

Economics Research

8 January 2020

Japan Economic Focus

Japan economic forecasts for 2020 – Multiplier effects of fiscal expansion

- We expect the Japanese economy to grow in line with potential in 2020. Factoring in the economic package (fiscal expenditure) compiled at the end of 2019, we have revised our real GDP growth forecasts to +0.7% from +0.4% for 2020 (2019 estimate: +1.0%) and to +1.1% from +0.8% for 2021. On a fiscal year basis, we now forecast growth of +0.9% for FY20 (FY19 forecast: +1.0%) and +0.9% for FY21.
- However, we still expect core CPI inflation (excluding perishables) to lack momentum against a backdrop of deflation inertia in the corporate and household sectors. We have only retained our projection of +0.6% for 2020 (2019 estimate: +0.6%) and revised slightly to +0.6% from +0.5% for 2021.
- Key factors in gauging the economic trend will be: 1) in the short term (3-6 months), the production/inventory cycle (the impact of the export slump; correlations with the world semiconductor cycle; inventory adjustments post the consumption tax hike); 2) in the medium term (around 12 months), the boost to the economy from fiscal expansion (scale/timing of fiscal expenditure; multiplier effects); and 3) in the long term (longer than one year), the sustainability of the capex cycle (especially rationalization/laborsaving investments to cope with the worker shortage, ie, capital deepening).
- We see the following risk factors/uncertainties to this outlook for the economy and prices. First is the potential for a greater-than-expected tightening of financial conditions due to JPY appreciation/equity weakness stemming from enhanced geopolitical risk including recent turmoil in the Middle East. While this might ordinary be addressed through monetary policy, we believe the BoJ lacks flexibility with limited scope for further easing amid the mounting side-effects of its negative interest rate policy (NIRP; we expect the current policies to remain intact through our forecasting horizon to end-FY21).
- Second is the secular slump in consumption since the October consumption tax hike. Real
 household income has remained sluggish (with "work-style reforms" pushing down on
 employee income via shorter work hours) and consumer sentiment continues to deteriorate.
 With inbound consumption (factored into exports in the GDP statistics) expected to lose
 momentum temporarily on a slowdown in tourism after the Tokyo Olympics (August 2020),
 retail/service activity could remain sluggish for longer than expected.
- Third is the political situation, including the above-mentioned trend in the economy after the Tokyo Olympics. Our baseline assumption is that current administration remains intact for the duration of PM Abe's term as LDP president, with a new administration formed after the next LDP presidential election in September 2021. However, the trend in the economy and equity prices could influence the prospects of a lower house dissolution/general election after the Tokyo Olympics as well as the outcome of any such election.
- Japanese equities might be expected to strengthen their correlation with other
 major equity markets amid an offsetting relationship between the earnings cycle
 (peaking out) and valuations (under-valuation, especially of bank stocks). In terms
 of supply and demand, Japanese equity investment by overseas investors, which
 remains sluggish, and the ETF buying by the BoJ (qualitative easing), which makes
 up for this, will likely continue to play a key role.

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Japan economic forecasts for 2020: Slumping overseas demand vs. boost from fiscal expansion We expect the Japanese economy to remain in a "stationary state" in 2020 with growth trending around potential (+0.5~+0.8%). Although the economy and prices will continue to face downside risks, especially from overseas demand, we expect support from the economic package compiled at the end of 2019 (FY19 supplementary budget combined with FY20 initial budget for an overall package worth JPY26.0trn; "real water" contributing directly to GDP growth totals JPY9.4trn, or 1.7% of GDP). That said, we caution that the economic package, despite a supplementary budget of JPY4.4trn (0.8% of GDP), exceeding the size of past budgets (average since PM Abe's return to office: JPY3.6trn), will likely be deployed over a period of several years through the utilization of funds, raising uncertainty around any contribution to growth (boost to growth including multiplier effects) in 2020 (see Figures 1-3).

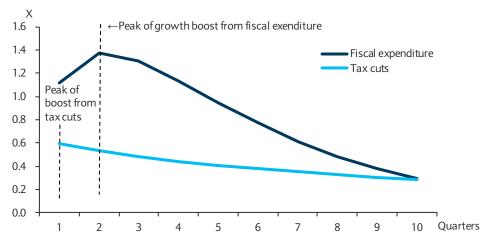
FIGURE 1

Overseas demand still a downside risk/some signs of slowing in hitherto firm exports to US

Trend in export volumes (by region)



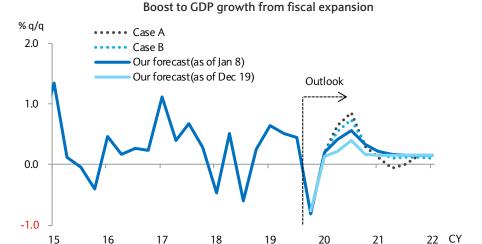
FIGURE 2
Multiplier effects of fiscal expenditure rapidly decline after several quarters, but...
Multiplier effects of fiscal expenditure



Note: Estimates through structural VAR model using three variables (tax revenues, public demand, GDP growth rate) based on Blanchard/Perotti (2002); data period: Q1 00~Q4 18.

Source: Barclays Research

FIGURE 3
Effects of economic package to be spread over several years; contribution to growth highly uncertain



Note: Case A assumes fiscal expenditure included in the economic package, especially the FY19 supplementary budget, is concentrated in H1 FY20. Case B assumes the expenditure is spread out from FY20 to H1 FY21.

Source: Barclays Research

Our GDP growth and CPI inflation forecasts revised to factor in effects of economic package

Factoring in the effects of fiscal expenditure under the FY19 supplementary budget and FY20 initial budget¹ adopted by the Cabinet on 13 December and 20 December, respectively, we have revised our GDP growth and CPI inflation forecasts. For GDP, we revised our growth forecasts to +0.7% from +0.4% for 2020 (2019 estimate: +1.0%) and to +1.1% from +0.8% for 2021, looking for growth around the upside of the estimated range for potential growth. On a fiscal year basis, we now forecast growth of +0.9% for FY20 (FY19 forecast: +1.0%) and +0.9% for FY21². However, we still expect core CPI inflation (excluding perishables) to lack momentum against a backdrop of deflation inertia in the corporate and household sectors. We have retained our projection of +0.6% for 2020 (2019 estimate: +0.6%) and revised slightly to +0.6% from +0.5% for 2021³. Even in the longer term, we see inflation trending around just 1%, sharply below the BoJ's price stability target of +2% (see Figures 4-5 below and Figure 13 for our full table of forecasts for the Japanese economy).

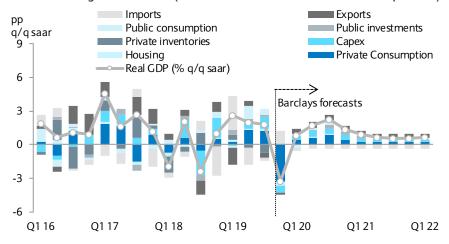
¹ The government estimates a boost of c.1.4% to real GDP from the aforementioned economic package. However, this estimation may appear overly optimistic on the surface as it presumes an economy without the supplementary budget (c. JPY3-4trn) which has become a norm in recent years.

² Assuming GDP contracted temporarily in Q4 due to the consumption tax hike in October 2019, our forecasts reflect base effects of -0.2pp for 2020 and +0.6pp for 2021.

³ For our CPI outlook, we assume flat WTI (USD59.8; Dec 2019 average) and USDJPY (JPY108.9; Nov 2019 average). We estimate a 0.15%pt rise in CPI for every 10% increase in oil price.

 $\label{eq:figure 4} \mbox{Overseas demand to bottom, while fiscal expenditure effects materialize}$

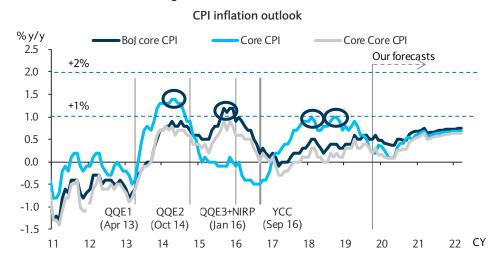
Our GDP growth outlook (contributions of individual demand components)



Source: Cabinet Office, Barclays Research

FIGURE 5

CPI inflation to continue lacking momentum



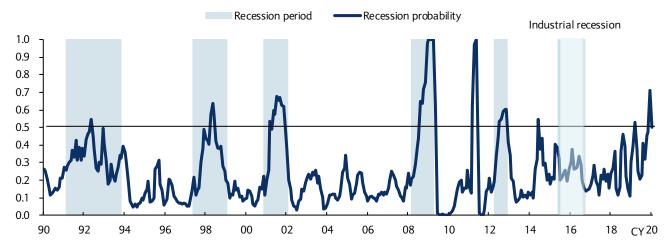
Note: Excludes effects of consumption tax hike and free education policy. Source: MIC, Barclays Research

Short-term economic focal point – production/inventory cycle

In the short term (3-6 months), one key focal point in gauging the outlook for the economy and prices will be the production/inventory cycle. The production/inventory cycle appears increasingly sluggish due to a combination of factors, including weak exports, especially to Europe and China, but also repercussions from the global semiconductor cycle (inventory adjustments, including payback from over-investment) and payback from the inventory build-up to cope with the frontloading of demand prior to the consumption tax hike. The probability of recession estimated on the basis of the production trend and long-short interest rate spreads, which serve as strong leading indicators of the economy, reached 71% in December (based on the METI forecast index of production for that month) – the highest level since May 2019 (53%; see Figure 6).

FIGURE 6
Probability of recession has surged based on the production/inventory cycle, but...

Trend in probability of recession

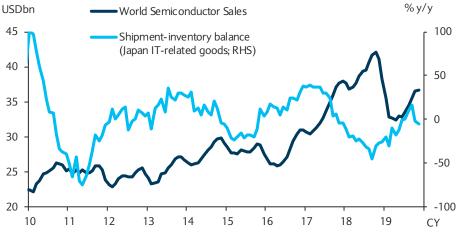


Note: Estimates based on a Probit model with business cycle reference dates (recession = 1; expansion = 0) as the explained variable and industrial production (3mma compared with previous three months) and long-short interest rate spread (10y JGB yields – 3m euroyen TIBOR) as the explanatory variables. The industrial recession (China shock from June 2015-September 2016) is treated as an economic expansion since the Cabinet Office did not judge it to be an economic recession. Source: Cabinet Office, METI, Bloomberg, Barclays Research

Semiconductor cycle in a recovery trend

However, observed increase in recession probability largely reflects the special factors discussed above, which should prove temporary. We believe the probability is likely to return to sub-50% levels again from Q2 as the global economy follows a trend of cyclical recovery and correlations with that economy are restored. In terms of the semiconductor cycle, we believe the worst is over for production/inventory adjustments at the global level, including Japan, as evident from world semiconductor sales, which surged from 2016, then entered an accelerated adjustment from 2018, but are now heading toward a recovery driven by 5G-related demand (the shipment-inventory balance for IT goods in Japan, which leads the world semiconductor cycle, is also improving; see Figure 7).

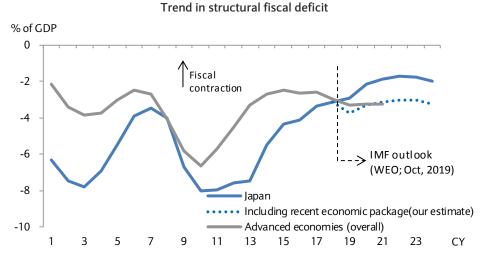
FIGURE 7
Semiconductor cycle following a recovery trend
World semiconductor sales vs. shipment-inventory balance for IT goods (Japan)



Source: METI, Haver, Barclays Research

Medium-term economic focal point – Multiplier effects of fiscal expansion In the medium term (around 12 months), one focus will be the boost to growth and inflation from the above-mentioned fiscal expansion. Initially, Japan's fiscal policy stance from H2 FY19 to FY20 was expected to be sharply contractionary due to the consumption tax hike (a contractionary effect of JPY5.7trn, or 1.0% of GDP, in our estimates; accelerating the trend of contraction in the structural fiscal deficit). However, this stance turned roughly neutral with the introduction of various mitigating measures such as the free education policy (expanding fiscal policy by around JPY6trn, or 1.1% of GDP). Now, the increase in fiscal expenditure under the latest economic package has suddenly made Japan's fiscal policy stance expansionary (expanding the structural fiscal deficit). As discussed below, monetary easing has reached a critical stage, increasing the urgency of expansionary fiscal policy, especially in Europe, but the above transition in Japanese fiscal policy could put Japan at the forefront of revisions to policy management among major economies (see Figure 8).

FIGURE 8
Fiscal policy to turn expansionary despite consumption tax hike



Note: We estimate that the large-scale economic package will lead to deterioration in the fiscal balance equivalent to the FY19 supplementary budget (JPY4.3trn) and halve the pace of fiscal consolidation in FY20-22 (the IMF had projected a JPY6.3trn improvement in the primary balance over these three years).

Source: IMF, Barclays Research

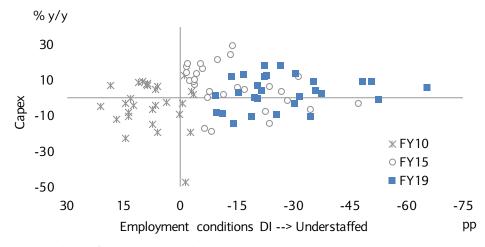
Fiscal put

Long-term economic focus — Capex cycle driven by capital deepening As it is difficult to gauge the multiplier effects of fiscal expenditure under the economic package due in part to the possibility of deployment over several years, we have averaged out those effects in revising our forecasts for FY20-21. Moreover, fiscal expenditure through funds looks something like a fiscal-policy version of the BoJ put, where expenditure may increase "as needed" when there are concerns about a loss of economic momentum. As a result, any boost to growth from fiscal expenditure may be spread out over several quarters rather than being concentrated in the first half of the fiscal year, as is usually the case.

The longer-term (beyond one year) focal point for the economy will be the increasingly sustainable capex cycle. Although capex growth appears likely to slow in 2020 from the viewpoint of the corporate earnings cycle, the portion driven by capital deepening (substituting capital for labor/boosting labor productivity) to cope with the worker shortage in the labor-intensive non-manufacturing sector has strengthened its momentum. Indeed, the BoJ Tankan shows an increasing correlation between the employment conditions DI (excess – shortage) and capex plans, especially in the services sector, where the worker shortage is acute. As the construction capex cycle related to the Tokyo Olympics slows into

2020, we expect the sustainability of the overall capex cycle to depend increasingly on capital deepening (see Figure 9).

FIGURE 9
Capex demand driven by capital deepening increases as worker shortage intensifies
Employment conditions DI vs. capex plans (industry distribution)

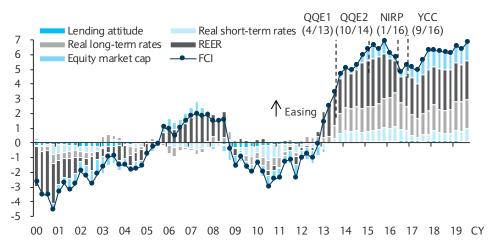


Note: FY19 plans as of the December BoJ Tankan survey. Source: BoJ, Barclays Research

Uncertainty 1 – Tightening financial conditions; monetary easing at a critical point

We see the following uncertainties around the economy and prices. First is the risk that currently accommodative financial conditions tighten (JPY appreciates/equities sell off) unexpectedly due to risk-off moves triggered by deteriorating conditions in the Middle East. While monetary policy might ordinarily be utilized to address such a scenario, the scope for further easing has diminished with the sharply deteriorating cost-benefit trade-off of NIRP deepening (policy rates appear to have approached the "reversal rate" where further easing does more damage than good). The tightening of financial conditions at a time when monetary easing is nearing a critical point could lead to a refuelling of deflationary pressures, including negative wealth effects. Meanwhile, the side-effects of NIRP (eg, deteriorating profitability of financial institutions) are expected to deepen as that policy continues for longer into 2020. However, measures to mitigate those side effects (eg, marginal normalization of NIRP; revisions to yield curve controls (YCC) such as a shortening of the targeted sector from the current 10y to the 5y sector) could all spur a further tightening of financial conditions by giving the impression of monetary policy "normalization" (see Figure 10).

FIGURE 10 Financial conditions have remained accommodative, but... Trend in financial conditions index (FCI)



Note: ● indicates the FCI level in the event of declines to 18,000 in the Nikkei and 100 in the USDJPY; ▲ indicates the FCI with declines to 13000 and 75, respectively. Weights of each variable are standardized so that a one-unit drop (rise) in the FCI brings a 1% drop (rise) in real GDP one year later.

Source: MHLW, MIC, Cabinet Office, Bloomberg, Barclays Research

Uncertainty 2 – Prolonged slump in private consumption

Perhaps the biggest uncertainty around the economy is the trend in private consumption in the wake of the consumption tax hike. Real household income remains sluggish amid weak growth in nominal wages ("work-style reforms" have also spurred short-term deterioration in the income environment by reducing overtime work hours). Also, there is a risk that the slump in consumption following the consumption tax hike, hitherto viewed as transitory, could persist for longer than expected with the trend of deterioration in consumer sentiment. Such a slump in consumption could become more vivid as inbound consumption (factored into exports in GDP statistics) driven by tourism temporarily drops off following the Tokyo Olympics.

Uncertainty 3 - Political conditions

In terms of the political situation, one major premise of our forecasts for the economy/prices and policy is the durability of the Abe administration, which has already served for longer than any other administration in the post-WWII era. Our baseline assumption factoring in Abe's goal to amend the constitution is that the current administration remains intact for the duration of his term as LDP president, with a new administration formed after the next LDP presidential election in September 2021. However, the trend in the economy and markets (equity prices) after the Tokyo Olympics could influence the prospects of a lower house dissolution/general election as well as the outcome of any such election. In this sense, the political situation could warrant attention, especially in the second half of the year.

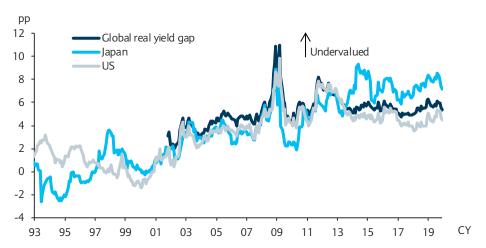
Japanese equities: Earnings cycle vs. equity valuations

Japanese equities could strengthen their correlation with other major equity markets amid an offsetting relationship between the earnings cycle (elevated but apparently peaking out) and valuations (under-valuation). The earnings cycle has shifted from a phase of "higher profits on higher sales" driven by the gearing effect of top-line growth and lower breakeven points due to cost-cutting to a phase of "higher profits on lower sales" or "lower profits on lower sales," making it difficult to expect earnings to spur a rise in Japanese share prices. Meanwhile, valuation metrics suggest Japanese equities are undervalued (especially bank stocks), which could lend some support to the share prices. In terms of supply and demand, overseas investors have been sharply underweight Japanese equities, while the BoJ has filled

the gap through ETF purchases, especially since 2015 (qualitative easing buying guideline: JPY6trn/year; JPY4.7trn purchased in 2019) and we expect these two to continue to play a key role (see Figures 11-12).

FIGURE 11 Japanese equities remain undervalued

Trend in yield spread (international comparison)



Note: Yield spread calculated by subtracting real interest rates (10y yields – BEI) from earnings yield. Source: Bloomberg, Barclays Research

FIGURE 12 BoJ's qualitative easing makes up for sluggish Japanese equity investment by overseas investors



Goldilocks to return?

The markets enjoyed a Goldilocks scenario in 2019 as major economies including Japan sustained growth in line with potential along with low and stable inflation while ultra-accommodative monetary policy including NIRP led to a sustained rise in risk assets, especially equities. We believe economic and market conditions will likely remain similar in 2020, but caution that risk premiums could rise with mounting uncertainty around the economic cycle.

FIGURE 13
Our economic forecasts (as of 8 January 2020)

	2019		2020				2021 20			2021	FY			CY							
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q1	Q1	Q1	Q1	2018	2019	2020	2021	2018	2019	2020	2021
				F	F	F	F	F	F	F	F	F	F		F	F	F		F	F	F
% q/q saar																					
Real GDP	2.6	2.0	1.8	-3.2	0.8	1.7	2.3	1.3	0.9	0.7	0.6	0.6	0.6								
% q/q																					
Real GDP	0.6	0.5	0.4	-0.8	0.2	0.4	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.3	1.0	0.9	0.9	0.4	1.0	0.7	1.1
Domestic demand*	(0.3)	(8.0)	(0.6)	(-1.0)	(0.2)	(0.4)	(0.5)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.4)	(1.2)	(0.8)	(0.9)	(0.4)	(1.2)	(0.6)	(1.1)
Private consumption	0.2	0.6	0.5	-1.5	0.2	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.2	0.5	-0.0	0.6	-0.1	0.7
Housing	1.1	0.5	1.6	-2.7	-2.0	1.2	8.0	0.2	0.2	0.2	0.2	0.2	0.2	-4.9	1.3	-0.6	0.9	-6.7	2.1	-1.8	1.3
Capex	-0.2	0.9	1.8	-1.0	0.5	0.7	0.7	0.6	0.5	0.3	0.3	0.3	0.3	1.7	2.3	2.0	1.6	2.1	2.1	1.9	2.0
Private inventories*	(0.1)	(-0.1)	(-0.2)	(0.0)	(0.0)	(0.0)	(-0.0)	(0.0)	(0.0)	(-0.0)	(0.0)	(0.0)	(-0.0)	(0.0)	(0.6)	(-0.2)	(0.0)	(-0.0)	(0.1)	(0.4)	(0.0)
Public consumption	-0.3	1.6	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.9	2.4	1.0	0.8	0.9	1.9	1.4	0.9
Public investments	2.0	1.6	0.9	0.2	0.3	0.6	1.8	1.4	1.0	0.3	0.1	0.1	0.1	0.6	3.3	3.6	2.2	0.3	2.7	3.1	3.4
Net exports*	(0.4)	(-0.3)	(-0.2)	(0.2)	(0.0)	(0.0)	(0.1)	(-0.0)	(-0.0)	(-0.0)	(-0.0)	(-0.0)	(-0.0)	(-0.1)	(-0.5)	(0.2)	(0.0)	(0.0)	(-0.3)	(-0.0)	(0.0)
Exports	-2.1	0.5	-0.6	-0.3	0.6	0.8	1.0	0.5	0.5	0.5	0.5	0.5	0.5	1.6	-1.4	2.1	2.1	3.4	-1.9	1.4	2.3
Imports	-4.1	2.1	0.3	-1.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	2.2	0.1	1.0	2.0	3.4	-0.5	0.9	2.0
Nominal GDP	1.0	0.4	0.7	0.0	0.3	0.4	0.7	0.4	0.4	0.2	0.2	0.2	0.2	0.2	1.9	1.6	1.2	0.3	1.6	1.6	1.5
GDP deflator	0.4	-0.1	0.3	0.8	0.1	-0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.1	-0.1	0.9	0.7	0.4	-0.0	0.6	0.9	0.4
% y/y																					
Real GDP	0.8	0.9	1.7	0.8	0.4	0.4	0.6	1.6	1.4	1.4	1.1	0.8	0.4								
GDP deflator	0.1	0.4	0.6	1.5	1.1	1.2	1.0	0.2	0.3	0.4	0.4	0.4	0.3								
Other indicators																					
Core CPI (y/y)	0.8	0.8	0.5	0.6	0.6	0.5	0.8	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.7	0.6	0.6	0.9	0.6	0.6	0.6
BoJ core CPI(y/y)	0.4	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.3	0.6	0.6	0.7	0.4	0.6	0.6	0.7
Industrial production (q/q)	-2.5	0.7	1.2	-3.0	0.4	0.6	0.8	0.4	0.4	0.3	0.3	0.3	0.3	0.2	-2.9	0.1	1.6	1.1	-2.8	-0.9	0.8
Unemployment rate (%)	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Current account (JPY trn, SA)	4.7	4.9	3.8	3.9	4.4	4.7	4.4	4.1	4.1	4.0	4.0	4.0	4.0	19.1	16.9	17.2	16.0	19.2	17.3	17.5	16.1

Note: * indicates contributions to GDP growth.

Source: Cabinet Office, METi, Bloomberg, Barclays Research

FIGURE 14

Our CPI forecasts (as of 8 January 2020)

y/y %	2019		2020									
	Nov (Act.)	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Core CPI	0.5	0.7	0.7	0.6	0.5	0.4	0.4	0.6	0.7	0.7	0.8	0.5

Source: MIC, Barclays Research

Analyst Certification

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