data from EU28. Difference between production index (y/y) – inventory DI (y/y) used for Europe only.

[6] For details see the DIR report dated November 27, 2019, *Japan's Economy: Monthly Outlook (November 2019): Main cause of slowdown switches from overseas demand to domestic demand*, by Shunsuke Kobayashi and Yutaro Suzuki.

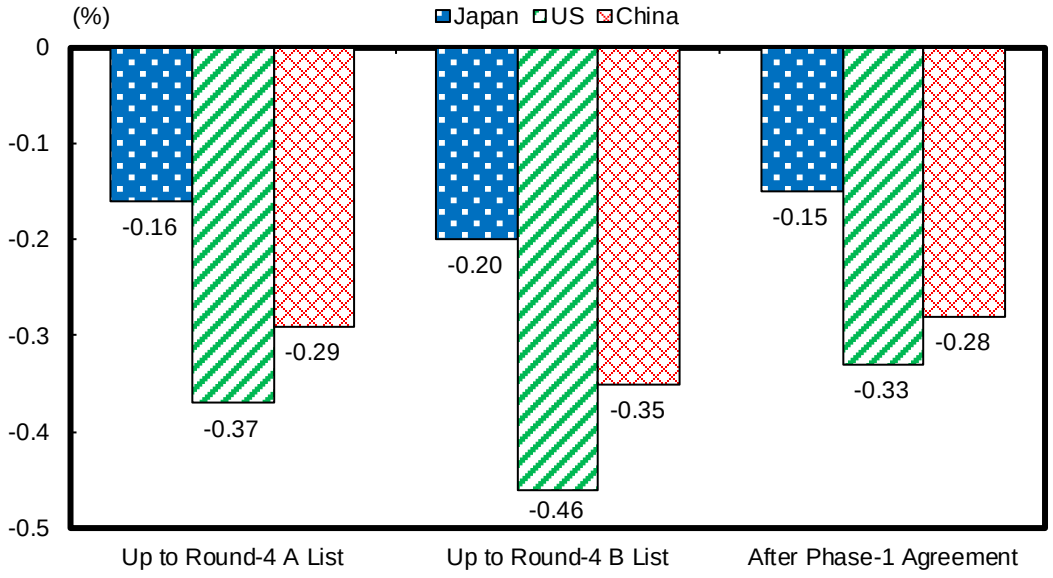
US-China trade negotiations reach "Phase 1" agreement

Our third piece of good news is that US-China trade talks have reached a "Phase 1 agreement". Additional tariffs on 150 billion dollars in products imported from China (Round-4 B List) originally planned to go into effect as of December 15, were called off. Applicable items included many for which it would have been difficult to find import substitutes from sources other than China, such as smartphones and notebook computers. The calling off of the additional tariffs is a positive factor. Meanwhile, tariffs on 120 billion dollars in Chinese goods which were already imposed (Round-4 A List) had their tariff rate reduced.

Using the DIR macro model, we estimated the cumulative economic impact on the economies of various countries of additional US tariffs on China through Round-4 A List (assuming no government spending on the part of either China or US). The estimate found economic decline in various countries as follows: China -0.29%, US -0.37%, Japan -0.16%. If the Round-4 B List tariffs had been implemented, these countries' economies could have expected to have taken an expanded economic hit as follows: China -0.35%, US -0.46%, Japan -0.20%. Ultimately, the imposition of Round-4 B List tariffs was called off, and the Round-4 A List additional tariff rate was halved, thereby reducing the economic effects on the interested countries as follows: China -0.28%, US -0.33%, Japan -0.15% (Chart 16, details on Charts 17-22).

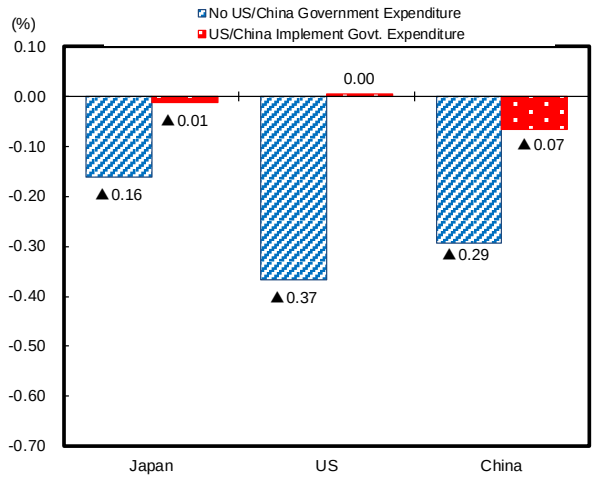
Meanwhile, we cannot ignore the fact that the impact of the above tariffs have already helped push down the economic growth rates of these countries in 2018 and 2019. To put it another way, even if the US-China negotiations had not made progress, tariffs that were already imposed in the past would still have a negative effect on economic growth rates in 2020 and beyond. As long as the tariff war does not reignite, international trade and production activity in the manufacturing industry are thought to be coming closer to bottoming out.

Effects of Tariff War on Economies of US, China, and Japan (Assuming no Govt. Spending by US or China) **Chart 16**



Source: Estimates values using the DIR macro model.

Estimation of Effects of Tariffs (Rounds 1 – 4A) Chart 17



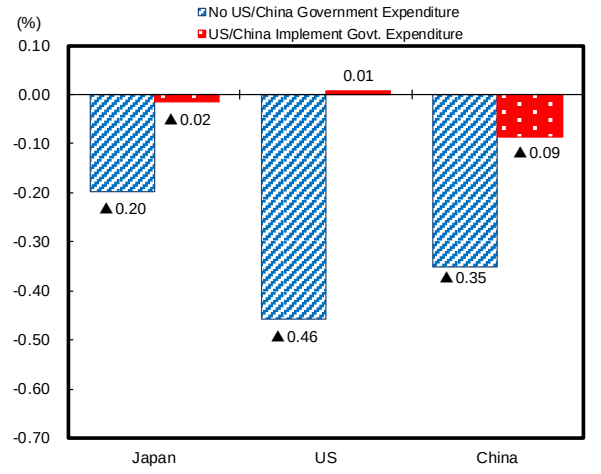
Source: Estimates produced using the DIR macro model.
Notes: 1) Estimated effects assuming US imposes additional tariff of 25% on 250 billion dollars' worth of Chinese imports, plus another 15% on 120 billion dollars' worth of Chinese products, and China imposes tariff of 25% on 50 billion dollars' worth of imports from the US, 14.5% on $60 billion worth and average 7.4% on $29 billion worth.
2) All figures are real. Rate of deviation from actual value (%) and rate of contribution to GDP (%pt).

Effects of Tariffs on Japan, US, and China (Detailed Version) Chart 18

Effects on Chinese Economy		Real GDP	Personal Consumption	Capex	Government Expenditure	Exports	Imports
No US/China Govt. Expenditure	Deviation Rate	▲0.29	▲0.47	▲0.11	0.00	▲0.73	▲0.49
	Contribution Rate		▲0.18	▲0.05	0.00	▲0.15	0.09
US/China Implement Govt. Expenditure	Deviation Rate	▲0.07	▲0.47	▲0.03	1.28	▲0.53	▲0.32
	Contribution Rate		▲0.18	▲0.01	0.18	▲0.11	0.06
Effects on US Economy		**Real GDP**	Personal Consumption	Capex	Government Expenditure	Exports	Imports
No US/China Govt. Expenditure	Deviation Rate	▲0.37	▲0.65	▲0.49	0.00	▲0.14	▲1.13
	Contribution Rate		▲0.45	▲0.08	0.00	▲0.02	0.19
US/China Implement Govt. Expenditure	Deviation Rate	0.00	▲0.65	0.01	2.66	▲0.11	▲0.10
	Contribution Rate		▲0.45	0.00	0.45	▲0.01	0.02
Effects on Japan's Economy		**Real GDP**	Personal Consumption	Housing Investment	Capex	Exports	Imports
No US/China Govt. Expenditure	Deviation Rate	▲0.16	▲0.02	▲0.01	▲0.58	▲1.19	▲0.75
	Contribution Rate		▲0.01	▲0.00	▲0.09	▲0.22	0.14
US/China Implement Govt. Expenditure	Deviation Rate	▲0.01	▲0.00	▲0.00	▲0.04	▲0.09	▲0.05
	Contribution Rate		▲0.00	▲0.00	▲0.01	▲0.02	0.01

Source: Estimates produced using the DIR macro model.
Notes: 1) Estimated effects assuming US imposes additional tariff of 25% on 250 billion dollars' worth of Chinese imports, plus another 15% on 120 billion dollars' worth of Chinese products, and China imposes tariff of 25% on 50 billion dollars' worth of imports from the US, 14.5% on $60 billion worth and average 7.4% on $29 billion worth.
2) All figures are real. Rate of deviation from baseline (%) and rate of contribution to GDP (%pt).

Estimation of Effects of Tariffs (Rounds 1 – 4B) Chart 19



Source: Estimates produced using the DIR macro model.
Notes: 1) Estimated effects assuming US imposes additional tariff of 25% on 250 billion dollars' worth of Chinese imports, plus another 15% on 270 billion dollars' worth of Chinese products, and China imposes tariff of 25% on 50 billion dollars' worth of imports from the US, 14.5% on $60 billion worth and average 7.2% on $75 billion worth.
2) All figures are real. Rate of deviation from actual value (%) and rate of contribution to GDP (%pt).

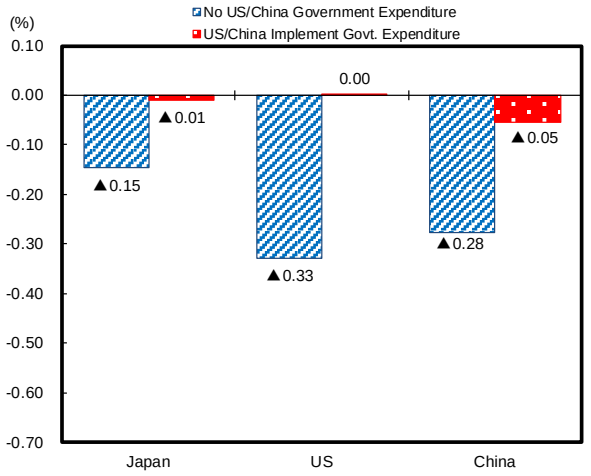
Effects of Tariffs on Japan, US, and China (Detailed Version) Chart 20

Effects on Chinese Economy		Real GDP	Personal Consumption	Capex	Government Expenditure	Exports	Imports
No US/China Govt. Expenditure	Deviation Rate	▲0.35	▲0.53	▲0.12	0.00	▲0.91	▲0.57
	Contribution Rate		▲0.21	▲0.05	0.00	▲0.19	0.10
US/China Implement Govt. Expenditure	Deviation Rate	▲0.09	▲0.53	▲0.04	1.45	▲0.66	▲0.37
	Contribution Rate		▲0.21	▲0.02	0.21	▲0.14	0.07
Effects on US Economy		**Real GDP**	Personal Consumption	Capex	Government Expenditure	Exports	Imports
No US/China Govt. Expenditure	Deviation Rate	▲0.46	▲0.81	▲0.61	0.00	▲0.16	▲1.41
	Contribution Rate		▲0.56	▲0.10	0.00	▲0.02	0.23
US/China Implement Govt. Expenditure	Deviation Rate	0.01	▲0.81	0.01	3.32	▲0.12	▲0.12
	Contribution Rate		▲0.56	0.00	0.56	▲0.02	0.02
Effects on Japan's Economy		**Real GDP**	Personal Consumption	Housing Investment	Capex	Exports	Imports
No US/China Govt. Expenditure	Deviation Rate	▲0.20	▲0.02	▲0.02	▲0.71	▲1.46	▲0.92
	Contribution Rate		▲0.01	▲0.00	▲0.12	▲0.27	0.17
US/China Implement Govt. Expenditure	Deviation Rate	▲0.02	▲0.00	▲0.00	▲0.06	▲0.12	▲0.07
	Contribution Rate		▲0.00	▲0.00	▲0.01	▲0.02	0.01

Source: Estimates produced using the DIR macro model.
Notes: 1) Estimated effects assuming US imposes additional tariff of 25% on 250 billion dollars' worth of Chinese imports, plus another 15% on 270 billion dollars' worth of Chinese products, and China imposes tariff of 25% on 50 billion dollars' worth of imports from the US, 14.5% on $60 billion worth and average 7.2% on $75 billion worth.
2) All figures are real. Rate of deviation from baseline (%) and rate of contribution to GDP (%pt).

Estimation of Effects of Tariffs (After Phase-1 Agreement)

Chart 21



Source: Estimates produced using the DIR macro model.
Notes: 1) Estimated effects assuming US imposes additional tariff of 25% on all Chinese imports excluding pharmaceuticals and rare earth, and China imposes tariff of 25% on 50 billion dollars' worth of imports from the US, and average 14.5% on $60 billion worth.
2) All figures are real. Rate of deviation from actual value (%) and rate of contribution to GDP (%pt).

Effects of Tariffs on Japan, US, and China (Detailed Version)

Chart 22

Effects on Chinese Economy		Real GDP	Personal Consumption	Capex	Government Expenditure	Exports	Imports
No US/China Govt. Expenditure	Deviation Rate	**▲0.28**	▲0.47	▲0.10	0.00	▲0.65	▲0.48
	Contribution Rate		▲0.18	▲0.04	0.00	▲0.13	0.09
US/China Implement Govt. Expenditure	Deviation Rate	**▲0.05**	▲0.47	▲0.02	1.28	▲0.47	▲0.31
	Contribution Rate		▲0.18	▲0.01	0.18	▲0.10	0.05
Effects on US Economy		**Real GDP**	Personal Consumption	Capex	Government Expenditure	Exports	Imports
No US/China Govt. Expenditure	Deviation Rate	**▲0.33**	▲0.58	▲0.43	0.00	▲0.14	▲1.00
	Contribution Rate		▲0.40	▲0.07	0.00	▲0.02	0.17
US/China Implement Govt. Expenditure	Deviation Rate	**0.00**	▲0.58	0.01	2.36	▲0.10	▲0.09
	Contribution Rate		▲0.40	0.00	0.40	▲0.01	0.02
Effects on Japan's Economy		**Real GDP**	Personal Consumption	Housing Investment	Capex	Exports	Imports
No US/China Govt. Expenditure	Deviation Rate	**▲0.15**	▲0.01	▲0.01	▲0.53	▲1.08	▲0.68
	Contribution Rate		▲0.01	▲0.00	▲0.09	▲0.20	0.12
US/China Implement Govt. Expenditure	Deviation Rate	**▲0.01**	▲0.00	▲0.00	▲0.03	▲0.07	▲0.04
	Contribution Rate		▲0.00	▲0.00	▲0.01	▲0.01	0.01

Source: Estimates produced using the DIR macro model.
Notes: 1) Estimated effects assuming US imposes additional tariff of 25% on all Chinese imports excluding pharmaceuticals and rare earth, and China imposes tariff of 25% on 50 billion dollars' worth of imports from the US, and average 14.5% on $60 billion worth.
2) All figures are real. Rate of deviation from baseline (%) and rate of contribution to GDP (%pt).

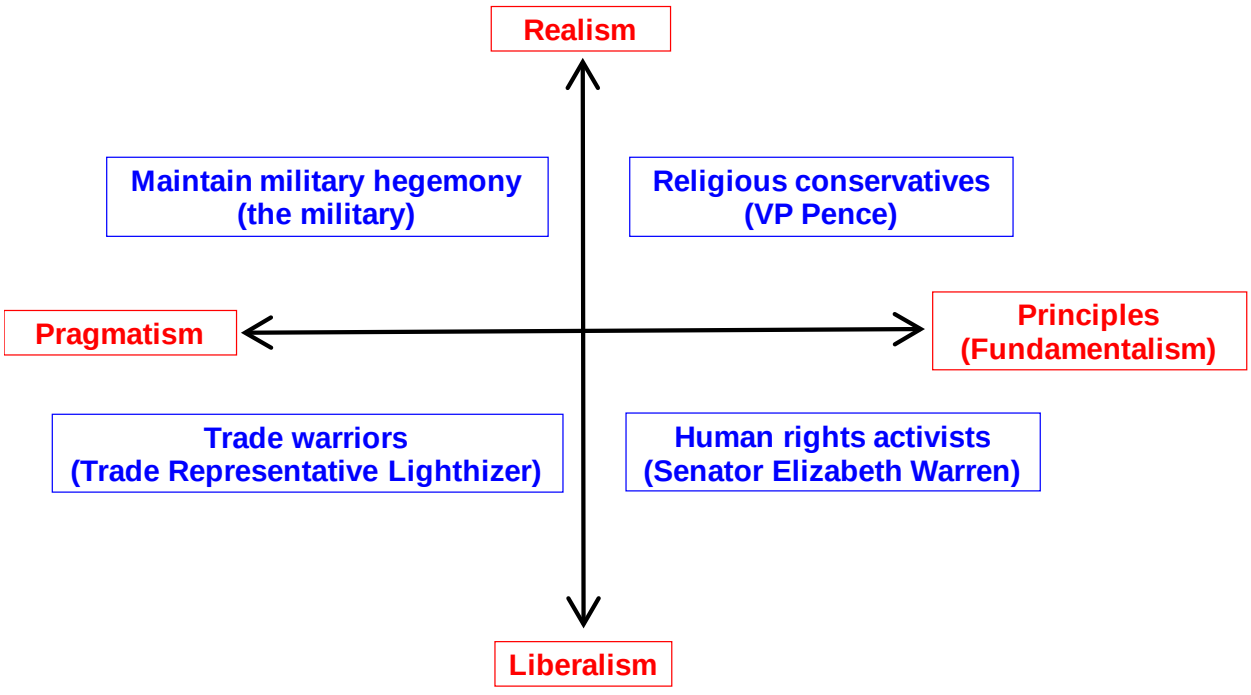
Many-faceted nature of US-China Cold War risks reigniting conflict

It is still too early for a full-fledged recovery and a return to expansion in the manufacturing industry. First of all, it would be difficult to expect the US-China Cold War to move toward resolution simply because of the Phase 1 agreement. For one thing, depending on the example, there are inconsistencies in the arguments of both countries. For instance, the preconditions the US has for an agreement are that China must expand its imports of American products by 200 billion dollars over the next two years, and it has concrete demands involving technology transfer, exchange rates, and the resolving of various disputes. But China has not made a response on any concrete terms. Meanwhile, the US has not agreed to China's demand to abolish the tariffs by stages as a prerequisite to agreement.

An even more fundamental argument that should be pointed out is that amongst the China policy hardliners in the US, only a few would allow concessions to China of the sort we have seen as these trade negotiations have progressed. Looking back on how the US-China conflict has developed, we see various expressions having been used, such as "trade war", "Thucydides Trap (a struggle for hegemony)", and "a clash of civilizations (an ideological conflict)". Each of these expressions unmistakably captures a certain aspect of the US-China cold war, yet each one represents only one of the many aspects of the struggle. Chart 23 shows the different groupings associated with these expressions and which form the background of the conflict in the US. It also shows how China bashers within the US government have the characteristic expressed by the old saying of "same bed different dreams", or a marriage of convenience.

Therefore, even if the leaders of the two countries have the desire for trade talks to progress, the danger remains that tensions could return to US-China relations in the form of conflict in other dimensions such as military and questions of political ideology led by members of congress. The reality is that aside from the Phase 1 Agreement, the China encirclement network becomes ever stronger in the two areas mentioned above. In the area of military concerns there is the National Defense Authorization Act which goes into effect in FY2020, and representing ideological issues are the Hong Kong Human Rights and Democracy Act of 2019 and the Uyghur Human Rights Policy Act. It goes without saying that these legal acts could make progress in the area of trade talks more difficult.

Positions of Various China Hardliners in the US **Chart 23**

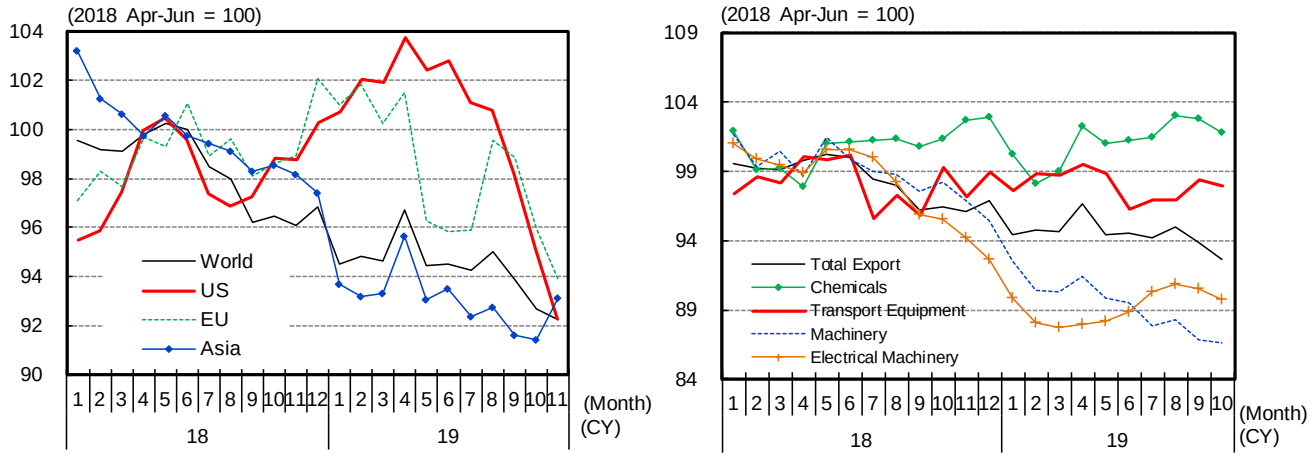


Source: Created by DIR.

Lagging slowdown in demand for capital goods centering on advanced countries

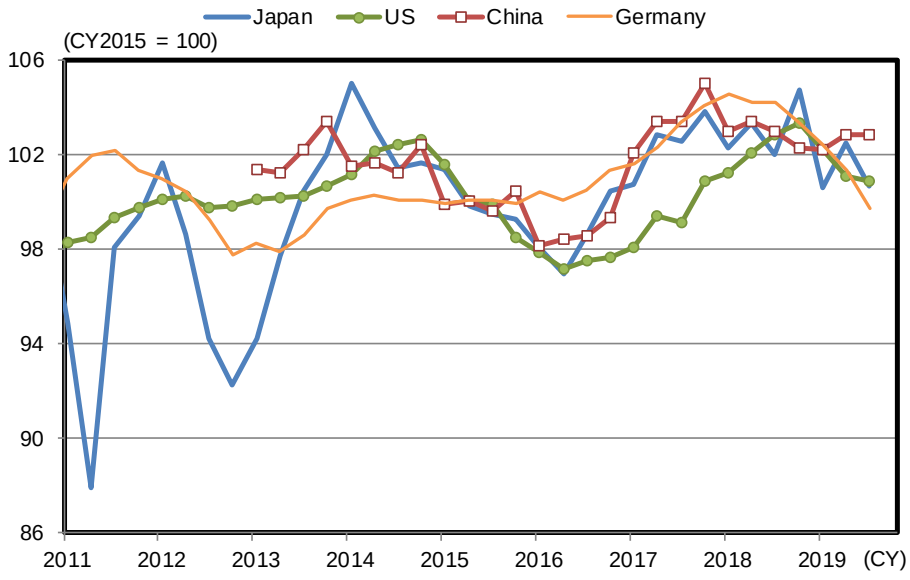
Another issue lurking in the shadows of the semiconductor recovery is the lagging slowdown in demand for capital goods and durables which is becoming more serious, centering on the advanced countries due to low global factory operating rates. Chart 24 shows exports to the advanced nations and exports of general machinery and transportation equipment, which were factors providing underlying support for Japan's overall exports until the beginning of 2019, but which have been showing signs of moving into an adjustment phase since the middle of 2019. The major factors behind this include a lagging slowdown in the business cycle due to the effects of tax reductions until 2018, and the lagging spread to other countries of effects of the US economic adjustment. Meanwhile, we should not ignore the stagnant demand for capital goods which is behind the decline in factory operating rates in the global manufacturing industry since 2018 (Chart 25).

Export Volume by Source of Demand and by Product **Chart 24**



Source: Cabinet Office, Ministry of Finance; Compiled by DIR.
Notes: Seasonally adjusted figures, 3-month moving average. Seasonal adjustment in chart on right by DIR, except for totals.

Change in Manufacturing Industry Factory Operating Rate in Major Countries **Chart 25**



Source: Haver Analytics; Compiled by DIR.

Japan's economic growth rate to gradually slow to +0.3% in CY2020 and +0.5% in FY2020

To sum up the arguments in this report, first of all, in the area of overseas demand, which had been a factor holding down Japan's economic growth in the past, there are some bright spots beginning to appear, including a recovery in demand for semiconductors centering on Asia, global inventory adjustment coming to completion, and the signing of a "Phase 1" agreement in the US-China trade talks. However, considering the factors that remain, including the decline in demand for capital goods and durables centering on the advanced countries, and risk that US-China conflict could reignite, there is a good possibility that more time will be required before a full-fledged recovery and shift into a growth trend can occur. On the other hand, domestic demand, which had been the leader in Japan's economic growth in the recent past, will be able to avoid the bottom falling out. However, with the reactionary decline in response to last minute demand, and the negative income effect associated with the consumption tax hike coupled with the slowdown of improvements in employment and income, it is highly probable that contribution to growth from domestic demand centering on consumption will begin to shrink. In consideration of these factors, we expect Japan's economic growth rate to gradually slow in the future, with +0.3% y/y seen in CY2020, and +0.5% expected in comparison with the previous fiscal year in FY2020.

Japan's Economic Outlook No.203 Update

	FY18	FY19 (Estimate)	FY20 (Estimate)	CY18	CY19 (Estimate)	CY20 (Estimate)
Main economic indicators						
Nominal GDP (y/y %)	0.1	1.6	1.0	0.2	1.6	0.9
Real GDP (chained [2011]; y/y %)	0.3	0.9	0.5	0.3	1.0	0.3
Domestic demand (contribution, % pt)	0.4	1.2	0.5	0.3	1.3	0.5
Foreign demand (contribution, % pt)	-0.1	-0.4	-0.0	-0.0	-0.3	-0.1
GDP deflator (y/y %)	-0.2	0.8	0.5	-0.1	0.6	0.6
Index of All-industry Activity (y/y %)*	0.8	0.4	0.5	1.1	0.5	0.3
Index of Industrial Production (y/y %)	0.2	-2.6	0.2	1.1	-2.3	-0.7
Index of Tertiary Industry Activity (y/y %)	1.1	1.2	0.7	1.2	1.2	0.7
Corporate Goods Price Index (y/y %)	2.2	0.9	1.5	2.6	0.5	2.0
Consumer Price Index (excl. fresh food; y/y %)	0.8	0.6	0.3	0.8	0.6	0.4
Unemployment rate (%)	2.4	2.4	2.5	2.4	2.4	2.5
Government bond yield (10 year; %)	0.04	-0.11	-0.03	0.07	-0.11	-0.03
Balance of payments						
Trade balance (Y tril)	0.7	-0.3	0.1	1.2	-0.2	0.1
Current balance ($100 mil)	1,735	1,841	1,883	1,741	1,801	1,878
Current balance (Y tril)	19.2	20.1	20.6	19.2	19.6	20.4
(% of nominal GDP)	3.5	3.6	3.7	3.5	3.5	3.6
Real GDP components (Chained [2011]; y/y %; figures in parentheses: contribution, % pt)						
Private final consumption	0.1 (0.0)	0.5 (0.3)	0.3 (0.2)	-0.0 (-0.0)	0.6 (0.3)	0.2 (0.1)
Private housing investment	-4.9 (-0.1)	1.9 (0.1)	-1.6 (-0.0)	-6.7 (-0.2)	2.3 (0.1)	-1.7 (-0.1)
Private fixed investment	1.7 (0.3)	1.9 (0.3)	0.9 (0.1)	2.1 (0.3)	1.9 (0.3)	0.7 (0.1)
Government final consumption	0.9 (0.2)	2.5 (0.5)	1.2 (0.2)	0.9 (0.2)	1.9 (0.4)	1.7 (0.3)
Public fixed investment	0.6 (0.0)	3.1 (0.2)	0.4 (0.0)	0.3 (0.0)	2.6 (0.1)	1.2 (0.1)
Exports of goods and services	1.6 (0.3)	-1.7 (-0.3)	0.1 (0.0)	3.4 (0.6)	-2.0 (-0.4)	-0.3 (-0.1)
Imports of goods and services	2.2 (-0.4)	0.4 (-0.1)	0.2 (-0.0)	3.4 (-0.6)	-0.4 (0.1)	0.5 (-0.1)
Major assumptions:						
1. World economy						
Economic growth of major trading partners	3.6	2.9	3.0	3.9	3.0	3.0
Crude oil price (WTI futures; $/bbl)	62.9	57.5	57.5	64.9	56.9	57.5
2. US economy						
US real GDP (chained [2012]; y/y %)	2.9	2.2	2.0	2.9	2.3	2.0
US Consumer Price Index (y/y %)	2.3	1.9	1.9	2.4	1.8	2.0
3. Japanese economy						
Nominal public fixed investment (y/y %)	2.4	4.5	1.2	2.1	4.1	2.2
Exchange rate (Y/$)	110.9	108.6	108.5	110.4	109.0	108.5
(Y/€)	128.3	120.6	120.5	130.0	121.8	120.5

Source: Compiled by DIR.
Note: Due to rounding, actual figures may differ from those released by the government.
* Excl. agriculture, forestry, and fisheries.
Estimate: DIR estimate.