

Central bank watcher

Inflation dominance

Sustainable Investing Expertise by
ROBECOSAM

- Fed: not done yet
- ECB: tiering it to pieces
- PBoC: yield tactics
- BoJ: big in Japan

Market fears of ‘fiscal dominance’ over monetary policy received a fresh boost recently by developments in the UK. With the U-turn on tax-cut plans, such fears have diminished somewhat. But global bond markets are still on edge. Meanwhile, concern about high, above-target inflation getting entrenched continues to dominate most central banks’ thinking, except in China and Japan, where underlying inflation pressures remain subdued. Indeed, the PBoC is still in a targeted easing mode, whereas the BoJ continues to resist taking steps towards tighter monetary policy, thus reinforcing the downward pressure on the yen.

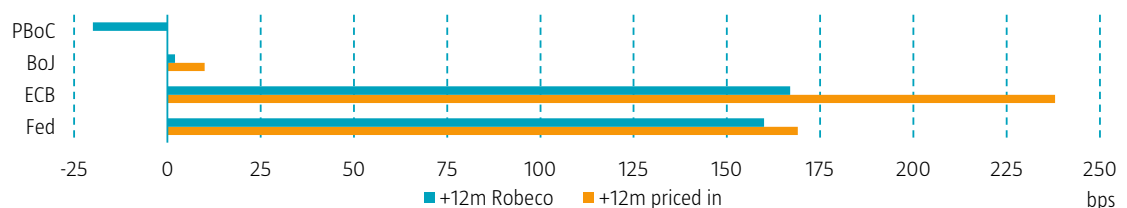
By contrast, the Fed seems determined to take the policy rate further into restrictive territory. The ECB is also on track to move to a contractionary rates-policy stance in early 2023. Along the way it is contemplating a retroactive change to the terms of the targeted longer-term refinancing operations (TLTROs) – hopefully without amplifying QE-induced distortions to money markets. In our view, the onset of gradual QT and economic recession could prompt a halt in the ECB’s hike cycle in spring. By then, the Fed should also be done raising rates. For now, however, fear of entrenched inflation rules.

Article

For professional investors
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Outlook for central bank policy rates



Source: Bloomberg, Robeco, change 12m ahead, based on money market futures and forwards; 19 October 2022

The Federal Reserve: not done yet

- Fed to continue tightening in large steps
- Response in financial markets will influence the extent of hiking needed
- Second-to-last rate hike remains a key signal for portfolio positioning

Underlying inflation still too high for comfort

Since the 21 September FOMC meeting, markets have progressed with pricing in a larger or additional policy rate tightening for the remainder of this year and into Q1 2023. At the time of writing, a fed funds rate of 4.5% is priced in for December, while March 2023 is priced just a couple of basis points shy of 5%. Much of this repricing took place after renewed upward surprises in US payrolls and core CPI. This expected extension of the Fed tightening cycle has pushed yields higher across the US curve and raises the question: what needs to happen for the Fed to stop hiking?

First, it probably matters whether official rates are above or below neutral. One could argue that the short-term neutral rate is currently higher than a few years ago, but few would see neutral much above 3%. Fed officials recently confirmed that their 'long-term rate dot', seen as a proxy for neutral, remains at 2.5%. After the November meeting, official rates will probably be at 3.75-4.0%, which would somewhat lessen the need for hiking in steps of 75 bps. Second, financial markets' response to Fed tightening matters. Does the Fed have to do all the heavy lifting in tightening conditions, via hiking rates and QT, or is it helped by a risk-off market response feeding into financial conditions? In the latter case there is less to do for the Fed.

What is priced in for the Fed, versus our expectation					
Effective Fed funds rate	3.08	Dec-22	Mar-23	Jun-23	Sep-23
Change implied by FF Futures (bps)		142	186	183	169
Our probably-weighted expectation (bps)		145	180	175	160
Our central scenario (bps)		150	175	175	175

Source: Bloomberg, Robeco; 19 October 2022

Tightening of financial conditions quickest route to end hikes

We described three routes towards an end to the Fed tightening cycle in the September Central Bank Watcher: a convincing turn in inflation; a cooling of the labor market; and a significant tightening of financial conditions.

The first is arguably the 'friendliest' route towards ending the Fed tightening cycle. The other routes suggest pain on Main Street and/or Wall Street. Unfortunately, the progress made on the 'friendly' inflation path has been too modest to provide comfort for the Fed. Headline inflation has moderated somewhat on the back of lower energy prices, but core numbers and especially the sticky parts of core inflation (for which price tags don't change that often) climbed further. Sticky inflation has risen by almost 3 percentage points this year, to 6.5%, which reflects a jump in rents and in prices of labor-intensive services. Compared to 2022, inflation will probably look quite different next year, but it will take several months before a meaningful turn becomes evident. For example, research from the Dallas Fed and the BLS suggests that the turn in rental inflation will probably come from Q2 2023 onwards.

There has been some positive news on moving towards a more balanced labor market. Job openings came down by over a million in August, the Atlanta Fed wage tracker slowed from 6.7 to 6.3% y-o-y and payrolls growth was the weakest since April last year. Trends in the labor market participation rate have been disappointing, though, and recent comments suggest that FOMC members have given up on expecting a rise in the participation rate to boost the supply of labor. All in all, labor market data are still far from where they could persuade the Fed to stop hiking rates.

This leaves a tightening of broader financial conditions as the main potential route towards the end of tightening. Financial conditions have indeed tightened further since September, via wider credit spreads, tighter lending conditions, lower equity prices and an inversion of the front end of the curve. Already the tightening, as measured via the Chicago Fed's financial conditions metric, is starting to exceed levels seen in post-1990 hiking cycles. Still, to reach pre-1990 levels of tightening financial conditions, a combination of moves would probably be required. These could include a further 10-12% correction in equities, inversion of the 2s3m curve and high yield spreads reaching 700 bps.

If tightening of broader financial conditions matters, it implies that hikes can continue for longer – provided these do not cause much damage to risk sentiment or lending standards. The Fed will likely hike rates by another 75 bps in November. If they take a similar-sized step in December and risk markets respond negatively, it might mean that their

1 February meeting would mark the end of the hiking cycle. Alternatively, if the FOMC were to reduce the extent of its hiking in December and risk markets cheered, the hiking cycle would likely extend into March.

While liquidity conditions in US Treasuries have been deteriorating (see chart below), we don't expect imminent changes to the Fed's QT policy. There are other steps that could improve liquidity, such as targeted buyback operations for illiquid of-the-run bonds, or an easing of SLR requirements for US Treasuries and reserves, which are more likely shorter term. Still, QT could end prematurely: it would be an easy choice to stop this policy when much weaker growth and inflation materialize next year.

USTs	Spot yield	12m Fw	Carry*	Hedged to EUR
2yr	4.49	4.48	230	92
5yr	4.28	4.16	83	25
10yr	4.06	4.08	47	15
30yr	4.06	4.04	20	5

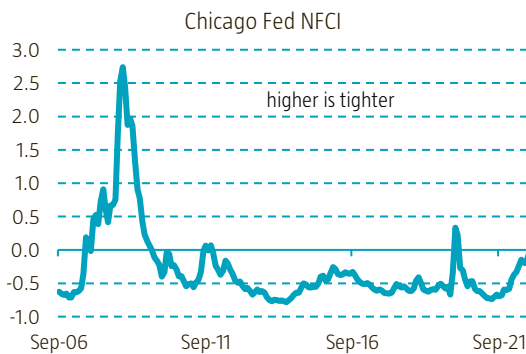
* for a 1pd position over 12 months
Source: Bloomberg, Robeco; 19 October 2022

Building steepeners

On the US curve, we continue to look for flattening moves as entry points for adding to steepener positions in 2s10s. We also see opportunities in steepening in 10s30s, especially on any drop towards valuation levels of -10/-20 bps. Out of the three metrics we would recommend for the timing of long duration positions (2s10s inversion, 2y-official rate inversion and second-to-last rate hike), one has turned green for the US (2s10s inversion). The other two are not there yet. The second-to-last hike is getting closer, though, and could come later this year, with the last hike expected for Q1 next year.

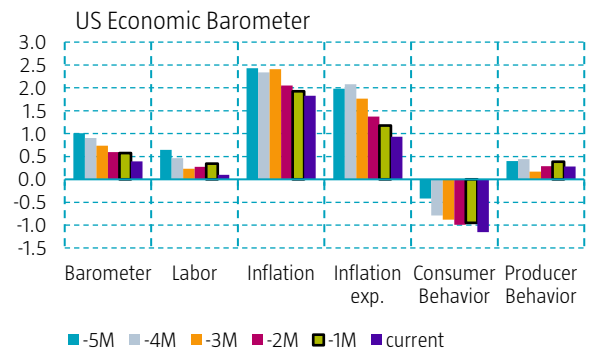
Liquidity conditions for US Treasuries have deteriorated and are getting close to March 2020 levels. Producer confidence has slowed, but consumer data remain much weaker in comparison. Inflation metrics are still at high levels.

Chart 1. Further tightening of financial conditions



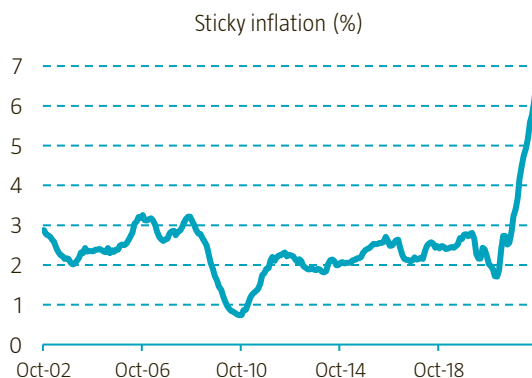
Source: Robeco, Chicago Fed, Bloomberg; 19 October 2022

Chart 2. Barometer continues to slow



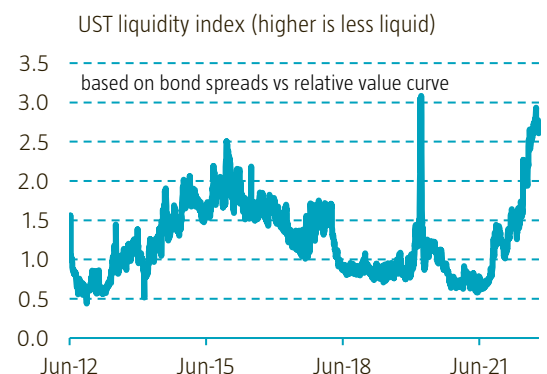
Source: Robeco, Bloomberg; 19 October 2022

Chart 3. Sticky inflation has continued to rise



Source: Robeco, Bloomberg; 19 October 2022

Chart 4. Liquidity US Treasuries under pressure



Source: Robeco, Bloomberg; 19 October 2022

European Central Bank: tiering it to pieces

- ECB seemingly determined to hike depo rate to (around) 2% by year end
- We second-guess the market's assumption that the depo rate will stay near 3% in coming years
- Fears of 'tiers' are amplifying money market distortions

Fears of 'tiers' are amplifying money market distortions

ECB rhetoric over recent weeks has confirmed that the central bank is on track to deliver another 75 bps rate hike in late October, as has largely been priced in by markets. Spot inflation of around 10% indeed requires a quick transition away from an accommodative rates policy, as it entails the risk that (above-target) inflation could get entrenched via higher wage demands and an unanchoring of inflation expectations. Indeed, we note that consumer expectations for inflation in three years' time has stayed above the ECB's 2% target, according to the latest survey results (see Chart 3, next page). Against this backdrop, a further 50 bps hike in December also beckons, which would take the deposit facility rate (currently: 0.75%) to the upper end of the ECB's (smoothed) range of estimates of the long-term 'neutral' rate (see Chart 2, next page).

Commentary by ECB governors has also hinted at possible changes to the remuneration of excess liquidity in the Eurozone financial system. Indeed, while the ECB decided to suspend the two-tier system for the remuneration of banks' excess reserves in September, and has temporarily removed the 0% interest rate ceiling on government deposits held at the ECB – to “preserve the effectiveness of monetary policy transmission” – several governors have since suggested that a decision could be imminent to change the ‘too generous’ terms on the targeted longer-term refinancing operations (TLTROs). This could take the form of ‘tiered’ remuneration for reserves of TLTRO users.

If this were to happen, we do hope that money market distortions are minimized by either allowing for a quick, early repayment of TLTRO funds or opting for the route the SNB has recently taken, where renewed ‘tiering’ was accompanied by the launch of SNB bills – in order to ensure short-term money market rates remain close to the policy rate. The latter route could also help ease the lingering problem of German repo scarcity, as the Bundesbank continues to disregard the need for less expensive borrowing of German collateral via securities lending. For now, unfortunately, some damage has already been done, as expectations of a possible change to TLTRO terms via tiering have led to renewed relative outperformance of T-bills versus short-term swap rates. If not for the [announcement](#) of the German *Finanzagentur* to make more securities available for repo, this would likely have translated to wider 2-year swap spreads (see Chart 4, next page).

Another route to tackling money market distortions and German collateral scarcity could come from quantitative tightening (QT), which has started to be discussed by the Governing Council. However, a decision to stop fully reinvesting maturing QE holdings, either under PEPP or APP, is unlikely to be agreed upon before December. Indeed, our central scenario sees the ECB starting to partially reinvest maturing APP holdings in late Q1/early Q2 2023, which, coupled with economic recession, could allow for a halt in the hiking cycle. As such, we continue to second-guess the market's discounting of further policy rate rises after March 2023 – as well as the assumption that the depo rate will stay near 3% in coming years (Chart 1). We also doubt that all Eurozone economies can structurally handle such tighter nominal financing conditions.

What is priced in for the ECB versus our expectations

ECB deposit facility rate	0.75	Dec-22	Mar-23	Jun-23	Sep-23
Change implied by OIS (bps)		137	204	231	238
Our probability-weighted expectation (bps)		128	170	170	167
Our central scenario (bps)		125	175	175	175

Source: Bloomberg, Robeco; 19 October 2022

DBR curve	Spot yield	12m Fwd	Carry* (bp)
2y	2.01	1.84	58
5y	2.12	2.07	34
10y	2.31	2.33	25
30y	2.32	2.30	5

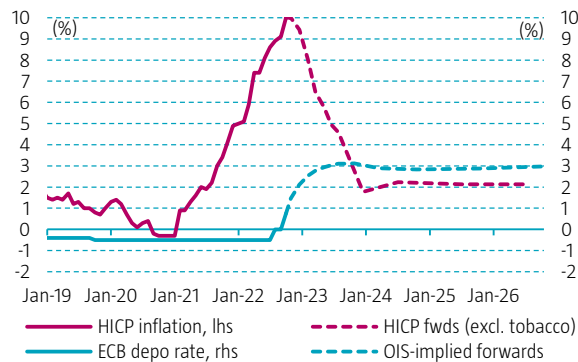
* for a 1pd position in cash bonds over 12 months

Source: Bloomberg, Robeco; 19 October 2022

A higher policy rate peak, possibly, but not a plateau

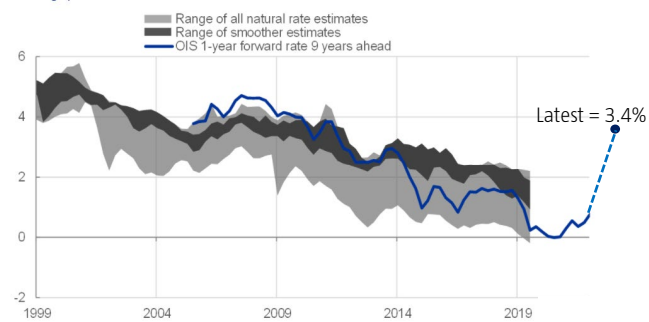
- German 10-year government bond yields resumed their uptrend in August and reached new a cyclical high during the Gilt sell-off in late September/early October. The further yield rise was also driven by yet another upgrade of policy rate expectations in the wake of (expected) increased fiscal support across Germany and the Eurozone – which is seen as complicating the ECB’s resolve to steer inflation back to the target. Markets are now pricing in an ECB depo rate peak in the current cycle of above 3% (Chart 1).
- As suggested before, while we acknowledge the possibility the ECB might need to hike rates to well above 2% to tame inflation pressures, we doubt the ECB will be able to keep them there. Indeed, at above 3.3%, the EUR 1-year OIS rate 9-year forward – assuming term premium and OIS-policy rate wedge adjustments cancel each other out – clearly exceeds the range of ECB estimates of the long-term ‘neutral’ depo rate (Chart 2). We are not convinced that a looser fiscal policy regime rationalizes such an increase in the long-term neutral rate.
- While valuations thus hint at being constructive on long-end EUR duration, we refrain from advising a *large* outright overweight position just yet. This is because we think that, given the elevated near-term inflation profile, markets will be slow to price in lower implied policy rates in the 5 to 10-year part of the curve, despite the bleak growth outlook. What is more, historically, peaks in the EUR and US 10-year yields have been fairly synchronized – and with uncertainty about the end of the Fed tightening cycle lingering, the UST 10-year yield might not have peaked yet.
- We keep a flattening bias on the 2s10s curve, which still looks steep on a cross-market basis. But we would increasingly add 10s30s steepening positions to this – effectively playing more for further outperformance of 10s against 2s and 30s.
- As for German swap spreads, we retain a strategic tightening bias, assuming a supply and QT-driven easing in collateral scarcity, and a drying-up of swap-paying flows. But we acknowledge that elevated recession risks and a renewed scramble for collateral into year-end might imply that significant swap-spread tightening – certainly in 2-year space – takes longer to materialize.

Chart 1. Market’s ECB policy rate and inflation forwards



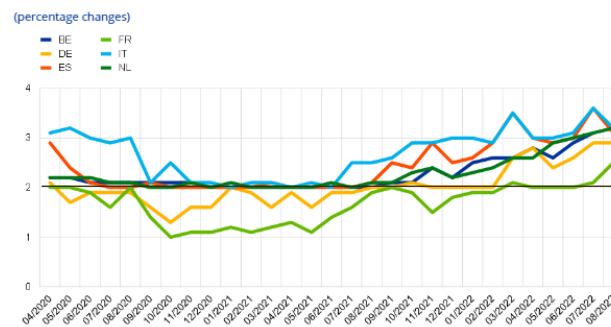
Source: ECB, Robeco; 19 October 2022

Chart 2. Market embraces new long-term neutral rate regime



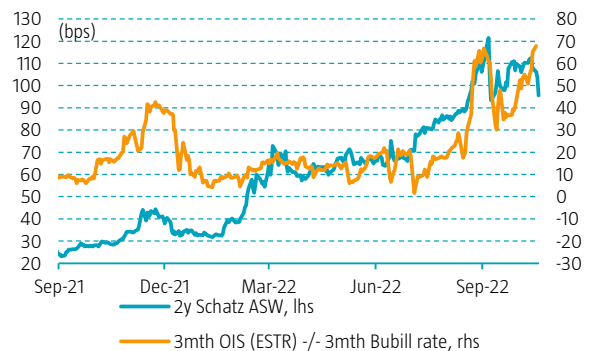
Source: ECB, Robeco; 19 October 2022

Chart 3. Median consumer inflation expectations 3 years ahead



Source: ECB, Robeco; 19 October 2022

Chart 4. 2yr swap spread vs 3mth Ester/Bubill spread



Source: ECB, Robeco; 19 October 2022

People's Bank of China: yield tactics

- Rolling Covid outbreaks and property weakness still weighing on growth and underlying inflation
- This keeps the PBoC in targeted, stealth easing mode
- Risk of tactical, front-end-led yield bounce into 2023, but we're still constructive CGBs on a secular horizon

Risk of tactical, front-end-led yield bounce into 2023

It is not just the waves of lockdowns and other restrictions amid an ongoing zero-Covid strategy that keep weighing on China's economic activity. The lingering uncertainty about future outbreaks is also a steady dampener on households' propensity to consume. Meanwhile, the weakness in what has been the country's main growth engine over the past decade, property, also persists. But massive easing efforts by local governments and a noticeable lowering of mortgage rates have seemingly started to bear some fruit, with the pace of contraction in home sales having eased.

Moreover, growth is increasingly being supported by a credit-fueled rise in infrastructure investment. In fact, infrastructure lending by state-owned banks has helped push the closely watched credit impulse indicator further into positive territory. This in turn points to the risk of a tactical rise in Chinese bond yields in early 2023 (see Chart 3 on the next page), especially in the front end and belly of the yield curves. Here we also factor in the possibility of some easing of zero-Covid policy restrictions as well as a possible gradual unwind of the 'stealth' easing by the PBoC, which takes the form of money market rates hovering well below the low end of the policy rate corridor (Chart 1).

The PBoC is unlikely to adopt a monetary tightening bias anytime soon, though, even as pork price inflation pushes up the headline rate somewhat further. Indeed, amid low core inflation (of only 0.6 % YoY in September), and a continuation of targeted easing – the PBoC recently relaunched its Pledged Supplemental Lending (PSL) to state-owned banks – another RRR cut could still be on the cards in the coming few months. Moreover, China's credit impulse is likely to remain well below levels seen after the slump in 2012 and 2015, and could start to roll over again into year end.

What is priced in for the PBoC versus our expectations

PBoC 7-day reverse repo	2.00	Dec-22	Mar-23	Jun-23	Sep-23
Change implied by forwards (bps)		0	0	0	0
Our probability-weighted expectation (bps)		-5	-13	-20	-20
Our central scenario (bps)		0	-10	-15	-15

Source: Bloomberg, Robeco; 19 October 2022

All in all, we recommend two things. First, use any further, front-end-led curve steepening to shift into flattening positions. Secondly, contemplate shifting some long CGB positions into developed market bond positions, also as yields in some DMs could be close to peaking and could start to roll over into 2023. And if we indeed see a meaningful, tactical bounce in China CGB yields, we would consider adding to CGB positions again, as we continue to be of the view that the elevated overall indebtedness and China's demographic outlook will require lower equilibrium policy rates over the coming years.

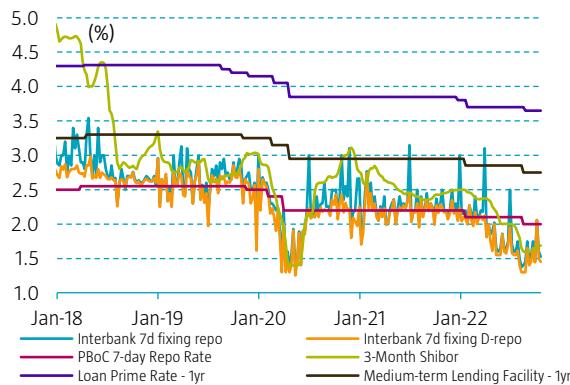
CGB curve	Spot	12m Fw
2yr	2.04	2.46
5yr	2.46	2.75
10yr	2.70	2.85

Source: Bloomberg, Robeco; 19 October 2022

Economic barometer still paints a downbeat picture

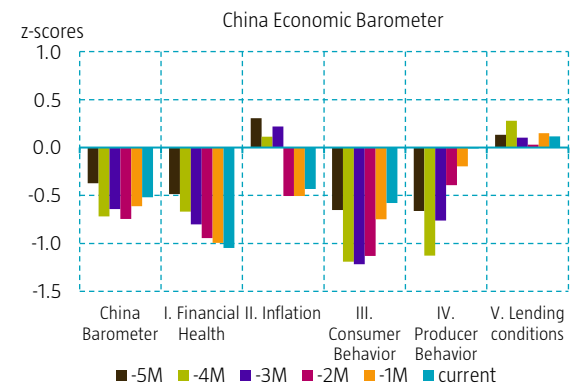
- Our economic barometer for China has held in negative territory in recent months, albeit no longer deteriorating (Chart 2). This is mainly driven by an improvement in the producer-behavior component as well as a less negative score for the consumer component. Still, rolling Covid-19 outbreaks amid an ongoing ‘dynamic’ zero-Covid strategy continue to restrain economic growth – and entail a risk of renewed worsening.
- The Z score for the producer-behavior component has been boosted by a pick-up in industrial production and electricity consumption growth, and a better PMI new orders print. The consumer component improved on a further, policy-related pick-up in car sales and somewhat better retail sales readings. However, a very weak marginal-propensity-to-consume metric (based on household demand deposits relative to savings deposits) continues to exert a significant drag on the ‘consumer behavior’ Z score.
- One relative bright spot remains the Z score for ‘lending conditions’, which comprises, among others, the credit ‘impulse’ metric – which factors in the flow of credit relative to GDP and has moved into positive territory. The net pick-up in M2 growth in the past six months has helped here as well. The recent rise in China’s CDS, however, capped the improvement.
- Meanwhile, the overall Z score for ‘inflation’ has held into negative territory, thanks to the slowdown in PPI and non-food CPI inflation.

Chart 1. Selected policy and money market rates



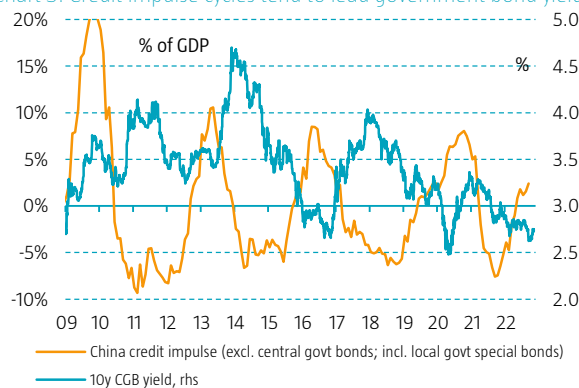
Source: Bloomberg, Robeco; 19 October 2022

Chart 2. Barometer struggles to improve



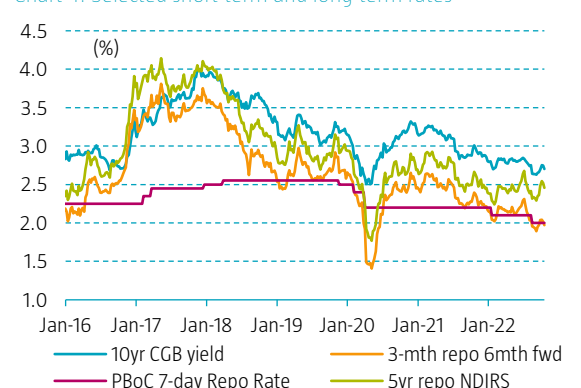
Source: Bloomberg, Robeco; 19 October 2022

Chart 3. Credit impulse cycles tend to lead government bond yields



Source: Bloomberg, Robeco; 19 October 2022

Chart 4. Selected short-term and long-term rates



Source: Bloomberg, Robeco; 19 October 2022

Bank of Japan: big in Japan

- Inflation seen as transitory by BoJ
- Yen matters
- Cheap superlong JGBs

Inflation still seen as transitory by BoJ

Inflation data in Japan continues its rising trend, mainly driven by tradeable components like food and energy. Indeed, we expect inflation excluding fresh food to rise to 3.3% towards the end of the year, and core inflation excluding food and energy to peak around 1.4% later this year. The risk to this inflation outlook is still skewed to the upside, with the possibility of some further yen depreciation and higher energy and food prices. We expect the BoJ's board members to revise up their CPI inflation projections in the bank's next Outlook report, due on 28 October, the day of the next policy meeting.

Still, we expect the BoJ to stick to its firm message that inflation in Japan is transitory, with hardly any passthrough in wages and/or services inflation. As their basic view on inflation dynamics remains the same, we expect that the BoJ will stay on hold at the next policy meeting. We expect it will emphasize that the current high inflation is a cost-push phenomenon and, given that wage growth is subdued, is unsustainable. Interestingly, the latest August wage data showed monthly wages of full-time workers accelerated from 1.1%YoY in July to 1.6%YoY – the highest since November 1997 – but equally showed an acceleration in working hours from -0.6% to 2.1%, indicating that core wage growth remains muted. We probably need to wait until next spring's wage negotiations to determine whether core wage growth will accelerate sufficiently to move the BoJ to rethink its inflation view. That said, it remains to be seen whether the BoJ can really hold onto its stance that inflation is transitory, given the additional inflation pressure created by the still-weakening yen.

Yen matters

The yen continues on a weakening path despite the Ministry of Finance's intervention in the forex market. Historical analysis shows that, rather than halting depreciation, intervention typically causes merely a smoothing in the depreciation trend. The yen has depreciated to 149 relative to the US dollar since we wrote the previous Central Bank Watcher, reflecting dollar strength following US payrolls and CPI data. The monetary policy differential remains key for the yen but we also note the large shock to Japan's terms of trade. From that perspective, we think it is becoming increasingly more difficult for the BoJ to stick to its constructive view on yen weakness without an explicit assessment of how the likely impact on medium-term inflation could be mitigated. For the policymaker to decide to act in the near term would probably require an unanchoring of inflation expectations or signs of stress in Japanese financial markets. Neither of these is evident yet. We therefore expect the BoJ to stick to its current policy mix at the next BoJ meeting, in October.

As long as G10 central banks stay in tightening mode and the yen keeps falling, it will become increasingly difficult for the BoJ to maintain this stance, though. We therefore expect some changes to YCC policy, through a widening of the bandwidth in the December or January meetings. The next meeting in October would likely involve some guidance from the BoJ on how the yen impacts medium-term inflation, but that would be too soon to signal significant changes in one of the policy parameters.

What is priced in for the BoJ, versus our expectation

Policy balance rate	-0.10	Dec-22	Mar-23	Jun-23	Sep-23	Mar-24
Change implied by futures (bps)		1	4	10	10	14
Our probability-weighted expectation (bps)		0	0	1	2	4
Our central scenario (bps)		0	0	0	0	0

Source: Bloomberg, Robeco; 19 October 2022

Cheap superlong JGBs

Long-end yields have risen a great deal in recent quarters with 30yr JGBs now offering 1.50% yield, which is close to 2015 levels. With 10yr JGBs now at 25 bps, the 10s30s curve is now at its steepest ever, at 125 bps, which is compelling from an historical perspective. Over the near term this curve might steepen a bit more as 30yr JGBs tend to co-move with global rates, but there should be more domestic support from the lifers and pension funds as currency-hedged foreign bonds look very unappealing compared to 30yr JGB. Indeed, the current account data shows that Japanese

domestic investors are selling their foreign bond exposure. We expect them to reinvest the proceeds in 30yr JGBs and to become even bigger in JGBs. In similar episodes in the past, when long-end yields increased strongly and the BoJ judged that there was a growing risk that the 0.25% cap of the YCC target would be breached, it inhibited that rise by increasing ordinary operations and conducting unplanned operations, even in the 10yr-plus sector. Some market participants may think the BoJ will be cautious this time in suppressing yield rises due to the impact it would have on the yen. As long as the BoJ sticks to YCC, it will continue to face a trilemma of simultaneously needing to achieve monetary policy independence, exchange rate stability and capital mobility. This could keep the depreciation bias of the yen in play as long as other G10 central banks keep tightening policy. However, as the BoJ does not target exchange rates explicitly when conducting monetary policy, as repeatedly pointed out by Governor Kuroda, and given that the objective of the current YCC is to keep long-term yields under control to support economic growth, we expect that the BoJ will continue to use its operations to suppress or smooth rises in long-end interest rates.

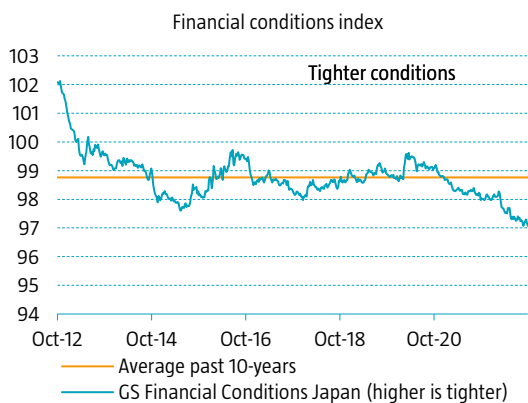
We therefore remain of the view that any further upward momentum in yields in the near term would provide an opportunity for medium-term investors to build or accumulate long positions; valuations, fundamentals and technicals are aligned. In particular, we think outright long positions in 20yr and 30yr JGBs are very attractive. Even though we like the 10s30s flattener we are cautious on the 10yr leg of the trade as it now trades very close to the YCC target, which we don't expect to change in the near term. We therefore favor neutral positions on the 10yr point.

JGB Curve	Spot yield	12m Fw	Carry*	Hedged to EUR
2yr	-0.08	-0.06	-1.6	-0.5
5yr	0.05	0.16	8.6	9.0
10yr	0.24	0.43	5.0	5.2
30yr	1.28	1.36	8.7	8.8

* for a 1pd position over 12 months

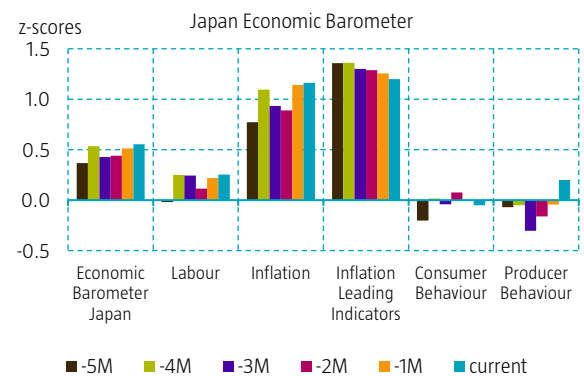
Source: Bloomberg, Robeco; 19 October 2022

Chart 1. Much easier financial conditions



Source: Goldman Sachs, Bloomberg; 19 October 2022

Chart 2. Strong inflation momentum



Source: Robeco, Bloomberg; 19 October 2022

Chart 3. Strong improvement in breakevens

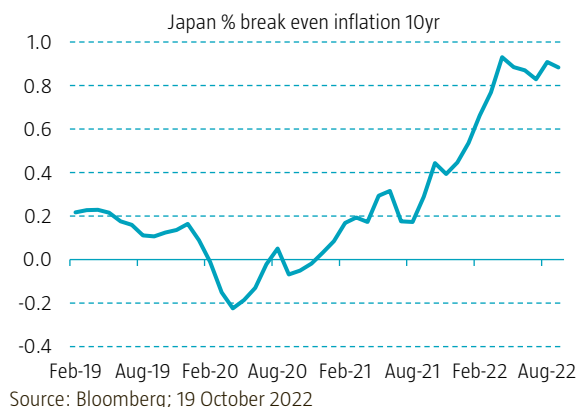
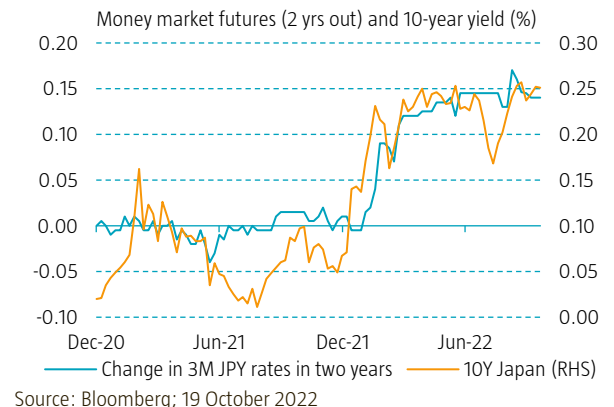


Chart 4. Markets price small amount of tightening 2 years out



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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 for 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 which may also apply and any applicable exchange control regulations and 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 from Robeco's websites.

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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 Brunei

The Prospectus relates to a private collective investment scheme which is not subject to any form of domestic regulations by the Autoriti Monetari Brunei Darussalam ("Authority"). The Prospectus is intended for distribution only to specific classes of investors as specified in section 20 of the Securities Market Order, 2013, and must not, therefore, be delivered to, or relied on by, a retail client. The Authority is not responsible for reviewing or verifying any prospectus or other documents in connection with this collective investment scheme. The Authority has not approved the Prospectus or any other associated documents nor taken any steps to verify the information set out in the Prospectus and has no responsibility for it. The units to which the Prospectus relates may be illiquid or subject to restrictions on their resale. Prospective purchasers of the units offered should conduct their own due diligence on the units.

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. relies 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 Robeco nor the Funds have been registered with the *Comisión para el Mercado Financiero* 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 their 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).

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This document does not constitute a public offer in the Republic of Colombia. The offer of the Fund is addressed to fewer 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.

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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

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Additional Information for investors with residence or seat in Indonesia

The Prospectus does not constitute an offer to sell nor a solicitation to buy securities in Indonesia.

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The Management Company is not making any representation with respect to the eligibility of any recipients of the Prospectus to acquire the Shares therein under the laws of South Korea, including but not limited to the Foreign Exchange Transaction Act and Regulations thereunder. The Shares have not been registered under the Financial Investment Services and Capital Markets Act of Korea, and none of the Shares may be offered, sold or delivered, or offered or sold to any person for re-offering or resale, directly or indirectly, in South Korea or to any resident of South Korea except pursuant to applicable laws and regulations of South Korea.

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Additional Information for investors with residence or seat in Malaysia

Generally, no offer or sale of the Shares is permitted in Malaysia unless where a Recognition Exemption or the Prospectus Exemption applies: NO ACTION HAS BEEN, OR WILL BE, TAKEN TO COMPLY WITH MALAYSIAN LAWS FOR MAKING AVAILABLE, OFFERING FOR SUBSCRIPTION OR PURCHASE, OR ISSUING ANY INVITATION TO SUBSCRIBE FOR OR PURCHASE OR SALE OF THE SHARES IN MALAYSIA OR TO PERSONS IN MALAYSIA AS THE SHARES ARE NOT INTENDED BY THE ISSUER TO BE MADE AVAILABLE, OR MADE THE SUBJECT OF ANY OFFER OR INVITATION TO SUBSCRIBE OR PURCHASE, IN MALAYSIA. NEITHER THIS DOCUMENT NOR ANY DOCUMENT OR OTHER MATERIAL IN CONNECTION WITH THE SHARES SHOULD BE DISTRIBUTED, CAUSED TO BE DISTRIBUTED OR CIRCULATED IN MALAYSIA. NO PERSON SHOULD MAKE AVAILABLE OR MAKE ANY INVITATION OR OFFER OR INVITATION TO SELL OR PURCHASE THE SHARES IN MALAYSIA UNLESS SUCH PERSON TAKES THE NECESSARY ACTION TO COMPLY WITH MALAYSIAN LAWS.

Additional Information for investors with residence or seat in Mexico

The funds have not been and will not be registered with the National Registry of Securities, maintained by the Mexican National Banking and Securities Commission and, as a result, may not be offered or sold publicly in Mexico. Robeco and any underwriter or purchaser may offer and sell the funds in Mexico on a private placement basis to Institutional and Accredited Investors, pursuant to Article 8 of the Mexican Securities Market Law.

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.

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Robeco Institutional Asset Management B.V., Sucursal en España with identification number W0032687F and having its registered office in Madrid at Calle Serrano 47-14^º, is registered with the Spanish Commercial Registry in Madrid, in volume 19.957, page 190, section 8, sheet M-351927 and with the National Securities Market Commission (CNMV) in the Official Register of branches of European investment services companies, under number 24. 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 South Africa

Robeco Institutional Asset Management B.V. is registered and regulated by the Financial Sector Conduct Authority in South Africa.

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Additional Information relating to RobecoSAM-branded funds/services

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Additional Information for investors with residence or seat in Thailand

The Prospectus has not been approved by the Securities and Exchange Commission which takes no responsibility for its contents. No offer to the public to purchase the Shares will be made in Thailand and the Prospectus is intended to be read by the addressee only and must not be passed to, issued to, or shown to the public generally.

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.

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Robeco is temporarily deemed authorized and regulated by the Financial Conduct Authority. Details of the Temporary Permissions Regime, which allows EEA-based firms to operate in the UK for a limited period while seeking full authorization, are available on the Financial Conduct Authority's website.

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 under 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.