ROBECO
The Investment Engineers

Global Fixed Income Macro

Central bank watcher

- Fed: exploring a more dovish policy strategy
- ECB: policy normalization postponed
- PBoC: a 'controlled' impulse
- BoJ: difficult place

Yields bounce in a dovish environment

After a substantial downside correction in the past months, expectations for central bank rates have recently started to bounce. We think this process has somewhat further to go, especially in the US, as economic conditions in China, the US and even Europe are showing signs of recovery after a series of negative surprises.

Consequently, we see scope for an additional 15-20bp uplift in 10yr UST yields in the near term, and somewhat less in the Eurozone and Japan; Chinese government bond yields are already leading the way.

Article
For professional investors
April 2019

Global Fixed Income Macro team

The potential for a stronger repricing of developed market yields is probably capped by the de facto easing bias recently adopted by the major central banks, which seem determined to avoid a recession.

Yield curves are expected to steepen in the current environment, with the exception of the ultra-long end.

Fed: exploring a more dovish policy strategy

- Rates likely to bounce after significant repricing
- Change in Fed stance should lead to steeper curve

Following dovish Fed meetings in January and March, the market has now priced in almost 30 bps in Fed rate cuts between now and September 2020. Our view is for rates to remain on hold over this timeframe. However, the bar to cut rates is probably a lot lower than the bar to hike and we therefore think the fair value for Fed funds futures pricing is probably -10 bps for mid-2020. Rates should rise approximately 20 bps to reflect this view.

What is priced in for the Fed, versus our expectation

Fed funds rate	2.38	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20
Change implied by FF Futures (bp)		0	-6	-12	-16	-25	-30
Our weighted fair value estimate (bp)		0	-5	-5	-10	-10	-10
Our central scenario (bp)		0	0	0	0	0	0

In recent speeches, Fed deputy governor Richard Clarida and New York Fed President John Williams confirmed that the Fed is currently debating a possible change in its monetary policy strategy. Such a change would be aimed at lifting inflation expectations. Low expectations feed into actual inflation and the Fed wants to avoid a situation in which inflation is 'trapped' at a low level. The proposals that are being discussed have one thing in common: inflation should be allowed to drift above the target after a period of lower inflation. The 2% level itself will not be the subject of discussion. This topic will be with us for a while. The Chicago Fed will organize a conference on policy strategy in June and conclusions can be expected in H1 2020. We expect this discussion to further emphasize the dovish tilt in policy in the coming quarters. Hence, the bar to hike is high. Another topic on the Fed's agenda is the composition of its balance sheet holdings. The Fed has already decided to gradually replace all MBS with Treasury notes, a next decision will be on the maturity profile. Gradually reducing the average maturity now would enable the Fed to lift it again at an opportune moment, as it did in operation Twist. We think the chance of a reduction in maturity is not priced in.

UST Curve	Spot yield	12m Fw	Carry*	Hedged to EUR
2y	2.42	2.37	123	-38
5y	2.42	2.48	52	-14
10y	2.60	2.70	32	-4
30y	3.00	3.04	17	1

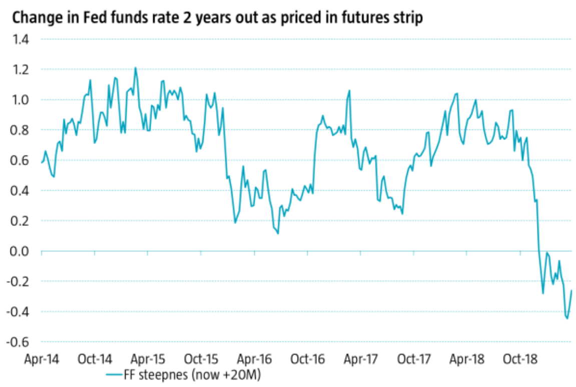
* for a 1pd position over 12 months

We think rates will bounce upwards after the sizeable re-pricing of the past months. Our positioning data also suggest bonds are overbought. We expect the bounce to be moderate in size, as the Fed is likely to remain dovish. Hence we favor curve steepeners (2-5, 10-30) and we have a modest target of 2.75% in 10 years for underweight duration positions. To avoid punitive carry, we would implement curve steepeners in futures or swaps.

US Treasuries in overbought territory

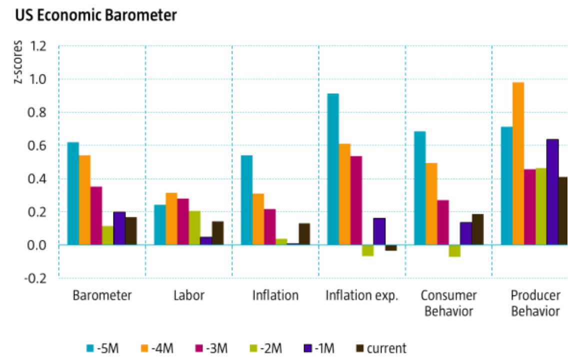
- Fed funds futures for end 2020 have repriced 90 bps since November, which has driven bond yields lower. We expect Fed pricing to remain the main driver of rates, with some steepening effect from higher inflation expectations, given the change in Fed stance. We do not expect major changes in the term premium, which remains historically small, given the early end to the Fed's balance sheet rundown.
- After having rallied significantly, US Treasuries now look overbought according to our positioning indicator.
- More stable consumer spending and producer confidence data have resulted in a bottoming out of the economic barometer.
- Inflation expectations have remained low, sparking a Fed debate on how to avoid a low inflation trap.

Chart 1. Strong correction in market prices for Fed funds rate



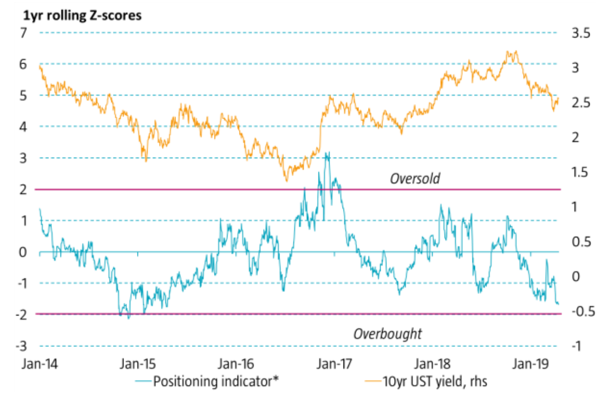
Source: Bloomberg, Goldman Sachs

Chart 2. Economic barometer is bottoming out



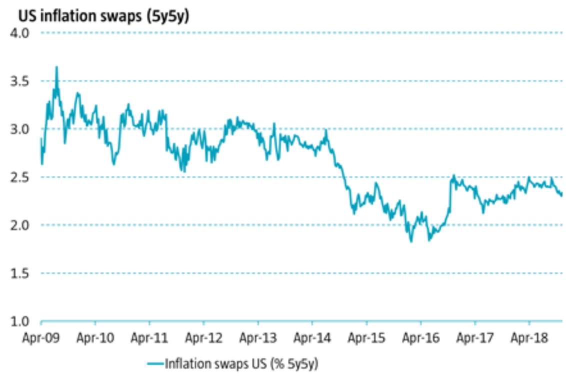
Source: Bloomberg

Chart 3. US Treasuries look overbought



Source: Bloomberg
* Based speculative positioning, Treasury options and swaptions skew

Chart 4. Inflation expectations have remained modest



Source: Bloomberg

ECB: policy normalization postponed

- ECB preparing for potential need to ease further
- Japanification fears increasingly evident in Bund options skew
- German 2s10s and 5s10s curve to stay directional with 10yr outright

Markets see ECB policy rates on hold – with the near-term risks skewed towards easing

With inflation expectations and especially the manufacturing side of the economy having taken a turn for the worse in recent months, the markets have further delayed the timing of the onset of policy rate normalization in the Eurozone. In fact, with ECB-dated EONIA forwards for December trading below the current EONIA fixing – albeit not as much as in early April – the markets do not even exclude the next move being a rate cut rather than a hike. To be sure, OIS forwards two year out still discount a net 15bp uplift in the deposit facility rate.

ECB preparing for potential need to ease policy further

ECB President Draghi retained a dovish tone at the April ECB news conference, stressing that the ECB stood ready to adjust all of its instruments to revive inflation and that the markets' reaction to his ECB Watchers speech of 27 March, in which he hinted at a tiered deposit system, demonstrated that markets had understood the ECB's reaction function. It now looks as if the terms of the TLTRO3s – due to be announced at the June meeting – may not be that much less generous than those in the TLTRO2s. Moreover, although the ECB hopes that Eurozone growth will rebound, it is preparing for a possible need to deliver further stimulus and/or keep rates in negative territory for much more time to come. While we do not rule out the possibility of a resumption of ECB net QE in case of a negative shock either, the issues surrounding the PSPP's issuer limit of 33% mean this is less likely than a move towards a tiered deposit system. That said, given the skepticism of several Governing Council members and our outlook for a Chinese-led recovery in Eurozone growth, a tiered system is not yet part of our base case scenario. But the market is right to price in asymmetric easing risks over the next six months (Table 1).

What is priced in for the ECB versus our expectations

ECB deposit facility rate	*-0.40*	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20
Change implied by OIS (bp)		0	0	-1	1	2	4
Our weighted fair value estimate (bp)		0	-1	-2	-1	2	6
Our central scenario (bp)		0	0	0	0	0	0

Japanification fears increasingly evident in Bund options skew

The belly of the German curve is still trading one for one with the changes in ECB expectations, having rallied to back below -0.30%. Even at these levels, carry and rolldown are still positive, although not as much as in 10yr space (Table 2). Note that fears of a Japanification of Eurozone yields and curves have become increasingly evident in the options market, with protection against a (further) downside move in 10yr Bund yields now almost as expensive as that for an upward move (Chart 4).

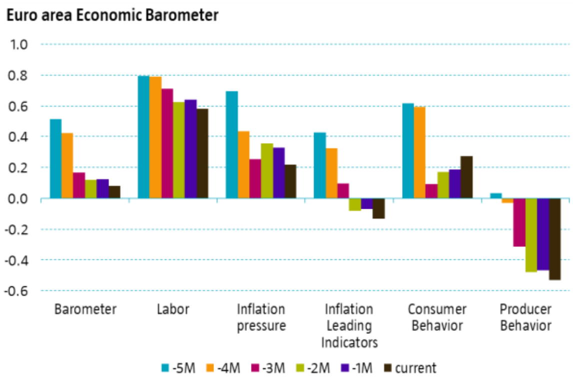
DBR curve	Spot yield	12m Fwd	Carry* (bp)
2y	-0.57	-0.55	-4
5y	-0.38	-0.28	12
10y	0.05	0.20	15
30y	0.70	0.76	5

* for a 1pd position over 12 months

German 2s10s and 5s10s curve to stay directional with 10yr outright

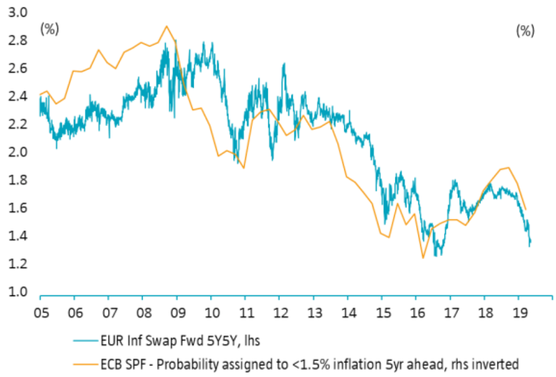
- We expect slightly higher 10yr Bund yields on an improving economic outlook, but would turn neutral again when at around 0.20% – also given our expectation for some (additional) flight-to-safety flows in 2H (due to renewed hard Brexit fears and Italian fiscal concerns).
- We expect the German 2s10s and 5s10s curves, which have re-steepened somewhat recently but remain historically flat, to continue to trade directionally with 10yr outright.
- The decline in Eurozone long-term breakeven rates and inflation swaps is not just due to an increasingly negative inflation risk premium, but also reflects a genuine reassessment of long-term inflation expectations (Chart 2). We expect some recovery in breakevens in 2H as Eurozone core inflation edges higher.

Chart 1. Barometer would have been even weaker if not for consumer sector



Source: Bloomberg

Chart 2. Long-term inflation expectations have turned south

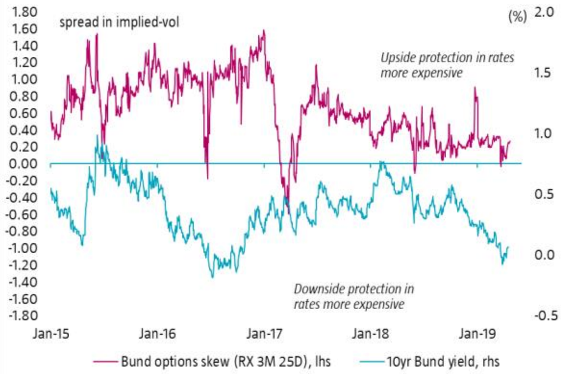


Source: Bloomberg

Chart 3. Changes in policy outlook key driver of 5yr German yields

Source: Bloomberg

Chart 4. Japanification fears increasingly evident in Bund options skew



Source: Bloomberg

PBoC: a ‘controlled’ impulse

- Policy efforts start to bear fruit..
- …reducing appetite for further monetary stimulus
- Most of the widening in 5-10yr CGB-UST spreads seems behind us

Policy efforts start to bear fruit…

It seems the efforts of the People’s Bank of China to stimulate the provision of credit to private sector firms (this includes the targeted medium-term lending facility and earlier RRR cuts) have started to bear fruit. Broad credit growth, as measured by total social financing, has clearly rebounded, mainly driven by a pick-up in bank lending to SMEs, higher corporate bond issuance and a rise in special local government bond issuance (to fund infrastructure investment in new metro lines and toll roads, for instance). The closely-watched credit impulse metric should recover further in the coming months, supporting domestic demand, which will also receive a boost from the remaining fiscal stimulus, including the recent cut in VAT and the social security contribution rate.

However, given Beijing’s objective of ‘broadly stable’ leverage in 2019, the prospect of further policy easing seems to have become reduced recently. Indeed, the PBOC has pledged to keep good control of the money supply ‘floodgate’ and not ‘flood’ the economy with excessive liquidity, according to the statement from the first-quarter meeting of the monetary policy committee.

…reducing appetite for further monetary stimulus

All this implies that while a few further 50-100 bps of RRR cuts could still be forthcoming this year, to prevent a – meaningful – tightening of funding conditions in the interbank market, actual cuts in the 7-day reverse repo rate or benchmark interest rates are unlikely to be on the cards unless a US-China trade deal does not materialize and the export recovery shifts into reverse. We could also envisage the central bank reducing the rates on lending facilities to banks. The financial markets, in any case, expect a modest tightening in interbank repo market conditions over the coming year, judging from the forward rates (see table below).

Valuation

What is priced in for the PBoC versus our expectations

1-month repo NDIRS	*2.74*	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20
Change implied by forwards (bp)		14	17	19	19	20	21
Our weighted fair value estimate (bp)		-1	-5	-8	-8	-8	-8
Our central scenario (bp)		0	-5	-10	-10	-10	-10

Most of the widening in 5-10yr CGB-UST spreads seems behind us

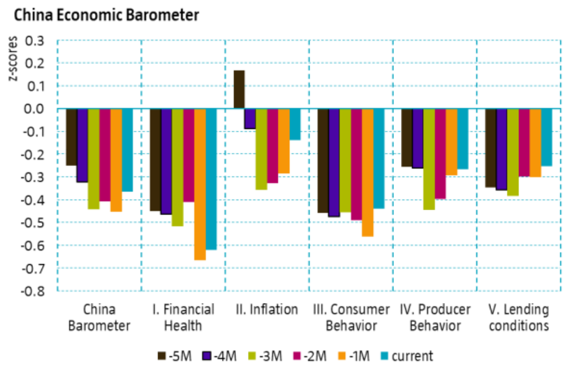
The recent net rise in the 7-day fixing repo rate and 2-year ahead forwards has coincided with a sell-off in 5yr government bond yields (Chart 4 on next page), confirming that despite the overseas buying of Chinese bonds due to their inclusion in the Bloomberg Barclays Global Bond Indices from April, 5yr and 10yr CGB yields are still predominantly driven by the Chinese monetary policy complex. Looking ahead, a sustained break in 5yr and 10yr CGB-US Treasury spreads above 100 bps seems unlikely to us, taking into account the fact that the process of Chinese Bond Index inclusion in all major indices has only just begun. We therefore believe 90-100 bps would be a good entry point for a spread tightening position.

CGB curve	Spot	12m Fw
2y	2.92	3.14
5y	3.16	3.41
10y	3.41	3.56

Economic barometer has started to turn the corner

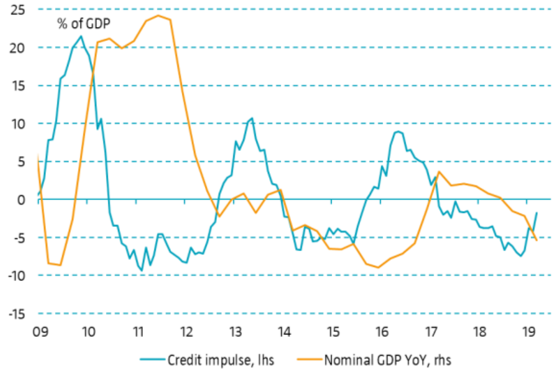
- After months of weakness, our economic barometer for China is finally showing convincing signs of improvement. This is mainly being driven by better credit growth and production data, and confirms that the macroeconomic stimulus has started to bear fruit.
- The improved data, coupled with the recent rhetoric of the PBoC, signals some restraint towards further monetary easing.
- However, some further action should still be expected so as to prevent a tightening in money market conditions.

Chart 1. Barometer improves on lending conditions and producer behavior



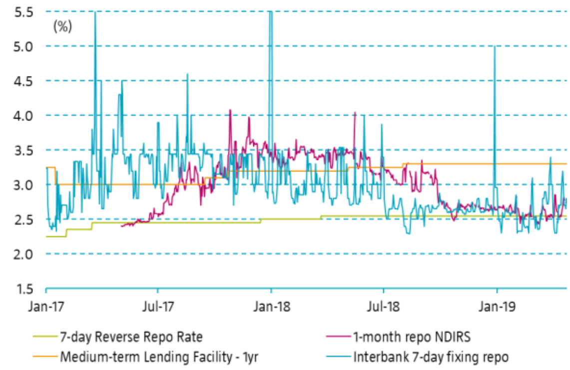
Source: Bloomberg

Chart 2: Credit impulse no longer a drag on nominal GDP growth



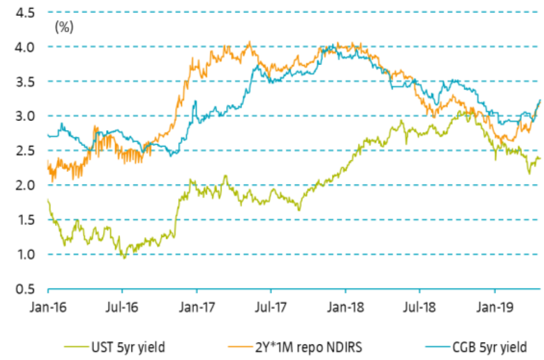
Source: Bloomberg

Chart 3: Repo rates have moved higher of late



Source: Bloomberg

Chart 4: 5yr CGB-UST spread widens on higher repo rate forwards



Source: Bloomberg

BoJ: difficult place

- Barrier to changing policy is high for now
- BoJ would like to see steeper curve

Policy dilemma

For the near term, the market is pricing in a 50% change of 10 bps cut in the policy balance rate. The Japanese economy has effectively been slowing since autumn 2018, when capital goods exports to China slumped, while at the same time broad consumer and corporate sentiment started to decline. Furthermore, the BoJ is very aware of the negative effects on growth due to the planned VAT hike later this year. The BoJ faces a policy dilemma here, as it wants to ease policy further by cutting rates, but such a step will erode the banks' profitability and doing so could hurt lending to the broad economy. We therefore think the barrier to a change in the policy rate is quite high and we do not agree with the cut that is currently priced in.

Valuation

What is priced in for the BoJ, versus our expectation

Policy balance rate	*0.10*	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20
Change implied by futures (bp)		-3	-3	-3	-4	-4	-4
Our weighted fair value estimate (bp)		0	0	0	0	0	0
Our central scenario (bp)		0	0	0	0	0	0

Additional easing unlikely for now

Japanese long-term yields have declined, with the curve flattening almost back to levels not seen since September 2016 when the BoJ introduced their policy of yield curve control. The BoJ now finds itself in a difficult place. On the one hand, the BoJ would like to see a – much – steeper yield curve to support the banking and insurance sectors in terms of profitability, while disappointing economic conditions call for more policy easing. Simply cutting rates further will have limited impact. Lending rates have come down in line with BoJ policy and JGB yields, while commercial banks have at the same time maintained the zero lower bound for rates on customer deposits. So cutting rates will impact banks and other financial institutions' profitability further. In our view, the BoJ is more likely to cut the rate in the loan support program, as this would stimulate lending to small and medium-sized domestic corporates.

Unattractive JGBs

JGB levels have retraced back almost to the lows last seen in 2016 and we do not agree with the expected rate cut. With JGBs up to 10-year trading at negative yields, we do not see any reason to own such JGBs. With growth and inflation momentum clearly settling at lower levels, we would favor holding 15-30-year JGBs versus shorter maturity JGBs. 10-year JGBs become attractive in our view around 25 bps.

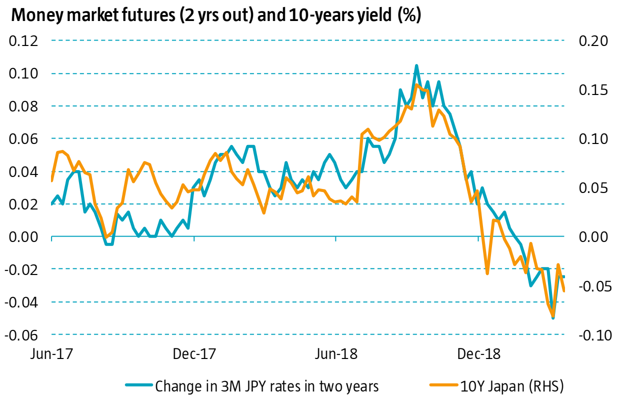
JGB Curve	Spot yield	12m Fw	Carry*	Hedged to EUR
2y	-0.15	-0.15	-7.0	-7.0
5y	-0.15	-0.15	-2.9	-2.9
10y	-0.03	0.06	4.5	4.5
30y	0.57	0.60	3.8	3.8

* for a 1pd position over 12 months

Market Outlook

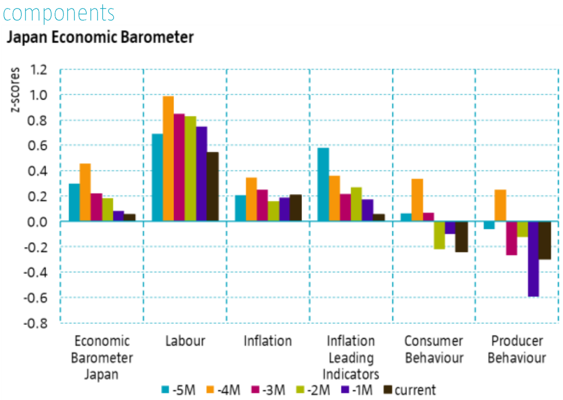
- Even though the BoJ would like to see a steeper yield curve, we think that reasons including below-trend growth and low inflation expectations will dominate how long-term interest rates will trade. We therefore think the curve in Japan should flatten going forward.
- Even though we do not agree with the cut that is being priced in by the market, we see only little upside in the 10-year JGB yields due to the rather weak growth and inflation outlook in Japan. As evidenced by the economic barometer below, economic conditions and leading indicators for inflation have deteriorated sharply since our last update.
- We expect only some very modest upward movements in Japanese break-even inflation rates, mainly due to the planned VAT hike later this year. Underlying inflationary pressures remain low in our view, due to structural economic long-term trends in Japan, such as changing demographics for example.

Chart 1. Money market futures price in lower rates



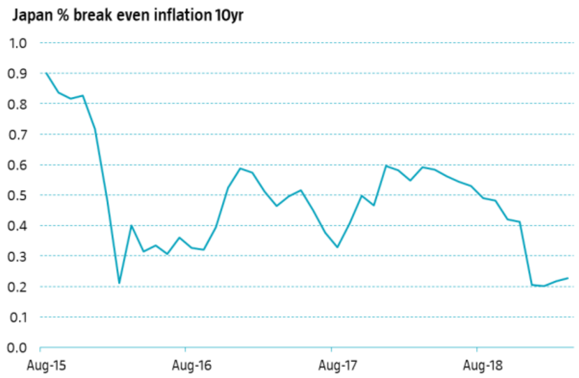
Source: Bloomberg

Chart 2. Barometer shows weakness across almost all components



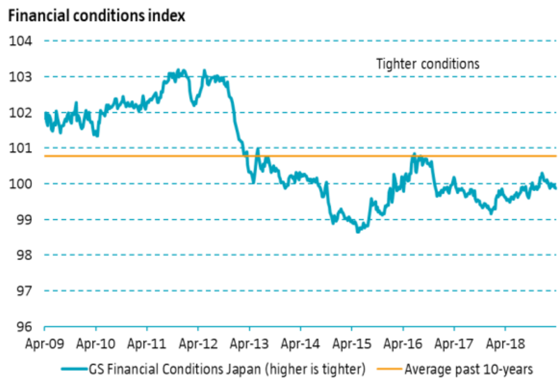
Source: Bloomberg

Chart 3. Break-even inflation at lowest level since 2016



Source: Bloomberg

Chart 4. Financial conditions are stable in Japan



Source: Bloomberg, Goldman Sachs

Important Information

Robeco Institutional Asset Management B.V. has a license as manager of Undertakings for Collective Investment in Transferable Securities (UCITS) and Alternative Investment Funds (AIFs) ("Fund(s)") from The Netherlands Authority for the Financial Markets in Amsterdam. This document is solely intended for professional investors, defined as investors qualifying as professional clients, have requested to be treated as professional clients or are authorized to receive such information under any applicable laws. Robeco Institutional Asset Management B.V and/or its related, affiliated and subsidiary companies, ("Robeco"), will not be liable for any damages arising out of the use of this document. Users of this information who provide investment services in the European Union have their own responsibility to assess whether they are allowed to receive the information in accordance with MiFID II regulations. To the extent this information qualifies as a reasonable and appropriate minor non-monetary benefit under MiFID II, users that provide investment services in the European Union are responsible to comply with applicable recordkeeping and disclosure requirements. The content of this document is based upon sources of information believed to be reliable and comes without warranties of any kind. Without further explanation this document cannot be considered complete. Any opinions, estimates or forecasts may be changed at any time without prior warning. If in doubt, please seek independent advice. It is intended to provide the professional investor with general information on Robeco's specific capabilities, but has not been prepared by Robeco as investment research and does not constitute an investment recommendation or advice to buy or sell certain securities or investment products and/or to adopt any investment strategy and/or legal, accounting or tax advice. All rights relating to the information in this document are and will remain the property of Robeco. This material may not be copied or used with the public. No part of this document may be reproduced, or published in any form or by any means without Robeco's prior written permission. Investment involves risks. Before investing, please note the initial capital is not guaranteed. Investors should ensure that they fully understand the risk associated with any Robeco product or service offered in their country of domicile ("Funds"). Investors should also consider their own investment objective and risk tolerance level. Historical returns are provided for illustrative purposes only. The price of units may go down as well as up and the past performance is not indicative of future performance. If the currency in which the past performance is displayed differs from the currency of the country in which you reside, then you should be aware that due to exchange rate fluctuations the performance shown may increase or decrease if converted into your local currency. The performance data do not take account of the commissions and costs incurred on trading securities in client portfolios or on the issue and redemption of units. Unless otherwise stated, the prices used for the performance figures of the Luxembourg-based Funds are the end-of-month transaction prices net of fees up to 4 August 2010. From 4 August 2010, the transaction prices net of fees will be those of the first business day of the month. Return figures versus the benchmark show the investment management result before management and/or performance fees; the Fund returns are with dividends reinvested and based on net asset values with prices and exchange rates of the valuation moment of the benchmark. Please refer to the prospectus of the Funds for further details. Performance is quoted net of investment management fees. The ongoing charges mentioned in this document are the ones stated in the Fund's latest annual report at closing date of the last calendar year. This document is not directed to, or intended for distribution to or use by any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, document, availability or use would be contrary to law or regulation or which would subject any Fund or Robeco Institutional Asset Management B.V. to any registration or licensing requirement within such jurisdiction. Any decision to subscribe for interests in a Fund offered in a particular jurisdiction must be made solely on the basis of information contained in the prospectus, which information may be different from the information contained in this document. Prospective applicants for shares should inform themselves as to legal requirements also applying and any applicable exchange control regulations and applicable taxes in the countries of their respective citizenship, residence or domicile. The Fund information, if any, contained in this document is qualified in its entirety by reference to the prospectus, and this document should, at all times, be read in conjunction with the prospectus. Detailed information on the Fund and associated risks is contained in the prospectus. The prospectus and the Key Investor Information Document for the Robeco Funds can all be obtained free of charge at www.robeco.com.

Additional Information for US investors

Neither Robeco Institutional Asset Management B.V. nor the Robeco Capital Growth Funds have been registered under the United States Federal Securities Laws, including the Investment Company Act of 1940, as amended, the United States Securities Act of 1933, as amended, or the Investment Advisers Act of 1940. No Fund shares may be offered or sold, directly or indirectly, in the United States or to any US Person. A US Person is defined as (a) any individual who is a citizen or resident of the United States for federal income tax purposes; (b) a corporation, partnership or other entity created or organized under the laws of or existing in the United States; (c) an estate or trust the income of which is subject to United States federal income tax regardless of whether such income is effectively connected with a United States trade or business. Robeco Institutional Asset Management US Inc. ("RIAM US"), an Investment Adviser registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940, is a wholly owned subsidiary of ORIX Corporation Europe N.V. and offers investment advisory services to institutional clients in the US. In connection with these advisory services, RIAM US will utilize shared personnel of its affiliates, Robeco Nederland B.V. and Robeco Institutional Asset Management B.V., for the provision of investment, research, operational and administrative services.

Additional Information for investors with residence or seat in Australia and New Zealand

This document is distributed in Australia by Robeco Hong Kong Limited (ARBN 156 512 659) ("Robeco"), which is exempt from the requirement to hold an Australian financial services license under the Corporations Act 2001 (Cth) pursuant to ASIC Class Order 03/1103. Robeco is regulated by the Securities and Futures Commission under the laws of Hong Kong and those laws may differ from Australian laws. This document is distributed only to "wholesale clients" as that term is defined under the Corporations Act 2001 (Cth). This document is not for distribution or dissemination, directly or indirectly, to any other class of persons. In New Zealand, this document is only available to wholesale investors within the meaning of clause 3(2) of Schedule 1 of the Financial Markets Conduct Act 2013 ('FMCA'). This document is not for public distribution in Australia and New Zealand.

Additional Information for investors with residence or seat in Austria

This information is solely intended for professional investors or eligible counterparties in the meaning of the Austrian Securities Oversight Act.

Additional Information for investors with residence or seat in Brazil

The Fund may not be offered or sold to the public in Brazil. Accordingly, the Fund has not been nor will be registered with the Brazilian Securities Commission – CVM, nor has it been submitted to the foregoing agency for approval. Documents relating to the Fund, as well as the information contained therein, may not be supplied to the public in Brazil, as the offering of the Fund is not a public offering of securities in Brazil, nor may they be used in connection with any offer for subscription or sale of securities to the public in Brazil.

Additional Information for investors with residence or seat in Canada

No securities commission or similar authority in Canada has reviewed or in any way passed upon this document or the merits of the securities described herein, and any representation to the contrary is an offence. Robeco Institutional Asset Management B.V. is relying on the international dealer and international adviser exemption in Quebec and has appointed McCarthy Tétrault LLP as its agent for service in Quebec.

Additional information for investors with residence or seat in the Republic of Chile

Neither the issuer nor the Funds have been registered with the Superintendencia de Valores y Seguros pursuant to law no. 18.045, the Ley de Mercado de Valores and regulations thereunder. This document does not constitute an offer of, or an invitation to subscribe for or purchase, shares of the Funds in the Republic of Chile, other than to the specific person who individually requested this information on his own initiative. This may therefore be treated as a "private offering" within the meaning of article 4 of the Ley de Mercado de Valores (an offer that is not addressed to the public at large or to a certain sector or specific group of the public).

Additional Information for investors with residence or seat in Colombia

This document does not constitute a public offer in the Republic of Colombia. The offer of the Fund is addressed to less than one hundred specifically identified investors. The Fund may not be promoted or marketed in Colombia or to Colombian residents, unless such promotion and marketing is made in compliance with Decree 2555 of 2010 and other applicable rules and regulations related to the promotion of foreign Funds in Colombia.

Additional Information for investors with residence or seat in the Dubai International Financial Centre (DIFC), United Arab Emirates

This material is being distributed by Robeco Institutional Asset Management B.V. (Dubai Office) located at Office 209, Level 2, Gate Village Building 7, Dubai International Financial Centre, Dubai, PO Box 482060, UAE. Robeco Institutional Asset Management B.V. (Dubai office) is regulated by the Dubai Financial Services Authority ("DFSA") and only deals with Professional Clients or Market Counterparties and does not deal with Retail Clients as defined by the DFSA.

Additional Information for investors with residence or seat in France

Robeco is at liberty to provide services in France. Robeco France (only authorized to offer investment advice service to professional investors) has been approved under registry number 10683 by the French prudential control and resolution authority (formerly ACP, now the ACPR) as an investment firm since 28 September 2012.

Additional Information for investors with residence or seat in Germany

This information is solely intended for professional investors or eligible counterparties in the meaning of the German Securities Trading Act.

Additional Information for investors with residence or seat in Hong Kong

The contents of this document have not been reviewed by the Securities and Futures Commission ("SFC") in Hong Kong. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice. This document has been distributed by Robeco Hong Kong Limited ("Robeco"). Robeco is regulated by the SFC in Hong Kong.

Additional Information for investors with residence or seat in Italy

This document is considered for use solely by qualified investors and private professional clients (as defined in Article 26 (1) (b) and (d) of Consob Regulation No. 16190 dated 29 October 2007). If made available to Distributors and individuals authorized by Distributors to conduct promotion and marketing activity, it may only be used for the purpose for which it was conceived. The data and information contained in this document may not be used for communications with Supervisory Authorities. This document does not include any information to determine, in concrete terms, the investment inclination and, therefore, this document cannot and should not be the basis for making any investment decisions.

Additional Information for investors with residence or seat in Peru

The Fund has not been registered with the Superintendencia del Mercado de Valores (SMV) and is being placed by means of a private offer. SMV has not reviewed the information provided to the investor. This document is only for the exclusive use of institutional investors in Peru and is not for public distribution.

Additional Information for investors with residence or seat in Shanghai

This material is prepared by Robeco Investment Management Advisory (Shanghai) Limited Company ("Robeco Shanghai") and is only provided to the specific objects under the premise of confidentiality. Robeco Shanghai has not yet been registered as a private fund manager with the Asset Management Association of China. Robeco Shanghai is a wholly foreign-owned enterprise established in accordance with the PRC laws, which enjoys independent civil rights and civil obligations. The statements of the shareholders or affiliates in the material shall not be deemed to a promise or guarantee of the shareholders or affiliates of Robeco Shanghai, or be deemed to any obligations or liabilities imposed to the shareholders or affiliates of Robeco Shanghai.

Additional Information for investors with residence or seat in Singapore

This document has not been registered with the Monetary Authority of Singapore ("MAS"). Accordingly, this document may not be circulated or distributed directly or indirectly to persons in Singapore other than (i) to an institutional investor under Section 304 of the SFA, (ii) to a relevant person pursuant to Section 305(1), or any person pursuant to Section 305(2), and in accordance with the conditions specified in Section 305, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. The contents of this document have not been reviewed by the MAS. Any decision to participate in the Fund should be made only after reviewing the sections regarding investment considerations, conflicts of interest, risk factors and the relevant Singapore selling restrictions (as described in the section entitled "Important Information for Singapore Investors") contained in the prospectus. You should consult your professional adviser if you are in doubt about the stringent restrictions applicable to the use of this document, regulatory status of the Fund, applicable regulatory protection, associated risks and suitability of the Fund to your objectives. Investors should note that only the sub-Funds listed in the appendix to the section entitled "Important Information for Singapore Investors" of the prospectus ("Sub-Funds") are available to Singapore investors. The Sub-Funds are notified as restricted foreign schemes under the Securities and Futures Act, Chapter 289 of Singapore ("SFA") and are invoking the exemptions from compliance with prospectus registration requirements pursuant to the exemptions under Section 304 and Section 305 of the SFA. The Sub-Funds are not authorized or recognized by the MAS and shares in the Sub-Funds are not allowed to be offered to the retail public in Singapore. The prospectus of the Fund is not a prospectus as defined in the SFA. Accordingly, statutory liability under the SFA in relation to the content of prospectuses would not apply. The Sub-Funds may only be promoted exclusively to persons who are sufficiently experienced and sophisticated to understand the risks involved in investing in such schemes, and who satisfy certain other criteria provided under Section 304, Section 305 or any other applicable provision of the SFA and the subsidiary legislation enacted thereunder. You should consider carefully whether the investment is suitable for you. Robeco Singapore Private Limited holds a capital markets services license for fund management issued by the MAS and is subject to certain clientele restrictions under such license.

Additional Information for investors with residence or seat in Spain

Robeco Institutional Asset Management BV, Branch in Spain is registered in Spain in the Commercial Registry of Madrid, in v.19.957, page 190, section 8, page M-351927 and in the Official Register of the National Securities Market Commission of branches of companies of services of investment of the European Economic Space, with the number 24. It has address in Street Serrano 47, Madrid and CIF W0032687F. The investment funds or SICAV mentioned in this document are regulated by the corresponding authorities of their country of origin and are registered in the Special Registry of the CNMV of Foreign Collective Investment Institutions marketed in Spain.

Additional Information for investors with residence or seat in Switzerland

This document is exclusively distributed in Switzerland to qualified investors as defined in the Swiss Collective Investment Schemes Act (CISA) by ACOLIN Fund Services AG which is authorized by the Swiss Financial Market Supervisory Authority FINMA as Swiss representative of foreign collective investment schemes, and UBS Switzerland AG, Bahnhofstrasse 45, 8001 Zurich, postal address: Europastrasse 2, P.O. Box, CH-8152 Opfikon, as Swiss paying agent. The prospectus, the Key Investor Information Documents (KIIDs), the articles of association, the annual and semi-annual reports of the Fund(s), as well as the list of the purchases and sales which the Fund(s) has undertaken during the financial year, may be obtained, on simple request and free of charge, at the office of the Swiss representative ACOLIN Fund Services AG, Affolternstrasse 56, 8050 Zürich, Zwitserland. The prospectuses are also available via the website www.robeco.ch.

Additional Information for investors with residence or seat in the United Arab Emirates

Some Funds referred to in this marketing material have been registered with the UAE Securities and Commodities Authority (the Authority). Details of all Registered Funds can be found on the Authority's website. The Authority assumes no liability for the accuracy of the information set out in this material/document, nor for the failure of any persons engaged in the investment Fund in performing their duties and responsibilities.

Additional Information for investors with residence or seat in the United Kingdom

Robeco is subject to limited regulation in the UK by the Financial Conduct Authority. Details about the extent of our regulation by the Financial Conduct Authority are available from us on request.

Additional Information for investors with residence or seat in Uruguay

The sale of the Fund qualifies as a private placement pursuant to section 2 of Uruguayan law 18,627. The Fund must not be offered or sold to the public in Uruguay, except in circumstances which do not constitute a public offering or distribution under Uruguayan laws and regulations. The Fund is not and will not be registered with the Financial Services Superintendency of the Central Bank of Uruguay. The Fund corresponds to investment funds that are not investment funds regulated by Uruguayan law 16,774 dated September 27, 1996, as amended.

Additional Information concerning RobecoSAM Collective Investment Schemes

The RobecoSAM collective investment schemes ("RobecoSAM Funds") in scope are ub-Funds under the Undertakings for Collective Investment in Transferable Securities (UCITS) of MULTIPARTNER SICAV, managed by GAM (Luxembourg) S.A., ("Multipartner"). Multipartner SICAV is incorporated as a Société d'Investissement à Capital Variable which is governed by Luxembourg law. The custodian is State Street Bank Luxembourg S.C.A., 49, Avenue J. F. Kennedy, L-1855 Luxembourg. The prospectus, the Key Investor Information Documents (KIIDs), the articles of association, the annual and semi-annual reports of the RobecoSAM Funds, as well as the list of the purchases and sales which the RobecoSAM Fund(s) has undertaken during the financial year, may be obtained, on simple request and free of charge, via the website www.robecosam.com or www.funds.gam.com.

Version Q4/18