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Nordea xCcy monthly: Bye bye $-BOR! Hello, better tail protection

OIS/OIS (NIBOR/OIS + STIBOR/OIS) xCcy swaps will likely provide a better tail hedge protection

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EURUSD xCcy: X-date and tapering USD liquidity removal – keep receiving!

We still like our 2y1y EURUSD xCcy receiver and look for another 10-15 bps of performance

- Treasury Secretary Yellen has stated that the debt ceiling needs to be fixed by early December, providing us with a new so-called X-date
- Fixing the debt ceiling would enable the Treasury to rebuild its crisis account (TGA) at the Fed, **which will remove more than 750bn of dollar liquidity over a couple of months**
- At roughly the same time, the Fed is expected to start tapering its bond purchases. Assuming both processes unfold in December through March, Fed may add 300bn of USD via its QE program while the US Treasury will sterilize >750bn of USD – **a net negative of >450bn!**
- USD liquidity has hence already peaked, while the ECB is more likely to invent a new QE-program past March-22. Relative liquidity developments hence supports the receiver story still
- **We continue receiving 2y1y EURUSD xCcy (initial target -25 bps)**

Why we still like receiving 2y1y EURUSD xCcy

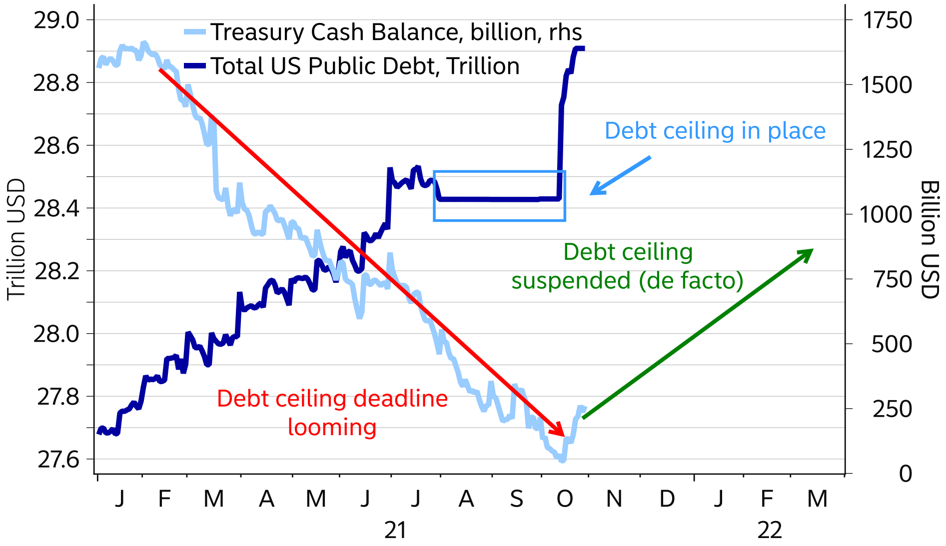
✓ Debt ceiling deadline looms

✓ The US Treasury will remove liquidity fast

✓ The Fed will taper all purchases in six months

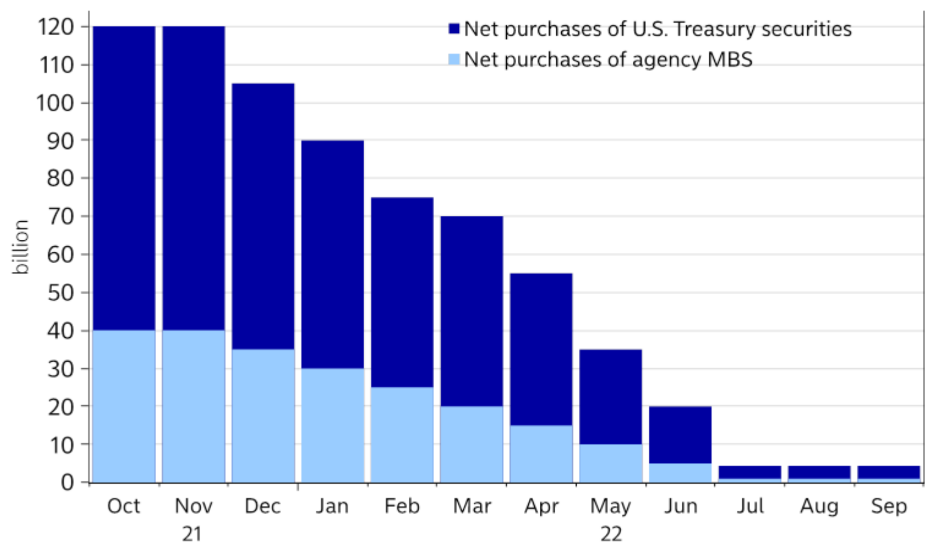
✓ Net liquidity of >$400bn will be removed

The X-date arrives soon which will lead to a massive liquidity reduction



Source: Macrobond and Nordea

The most aggressive tapering in history from the Fed is on the cards



Source: New York Fed, Macrobond and Nordea

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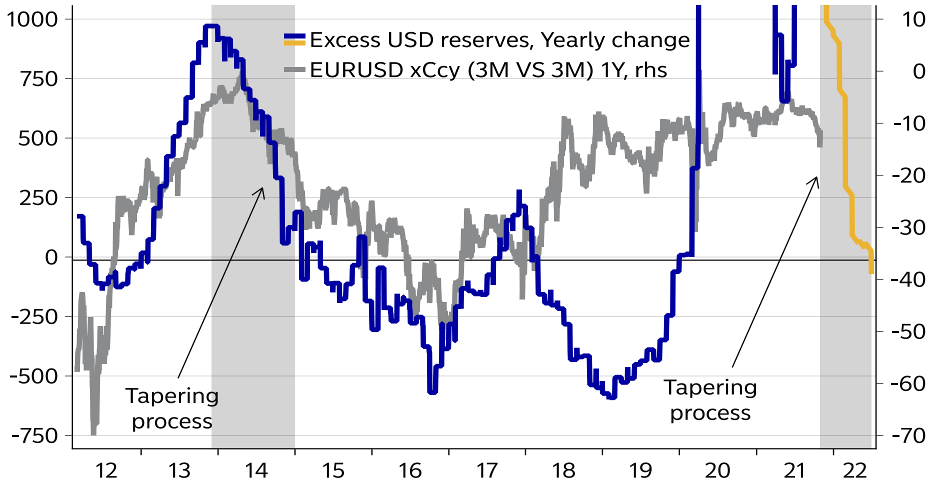
EURUSD xCcy: Four reasons why the Fed may have to tighten liquidity fast!

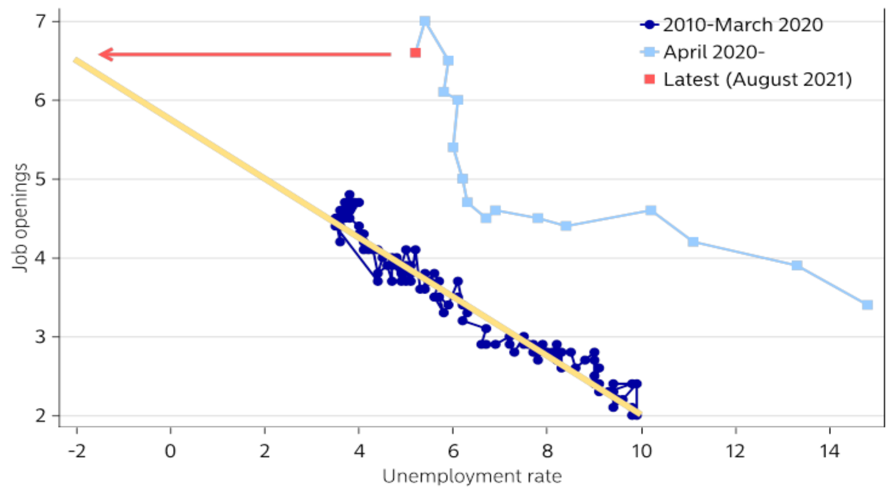
Wage growth is accelerating, while the labour supply is weak! Fed will act fast!

1) Liquidity actually matters for EURUSD xCcy



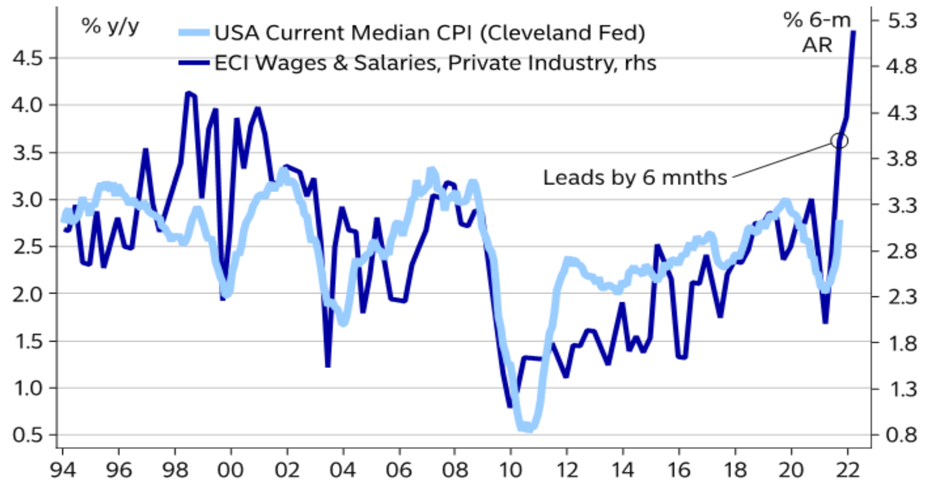
Source: Macrobond and Nordea

2) Beveridge curve has moved right -> LESS labour supply than thought



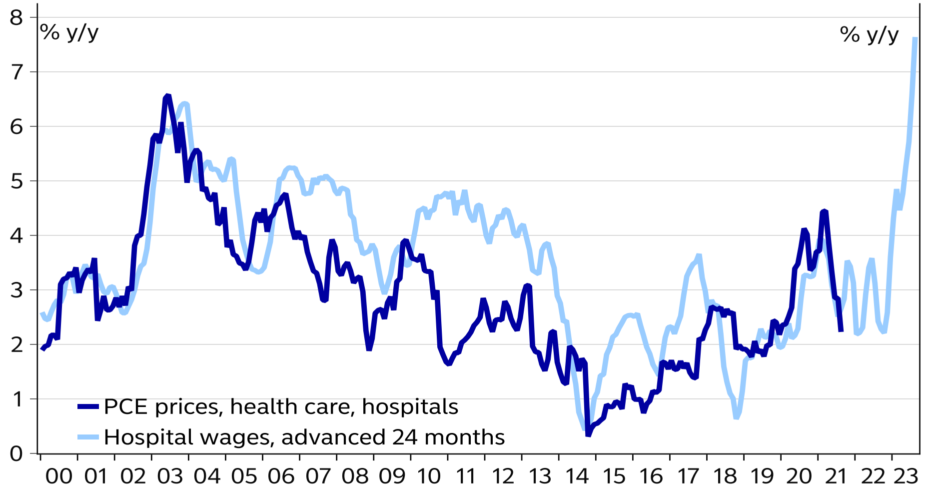
Source: Macrobond and Nordea

3) Wage growth will lead to rising median CPI growth



Source: Macrobond and Nordea

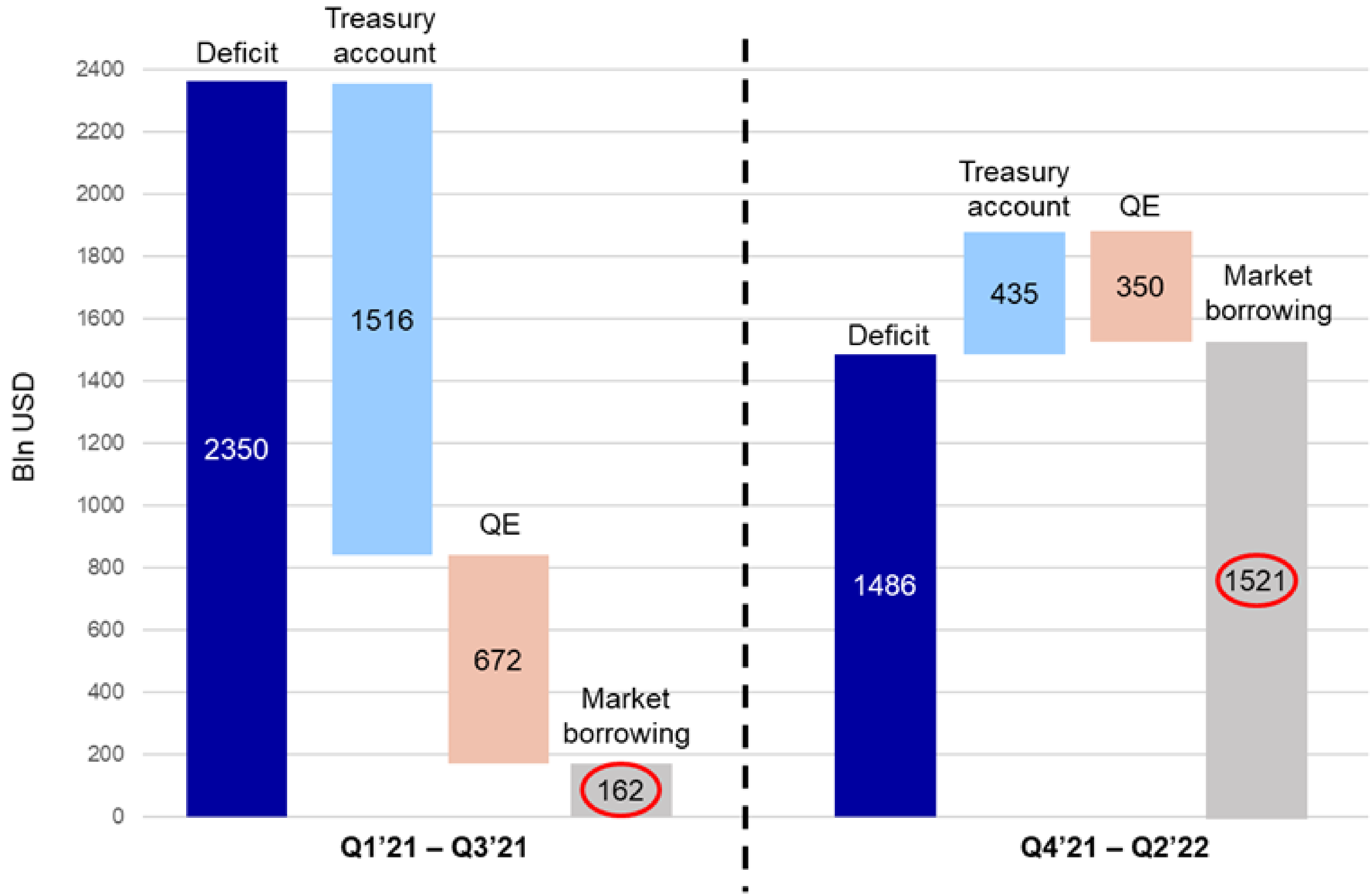
4) Wage growth is in particular booming in sectors hit by vaccine mandates



Source: Macrobond and Nordea

EURUSD xCcy: A yuge change of scenery on the issuance to QE ratio

Money moving from the ON RRP to T-bills, but effects will be felt in FX swaps (and xCcy)



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FX hedging with xCcy swaps post the IBOR-transition

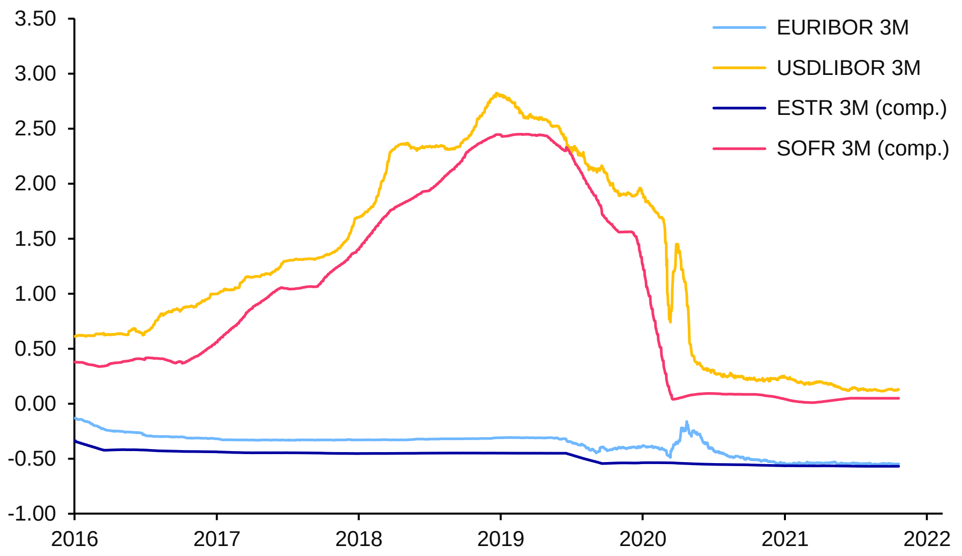
Swaps referencing OIS rates provide a better tail protection than BOR/BOR swaps

- The old IBOR rates are being replaced by new alternative reference rates **(except in Scandis)**
- As the IBOR-transition is progressing, an increasing number of financial institutions are starting to use longer term xCcy swaps referencing the new benchmarks to hedge asset exposures in foreign currencies
  - E.g. using an **€STER** vs **SOFR** basis swap where the rate is compounded during the course of a 3 month period rather than relying on the fixing on 1 observation date
- Using the OIS instrument provides a cleaner hedge against market turmoil, which is in particular true during tail risk events such as March-2020 and Dec-2018

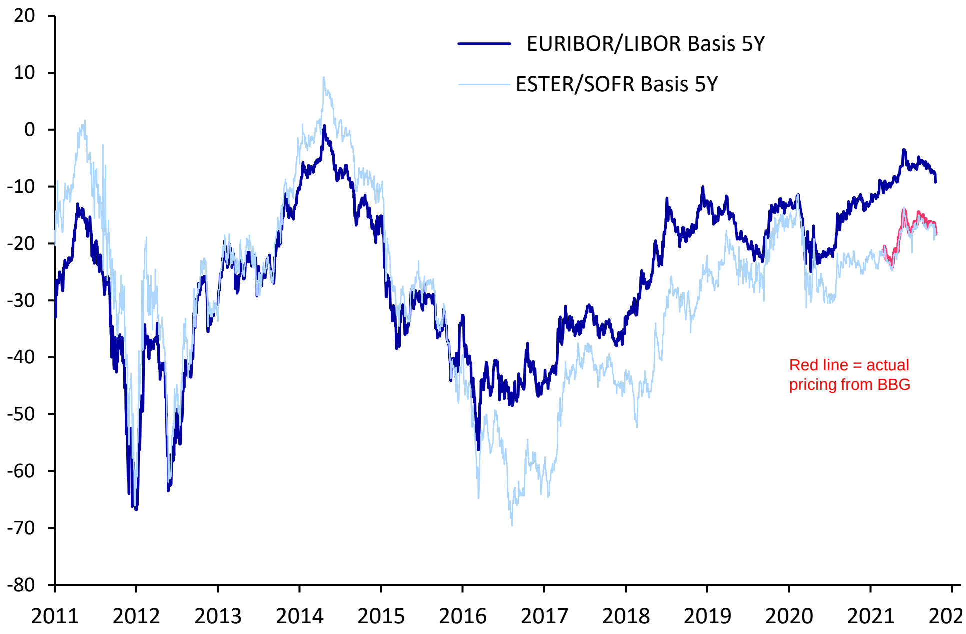
Why use longer OIS/OIS xCcy as an FX hedge?

- ✓ Good liquidity in OIS instruments
- ✓ Better tail protection than BOR/BOR xCcy swaps
- ✓ Average rate instead of one observation
- ✓ Based on "risk free" rates

Compounded reference rates vs. 'old' IBOR rates[1]



OIS/OIS xCcy basis is a cleaner product than BOR/BOR xCcy basis



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Volatility is larger in OIS/OIS than BOR/BOR, but the volatility is GOOD

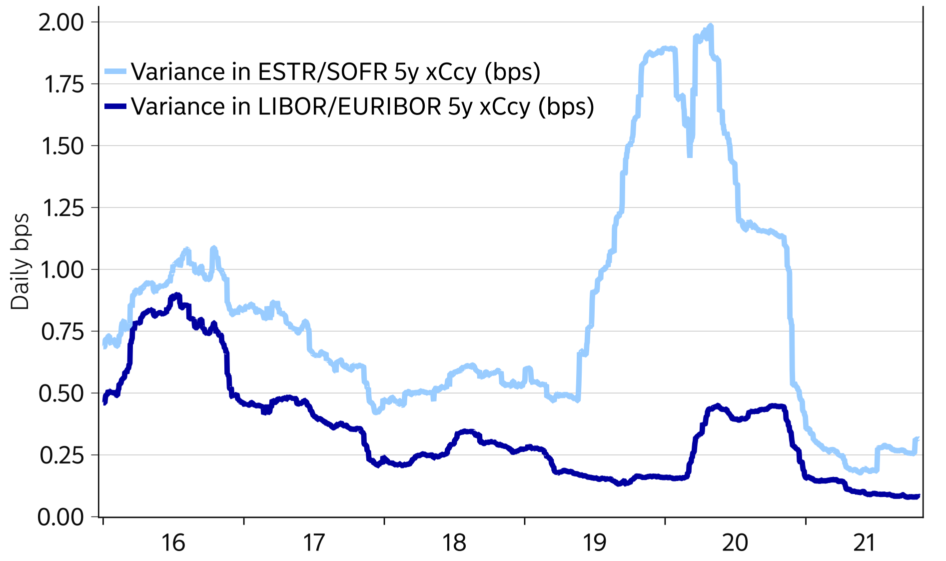
The transition will lead to a cleaner xCcy product that solely reflects relative liquidity preferences

- The OIS/OIS swaps will increase volatility in xCcy space compared to BOR/BOR products
- BOR/BOR spreads often cushioned the relative liquidity effects in times of market stress as e.g. $-LIBOR increased relative to EURIBOR when the FX liquidity premium decreased (net cushioning)
  - Using an **€STER** vs **SOFR** xCcy swap will ONLY leave the FX liquidity premium as the moving part, which will increase volatility, but the volatility is GOOD from a hedge perspective
- EURUSD OIS/OIS FX liquidity premiums are positively correlated to equities, meaning that the **FX hedge of USD assets via a OIS/OIS xCcy swap will most likely provide a true wind shelter** against adverse developments in equities. OIS/OIS xCcy is a much cleaner product in this regards compared to the BOR/BOR xCcy

The increasing volatility is good as:

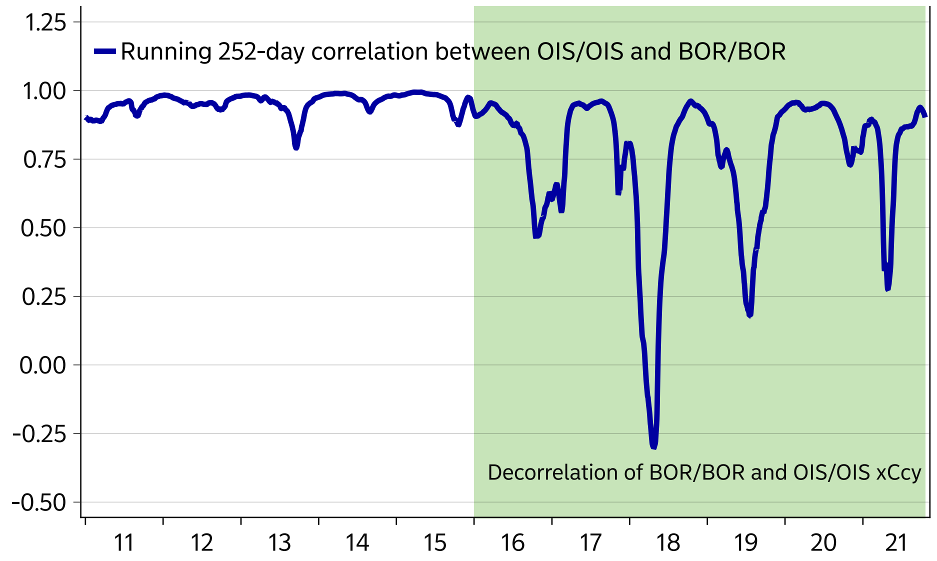
- ✓ OIS/OIS xCcy solely reflects relative liquidity
- ✓ BOR/BOR xCcy included relative credit spreads
- ✓ The liquidity premium is useful in an FX hedge
- ✓ De-correlation from BOR/BOR happened in 2016

Volatility will increase in using OIS/OIS compared to BOR/BOR xCcy swaps



Source: Macrobond and Nordea

Correlation decoupling between OIS/OIS and BOR/BOR post ECB QE



Source: Macrobond and Nordea

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Understanding the moving parts of the new €STER/SOFR (OIS/OIS) xCcy

Tenor basis is eliminated from the product resulting in a simpler structure

- The tenor basis in USD has been higher and more volatile compared to EUR
- This implies that a significant part of the dynamic in BOR/BOR xCcy comes from the dynamic in the USD tenor basis. This *"noise"* is eliminated in the xCcy resulting in a simpler structure with fewer moving parts
- Volatility in the OIS/OIS xCcy is higher than in BOR/BOR xCcy and that is in particular the case in shorter maturities where the tenor basis impacts the pricing the most
- For legacy trades in BOR/BOR xCcy, the fixed fall-back $-IBOR/OIS spread (from medio-23) will likely increase volatility in BOR/BOR xCcy and improve tail risk capabilities. LIBOR cessation will hence lead to better tail hedge protection in xCcy swaps both in new OIS/OIS and legacy BOR/BOR positions

Standard deviation on OIS/OIS xCcy (levels)

Forward (years)	1Y	2Y	5Y	10Y
0Y	15.39	14.17	13.91	13.90
1Y	13.75	13.75	14.15	13.91
2Y	13.94	14.39	14.41	13.96
5Y	14.76	14.69	14.35	13.50
10Y	13.76	13.84	12.98	13.41

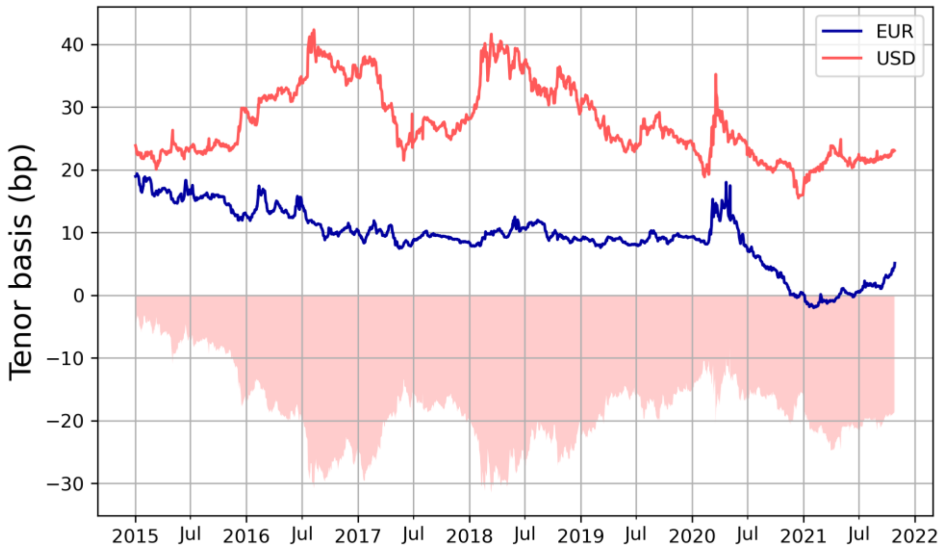
Source: Nordea, Bloomberg

Standard deviation on BOR/BOR xCcy (levels)

Forward (years)	1Y	2Y	5Y	10Y
0Y	11.66	11.68	12.49	11.40
1Y	12.02	12.56	12.72	11.16
2Y	13.24	13.30	12.58	10.85
5Y	12.21	11.68	10.65	9.21
10Y	8.83	8.86	8.26	9.16

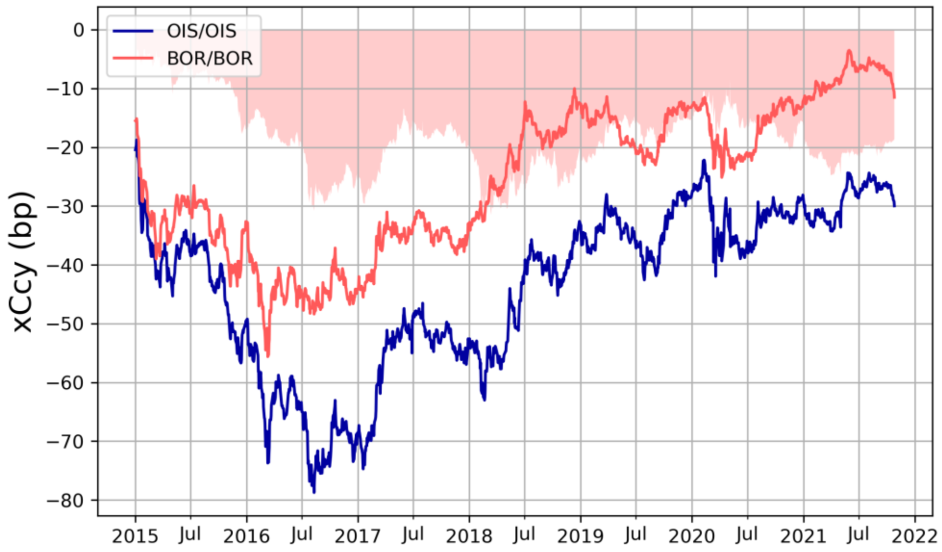
Source: Nordea, Bloomberg

The tenor basis in USD and EUR is the main difference between €STER/SOFR and the BOR/BOR xCcy (5Y tenor)



Source: Nordea, Bloomberg

The OIS/OIS xCcy basis moves lower due to the higher USD tenor basis (5Y tenor)



Source: Nordea, Bloomberg

OIS/OIS worked better than BOR/BOR xCcy in the most recent equity sell off

Significantly higher beta to equity moves in OIS/OIS xCcy when the market is stressed

- During the most recent equity sell-off in March 2020, OIS/OIS xCcy provided a better protection against the equity drawdown than the BOR/BOR xCcy
- The difference is a result of the higher sensitivity in USD tenor basis working against the xCcy as an equity hedge
- The beta to equity prices is also more sensitive in OIS/OIS xCcy than BOR/BOR xCcy for longer maturities. The 5Y OIS/OIS xCcy has the same beta as the 1Y BOR/BOR xCcy
- The volatility introduced in an OIS/OIS xCcy is hence a "welcomed volatility" from a portfolio perspective

Beta on OIS/OIS xCcy to equities during 2020 sell off

Forward (years)	1Y	2Y	5Y	10Y
0Y	1.26	0.71	0.42	0.28
1Y	0.17	0.19	0.20	0.17
2Y	0.21	0.22	0.19	0.16
5Y	0.18	0.15	0.14	0.11
10Y	0.15	0.14	0.09	0.06

Source: Nordea, Bloomberg

Beta on BOR/BOR xCcy to equities during 2020 sell off

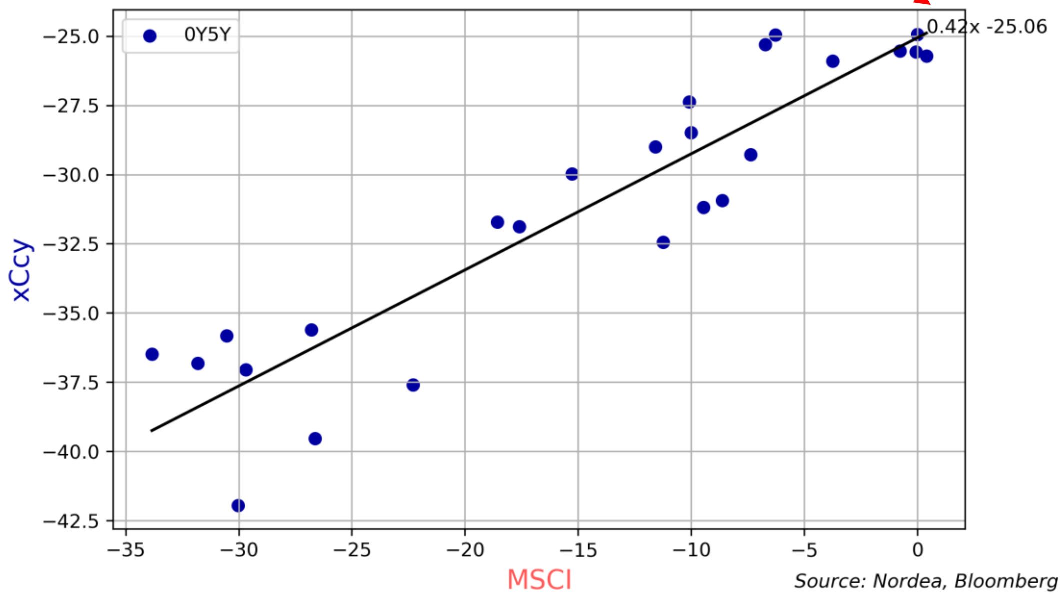
Forward (years)	1Y	2Y	5Y	10Y
0Y	0.41	0.34	0.25	0.17
1Y	0.26	0.25	0.19	0.14
2Y	0.24	0.22	0.16	0.12
5Y	0.10	0.09	0.09	0.07
10Y	0.11	0.09	0.06	0.03

Source: Nordea, Bloomberg

5Y OIS/OIS xCcy versus MSCI World since 2015

Source: Nordea, Bloomberg

5Y OIS/OIS xCcy versus MSCI World during the sell off in Feb/Mar 2020



Source: Nordea, Bloomberg

OIS/OIS xCcy works equally well as BOR/BOR xCcy as a credit risk hedge

Same beta on the two types of xCcy when credit spreads widen

- During the two major credit spread events in 2016 (February and June) the OIS/OIS xCcy worked as a decent hedge against spread widening
- There were no major differences in the beta between the two types of xCcy, why both BOR/BOR and OIS/OIS swaps tend to work as a hedge against credit stress
- There is no reason to believe that the OIS/OIS is less efficient as a credit spread hedge compared to BOR/BOR. When we include the 2020 credit stress in the early stages of the Covid-lockdown, we even find that OIS/OIS xCcy provide a better protection than BOR/BOR xCcy

Beta during February 2016 sell-off on OIS/OIS xCcy

Forward (years)	1Y	2Y	5Y	10Y
0Y	-0.05	-0.05	-0.06	-0.04
1Y	-0.05	-0.05	-0.05	-0.04
2Y	-0.05	-0.06	-0.05	-0.04
5Y	-0.04	-0.02	-0.02	-0.04
10Y	-0.03	-0.03	-0.06	-0.05

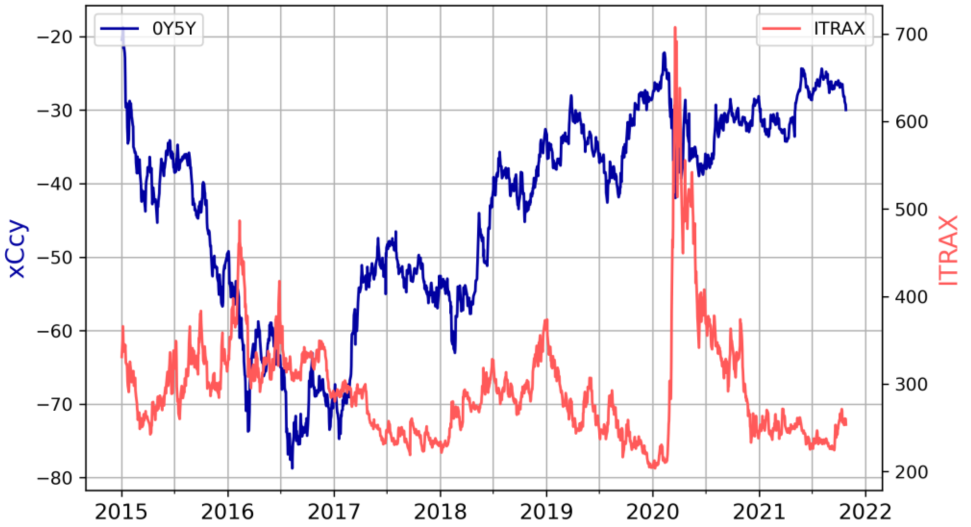
Source: Nordea, Bloomberg

Beta during February 2016 sell-off on BOR/BOR xCcy

Forward (years)	1Y	2Y	5Y	10Y
0Y	-0.05	-0.05	-0.06	-0.05
1Y	-0.06	-0.07	-0.06	-0.04
2Y	-0.07	-0.06	-0.05	-0.04
5Y	-0.05	-0.04	-0.03	-0.03
10Y	-0.03	-0.03	-0.03	-0.03

Source: Nordea, Bloomberg

5Y OIS/OIS xCcy versus ITRAXX 5Y Senior Financials since 2015



Source: Nordea, Bloomberg

Beta during June 2016 sell-off on OIS/OIS xCcy

Forward (years)	1Y	2Y	5Y	10Y
0Y	-0.08	-0.06	-0.04	-0.03
1Y	-0.03	-0.03	-0.03	-0.03
2Y	-0.02	-0.03	-0.03	-0.03
5Y	-0.05	-0.04	-0.02	-0.02
10Y	-0.04	-0.04	-0.02	-0.02

Source: Nordea, Bloomberg

Beta during June 2016 sell-off on BOR/BOR xCcy

Forward (years)	1Y	2Y	5Y	10Y
0Y	-0.08	-0.06	-0.05	-0.04
1Y	-0.05	-0.05	-0.05	-0.04
2Y	-0.04	-0.04	-0.05	-0.04
5Y	-0.07	-0.05	-0.03	-0.03
10Y	-0.04	-0.03	-0.02	-0.02

Source: Nordea, Bloomberg

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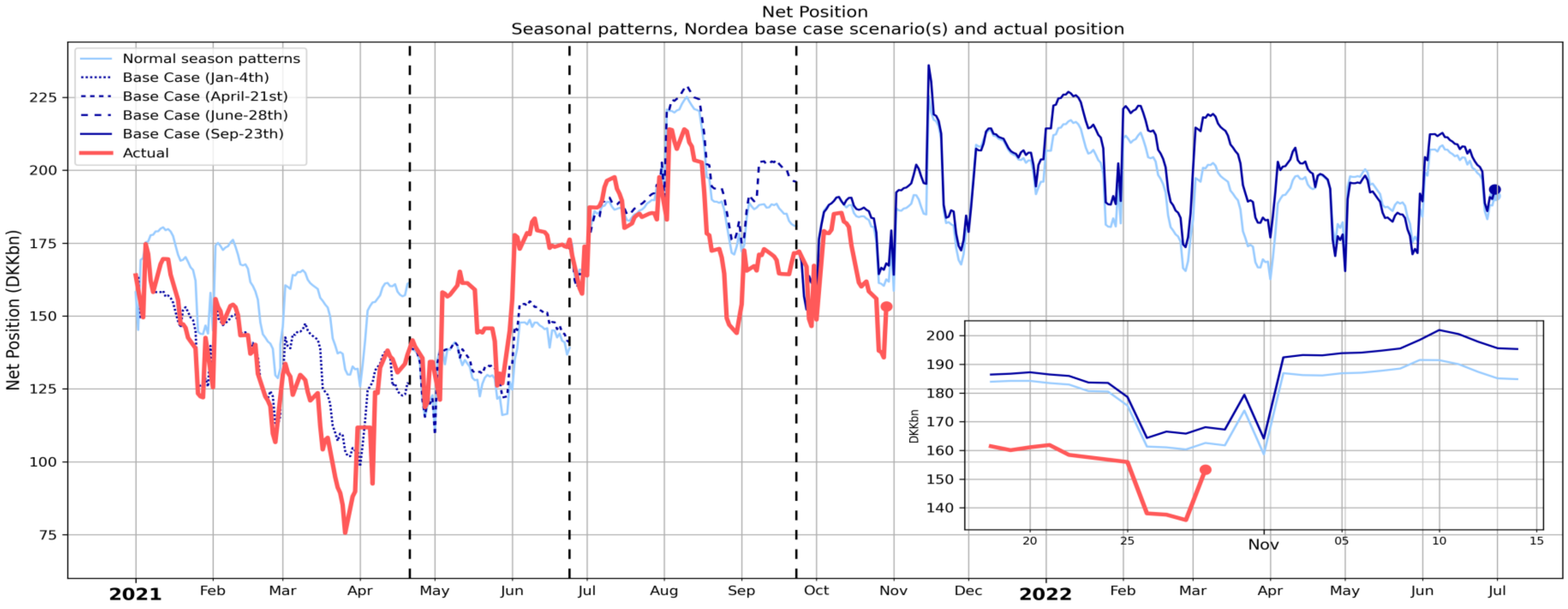
DKK: Low liquidity due to "tax-arbitrage"

Corporates placing excess liquidity at 0% at the Tax Authorities behind low liquidity

- **DKK liquidity is (again) running clearly below seasonal patterns** and the central scenario from the central bank due to "tax arbitrage". Companies continue to have virtually unlimited capacity on tax accounts (at 0% interest rates), which means that we observe this front-running pattern ahead of most significant deadlines, but the pattern also seems to have a trend – i.e. more and more companies move money from commercial deposits to the tax account on a more permanent scale (to avoid negative interest rates)
- In addition, it is worth noting that according to our asset allocation model, the life and pension sector will need to pay DKK 38.7 billion in PAL tax (the payment is smaller than last year due to poorer bond performance), but it is still enough to make liquidity semi-tight during Q1-2022 again
- The EURDKK FX fwds have started to move slowly but surely up towards zero again, and we expect the movement to continue due to 1) risk of tight DKK over turn and 2) tendency to earlier and earlier payment of PAL tax
- There is hence still a high likelihood that FX intervention will have to return due to continued tight liquidity during the H1-2022 tax/dividend season. Remember that DKK liquidity tightens materially during Q1, while April/May brings about a material downwards dividend season pattern in EUR/DKK spot developments. More DKK liquidity is needed before Nationalbanken has "won" this battle

Net position in DKK again running below central scenarios due to "tax-arbitrage"



Source: Nordea Markets & MacroBond

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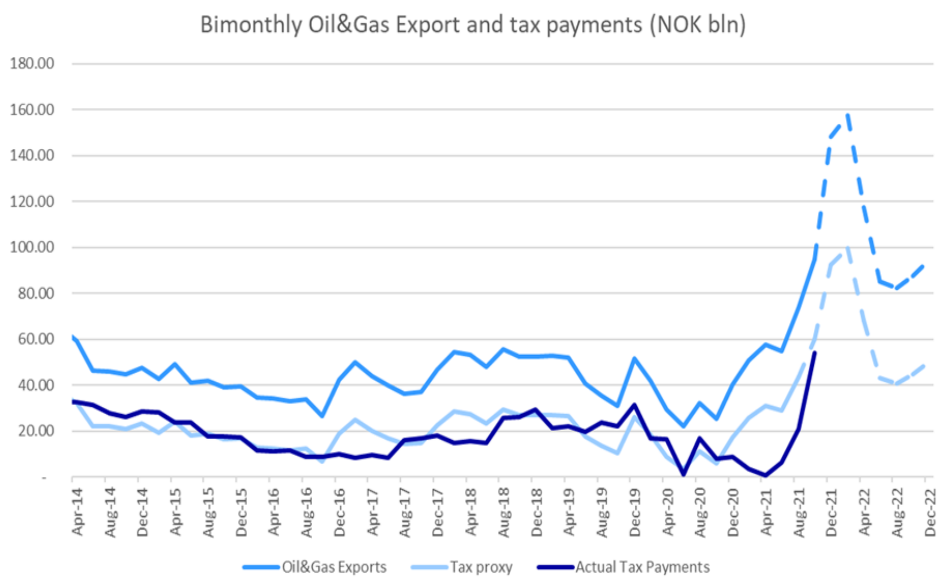
NOK: Higher gas prices = Higher Nibor (at least initially)

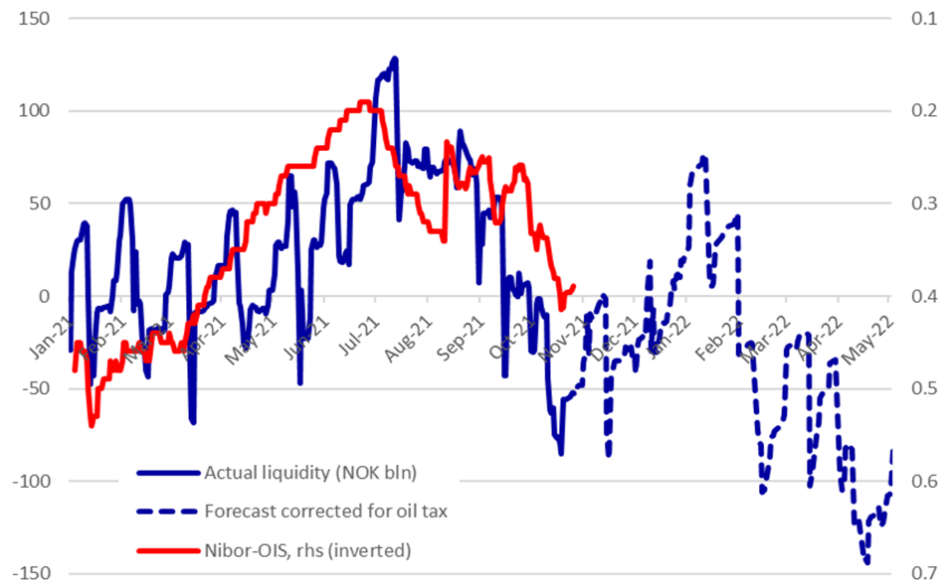
Soaring gas prices will give a record high petroleum tax revenue for Norway

- Soaring gas prices will give a record high petroleum tax revenue for Norway. When these taxes are paid it will make a large dent in structural liquidity and push Nibor-fixings higher unless Norges Bank acts. Higher tax revenues and a smaller government budget deficit next year also means that Norges Bank will reduce the daily NOK purchases drastically. In fact, we expect Norges Bank will end up selling NOK during 2022 if petroleum prices develop in line with the futures curve
- The petroleum tax is paid in bimonthly instalments. The tax rate is 78% on the export value after costs are deducted. For this year, higher oil&gas prices mean that the tax base will probably end up at NOK 180bn, some NOK 120bn above budget. Using market forward prices, next year could end up at 350bn, which is double the budget estimate. Under the 2021 tax rules, companies are allowed to postpone a large part of the actual tax payments until next year. We expect 2021 actual tax payments at 105bn and 425bn for next year
- When the taxes are paid, cash is transferred from the commercial banking system into the government accounts at Norges Bank. This means structural liquidity will suffer and banks will have to compete more fiercely for NOK in the FX swap market pushing interest rates higher. Norges Bank can remedy the problem by either transferring money to the oil fund (which means selling NOK) or by offering F-loans to banks. We believe they will do a combination, but still expect the measures to lag the enormous impact from the tax payments. As a result, we believe Nibor will be pushed higher, especially in late winter and spring next year after the February and April tax payments. Nibor-OIS at 50bps or more could be the norm until summer

Soaring gas prices equal large tax bills



Large tax bills equal wider Nibor-OIS



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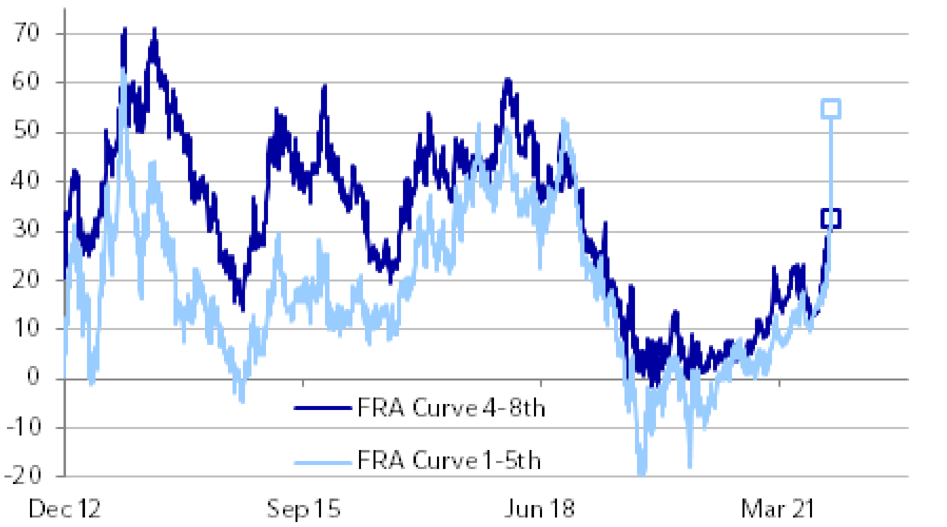
SEK: Cheap SEK liquidity = soaring real estate prices?

The cheap SEK liquidity has left the Swedish real estate giants with the perfect funding tool

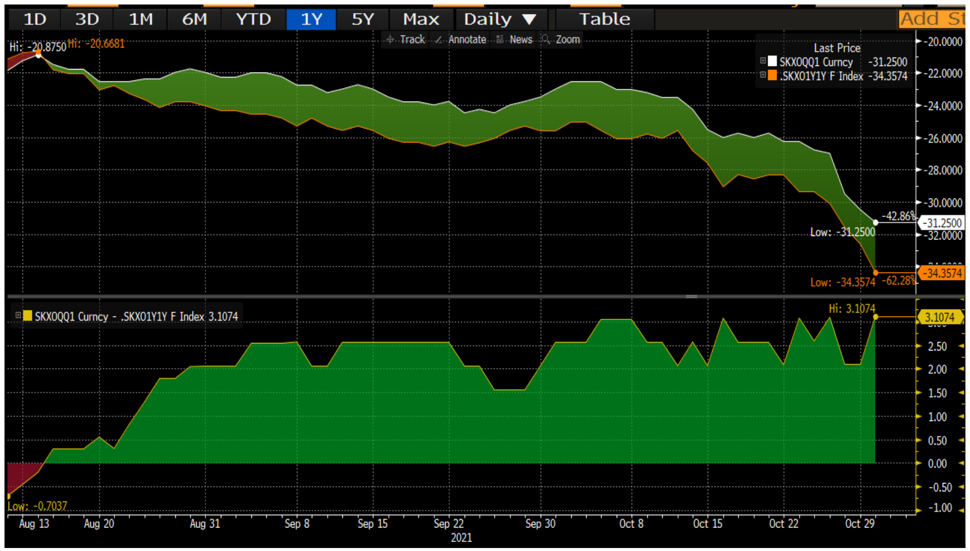
- The new titans of Swedish finance have grown out of the Swedish bond market. With €25bn in rolling funding needs the Swedish real estate companies do most of their funding in foreign currency (primarily euro). The "post covid" liquidity bonanza from the Swedish central bank has left them with the perfect funding window. Pre-corona crisis packages EURSEK break traded around zero and since April 2020 it has been around -10bps. That is a nice cost reduction if you roll large amounts of EUR short into SEK
- Given the re-pricing in the Swedish short-end in rates, it is interesting that the xCcy short-end has been so calm. Considering the mainstream bet is tapering before rate-hikes, one could have thought it would be the other way around. A stronger SEK will eat its way into the short rollers and hence there could be a change in patterns around the corner. Being paid SEK is of course complicated given the roll; but 1y1y SOFR/Stibor at least in theory has a positive roll being paid
- Despite the truth that XCCY has nothing to do with spot FX a lower EURSEK will most likely look to bring out more payers in the EURSEK xCcy 5y sector given the hedging dynamics

Re-pricing Swedish short end



Source: Nordea

SOFR/STIBOR 1y1y vs 1y spot



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