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# Japan's Economy: Monthly Outlook (January 2020)

1. The Global Economy in 2020: Risk of Expecting a Goldilocks Economy
  2. Effects of the Consumption Tax Hike as Seen in Corporate Activities
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Economic Research Dept.  
**Shunsuke Kobayashi**  
**Yutaro Suzuki**

## Summary

- Outlooks expecting a rise in the financial markets since the end of last year can most easily be described as the expectation for a Goldilocks economy. Outlooks were based on the following developments: (1) the global economy hit bottom, (2) monetary easing policies were continued, and (3) there were fewer uncertainties. An environment became manifest in which the growth trend in prices of a broad range of financial assets could be supported. It was not impossible to envision a scenario in which the global economy would be getting back on the road to full-fledged economic expansion accompanying the asset effect associated with growth in prices of financial assets. However, there are a number of cautionary notes which should accompany this scenario.
- First of all, it will likely take time for the global economy to hit bottom. Chiefly, it should be noted that declines in capital goods and durables centering on the advanced nations are becoming more serious. Secondly, maintaining low inflation is contingent on the continuation of monetary easing policies, and in this context, it is necessary to keep an eye on movements in the price of natural resources. Meanwhile, it has also become unclear whether or not the FRB will be able to continue its current asset purchasing program. The third factor is that if the Democratic Party wins a majority in the US presidential and congressional election, it will become highly likely that the corporate tax will be raised. Furthermore, we cannot ignore the risk that current President Donald Trump could move toward adopting a weak dollar policy in hopes that this would give him an advantage in the election campaign. While not all of these factors are necessarily high risk realistically speaking at this time, they are issues which we must remain aware of.

## 1. The Global Economy in 2020: Risk of Expecting a Goldilocks Economy

From early on at the beginning of this year tensions have been running high in the global financial markets. To start there was the tension in Iran. The sudden appearance of this unexpected diplomatic problem took most market participants by surprise, and poured cold water on the optimistic mood which had prevailed since the autumn of 2019. As of this point it appears that escalation of the US-Iran conflict has been avoided, and market turmoil has subsided. That said, it would be unwise to brush this phenomenon aside with a stale expression such as “temporary stock market volatility following the appearance and then receding of geopolitical risk.” Why do problems in the Middle East lead to turmoil in the market? Understanding the true nature of the problem will help us to avoid the trap of this widely circulated rosy scenario.

In this report we provide a concise overview of the optimistic outlooks which supported the growth in stock prices since last autumn, and a comprehensive examination of risk factors in 2020.

### *Three factors required for a “Goldilocks economy” to appear*

Outlooks expecting a rise in the financial markets since the end of last year can most easily be described as the expectation for a Goldilocks economy. A Goldilocks economy is an economic environment consisting of three factors. Concretely speaking, (1) the economy shifts into a recovery (the growth rate of the global economy accelerates), but not so much as to cause the inflation rate to rise, (2) monetary easing policies continue, and (3) economic uncertainties, such as political risk, are limited. These three factors have to be present, and growth in the prices of financial assets has to be maintained.

A Goldilocks economy is the stage prior to the economy getting back on the road to full-fledged economic expansion accompanying the asset effect associated with growth in prices of financial assets.

Looking back into the past, we see that the process of moving from an economic downturn to a Goldilocks economy, and then onto a shift into a full-fledged economic expansion phase, was not always smooth. An example from recent memory is the economic slowdown of 2015 and the appearance of expectations of a Goldilocks economy at the end of that year. Over the next year, 2016, and on into 2017 the global economy met with an acceleration phase. However, the hopes for the 2016 economy which appeared at the end of 2015 were betrayed.

The scenario that was hoped for at the time went something like this: the Greek fiscal crisis, which rocked the global economy in 2015, as well as the Chinese economic slowdown associated with the devaluation of the yuan, would both be overcome, and the global economy would turn toward recovery in 2016. One of the assumptions was that the FRB would encourage economic recovery by holding down the pace of its interest rate hikes. As for political risk, the American presidential election and the UK Brexit vote were yet to come, but the assumption of this scenario was that Hillary Clinton would win the presidential election and the UK would be able to avoid Brexit.

In reality, however, early on in 2016, the hawkish stance of the FRB caused turmoil in the financial markets. At the same time the yuan and the Chinese economy again became unstable, while UK voters gave their support to Brexit, and the winner of the American presidential election was Trump. After each of these developments, market participants had to correct their outlooks.

So what about this time around? Below we examine the risks involved with each of the factors necessary for a Goldilocks economy. Our conclusion is that each one of these factors requires a cautionary note. And of these three factors, the second requires the greatest caution.

### *Premature expectations for economic recovery to be corrected*

Regarding the question of economic recovery, there are definitely some bright spots. First of all, global inventory adjustment pressure, which has continued since the end of 2017, is gradually easing. Secondly, the beginnings of a recovery in demand for semiconductors has been observed centering on Asia, due to the shift to 5G on communications systems in the near future. For this reason, installation of 5G on various devices and sales of new devices are expected. And thirdly, a provisional agreement has been reached in the US-China trade issue, which has been a factor in encouraging the global manufacturing downturn.

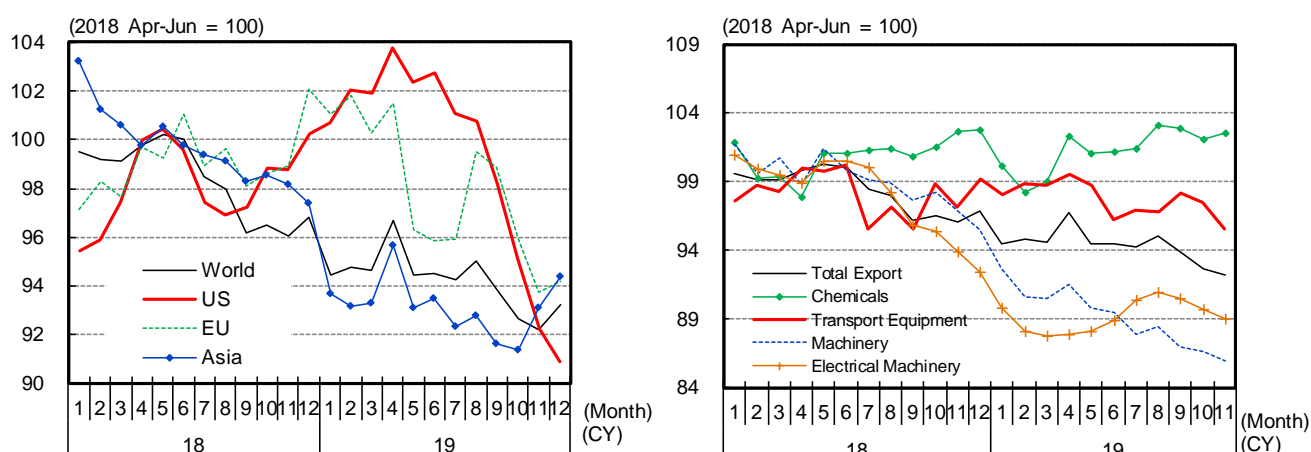
Even so, we expect that it will still take some time before production in the manufacturing industry shifts into a full-fledged recovery and a return to expansion. While a recovery in demand for semiconductors has been detected centering on Asia, the decline in demand for capital goods and durables centering on the advanced nations is becoming more serious (Chart 1). There are two major factors behind this situation. First, the effects of tax cuts in 2018 means that the cyclical economic slowdown is coming late to certain other countries, including the US where adjustment has just begun. Additionally, it is impossible to ignore the decline in demand for capital goods due to the downturn in global factory operating rates in the manufacturing industry which began in 2018<sup>1</sup>.

However, this may be merely a trivial matter. Sooner or later, assuming that an economic recovery phase eventually arrives, the market correction phase arising due to unreasonable market expectations will also come to an end. In that sense, our argument here also may simply be the question of a time lag.

### *Conditions necessary for the continuation of an accommodative financial environment*

The issue which must be given serious consideration here is the sustainability of an accommodative financial environment. The possibility that central banks might begin monetary tightening is no doubt unlikely for some time to come. Even the US economy shows no signs of overheating at this time. Needless to say, the same is true in the case of the EU and Japan. It is not difficult to imagine that current FRB Chairman Powell, who stepped on a tiger's tail and invited market turmoil through intensive rate hikes in 2018, has incentive to hold back on taking any noticeable action until the US presidential election has taken place.

**Export Volume by Source of Demand and by Product** **Chart 1**



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.

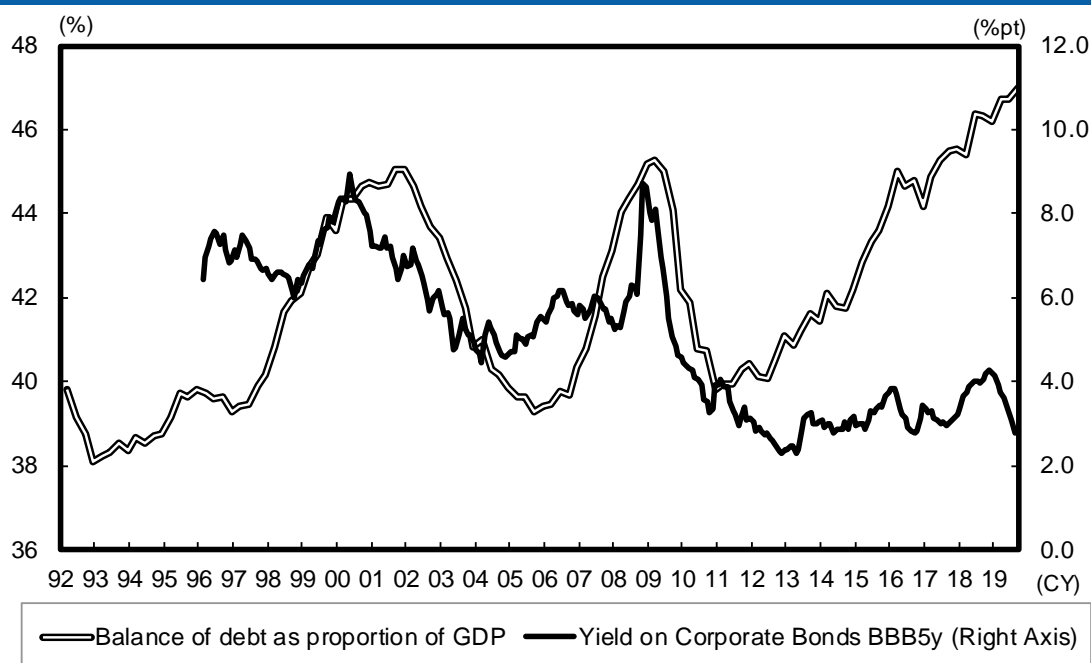
<sup>1</sup> For details see the DIR Report dated 27 December 2019, *Outlook for Japan's Economy in 2020: The key to regaining accelerated growth: recovery scenario for the global manufacturing industry*, by Shunsuke Kobayashi and Yutaro Suzuki.

However, the situation would be quite different if the inflation rate were to rise rapidly due to an external factor, such as the oil crisis of the 1970s. Fears of another oil crisis was of course the major factor which upset the financial markets when the recent problem with Iran occurred. If an unstable Middle East situation were to limit the supply of energy, it is highly likely that stagflation (an economic slowdown accompanied by high inflation) would be generated. Recent history proves that a recession can easily be caused by monetary tightening under conditions of slow economic growth. Looking back at historic recessions in the US after WWII, we see that in most cases recessions were foreshadowed by inflation and monetary tightening.

The impact of an external shock originating in unwanted monetary tightening could be especially serious in comparison to past examples if it were to occur at this time. One of the consequences of the ultra-low interest rate policies which have continued since the global economic crisis of 2008 has been the increasing tendency for corporations to carry out debt leveraging. Debt currently carried by US corporations expressed as a proportion of GDP substantially exceeds the levels seen just before the Lehman Brothers collapse which triggered the global economic crisis of 2008, and the level immediately before the IT bubble burst (Chart 2). At the same time, we should not ignore that this is also the result of share buybacks financed by the issuance of corporate bonds, the other side of the story being that the asset effect occurs here as a result of growth in stock prices, and helps push up the real economy. At the same time, however, care must be taken regarding the risk that this precarious balance could be lost<sup>2</sup>.

Let us pause here for a quick exercise in logic. The traditional index used to evaluate a stock's performance is the price earnings ratio, or PER (market value per share divided by earnings per share). PER is theoretically defined as the reciprocal of the expected rate of return. If the PER is 20x, the expected rate of return is 5%. The expected rate of return can be broken down into three factors: (1) the risk-free rate (interest on safe assets) + (2) risk premium (preparedness for corporate bankruptcy risk and performance fluctuation risk) – (3) expected growth rate (corporate profit growth rate).

**Outstanding Debt of US Corporations as a Proportion of GDP, and Interest on Corporate Bonds<sup>3</sup>**  
Chart 2



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

<sup>2</sup> For details see the DIR Report dated 25 April 2019, *Last resort for the FRB as it faces imminent reverse yield: Only choice remaining is a stealth Reverse Operation Twist*, by Shunsuke Kobayashi and Yota Hirono.

<sup>3</sup> 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.

If the price of natural resources continues to rise, monetary tightening would cause (1) to increase. Meanwhile, (3) will decline due to rising energy costs and rising interest rates. Then (2) will increase. Even with figures for this exercise that are as realistic as possible, if we raise the first figure by 0.5%, then reduce the second figure by 0.5% and raise the third figure by 1.0%, the expected rate of return would grow to 7%, while PER would decline to around 14x. In other words, the stock price will have dropped by around 30%. The asset effect which had until now had the effect of pushing up the economy would shift into a negative trend all at once. If this were to occur it would be difficult to ignore the effect on the real economy.

Here in Japan, it would not be possible to brush this off as someone else's problem. According to estimates using the DIR model, an increase of 10 dlrs/bbl in the WTI crude oil price would bring downward pressure of 0.11% on Japan's real GDP and 0.48% on nominal GDP (Chart 3). Meanwhile, an estimate of corporate business performance shows a reduction in operating surplus of 0.3 tril yen in the manufacturing industry, and 0.6 tril yen in the non-manufacturing industry, or a total of 0.9 tril yen (Chart 5). In addition, there would be impact via the international financial markets as described earlier in this report.

**Effect of \$10/bbl Increase in Price of Crude Oil on Japan's Economy** **Chart 3**

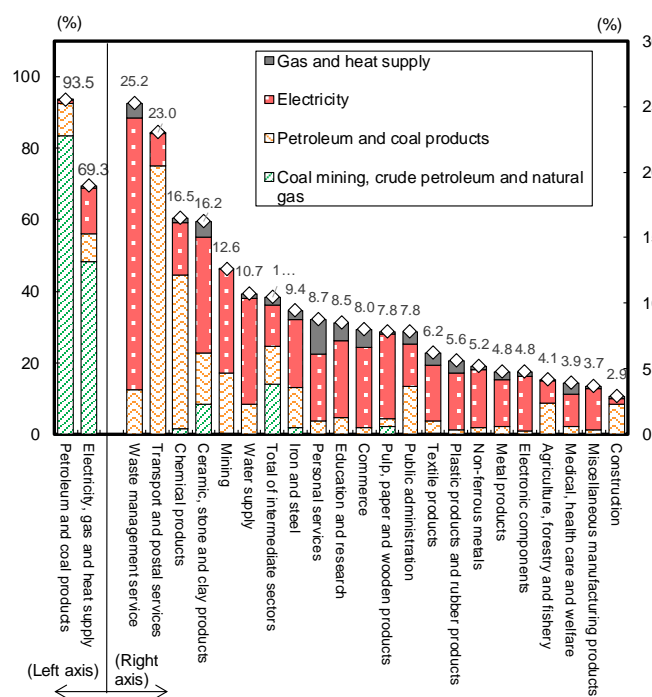
		Real GDP	Real Personal Consumption	Real Housing Investment	Real Capital Expenditure	Real Exports	Real Imports	Nominal GDP	GDP Deflator
		%	%	%	%	%	%	%	%
\$10/bbl Increase in Price of Crude Oil	1st year	-0.11	-0.18	-0.34	-0.43	-0.09	-0.55	-0.48	-0.37
	2nd year	-0.13	-0.22	-0.51	-0.48	-0.09	-0.66	-0.45	-0.32
	3rd year	-0.12	-0.20	-0.41	-0.52	-0.09	-0.62	-0.49	-0.37

		Current Account Balance / Nominal GDP	Import Prices	Export Prices	CGPI	Core CPI	Industrial Production	Indices of Tertiary Industry Activity	Indices of All Industry Activity
		%pt	%	%	%	%	%	%	%
\$10/bbl Increase in Price of Crude Oil	1st year	-0.45	3.76	0.45	0.60	0.21	-0.21	-0.11	-0.12
	2nd year	-0.43	3.79	0.45	0.61	0.31	-0.25	-0.13	-0.15
	3rd year	-0.48	3.80	0.45	0.62	0.29	-0.24	-0.13	-0.14

Source: compiled by DIR.

Note: Simulation using the DIR macro model. Figures denote rate of deviation and divergence from the standard solution.

**Percentage of Intermediate Inputs Accounted for by Energy Inputs in All Industries Chart 4**



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

Note: Figures for 2015 are estimates based on the input-output structure.

**Effect of 10% Increase in Price of Crude Oil on Corporate Earnings (Operating Surplus) Chart 5**

	Amount Y bil	Rate of Change %
All industries	-934	-0.9
Manufacturing	-342	-2.3
Beverages and Foods	-11	-0.3
Textile products	-2	1.8
Pulp, paper and wooden products	-10	-1.1
Chemical products	-96	-5.7
Petroleum and coal products	23	3.2
Plastic products and rubber products	-6	-15.6
Ceramic, stone and clay products	-34	-5.7
Iron and steel	-101	-3.1
Non-ferrous metals	-68	-12.1
Metal products	-5	-1.3
General-purpose machinery	-2	-0.2
Production machinery	-3	-0.2
Business oriented machinery	-1	-0.5
Electronic components	-5	-
Electrical machinery	-3	-
Information and communication electronics equipment	0	-
Transportation equipment	-13	-1.7
Miscellaneous manufacturing products	-3	-0.5
Non-manufacturing	-592	-0.7
Agriculture, forestry and fishery	-8	-0.3
Mining	33	30.1
Construction	-59	-3.6
Electricity, gas and heat supply	-174	-32.9
Water supply	-4	-0.7
Waste management service	-7	-2.5
Commerce	-31	-0.2
Finance and insurance	-3	0.0
Real estate	-5	0.0
Transport and postal services	-245	-8.3
Information and communications	-5	-0.1
Education and research	-17	-2.3
Medical, health care and welfare	-18	-0.7
Membership-based associations, n.e.c.	-1	3.2
Business services	-12	-0.2
Personal services	-36	-0.7

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

Note: Figures for 2015 are estimates based on the input-output structure.

Of course, at this time it appears that both the US and Iran have a stronger incentive to avoid open conflict, which perhaps makes our considerations up to this point overly pessimistic. However, the question is not limited to the Iran issue alone. If supply constraints of some kind were to cause the inflation rate to rise, thereby causing interest rates to rise even a small amount, the effect could then be amplified via the financial markets, and cause major effects on the global economy.

As for monetary policy, there is one more point which should be mentioned. There is some concern regarding the sustainability of the FRB's quasi-quantitative easing. Ever since the latter half of October 2019, the FRB has again been increasing the amount of its asset holdings as shown in Chart 6. The goal of this policy is to supply the short-term financial market with liquidity. FRB insists that what they are doing is not quantitative easing, but the result is that supply and demand of US treasury bills has become tight, and it is highly likely that this is a factor in holding down interest rates (Chart 7).



## Details and Trends in FRB Quantitative Easing Policy

Chart 6

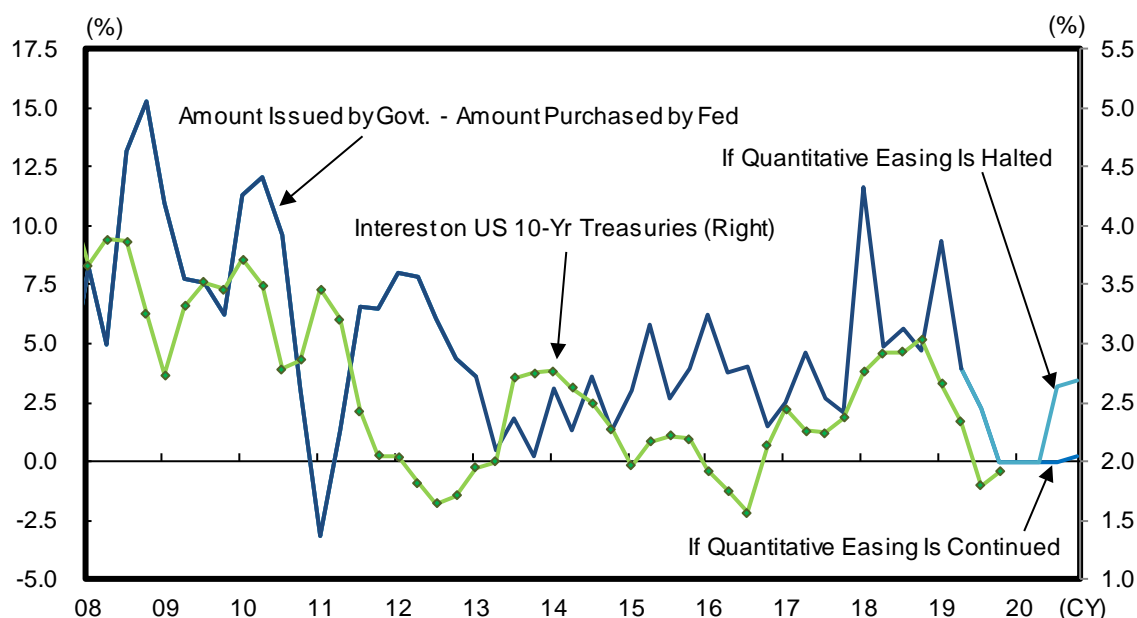
	Total	Treasury	T-bill	MBS
2017 Oct-Dec	▲10 bil\$	▲6 bil\$	-	▲4 bil\$
2018 Jan-Mar	▲20 bil\$	▲12 bil\$	-	▲8 bil\$
Apr-Jun	▲30 bil\$	▲18 bil\$	-	▲12 bil\$
Jul-Sep	▲40 bil\$	▲24 bil\$	-	▲16 bil\$
Oct-Dec	▲50 bil\$	▲30 bil\$	-	▲20 bil\$
2019 Jan-Apr	▲50 bil\$	▲30 bil\$	-	▲20 bil\$
May-Jul	▲35 bil\$	▲15 bil\$	-	▲20 bil\$
Aug-Oct 1H	0 bil\$	+20 bil\$	-	▲20 bil\$
Oct 2H-	+30 bil\$	+20 bil\$	+30 bil\$	▲20 bil\$
Nov-	+60 bil\$	+20 bil\$	+60 bil\$	▲20 bil\$

Source: FRB; compiled by DIR.

Note: All figures are monthly maximums.

## Net Issuance of US Treasuries (as a Portion of GDP), and Trends in Interest on 10-Yr Bond

Chart 7



Source: FRB, CBO, Haver Analytics; compiled by DIR.

Notes: Figures after July 2019 calculated by DIR based on FRB and CBO estimates.

The FRB plans on continuing this policy at least through the first half of 2020. To put it in another way, there will be plenty of room for a policy change during the second half of 2020 and beyond. Meanwhile, as the FRB has asserted, the purpose of the policy is simply to supply the short-term financial market with liquidity, and not to stimulate the economy by reducing interest rates. If we take this literally, it will not be at all strange if the FRB stops increasing its asset holdings or slows the pace in the near future as long as the short-term financial market does not malfunction as occurred sporadically between 2018 and 2019. But in that case, the risk of interest rates rising again will naturally be triggered. So the question is whether the FRB will be able to stick to its position. Or, on the other hand, will it adjust its thinking and continue quantitative easing? This point has been overlooked by many, and we believe that it is a question with a high rate of importance in predicting what will happen to the global economy in 2020 and beyond.

***Uncertainty surrounding the US presidential election***

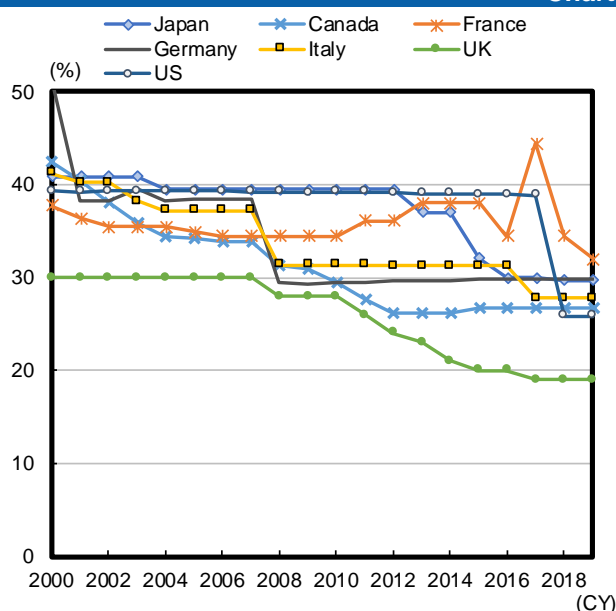
Now we provide a brief summary of the political risks. The assumptions supporting the expectations for a Goldilocks economy are as follows: The US-China problem will be laid to rest for the time being until the presidential election is over. China's economy will return to a lull. The US presidential election will

result in Trump's re-election and no risk of major change in policies is expected. Meanwhile, Brexit, which had been pending for some time, will continue to move forward, and hence will not cause a disturbance.

It is likely that these expectations will eventually be fulfilled. However, the outcome of the election is uncertain. The approval rating of current President Trump has not gone beyond the 40% level, and it is too early to as of this point to call the election. The problem here is that all of the major Democratic Party candidates (Biden, Sanders, and Warren) are in favor of increasing the corporate tax. The Trump administration lowered the federal tax rate on corporations from a maximum of 35% to 21%. Combined with state tax, this brought the effective tax rate for corporations down from around 40% to approximately 26% (Chart 8). Both Sanders and Warren have stated that they will return the corporate tax rate to its original level. Even Biden, who is considered to be a moderate, has said that he will change the tax reduction to half of what it was.

International Comparison of Effective Corporate Tax Rates

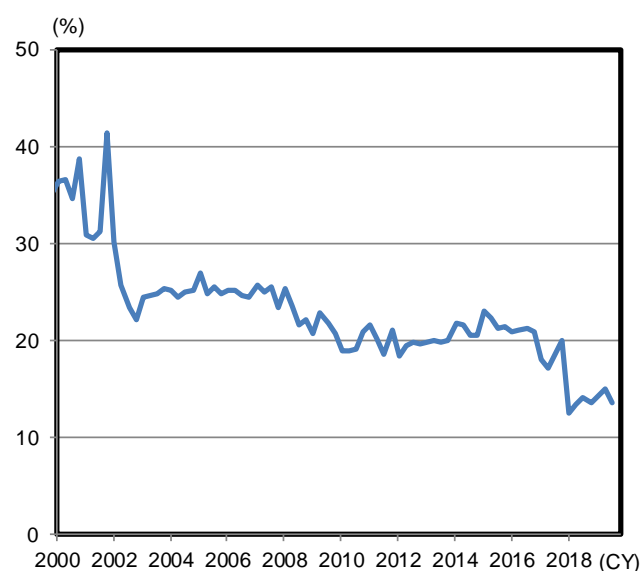
Chart 8



Source: OECD; compiled by DIR.

US Corporate Tax Rate (Actual Values, Non-Financial Enterprises)

Chart 9



Source: FRB; compiled by DIR.

Now, what conclusions can we make about the impact of tax cuts? Previous to the tax cut, if a corporation with the maximum tax rate recorded a profit of 100 dlr, after tax profit would have been 60 dlr. Now, its profits would be 74 dlr on the same amount in profits, and increase of 23%. Of course, this argument focuses only on the maximum tax rate. The average tax rate in the US as calculated using statistics on the flow of funds in the US was around 21% in terms of actual values before the tax cut, while after the tax cut it was around 13.5% (Chart 9). In other words, after tax profits on profits of 100 dlr grew by approximately 9.5% from 79 dlr to 86.5 dlr. Due to the effects of the tax cut, the U.S. economy and financial markets have been booming since 2018. However, if the Democrats win in the presidential and congressional election later this year, there could very well be a reaction to the cuts in which, especially in the case of Sanders or Warren, the entire amount of the tax cut effect would disappear, while in the case of Biden, half of the effect would be removed<sup>4</sup>.

<sup>4</sup> Of course, even if the Democratic candidate were to win the presidential election, this does not mean that the corporate tax rate would immediately be changed. The congressional election occurs at the same time as the presidential election, and the Democrats would have to win an absolute majority in both the upper and lower houses of congress in order for the possibility of a tax hike to come into view. Meanwhile, all of the Democratic candidates are saying that they will use the increase in tax revenue to increase social benefits and to invest in infrastructure, hence in the end, nothing may happen

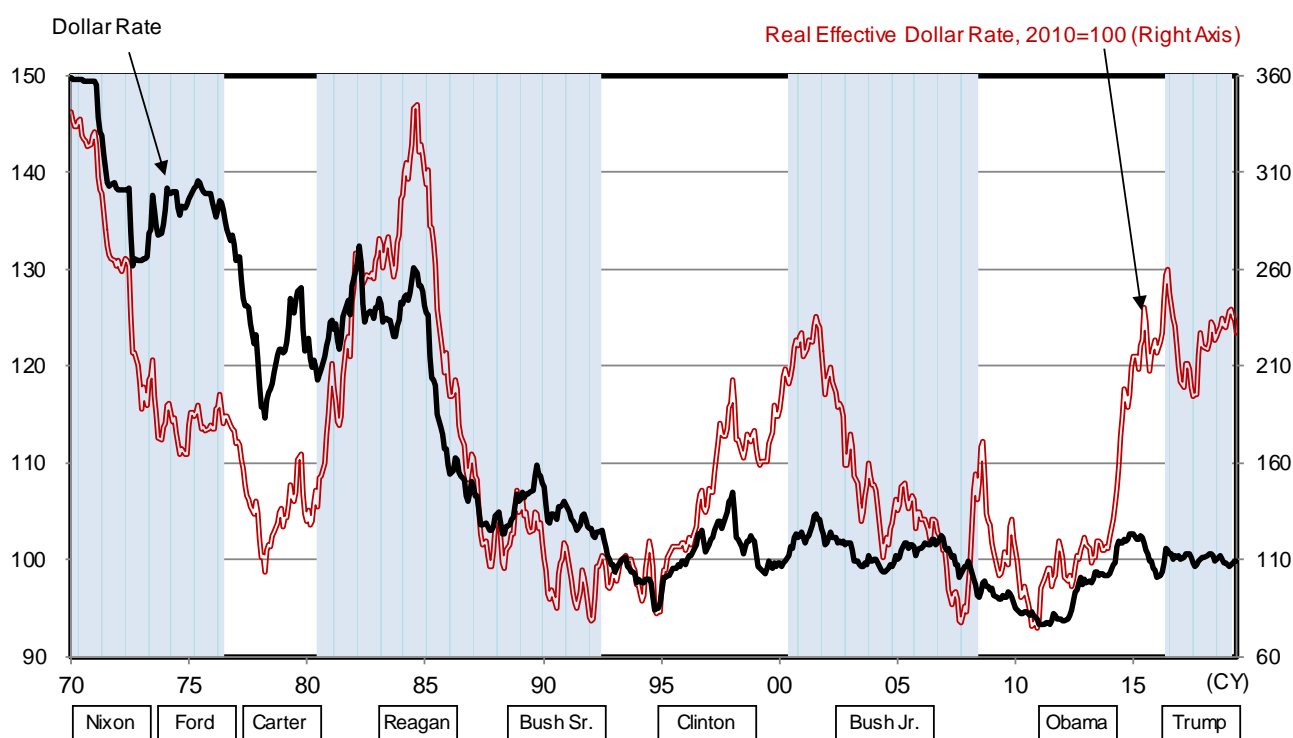


Meanwhile, not only are there risks after the election, but also the question of what kind of approach President Trump might take in the election campaign. This remains a major uncertainty factor. The possibility that tensions in the Middle East could again arise is a major question in this context. There is not only the downside risk of foreign policy becoming more militant, but the upside risk of economic policy as well. With the Democratic Party holding the majority in the lower house, and the impeachment trial ongoing, it will be difficult to implement an effective fiscal policy until the day of the election. Assuming that this is the case, then we cannot ignore the possibility that Trump may quickly take this opportunity to adopt a weak dollar policy in order to stimulate the economy (Chart 10).

The Goldilocks economy, which can be described as the stage where the economy is in the process of moving from a slowdown to a period of acceleration, can be compared to an airplane preparing to land. It is not a condition that could be considered especially strong against external shock. And it is exactly here, in 2020, where multiple uncertainty factors have gathered. It is our hope that we can quickly identify where the turbulence lies, and successfully ride out the storm.

Long-Term Trends in the Dollar Exchange Rate, and the US Political Cycle

Chart 10



Source: FRB, BIS, Haver Analytics; compiled by DIR.

Note: Shaded parts represent periods in which a Republican administration was in office.

which would cause a stringent fiscal policy. Even so, caution is recommended regarding the possibility that political change could cause a shock to the system, felt in terms of corporate earnings, capex, employment, and the financial market.

## 2. Effects of the Consumption Tax Hike as Seen in Corporate Activities

In the previous section we examined the question of global risk. In this section we shift our gaze back to Japan's domestic situation.

In two recent reports we examined the influence of the October 2019 consumption tax hike, focusing mainly on demand related statistics: 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, and 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. This section acts as a supplement to those reports, offering a more detailed analysis.

Based on currently available statistics, there appear to be no revisions required in the opinions expressed in the above reports. First of all, last minute demand and reactionary decline, as stated in these reports, were found to be especially notable in certain areas. In a word, these phenomena occurred most clearly where there were blind spots in coverage by government economic measures (Chart 11). Demand grew considerably just before the tax hike went into effect and then shifted into reactionary decline in automobiles, owned dwellings and those built for sale, and in department stores, mass retailers of household electronics, and drug stores.

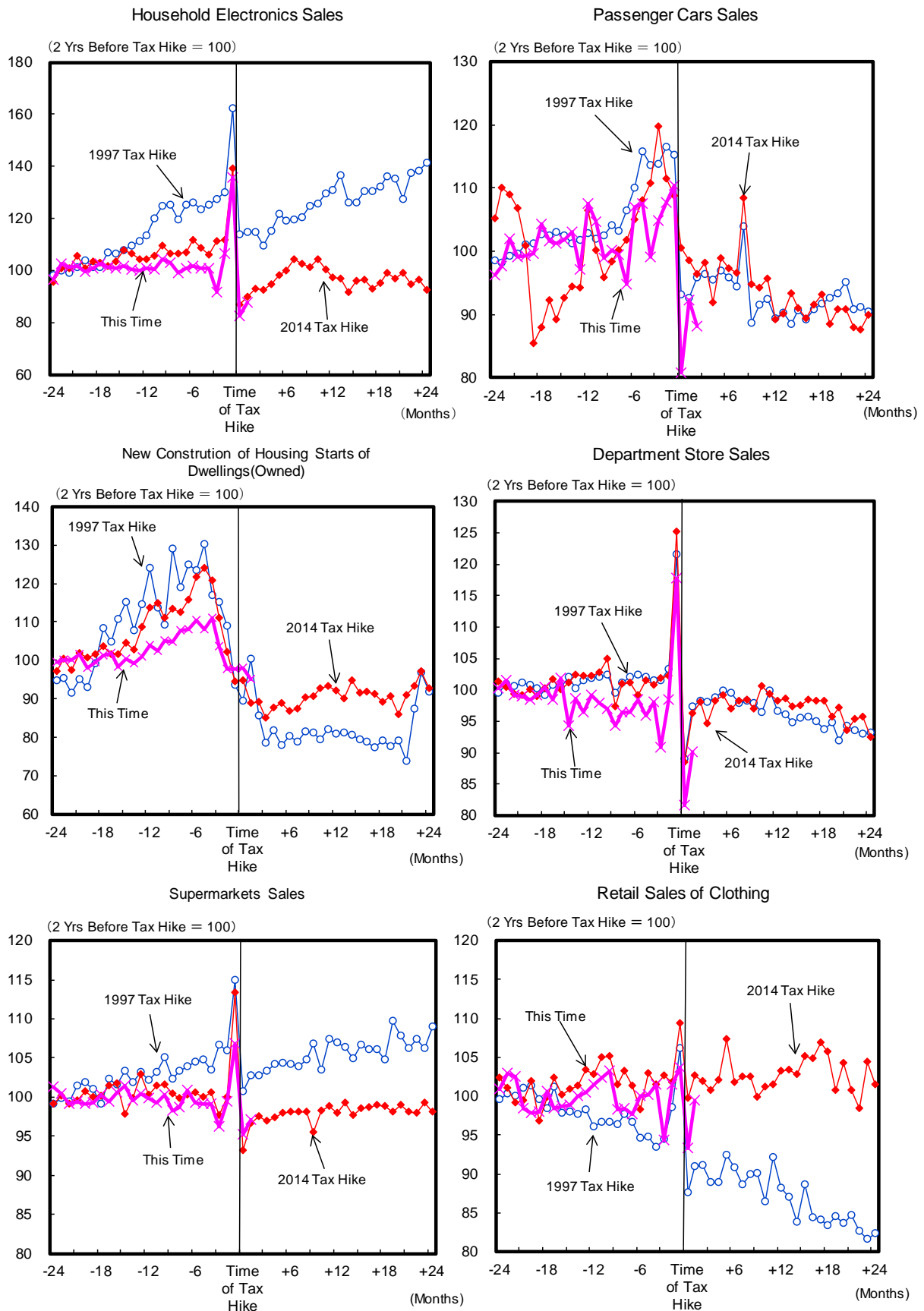
Also notable was the fact that in comparison to past consumption tax increases, the scale of last-minute demand was kept under control. Demand levelling measures were largely successful. These included the reduced tax rate especially on foods, reduction of the automobile tax and reward points for using cashless payment. DIR analysis found that last minute demand on the part of households, and reactionary kept at about half of what it was the last time the consumption tax was increased.

### *Supply side statistics supplement data on influence of consumption tax hike*

That said, the question is still whether analysis of demand related statistics as shown above is also supported by supply side statistics which capture the activities of corporations. In this report we investigate this point as discussed further in the below. One of the better known supply side statistics is the Indices of Industrial Production (IIP). As can be confirmed in these statistics, some durable goods related industries exhibited movements similar to last minute demand and reactionary decline in their shipments and inventories. However, the trend is not completely clear. This may simply reflect a characteristic of industrial production which is more highly influenced by exports than domestic demand. For a comparison, we next take a look at trends before and after the increase in consumption tax using the Indices of Tertiary Industry Activity, which has a fairly high dependence on domestic demand in comparison to the IIP.

As is shown in Chart 12, industries in which last minute demand and reactionary decline can be recognized in the Indices of Tertiary Industry Activity include retail trade, wholesale trade, transport and postal activities, and information & communications. In the case of information & communications there are some special factors present (in other words replacement of cash register systems due to the introduction of the tax reduction policy, and special demand associated with cashless payments). As a result, last minute demand and reactionary decline of about the same scale or more than the last time the consumption tax was increased were detected in corporate activities as well. It is important to note that this acts as a secondary effect on household consumption via the employment market.

**Change in Demand for Items Subject to Tax Hike (Comparison with Last Two Times Consumption Tax was Increased)** Chart 11



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.

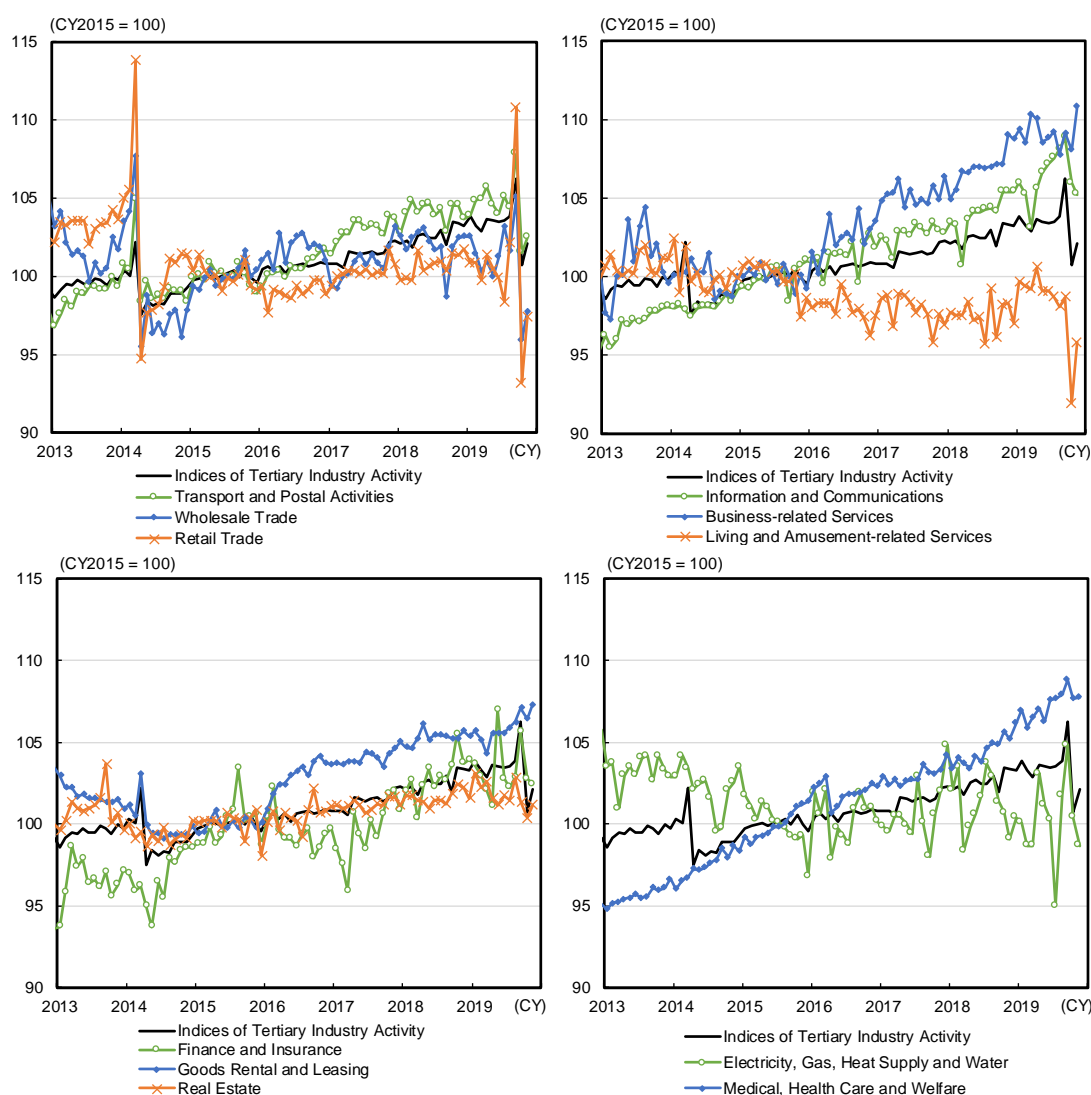
Next we confirm the details. First of all, the retail trade was continuing to mark time. Then just before the consumption tax was increased last minute demand appeared, after which a major decline occurred as a reaction in October. A partial rebound was seen in November, but the level did not reach that seen before the last minute demand occurred.

As for the wholesale trade, the tendency of the retail trade was repeated, with last minute demand occurring, followed by reactionary decline. However, when we look at the contents of said activity, we see that as of November, the machinery and equipment wholesale trade, including household electronics, remained at a lower level than before the consumption tax was increased. In contrast, the food & beverage wholesale trade also experienced last minute demand and reactionary decline, but by November had recovered to levels seen before the consumption tax was raised.

The transport and postal activities is also experiencing a slow recovery after last fall's reactionary decline, despite the fact that it had originally been in a growth trend due to a tailwind provided by the spread of e-commerce.

The information & communications had been reaping the benefits of replacement of cash register systems due to the introduction of the tax reduction policy, and special demand associated with cashless payments, as well as replacement demand for new systems after support for older operating systems was abolished. However, once this type of investment demand ran its course, the situation shifted into a declining trend after October.

**Change in Indices of Tertiary Industry Activity** **Chart 12**



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

As for living and amusement-related services, last minute demand prior to the consumption tax hike was not detected, but even so, it experienced a major decline in October. It is assumed that this was due to bad weather, including a major typhoon. Considering the fact that recovery was slow in November, it should be noted that it is possible that consumer behavior was influenced by the post-tax-hike budget-minded mood in this case as well.

On the other hand, in the case of other industries, many were not subject to taxation, and hence there was not much influence from the increase in consumption tax. Looking at those industries which maintained a strong growth trend during this period, we see included here medical, health care and welfare which benefited from the major tailwind of aging in Japan, business-related services<sup>5</sup>, which benefitted from structural issues associated with the worsening labor shortage, and the goods rental and leasing industry, which was supported by continuing low interest rates. At this point in time no declines were seen in these industries.

***Important to take note of negative income effect***

There is one more effect of the consumption tax hike which carries fundamental importance. That is the negative income effect. Of course, a portion of household burden associated with the most recent instance of increase in consumption tax was offset by introduction of social security enhancement measures such as the reduced tax rate and free education. As a result, the net fiscal austerity effect is expected to total approximately 2 trillion yen, a bit less than seen the last time the consumption tax was increased when it was approximately 8 trillion yen.

However, it is important to note here that at this point in time, the 2 trillion yen in negative income effect has not appeared in its entirety due to the reward points program when using cashless payment, and purchases of premium vouchers. It has been confirmed that, especially in the case of benefits gained from the reward points program, seen as being fairly large for convenience stores and other retail outlets, the post-tax-hike reactionary decline is at a smaller scale than the last minute demand which occurred before the tax hike. Viewed from the opposite end, consumption may be further inhibited depending on the timing of the expiration of demand leveling measures as described above. It is therefore important to remain on the lookout for further developments in the future.

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<sup>5</sup> The business-related services industry is accounted for mostly by personnel recruitment and technical services.

## Japan's Economic Outlook No.203 Update

	FY18	FY19 (Estimate)	FY20 (Estimate)	CY18	CY19 (Estimate)	CY20 (Estimate)
<b>Main economic indicators</b>						
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
<b>Real GDP components</b> (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)
<b>Major assumptions:</b>						
<b>1. World economy</b>						
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
<b>2. US economy</b>						
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
<b>3. Japanese economy</b>						
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.



## Explanatory Document of Unregistered Credit Ratings

In order to ensure the fairness and transparency in the markets, Credit Rating Agencies became subject to the Credit Rating Agencies' registration system based on the Financial Instruments and Exchange Act. In accordance with this Act, in soliciting customers, Financial Instruments Business Operators, etc. shall not use the credit ratings provided by unregistered Credit Rating Agencies without informing customers of the fact that those Credit Rating Agencies are not registered, and shall also inform customers of the significance and limitations of credit ratings, etc.

### ■ **The Significance of Registration**

Registered Credit Rating Agencies are subject to the following regulations:

- 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).

In addition to the above, Registered Credit Rating Agencies are subject to the supervision of the Financial Services Agency ("FSA"), and as such may be ordered to produce reports, be subject to on-site inspection, and be ordered to improve business operations, whereas unregistered Credit Rating Agencies are free from such regulations and supervision.

### ■ **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

The information is posted under "Unregistered Rating Information" (<http://www.standardandpoors.co.jp/unregistered>) in the "Library and Regulations" section on the website of S&P Global Ratings Japan Inc. (<http://www.standardandpoors.co.jp>)

##### Assumptions, Significance and Limitations of Credit Ratings

Credit ratings assigned by Standard & Poor's are statements of opinion on the future credit quality of specific issuers or issues as of the date they are expressed and they are not indexes which show the probability of the occurrence of the failure to pay by the issuer or a specific debt and do not guarantee creditworthiness. Credit ratings are not a recommendation to purchase, sell or hold any securities, or a statement of market liquidity or prices in the secondary market of any issues.

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)

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

The information is posted under "Unregistered Rating explanation" in the section on "The use of Ratings of Unregistered Agencies" on the website of Moody's Japan K.K. (The website can be viewed after clicking on "Credit Rating Business" on the Japanese version of Moody's website ([https://www.moody.com/pages/default\\_ja.aspx](https://www.moody.com/pages/default_ja.aspx)))

##### Assumptions, Significance and Limitations of Credit Ratings

Credit ratings are Moody's Investors Service's ("MIS") current opinions of the relative future credit risk of entities, credit commitments, or debt or debt-like securities. MIS defines credit risk as the risk that an entity may not meet its contractual, financial obligations as they come due and any estimated financial loss in the event of default. Credit ratings do not address any other risk, including but not limited to: liquidity risk, market value risk, or price volatility. Credit ratings do not constitute investment or financial advice, and credit ratings are not recommendations to purchase, sell, or hold particular securities. No warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability or fitness for any particular purpose of any such rating or other opinion or information, is given or made by MIS in any form or manner whatsoever.

Based on the information received from issuers or from public sources, the credit risks of the issuers or obligations are assessed. MIS adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MIS considers to be reliable. However, MIS is not an auditor and cannot in every instance independently verify or validate information received in the rating process.

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of April 16<sup>th</sup>, 2018, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of Moody's Japan K.K. ([https://www.moody.com/pages/default\\_ja.aspx](https://www.moody.com/pages/default_ja.aspx))

#### [Fitch]

##### The Name of the Credit Rating Agencies group, etc

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

The name and registration number of the Registered Credit Rating Agency in the group: Fitch Ratings Japan Limited (FSA commissioner (Rating) No.7)

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

The information is posted under "Outline of Rating Policies" in the section of "Regulatory Affairs" on the website of Fitch Ratings Japan Limited (<https://www.fitchratings.co.jp/web/>)

##### Assumptions, Significance and Limitations of Credit Ratings

Ratings assigned by Fitch are opinions based on established criteria and methodologies. Ratings are not facts, and therefore cannot be described as being "accurate" or "inaccurate". Credit ratings do not directly address any risk other than credit risk. Credit ratings do not comment on the adequacy of market price or market liquidity for rated instruments. Ratings are relative measures of risk; as a result, the assignment of ratings in the same category to entities and obligations may not fully reflect small differences in the degrees of risk. Credit ratings, as opinions on relative ranking of vulnerability to default, do not imply or convey a specific statistical probability of default.

In issuing and maintaining its ratings, Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The assignment of a rating to any issuer or any security should not be viewed as a guarantee of the accuracy, completeness, or timeliness of the information relied on in connection with the rating or the results obtained from the use of such information. If any such information should turn out to contain misrepresentations or to be otherwise misleading, the rating associated with that information may not be appropriate. Despite any verification of current facts, ratings can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed.

For the details of assumption, purpose and restriction of credit ratings, please refer to "Definitions of ratings and other forms of opinion" on the website of Fitch Rating Japan Limited.

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of May 13<sup>th</sup>, 2016, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of Fitch Rating Japan Limited (<https://www.fitchratings.co.jp/web/>)