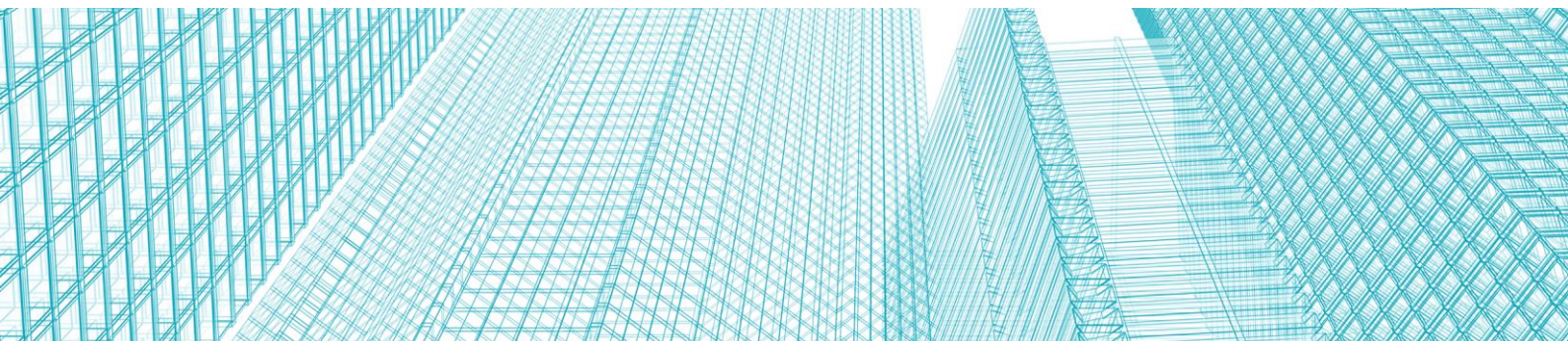


ARTICLE

For professional investors
October/November 2018

ROBECO
The Investment Engineers



Central Bank Watcher

Robeco Global Fixed
Income Macro Team

- [ECB: Why risk an early end to the recovery?](#)
- [Fed: Enough priced in for now](#)
- [PBoC: Juggling different objectives](#)
- [BoJ: Time to change the 10-year JGB's target range?](#)

Tightening in tougher conditions

In our new Central Bank Watcher, we examine the policy and actions of the world's major central banks (Federal Reserve, European Central Bank, People's bank of China and the Bank of Japan). The Robeco Global Macro team looks at expectations for growth, inflation and the term premium, for example, and analyzes monetary policy and geopolitics to see how these will affect the macro outlook and financial markets going forward.

According to Rikkert Scholten, after the recent rally in bonds, there is some room to price in a more hawkish trajectory for both the Fed and the ECB, but this remains limited. Yes, we expect continued hikes by the Fed and a start of the tightening cycle by the ECB, but these expectations are largely priced in already. Does this situation imply that central banks have taken the art of guidance to the next level, or will it mean that unexpected events – more volatile oil prices, a spike in inflation, further deterioration in Italy have far more impact?

Close to perfection

Between now and the end of 2019, 70 bps in rate hikes are priced in for the Fed. This is still 30 bps below what is expressed in the Fed's most recent dot plot, but as markets tend to have difficulty in pricing in dots further out, we judge the current pricing to be about as good as it can be. Only a higher dot plot would justify a further move upward in short-term yields.

'Limited
room to
price in a
more
hawkish
rate path'

But, with inflation expected to remain close to target and the first signs of risky assets coming under pressure, we don't think there will be much appetite to push up the dots.

As for the ECB, the first rate hike has already been endorsed by Draghi and has been priced in by the market. So probably no surprises here either. The deposit facility rate is likely to be increased by 15 bps in September or October 2019. We are less optimistic on core inflation than the ECB, with a forecast of 1.2% by the end of the year (compared to the ECB's forecast of 1.5%). Although inflation expectations are generally stable, a volatile oil price, for example, could throw a spanner in the works. As could the political backdrop in Europe, which is an area of focus for the region. However, despite the imminent end of the ECB's bond buying program, it still has a card up its sleeve in the form of its reinvestment policy. This can offer the central bank a tool to continue to help the markets out with liquidity if things start to go sour.

Term premium set to decompress

With an upward trajectory for short-term rates already priced in and stable inflation expectations, we expect the term premium to be the main factor driving bond yields in the coming period. The US is further advanced in the tightening cycle, is seeing a rapid increase in net issuance and has a much larger free float of sovereign bonds than Germany, for example. As a result, we expect US Treasuries to be the most vulnerable market when it comes to rising term premiums and so we expect the US Treasury curve to steepen. For Germany there is less room for curve steepening at this point in time.

The Chinese curve has flattened recently and the spread between Chinese government bonds and US Treasuries has tightened significantly. China is not unique in trading at a low yield relative to the US. Canada, Germany, Australia and the UK are in the same camp. But many EM countries would experience wider spreads if their currency depreciated as much as the renminbi has, China, however, is different. This shows that Chinese government bonds are acting as a true safe haven. We expect continued divergence in economic conditions between the US and China and see room for this spread to tighten further.

ECB: Why risk an early end to the recovery?

- Hawks gain the upper hand?
- Reinvestment policy will be a key factor
- Bund free float will contain term premium

Towards a more hawkish ECB?

The ECB's October press conference was slightly hawkish in tone, with President Draghi again sounding confident on the future path of inflation. Despite the risks clouding the horizon for financial markets (emerging market weakness, protectionism, the end of QE and the resulting volatility), he characterized risks to the growth outlook as 'broadly balanced'. We think this risk assessment reflects a change in the balance of power among the ECB's Governing Council members, with the hawks gaining the upper hand. A trend which could continue until the Draghi steps down in October 2019.

Monetary 'life after QE'

Their positive assessment of the growth and inflation outlook, means the ECB is on track to end its QE policy in December. So from 2019 onward, the key policy instruments will be confined to adjusting forward guidance on the future path of interest rates. One important aspect going forward will be the reinvestment policy, which has not yet been clearly defined in terms of how long it will continue and the degree of flexibility.

Draghi made it clear that the capital key calculation (based on each country's economy and population) will remain the basis for reinvestment, something that does not benefit Italy and could cause additional friction. Current expectations are for a two-year reinvestment period and we expect the ECB to remain non-committal about exactly when it intends to start shrinking its balance sheet. The reinvestment policy gives them an extra 'accommodative tool' to fall back on in the event of weak inflation figures or market turbulence. At the October press conference Draghi also mentioned initiating new targeted longer-term refinancing operations (TLTROs) as a means of providing additional liquidity

Stable Eurozone inflation expectations

A first rate hike in Sept-Oct 2019 is already being priced in to a large degree and we see limited scope for markets to price in a more hawkish ECB in the coming months. We also see little risk of core inflation surprising on the upside and estimate a level of 1.2% at the end of the year, compared to the ECB's forecast of 1.5%. Potential Draghi successor Olli Rehn recently stated, "The dynamic between inflation and economic slack appears to have changed; closing the output gap no longer seems to accelerate the rate of inflation as it once did." A view in line with a prudent ECB approach when it comes to tightening monetary conditions.

What is priced in for the ECB Deposit Facility Rate, versus our expectations						
29-Oct-18	Dec-18	Mar-19	Jun-19	Sep-19	Oct-19	Dec-19
Implied rise OIS (bps)	0	0	1	6	11	12
Our expectation (bp)	0	0	0	0	15	15

It is rather surprising how stable Eurozone inflation expectations are. The 5y5y inflation expectations did not budge after recently released strong and broad-based wage growth figures. The same is true of the inflation forecast implied in inflation-linked bond prices. Looking ahead, we see limited scope for inflation expectations to push 10-year Bund yields significantly higher in the next quarters. Only a stronger recovery in oil prices could trigger an inflation surprise on the upside.

Term premium effects subdued by Bund free float

We see limited scope for 10-year Bund yields to move above 0.60% - 0.70% by end-2018, but the path of the term premium will be a key factor in driving Bund yields higher in the longer term. Global liquidity has started to shrink, which should exert upward pressure on term premiums in major developed markets. In addition, the duration of the ECB's sovereign bond holdings should decline over time – with reinvestment alone, it will be difficult to keep the duration constant. This means that the duration risk that QE removed from the market will gradually return and decompress the term premium.

This pressure is likely to be less significant for Bunds than for Treasuries, given the tiny free float (less than 15% of outstanding Bunds are in private hands), which will limit the potential upside of the Bund term premium. The Eurozone's position in the business cycle will also contain the term premium: when central banks start to hike, this is usually associated with a declining term premium.

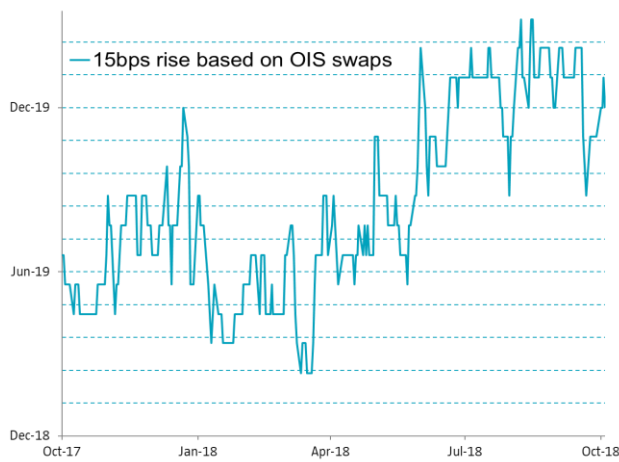
Political uncertainty in Italy

The extent to which Bund yield dynamics have been driven by the political uncertainties in Italy this year is striking. Something which has caused bank stocks to underperform significantly. We think Italian risk will continue to exert downward pressure on Bund yields for the time being. The market is also prepared to pay a much more to hedge against the Bund yield ending below 0.1% than above 0.6% by the end of the year. There is still a perception that Italian risk could trigger a flight to quality, pushing Bund yields down significantly.

Slightly more hawkish ECB until Draghi steps down; inflation outlook muted

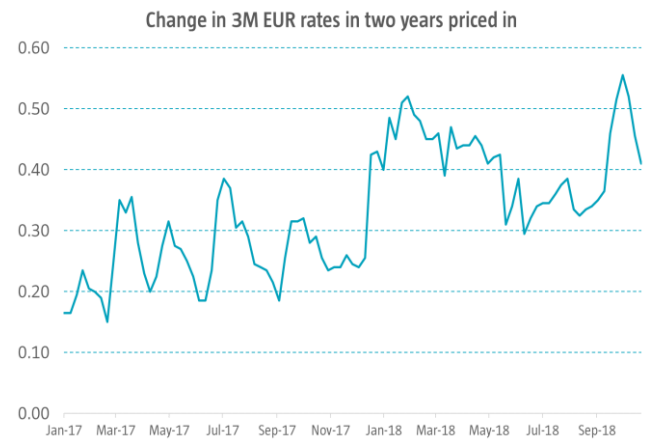
- A first ECB rate hike in September/October 2019 is priced in to a large degree.
- For the next two years, Euribor futures price in around 40 bps in rate hikes.
- Inflation expectations have remained surprisingly stable, as reflected in inflation-linked bonds.

Chart 1. Expected date of the first ECB rate hike (15 bps rise)



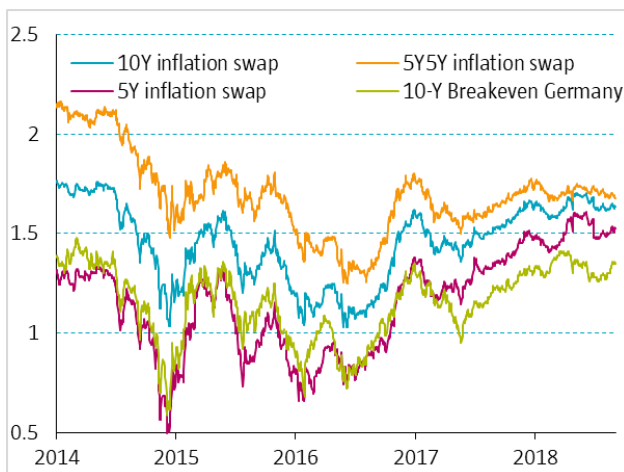
Source: Bloomberg

Chart 2. ECB rate hikes: what is priced in? (implied in futures)



Source: Bloomberg

Chart 3. Marked-based measures of inflation expectations



Source: Bloomberg

Chart 4. Inflation forecasts in traders' inflation-linked bonds

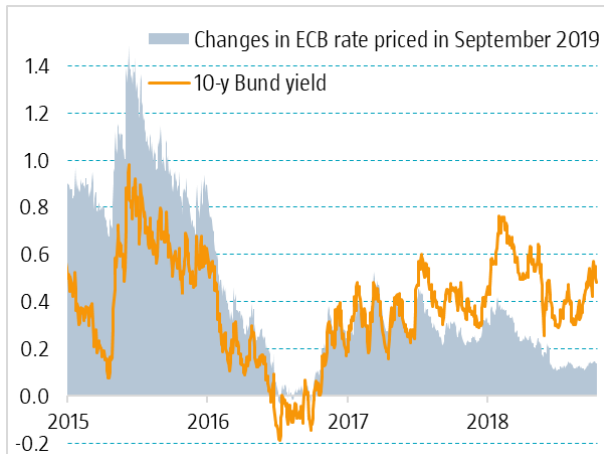


Source: Bloomberg

Recent heightened volatility in 10-year Bund yields

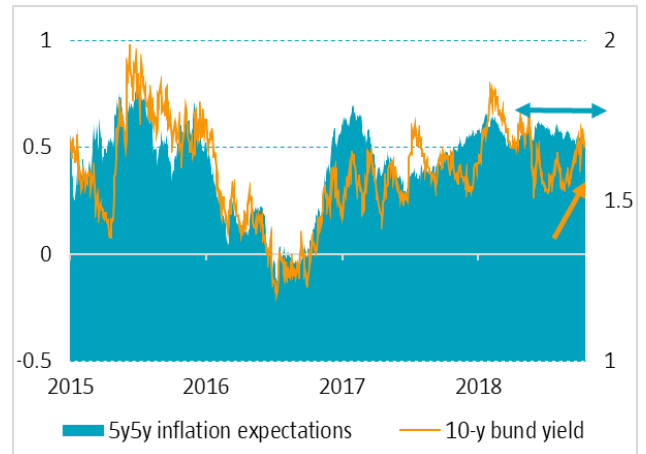
- We analyze sovereign yields using three main components, (i) monetary policy (ii) inflation expectations (iii) term premium. Inflation expectations (blue area, Chart 6) have remained relatively flat and stable throughout 2018 and thus do not explain the 10-year Bund yield's volatility in recent months. The main drivers appear to have been the 10-year Bund term premium (purple area, Chart 7) and the expected change in monetary policy in Q1 (grey area, Chart 5).
- The tiny Bund free float will contain term premium decompression in Europe.
- Bunds have proved highly susceptible to the 'Italy' effect', as shown in Chart 8.

Chart 5. 10-year Bund yield and expected monetary policy



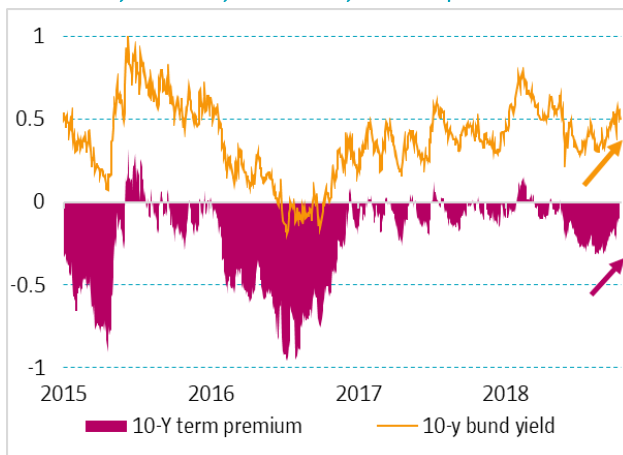
Source: Bloomberg

Chart 6. 10-year Bund yield and inflation expectations



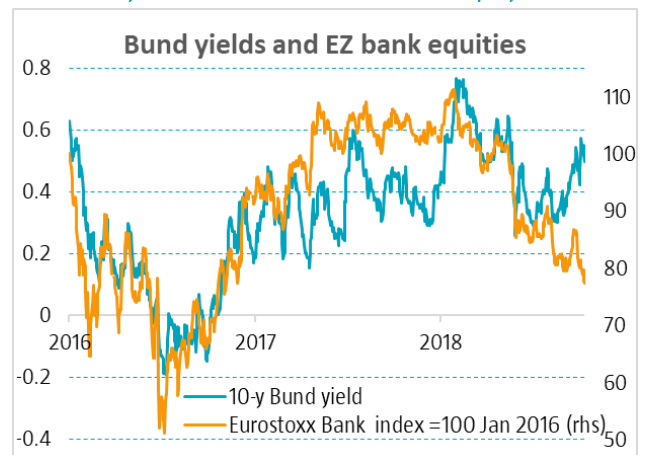
Source: Bloomberg

Chart 7. 10-year Bund yield and 10-year term premium



Source: Bloomberg

Chart 8. 10-year Bund and Eurozone financial equity index



Source: Bloomberg

Fed: Enough priced in for now

- Economic growth continues above trend
- External factors and broader risk-off sentiment likely to slow Fed actions
- Yield curve set to steepen

US economy – full steam ahead

There are plenty of reasons for the Fed to continue hiking in the coming quarters: for 2019 we expect growth to remain above the 1.9% FOMC trend level; we see core inflation rising to 2½% by June next year and Fed Chair Powell is very optimistic on the economy, “There’s really no reason to think that this cycle can’t continue for quite some time, effectively indefinitely”. We think the Fed will hike in December and in March, but we expect a pause in Q2 and Q3. This is not really priced in at the short end, so we expect the US curve to steepen.

Fed dot plot nearly priced in

The market is pricing in 70 bps in rate hikes up to the end of 2019. This is still 30 bps below the Fed’s dot plot, but we judge its current pricing ‘close to perfection’. After the recent rally in bonds, yields might bounce back slightly, but only a higher dot plot would justify a further upward move in short-term yields. We do not think that is likely. The FOMC is aware that it only has a limited set of policy options and inflation is still close to the target level. This makes it easier for the Fed to pause if risk sentiment deteriorates again and more severely contaminates US credit and equity markets.

The slowdown in China and the rundown of the Fed’s balance sheet are likely to result in more emerging market stress. US bank excess reserves are declining, and the monetary base adjusted for inflation was down more than 6% YoY in September and could be down 9% by Q1 next year. The pain of scarcer US dollar funding, as a lot of the excess liquidity came their way in the past. We expect this to lead to a broader risk-off sentiment, which will extend to US equities and credits.

Room for the curve to steepen

At current interest rate and balance sheet levels, the Fed is paying USD 38 billion per year to banks in interest on overnight excess reserves. These payments are seen by many in Congress as a gift to banks; not a popular concept. So if, at some point, the Fed has to choose between continuing the balance sheet rundown and hiking rates, this should be an easy choice.

In our view the combination of gradually building inflation pressures and three additional hikes already nearly priced in, makes it easier for long-term rates to move higher relative to the short end of the curve. Therefore we have a preference for steepeners, especially in the

belly of the US curve as valuations look attractive, carry is positive and cases of inversion in this segment of the curve have been historically rare.

Our quant model suggests an overweight duration stance, given the momentum in bonds, modest inflation pressure and some slowdown in economic sentiment. We agree, but given valuation levels we allocate more risk to curve steepening positions.

What is priced in for the Fed, versus our expectation

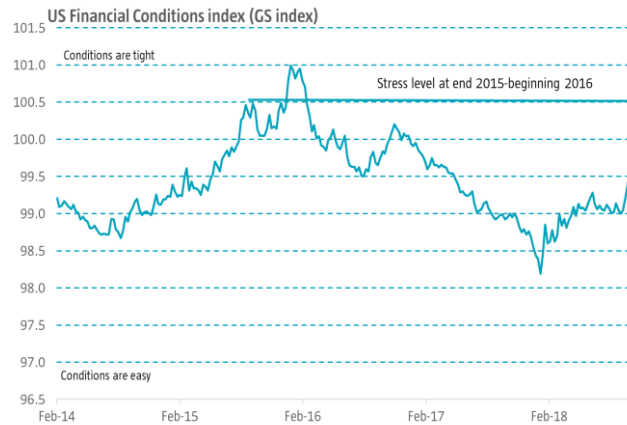
29-Oct-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
2.13					
Implied rise in bps	25	41	55	63	67
Our expectation	25	50	50	50	75

Note: The Fed will probably change its main target rate from the effective fed funds rate to SOFR (collateralized overnight lending rate), but this has limited implications for monetary policy.

Plenty of arguments for the Fed to tighten, but no need to be more aggressive

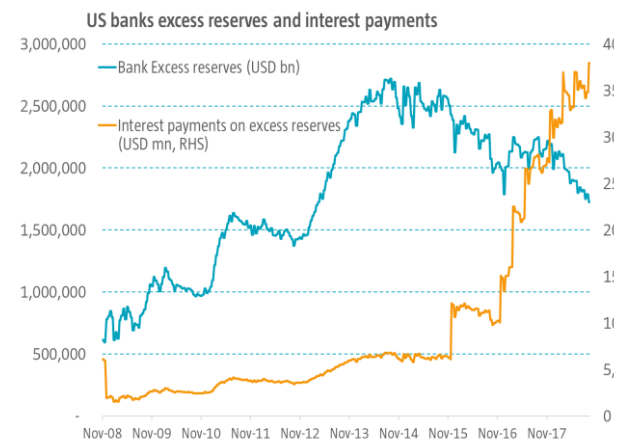
- On balance, financial conditions have not tightened since the Fed started hiking in December 2015.
- Forward inflation expectations have remained close to 2% since 2017.
- Core CPI should rise to 2½% in June. Rents have been the main driver of inflation and we expect this to continue (+3.5% for the coming months), combined with somewhat higher services inflation.

Chart 1. Financial conditions are still loose



Source: Bloomberg

Chart 2. Interest payments on excess reserves are rising



Source: Bloomberg

Chart 3. Forward inflation is flat



Source: Bloomberg

Chart 4. Inflation to remain slightly above 2 percent
Inflation display

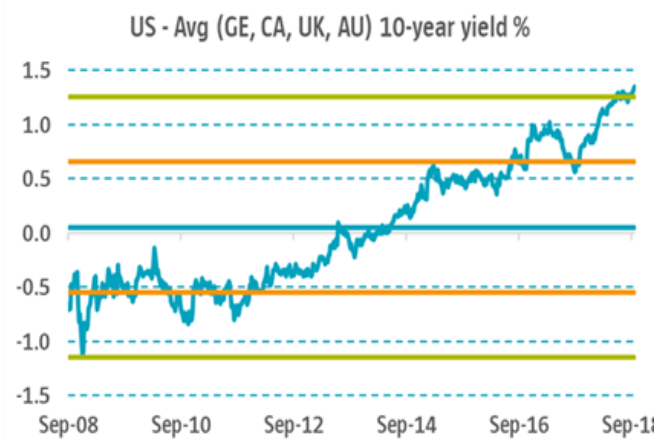
	9/30/2018	Dec-18	Jun-19
Commodities/goods	1.1	1.5	0.6
Food and beverages	1.4	1.0	1.0
Non durables (energy)	4.8	7.0	0.0
Apparel	-0.6	0.5	3
Household furnishing	-1.2	-1	-1
Durables	-0.7	-0.5	0
Services	3.0	2.9	3.1
Rents	3.3	3.5	3.5
Household insurance	1.7	1.5	1.5
Gas and electricity	-1.2	-0.5	-0.5
Water, sewer, trash	3.5	3	3
Household operations	6.2	6	6
Transport services	4.1	3	3
Medical care services	1.7	2	2.5
Recreation services	1.7	2	3
Edu and comm services	0.9	1	1
Other personal services	3.3	3	4
CPI	2.3	2.4	2.1
Core CPI	2.2	2.2	2.5

Source: Bloomberg

US 10-year yields moving into cheap territory

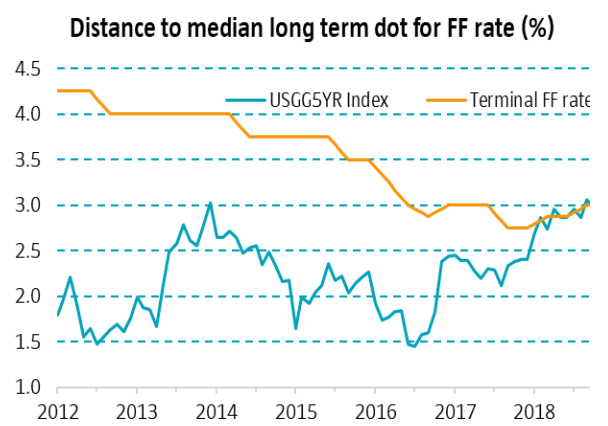
- 10-year US yields are now moving into cheap territory, although this is almost fully explained by differences in central bank expectations.
- The 5-year rate has already reached the expected terminal fed funds rate, so further yield rises should lead to steeper curves.
- The term premium in 10-year US Treasuries has recently started to rise.

Chart 5. 10-year yield is 2 stdv high vs DM peers



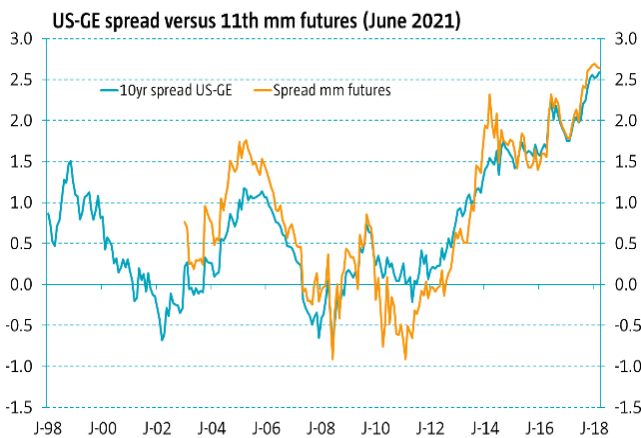
Source: Bloomberg

Chart 6. 5-year yield is now above the terminal rate



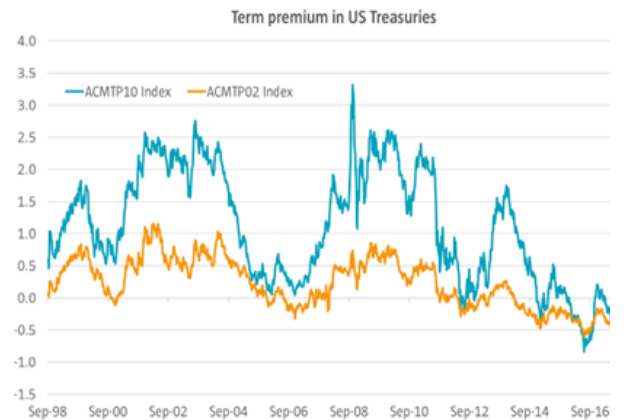
Source: Bloomberg

Chart 7. Fed-ECB expectations explain 10-year spread



Source: Bloomberg

Chart 8. Global QE has pushed term premiums to lows



Source: Bloomberg

PBoC: Juggling different objectives

- RRR remains China's most important monetary tool
- Ongoing credit restrictions; but some form of stimulus required
- Chinese government bonds – the new safe haven?

Monetary policy the Chinese way

According to Chinese law, monetary policy aims to create “stability of the value of the currency and thereby promote economic growth”. There are several characteristics that make Chinese monetary policy quite distinctive. The state plays a dominant role in resource allocation and owns the main commercial banks. The central bank uses regulation such as credit quotas to steer credit growth, but is subordinate to the State Council when it comes to policy decisions. This makes the amount of required reserves (RRR), the differences in RRR between smaller and larger banks and the size of the medium-term lending facility (MLF) more important monetary policy tools than the level of interest rates.

More RRR cuts and weaker renminbi on the cards

The RRR cuts of 7 October were intended to cushion the effects of the government's longer-term deleveraging ambitions, which have proved successful in curbing the growth of the shadow banking sector. However, as credit becomes more scarce, the PBoC wants to prevent the SME segment from suffering the consequences of ‘crowding out effects’. While growth has slowed, recent plans to ramp up infrastructure mean that bank loans have been going to local governments rather than SMEs. The PBoC aims to tackle this by reducing the RRR for both major and smaller banks. There have been three cuts this year and the RRR for major banks is now below the 2009 level of 15.5%. The ratio for smaller banks was brought back to 12.5%, compared to a 2009 low of 13.5%.

Going forward we think more RRR cuts will be needed. First of all, because the PBoC will continue restricting credit for targeted segments of the economy and will have to try to contain the associated ‘collateral damage’. Second, because we think the economy needs some stimulus since growth is likely to slow further. Third, we expect the current account balance to be in deficit in 2019. The surplus has already declined by 2 percentage points since 2016, to only 0.5% GDP.

Market pricing in slightly higher rates, we disagree

The trade war with the US is obviously not helping. Chinese companies may also start paying down their US dollar debt as renminbi interest rates are now almost equalling US dollar levels. We expect to see portfolio inflows into the country with the inclusion of Chinese government bonds (CGBs) in international bond indices, but this flow could be counterbalanced by Chinese investors ongoing desire to diversify into foreign assets. We

expect these trends to lead to a combination of a weaker currency and further cuts in the RRR. We implement this view via a short position in Asian currencies (including renminbi) versus a euro US dollar basket.

Liquidity conditions in the Chinese interbank market have improved. The 7-day repo rate is an important proxy for liquidity and it dropped to 2.7% in mid-October, having moved in a range of 2.3-2.9% since July. The PBoC has clearly been facilitating liquidity since then, as in Q1 and Q2 the repo rate spiked to 3.5-4% on several occasions. It is now close to where it was during the economic downturn in 2015 (2.3%) and we don't think the PBoC will want to bring rates below that level. We expect the PBoC to steer liquidity towards keeping the repo rate stable at 2.5%.

A new sovereign safe haven?

Since the start of the year, the spread between Chinese government bonds and US Treasuries has tightened by 110 bps to 40 bps, bringing the spread back to the December 2016 levels. The tightening reflects the weakening economic conditions this year and the fact that Chinese banks are no longer forced sellers of CGBs. China is not unique in trading at a low yield relative to the US. Canada, Germany, Australia and the UK are in the same camp. But, while many EM countries experience wider spreads as their currency depreciates China is different. This shows that Chinese government bonds are acting as a true safe haven.

We expect continued divergence in economic conditions between the US and China to dominate the spread. Flow wise we expect two opposing forces: foreign CGB demand should increase as a result of their inclusion in international bond indices, while supply in renminbi corporate bonds will probably increase, as issuance of US dollar bonds is less attractive at current yield levels. On a net level, we expect a further tightening of the spread between Chinese and US government bonds.

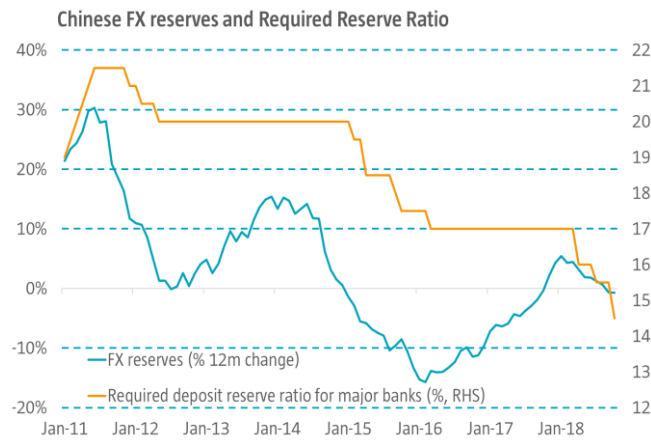
What is priced in for the PBoC versus our expectations

16-Oct-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
2.66					
Implied rise (bp)	0	9	7	10	14
Our expectation MT	0	0	0	0	0

Signs of deleveraging

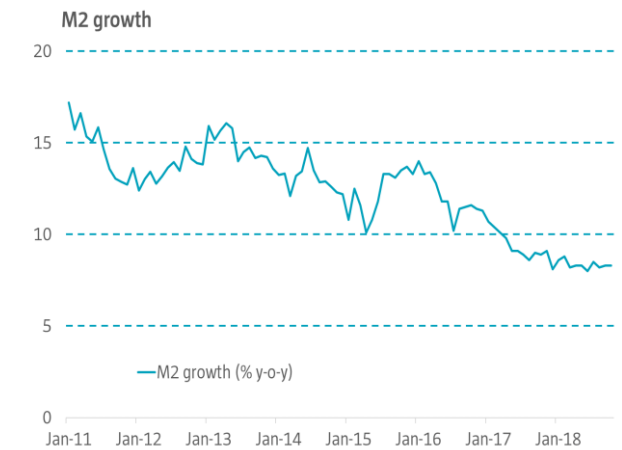
- Since February, foreign currency reserves have been declining again.
- Money growth has slowed from 14% in 2016 to 8% this year. Recent data show a stabilization of M2 growth at 8.3%.
- The PBoC has been successful in bringing down the growth of the shadow banking sector.
- Industrial metal prices are reacting strongly to any changes in Chinese growth. They fell 15% between April and August and have not recovered since.

Chart 1 . Reserves are under pressure again



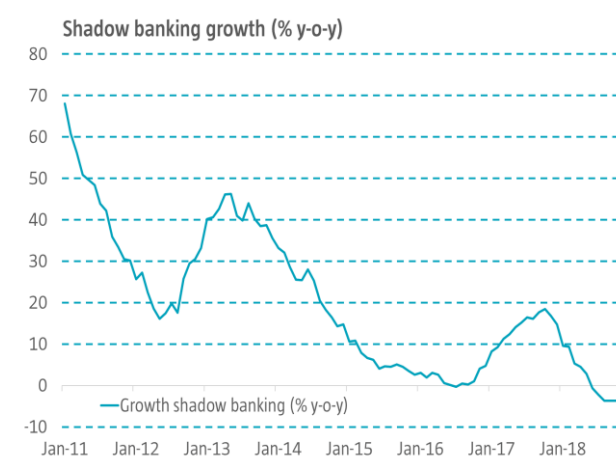
Source: Bloomberg

Chart 2. Money growth is slowing as a trend



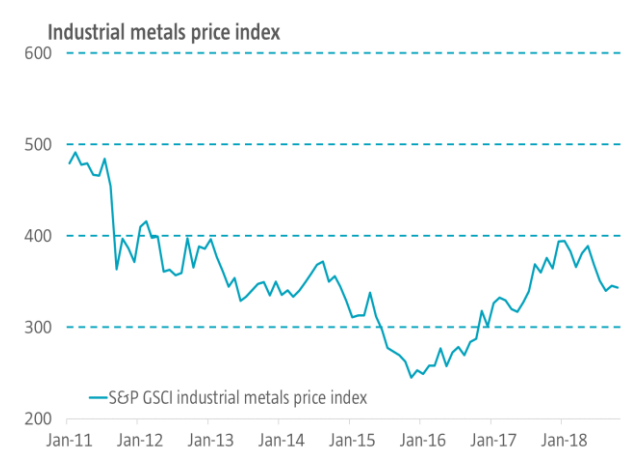
Source: Bloomberg

Chart 3. Shadow banking growth has turned negative



Source: Bloomberg

Chart 4. No recovery so far in industrial metals prices

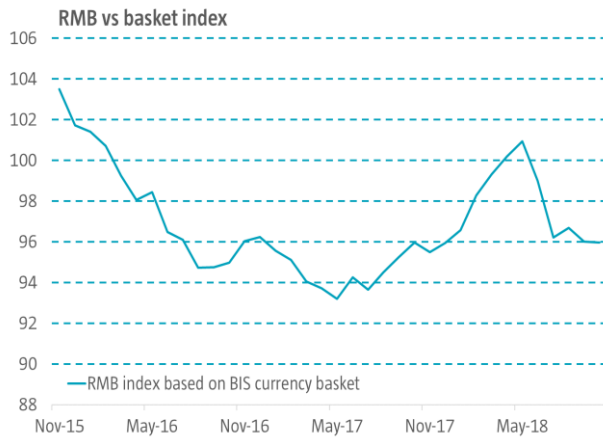


Source: Bloomberg

Renminbi has not depreciated much yet

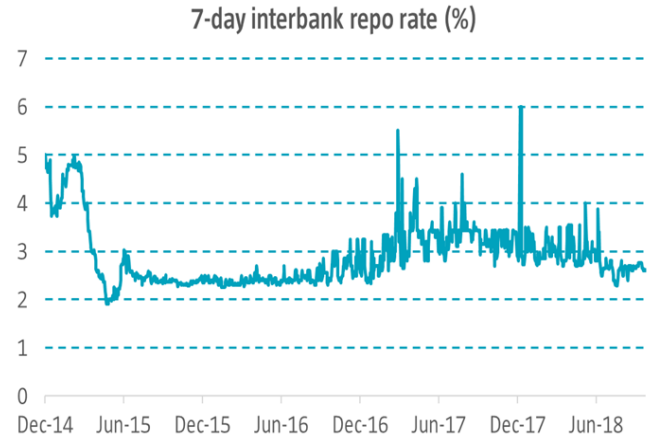
- The renminbi appreciation versus a basket of currencies came to an abrupt end in June. It has depreciated 5% since then, but remained fairly stable in recent years.
- Interbank liquidity has improved significantly since July. The repo rate has not spiked since then and rates are near their 2015 lows.
- Inflation has remained contained, the main factor driving inflation has been food prices.
- The spread between CGBs and US Treasuries has narrowed significantly, after forced CGB selling by banks came to an end.

Chart 5. RMB has weakened 5% vs BIS basket



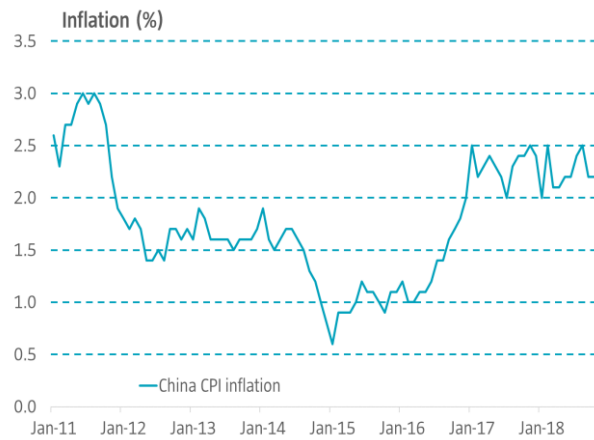
Source: Bloomberg

Chart 6. Repo rate almost back at the 2015 lows



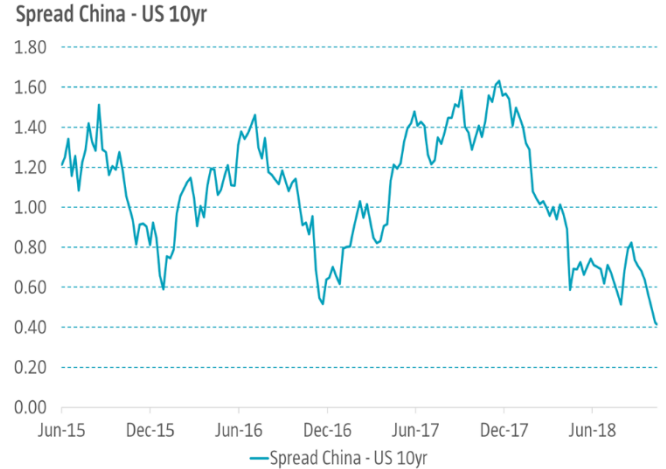
Source: Bloomberg

Chart 7. Inflation in narrow range



Source: Bloomberg

Chart 8. CGBs trading almost US yield levels



Source: Bloomberg

BoJ: Time to change the 10-year JGB's target range?

- Yield curve control main BoJ tool
- Wage pressure could be dampened by plan to open labor market
- Tight range for 10-year JGB for the foreseeable future

From asset purchases to yield curve control (YCC)

In July, the BoJ surprised the market by announcing a change in the target range for the 10-year JGB yield from +/- 0.1% to +/-0.2% around its 0% yield target. Concerns that the bond market's pricing mechanism could have been impaired, motivated this policy shift. Kuroda recently confirmed that this range is the BoJ's main monetary policy instrument. He also made it clear that an exit from unconventional policy would be signaled by a further increase in the long-term yield target. Still, a necessary condition will be the 2% inflation target being met, or almost met.

When will the BoJ relax its yield curve control?

Although the current policy setting will remain in place for now, pushing up the range could come sooner than the market is currently pricing in. There are three main reasons. First, such an announcement is likely to trigger an appreciation of the yen and possibly a mild equity market correction too. To avoid moving markets again, the BoJ could communicate its policy shift when the US dollar is strengthening.

Second, Abe plans to raise the consumption tax in October 2019. To ensure this does not slow down the economy like it did in 2014, some stimulus measures are in the pipeline, which increases the probability of the 2% inflation target being met. Third, the increasing likelihood that the term premium will start to normalize worldwide as a result of shrinking global liquidity may exert substantial upward pressure on 10-year JGB yields. Although the BoJ may use bond purchases to adopt a more flexible monetary stance and ensure that the bond market functions more efficiently, it is unlikely to try to swim against the global tide.

Increasing flexibility in terms of asset purchases

In September the BoJ reduced its super-long rinban operations, which has contributed to a steepening of the long-end of the curve (10-30s). It did not renew this strategy in October, probably in order to offset the pressure of rising US rates and to avoid impacting equity prices. Looking ahead we think there is some potential for further steepening of the short-end of the curve, but that the BoJ is unlikely to surprise the market by hiking rates anytime soon. This means that the 2-year yield may remain relatively well anchored around its current level. However, it will become increasingly difficult for the BoJ to keep the 10-year yield insulated from forces relating to tighter net global monetary policy.

Kuroda announced that any changes in the YCC target will depend on the 2% inflation target being close to being met. Despite the improving inflationary trend, there are factors that could limit the chances of this goal being reached. For example, downward pressure on wage growth may result from Prime Minister Abe’s plan to open the domestic labor market to foreign workers in as early as April 2019.

Valuation						
What is priced in for the BoJ, versus our expectation (bps)						
17-Oct-18	Oct-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
Implied rise (Futures)		2	4	5	4	8
Implied rise (OIS)	0	1	2	4	5	5
Our expectation	0	0	0	0	0	0

Main drivers of 10-year JGBs in the next quarter

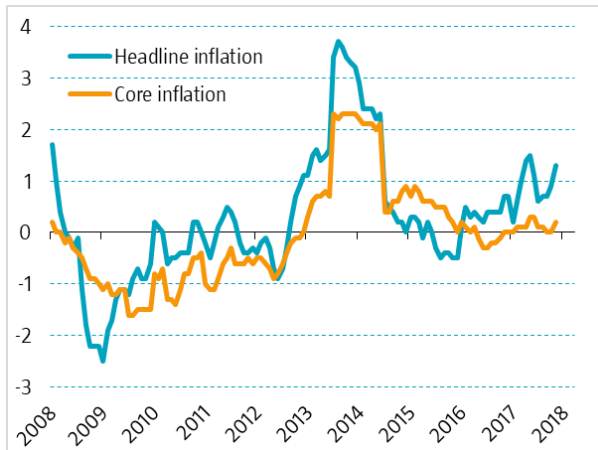
We see the 10-year JGB yield moving in a 0.15-0.3% range by the end of the year.

- 1) Inflation expectations have not been responsive to the strong wage growth, pick up in the oil price or even the rising trend in headline inflation. They have actually been on a declining trend since March this year. We don’t see any significant risk of inflation expectations surprising on the upside and pushing 10-yields up in the coming quarter.
- 2) Monetary stance: While the risk that the BoJ will surprise by hiking rates in the next three months is virtually zero, a higher long-term yield target is more likely, particularly if global long-term yields correct, as a result of term premium normalization in an environment of shrinking global liquidity.
- 3) Term premium: it is likely that term premium in developed economies will start to normalize in the coming quarter as the aggregate balance sheet of the three major central banks (Fed, ECB and BoJ) will decline. As this will cause international bond investors to adjust their portfolios, it will also impact the Japanese term premium.

Stimulus measures may help Japan move closer to 2% inflation

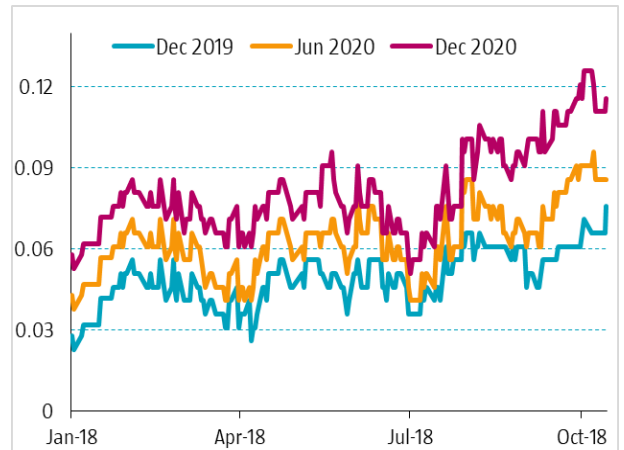
- Inflation is still well below target level and even headline inflation is only just above 1%.
- Risks of a rate hike in the short term (next three months) are virtually zero.
- The Japanese shadow interest rate (which includes unconventional policy) is below -8%

Chart 1. Japan core and headline inflation



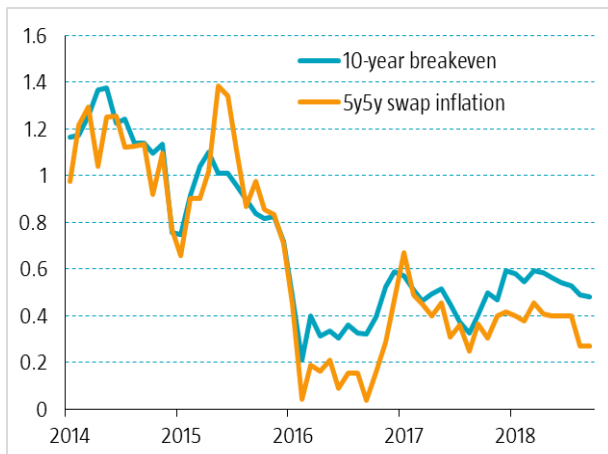
Source: Bloomberg

Chart 2. BoJ rate hikes: what is priced in? (implied in futures)



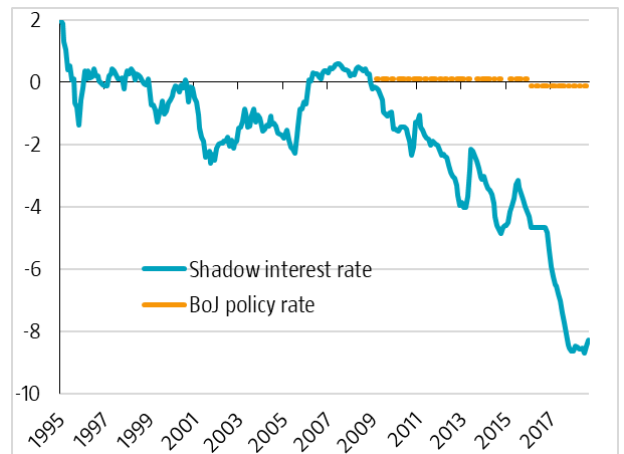
Source: Bloomberg

Chart 3. Market-based measures of inflation expectations



Source: Bloomberg

Chart 4. BoJ Policy rate and shadow interest rate

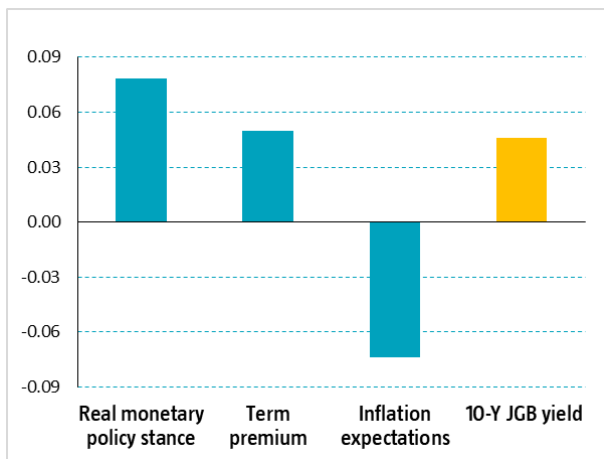


Source: Bloomberg

10-year yields range bound – at least in the short term

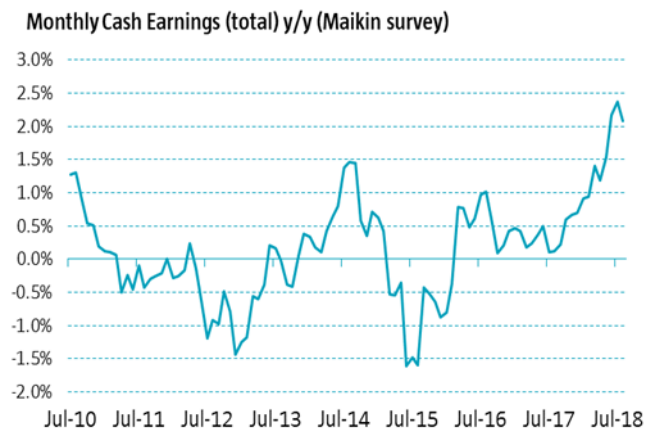
- Monetary policy expectations and the term premium have been the main upward drivers of 10-year JGB yields. Inflation is unlikely to become the reason for any rise in yields.
- Inflation yields have been responsive to changes in bank share prices.
- Real 10-year JGB yields remain well-below historical averages.

Chart 5. Drivers of change in 10-year JGB yield since end-July 2018



Source: Bloomberg

Chart 6. Wages are rising, but the trend remains fragile



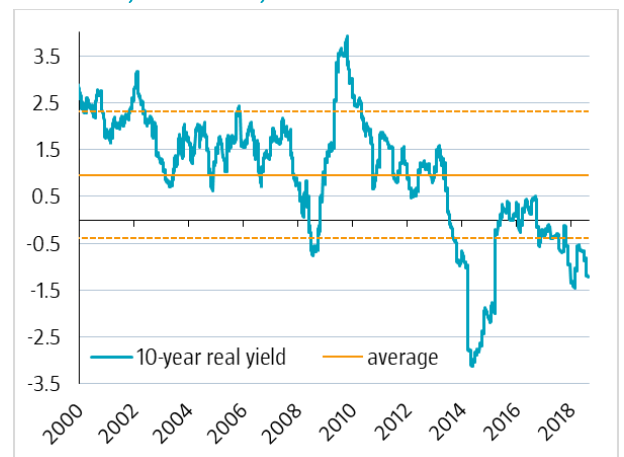
Source: Bloomberg

Chart 7. 10-year JGB yield and Topix bank equity index



Source: Bloomberg

Chart 8. 10-year real JGB yield



Source: Bloomberg

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 Tétraut LLP as its agent for service in Quebec.

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

The Spanish branch Robeco Institutional Asset Management B.V., Sucursal en España, having its registered office at Paseo de la Castellana 42, 28046 Madrid, is registered with the Spanish Authority for the Financial Markets (CNMV) in Spain under registry number 24.

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 Robeco Switzerland 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 Robeco Switzerland AG, Josefstrasse 218, CH-8005 Zurich. 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 sub 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.