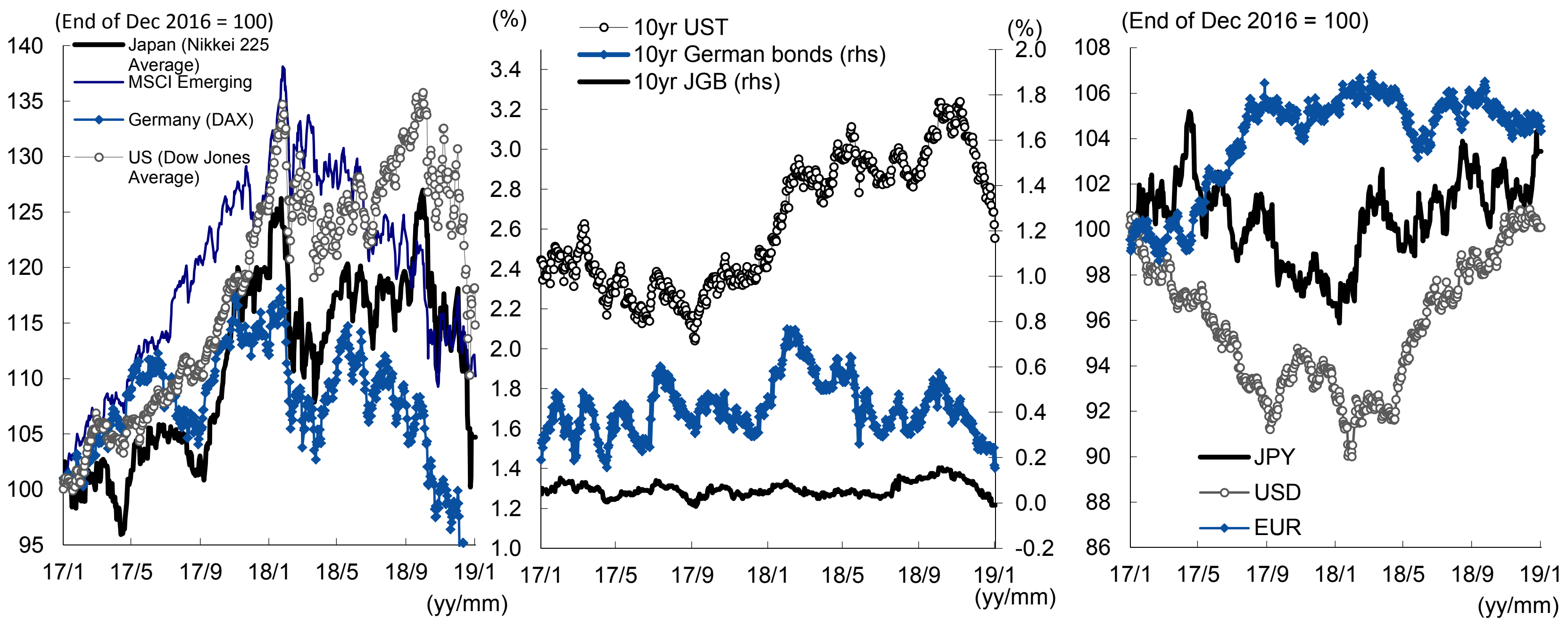
Monthly Economic Report

January 15, 2019
Mizuho Research Institute

1. Overview of financial markets: volatility rising in response to concern over economic indicators

- Amid concerns over downside risks in the global economy, the financial market is responding cautiously to movements in economic indicators and US monetary policy.
  - Despite the FOMC's decision in December to raise interest rates as expected among market participants, US stocks fell sharply after the FOMC's indication that its stance on raising rates in the future would continue and a downturn in indices that gauge business sentiment in the US and Chinese manufacturing sector. The US long-term interest rate temporarily dropped to the 2.5% level
  - The Nikkei Stock Average temporarily fell below ¥20,000 on the back of a sudden drop in US stocks and appreciation of the yen. The 10-year JGB yield also dipped temporarily into negative territory.

[Major market trends]



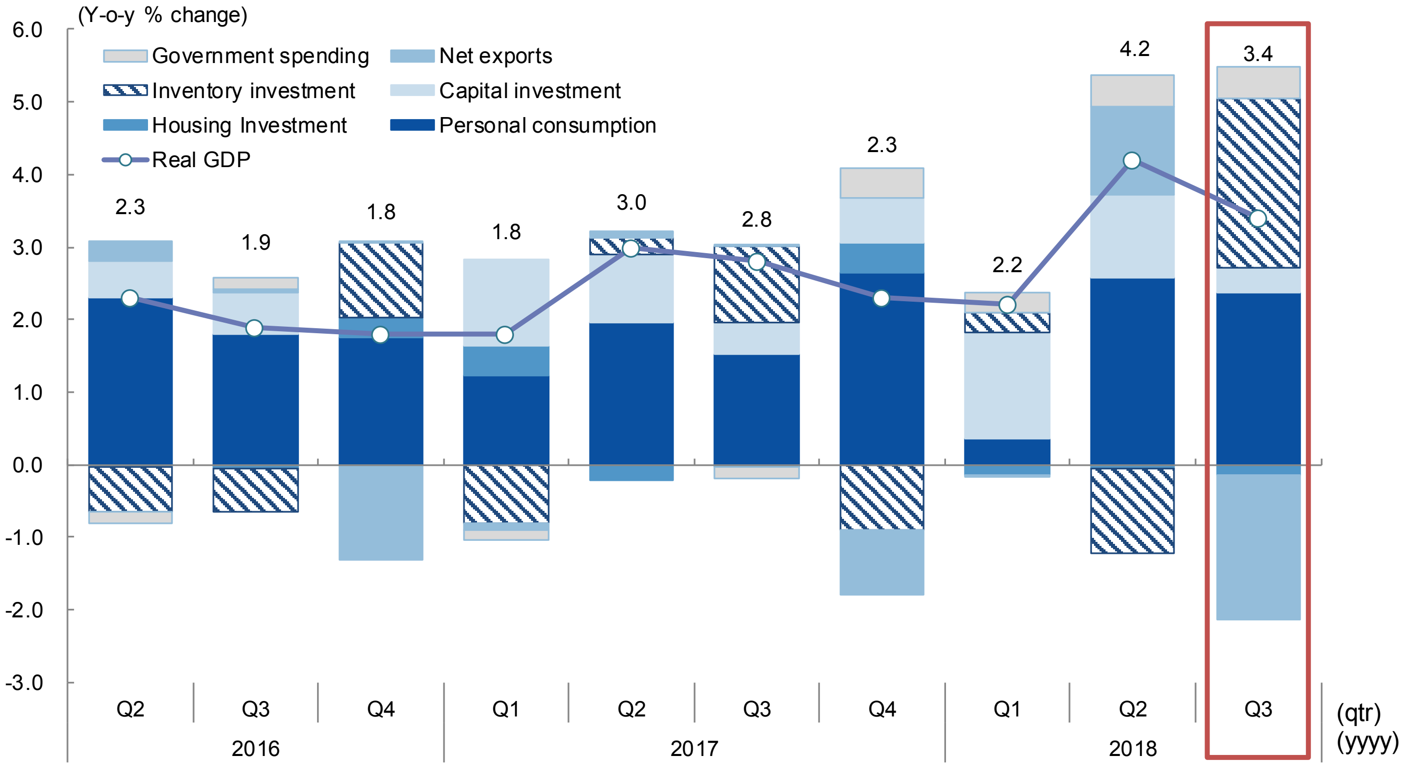
Note: The currency exchange rates are the nominal effective exchange rates in the figures published by the authorities of each country.
Source: Made by MHRI based upon Bloomberg

2. The US economy: it appears that robust expansion continued in the Oct-Dec quarter

- GDPNow (Federal Reserve Bank of Atlanta) expects a +2.8% rise in real GDP growth for the Oct-Dec quarter (as of January 8)
  - Real GDP growth rose +3.4% y-o-y in the Jul-Sep quarter ("third" estimate released by the Bureau of Economic Analysis)

    ———Housing investment was revised downward to -3.6% y-o-y (provisional figure: -2.6% y-o-y). Detached house construction was particularly bearish
  - Although the US economy in the Oct-Dec quarter slowed somewhat over the previous year, performance is expected to have the momentum to far outpace the potential growth rate

[Real GDP growth rate]

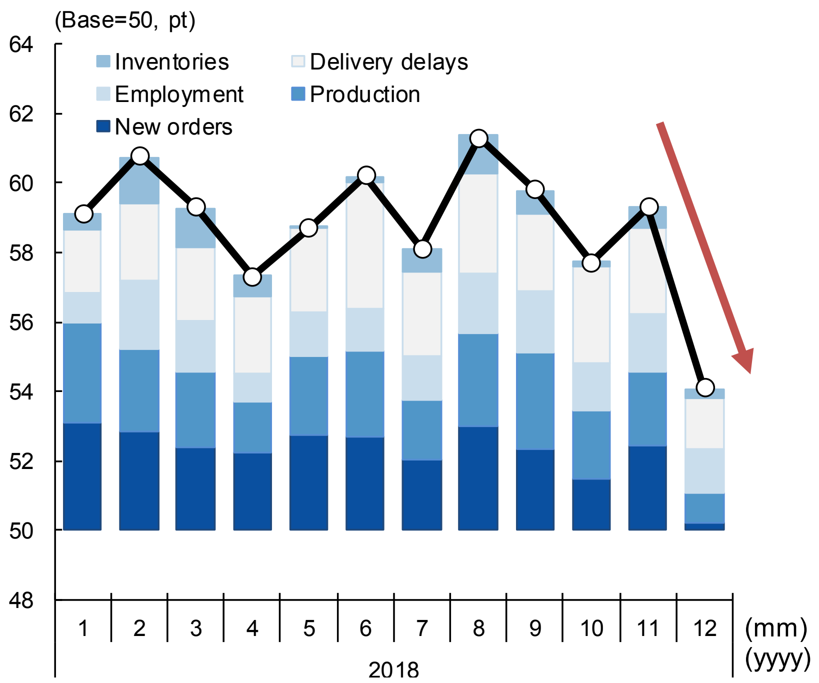


Source: Made by MHRI based upon US Department of Commerce

ISM indexes plummeted. Downside risk grows in capital investment

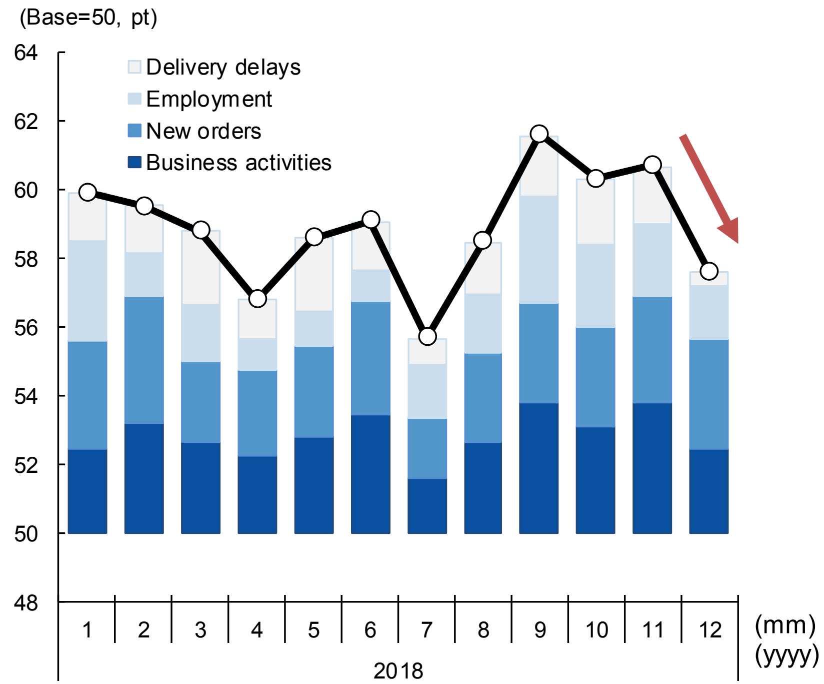
- In December, the ISM manufacturing index dropped sharply to 54.1. New orders fell more than 10 points, while the manufacturing sector showed clearer signs of a slowdown.
  - Accordiing to the ISM, caution over economic slowdown and trade tensions appear to be putting downward pressure on domestic demand
  - While the ISM non-manufacturing index also fell, the decline was limited.
- Given concerns regarding factors such as US-China tensions and overseas economic slowdown, the risk of a sharp decine in capital investment are growing. In particular, keep a close eye upon crude oil price trends.
  - Furthermore, the government shutdown is turning out to be protracted. The impact on employment in the government sector and the effects of a standstill in permitting and licensing merit close monitoring.

[ISM manufacturing index]



Source: Made by MHRI based upon the US Institute for Supply Management (ISM)

[ISM non-manufacturing index]

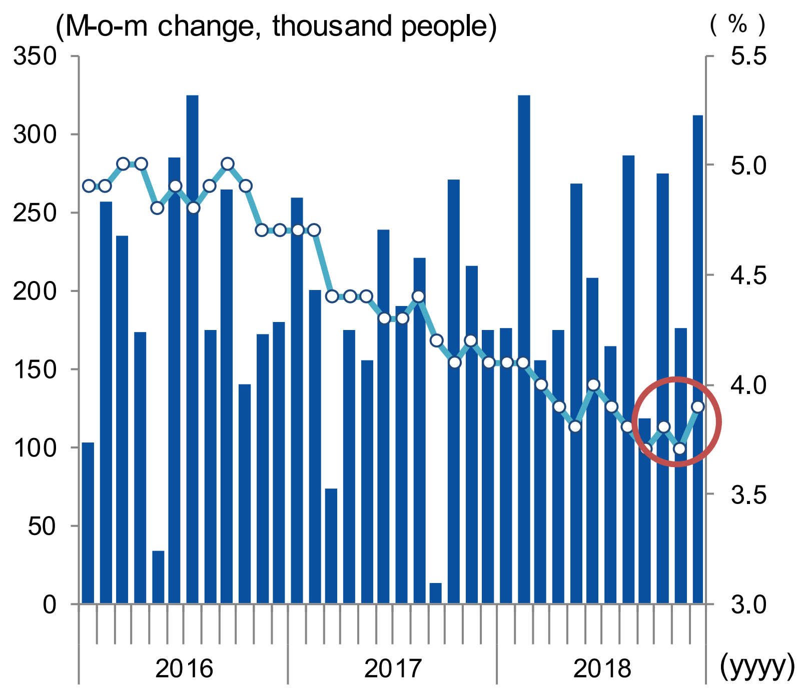


Source: Made by MHRI based upon the US Institute for Supply Management (ISM)

Strong growth continues for jobs and wages. However, some indexes show a deterioration in consumer sentiment

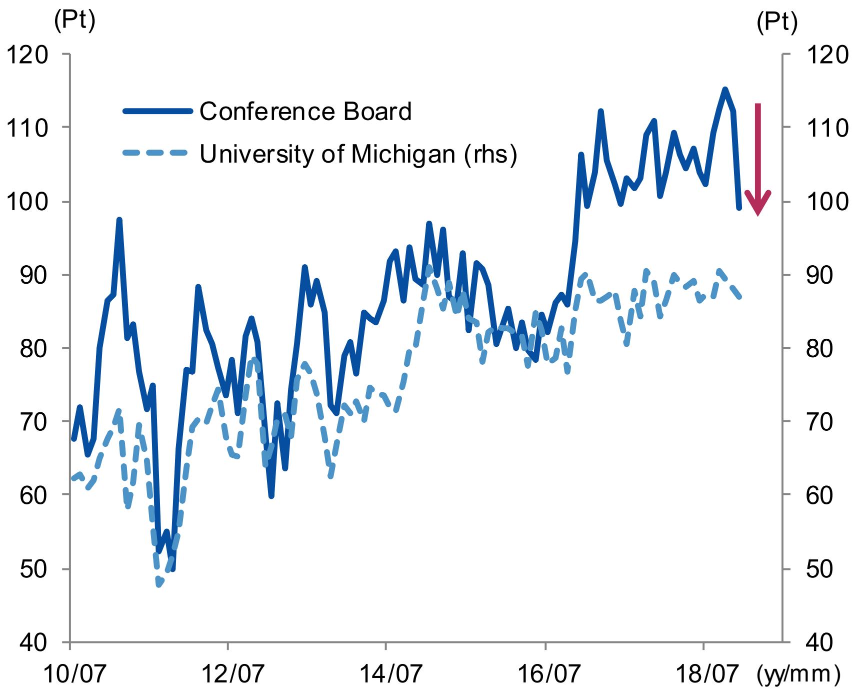
- In December, nonfarm payrolls increased by +312,000 m-o-m. Employment grew across a broad range of industries.
  - Even though the unemployment rate rose to 3.9%, it still remains at a low level.
  - Hourly wages expanded at a faster rate of +3.2% y-o-y. Increases in jobs and income should support personal consumption.
  - ――― Consumer expectations are varied, depending on different indexes. Levels are high across the board, with strong growth expected to continue.
  - Although consumer sentiment-related indexes are high, expectations according to the Conference Board fell sharply. This may foretell a contraction of consumer sentiment.

[Nonfarm payrolls and unemployment rate]



Source: Made by MHRI based upon US Department of Labor, Bureau of Labor Statistics

[Consumer sentiment indexes (expectations)]



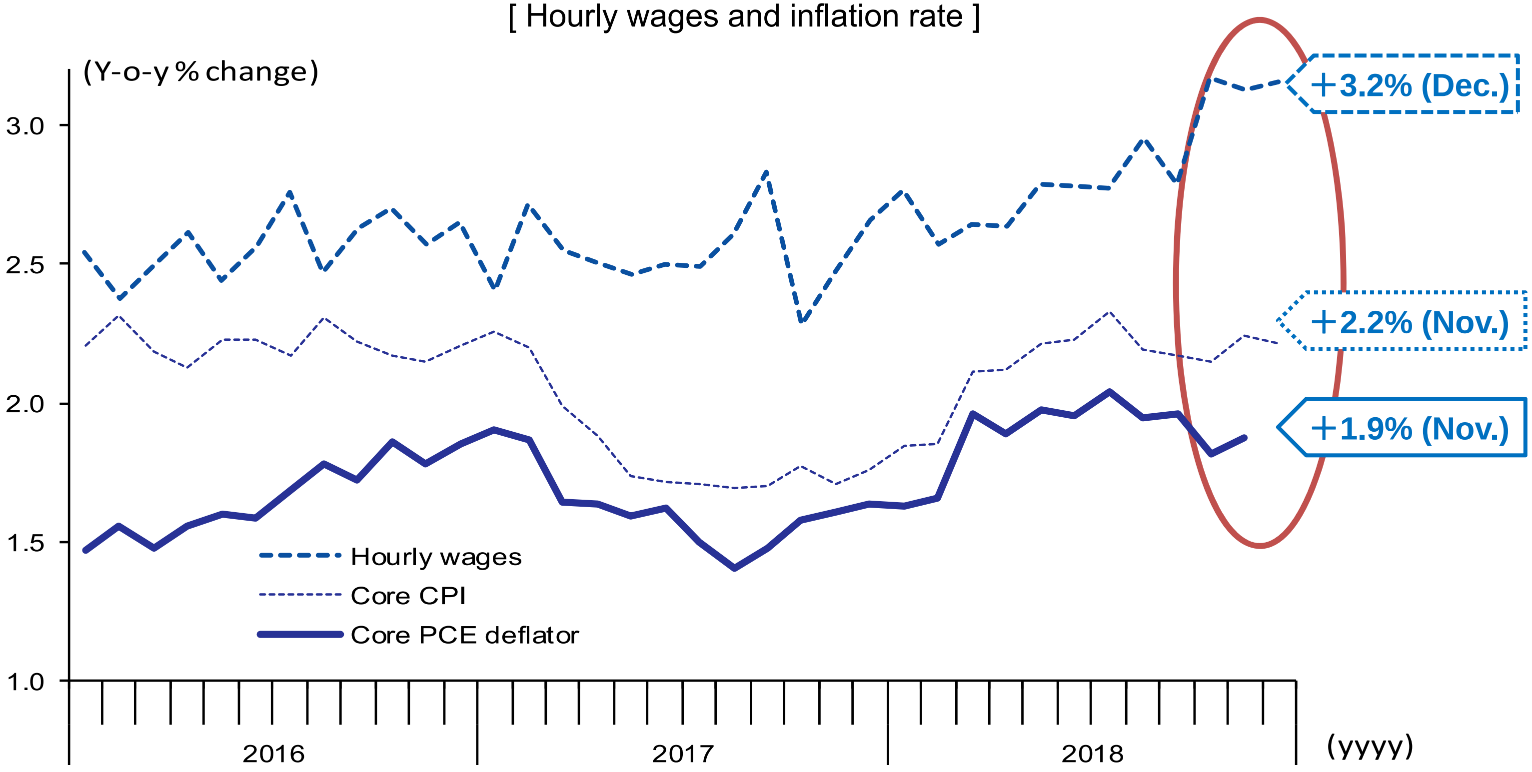
Source: Made by MHRI based upon Conference Board and University of Michigan

Rise in hourly wages expanded, while inflation rate trending around 2%

- Inflation indexes remain around 2%. Hourly wages rose at a slightly faster pace.
  - In December, hourly wages rose at a slightly faster pace of +0.4% m-o-m or +3.2% y-o-y.
  - In November, the core CPI rose at a slightly faster pace of +2.2% y-o-y. This stemmed from upward pressure from goods prices, mainly for used cars.
  - In November, the core PCE deflator (+1.9% y-o-y), watched closely by the FRB, edged up from the previous month.

———While commodity prices rose mainly due to used cars and other durables, service prices declined moderately.

[Hourly wages and inflation rate]

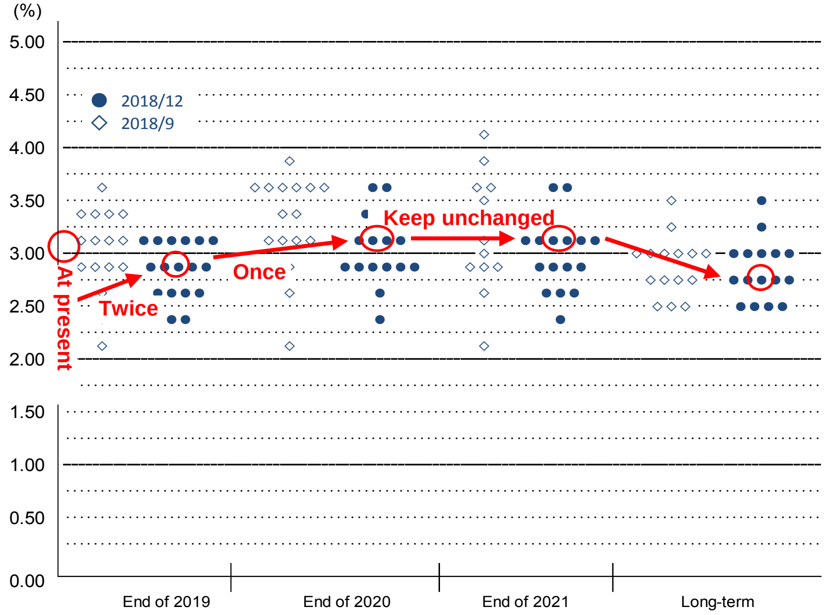


Source: Made by MHRI based upon US Department of Labor, Bureau of Labor Statistics

US monetary policy: FRB points to narrowing of interest rate hike.
Also indicates close monitoring of overseas business conditions and market trends

- In December, the FOMC released a well-balanced statement in light of strong economic growth, approach to the neutral interest rate range, and the tightening of financial conditions.
  - The statement while the FOMC maintaining its track on raising interest rates ("<u>some</u> further gradual increases... would be appropriate"), suggested smaller hikes (as indicated by "some")
    ———FRB "dot plot" forecasts also revised their rate increase count for 2019 from 3 to 2 (median based)
  - The statement also added the phrase that the FOMC “will continue to monitor global economic and financial developments and assess their implications for the economic outlook”.
  - FRB Chair Powell stated that the sharp fall in the ISM Manufacturing index is "a development to be monitored" and that "based on the slump in inflation we will be able to hold off (on rate hikes) in order to monitor economic development. We can revisit significant policy changes if needed." (January 4, 2019; AEA panel)
    ——— Forward guidance may also be done away with completely, according to the statement (conference transcript)

[Policy interest outlook of participants in Dec. FOMC]



Source: Made by MHRI based upon FRB

[Press conference by FRB Chair Powell after December FOMC]

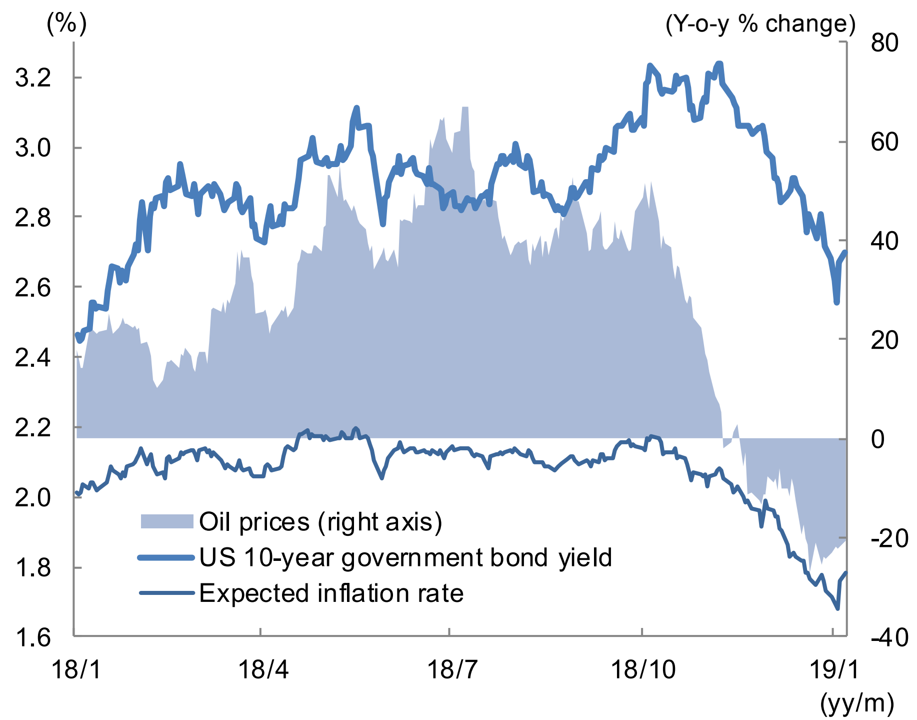
Factors for slowdown	• Since Sept., some crosscurrents have emerged (in the economy) • Developments that may signal some softening relative to what we were expecting a few months ago • Growth in other economies around the world has moderated somewhat…albeit still-solid levels • Financial market volatility has increased over the past couple of months, and overall financial conditions have tightened
Fundamental economic outlook	• Robust economic backdrop and our expectation for healthy growth… • These developments (factors for slowdown) have not fundamentally altered the outlook • Most FOMC participants have (only) modestly lowered their growth and inflation forecasts
Two important differences between 2018 and 2019	① In early 2018, we saw a rising trajectory for growth (in fact, the federal funds rate was raised one more time than the median projection in December 2017). Today, on the other hand, we see growth moderating ahead, coupled with the additional tightening of financial conditions and signs of somewhat weaker growth abroad. ② (While policy rates were accommodative in 2018), in 2019, the federal funds rate will be in a range in which judgments of people both inside and outside the Fed will sometimes differ…the FOMC makes policy in light of the array of diverse views on the Committee.
Balance sheet policy	• I think that the runoff of the balance sheet has been smooth and has served its purpose. And I don’t see us changing that. • We don’t see…the balance sheet runoff as causing a tightening of the short-term money market. (But the FOMC did indicate a willingness to review it if necessary on 1/4)

Source: Made by MHRI based upon FRB and other materials

US bond market: risk-off remains unabated, leading to a sharp fall of the US long-term interest rate

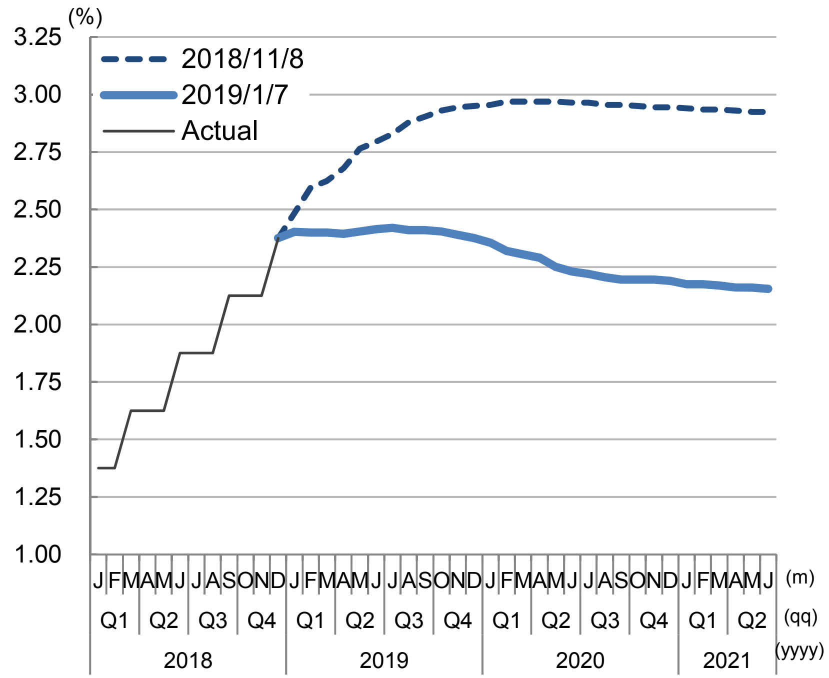
- The US 10-year government bond yield temporarily dropped to 2.5% due to concerns of a global economic slowdown.
  - Amid the fall of US stocks since last November, US bonds, as safe assets, will continue to be bought.
  - The fall of the expected rate of inflation due to the decline of oil prices will also put downward pressure on the US long-term interest rate.
- Given deep-rooted concerns among investors regarding future economic fundamentals, the yield on US 10-year government bonds is expected to stay under 3% for some time.
  - While FOMC members expect two rate hikes this year, the market is factoring in rate hike delays this year and rate cuts next year.

[US 10-year bond yield and expected inflation rate]



Note: The expected inflation rate is the breakeven inflation rate (10 years).
Source: Made by MHRI based upon Bloomberg

[US federal funds rate outlook of market participants]

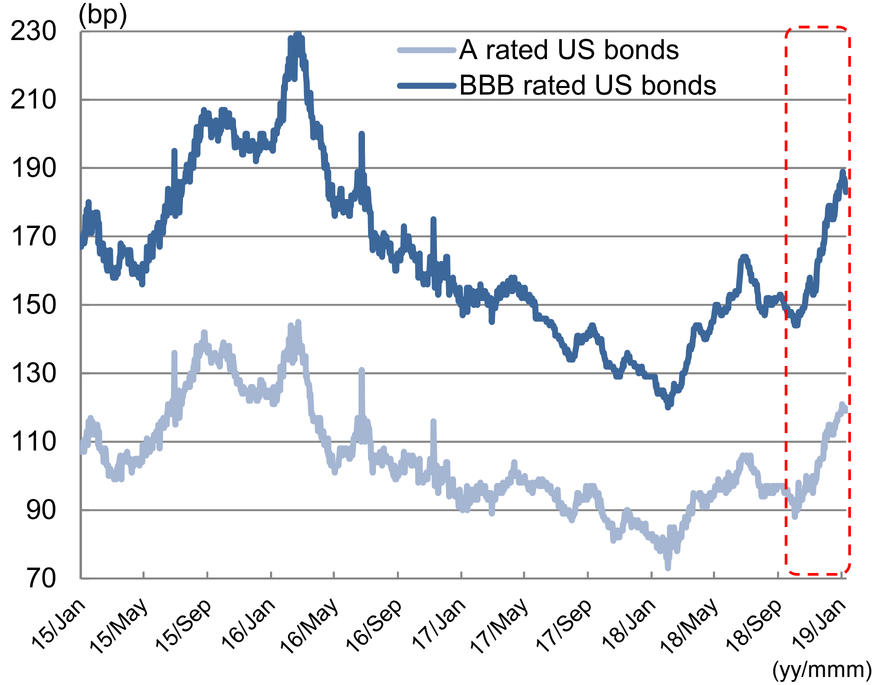


Note: Interest rate hike path from the perspective of FF rate futures. The US 10-year bond yield reached its highest point on November 8, since November.
Source: Made by MHRI based upon Bloomberg

Given lingering future uncertainties, corporate bond spreads continue to widen

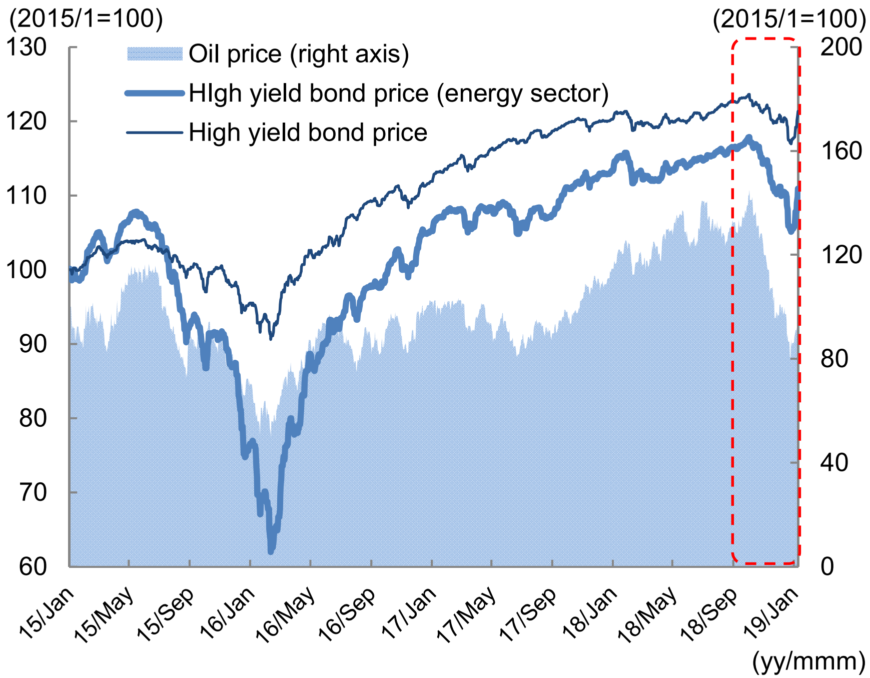
- Given concerns regarding a global economic slowdown, the spread on investment-grade corporate bonds has been widening since last October.
  - Even though the spread has not widened as much as in 2016, the level itself is high.
- Against a backdrop of crude oil price falls, high-yield bond prices have fallen, especially in the energy sector.
  - At the moment, price falls of high-yield bonds decline have come to temporary halt due to the rise of oil prices.

[US investment-grade corporate bond spread]



Note: Difference compared to US 10-year government bond yield.
Source: Made by MHRI based upon Bloomberg

[Oil prices and high-yield bond prices]

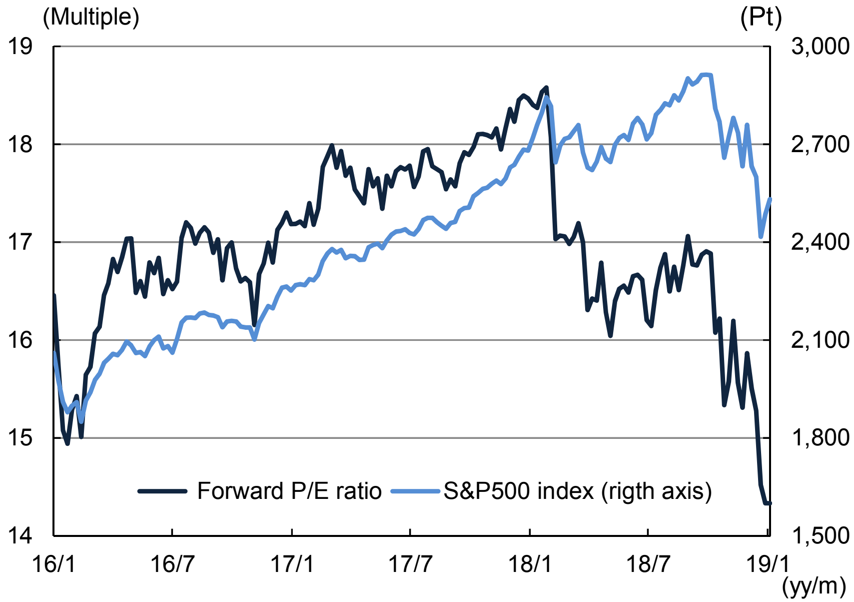


Source: Made by MHRI based upon Bloomberg

US stock market: lingering uncertainties serve as restraints upon the topside of the stock market

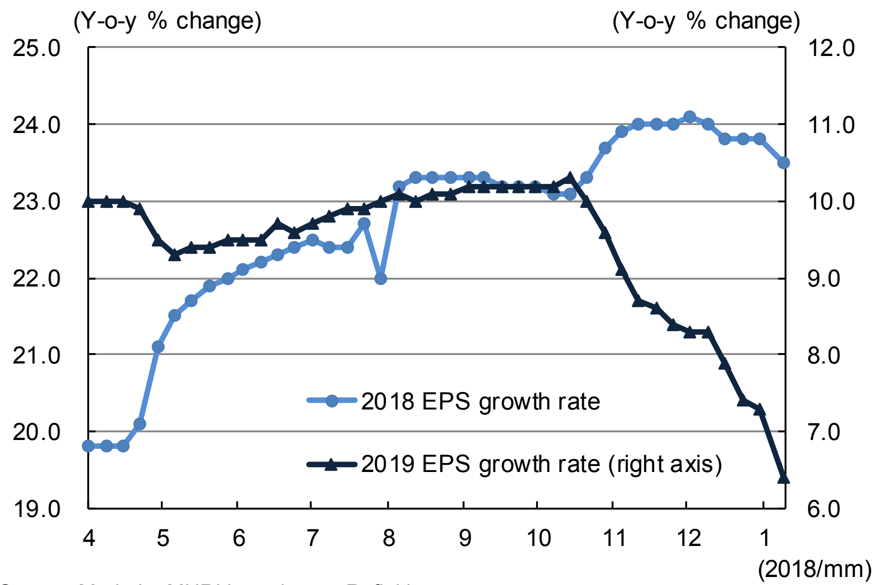
- In addition to a spate of economic indicators pointing to a global economic slowdown, growing uncertainties regarding political administration and monetary policy served as negative pressures, leading to a sharp stock market fall over the turn of the New Year. Downward revisions of earnings forecasts among some corporations are serving as downward pressures. The market is currently recovering its earlier losses.
  - The forward P/E ratio has fallen to the14x range, which is the long-term average.
- Although corporate earnings announcements for the Oct-Dec quarter have been subject to downward revisions since last October, earnings forecasts are still strong, forecasting a rise of earnings of around 15%. Of concern are the corporate earnings estimates for 2019, which are subject to downward revisions particularly in the energy and information technology sectors.
  - Even so, considering that earnings forecasts have been subject to considerable downward revisions already, it is unlikely that the earnings announcements will serve as significant downward pressures upon the stock market.

[S&P 500 Index and forward P/E ratio]



Source: Made by MHRI based upon Datastream

[Shifts in expected EPS growth rates for S&P 500 companies]



Source: Made by MHRI based upon Refinitive

3. The European economy: the Eurozone economy slowed down and the core HICP flattened out

- The rate of Eurozone real GDP growth declined. While the core inflation rate fell from the previous month, it remained more or less flat.
  - In the Jul-Sep quarter, real GDP growth stood at +0.2% q-o-q, recording the lowest pace of growth since the Jan-Mar quarter of 2013.

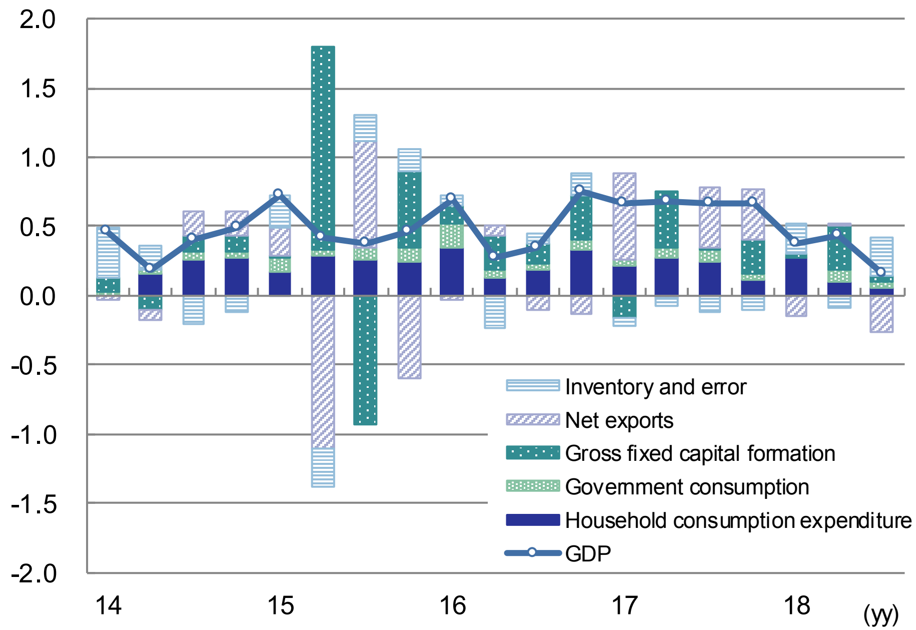
——— According to the breakdown of the newly-released components of demand, gross fixed capital formation moderated along with the slowdown of exports.

——— Business confidence continued to worsen in the Oct-Dec quarter. It appears that the protests in France are having an impact.

  - In December, the HICP (+1.6% y-o-y) fell from the previous month, while the core HICP (+1.0% y-o-y) remained unchanged from the previous month.

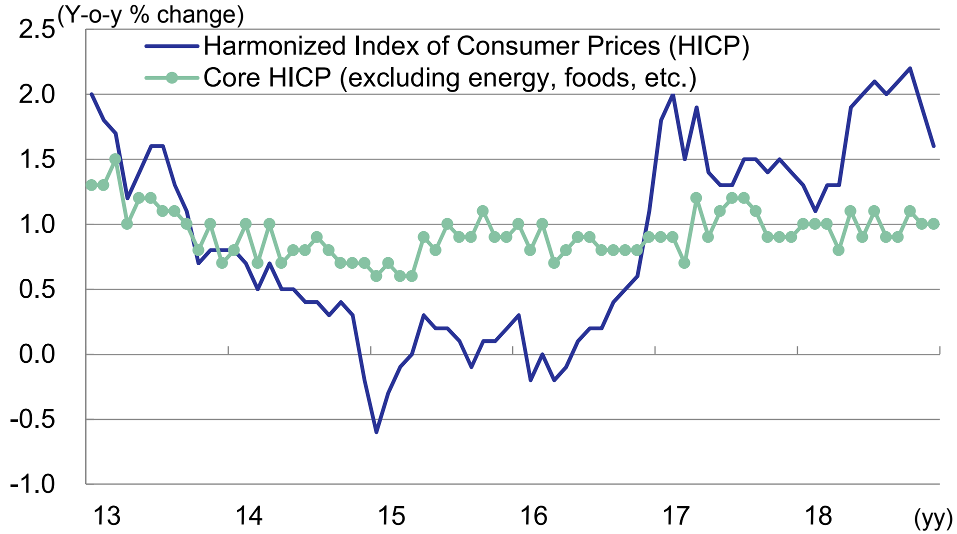
——— The rate of price increase for both services (+1.3% y-o-y) and core goods (+0.4% y-o-y) remained more or less flat from the previous month.

[Eurozone: real GDP growth (by components of demand)]



Source: Made by MHRI based upon Eurostat

[Eurozone: HICP]



Note: The core inflation rate excludes categories such as energy and foods.
Source: Made by MHRI based upon Eurostat

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The ECB decided to stop asset purchases at the December Governing Council meeting

- At the December 13th meeting of the Governing Council, the ECB left its monetary policy framework unchanged and announced that it would stop new asset purchases.
  - Although the ECB stayed neutral on future economic risk, it made a new reference on growing downside risks.
  - At a press conference following the meeting, ECB President Mario Draghi stated that the Governing Council also considered the re-implementation of long-term refinancing operations (LTROs).
- The focal point going forward is when the ECB will carry out the first interest rate hike. Interest rate hikes in 2019 appear increasingly unlikely.
  - ECB staff macroeconomic projections up to 2021 have revised down both the GDP growth rate and core HICP.

[Gist of ECB Governing Council in December 2018]

Economic conditions	**Incoming data on growth has been weaker than expected, reflecting softer external demand but also some country and sector-specific factors. While some of these factors were likely to unwind, the latest data could indicate a moderation in the growth momentum.**
Economic outlook	**The risks surrounding the growth outlook could still be assessed as broadly balanced. However, the balance of risks is moving to the downside owing to the persistent prominence of uncertainties related to geopolitical factors, the threat of protectionism, vulnerabilities in emerging markets and financial market volatility.**
Prices	**Measures of underlying inflation remain generally muted, but domestic cost pressures were continuing to strengthen and broaden amid high levels of capacity utilisation and tightening labour markets, which were pushing up wage growth.**
Guidance on reinvestment	**The Governing Council intends to reinvest...for an extended period of time past the date when it started raising the key ECB interest rates... The allocation of renvesment...would be guided by the respective national central bank's subscription to the ECB capital key. Any adjustment to the portfolio allocation across jurisdictions would be gradual.**
Long-term refinancing operations	**The LTROs had been mentioned by some of the participants to the discussion, although we really had not discussed in substance but we are reflecting, this is another instrument of monetary policy. We will continue reflecting on that.**

Source: Made by MHRI based upon ECB

[ECB staff macroeconomic projections (December 2018)]

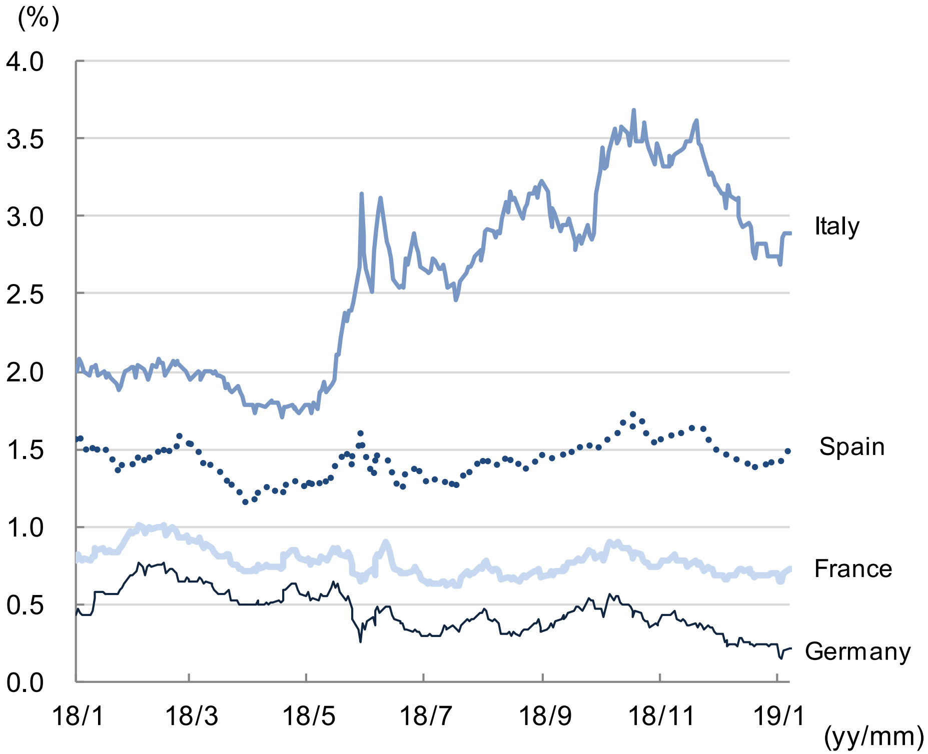
		Unit	2018	2019	2020	2021
December 2018 projections	Real GDP	%	**1.9**	**1.7**	**1.7**	**1.5**
	HICP	Y-o-y % ch	**1.8**	**1.6**	**1.7**	**1.8**
	Core HICP	Y-o-y % ch	**1.0**	**1.4**	**1.6**	**1.8**
	Unit labor cost (ULC)	Y-o-y % ch	**1.7**	**1.3**	**1.6**	**1.8**
	Compensation per employee	Y-o-y % ch	**2.2**	**2.1**	**2.5**	**2.7**
	Labor productivity	Y-o-y % ch	**0.5**	**0.8**	**0.9**	**0.9**
Margin of revision from September 2018 projections	Real GDP	% pt	**-0.1**	**-0.1**	**0.0**	
	HICP	% pt	**0.1**	**-0.1**	**0.0**	
	Core HICP	% pt	**-0.1**	**-0.1**	**-0.2**	
	Unit labor cost (ULC)	Y-o-y % ch	**0.1**	**0.0**	**-0.1**	
	Compensation per employee	Y-o-y % ch	**0.0**	**-0.1**	**-0.2**	

Source: Made by MHRI based upon ECB

Amid the decline US government bond yields, German interest rates are also hovering low

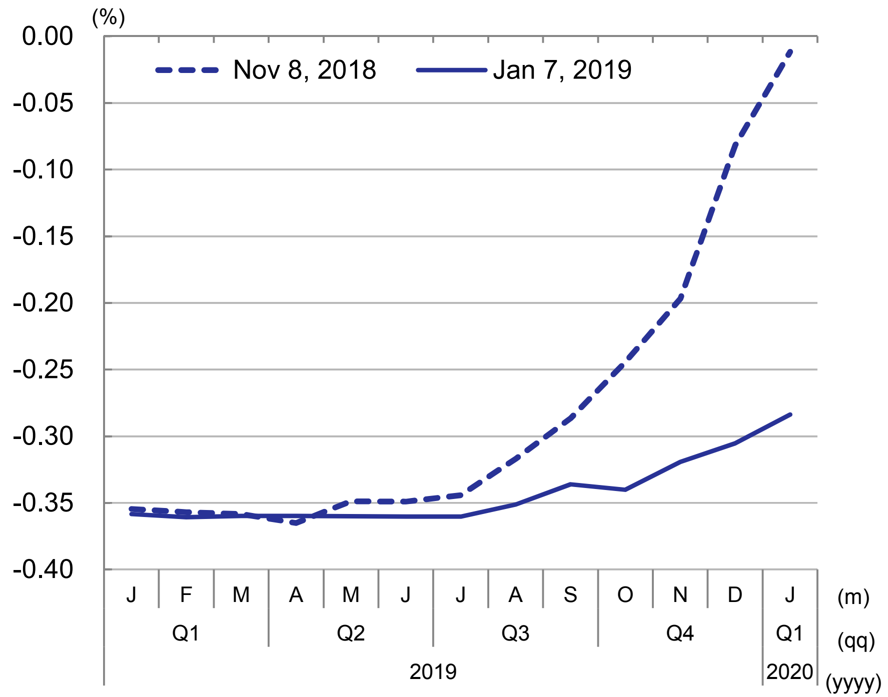
- Reflecting the decline of US interest rates, the yield on German 10-year government bonds briefly dipped below 0.2%.
  - Amid a succession of weak economic indicators, Brexit continues to fester, driving down German interest rates.
  - With its 2019 budget completed, Italy's government bond yield reversed its uptrend on fears over a worsening of fiscal conditions
- As current risk-off sentiments are expected to stay for some time to come, German long-term interest rates are likely to remain at low levels.
  - Market participants' discounting of policy interest rate hikes has largely receded.

[Yield on European 10-year government bonds]



Source: Made by MHRI based upon Bloomberg

[Eurozone policy interest rate outlook among market participants]



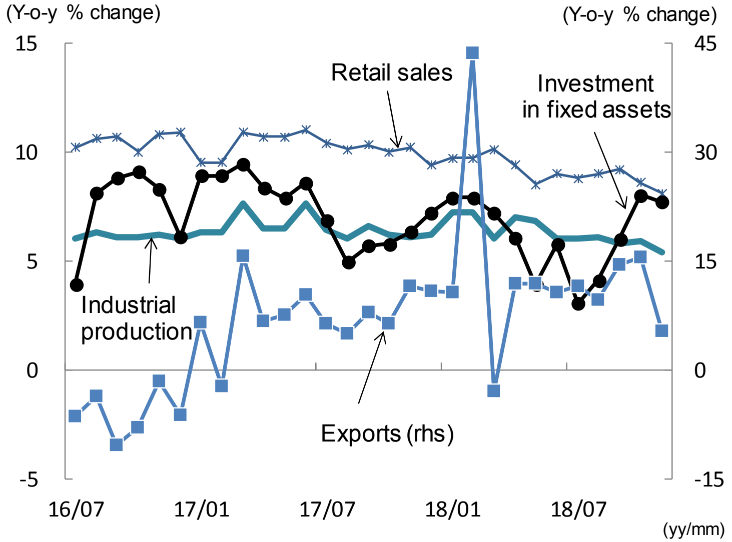
Note: EONIA forward curve. November 8 is when the German 10-year government bond yield peaked since November.

Source: Made by MHRI based upon Bloomberg

4. The Chinese economy: the economy is continuing to slow down

- Most major indicators in November slowed down. Export growth slowed sharply, suggesting the possible impact of trade tensions.
  - Production growth is down on a greater slowdown in automobile production. Nominal growth of retail sales was pulled down by sluggish automobile-related sales and a pause in the surge of crude oil prices. Investment in fixed assets fell due to sluggish investment in mining and infrastructure, though investment increased in manufacturing and real estate development.
  - In December, the manufacturing PMI fell below 50 for the first time since July 2016 due to declines in export orders and other components. The non-manufacturing PMI picked up mainly in the construction industry.
- Exports remain under downward pressure due to the decline of orders, and the future course of US-China trade talks is also uncertain even after they resume. The moderation of the Chinese economy is expected to continue for some time to come.

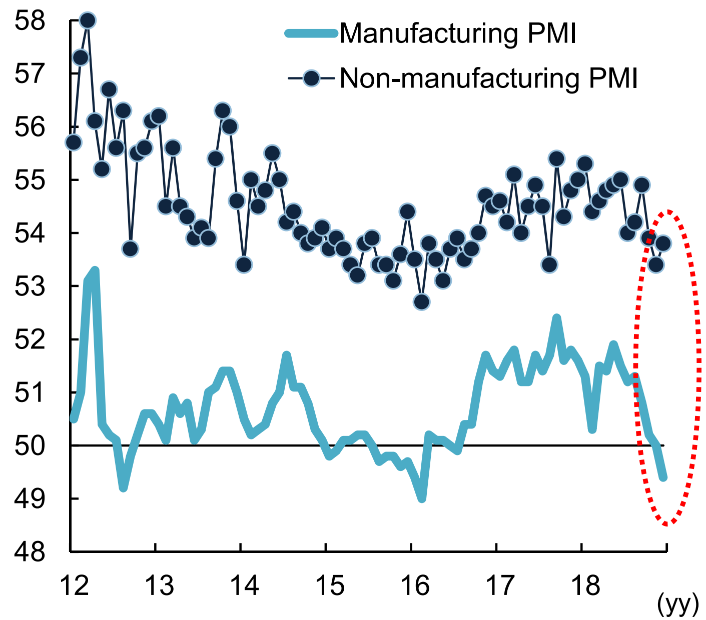
[Trends in major monthly indicators]



Note: 1. The figures for industrial production, retail sales, and investment in fixed assets in January and February are changes of the cumulative total of January and February over the same period a year ago.
2. For investment in fixed assets, the cumulative total since the start of the year is converted to single month figures.
3. Industrial production is in real terms. Total retail sales of consumer goods and investment in fixed assets are in nominal terms.

Source: Made by MHRI based upon National Bureau of Statistics of China

[Manufacturing and non-nmanufacturing PMI]

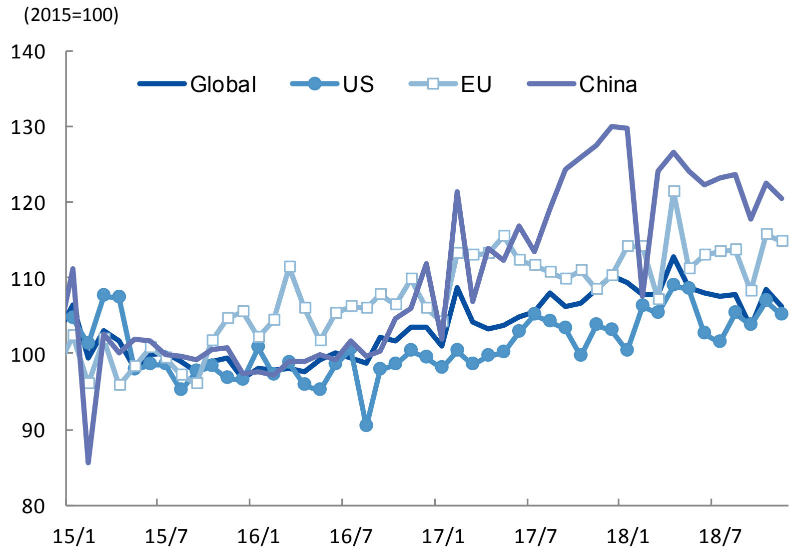


Source: Made by MHRI based upon National Bureau of Statistics of China

5. The Japanese economy: export volume and production were both negative for the first time in two months

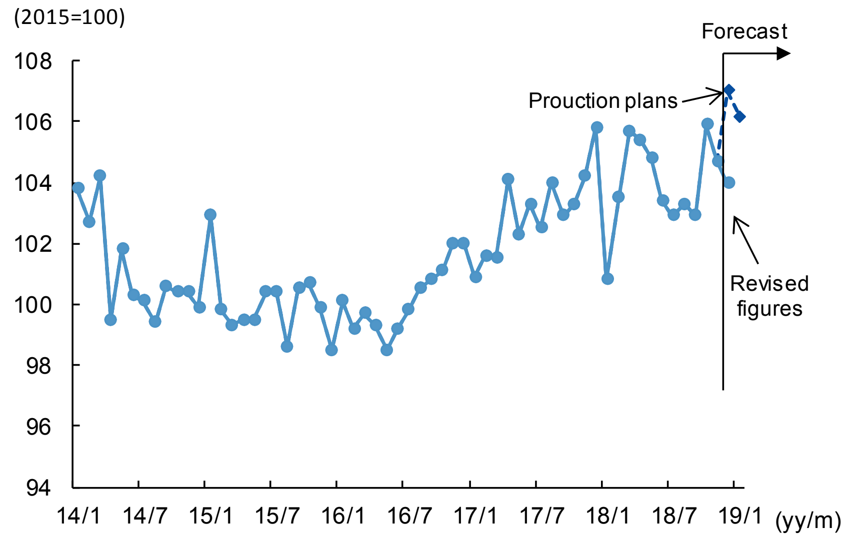
- In November, the export volume index (seasonally adjusted by MHRI) fell (-2.2% m-o-m), dipping into negative territory for the first time in two months. Figures were down across the board in the US, EU, and China
  - The export volume index is expected to level off going forward. While US economic growth has provided uplift, uncertainties over trade tensions and economic slowdown in countries other than the US are exerting downward pressures.
- In November, industrial production stood at -1.1% m-o-m (October: +2.9% m-o-m), dipping into negative territory for the first time in two months. It appears that the uptick of production to recoup the decline due to natural disasters has more or less run its course.
  - This stems primarily from output cuts in general-purpose and business oriented machinery. Also down were electrical machinery, information and communication equipment, and electronic parts and devices.
  - Production plans point to higher output in December and output cut in January. Looking forward, the pace of production should moderate due to, among other factors, a slowdown in capital goods exports to China.

[Export volume index]



Note: Seasonally-adjusted by MHRI.
Source: Made by MHRI based upon the Ministry of Finance, *Trade Statistics*

[Indices of industrial production]



Source: Made by MHRI based upon Ministry of Economy, Trade and Industry, *Indices of Industrial Production*

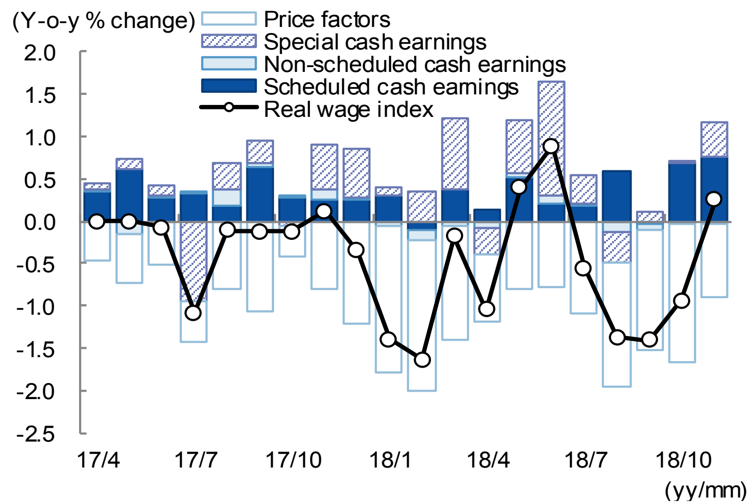
The employment environment remains favorable. Rise of real wages ("adjusted value") turned positive for the first time in five months

- In November, the unemployment rate rose slightly from +2.4% in October to +2.5%. This owes to greater participation in the labor market prompted by a favorable employment environment
  - While the number of employed persons increased for the fifth consecutive month, the rate of increase in the number of unemployed persons (+3.0% m-o-m) exceeded the rate of increase of employed persons (+0.4% m-o-m).
- In November, real wages (the "adjusted value" calculated by MHRI) stood at +0.3% y-o-y (October: -0.9% y-o-y), edging up to positive territory for the first time in five months.
  - Downward pressure from price increases on real wages contracted to 0.9% pt (October: +1.6% pt). The rise of energy prices such as gasoline moderated.
  - Scheduled cash earnings, which account for a little over 70% of overall wages, grew a firm 0.9% y-o-y (October: 0.8% y-o-y). Furthermore, the rise of special cash earnings accelerated.

[Unemployment rate and number of employed persons]

Source: Made by MHRI based upon Ministry of Internal Affairs and Communications, *Labour Force Survey*

[Analysis of the contribution of each factor to the real wages change rate ("adjusted value")]



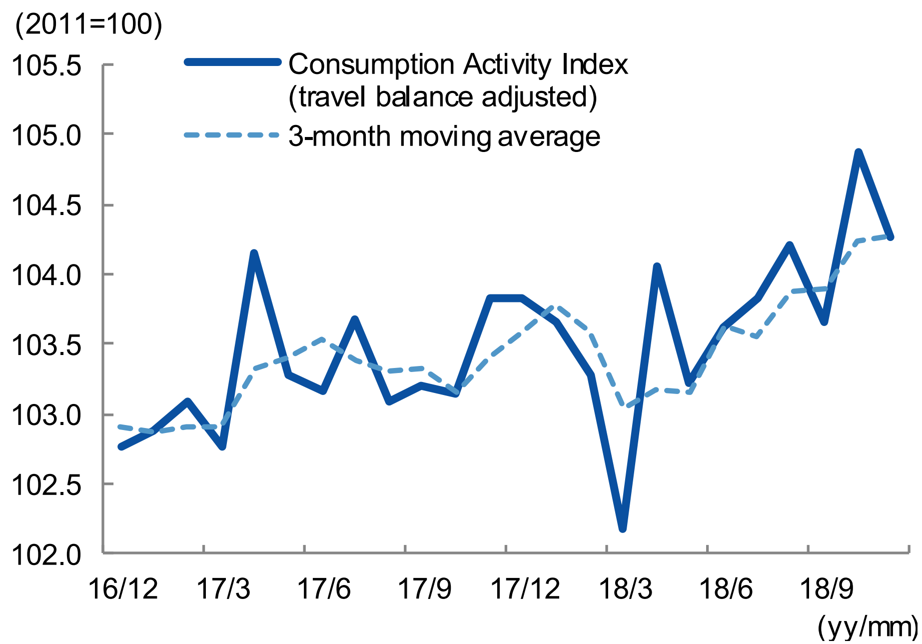
Note: 1. The "adjusted value" is calculated using the number of regular employees by size of establishment up to December 2017 as the new benchmark standard.
2. Price factors contribute negatively (positively) to real wages in the case that prices rise (fall).
3. The breakdown is the MHRI estimated values using the index values (implementing fault adjustment, etc.).

Source: Made by MHRI based upon Ministry of Health, Labour and Welfare, *Monthly Labour Survey*

Personal consumption enjoyed a mild recovery, while core CPI growth leveled out

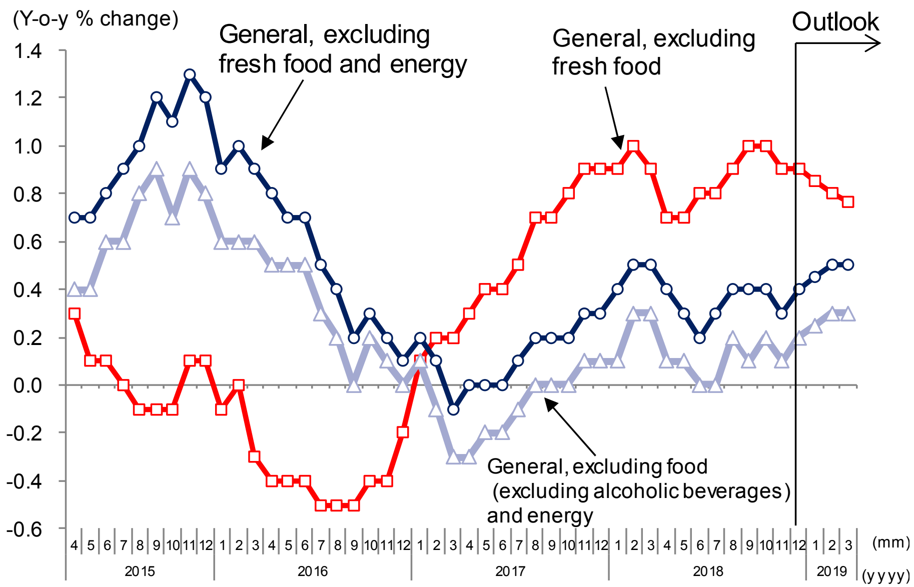
- ❑ In November, the real consumption activity index fell (-0.6% m-o-m). As this stems most likely to backlash to the surge in October, a moderate recovery is under way when averaged out.
  - Looking closer, the main factor was a downward turn for services, which rose sharply in October.
  - Looking ahead, consumption should continue to recover gradually along with the gradual expansion of real wage incomes.
- ❑ In November, the nationwide core CPI (excluding fresh foods) stood at +0.9% y-o-y (October: +1.0 y-o-y) revealing a contraction. Enegy prices such as gasoline served as a drag.
  - Looking forward, the rise of the nationwide core CPI should gradually slow down due to the slower growth of gasoline prices.

[Consumption Activity Index]



Note: Real terms, travel balance adjusted, seasonally adjusted. The dashed is the 3-month backward moving average.
Source: Made by MHRI based upon Bank of Japan, *Consumption Activity Index*

[Consumer Price Index (nationwide)]



Note: Forecast figures are for the Oct-Dec quarter of 2018 and the Jan-Mar quarter of 2019, respectively.
Source: Made by MHRI based upon Bank of Japan, *Consumption Activity Index.*

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Japanese monetary policy: the BOJ is expected to leave monetary policy unchanged at the January MPM, while the *Outlook Report* may revise downward the outlook for prices

- The Bank of Japan (BOJ) is expected to leave monetary policy unchanged at its January Monetary Policy Meeting (MPM) (January 22 and 23). In the *Outlook for Economic Activity and Prices* (the *Outlook Report*), the outlook for prices may be revised downward in consideration of the impact of factors such as the fall of crude oil prices.
- While it maintained its caution toward the increase in uncertainties surrounding the overseas economies, the growth rate forecast for FY2019 onward are expected to hold. BOJ Governor Haruhiko Kuroda stated that ", there is no need to fall into excessive pessimism," citing a lack of any indication of overheating of the economy or notable financial imbalances (December 26).

[*Outlook Report* (October 2018)] (FY-o-FY % change)

	Real GDP	Consumer Price Index (excluding fresh food)	Case excluding the impact of the rise in the consumption tax rate
FY2018	+1.3~+1.5 (+1.4)	+0.9~+1.0 (+0.9)	
Forecast made in July 2018	+1.3~+1.5 (+1.5)	+1.0~+1.2 (+1.1)	
FY2019	+0.8~+0.9 (+0.8)	+1.8~+2.0 (+1.9)	+1.3~+1.5 (+1.4)
Forecast made in July 2018	+0.7~+0.9 (+0.8)	+1.8~+2.1 (+2.0)	+1.3~+1.6 (+1.5)
FY2020	+0.6~+0.9 (+0.8)	+1.9~+2.1 (+2.0)	+1.4~+1.6 (+1.5)
Forecast made in July 2018	+0.6~+0.9 (+0.8)	+1.9~+2.1 (+2.1)	+1.4~+1.6 (+1.6)

Note: This is the majority outlook of the BOJ Policy Board members. The figures in the brackets are the median values of the outlooks of the Policy Board members.
Source: Made by MHRI based upon Bank of Japan

[Comments by BOJ Governor Haruhiko Kuroda （12/26）]

The recent increase in uncertainties surrounding overseas economies likely has led to a more cautious sentiment among firms to some extent. However, there is no need to fall into excessive pessimism for reasons I will now explain.

(1) First, let us take a look at overseas economies. Overseas economies have continued to grow firmly on the whole, with domestic demand in many economies continuing on an increasing trend. Another important point is that no overheating of the economy or notable financial imbalances have been observed.
(2) Second, the diversification of growth sectors of Japan's economy is also an important factor enhancing the robustness of the economy.
(3) Third, a point worth mentioning is that the profitability of Japanese firms has improved. Even more than the level of corporate profits, what is important in this context is the nature of these profits. While corporate profits have been improving until around 2016, the main reason was the decline in crude oil prices. However, over the past two years or so, the nature of the improvements in profits has changed in that they have been accompanied by increases in sales volumes and turnover.

Source: Made by MHRI based upon Bank of Japan

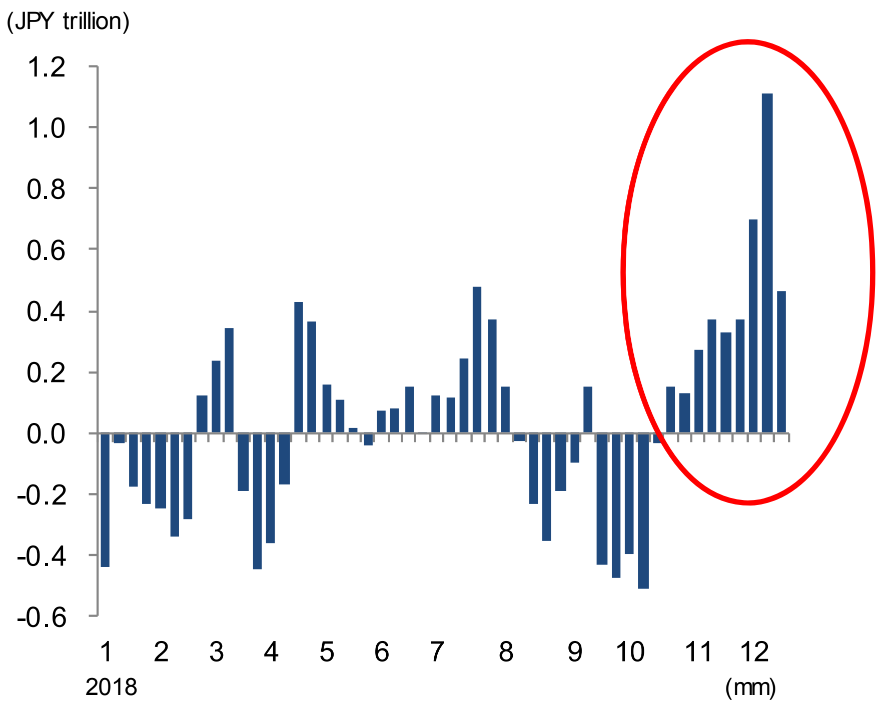
Japanese long-term interest rate: the 10-year JGB yield is expected to trend around 0.0-0.1%

- The 10-year JGB yield briefly turned negative in response to falling global interest rates. Increased investment in medium- to long-term JGBs among overseas investors appears to be pushing down interest rates. BOJ Governor Kuroda commented that a certain measure of movement in negative territory would be tolerated.
- Should concerns rise regarding an economic downturn, the 10-year JGB yield may fall once again into negative territory. However, since the Bank of Japan is unlikely to take interest rates too far into negative terriotry in consideration of the potential side effects, a further fall of the 10-year JGB yield should be limited.

[10-year JGB yield trends]

Source: Made by MHRI based upon Bloomberg

[Inward medium- to long-term bond investment]

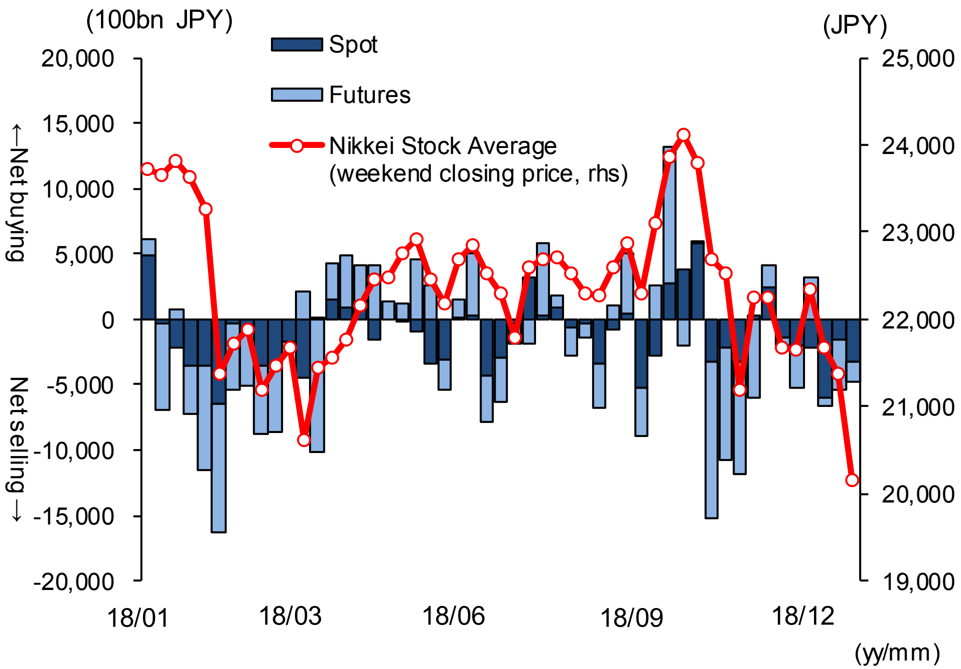


Note: 4-week moving average.
Source: Made by MHRI based upon Ministry of Finance

Japanese stock market: while the perception that Japanese stocks are undervalued may be corrected, note that overseas risk factors linger

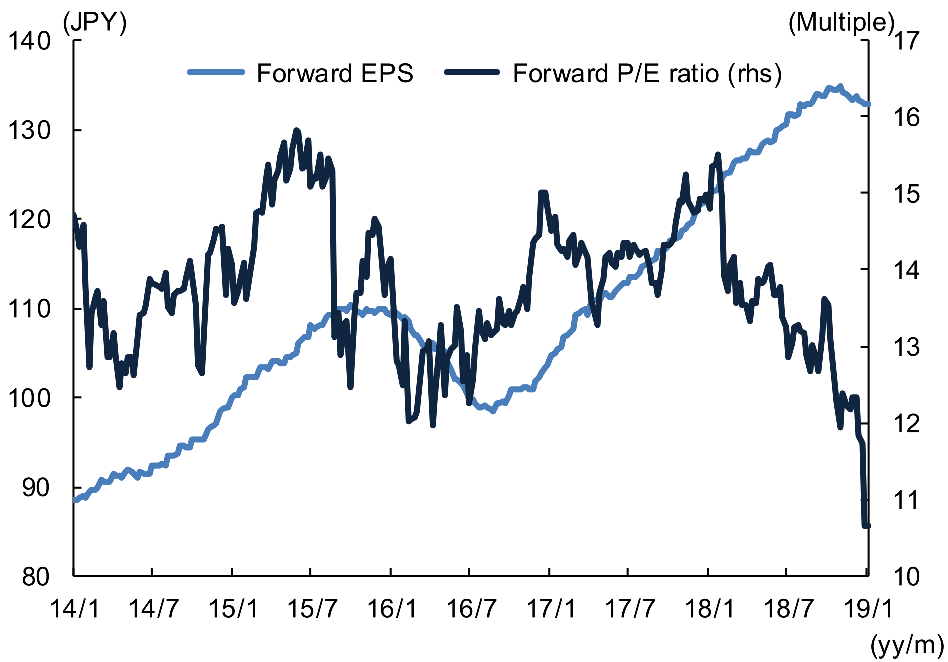
- Japanese stocks have also dropped sharply amid increasingly risk averse movements. The appreciation of the yen is also dampening expectations toward the improvement of corporate earnings, serving as downward pressures upon stock prices.
  - Net selling of Japanese stocks by overseas investors has been persisting since October 2018. Total net selling in 2018 stood around JPY 12 trillion for futures and spot trading.
- The forward P/E ratio is around the 11x level despite downward revisions to the forward EPS. Thus, while there is room for market perception of stock undervaluation to be corrected, it is necessary to keep a close eye upon the risks of the appreciation of the yen and fall of stock prices due to lingering overseas risk factors such as US-China trade tensions.
  - While the forward P/E ratio temporarily fell to the 10x range and subsequently recovered to the 11x level along with the upturn of some stocks, it still falls below the lowest point since the start of Abenomics.

[Overseas investor trading and the Nikkei Stock Average (weekly)]



Source: Made by MHRI based upon Japan Exchange Group

[Forward P/E ratio and EPS (TOPIX)]



Note: The forward P/E ratio and EPS are both for 12 months in the future.
Source: Made by MHRI based upon Datastream

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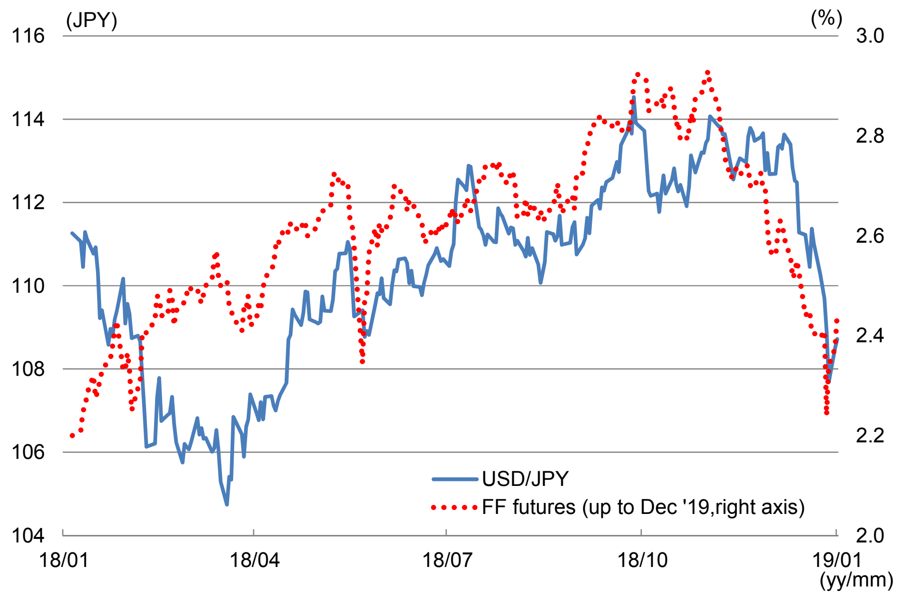
6. Forex market trends: a global risk-off sentiment fuels the buying of yen as a safe asset

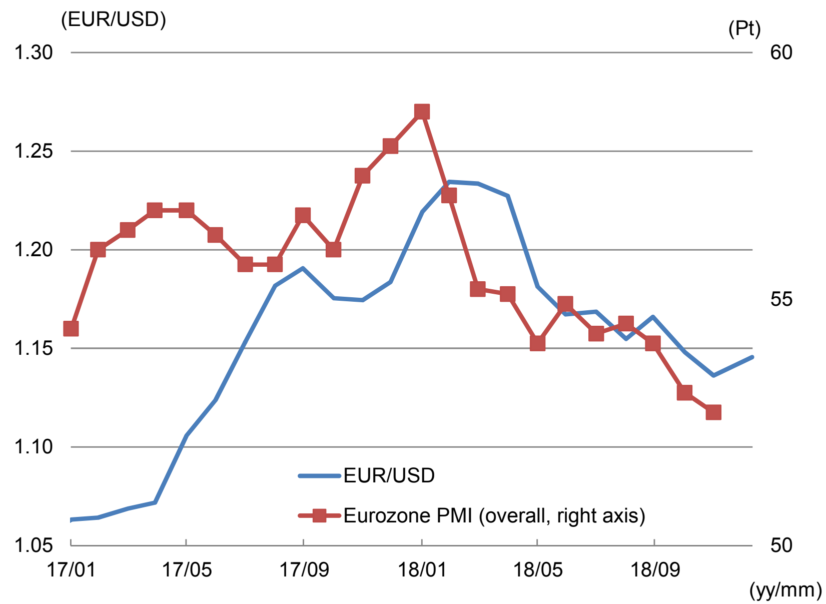
- The USD/JPY exchange rate: the yen surged momentarily to the JPY104 level, reflecting global risk aversion amid future uncertainties.
  - The appreciation of the yen was also driven by speculation of a shift in US monetary policy, such as a fewer number of interest hikes by the FRB in 2019 expected in the market.
- For the time being, we expect a correction of an excessively weak dollar.
  - While the yen should weaken against the dollar to some extent due to a recovery of risk tolerance, a downward revision of the outlook on policy interest rates would serve as a drag.
  - The euro is forecast to weaken against the dollar due to a further deterioration of eurozone business sentiment and focus of attention upon political problems.

[USD/JPY exchange rates and future US interest rates]



Source: Made by MHRI based upon Bloomberg

[Euro exchange market and eurozone PMI]



Source: Made by MHRI based upon Bloomberg

8. Outlook on the financial markets

		Main scenario					Sub-scenario 1				Sub-scenario 2			
			2019				2019/				2019			
		Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
US	FF rate (qtr-end value, %)	2.25-2.50	2.25-2.50	2.50-2.75	2.75-3.00	2.75-3.00	2.50-2.75	2.75-3.00	3.00-3.25	3.25-3.50	2.00-2.25	1.75-2.00	1.50-1.75	1.25-1.50
	10yr UST bond yield (%)	3.03	2.87	3.10	3.20	3.20	3.30	3.50	3.60	3.60	2.20	2.00	1.60	1.60
	Dow Jones Average (USD)	24,891	24,500	26,000	26,000	26,500	26,000	27,000	28,000	29,000	23,000	22,000	21,000	20,000
Japan	Euroyen TIBOR (three months, %)	0.05	0.05	0.05	0.05	0.05	0.05	0.10	0.10	0.10	0.00	0.00	0.00	0.00
	10yr JGB yield (%)	0.09	0.08	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.00	-0.10	-0.10	-0.10
	Nikkei 225 Average (JPY)	21,897	21,500	23,000	22,000	22,000	23,000	24,000	25,000	26,000	20,000	19,000	18,000	17,000
Europe	ECB repo rate (qtr-end value, %)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10yr government bond yield (German bonds, %)	0.37	0.35	0.40	0.50	0.50	0.70	0.90	0.90	0.90	-0.20	-0.20	-0.20	-0.20
Forex	USD/JPY exchange (USD/JPY)	113	109	112	115	114	125	125	130	130	95	95	90	90
	EUR/USD exchange rate (EUR/USD)	1.14	1.14	1.12	1.10	1.12	1.05	1.05	1.00	1.00	1.35	1.35	1.40	1.40

- Sub-scenario 1 (upside scenario)
  - Long-term interest rates and stocks rise on heightened interest rate hike expectations driven by the acceleration of US economic recovery. The dollar continues to strengthen against the yen.
- Sub-scenario 2 (downside scenario)
  - Global economic slowdown, including Europe and the US, due to tariff hikes accompanying US protectionist policy. Long-term interest rates fall and stock prices fall. The dollar continues to weaken against the yen.