16 March 2018

Market Pulse DKK
Outlook for Danish inflation and Linkers

Themes in this edition:

1. New inflation forecast
2. Current pricing of Danish linkers

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Overview

- Danish inflation surprised on the downside in February when headline inflation fell for the fifth consecutive month and the year-over-year rate was just 0.6%.
- We expect inflation to increase by an average of 0.9% in 2018 – down from 1.2% in 2017.
- In 2019 we expect inflation to reach an average of 1.4%. This will be triggered by higher wage pressure due to a positive output gap and by higher expected housing rents.
- Taking a closer look at the linkers, DGBi 2023 has performed since the end of February and now trades at a higher BEI than DBRi 2023. At the same time the liquidity of the bond has worsened as it is no longer an on-the-run issue, while the inflation numbers have surprised on the downside.
- DGBi 2030 and DBRi 2030 have been trading at the same breakeven inflation.
- So far the only auction for DGBi 2030 was the introductory auction on 7 February when DKK 5.1bn was sold. Since then DGBi 2030 has been on two switch auctions versus DGBi 2023, but there was no interest at the latest auction on 15 March. The outstanding amount is now DKK 6.6bn.
- The outstanding amount is therefore still quite low and the bond should trade at an illiquidity discount.
- EUR inflation swaps have been trending lower over recent weeks. However, the comparable forward EUR inflation structure is still steeper than the BEI structure.

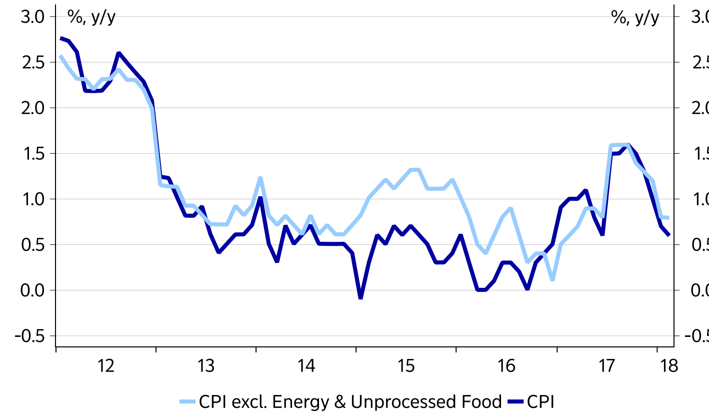
Primary key figures – DGBis

Bond	Maturity	Yield	BEI - bond comp	BEI - match maturity curve point	Real yield spread	Nominel yield spread	Bond comparable
DGBi 2023	15/11/2023	-1.11%	1.26%	1.23%	0.08%	0.15%	DK 1.5 15Nov23
DGBi 2030	15/11/2030	-0.51%	1.18%	1.43%	0.07%	-0.03%	DK 0.5 15Nov27
DBRi 2023	15/04/2023	-1.19%	1.18%	1.18%			DE 1.5 15May23
DBRi 2030	15/04/2030	-0.59%	1.28%	1.44%			DE 6.25 04Jan30

Downward trend in Danish inflation

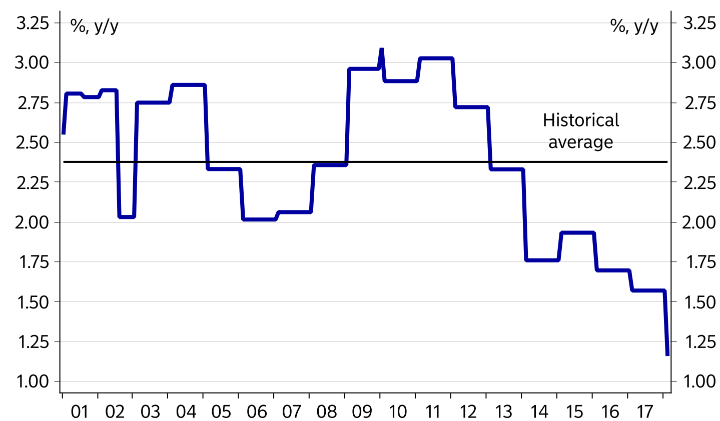
- Danish inflation surprised on the downside in February. Headline inflation fell for the fifth consecutive month and with a year-over-year rate of just 0.6% it hit the lowest point in more than a year.
- Core inflation was unchanged in February at 0.8%, but the level is still 0.8% point below the recent peak in September 2017.
- The latest downward trend in Danish inflation is due to three main factors:
  - Lower prices on food. In October 2017 prices on food peaked with an annual increase of 3.7%, thereby contributing more than 0.4% point to the increase in headline inflation. Since then food price inflation has declined again, contributing "only" 0.10% point to the year-over-year inflation rate for February.
  - Diminishing base effects from rising oil prices and lower prices on cars have lowered the contribution from transport.
  - Surprisingly low increases in rents. Rents in the Danish CPI have a total weighting of 21.1% and are therefore the most important subcomponent. In February the annual update on rents showed an increase of only 1.2% – the lowest increase ever recorded since the start of the time series in 2001 and compared to 1.6% previously. This implies that rents only contributed by 0.24% point in February compared to 0.33% point in previous months.

Headline and core CPI



Source: Nordea Markets and Macrobond

Housing rents



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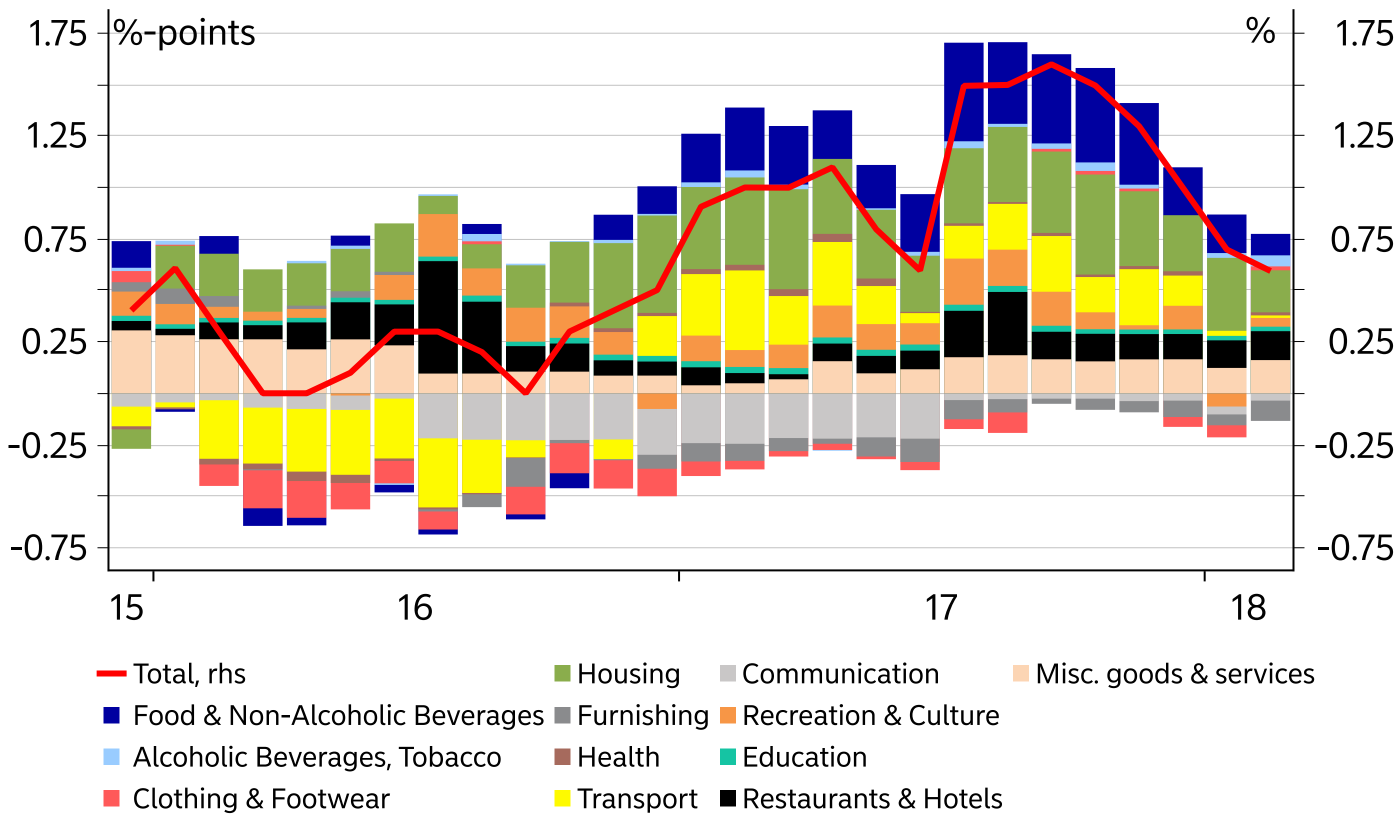
Contribution to Danish inflation



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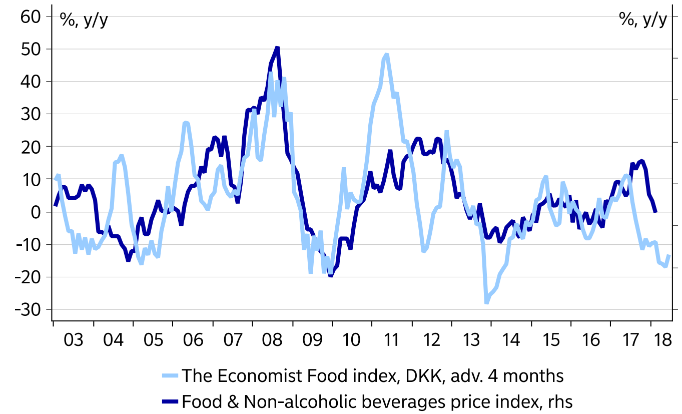
Danish inflation: Unchanged short term – higher long term

- Over the coming months we expect Danish CPI to stay around the current level.
- Starting in May, base effects from higher petrol prices will put upward pressure on year-over-year inflation numbers. On the other hand, lower base effects from especially food prices will start to drag inflation downwards. Also lower taxes on cars will continue to have a negative effect.
- In total we expect Danish inflation to increase by an average of 0.9% in 2018 – down from 1.2% in 2017.
- In 2019 we expect inflation to reach an average of 1.4%. This higher inflation rate will both be triggered by higher wage pressure due to a positive output gap and by higher expected housing rents.

Food prices



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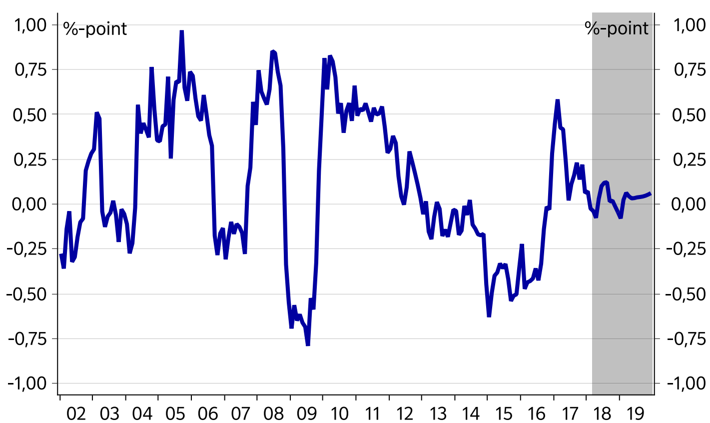
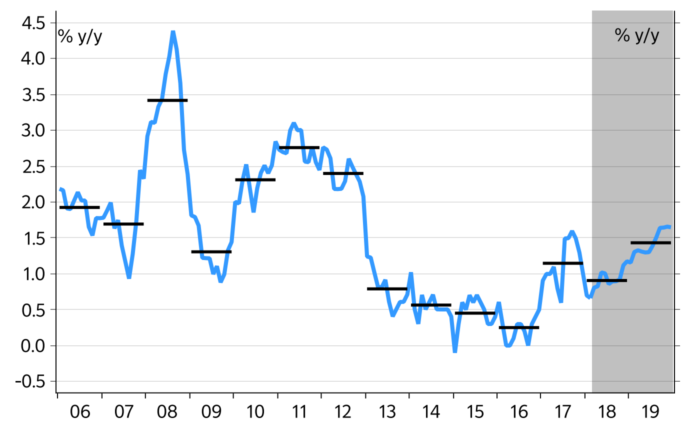
Contribution from oil prices



Kilde: Nordea Markets og Macrobond

Nordea forecast for Danish CPI



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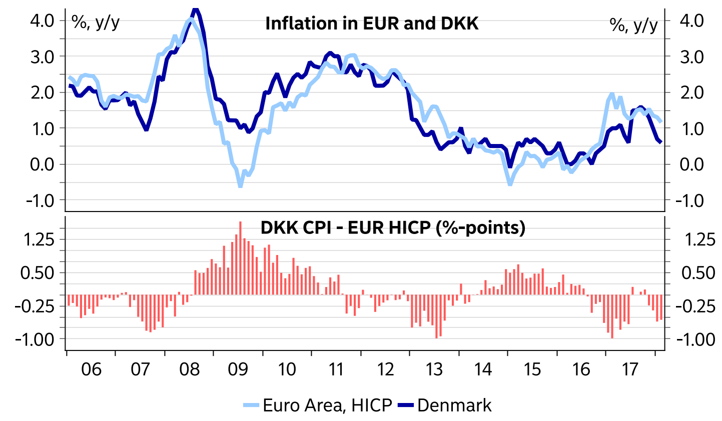
Danish inflation will start to outpace Euro-area inflation from mid-2018

- Currently the DKK CPI is 0.6% point below the EUR HICP. This spread is close to the peak last seen in the beginning of 2017. Starting from mid-2018 we expect the DKK CPI to start to close the gap towards the EUR HICP.
- On a longer-term outlook, we expect Danish inflation to outpace Euro-area inflation. This is based on several factors:
  - Negative base effects from lower taxes on cars and food will disappear.
  - The Danish economy is already running above full capacity compared to the Euro area where the output gap is still negative –and probably more negative compared to the common perception. See Euro-area inflation: Not so super core.
  - The difference in terms of capacity utilisation will eventually trigger higher domestic wage increases which will spill over to higher service inflation in Denmark compared to the Euro area.
  - A stronger positive contribution from higher housing rents in Denmark – both because of higher prices and because of a much larger weight in the Danish CPI relative to the Euro-area HICP.

DKK CPI vs EUR HICP



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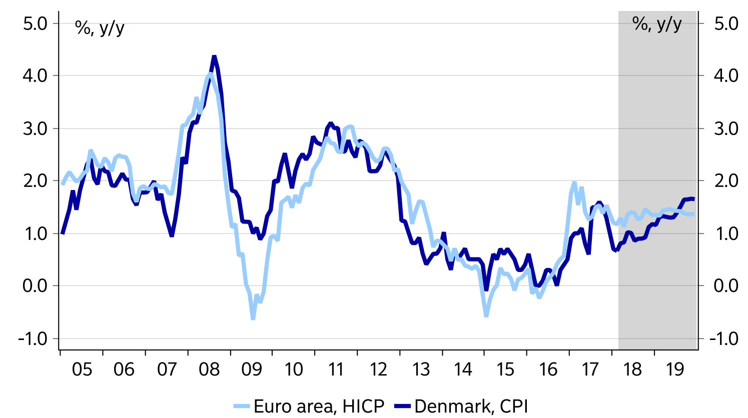
Nordea forecast



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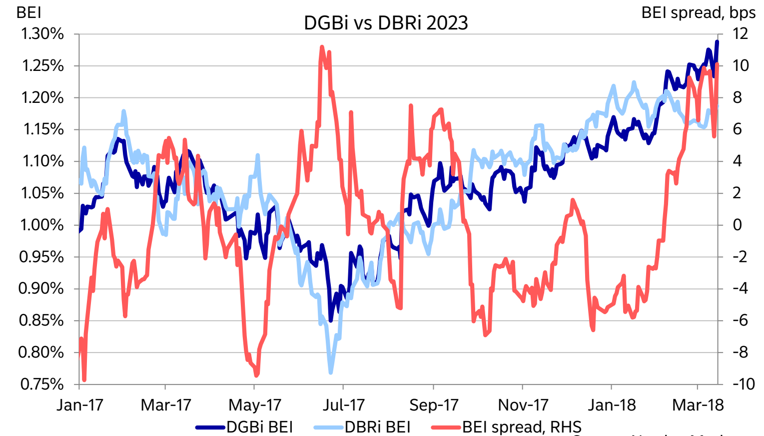
Breakeven inflation for DGBi 2023 exceeds that of DBRi 2023, while DGBi 2030 and DBRi 2030 trade in the same range

- The breakeven inflation, BEI, for DGBi 2023 has been steadily increasing since last summer and is now around 1.30%.
- The BEI for DBRi 2023 has also increased since the summer, but has been trading in the 1.15-1.20% range since the turn of the year.
- This means that while the BEI spread used to trade between 0bp and -6bp over the autumn, it is now positive and trading at 6-10bp.
- The higher BEI spread follows DGBi 2023 performance since the end of February. At the same time the liquidity of the bond has worsened since it is no longer an on-the-run issue, while the inflation numbers have surprised on the downside.

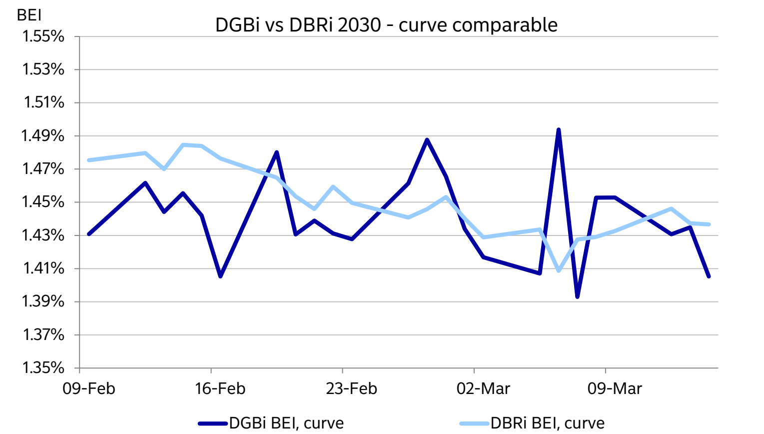
BEI for DGBi 2023 exceeds that of DBRi 2023



Source: Nordea Markets

- DGBi 2030 has been on the market for a little over a month now and the BEI has been trading between 1.40% and 1.50% when calculating it with the yield from the Danish government bond curve.
- The BEI for DBRi 2030 has been trading in the same range.
- However, given the low outstanding amount and lower liquidity, we would expect that DGBi 2030 should trade at a pick-up to DBRi 2030.

BEI for DGBi 2030 is below that of DBRi 2030



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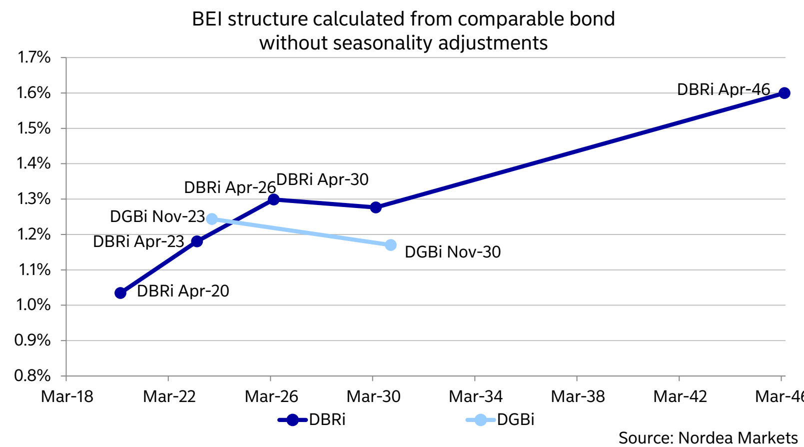
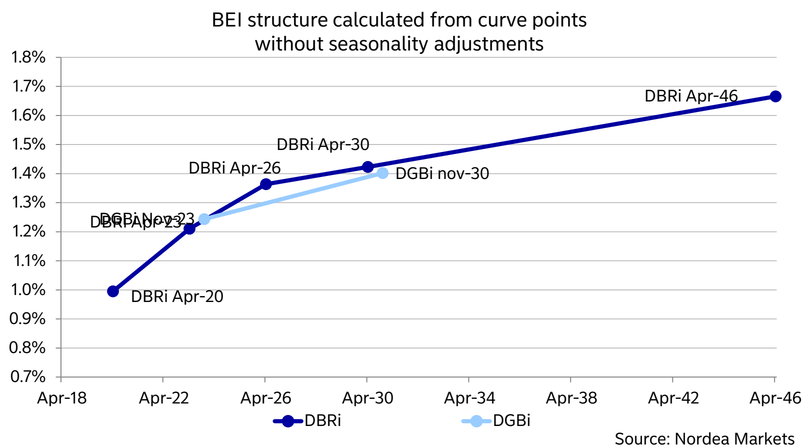
Breakeven structure for DGBi and DBRi

- The amount of comparable nominal bonds maturing in 2030 for Denmark and Germany is limited, with DBR 2030 having a coupon of 6.25% and DGB 2027 having a maturity which is 3 years shorter. The resulting BEI structure can be seen in chart 1.
- We have therefore used the match maturity curve points for the Danish and German government curves to find the nominal yield for DGBi 2030. Charts 2 and 3 show the resulting BEI structure with and without seasonality adjustment.
- Chart 2 shows that the BEI for DGBi 2030 is close to the corresponding DBRi; however, when adjusting for the seasonal adjustments in chart 3 there is a pick-up for DGBi 2030 versus DBRi 2030.
- Chart 3 also shows a steeper BEI structure for the Danish linkers compared to chart 2.

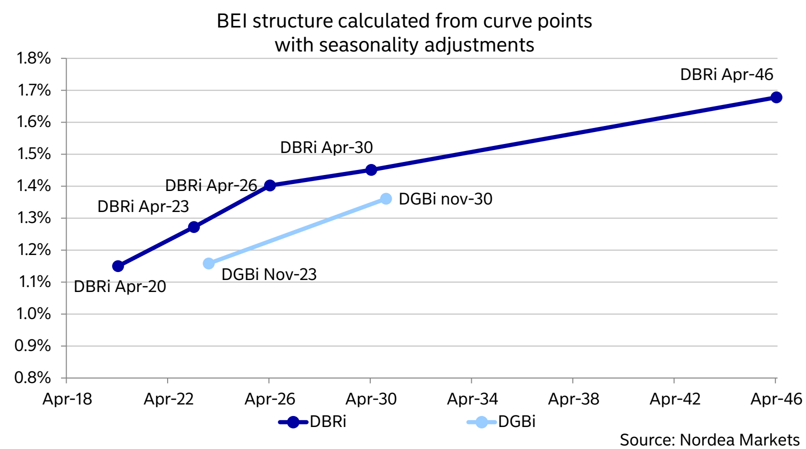
1. BEI from comparable bonds



2. BEI from match maturity curve points without seasonality adjustments



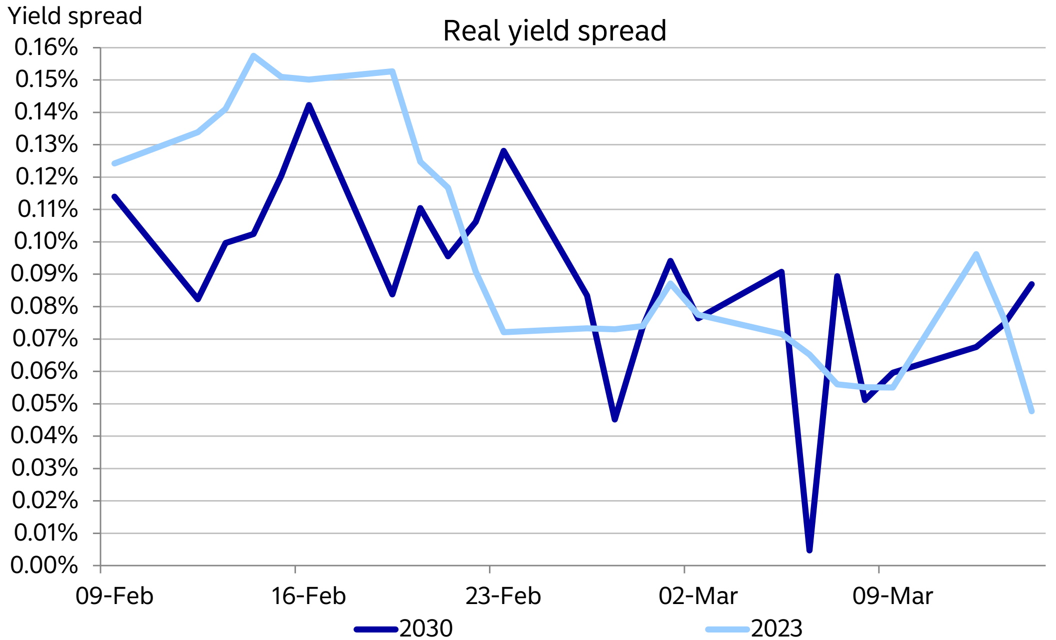
3. BEI from match maturity curve points with seasonality adjustment



Relative pricing of DGBi 2030

- The BEI structure based on match maturity government curve points differs when taking into account the seasonality effect in both Denmark and Germany.
- However, there is no common agreed-upon seasonality effect, so it can be difficult to include this when looking at the relative pricing.
- Due to the lack of corresponding nominal bonds maturing in 2030 to calculate breakeven inflation, another way to look at the relative pricing is the real yield spread.
- As can be seen in the chart, the real yield is closely correlated for the 2023 and 2030 bonds, but with the real yield spread for 2030 being more volatile.

Real yield spread for DGBi 2030 more volatile



Source: Nordea Markets

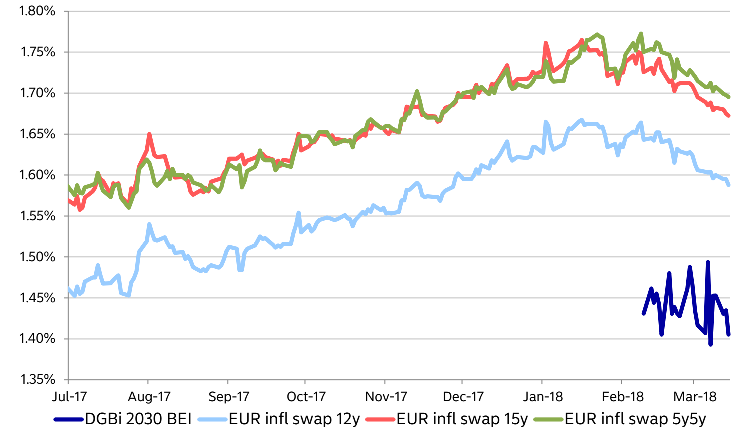
EUR inflation swap structure still steeper than BEI structure for DGBi

- The 5y5y EUR inflation swap has been trading lower since February together with similar forward tenors and it is now at 1.70%.
- Comparing the BEI for the DGBis with EUR inflation swaps, the BEI for DGBi 2023 and 2030, respectively, is 13bp and 20bp below the swap level.
- Taking a closer look at the 2023 maturities, the DGBi 2023 has performed, while DBRi 2023 has been moving together with the EUR inflation swaps.
- This comes after a period where the BEI for both the 2023 issues has been around 20bp below the EUR inflation swap level.
- From the BEI for DGBi 2023 and DGBi 2030 we can calculate the current forward BEI at 1.53%.
- This is 25bp below the comparable forward EUR inflation at 1.78%, which is roughly a 6y7y.
- Thus, extending from DGBi 2023 to 2030 in BEI terms corresponds to entering into a forward BEI widening trend at favourable levels.

	BEI	Comparable EUR inflation swap	Diff (bps)
DGBi2023	1.25%	1.38%	-13
DGBi2030	1.40%	1.60%	-20
DGBi 2023/2030	1.53%	1.78%	-25

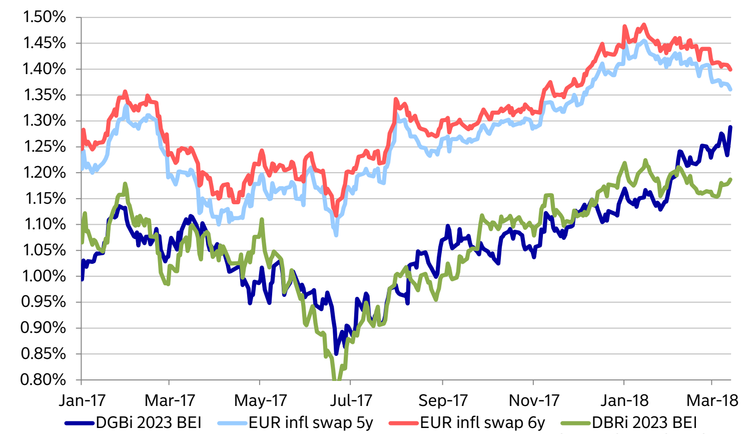
Source: Nordea Markets, Bloomberg

DGBi 2030 and EUR inflation swaps



Source: Nordea Markets, Bloomberg

DGBi 2023 and EUR inflation swaps



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