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Japan's Economy: Monthly Outlook (November 2019)

Main cause of slowdown switches from overseas demand to domestic demand

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Summary

- In light of the 1st preliminary Jul-Sep 2019 GDP release we have revised our economic growth outlook. We now forecast real GDP growth of +0.8% in comparison with the previous year for FY19, and +0.4% in comparison with the previous year for FY20. Japan's economy will most likely continue cruising at low altitude in the future, with a growth rate just below that of the potential growth rate. However, the main cause of the slowdown is expected to switch from overseas demand to domestic demand. Looking back at around a year ago, it was mainly domestic demand providing support for the Japanese economy, while overseas demand continued to stagnate. However, we may be approaching the turning point where the scenario changes from the previous one in which it was assumed that favorable results for domestic demand would offset stagnant overseas demand.

- Early in 2018 exports to Asia and exports of electrical equipment (to all destinations), which had been in a declining phase for nearly two years, saw an end to the slowdown, and experienced a turnaround to moderate growth. Of course, it would be difficult to expect a full-fledged recovery in overall exports from this fact alone. First of all, in order for exports to Asia and exports of electrical equipment to continue recovering, we would have to assume no rekindling of the US-China tariff-raising competition. Secondly, lagging behind exports to Asia and exports of electrical equipment, exports of general machinery and transport equipment to the advanced nations are showing an increasing tendency toward adjustment. Therefore, rather than exports overall clearly moving toward recovery, we believe that the more appropriate outlook would be that overall exports should be able to avoid the bottom falling out, with performance by destination and industry moving back and forth between favorable and unfavorable conditions.

- As for the future of Japan's economy, the main concern is the possibility that domestic demand may weaken in its effect of bolstering the economy. First of all, in the short-term, we will see a reaction to last minute demand which appeared just prior to the consumption tax hike. Secondly, the negative income effect associated with the tax hike is expected to become manifest in the midterm. Meanwhile, as was learned the last time the consumption tax was increased, we cannot ignore the possibility that the tendency to become more budget-minded may increase after the tax hike. Finally, we must take heed of the fact that sluggish growth in corporate earnings centering on manufacturing will have a delayed effect on the pace of improvement in employment and income, eventually causing these areas to stagnate as well. In addition, efforts of corporations to come to terms with the adoption of the new overtime regulations with penalty in FY2019 will continue to be a factor inhibiting labor inputs throughout FY2020.

Statistical peculiarity behind major slowdown in Jul-Sep period GDP growth rate

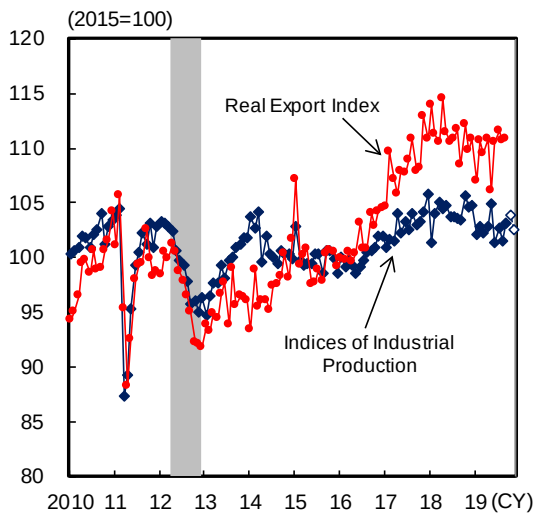
The real GDP growth rate for Jul-Sep 2019 (1st preliminary est) achieved growth of +0.2% q/q annualized (+0.1% q/q). Results fell considerably below those of the Apr-Jun period (+1.8% q/q annualized and +0.4% q/q)[1]. Growth in private sector final consumption expenditure settled down, contributing to the slowdown, but this doesn't mean that last-minute demand did not occur. Due to the peculiarity of the GDP statistics, last minute demand for automobiles was recorded at the shipment stage[2]. Then automobile shipments peaked during the Apr-Jun period. Hence, this makes it appear as if Jul-Sep period growth statistics on consumption slowed down. As will be explained further below, last minute demand was found to have occurred just before the consumption tax hike this time around as well, though it was smaller in comparison to the last time. We recommend remaining on the lookout for reactionary decline for the time being.

Economic growth outlook revised: +0.8% in FY19, and +0.4% in FY20

In light of the above mentioned special factor, and the 1st preliminary Jul-Sep 2019 GDP release, we have revised our economic growth outlook. We now forecast real GDP growth of +0.8% in comparison with the previous year for FY19, and +0.4% in comparison with the same period of the previous year for FY20. Japan's economy will most likely continue cruising at low altitude in the future, with a growth rate just below that of the potential growth rate.

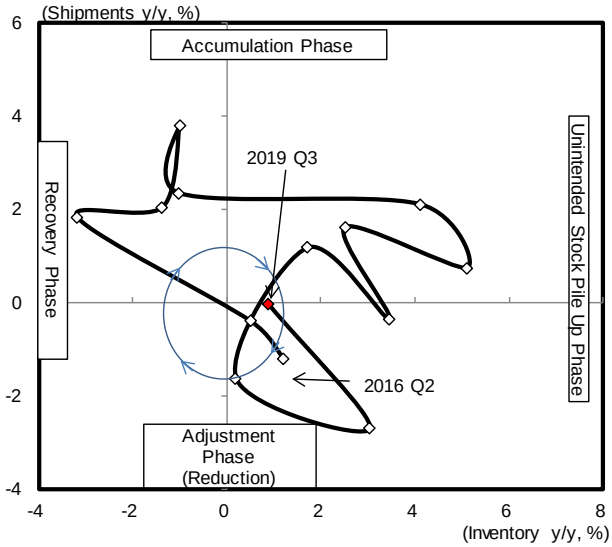
Looking back at around a year ago, it was mainly domestic demand providing support for the Japanese economy, while overseas demand continued to stagnate. However, it is impossible to ignore the fact that there is now pressure to carry out inventory adjustment due to the slump in overseas demand, and that this in turn holds down factory operating rates, and causes inhibition in domestic capital expenditure.

Real Exports and Industrial Production **Chart 1**



Source: Cabinet Office, Bank of Japan, Ministry of Economy, Trade and Industry; compiled by DIR.
Notes: 1) Shaded areas represent times of recession.
2) Most recent two months of industrial production use figures from the METI Production Forecast Survey for the manufacturing industry.

Japan's Inventory Cycle **Chart 2**



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

[1] For details see the DIR Report dated 14 November 2019, *Jul-Sep 2019 1st Preliminary GDP Estimate: Fourth consecutive quarter of growth achieved while walking on thin ice at +0.1% q/q. Gains from last minute demand wiped out by inventory decline and stagnant overseas demand,* by Shunsuke Kobayashi.
[2] For details see the DIR Report dated 9 August 2019, *Apr-Jun 2019 1st Preliminary GDP Estimate: Third consecutive quarter of growth achieved. Demand is favorable, with annualized growth of +1.8%, exceeding upper limit of market consensus,* by Shunsuke Kobayashi.

Exports to some destinations and exports in some industries show signs of bottoming out

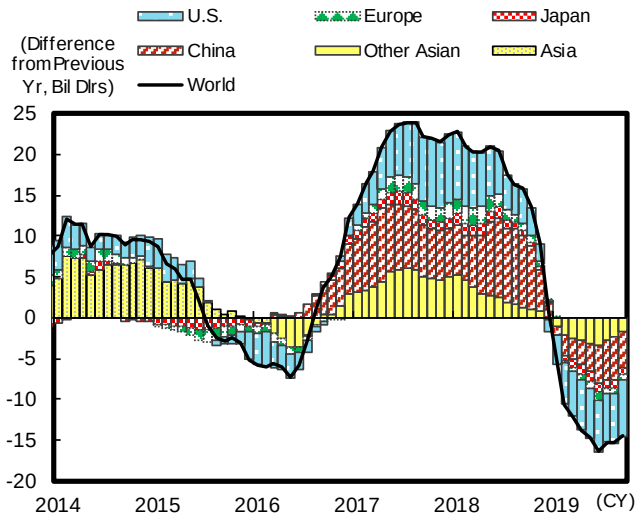
However, we may be approaching the turning point where the scenario changes from the previous one in which it was assumed that favorable results for domestic demand would offset stagnant overseas demand. First of all, exports to some destinations and exports in some industries show signs of bottoming out. Most notably, exports to Asia and exports of electrical equipment (all destinations), which had been in a declining phase for nearly two years, saw an end to the slowdown early in 2018, and experienced a turnaround to moderate growth.

Factors behind the recovery include the switch to 5G cellular networks expected in the near future. This means that all kinds of products using 5G will be upgraded and go on sale in the near future. In addition, after continuous production adjustments over the past two years, the global inventory level is already falling (Chart 3 & 4).

Exports to Asia and exports of electrical equipment show signs of bottoming out, while exports of general machinery and transport equipment, and exports to the advanced nations (all products) are on the decline

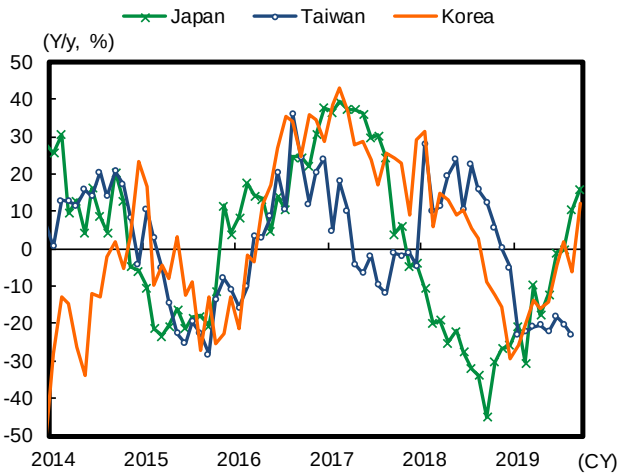
Of course, it would be difficult to expect a full-fledged recovery in overall exports from this fact alone. First of all, in order for exports to Asia overall and exports of electrical machinery to continue recovering, we would have to assume no rekindling of the US-China tariff-raising competition. However, considering the fact that there are discrepancies in the claims of both countries, as well as the fact that China does not appear to be accommodating the full range of structural reforms that the US is demanding, it does not appear that we can expect much from future developments[3].

Global Sales of Semiconductors
Chart 3



Source: SIA, Haver Analytics; compiled by DIR.
Notes: China data is from 2015. Figures for Asia, including China, up through 2014 are the 3-month moving average.

Shipping and Inventory Balance for Electronic Parts and Devices
Chart 4

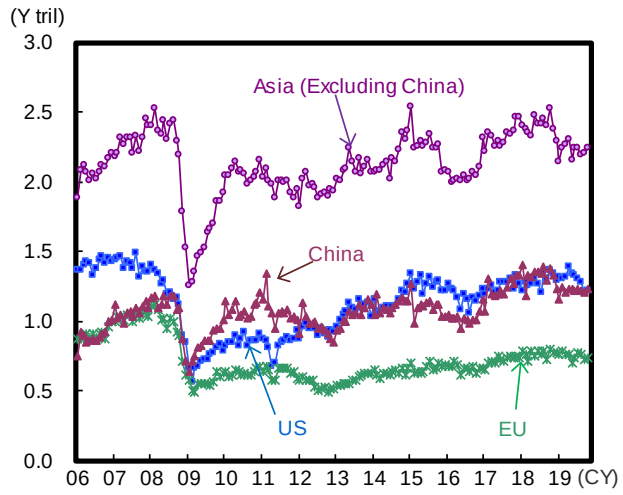


Source: Ministry of Economy, Trade and Industry, MOEA, KOSTAT, Haver Analytics; compiled by DIR.

[3] For details see the DIR Report dated 29 October 2019, *Japan's Economy: Monthly Outlook (October 2019): Was last minute demand and reactionary decline associated with the consumption tax hike avoided?*, by Shunsuke Kobayashi and Yutaro Suzuki.

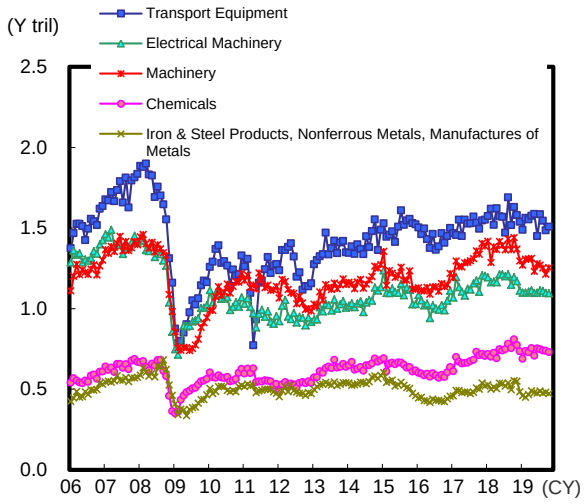
Secondly, lagging behind exports to Asia and exports of electrical equipment, exports to some destinations and exports from some industries have also begun to decline (Charts 5 & 6). Most notably, exports of general machinery and transport equipment, and exports to the advanced nations, which had provided underlying support for exports overall until the beginning of 2019, have been showing an increasing tendency toward adjustment since the middle of this year. The major factor behind this development is the fact that the US economy has begun an adjustment process lagging behind other countries, having stalled the cyclical economic slowdown until 2018 with the effects of the tax cut. Moreover, sluggish demand for capital goods due to the global slowdown in factory operating rates in the manufacturing industry which began since 2018 can also be pointed out.

Export Value by Region & Country (Nominal, Seasonally Adjusted) Chart 5



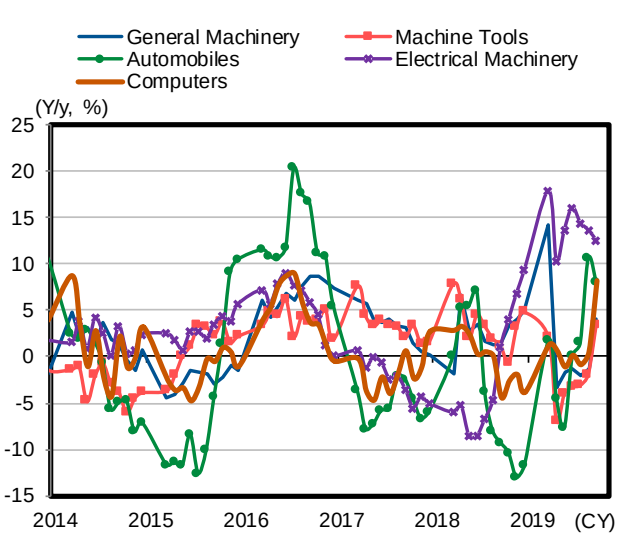
Source: Ministry of Finance; compiled by DIR.
Note: Seasonal adjustment by DIR.

Export Value by Product (Nominal, Seasonally Adjusted) Chart 6



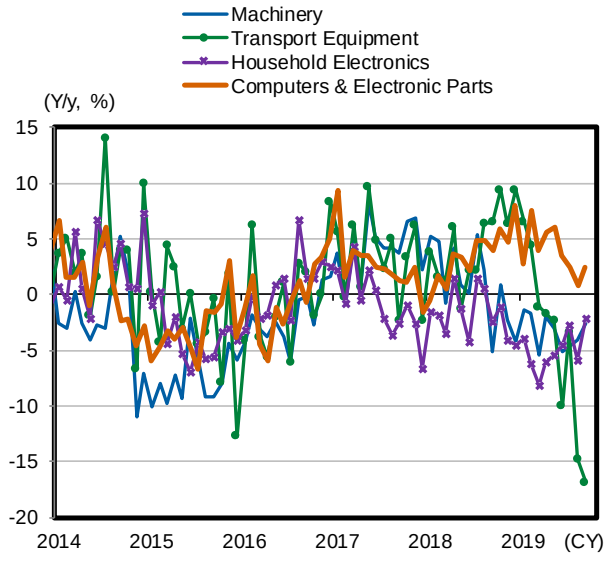
Source: Ministry of Finance; compiled by DIR.
Note: Seasonal adjustment by DIR.

China's Shipping and Inventory Balance by Industry Chart 7



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

US Shipping and Inventory Balance by Industry Chart 8



Source: BEA, Haver Analytics; compiled by DIR.

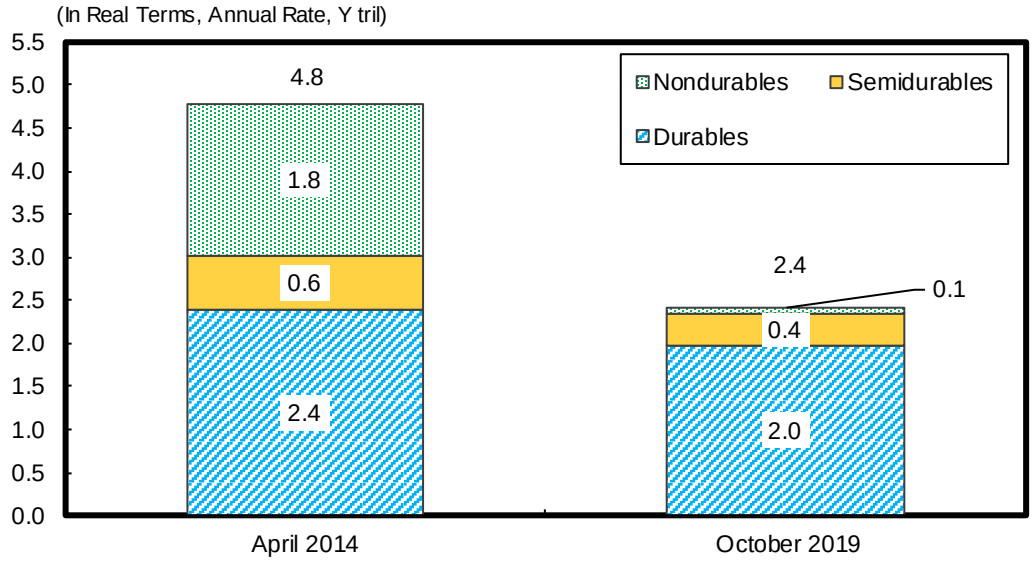
Main factor inhibiting growth rate switches from overseas demand to domestic demand

Therefore, rather than exports overall clearly moving toward recovery, we believe that the more appropriate outlook would be that overall exports should be able to avoid the bottom falling out, with performance by destination and industry moving back and forth between favorable and unfavorable conditions. It is highly likely that the effect of the negative contribution of overseas demand on pushing down the overall growth rate will decrease.

As for the future of Japan's economy, the main concern is the possibility that domestic demand may weaken in its effect of bolstering the economy.

First of all, in the short-term, we will see a reaction to last minute demand which appeared just prior to the consumption tax hike. The introduction of the reduced tax rate, and the success of the demand leveling measures kept last minute demand at a lower level than the last time the consumption tax was increased. However, last minute demand prior to the tax hike occurred in sectors which were overlooked by the measures (Chart 9)[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 (Chart 10).

Scale of Last Minute Demand and Reactionary Decline around Time of Consumption Tax Hike Chart 9

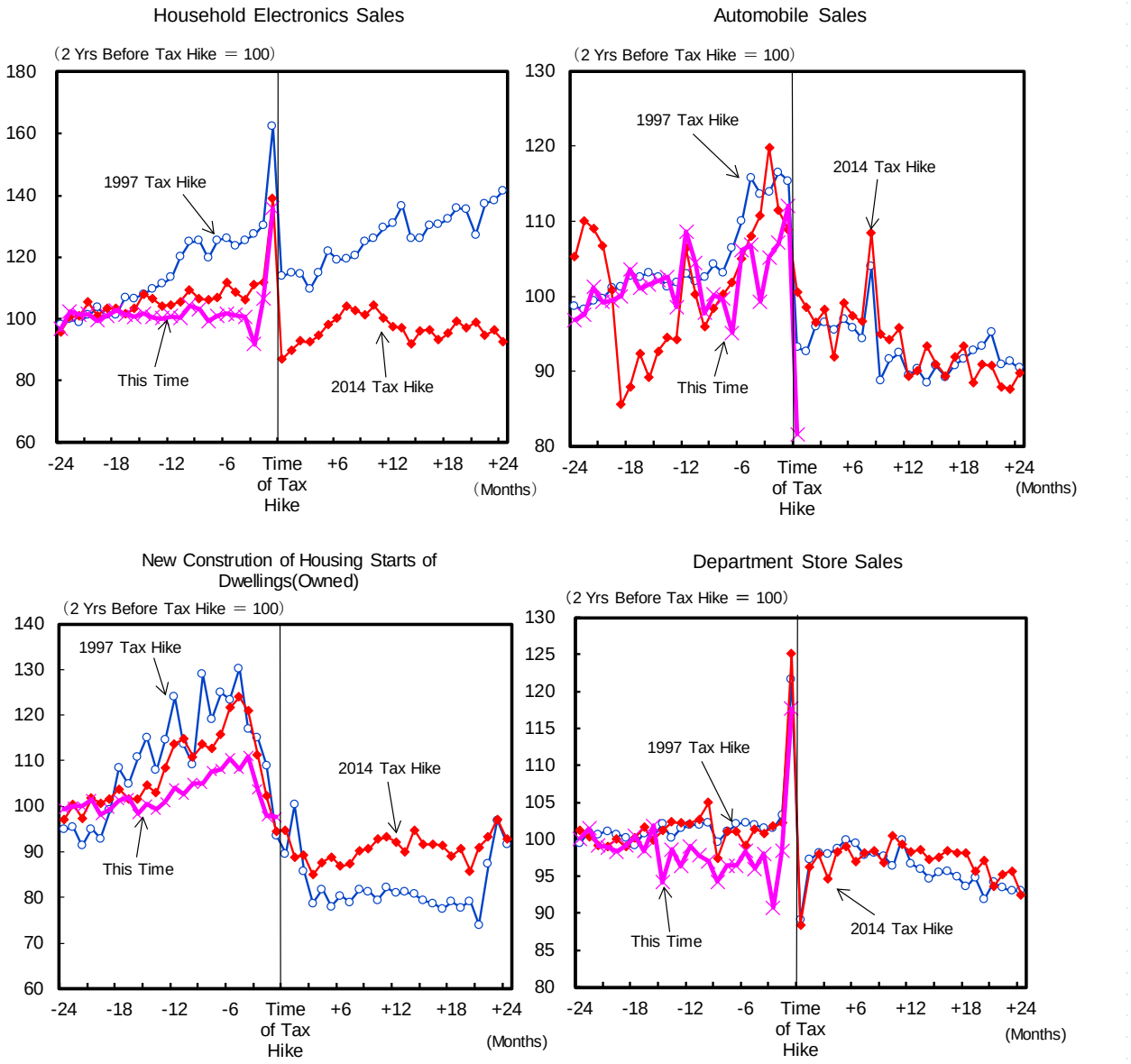


Source: Cabinet Office, Bank of Japan; compiled by DIR.
Note: Calculation based on rate of deviation from trend in propensity to consume (four-quarterly centered moving average).

[4] For details see 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.*, by Shunsuke Kobayashi and Yutaro Suzuki.

Secondly, the negative income effect associated with the tax hike is expected to become manifest in the midterm. 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. The negative income effect will be softened by the various measures, but the effects of these measures will gradually disappear during FY2020, while the residual effects will continue to be a drag on consumption[5].

Last Minute Demand and Reactionary Decline **Chart 10**



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 automobile sales by DIR. Other figures are shown in real terms and were calculated by deflating the CPI figure.

[5] 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.

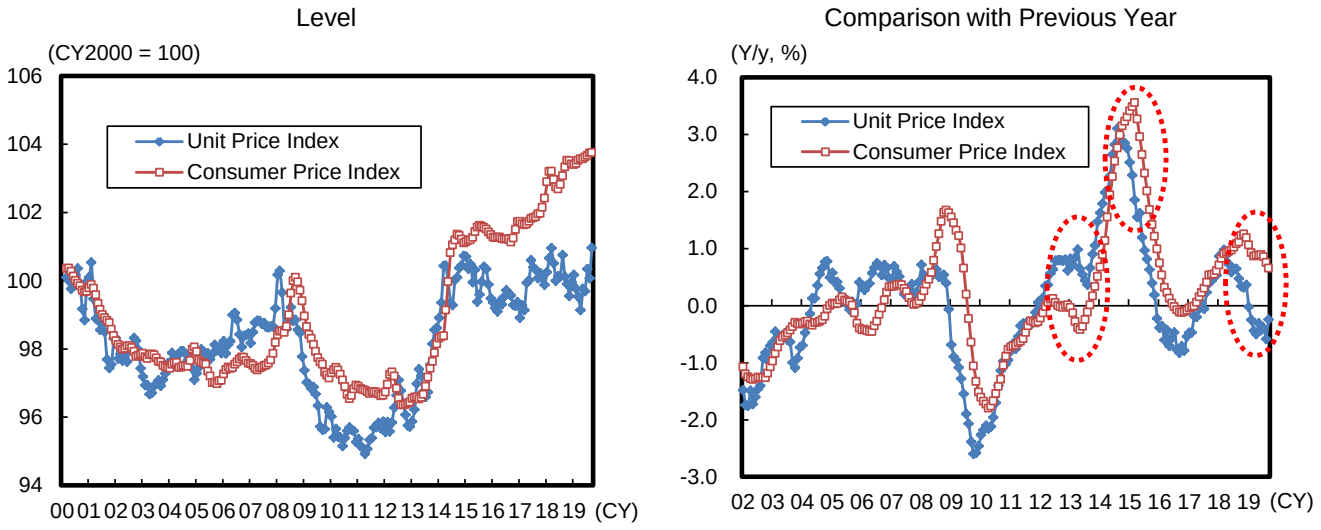
Consumer tendency to become more budget-minded expected to hold down prices

Meanwhile, as was learned the last time the consumption tax was increased, consumers can easily become more budget-minded after a tax hike. Chart 11 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, 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 11**



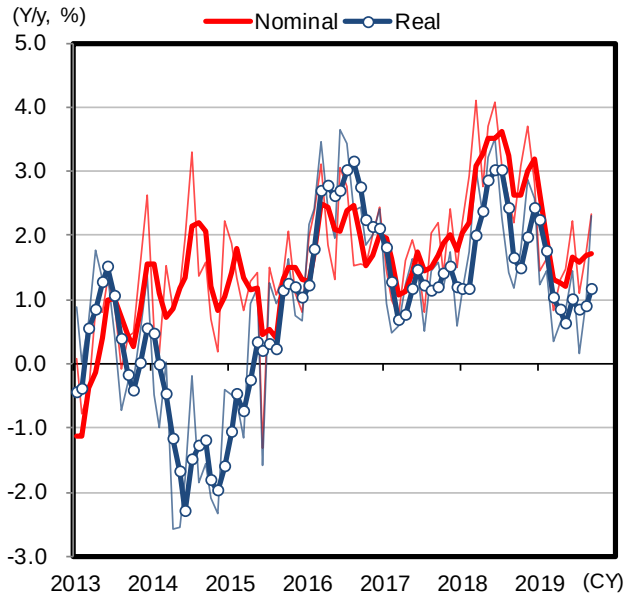
Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Notes: 1) The unit price index was prepared with reference to the method explained in the Cabinet Office document "Annual Report on the Japanese Economy and Public Finance 2013"
2) Figures shown in the left side chart labeled "Level" 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

Finally, we must take heed of the fact that sluggish growth in corporate earnings centering on manufacturing will have a delayed effect on the pace of improvement in employment and income, eventually causing these areas to stagnate as well. As is shown in Chart 12, 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 to +4% y/y in the first half of 2018.

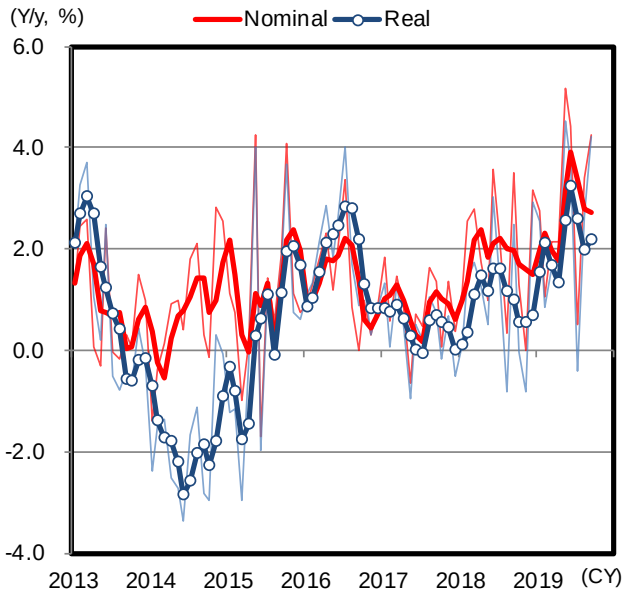
The major causes of stagnant growth in total wage of employees can be found in (1) stagnant growth in employed population (Chart 14), and (2) decline in working hours per person (Chart 15). The second factor mentioned here tends to be more influenced by factors having no relation to the business cycle, 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[6].

Change in Total wage income of employees **Chart 12**



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

Change in Hourly Wage **Chart 13**



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.

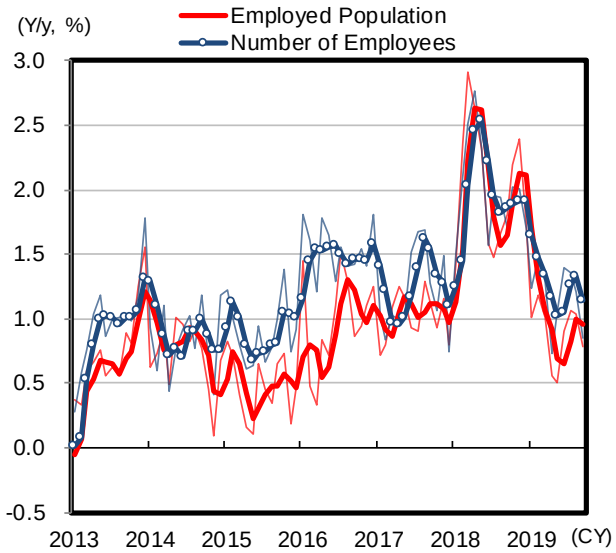
[6] For details see the DIR Report dated 27 August 2019, *Japan's Economy: Monthly Outlook (August 2019): 1. The statistical trick in the superior GDP results: last-minute shipping, 2. The consumption tax hike and free education: some age groups will be winners, while others will lose out, 3. Revised 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.

Progress in dealing with new regulations of overtime 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.

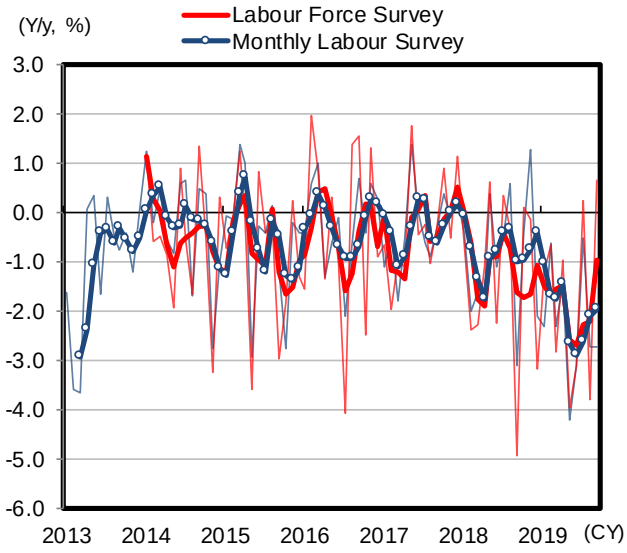
Looking at the figures from FY2018, the latest data available based on the fiscal year shown in Chart 16, we see that, with the exception of businesses and operations to whom the law is not applicable until five years from now as was explained above, the employed population putting in an average of 241 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 14**



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 15**



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[7], 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 11.3 trillion hours per year. Annual average working hours per employee was 1,894 hours in FY2018, or a total of approximately 11.3 trillion 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 17). Next, when we calculate under certain assumptions[8] 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 5.2 trillion 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, but at the same time it is necessary to consider the possible economic cost in the short-term.

To sum up our arguments as outlined above, first of all, though concerns regarding the bottom falling out of exports have subsided somewhat, it will take more time for a full-fledged recovery to come about. As for domestic demand, there are fears that its ability to provide underlying support for the economy will weaken due to the following factors: (1) reactionary decline arriving after the last minute demand experienced just prior to the consumption tax hike, (2) the negative income effect, and (3) the slowdown in the rate of improvement in employment and income. For these reasons, though Japan's economy should manage to avoid the bottom falling out, it will most likely continue cruising at low altitude in the future, with a growth rate just below that of the potential growth rate.

Employed Population by Industry and by Monthly Working Hours (FY2018) **Chart 16**

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.

[7] 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).
[8] 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 17

	Number of Workers	Cutbacks in Annual Working Hours	Cutbacks in Labor Inputs and Income
Annual overtime of 720 hrs or more	3,160,000	11.3 Tril Hrs	0.9%
Monthly overtime of 100 hrs or more	1,910,000	5.2 Tril Hrs	0.2%

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

Topics: Effects of Japanese-Korean Friction on Japan's Economy

During the Jul-Sep period of 2019, export of services fell by -4.4% q/q. This was due to the decline in the number of Korean tourists visiting Japan as a result of the worsening of relations between Japan and Korea. In this section, we examine the effects of worsening Japan-Korea relations on inbound tourism in Japan.

Japan-Korea relations have rapidly deteriorated since July

Since July 4, Japan has placed restrictions on three essential materials export used in the manufacture of semiconductors to South Korea. Semiconductor manufacturing provides major support for Korea's economy. The Japanese government will now require submission of an application for permission for each individual transaction related to these substances rather than granting batch permission as was the case in the past. This also means that the inspection required on each transaction will become stricter, so that gaining permission will become time-consuming. Meanwhile, in August Japan removed Korea from its whitelist of preferred trade partners, and placed the requirement of submitting application for permission on each individual transaction regarding all goods, excluding those not likely to be diverted to military use, such as foods and wood.

This development then led to further worsening of the emotional reaction against Japan in Korea and a boycott of Japanese goods began. According to a survey taken by a private sector opinion poll company in South Korea, over 60% of respondents said that they were participating in the boycott[9]. As a result of the boycott, export value of foods headed to Korea which are not affected by the requirement to gain permission for each individual transaction have fallen rapidly since August[10].

Effect of deterioration of Japan-Korea relations on inbound tourism around -37 bil yen annually

In addition, the number of tourists visiting Japan from South Korea has declined dramatically since August. According to the Japan National Tourism Organization (JNTO), tourism from Korea was down by -48% y/y in August, and -58% y/y in September, or around half of what it was during the previous year. If things continue at this level, the number of tourists visiting from South Korea will have declined by a total of 4 million persons on an annual basis in comparison with 2018. We estimated the effects on Japan's economy assuming that this becomes a reality (see Chart 18).

First of all, when we multiply the per person consumption amount of Koreans visiting Japan according to the Japan Tourism Agency's survey, "Consumption Trends of International Visitors to Japan" by the amount of the decline in the number of Koreans visiting Japan, we can estimate the amount of the decline in domestic consumption at approximately 28 bil yen. If we include the ripple effect by which the decline in domestic consumption also reduces the economic activity of other industries, the decline of 4 million tourists visiting Japan from South Korea is estimated to cause Japan's GDP to decline by around 37 bil yen.

Being that this figure is extremely small in comparison to the total of 297 tril yen in 2018 nominal household final consumption expenditure, which is the equivalent of Japan's domestic consumption, the decline in visitors from Korea is not expected to have an immediate negative influence on Japan's service or retailing industries. Moreover, said figure does not even reach 2% of the 20 tril yen in nominal service export value in 2018. Considering this fact, it would be difficult to conclude that the decline in visitors from South Korea could cause Japan's service exports to become stagnant.

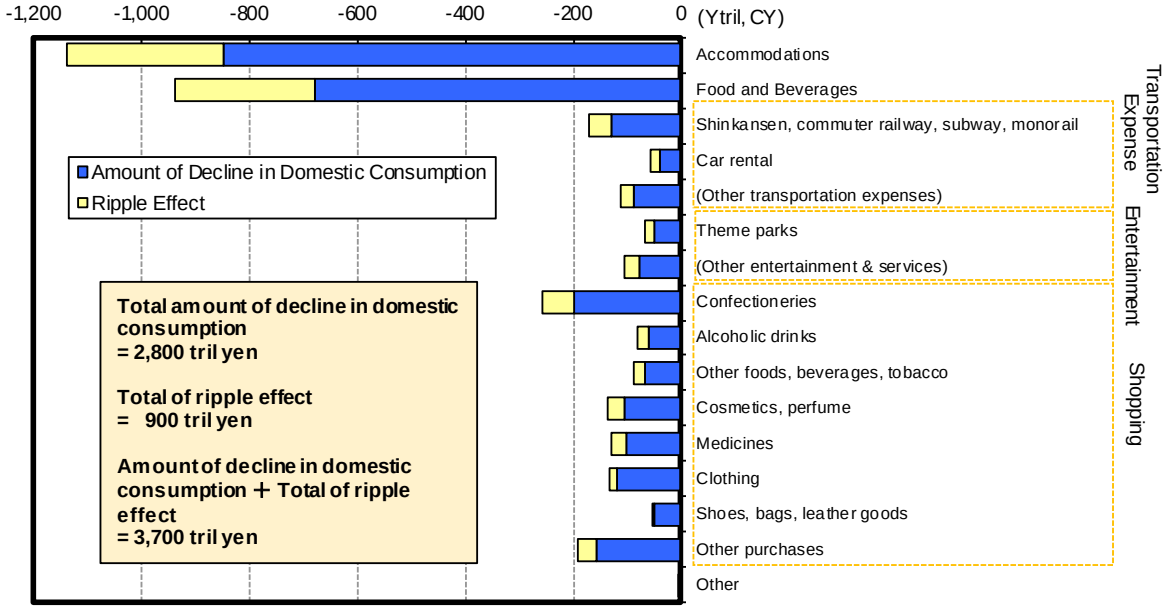
[9] REALMETER survey carried out on September 18, 2019. However, the rate of response was low at 4.2%. It should also be noted that there may be sample selection bias.

[10] For further detail on the effect on the export of goods to Korea, see the DIR report dated 21 October, *September 2019 Trade Statistics: Export volume continues sluggish performance, bringing negative contribution to Jul-Sep period GDP results*, by Yutaro Suzuki and Shunsuke Kobayashi.

However, there are concerns that certain corporations and certain industries and regions may be more susceptible to the effects of the Korean boycott. For instance, as shown in Chart 18, which lists effects by expense item, the effects are especially pronounced for accommodations, foods and beverages, and cake & confectioneries. It is assumed that hotels, traditional inns, restaurants & bars, and retailers which handle these goods and services may experience deterioration in earnings. Meanwhile, looking at the situation by region, it appears that effects are especially noticeable in Kyushu. Osaka has more accommodation guests from Korea than anywhere else in Japan, but there are also other regions where Koreans account for a large proportion of foreign tourists visiting Japan, especially Kyushu, including the cities of Oita, Saga, and Fukuoka (Chart 19).

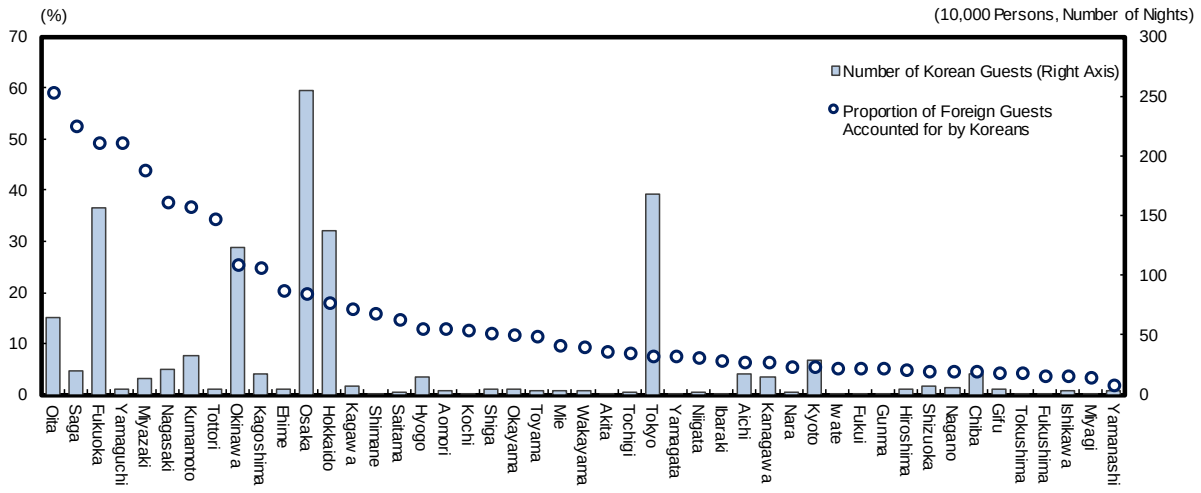
If the deterioration of Japan-Korea relations continues for the long-term, the negative impact on Japan's economy will grow larger. It will be necessary to continue monitoring the trend in Japan-Korea relations on into the future.

Estimate of Effects by Expense Item if Number of Korean Tourists Visiting Japan Declines by 4-mil **Chart 18**



Source: Japan Tourism Agency, Japan National Tourism Organization (JNTO), Ministry of Internal Affairs and Communications; compiled by DIR.
Notes: 1) Decline in domestic consumption amount found by multiplying the purchase unit price by expense item purchased by Korean tourists in 2018 by the decrease in number of tourists visiting from Korea.
2) Ripple effects estimated with use of endogenous model of imports based on 2015 input-output table (107 industries). The effects of the decline in domestic consumption spread in the form of a ripple effect from one field or component to the next causing a value-added (GDP) decline.

Number of Korean Tourists by Prefecture **Chart 19**



Source: Japan Tourism Agency; compiled by DIR.
Note: Total number of foreign guests staying at accommodation (facilities with 10 or more employees).

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	FY18	FY19 (Estimate)	FY20 (Estimate)	CY18	CY19 (Estimate)	CY20 (Estimate)
Main economic indicators						
Nominal GDP (y/y %)	0.5	1.4	1.0	0.7	1.5	1.0
Real GDP (chained [2011]; y/y %)	0.7	0.8	0.4	0.8	0.9	0.3
Domestic demand (contribution, % pt)	0.8	1.1	0.5	0.8	1.2	0.5
Foreign demand (contribution, % pt)	-0.1	-0.3	-0.0	-0.0	-0.3	-0.1
GDP deflator (y/y %)	-0.2	0.7	0.5	-0.1	0.5	0.6
Index of All-industry Activity (y/y %)*	0.8	0.6	0.6	1.1	0.6	0.6
Index of Industrial Production (y/y %)	0.2	-1.6	0.2	1.1	-1.7	-0.2
Index of Tertiary Industry Activity (y/y %)	1.1	1.0	0.7	1.2	1.1	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	0.5	0.3	0.8	0.6	0.3
Unemployment rate (%)	2.4	2.3	2.4	2.4	2.3	2.4
Government bond yield (10 year; %)	0.04	-0.10	-0.03	0.07	-0.10	-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	1,842	1,882	1,741	1,801	1,877
Current balance (Y tril)	19.2	20.1	20.6	19.2	19.6	20.4
(% of nominal GDP)	3.5	3.6	3.6	3.5	3.5	3.6
Real GDP components (Chained [2011]; y/y %; figures in parentheses: contribution, % pt)						
Private final consumption	0.4 (0.2)	0.6 (0.3)	0.3 (0.2)	0.4 (0.2)	0.6 (0.3)	0.2 (0.1)
Private housing investment	-4.3 (-0.1)	1.8 (0.1)	-1.6 (-0.0)	-5.8 (-0.2)	2.3 (0.1)	-1.7 (-0.1)
Private fixed investment	3.5 (0.6)	1.7 (0.3)	0.8 (0.1)	3.9 (0.6)	2.0 (0.3)	1.0 (0.2)
Government final consumption	0.9 (0.2)	2.2 (0.4)	0.9 (0.2)	0.8 (0.2)	1.9 (0.4)	1.2 (0.2)
Public fixed investment	-4.0 (-0.2)	3.8 (0.2)	1.5 (0.1)	-3.3 (-0.2)	1.6 (0.1)	2.9 (0.1)
Exports of goods and services	1.6 (0.3)	-1.7 (-0.3)	0.1 (0.0)	3.4 (0.6)	-2.1 (-0.4)	-0.3 (-0.1)
Imports of goods and services	2.2 (-0.4)	0.2 (-0.0)	0.2 (-0.0)	3.4 (-0.6)	-0.5 (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; $/bbl)	62.9	57.3	57.0	64.9	56.8	57.0
2. US economy						
US real GDP (chained [2012]; y/y %)	2.9	2.2	2.0	2.9	2.3	2.0
US Consumer Price Index (y/y %)	2.3	1.9	1.9	2.4	1.8	1.9
3. Japanese economy						
Nominal public fixed investment (y/y %)	-2.3	5.3	2.4	-1.6	3.1	4.1
Exchange rate (Y/$)	110.9	108.5	108.5	110.4	109.0	108.5
(Y/€)	128.3	120.4	120.0	130.0	121.7	120.0

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.