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# Japan's Economy: Monthly Outlook (March 2019)

## Doubts regarding five prevailing views on Japan's economy

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### Summary

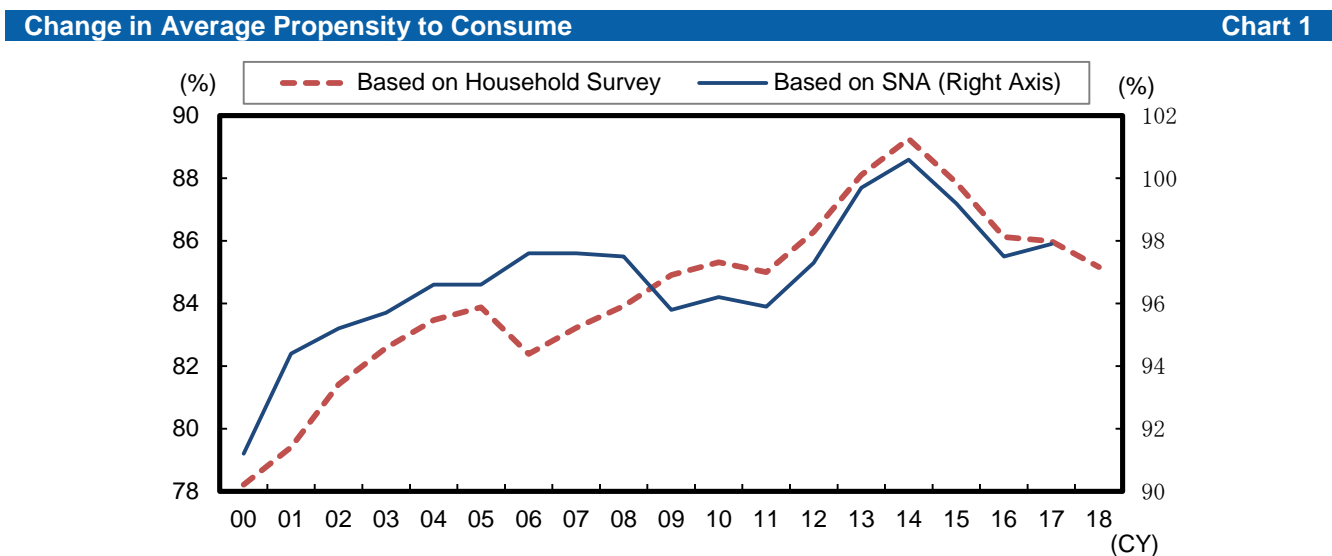
- There are a variety of prevailing views on the Japanese economy. In this report, we examine these common views to confirm whether or not they are indeed appropriate, and attempt to come to an assessment of Japan's economy that has been heretofore missed by the consensus.
- Assumption: Consumption is being held down by uncertainty regarding the future. There is actually little to backup this statement. Trends in the propensity to consume can largely be explained by demographics. The propensity to consume has increased temporarily in the past around the time of an increase in consumption tax due to the ratchet effect. But it soon returned to pre-tax hike levels. This brings into question the assumption that the propensity to consume improves when advances are made in fiscal reconstruction.
- Assumption: The negative effects of increasing consumption tax will be offset by fiscal stimulus. This is an appropriate assumption only if we're talking about FY2019. Fiscal stimulus planned in FY2019 is huge, and exceeds the tax increase effect. However, stimulus focuses mainly on public investment. Construction and related industries are therefore expected to benefit more than households. The remaining 800 billion yen in stimulus measures will not be spent all at once, immediately after the tax hike, nor will the stimulus last forever. The effects of the increase in consumption tax are expected to appear gradually between the second half of FY2019 into FY2020.
- Assumption: Investment in labor-saving devices will facilitate growth. This is a grand illusion. Marginal productivity in a cost comparison demonstrates that the cost of labor is higher than the cost of capital in all industries. In the past, the most practical decision for corporations was to increase labor input, but due to the limitations of the labor shortage, the reality is that corporations are forced to engage in inefficient capital expenditure. Meanwhile, the domestic supply of capital goods is unable to keep up with demand due to the shortage of labor, and hence must be substituted with imports.
- Assumption: The adjustment phase of the inventory cycle is nearing its end. There may be no real debate here. Looking at the current level (not necessarily in y/y terms), the inventory adjustment phase which began at the beginning of 2018 is about halfway through its course. Hence, in the future, production activities will be influenced mostly by shipments (demand). For Japan, this means that overseas demand (exports) holds the key. At this time exports to China are especially important.

## 1. Doubts regarding five prevailing views on Japan's economy

There are a variety of prevailing views on the Japanese economy. These include the assumption that consumption is being held down by uncertainty regarding the future, that the propensity to consume improves when advances are made in fiscal reconstruction, or that the negative effects of increasing consumption tax will be offset by fiscal stimulus. There are also the viewpoints that investment in labor-saving devices will facilitate growth, and that the adjustment phase of the inventory cycle is nearing its end. In this report, we examine these common views to confirm whether or not they are indeed appropriate, and attempt to come to an assessment of Japan's economy that has been heretofore missed by the consensus.

### *Assumption: Consumption is being held down by uncertainty regarding the future*

First of all, as is shown in Chart 1, the propensity to consume (consumption expenditure ÷ disposable income) was in a growth trend until 2014, but has been in a decline ever since. The growth trend in propensity to spend is presumed to have been caused mainly by aging. The aging trend has of course continued since 2014. Therefore, from a purely demographic point of view, the propensity to consume should be at a higher level, and yet it is declining. This is the paradox we face, but it can be explained by the statement “consumption is being held down by uncertainty regarding the future.” This explanation has become deeply rooted. But is this actually the case? Before investigating this issue further, we look at changes in the propensity to consume in Chart 2, where we consider a breakdown of the propensity to consume based on the demographic factor and other factors<sup>1</sup>.



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

Note: The Household Survey looks at households made up of two or more persons (both unemployed and workers), and uses a fluctuation adjustment value which removes the influence of changes on the 2018 survey.

The first thing that really stands out when we look at this chart is that the propensity to consume really took off and exhibited high growth during the years 2013 to 2015. This represents the manifestation of

<sup>1</sup> Here the following method is used. First we break down changes in the propensity to consume by its major constituent factors and an “others” component to handle residual error. In performing calculations, we used the assumption that propensity to consume for households of all attributes has not changed since the year 2005. Then, with propensity to consume fixed for households of all attributes, we calculated the factor of change in the weight of disposable income accounted for by each attribute. For instance, the Unemployed: 65 Yrs or Older (Higher than Average Propensity to Consume) category in the chart – when the weight of this category increases, the propensity to consume also increases. Meanwhile, when the weight of the category the Unemployed: younger than 65 Yrs (Higher than Average Propensity to Consume) declines, it contributes to a decline in the propensity to consume. Similarly, when the category Workers: 34 Yrs and Below (Lower than Average Propensity to Consume) category shows a decline in weight, it contributes to an increase in the propensity to consume.

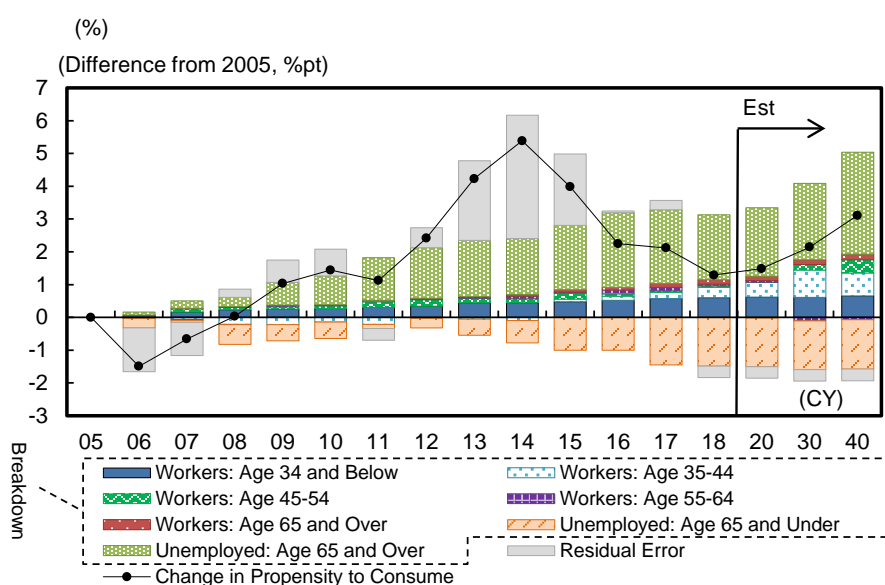
last minute demand just prior to the increase in consumption tax and the ratchet effect (this is the phenomenon where the decline in real income associated with the increase in consumption tax does not have an immediate effect on consumption statistics and the propensity to consume exhibits growth temporarily). Not much room remains for doubt that propensity to consume pushed up considerably during the same time as the tax hike.

Conversely, the propensity to consume during the years 2016 through 2018 can be explained as having simply returned to a level that can be explained with demographics. Of course, to be more precise, it can be pointed out that propensity to consume in 2018 has declined more than it did in 2017. This can be explained by two factors. First, the number of unemployed households made up of persons age 65 and older decreased. This means that disposable income improved, and does not constitute a reason to be pessimistic about the propensity to consume. The second factor is the negative wealth effect. The fact is that there is a residual error which cannot be explained by demographics. There is a linkage to stock prices, which brought a positive contribution in 2016 and 2017, but a negative contribution in 2018.

There is no room for arguments based on uncertainty regarding the future here. But if one insists on doing so anyway, observing the facts as shown in the Cabinet Office's Public Opinion Survey Concerning People's Lifestyles should be constructive. Under Future Lifestyle in this survey, the category Assets & Savings has been showing an increase in response rate. However, at the same time, in the area of Sense of improvement in lifestyle compared to previous year, the survey shows no major decline in recent years. (Of course, compared to the years 1997 and the financial crisis of 2008, when survey findings hit bottom, improvement has been continuous.)

In other words, rather than uncertainty regarding income, continued deflation (this is the phenomenon where the value of cash in comparison to assets grows) brings an increase in the tendency to save, or more appropriately, it could be interpreted as a decline in the benefits of purchasing goods due to the maturation of the economy.

**Change in Average Propensity to Consume (Based on Household Survey) and Contribution of Demographic Component** Chart 2



Source: National Institute of Population and Social Security Research, Ministry of Internal Affairs and Communications; compiled by DIR.

Notes: 1) Households made up of two or more persons (both unemployed and workers). uses a fluctuation adjustment value which removes the influence of changes on the 2018 survey.

2) The estimated value is derived from the present propensity to consume and the most recent value for ratio of worker households, when changing only the number of households

3) The estimated value for number of households is the most recent value from the household survey extended using the growth rate of estimated number of households according to the National Institute of Population and Social Security Research.

4) Outlined items found through linear interpolation performed on five-year units of data.

### ***Assumption: Propensity to consume improves when advances are made in fiscal reconstruction***

This argument is closely associated with the assumption that consumption is being held down by a sense of uncertainty about the future in that both of these arguments are related to the coming increase in consumption tax. According to the neutral proposition of Ricardo, if pensions and social security benefits improve in the future (based on certain assumptions regarding the rationality of individuals, the subjective discount rate, the expected return on investment, and expected lifespan), tax increases carried out in the present will not have a negative influence on consumption in the present. However, the reverse is also true. Hence the argument in, certain quarters, that the influence of an increase in consumption tax will be limited. However, this claim has already been disproved, since the last time the consumption tax was raised the major growth in propensity to consume that was promised did not last. Moreover, the majority of tax revenue associated with this year's increase in consumption tax has been slated for sectors other than pensions and social security benefits. It is difficult to find any support for the argument that propensity to consume will improve if advances are made in fiscal reconstruction.

### ***Assumption: The negative effects of increasing consumption tax will be offset by fiscal stimulus***

This is an appropriate assumption only if we're talking about FY2019. The net fiscal tightening effect associated with the tax hike is estimated to reach around 2 tril yen<sup>2</sup>. Looking at FY2019 alone, the consumption tax goes into effect in October and it is six months later that results will be seen. During this time the fiscal tightening effect is expected to be at around 1 tril yen. Various economic measures will also be implemented during this time, and their scale is expected to reach around 2.18 tril yen. In other words, it will take a while for the fiscal tightening effect to be felt. Initially it will be more the expansion effect that will be most noticeable.

#### **Overview of Consumption Tax Hike Countermeasures (Based on News, FY2019)**

**Chart 3**

Consumption Tax Hike Countermeasures		Description	Period	Scale (Yen Tril)
Auto Related	Tax Rate Cut for Environmental Tax	Tax rate to be reduced by 1% on motor vehicles including light-weight vehicles purchased for private use during the period.	For period of one year starting at time of tax hike. (Till Sept. 2020)	0.05
	Motor Vehicle Tax Cut	Reduction of tax rate on vehicles not including light-weight vehicles purchased during the period.	Permanent tax reduction starting at time of consumption tax hike.	
	Reduction of Eco-Car Tax Break (tax hike)	Reduction of tax break on acquisition tax. Review ratio of reduction of weight tax. Tax-free second car registration to be limited to electrical and hybrid vehicles.	Reduction of tax break on acquisition tax: Apr.-Sept. 2019. Reduction of tax break on weight tax: Starting in May 2019 (Permanent)	
Housing Related	Tax Reduction on Housing Loans	Write-off period extended on residences where move-in has taken place between Oct. 1, 2019 and end December 2020.	Current 10-year period extended to 13 years.	0.11
	Benefits for Housing Purchase "Sumai Kyu-fu kin"	Maximum benefit increased from current 300,000 yen to 500,000 yen. Annual income guideline increased from under 5.1 mil yen to under 7.75 mil yen.	Two years and three months from time of tax hike on current period (till end December 2021).	0.08
	Point Reward System for Promoting Innovative Housing	Points rewarded for remodeling projects oriented toward energy-saving, earthquake safety, barrier-free performance, and improvements for ease of housework and nursing care.	Start-time unknown as no information has appeared in news. Application period lasts through FY2019.	0.13
Point Rewards to Consumers via Small and Medium-sized Retail Businesses, etc.	Reward points for users of cashless payment will be 5% at small to middle-sized stores, and 2% at major chain-store franchises.	Period of 9-months starting at time of tax hike. (Till end June 2020).	0.28	
Vouchers with premiums for Low-income and Child-rearing Households	Gift certificates worth 20,000 yen on shopping of up to a maximum of 25,000 yen available to low-income households and households with children age 0-2 who do not have to pay local tax.	Validity period of gift certificates is six months starting at time of tax hike (till end March 2020).	0.17	
Local Shopping District Stimulus	Support provided to local shopping districts set up to effectively handle new demand source in inbound tourism.	FY2019	0.01	
Public Investment	National land resilience countermeasures against natural disasters.	Implementation focuses on 3-year period beginning in FY2018.	1.35	
<b>Total</b>				<b>2.18</b>

Source: Ministry of Finance, news reports; compiled by DIR.

Notes: 1) Budget measures are total of FY2019 draft budget proposal. Tax measures are for tax reduction on a fiscal year basis.

2) Scale of auto related measures is the net tax reduction amount after subtracting amount of tax increase due to reduction of Eco-Car tax break.

<sup>2</sup> Growth in national and regional financial burden combined as a result of raising the tax rate is estimated to reach around 5.7 tril yen. Increase in burden associated with securing financial resources due to readjustment of the tobacco tax and the income tax will be at around 0.6 tril yen. Implementation of the reduced tax rate will lighten the load of tax burden by around 1.1 tril yen, which is expected to bring the total tax burden to around 5.2 tril yen. Free early childhood education and other social security programs in relation to the increased tax burden are expected to bring an increase of around 3.2 tril yen in benefits. To sum it all up, the net fiscal tightening effect is estimated at around 2.0 tril yen.

However, looking at the central focus of the consumption tax hike countermeasures, we see that the majority is taken up by public investment for the purpose of national resilience in the form of disaster prevention and mitigation (1.35 tril yen). Construction and related industries are therefore expected to benefit more than households. The remaining 800 billion yen in stimulus measures will not be spent all at once, immediately after the tax hike, nor will the stimulus last forever. The effects of the increase in consumption tax are expected to appear gradually between the second half of FY2019 into FY2020.

***Assumption: Investment in labor-saving devices will facilitate growth.***

The fact that at least a certain amount of influence from the increase in consumption tax will remain is an unavoidable reality, and in an economic environment such as this, the continued expansion of household and corporate income is a basic assumption required in order to uphold a virtuous circle based on domestic demand. It goes without saying that this is ultimately dependent for the most part on overseas demand. However, there is another factor unique to Japan, and that is the labor shortage, whose influence is bringing increasing concern, a fact that is already well-known.

First, considering factors influencing household income, there is the shortage of labor, which brings the negative element of a decline in the number of workers, but at the same time the tight labor market brings a positive element in that hourly wages improve. At this particular moment in time, the latter factor is encouraging the non-labor population to join in labor force participation. In this sense the former also acts as a positive factor. However, as has been indicated in our past reports, the labor market will soon reach its saturation point<sup>3</sup>. At this time we can take advantage of the best of both worlds, but there is a time limit here.

Of course, one could also write up a scenario in which household income continues its expansion for the long-term assuming growth in hourly wages continues as a result of improvements in productivity using the labor shortage as an opportunity. This is why many are hoping for an expansion of investments in labor-saving methods. However, there are two misunderstandings here. First of all, marginal productivity in a cost comparison demonstrates that the cost of labor is higher than the cost of capital in all industries<sup>4</sup>. (This can be confirmed by using the JIP database to calculate capital costs, labor costs, marginal productivity of capital, and marginal productivity of labor.)

In the past, the most practical decision for corporations was to increase labor input, but due to the limitations of the labor shortage, the reality is that corporations are forced to engage in inefficient capital expenditure. Not surprisingly, productivity fails to improve, or in some cases even declines.

The economic scenario according to which investment in labor saving encourages economic growth has low probability of ever actually occurring, not only from the long-term point of view which is based on productivity, but in the short-term as well. As is shown in Chart 4, the balance of machinery orders has now reached an unprecedented level. A bottleneck is occurring on the supply side due to the shortage of engineers, and supply is unable to keep up with the demand. Coinciding with this phenomenon is that while exports are stagnant, imports are maintaining a steady undertone. The result is that overseas demand is now bringing a negative contribution to Japan's economic growth. This is the current reality of Japan's economy. It is also a fact that looking at the content of imports, we find that on a product basis, imports of machinery especially stand out.

Behind the supply ceiling as represented by machinery imports is the shortage of labor as shown in Chart 5. The more investment in labor saving in order to deal with the labor shortage progresses, the more demand for machinery, which cannot be met by domestic production, begins to rely on imports.

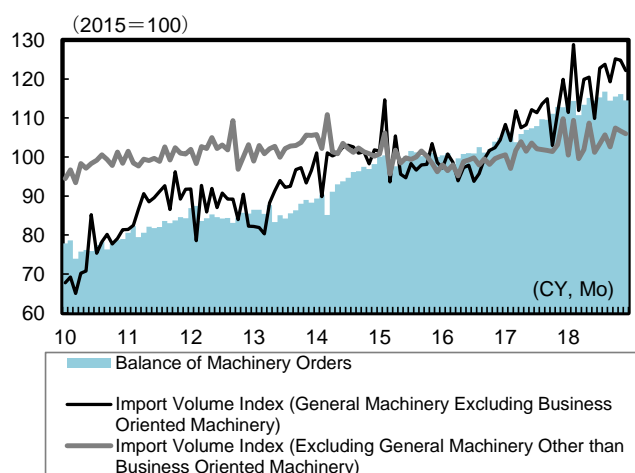
<sup>3</sup> For details see the DIR Report dated 27 July 2018, *Outlook for the Labor Market: The Big Picture: Has the Phillips curve lost its validity?*, by Shunsuke Kobayashi & Yota Hirono.

<sup>4</sup> DIR Report dated 24 July 2017, *Japanese Economy: Monthly Outlook (Jul 2017): Benefits and consequences of manpower shortage. The inconvenient truth of capex*, by Shunsuke Kobayashi.

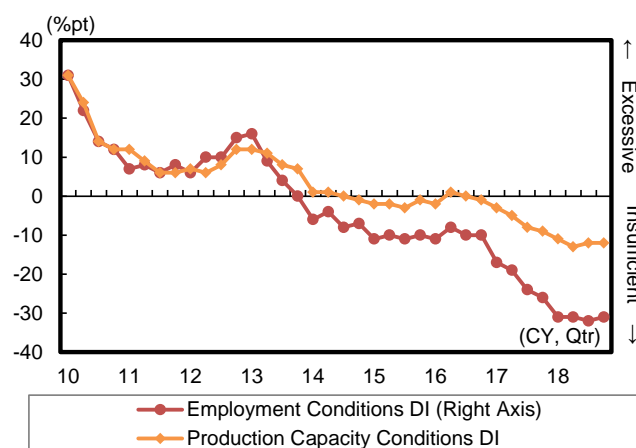
The consequences are that as long as the labor input bottleneck is not resolved, Japan’s economic growth rate will be unable to pass beyond a certain threshold. This is more and more becoming a fundamental structural factor of Japan’s economy.

In the end, the labor shortage is unwelcome, and expecting this scenario to provide leverage to accelerate Japan’s overall economic growth is nothing but an illusion. It would not be an overstatement to say that resolving this problem is the biggest challenge for the Japanese economy. However, the current direction of government policy is not necessarily helping to resolve it, as can be seen in the new overtime regulations with penalties adopted as of April 2019<sup>5</sup>.

**Imports of General Machinery and Balance of Machinery Orders**  
Chart 4



**Signs of Excess or Deficiency in Labor, Equipment & Facilities (Machinery)**  
Chart 5



Source: Ministry of Finance, Cabinet Office; compiled by DIR  
Notes: 1) Balance of machinery orders shown by type of machinery. Excluding rolling stock, road vehicles, aircraft, and ships.  
2) Seasonally adjusted figures for import volume index provided by DIR.

Source: Bank of Japan; compiled by DIR  
Note: Total values of full scale of general purpose, production, and business oriented machinery are used.

<sup>5</sup> Details on this question included in the report listed in Note 3.

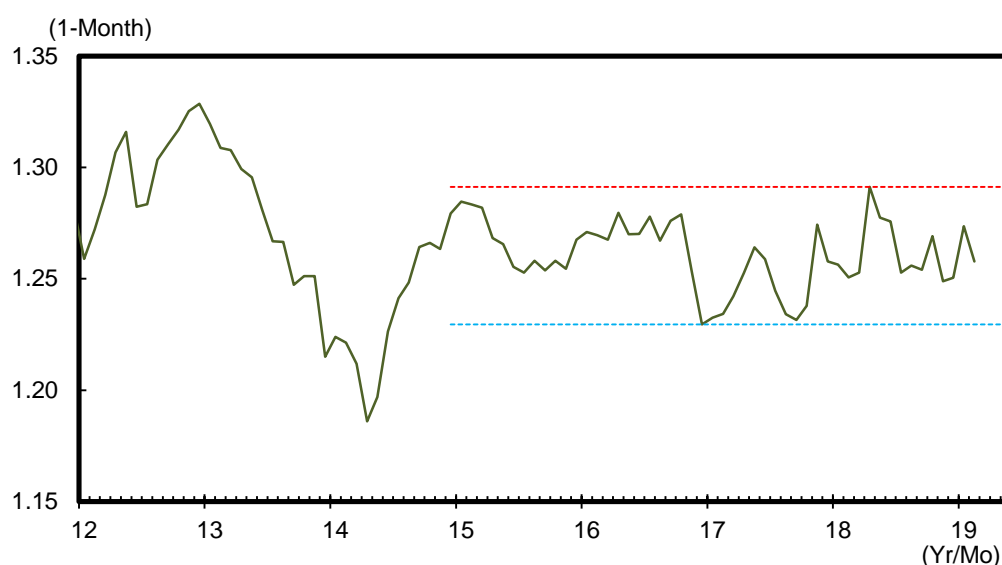
**Assumption: The adjustment phase of the inventory cycle is nearing its end**

Lastly we move to arguments based on business environment. The DIR monthly reports have commented on this situation regularly in recent years, stating that both the Japanese and the global inventory cycles were in an accumulation phase in 2017, and in 2018 have been in an adjustment phase<sup>6</sup>. Now the opinion that as far as we can see based on the inventory cycle, production may move toward recovery early in 2019, is more and more catching hold. However, here too there is just one little problem tripping people up. Diagrams of the inventory cycle are normally based on figures showing change in comparison to the previous year. Therefore, if a whole year passes after the level of inventory has been raised to a major new level, even though the level of inventory itself remains high, the growth rate actually declines. The current inventory cycle diagram as it now appears may very well have the same problem.

An estimate of the inventory level is shown in Chart 6. According to this chart, the inventory level peaked sometime between the second half of 2015 and around the fall of 2016 (the bottom of the business cycle). Then after that, the inventory cycle hit bottom in 2017 (when the business cycle was at its peak). Then again in 2018 and beyond, the inventory cycle clearly goes into an adjustment phase. To what extent has inventory adjustment been completed within the current cycle? The most appropriate answer is that most likely it is about halfway through the adjustment phase. The current inventory level is exactly at midpoint between its most recent peak and the bottom of the cycle.

**Manufacturing Industry Minimum Stock Months**

**Chart 6**



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

Notes: 1) Minimum stock months = real inventory value (month-end balance) / real shipment value (monthly amount, 12-month backward moving average).

2) Real inventory value and real shipment value were calculated by extending figures in METI industrial statistics (2015) using the Indices of Industrial Production.

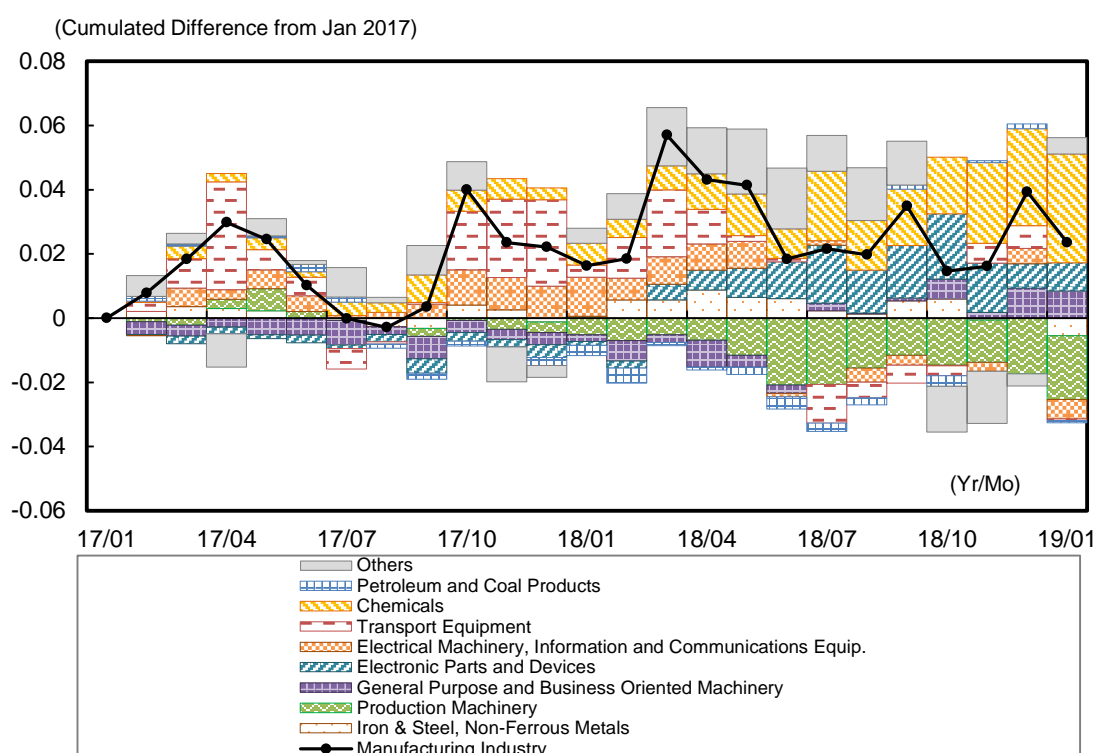
<sup>6</sup> DIR Report dated 20 December 2017, *Japanese Economy: Monthly Outlook (Dec 2017): Lead role in growth shifts from overseas demand to domestic demand and from volume to quality*, by Shunsuke Kobayashi.

Chart 7 shows the inventory trend by industry. The one area where inventory accumulation is clearly taking place is chemical products as represented by cosmetics. Possibilities are high that inventory adjustment will become intense for this industry in the near future. Inventory levels were rising for electronic parts and devices by the middle of 2018, but by late in the year and into the current year it appears that adjustment has progressed. On the other hand, it appears that adjustment to handle excess inventory may be pretty much complete for transport equipment, electrical machinery, and information communications, which were already reaching high levels of inventory by the first half of 2018..

Of course, the inventory cycle isn't everything. When all is said, in the future, production activities will be influenced mostly by shipments (demand). For Japan, this means that overseas demand (exports) hold the key. And this means exports to China, which have recently been in free fall with no one knowing when it will all stop. It may be then that the opinion that as far as we can see based on the inventory cycle, production may move toward recovery early in 2019, doesn't hold much water.

Minimum Stock Months Breakdown by Industry

Chart 7



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

Notes: 1) Minimum stock months = real inventory value (month-end balance) / real shipment value (monthly amount, 12-month backward moving average).

2) Real inventory value and real shipment value were calculated by extending figures in METI industrial statistics (2015) using the Indices of Industrial Production.



## 2. Outlook revised in light of 2<sup>nd</sup> preliminary Oct-Dec 2018 GDP release (+0.7% in FY19 and +0.6% in FY2020)

In light of the 2<sup>nd</sup> preliminary Oct-Dec 2018 GDP release we have revised our economic growth outlook. We now forecast real GDP growth of +0.6% in comparison with the previous year for FY18, +0.7% in comparison with the previous year for FY19, and +0.6% in comparison with the previous year for FY20. Japan's economy is expected to continue a low growth pattern falling just below the potential growth rate due to factors such as inventory adjustment and slow overseas demand.

With overseas demand remaining in the doldrums, domestic demand will become relatively important in comparison, but there are both positive and negative factors effecting domestic demand at this time. One of the positive factors is the collapse in the price of crude oil. Meanwhile the major negative factor is the planned increase in consumption tax in October 2019. However, the latter will be mitigated somewhat with a planned increase in government expenditures exceeding the amount of increase in the consumption tax itself. Domestic demand is expected to continue steady growth until the end of FY2019. But the positive factor of domestic demand is expected to gradually disappear as we enter FY2020. We expect Japan's economy to continue marking time for some time to come.

### *Oct-Dec 2018 period results revised upwards due to inventory factor. Performance rebounds in comparison to Jul-Sep period which suffered decline due to natural disasters*

The real GDP growth rate for Oct-Dec 2018 (2<sup>nd</sup> preliminary est) was revised upwards by a small amount to +1.9% q/q annualized (+0.5% q/q) in comparison to the 1<sup>st</sup> preliminary results (+1.4% q/q annualized +0.3% q/q). Performance was also somewhat above market consensus at +1.7% q/q annualized (+0.4% q/q).

However, the major factor behind the upward revision was the results of Financial Statements Statistics of Corporations by Industry, which brought an upward revision to private sector inventory (previous period's contribution of -0.2%pt q/q revised upwards to +0.0%pt). It would be hard to call this an improvement in actual economic conditions. Private sector capital expenditure was also revised upwards somewhat from +2.4% in the 1<sup>st</sup> preliminary results to +2.7%. However, private sector final consumption expenditure was revised downwards (from +0.6% to +0.4%) reflecting recent results of fundamental statistics.

2018 Oct-Dec GDP (2<sup>nd</sup> Preliminary Estimate)

Chart 8

		2017	2018				Oct-Dec	
		Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	First	Second	
Real GDP	Q/q %	0.4	-0.1	0.5	-0.6	0.3	0.5	
	Annualized	1.6	-0.4	1.9	-2.4	1.4	1.9	
Personal consumption	Q/q %	0.5	-0.2	0.6	-0.2	0.6	0.4	
Private housing investment	Q/q %	-3.2	-2.0	-2.0	0.6	1.1	1.1	
Private capital expenditure	Q/q %	0.7	1.0	2.5	-2.6	2.4	2.7	
Change in private inventories (contribution to real GDP growth)	Q/q % pts	0.1	-0.1	-0.1	0.1	-0.2	0.0	
Government consumption	Q/q %	0.0	0.2	0.1	0.2	0.8	0.7	
Public investment	Q/q %	-0.1	-0.7	-0.7	-2.3	-1.2	-1.7	
Exports of goods and services	Q/q %	2.2	0.4	0.4	-1.4	0.9	1.0	
Imports of goods and services	Q/q %	2.3	0.0	1.3	-0.7	2.7	2.7	
Domestic demand (contribution to real GDP growth)	Q/q % pts	0.4	-0.2	0.6	-0.5	0.6	0.8	
Foreign demand (contribution to real GDP growth)	Q/q % pts	0.0	0.1	-0.1	-0.1	-0.3	-0.3	
Nominal GDP	Q/q %	0.2	-0.3	0.4	-0.5	0.3	0.4	
	Annualized	0.9	-1.2	1.6	-2.1	1.1	1.6	
GDP deflator	Q/q %	-0.2	-0.2	-0.1	0.1	-0.1	-0.1	
	Y/y %	0.1	0.5	-0.1	-0.4	-0.3	-0.3	

Source: Cabinet Office; compiled by DIR.

Notes: 1) Due to rounding, contributions do not necessarily conform to calculations based on figures shown.

2) Q/q figures seasonally adjusted basis.

The shift of the Oct-Dec period's growth rate to the plus side was highly influenced by the rebound from the weakness of the Jul-Sep period results which were influenced by natural disasters. The overall tone is actually weak once we remove these temporary factors. Japan's real GDP has remained mostly in the range of marking time since the Oct-Dec period of 2017. Moreover, the recently announced results of January exports and production (shipments) reveals an across-the-board decline. It is highly likely that Japan's economy will continue at a slow pace for some time to come.

The main factor behind the upward revision was fluctuation in private sector inventory. Looking at the details by component we see material & supplies inventory, which is provisional on the 1<sup>st</sup> preliminary GDP estimate, contributed to growth on a q/q basis, moving from -0.0%pt to +0.0%pt. Meanwhile, work in progress inventory was revised upwards from -0.1%pt to +0.0. Finished goods were revised upwards from -0.2%pt to -0.1%pt reflecting fundamental statistics, and distribution inventory remained unchanged at +0.1%pt.

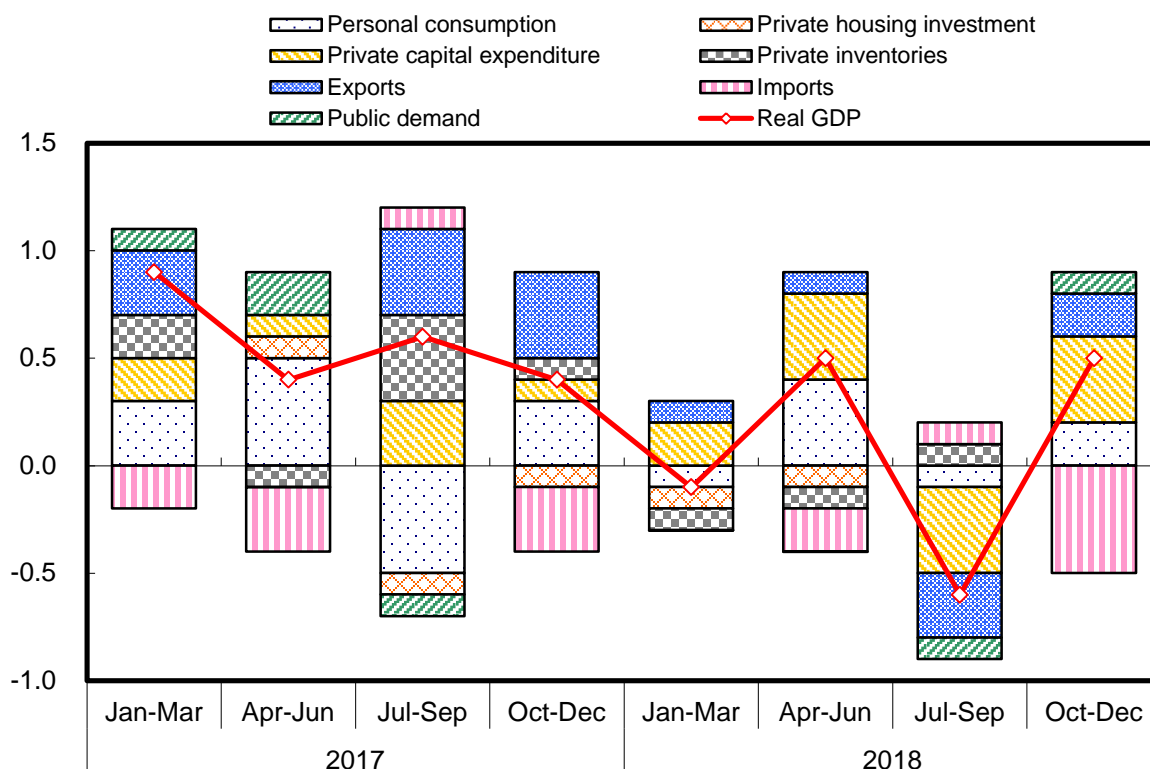
As for private sector capital expenditure, when we look at changes in gross fixed capital formation by classification, we see that components which suffered major declines during the Jul-Sep 2018 period due to natural disasters experienced a rebound, including transport equipment (+6.9% q/q) and other machinery & equipment (+7.4%), which were especially notable.

### *Negatives in overseas demand offset some contributions from growth based on domestic demand*

Looking at results by demand component, we see that positive domestic demand (+0.8%pt q/q contribution) was partially offset by negative overseas demand (-0.3%pt q/q contribution). The negative influence of natural disasters has run its course, and prices of fresh foods as well as energy related prices have regained some calm, leading to the rebound in domestic demand.

Contribution to Real GDP (% , % pt; seasonally adjusted basis)

Chart 9



Source: Cabinet Office; compiled by DIR.

Private sector final consumption expenditure grew for the first time in two quarters at +0.4% q/q. Real employee compensation also grew for the first time in two quarters at +0.6% with prices having settled down as was previously mentioned. Meanwhile, the trend in consumption by types of goods shows durables up by +3.0%, semi-durables up by +2.2%, non-durables at -1.6%, and services up by +0.9% q/q.

Private sector housing investment grew for the first time in two quarters by +1.1% q/q in comparison with the previous term and continues to accelerate. Housing investment had been in continued a decline ever since demand for building of new rental housing as a means of avoiding inheritance tax slacked off, but it is now experiencing a comeback. It is possible that this recent development is an early manifestation of last minute demand gradually appearing before the new consumption tax goes into effect in October 2019.

Private sector capital expenditure came back into a growth trend for the first time in two quarters at +2.7% q/q in comparison with the previous term. As was mentioned previously, there is a strong sense that this growth is largely a recovery from the major downtrend suffered during the Jul-Sep period due to natural disasters. As was previously mentioned, change in private sector inventory was also revised upwards, with its contribution to GDP now at +0.0%pt in comparison with the previous term.

Public fixed capital formation declined by -1.7% q/q in comparison with the previous term, its sixth consecutive quarter of decline. Public investment has continued to mark time ever since the Jul-Sep period of 2017. There were hopes for some upward pressure during the Oct-Dec period of 2017 due to implementation of the supplementary budget, but the FY2017 supplementary budget was not as substantial as the FY2016 supplementary budget, and it was unable to put a stop to the overall decline. (Comparing public works projects, FY2016 boasted 1.6 tril yen as compared to FY2017's 1.0 tril yen). Moreover, supply constraints associated with the shortage of labor may also have influenced the situation.

Government final consumption expenditure grew by +0.7% in comparison with the previous term, mainly due to the major expansion of medical fees.

In other developments, exports grew for the first time in two quarters by +1.0% q/q, but ultimately said growth is considered weak, since this is mostly the rebound from the negative influence of natural disasters. Looking at fundamental statistics for the Oct-Dec period of 2018, we see that both goods and services are weak. Real exports of goods according to BOJ statistics are growing for items headed for the US and the EU, but exports of goods to China, the NIEs and ASEAN are declining. Meanwhile, as for the export of services, consumption by foreign tourists visiting Japan declined due to the natural disasters of the Jul-Sep period (travel service exports), and though the area has made somewhat of a comeback, other services have declined, causing overall performance also to decline.

Relatively speaking, imports are showing strength at +2.7% in comparison with the previous period. As a result, contribution of overseas demand to GDP in comparison to the previous period is down for the third consecutive quarter by -0.3% pt.

The GDP deflator suffered a decline for the first time in two quarters at -0.1% in comparison with the previous period, due to growth in domestic prices associated with last year's extremely hot summer having played out their course. As a result, nominal GDP marked up +1.6% annualized in growth in comparison with the previous period (+0.4% q/q).

### *Future of Japan's economy to see continuation of low growth pattern*

Japan's economy is expected to continue a low growth pattern just below its potential growth rate. Future trends in the price of energy hold the key to growth, along with the various tax hike countermeasures accompanying the planned increase in consumption tax.

First of all, personal consumption is expected to continue experiencing ups and downs. The supply and demand of labor grows increasingly tight, and this is expected to be a factor providing underlying support for personal consumption in the form of growth in employee compensation. The collapse in the price of crude oil since November last year has brought recent improvements in real wages. However, possibilities are that corporations may offset growth in wages associated with the labor shortage by flattening the wage curve and reducing overtime. Hence we recommend caution as growth in employee compensation and expansion of the pace of personal consumption could suffer a slowdown. Moreover, there is also the response to the revision of the Labor Contracts Act. Corporations began changing the status of non-regular employees to that of regular employees in 2017. This appears to have improved the income environment, but more recently this trend appears to be gradually falling by the wayside.

In regard to the increase in consumption tax planned for October 2019, the implementation of various economic measures is expected to somewhat ease the effects of last minute demand and reactionary decline. However, one of these measures, the proposed reward points program is slated to end around end June 2020, and the fact has to be considered that this in itself will cause its own version of last minute demand and reactionary decline. Meanwhile, a more fundamental argument that should be kept in mind is that the relative weight of investment in the economic measures is highest in the area of public works projects. The economic measures, due to their content, will not completely offset the negative income effect resulting from the increase in consumption tax. This is something which is very important to keep in mind.

As for housing investment, last minute demand associated with the increase in consumption tax will gradually appear, but then after a short comeback, it is expected to again lapse into decline. Housing investment is expected to gain underlying support from the restart of the housing Eco point program, a reduction of taxes on housing loans, and home benefits, which are expected to help ease the effects of last minute demand and reactionary decline. However, other than these special factors, real housing investment is expected to continue its gradual decline. In addition to the disappearance of the buoying effect from housing investment for the purpose of avoiding inheritance tax, there are now various factors bringing downward pressure on housing investment, including the high prices of homes, and the serious labor shortage in the construction industry.

Private sector capital expenditure is expected to continue moderate growth. Ample free corporate cash flow is providing underlying support for capital expenditure. Meanwhile, there is a very good chance that rationalization and labor saving investment, as well as research & development investment for the purpose of improving profitability, can maintain a long-lived expansion trend. However, as has been mentioned previously, the balance of machinery orders indicates that suppliers of products associated with capital expenditure have hit the ceiling in terms of their supply constraints. Hence it is highly likely that the pace of growth in capital expenditure will be a gradual one.

As for public investment, moderate growth is seen. The factor providing upward pressure is the influence of the FY2018 supplemental budget which is now becoming manifest. In addition, expenses associated with public works in the initial FY2019 budget top the amount in the FY2018 initial budget by 0.9 tril yen. Hence public investment is expected to maintain a high level. However, it is important to remain aware of the supply constraints associated with the shortage of labor.

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Most likely exports will continue to slow down. The global economy is slowing down now that the positive factors of 2017, such as the inventory cycle, have disappeared. Possibilities are great that the slowdown will continue into the future. The US economy, where the effects of tax cuts have become manifest, is favorable, but this effect will also eventually fade away. In addition, as influence from the US-China trade war becomes manifest, this too will become a negative factor for exports. However, the Tokyo Olympics and Paralympics in 2020 are expected to bring an increase in foreign tourists, which means an increase in consumption by foreign tourists. This will likely be a factor in temporarily pushing up the export of services.

## Japan's Economic Outlook No.200 Update

	FY18 (Estimate)	FY19 (Estimate)	FY20 (Estimate)	CY18	CY19 (Estimate)	CY20 (Estimate)
<b>Main economic indicators</b>						
Nominal GDP (y/y %)	0.4	1.5	1.3	0.7	1.2	1.5
Real GDP (chained [2011]; y/y %)	0.6	0.7	0.6	0.8	0.5	0.7
Domestic demand (contribution, % pt)	0.8	0.7	0.5	0.8	0.9	0.5
Foreign demand (contribution, % pt)	-0.3	-0.1	0.0	-0.0	-0.3	0.1
GDP deflator (y/y %)	-0.1	0.9	0.7	-0.1	0.7	0.8
Index of All-industry Activity (y/y %)*	0.7	0.7	0.6	0.8	0.8	0.6
Index of Industrial Production (y/y %)	0.3	0.3	1.0	1.0	-0.3	1.2
Index of Tertiary Industry Activity (y/y %)	1.2	0.9	0.5	1.0	1.4	0.4
Corporate Goods Price Index (y/y %)	2.4	2.4	3.0	2.5	1.9	3.4
Consumer Price Index (excl. fresh food; y/y %)	0.8	0.4	0.5	0.8	0.4	0.6
Unemployment rate (%)	2.4	2.4	2.4	2.4	2.4	2.4
Government bond yield (10 year; %)	0.07	0.07	0.07	0.07	0.07	0.07
Balance of payments						
Trade balance (Y tril)	1.1	2.8	3.0	1.2	2.4	3.2
Current balance (\$100 mil)	1,703	1,832	1,861	1,729	1,786	1,876
Current balance (Y tril)	19.0	20.5	20.9	19.1	20.0	21.0
(% of nominal GDP)	3.5	3.7	3.7	3.5	3.6	3.7
<b>Real GDP components</b>						
<b>(Chained [2011]; y/y %; figures in parentheses: contribution, % pt)</b>						
Private final consumption	0.6 (0.3)	0.4 (0.2)	0.5 (0.3)	0.4 (0.2)	0.6 (0.4)	0.4 (0.2)
Private housing investment	-4.2 (-0.1)	2.0 (0.1)	-1.8 (-0.1)	-5.7 (-0.2)	2.5 (0.1)	-2.0 (-0.1)
Private fixed investment	3.6 (0.6)	1.7 (0.3)	0.8 (0.1)	3.9 (0.6)	2.3 (0.4)	0.9 (0.1)
Government final consumption	0.9 (0.2)	0.8 (0.2)	0.8 (0.2)	0.8 (0.2)	0.8 (0.2)	0.8 (0.2)
Public fixed investment	-3.6 (-0.2)	3.0 (0.1)	0.7 (0.0)	-3.2 (-0.2)	1.6 (0.1)	1.7 (0.1)
Exports of goods and services	1.8 (0.3)	1.3 (0.2)	1.2 (0.2)	3.1 (0.6)	0.8 (0.1)	1.4 (0.3)
Imports of goods and services	3.3 (-0.6)	1.9 (-0.3)	1.0 (-0.2)	3.3 (-0.6)	2.7 (-0.5)	0.7 (-0.1)
<b>Major assumptions:</b>						
<b>1. World economy</b>						
Economic growth of major trading partners	3.7	3.5	3.4	3.9	3.5	3.5
Crude oil price (WTI futures; \$/bbl)	63.2	55.0	55.0	64.9	55.3	55.0
<b>2. US economy</b>						
US real GDP (chained [2012]; y/y %)	3.0	2.4	1.8	2.9	2.6	1.9
US Consumer Price Index (y/y %)	2.3	2.1	2.4	2.4	1.9	2.5
<b>3. Japanese economy</b>						
Nominal public fixed investment (y/y %)	-1.9	4.4	1.3	-1.6	3.2	2.5
Exchange rate (Y/\$)	111.3	111.9	111.9	110.4	111.9	111.9
(Y/€)	128.8	127.3	127.3	130.0	127.3	127.3

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.