March 14 2022

Macro Weekly

Week 11/2022

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Highlights

The world around us

The Norwegian economy

Market charts & comments

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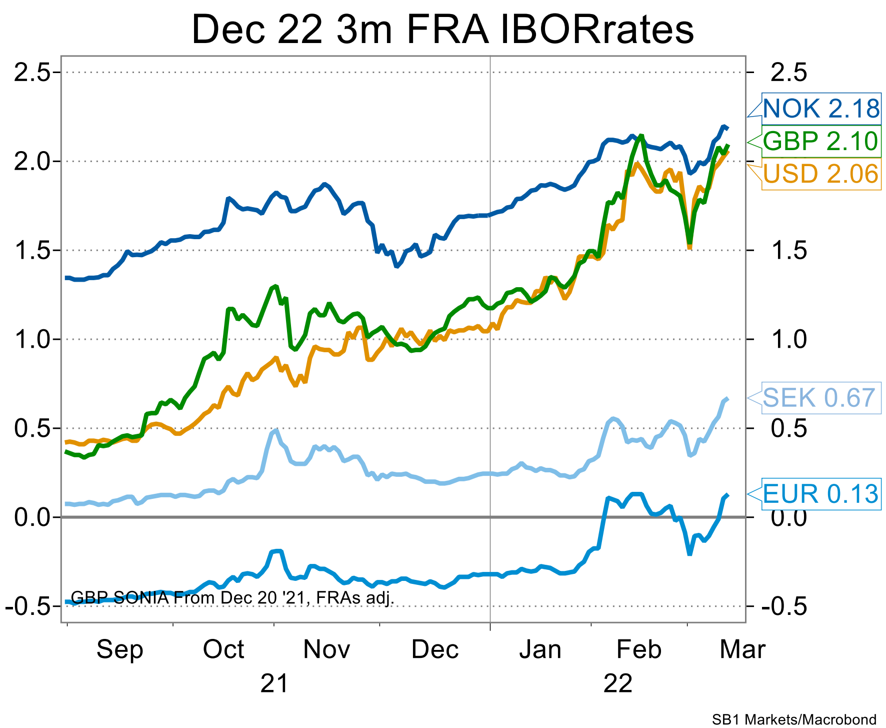
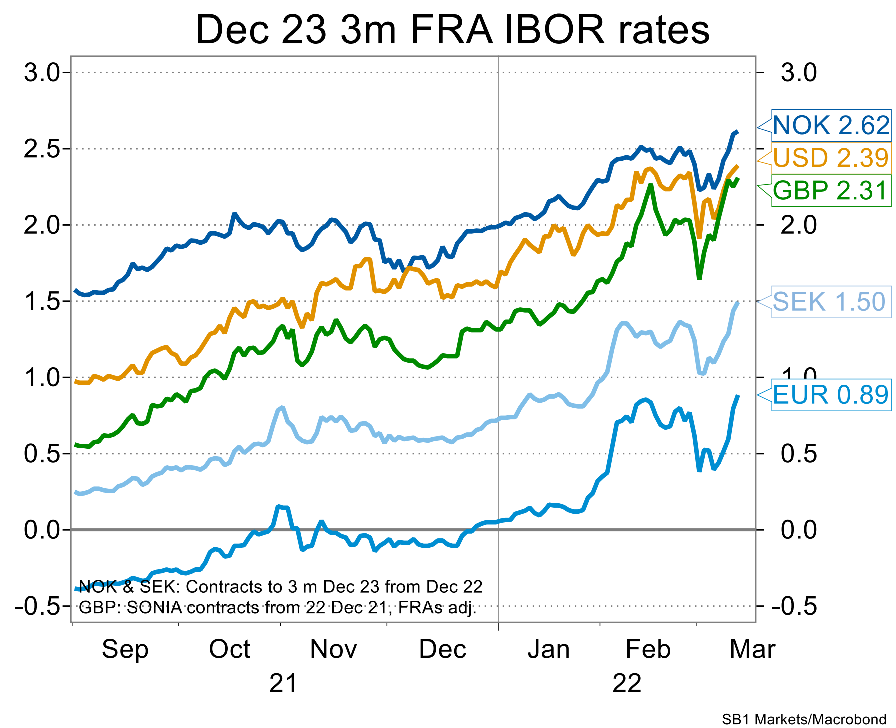
War & sanctions: Inflation worries to the forefront again

- **Uncertainty creates volatility**
  - **Raw material prices, bond yields and stock markets** were all over the place last week– for good reasons
  - There are still huge uncertainty on **sanctions**, the impacts of the daily cascade of **self-sanctioning** from Western companies, and even more vs. possible **Russian counter sanctions**
  - The uncertainty is especially large vs the **energy sector** following last week's dramatic decisions on Russian oil (US, UK embargo), the EU's stated ambitions to rapidly reduced the dependence on Russian gas – and conflicting signals from Russia on energy exports
  - Both **oil and gas prices** fell sharply as a full energy war was deemed less likely – but we do not know what the upcoming week will bring
  - Generally, sanctions are tightened, and comment from Russian side has not been conciliary either. China's position is still unclear
  - As the war continues, with large losses at both sides, Russia will probably become more motivated for peace talks as the military 'solution' will be too costly even for Putin (or impossible, long term)
- **Some sort of raw material/energy shock is likely – at least that's where the markets are today**
  - **Russian/Ukrainian** supplies will be hurt, both due directly due to the war, and due to the sanctions that will not be lifted anytime soon, barring a regime change in Russia
  - Europe wants to become less dependant on Russian energy, for good reasons – and will probably have to pay a price (like higher LNG prices). Russian oil will not flow more freely than before – and more embargos are likely if the war in Ukraine turns even more bloody
- **An energy shock will lift inflation, and slow growth**
  - If energy prices stabilised at current levels the impact on inflation will not be dramatic vs. the already high inflation rates due to the previous hikes in energy prices since the bottom early in the pandemic
  - While energy prices fully explains the current inflation rate in the EMU, they explains just half of the close to 8% US rate of inflation. US has a serious inflation challenge, EU does in fact not. Differences in wage inflation confirms this picture
  - **In addition EU is more exposed growth wise** than the US, due to its dependence on imported energy in general and especially from Russia. Norway is to large extent sheltered due to energy exports
  - Anyway, markets turned their focus towards inflation last week, also in Europe, partly supported by the hawkish ECB
  - The **OECD** will present its preliminary forecasts this week. We expect a reduction in the global growth forecast at lass than 1 due to the war
- **Possible longer term impacts: More public spending, more energy investments, reconstruction of supply chains. <u>And higher rates?</u>**
  - **Defence spending** in Europe will gain speed the coming years
  - Extreme efforts to **increase energy production** in the West, especially in Europe in order to replace dependence on import from Russia. Both other gas sources, renewables, nuclear and even coal will be a part of the solution
  - If so, **private demand will have to be kept in check** in order to mobilise resources to the most prioritised areas. Higher taxes and/or higher interest rates will be needed

And then a huge lift in rate expectations – up to cycle highs everywhere

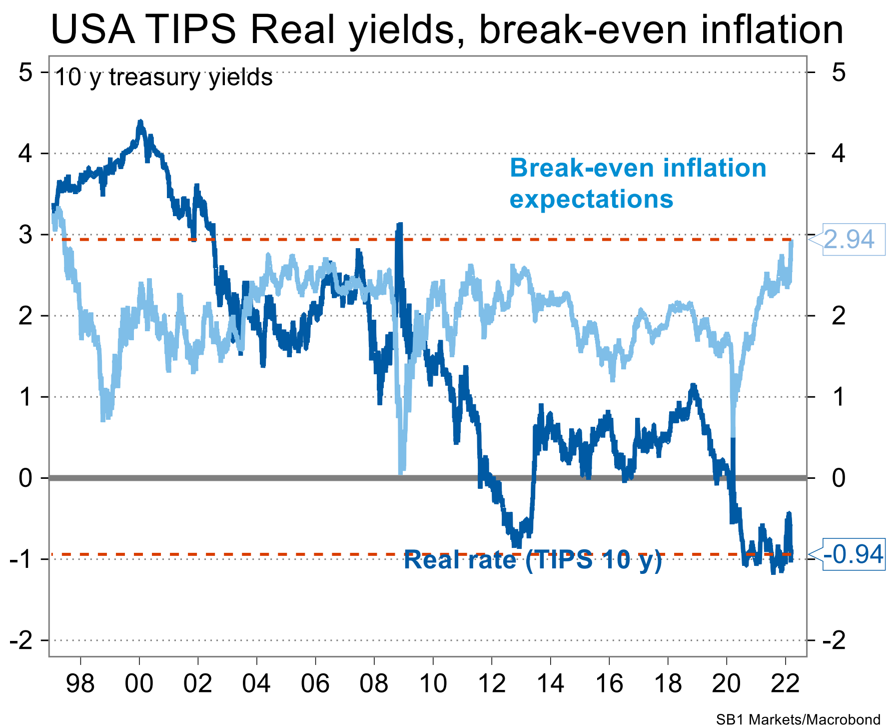
Inflation worries are once again dominating growth uncertainty, even in the Euro area

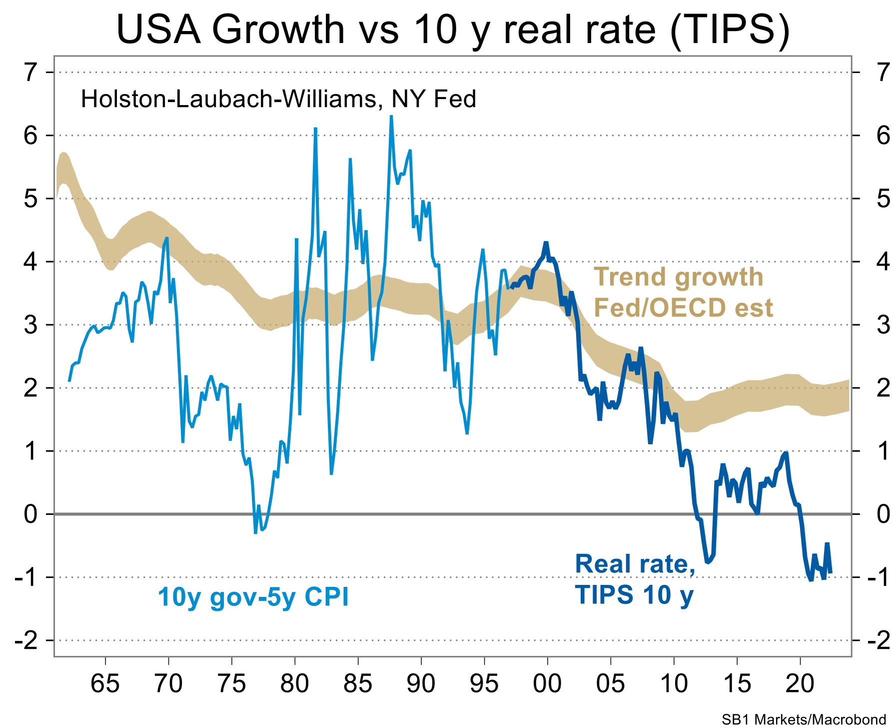




Inflation expectations up, real rates sharply down. So, what is the growth outlook?

If inflation is at 3%, and the real rate is at -1%, *we assume it is because the growth outlook is weak*





- For what other reason could monetary policy be kept so expansionary, if not for a really weak growth?
- If the economy is not really weak, we think central banks will tighten monetary policy by hiking rates, selling bonds in order to bring inflation down by slowing the economy
- Thus, a mix with 3% inflation over time, record low real rates, and at the same time decent growth seems rather unlikely
- **The big question:** Has other markets discounted the bleak growth outlook that seems to be discounted on the bond market?

Last week, the economy

- **Global auto sales**
  - » **Sales** fell marginally in February, mostly due lower sales in the US. Sales rose in China and in other EMs in average. Global sales are down 8% below the 2019 level – and trending up, with China in the lead (+15% vs 2019). Now new challenges may turn up, due to the war in Ukraine, supply chains may be even more disturbed
- **China**
  - » **Credit growth** slowed in February but the trend is upwards, supported though by increase local government bond issuances. Bank credit is slowing
  - » **CPI inflation** is still very low, at 0.9 – 1.3%
  - » The **Omicron variant** is creating more problems, and even a large city is now closed down. China may struggle with Covid for a while
- **USA**
  - » **CPI inflation** is not low in the US, the headline accelerated to 7.9% in February, the core to 6.5%, figures not seen in 40 years. Energy and auto prices are the main culprits, but inflation is broadening, and 80% of 350 categories are up more than in a 2% pace measured over 2 years. In the SME NFIB survey, the share of companies reporting they plan to lift prices are still much higher than anytime before – as 'nobody' complains about low sales!
  - » **Atlanta Fed's median wage tracker** reported another substantial uptick in wage inflation up to close to 6% y/y in February. The underlying growth the recent months is even higher
  - » The number of **unfilled vacancies** was higher than expected in January – and it is perfectly correlated to wage inflation (but leading 9 months)
  - » **Univ. of Mich consumer sentiment** fell further in the first part of March, and the level is extremely low. The decline in March is no surprise, given the war and higher gasoline prices but the level is way below what is normally (and very well) explained by economic factors – even if inflation & inflation expectations are high
- **EMU**
  - » **The ECB** was more hawkish than expected. Inflation forecasts were revised up, growth forecast down, more or less as expected. However, the QE program will be scaled down earlier than previously announced. At the other hand, the bank did not commit itself to start hiking rates immediately after ending the QE acquisitions (now perhaps by the end of Q2). Even so, the whole curve rose – and rates climbed big time last week, as most other places
- **Norway**
  - » **CPI inflation** surprised on the upside, both the headline and the core. The core accelerated to 2.1% from 1.3%, due to higher food prices, recreation/culture, furnishings contributed at the upside. Core inflation has been running 0.6 pp higher than NoBa's Dec forecast. Electricity prices fell slightly but headline inflation accelerated to 3.7% from 3.2% due to the surge in the core rate
  - » **Mainland GDP** fell 0.9% in January, more than expected (-0.2 to -0.3%), and Dec was revised down to -0.7%, from -0.4%. However, the decline in Jan was entirely due to ocean fisheries, and electricity production. The 'core' Mainland GDP was close to flat – and we expect a substantial lift in February, 2 months ahead of NoBa's Dec forecast

This week: Besides war & sanctions: Fed & BoE to hike, a full China check, NoBa Regional Netw.

Time	Count.	Indicator	Period	Forecast	Prior
Monday March 14					
08:00	SW	CPI YoY	Feb	4.0%	3.7%
08:00	SW	CPIF Excl. Energy YoY	Feb	3.1%	2.5%
Tuesday March 15					
03:00	CN	Fixed Assets Ex Rural YoY	Feb	5.0%	4.9%
03:00	**CN**	**Industrial Production YoY**	**Feb**	**3.9%**	**4.3%**
03:00	**CN**	**Retail sales YoY**	**Feb**	**3.0%**	**1.7%**
08:00	NO	Trade Balance	Feb		91.8b
08:00	UK	Average Weekly Earnings	Jan	4.5%	4.3%
10:00	**NO**	**Region Survey: Output Past 3M**	**Feb**	**(0.2)**	**1.46**
10:00	**NO**	**Region Survey: Output Next 6M**	**Feb**	**(1.2)**	**0.95**
11:00	GE	ZEW Survey Expectations	Mar	6	54.3
11:00	EU	Industrial Production SA MoM	Jan	0.1%	1.2%
13:30	US	Empire Manufacturing	Mar	7.4	3.1
13:30	US	PPI Final Demand YoY	Feb	10.0%	9.7%
13:30	US	PPI Ex Food and Energy YoY	Feb	8.7%	8.3%
		OECD prelim Economic Outl.			
Wednesday March 16					
02:30	CN	New Home Prices MoM	Feb		0.0%
13:30	US	Retail Sales Advance MoM	Feb	0.4%	3.8%
13:30	**US**	**Retail Sales Control Group**	**Feb**	**0.3%**	**4.8%**
15:00	US	NAHB Housing Market Index	Mar	81	82
19:00	**US**	**FOMC Rate Decision, lower b.**	**Mar-16**	**0.25%**	**0.00%**
Thursday March 17					
11:00	EU	CPI YoY	Feb F	5.8%	5.1%
13:00	**UK**	**Bank of England Bank Rate**	**Mar-17**	**0.75%**	**0.50%**
13:30	US	Housing Starts	Feb	1690k	1638k
13:30	US	Building Permits	Feb	1861k	1899k
13:30	US	Philadelphia Fed Business	Mar	15	16
13:30	US	Initial Jobless Claims	Mar-12	215k	227k
14:15	US	Manufacturing (SIC) Production	Feb	1.0%	0.2%
Friday March 18					
	JN	BOJ Policy Balance Rate	Mar-18	-0.10%	-0.10%
08:00	SW	Unemployment Rate SA	Feb	7.9%	8.1%
11:00	**EU**	**Labour Costs YoY**	**4Q**		**2.5%**
11:00	EU	Trade Balance SA	Jan	-9.0b	-9.7b
15:00	US	Existing Home Sales	Feb	6.20m	6.50m
15:00	US	Leading Index	Feb	0.3%	-0.3%

… and perhaps some few economic data?

- **China**
  - A full data set from the **domestic real economy** in Jan & Feb, normally a somewhat confusing. Growth has slowed, especially retail sales, at least partly due to the fight against the virus. The building sector may have stabilised, following a substantial downturn
- **USA**
  - The initial 25 bps hike in the **Fed funds rate** seems to be done deal but by how much will the **FOMC members** lift the 'dot plot'? Last time (in December) the interest rate 'path' was lifted by up to 70 bps, an unprecedented change). Since then market rates are up by up to 100 bp. The bank may take a gradual approach but the dot plot will be lifted even more than in December. The QT (reduction of the bond holdings) strategy will also be outlined, perhaps with some dates (and not just data) attached. The inflation forecasts will have to lifted further – explaining the extreme change in the policy stance
  - Other points of interest: **Retail sales** recovered in January but is not expected much more up in February. **Housing data** are expected to stay strong
- **EMU**
  - **EMU labour costs** have so far been growing at a stable and modest pace, at 2.5, have NOT been accelerating like wage inflation in the US. However, the unemployment rate is the lowest since the early 80'ies, and vacancies are soaring. At one stage, something could happen with wage in EMU too. But probably not in Q4 either
  - **Expectations in the ZWE** survey is estimated to have collapsed in March, the first sentiment check after the Russian attack on Ukraine
- **UK**
  - **Bank of England** will lift the bank rate once more, to 0.75% - and will signal further hikes at the upcoming meeting – as the market expect
- **Norway**
  - **We expect Norges Bank's Regional Network** to assume decent growth the next 6 months, following the stagnation the previous months due to the Omicron variant. The survey was mostly conducted before the Russian attack

Sources: Bloomberg. SB1M est. in brackets. Key data are highlighted, **the most important in bold**

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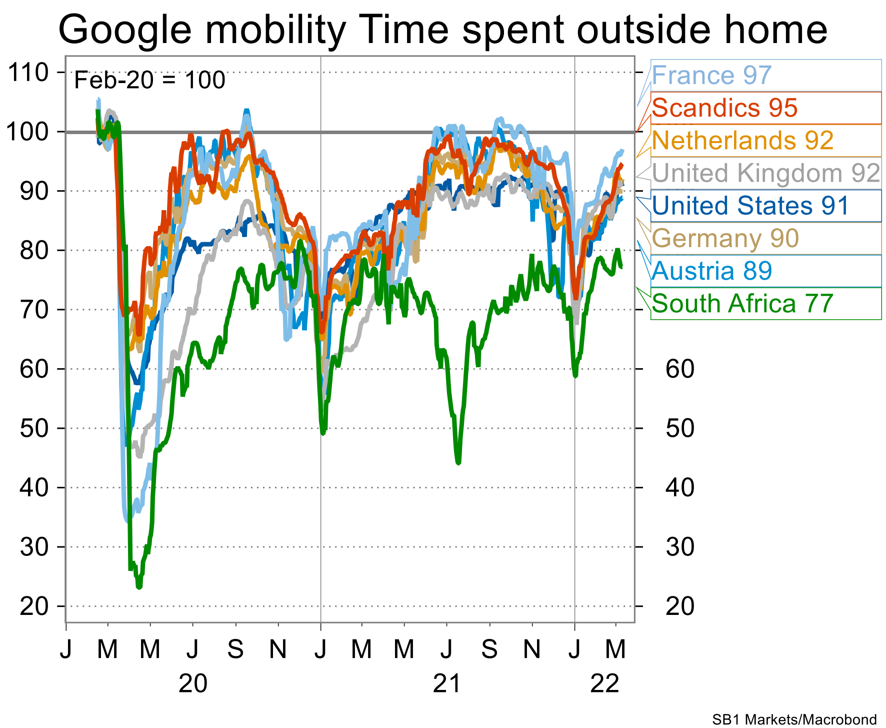
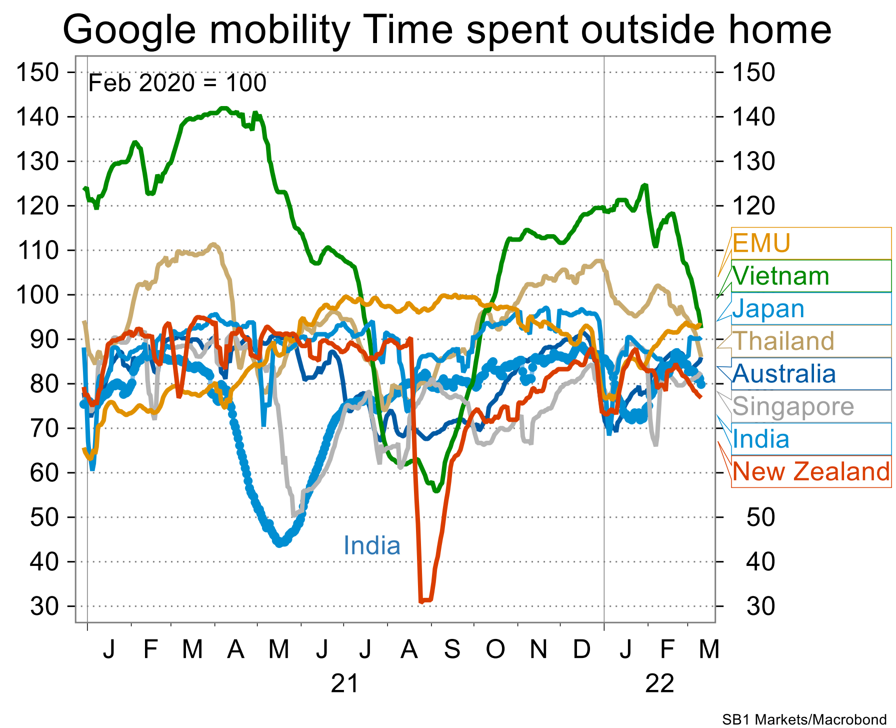
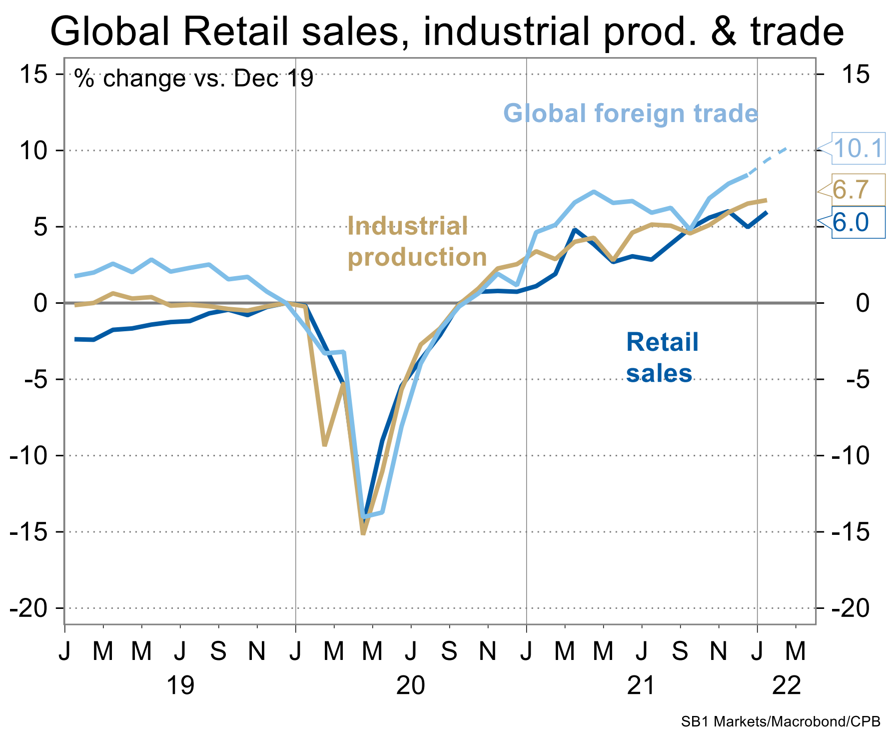
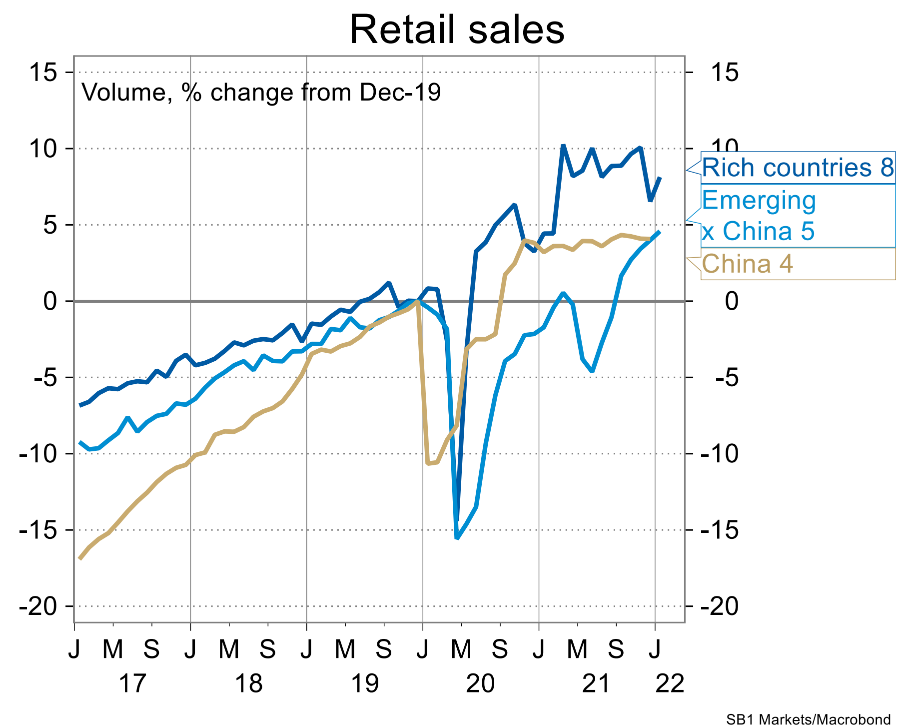
Mobility on the way up in the West, still some challenges in the East





Global retail sales recovered in January. Global trade OK





- **Global retail sales** recovered most of the December loss in January, but probably not all
- **Global manufacturing production** has recovered since the autumn, and growth continued into Q1
- **Global foreign trade** is still on the way up (the two last data point are estimates from Kiel Institute)

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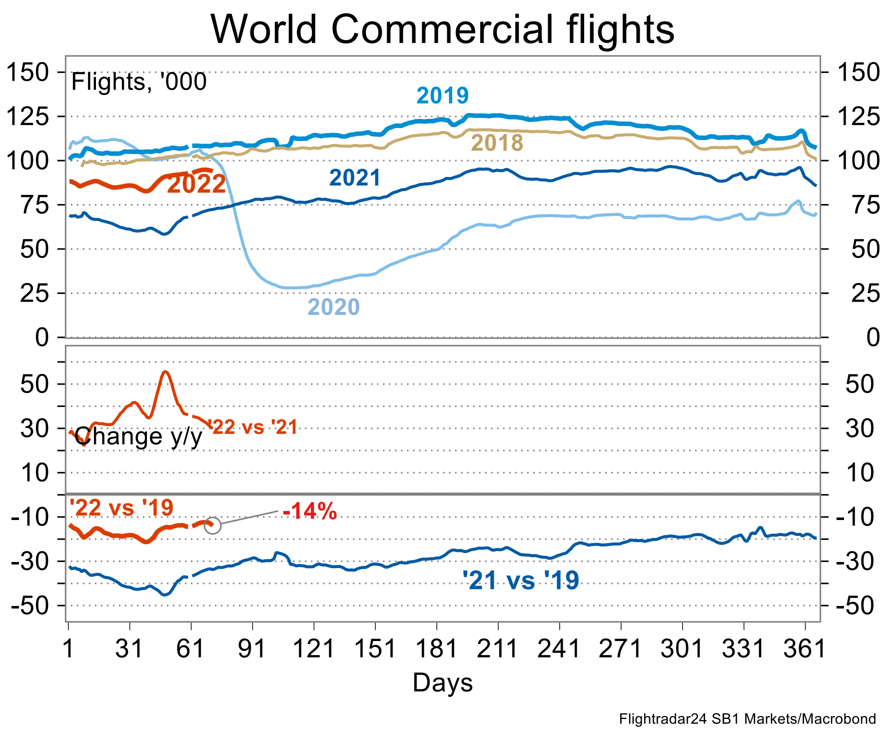
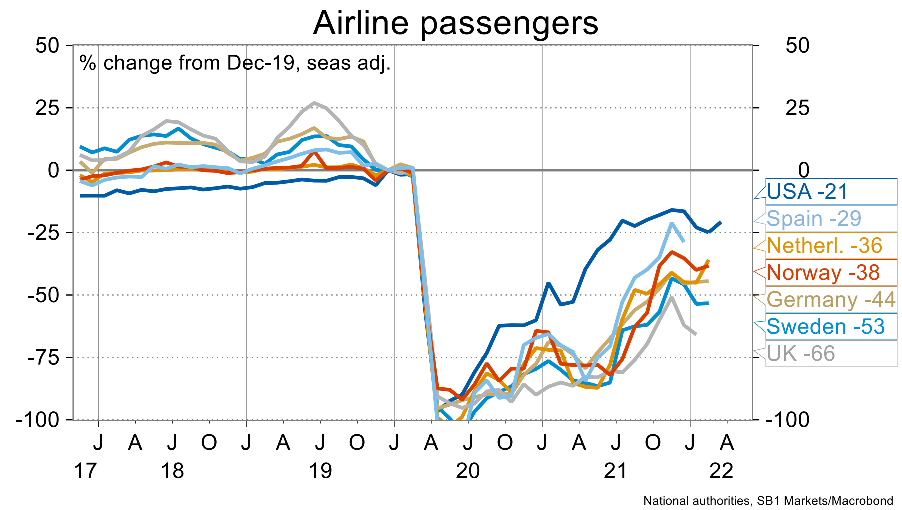
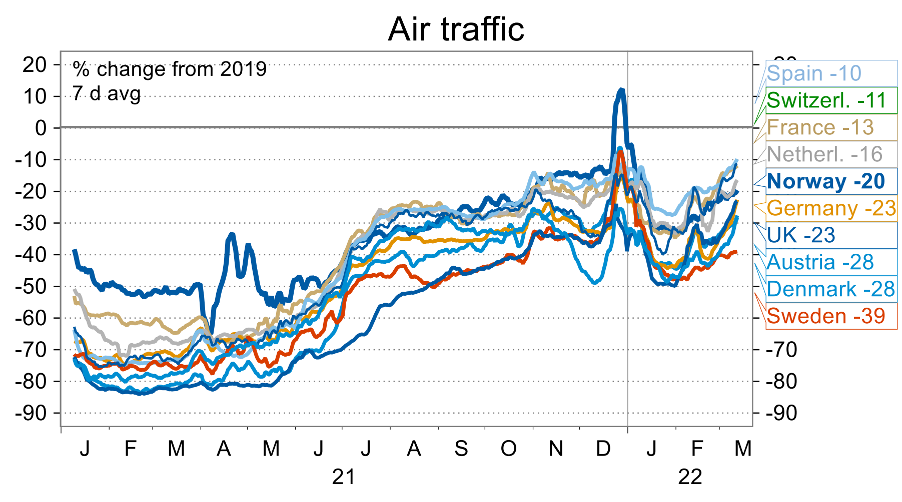
Global airline traffic further up last week, now down 14% vs. 2019

The fight against Omicron is won? And then something else turned up, of course

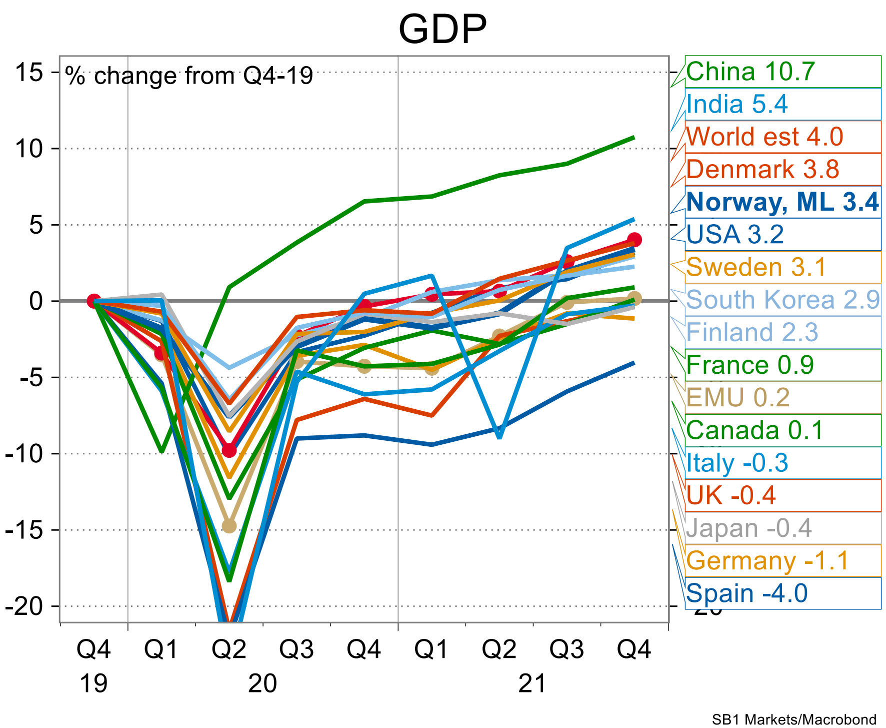


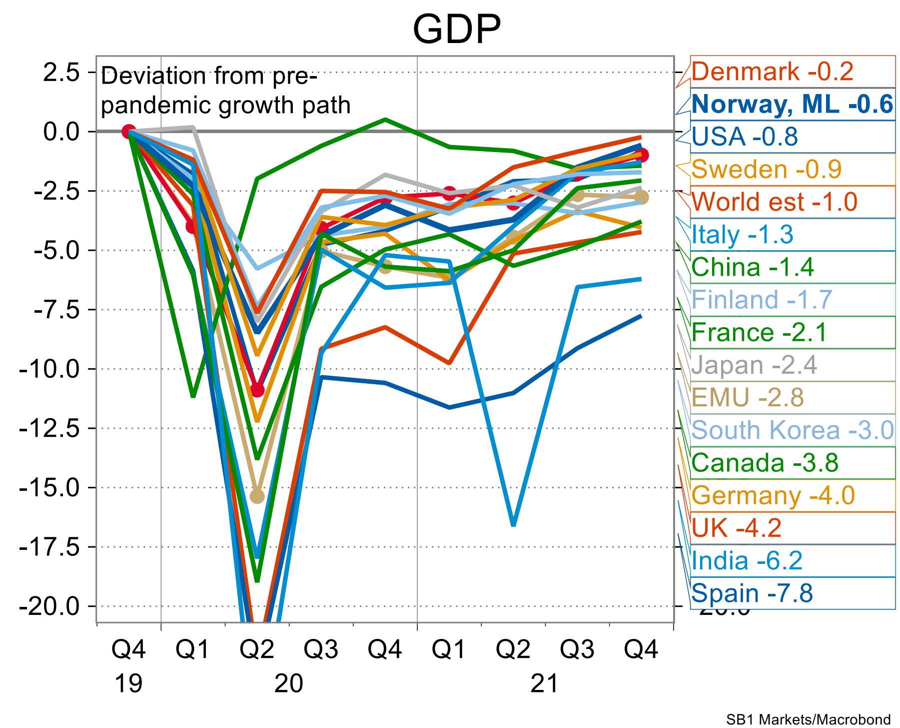




Strong growth in Q4 too, GDP is up 4.0% vs the pre-pandemic level

.. But still 1.1% below the p-p trend growth path

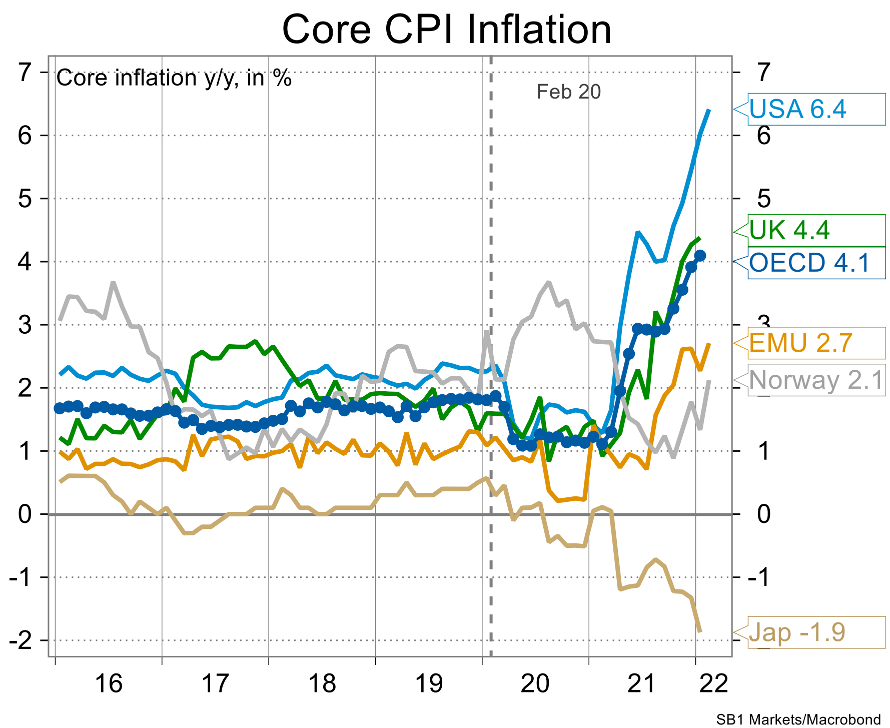


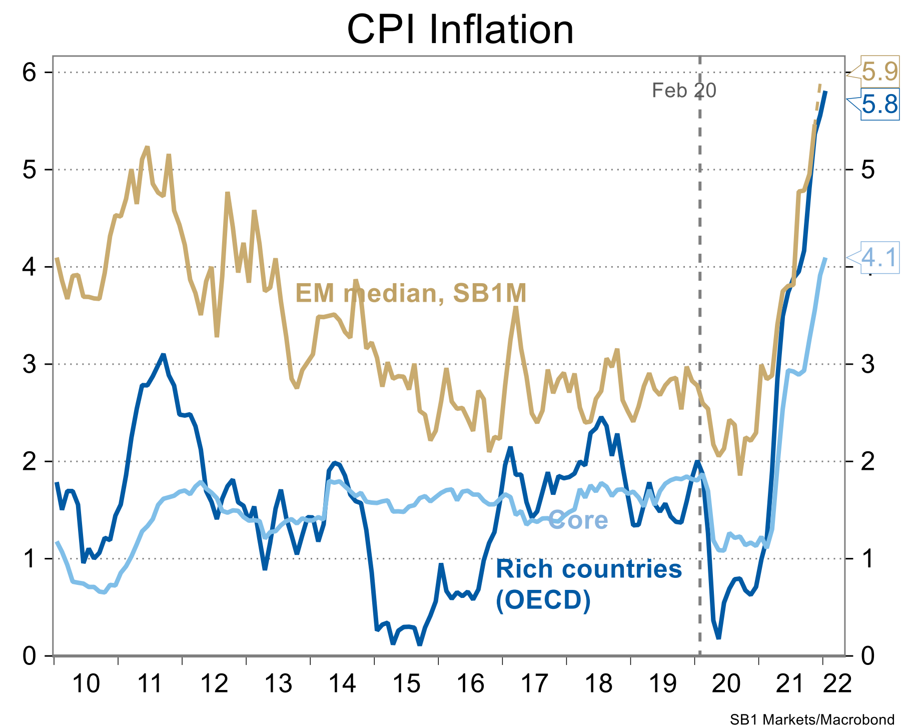


- Most countries have reported decent growth in Q4

Inflation still rapidly on the way up

Energy prices the main culprit, but core inflation has turned up most places





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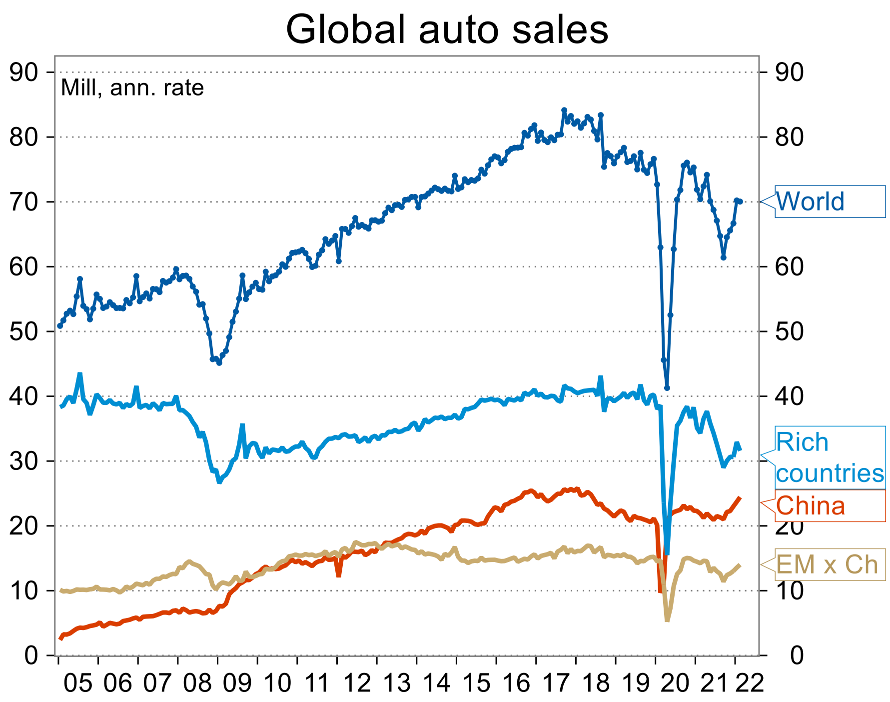
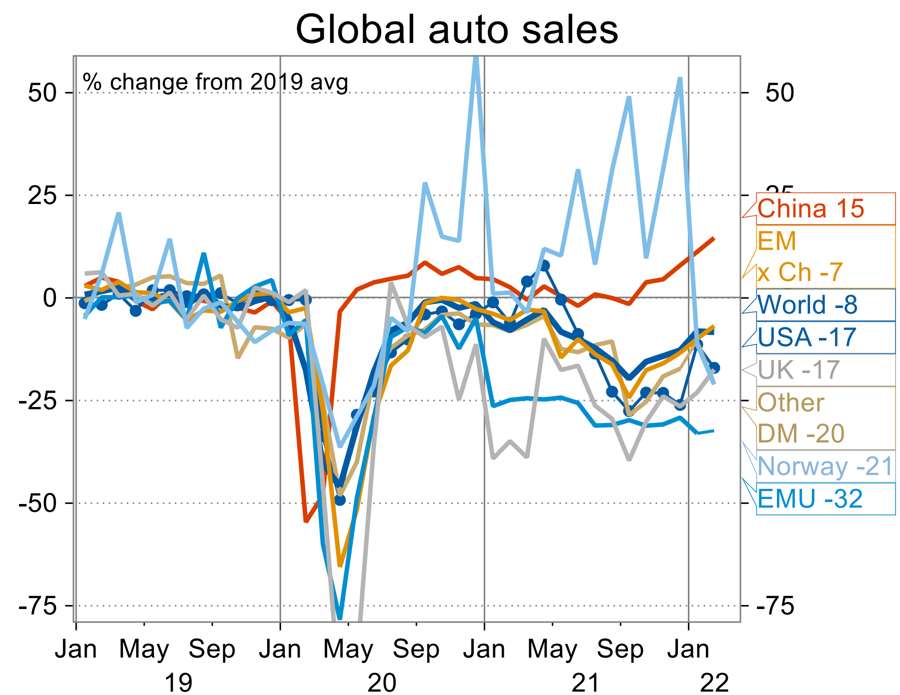
Auto sales on the way up but not further in February, mostly due to a US decline

Global sales down 1%, and the level is 8% below the 2019 average. China and other EMs in the lead



SB1 Markets/Macrobond

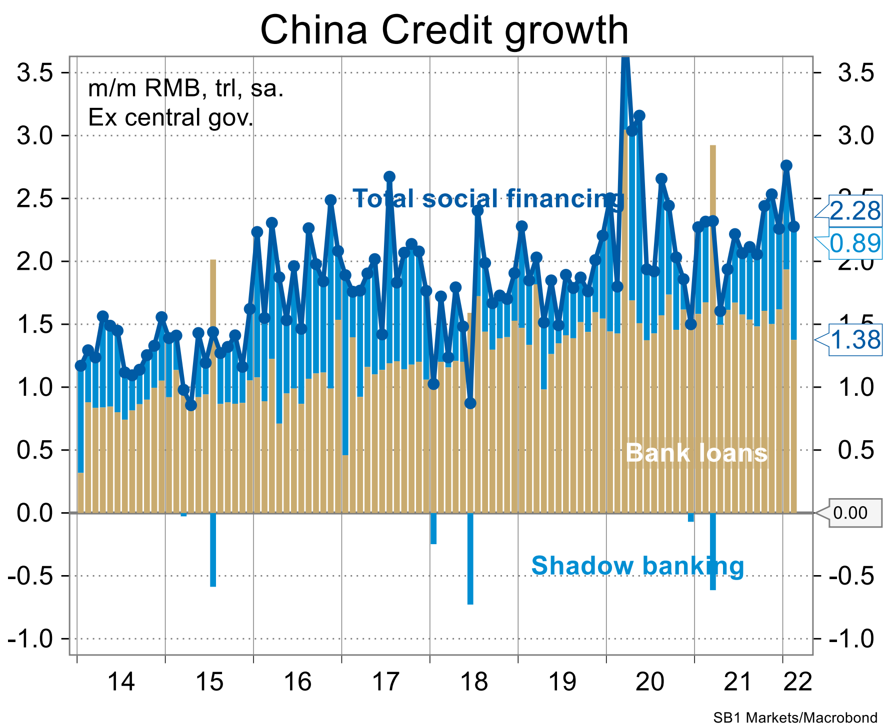


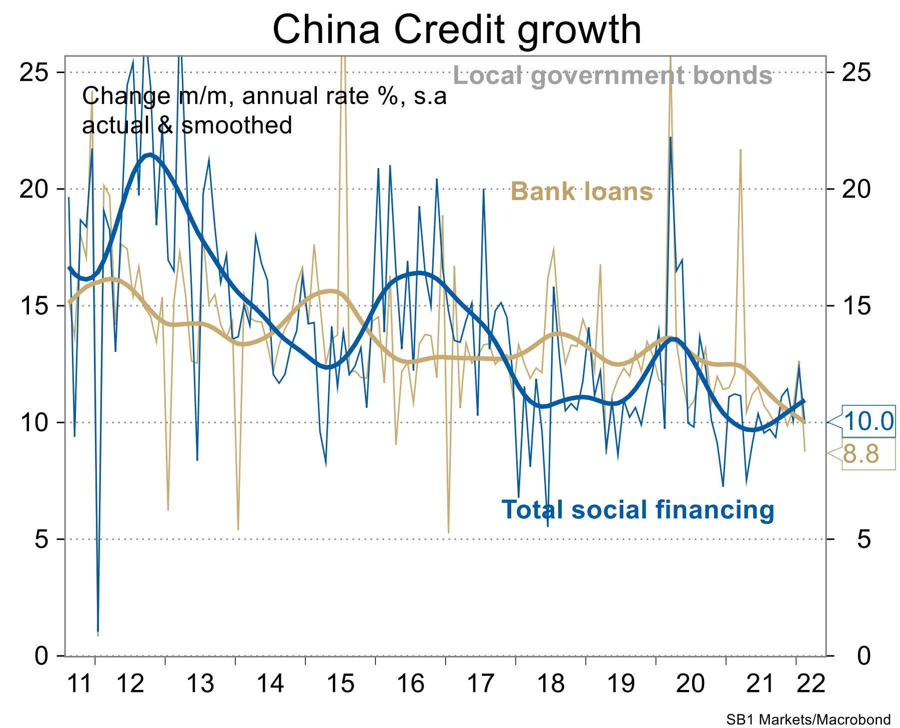
SB1 Markets/Macrobond

- **Global sales** fell slightly in February, due to a decline in sales in US. Sales in EMU were probably close to unch.
- **US** is down 17% and **EMU** is still down 32%%!
- **Emerging markets** are steady on the way up, China is 15% above the 2019 level, while other Emerging markets are 7% below.
- **Norwegian** sales fell further following very strong sales through 2021
- **Auto production** is gradually recovering – with China in the lead (of course), up 15%
- The new challenge: Will lack of supplies from Russia/Ukraine create substantial new problems? Semiconductors are exposed, as Ukraine is the major producer of neon gas and krypton, both essential in production of semiconductors

Credit growth slowed in February but not by much, and the trend is still upwards

Bank lending fell sharply, to the lowest level in almost 2 years, local gov. bonds still on the way up

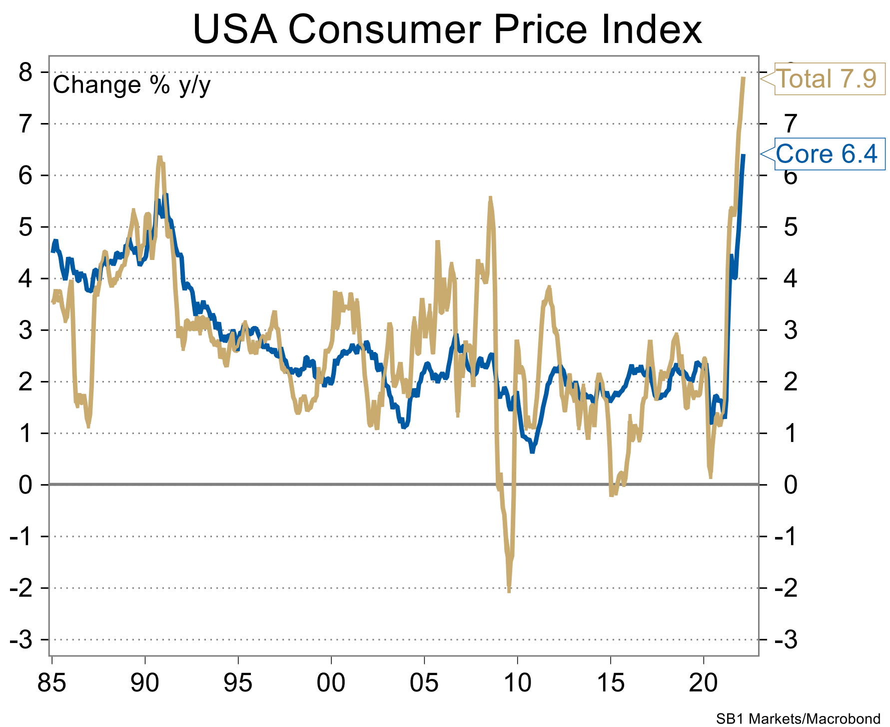


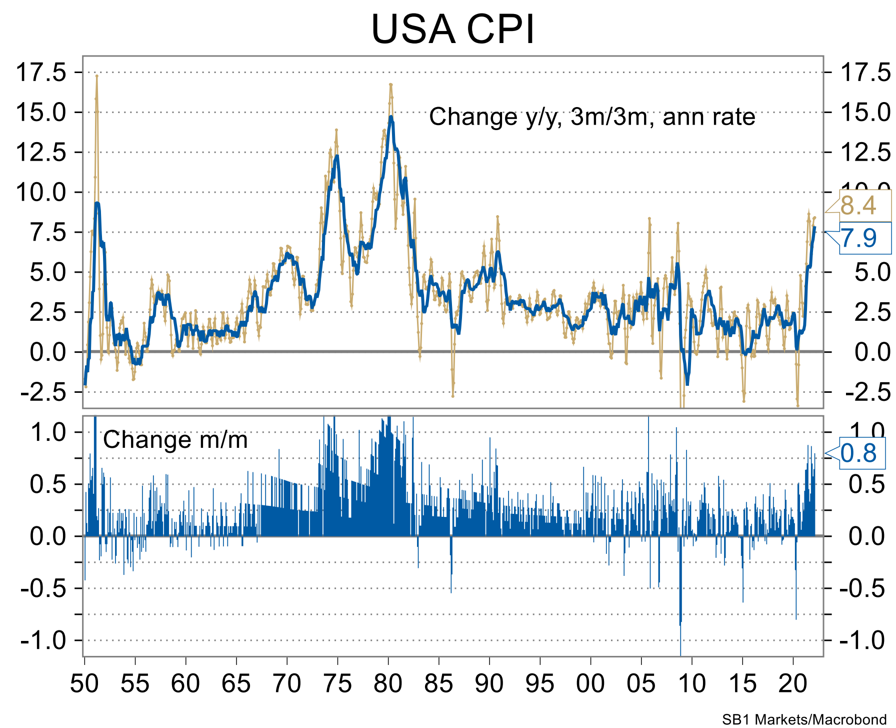


- **Total credit** grew at a 10.0% pace in Feb (m/m, seas. adj. annualised), down from 12.4% in Jan. The underlying growth at some 11% is above the trend growth in nominal GDP (say 5.5% real growth, 2% price inflation). The annual rate slowed 0.1 pp to 10.1%
- **Total credit** rose by RMB 1.2 trl, expected 2.2 trl (not seas. adj). The 'core' total social credit (total ex central gov bonds & corporate equites) grew by 2.3 trl (seas adj), down from 2.8 trl in Jan – which was the fastest growth since April 20
  - **Bank loans** rose by RMB 1.4 trl, s.a, or at a 8.8% annualised pace – well below expectations. Loans are up 11.5% y/y, and growth is trending down
  - **Shadow banking credit** rose by RMB 0.9 trl, well above the average growth rate through last year. **Local governments** were responsible more than half of the (net) uptake, and they have been borrowing more than normal recent months, very likely to compensate for the decline in revenues from sale of land to builders - or in order to finance unfinished building projects. Probably not a lasting business model
- The **annual credit growth** rate has not turned up but the 'underlying' credit cycle has – credit growth has accelerated recent months, primarily outside ordinary banks
- **Reserve requirements and some signal rates** have been cut, and central authorities have 'encouraged' lenders to support the economy, to reduce the risk for bad vibes in parts of the construction sector to spread to the overall credit market. So far, it seems like they have succeeded

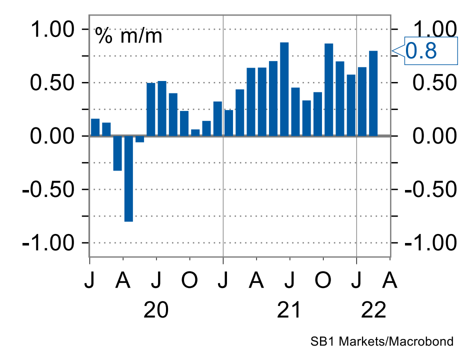
Headline at 7.9%, the core 6.4%, both up 0.4 pp, and as expected.

Inflation is broadening further. Because demand >> supply



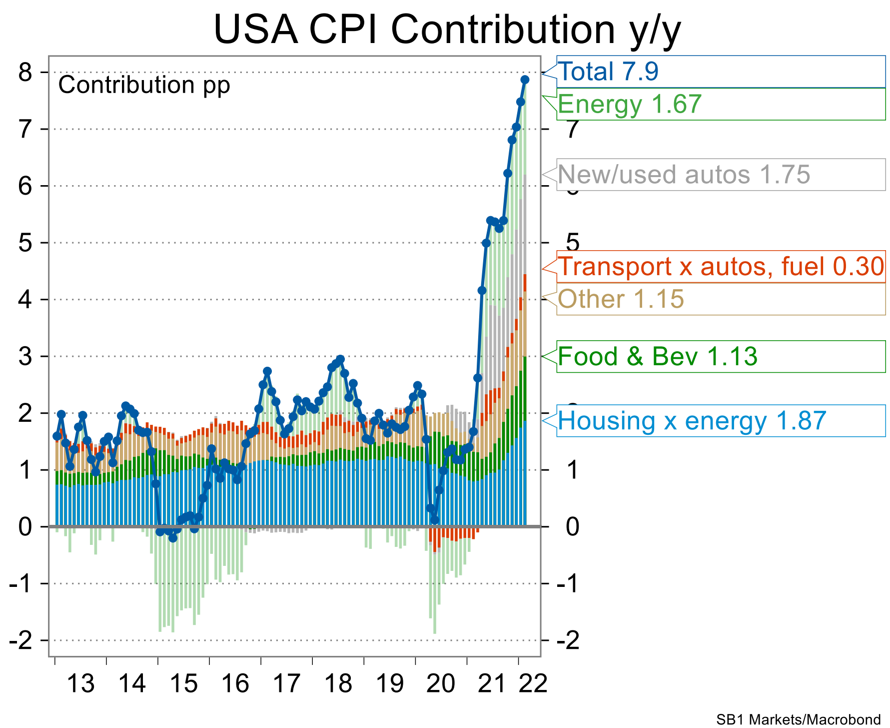


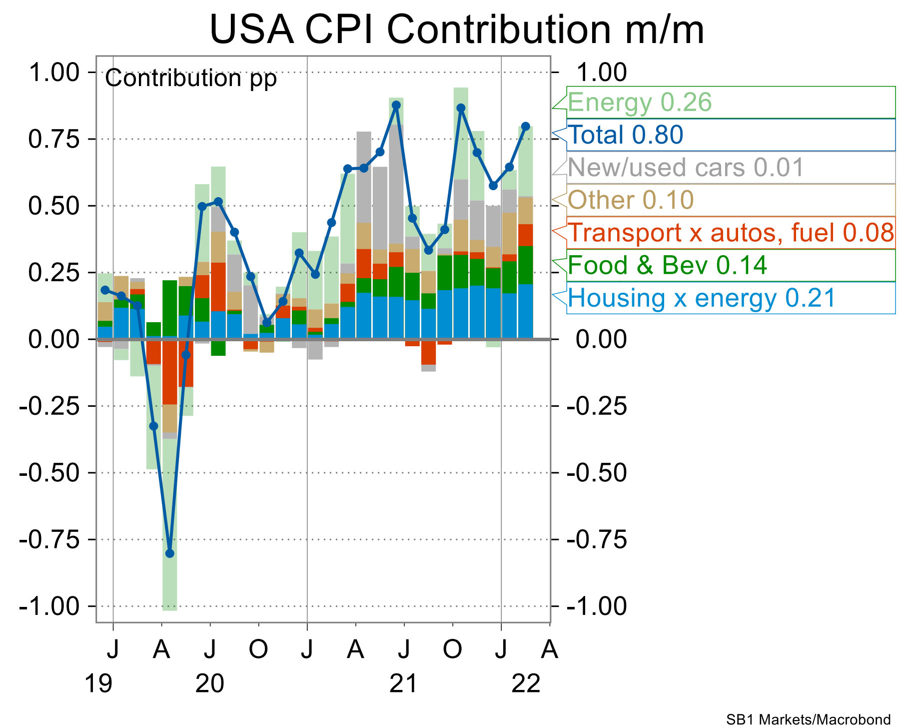
- **Headline CPI rose** 0.8% m/m in Feb, as expected. The annual rate accelerated 0.4 pp to 7.8%, the highest since 1982. The 3m/3m rate is at 8.4%
- **Energy prices** rose 2.5% m/m, and are 26% up y/y, contributing 1.7 pp to the headline growth, marginally less than in in Jan
- **Used auto prices** fall marginally – but remains far above any long term reasonable forecasts
- However, other prices are climbing faster as price inflation broadened further in February. Cleveland Fed's **trimmed median CPI** accelerated 0.3 pp to 6.9% (6 m pace), another ATH (with data from 1983). Other breadth measures tell the same story
- **Surveys** report further price increases the coming months. The base effect may soon become hard to beat vs the annual rate, prices rose rapidly during the spring last year – and the annual rate 'must' soon peak



Transport (incl. used cars) & energy explain 3.75 pp of the 7.9% lift in total CPI

The problem: The rest is up by well above 4% y/y – and rapidly accelerating



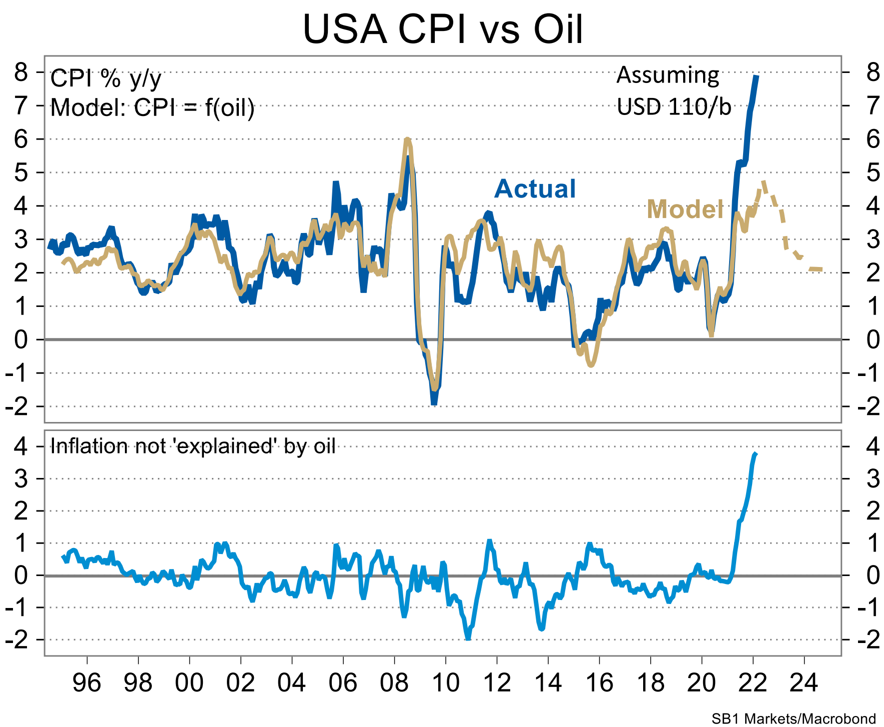


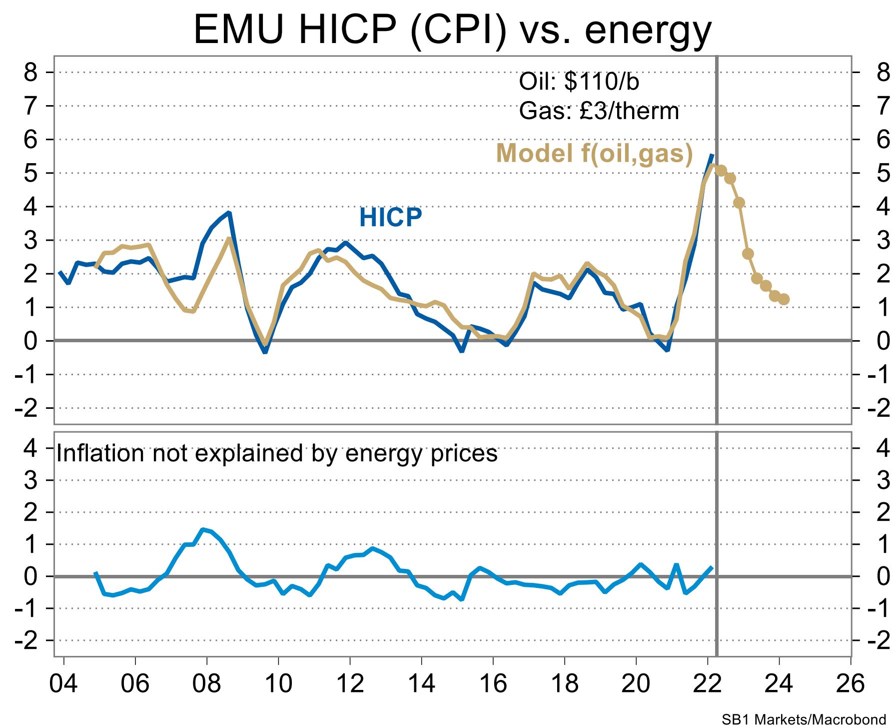
- **Energy** prices rose further in February – and will make a jump in March, due to higher gasoline prices
- **Used car prices** fell marginally in February but new auto prices rose, in sum close to zero m/m – but these prices have contributed to a 1.75 pp lift in total CPI measured y/y. One day, these prices will normalise, and contribute at the downside, perhaps by the same amount
- However, **excluding** the 3.75% pp contribution to the headline CPI from energy & transport, **"remaining" inflation** has accelerating rapidly
- **Housing x energy** (and x lodging) is contributing by 1.8 pp, the highest rate in many years, though partly due to a low base one year ago. Rents as measured in the CPI are up more than 4% y/y, but the upside is probably now limited

Lodging away from home (incl hotels) is a part of housing at the charts above

The oil price moves the CPI as usual – but now there is a lot more

CPI is up 4 pp more than explained by the oil price, unprecedented. In EMU, nothing but oil/gas!

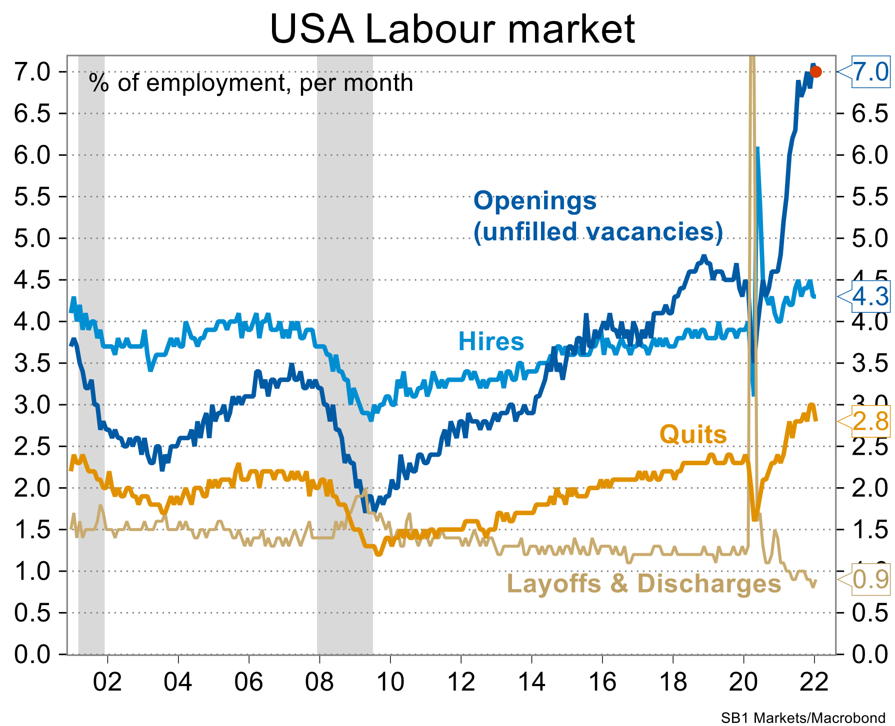




- **Oil price cycles** have explained some 80% of the changes in the US CPI growth the past 30 years, which for practical purposes, is "everything"
  - » In our model we incorporate all direct impacts from changes in the oil price – as well as the impact from other factors that influenced inflation which correlates to the oil price. The current model residual, at almost 4 pp is totally unprecedented, at least vs the past
  - » If the oil price stabilises at USD 110/b, the models signals a 1 pp lift in the headline CPI
- **In EMU**, the CPI acceleration recent months can be fully explained by the increase in energy prices – and if oil/natural gas prices stabilise at current levels (Friday's prices, that is), inflation is now close to the peak, and the annual growth rate will return to below 2% in early 2022. Had energy prices returned to a 'normal' level, inflation would have collapsed now! At least according to our model

The vacancy rate remains at a record high level

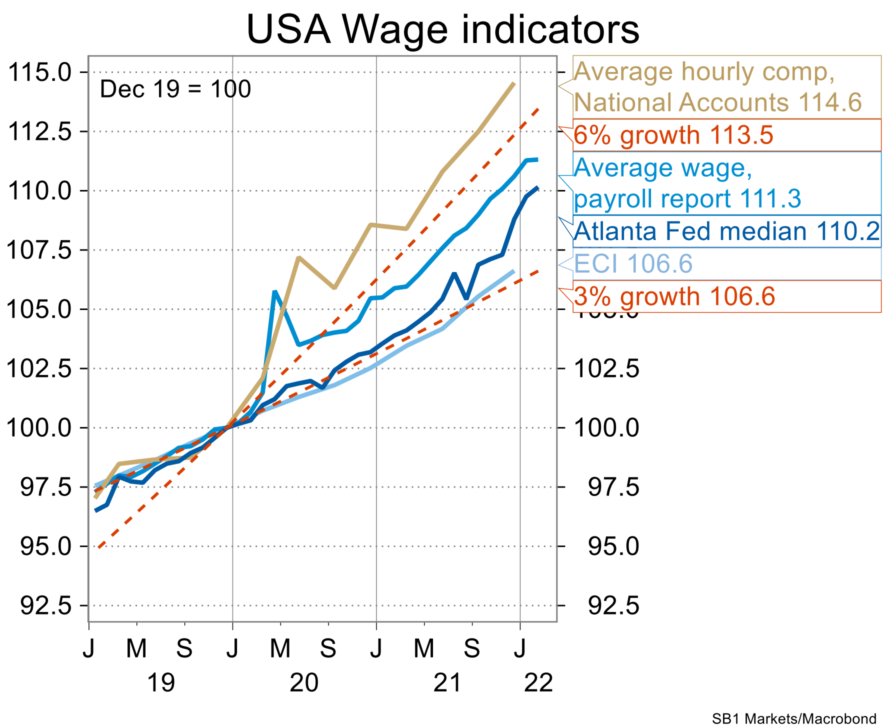
Hiring is brisk – many are quitting, and ‘nobody’ are laid off

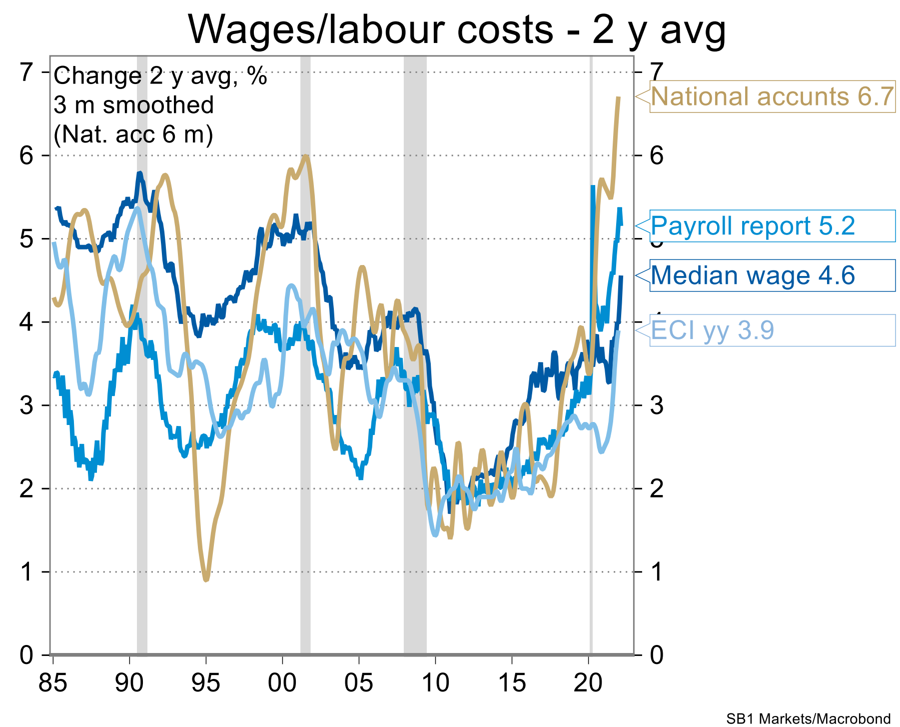


- The no. of **unfilled vacancies** fell by 0.2 mill to 11.3 mill, after a 0.4 mill upward revision – expected 10.95 mill. After the upward revision of Dec (and these data have mostly been revised up recently), Dec was the ATH – equalling 7.1% of those employed. The Jan rate was 7.0%
  - » The highest print ever before the pandemic was 4.7%, and the rate was 4.5% just before the pandemic hit
  - » **The SMBs (NFIB survey)** reported a marginal increase in the share companies that are able to fill open positions in February. These two series are very closely correlated – and both have been at levels never seen before since early last year
- **New hires** was unchanged at 6.5 mill persons, equalling 4.3% still an unusual high level
- The rate of **voluntary quits** fell by 0.2 mill to 4.3 mill (from a 0.2 mill upward revised level), or down 0.2 pp to 2.8% of the no. of employed. As with unfilled vacancies, quits are closely correlated to wage inflation – for obvious reasons
- **Layoffs** rose 0.1 pp to 0.9%, a very low level
- **In sum:** The report data confirm an extreme tight labour market
- There are some media reports on **better supply of labour** in February and into early March

Wage inflation sharply up in February too, according to Atlanta Fed's tracker

The median wage tracker is up 5.8% y/y, and underlying growth recent months is far higher

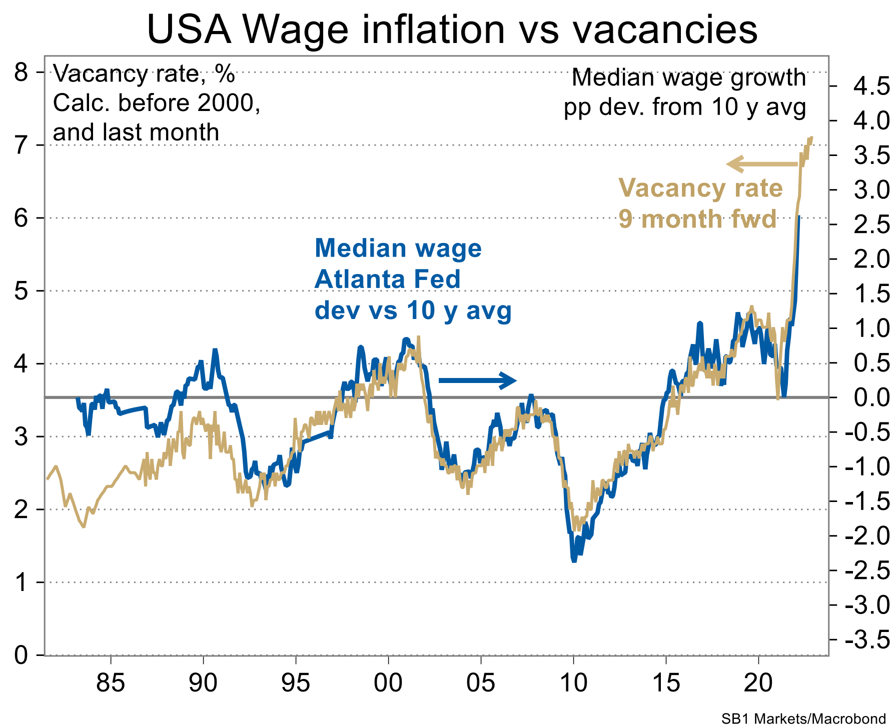


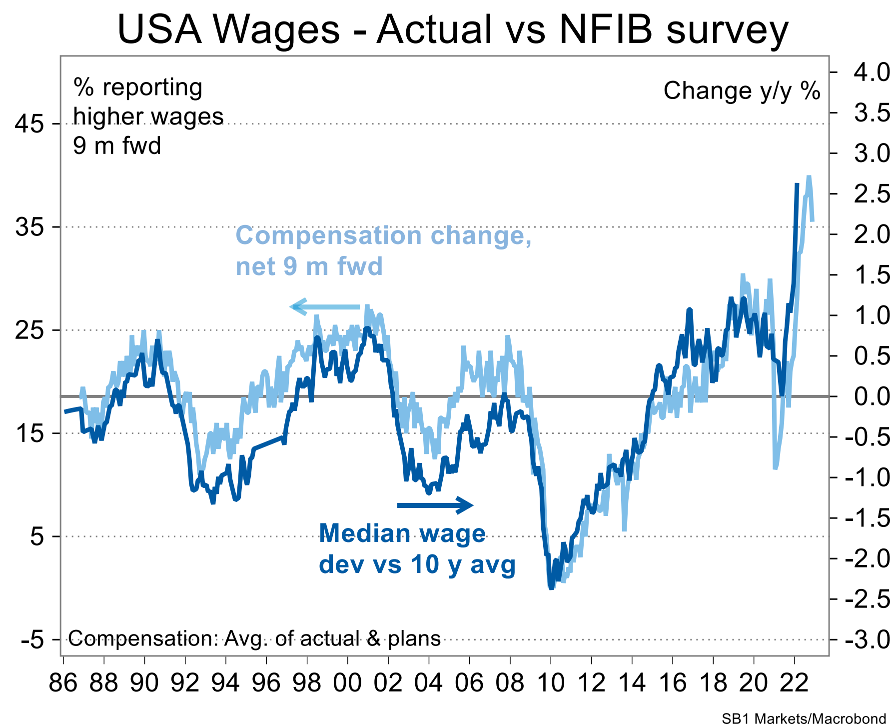


- Over the past 2 years, the median wage is up 4.6%, far above the normal wage growth in the US recent years – which have yielded an average rate of inflation at 2% at the best (and now far more than that)
  - » Wages are accelerating the most among the lower paid
- **All wage indicators** are reporting faster wage growth, and all reporting wage growth well above the average recent years, also if we apply a 2-year average growth rate, to exclude the impact of changes during the first part of the pandemic (chart to the right)
- Growth in wage/earnings/compensation indicators are up 1.5 – 3.5 pp vs the their respective 10 y averages. There is an obvious risk that wage inflation will accelerate further (check the following pages) – probably until the next recession hits as the labour market is extremely tight
- Over the past 10 years, inflation has been close to 2%, and well above 2% if calculated over a shorter period
- It will be a 'challenge' to keep inflation at 2% if wage inflation remains at 5- 6 %. Productivity growth has not accelerated by much. Profit margins may take a beating – and they very likely will – but probably not sufficient to bring inflation down.

There seems to be a connection here??

The correlation between the vacancy rate and changes in median wage growth is extremely tight



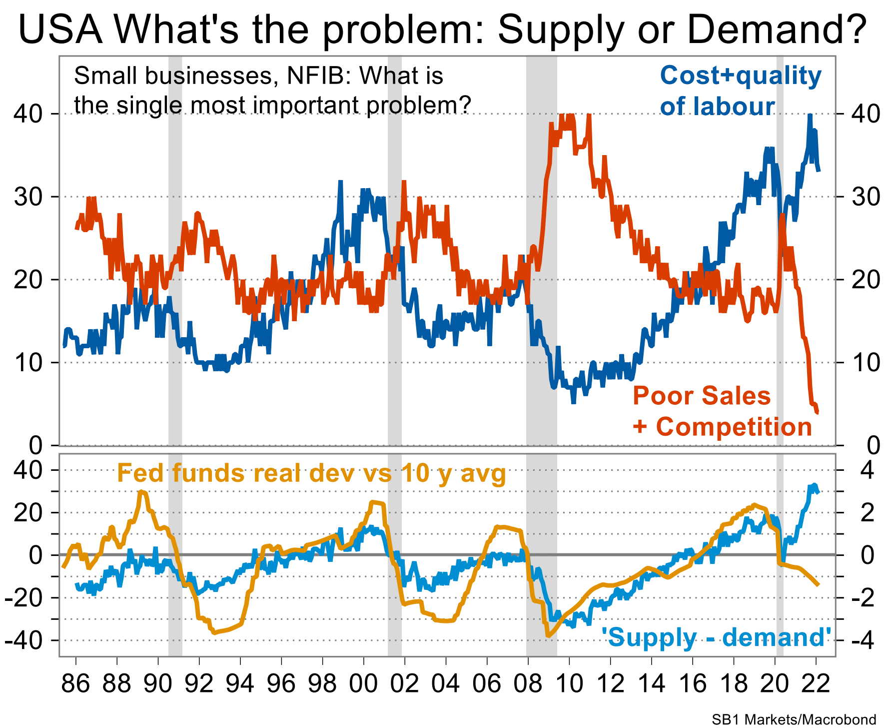


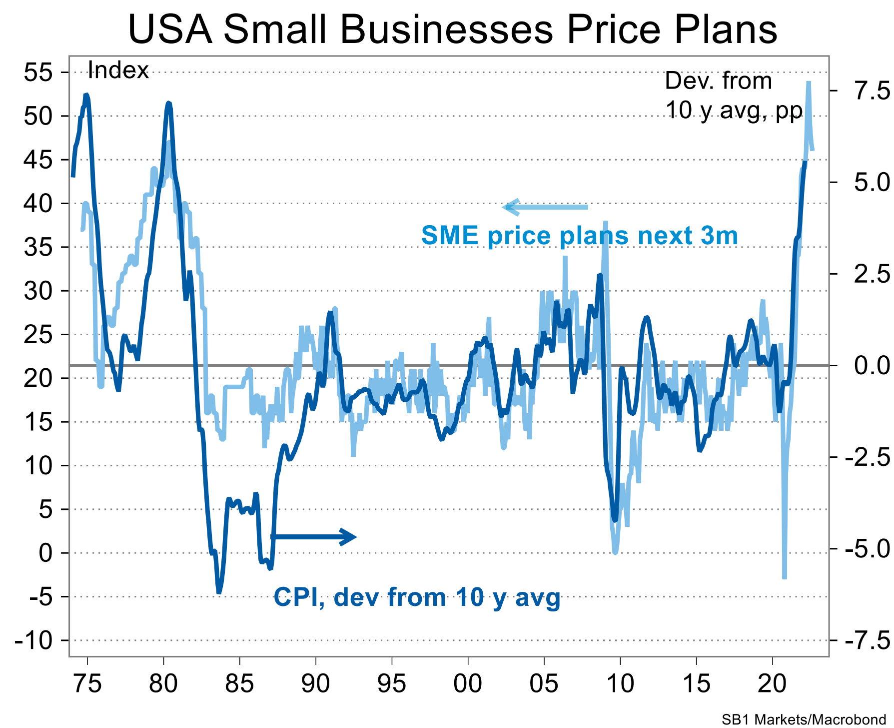
- Our 'Phillips curve' signal a further increase in wage inflation the coming quarters, the vacancy leads changes in wage inflation by 9 months
- In addition, an unusual share of companies reports they have lifted compensation and that they plan to do so the over next months as well. The correlation changes in actual wage growth is not that bad (again with a 9 month lead)

SpareBank 1 MARKETS

Sales are fantastic, labour supply is still the challenge

Even so, some fewer companies report that they plan to lift their selling prices

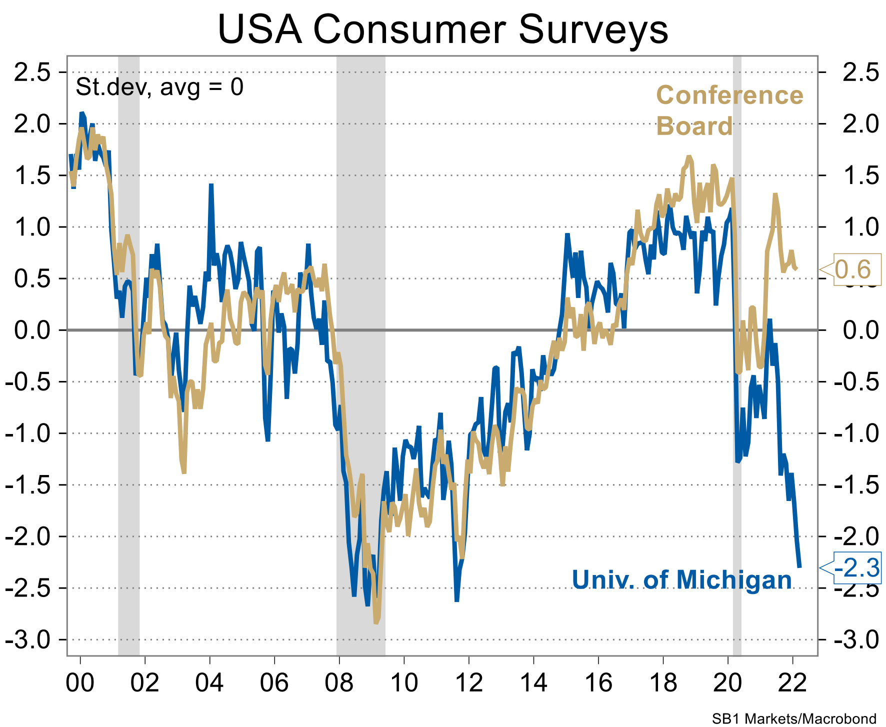




- The share of SMEs that plan to hike their **selling prices** fell 2 pp, but the share, 47% is an extreme print, check the chart to the right!
- The **'demand surplus'** has widening from a high level since early 2021 –and the Fed's will start the tightening campaign now, far later than normal vs the cycle – '*the bank is far behind the curve*'

Univ. of Mich. consumer sentiment sharply down in early ~~February~~ March too

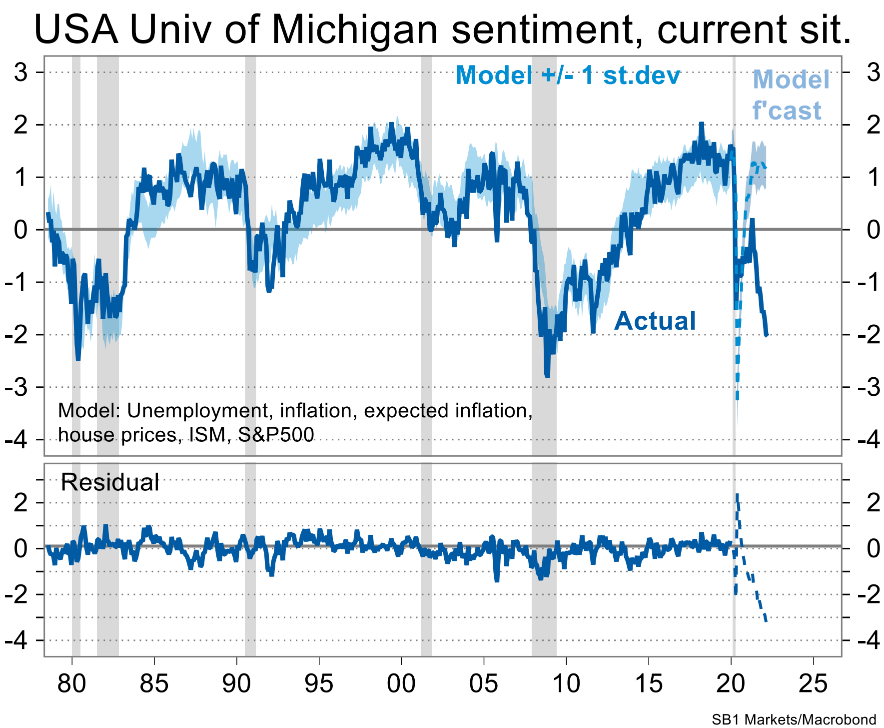
Inflation is a major concern, for good reasons. Still, sentiment is far below any fair 'model estimate'

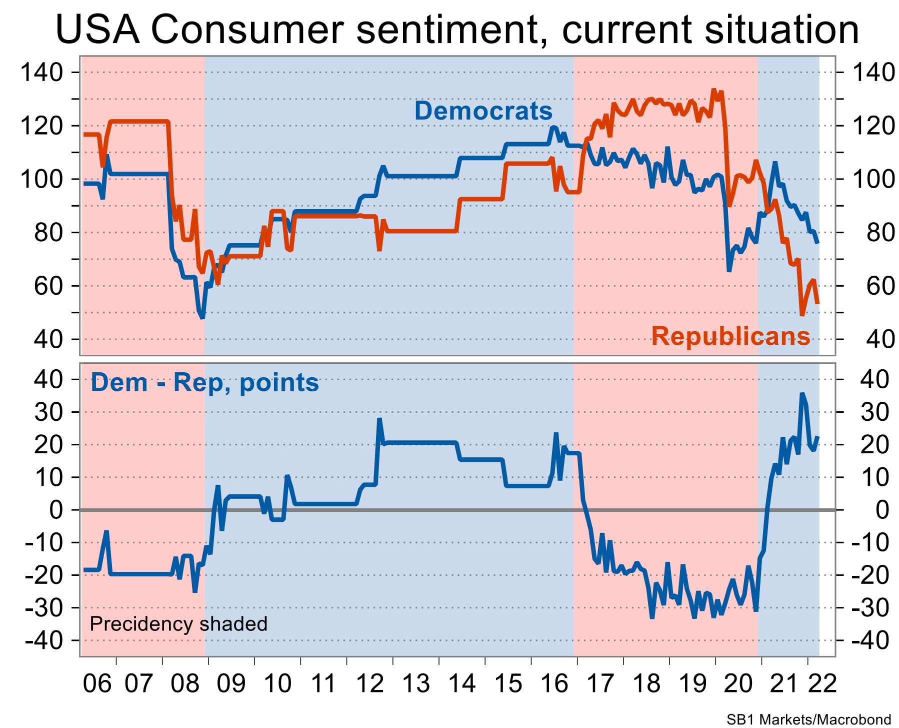


- **University of Michigan's consumer sentiment** index ~~plunged~~ fell by 2 p to 59.7, expected up 0.3 p to 62 - equalling -0.3 st.dev to -2.3, among the lowest levels on record
  - » Both households' assessment of the current situation, and their expectations declined, and are at very low levels
- **2 of the other 3 consumer surveys** we are following report a confidence level far below average levels. Just Conference Boards measure is still above average (at +0.6 st.dev) in February
- Sure, inflation is a HUGE worry, the stock market is wobbling (but still at a high level), and mortgage rates are on the way up (but are still at a low level). Even if some flags are red, it is not possible to explain the current extremely bad mood among households by any standard model. The war in Ukraine and the recent hike in gasoline prices may explain the drop in sentiment in March but not the low level in February
  - » Unemployment is close to record low, and the housing market is going strong. Covid is not included in the model, but the pandemic is on a rapid retreat in the US too
- The risk: The UM survey often has been an early bird in the cycle, and the survey may be 'right'

Households should have been quite happy by now, even if inflation is high

Outside the model: The pandemic – but that treat faded in early February

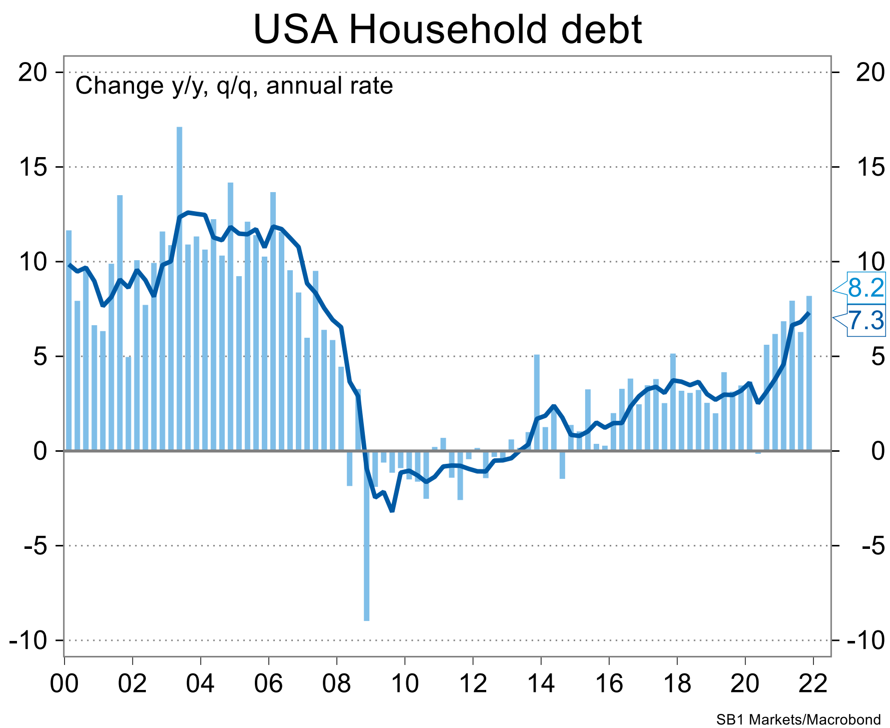


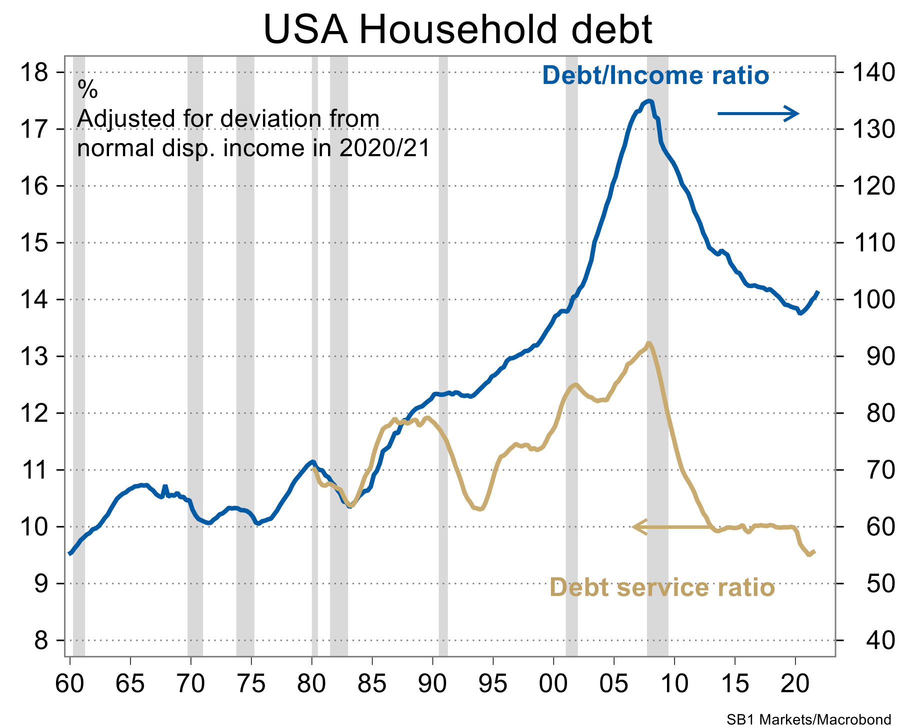


- **Our simple model** explaining the current situation part of UM's sentiment survey has worked pretty well, explaining all important ups and downs by standard economic indicators
  - » Unemployment, inflation – both actual and expectations - growth (ISM), the stock & housing markets, all contributing significantly with the 'right' signs. The deviation in the early phase of the pandemic is due to the unusual developments in our lives, in the economy at markets
- However, given the normal drivers, the UM sentiment should have been far above an average level now – even if both actual and expected inflation is far above normal – the other drivers should have more than compensated for the drag from inflation (like unemployment, the housing & the stock market
  - » We can not blame overly pessimistic Republicans too much either (they are very negative but not more so the recent months)

So low rates do have an impact? Household credit growth has accelerated

The debt/income ratio is growing again, though from far below the pre-financial crisis level





- Households have reduced their **debt burden** in an unprecedented way past 12 years – until Q1 2020
  - From Q2-20, growth in household debt has outpaced income growth (adjusted for the income impact of the pandemic)
- In Q4-21, **debt** grew at a 8.2% pace, up from 6.3% in Q3 – which was the highest growth rate since 2007, up from 3% in the years before the pandemic. In the years before the financial crisis, debt grew by some 12% per year over several years (2003 – 2006)
  - The more than a decade long consolidation period from 2007 was the toughest ever, in US. And the initial turn-around almost killed the economy, when credit demand (and supply) collapsed in 2008
  - Now, the debt/income ratio is at low level – no reason to worry. (Norwegian households entertain a debt to income ratio that is twice as high)
- The **debt/income debt service ratio** is record low, due to the low mortgage rate. However, as mortgage rates are on the way up, alongside the increase in debt ratio

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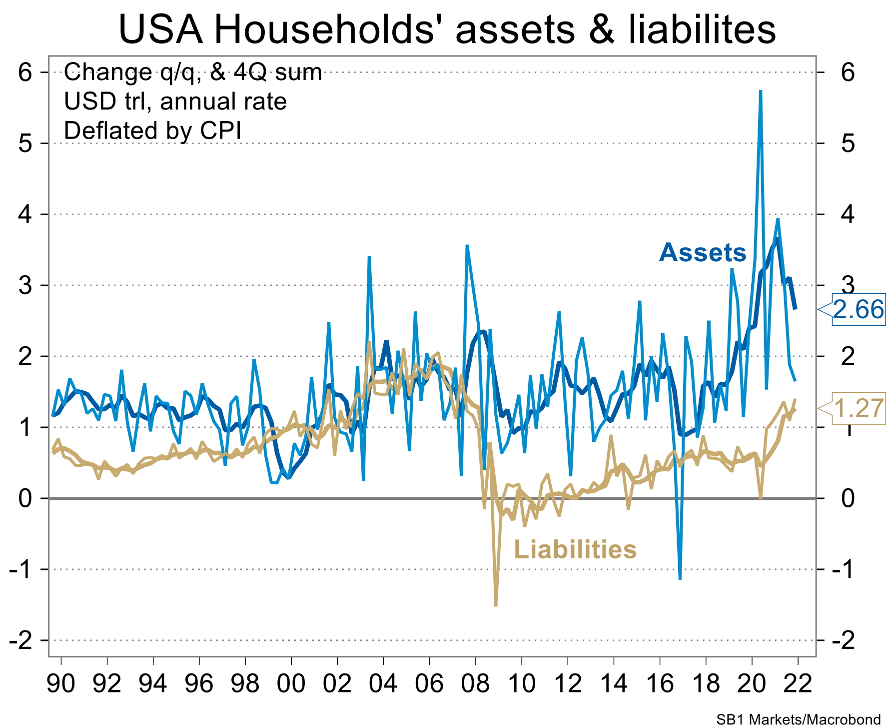
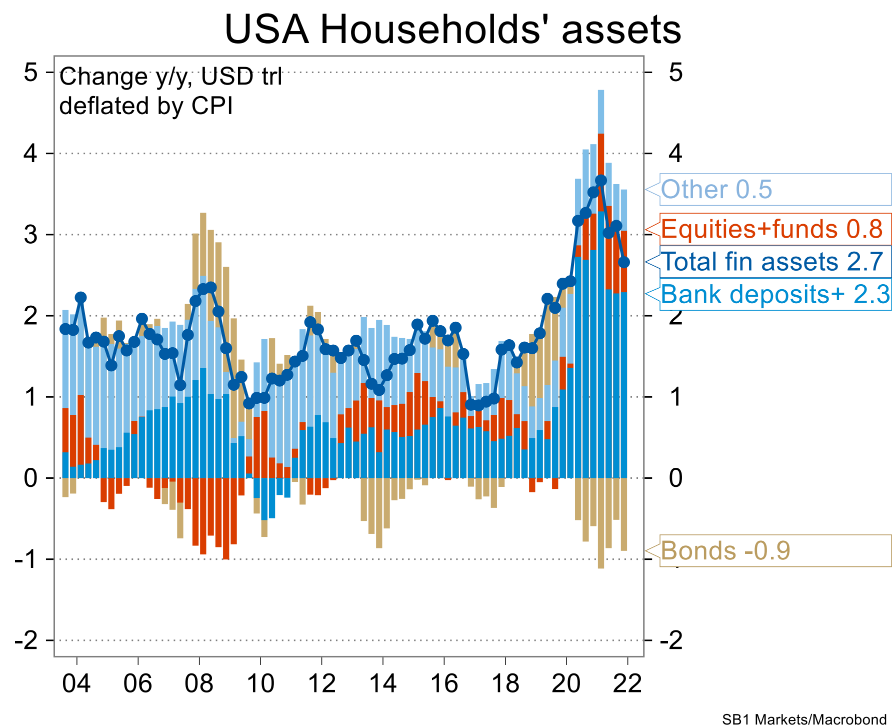
Flow of funds: Growth in financial assets back to normal

As debt growth is well above a normal level

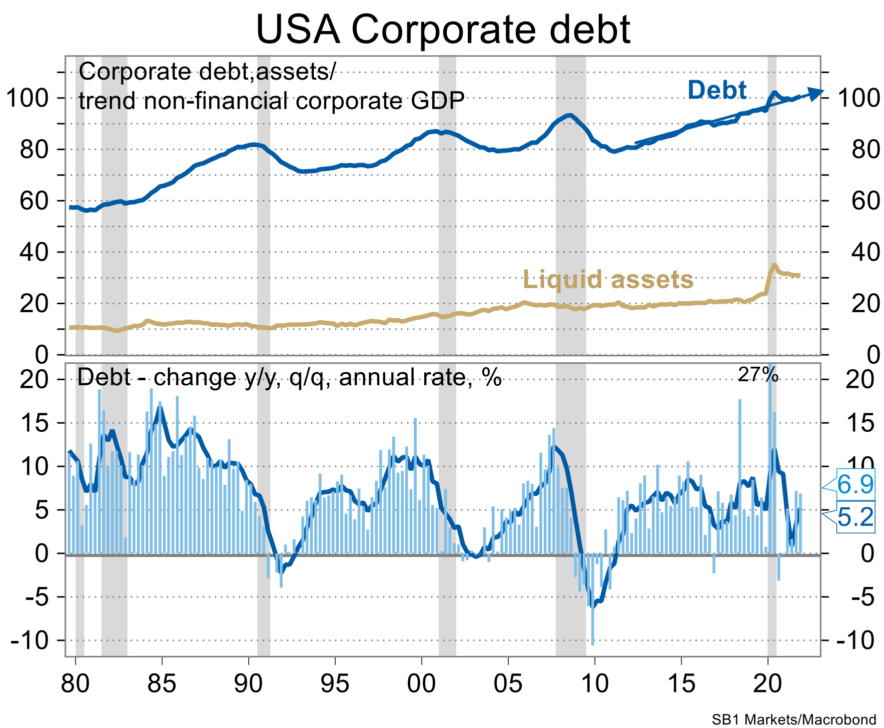


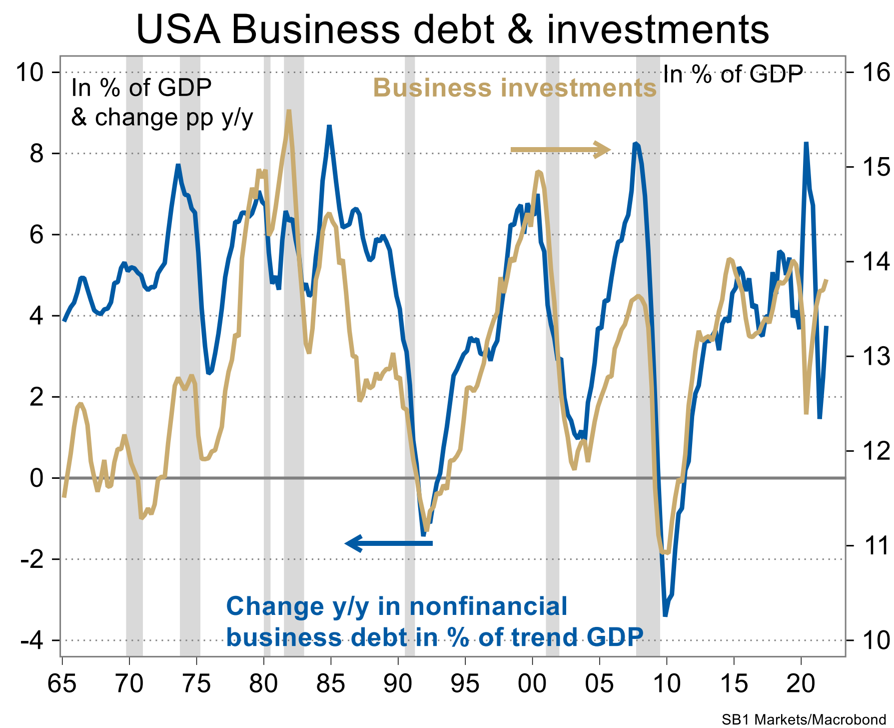


- **Households have increased their financial assets through transactions** by USD 2.7 trl through 2021, twice the 'normal' rate but down from 3.6 bn in early 2021. In Q4, growth in assets was back to a normal level. During the pandemic, savings exploded. Now the savings rate is back to a normal level
  - » **Bank accounts** have swelled by USD 2.3 trl, or by 85% of the total (net) increase in assets over the past year. Normally, bank deposits grow by some ¾ trl per year!
  - » Over the past 4 quarters, households have bought **equities and fund shares** for USD 0.8 trl (net), slightly down from the peak! In Q4, net investments equalled just 0.15 trl (annual rate)
  - » Households are still selling **bonds** at a close to unprecedented pace by USD 1 trl. Are bonds not an alternative??
- Growth in assets is partly supported by a much faster growth in debt (the balance sheet is boosted, check the chart above)

Corporate debt growth on the way up again? Debt up by 7 – 5%

The debt level is high – but so is the level of liquid assets too ☺



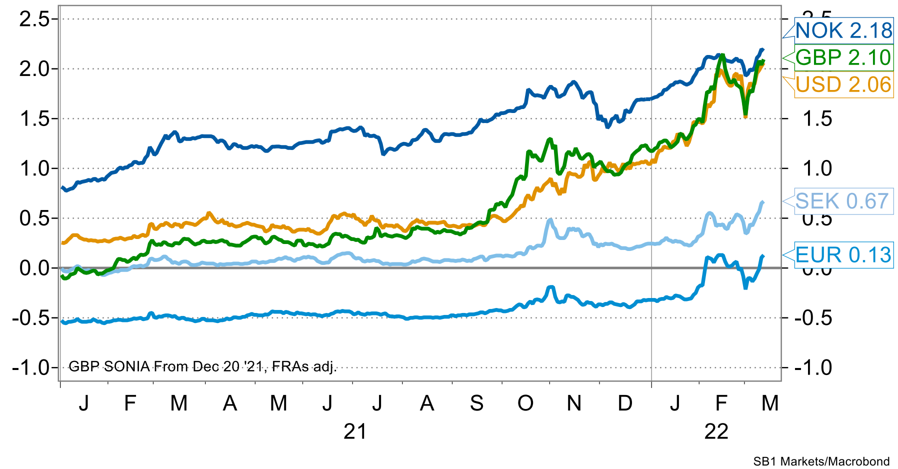


- **Corporate debt** rose 6.9% (annualised) in Q4, up from 6.3% in Q3. Measured y/y, debt is up by 5.1%, which is not that high vs. previous peaks. The corp debt/GDP ratio is close to the long-term trend
- On the other hand, companies have also increased their **liquid assets** sharply since before the pandemic, to the highest level ever. However, the level of liquid assets is not shrinking, at least in % of corporate GDP
- **In sum:** Companies still have some capacity to further lift their investments – even if the profit cycle turns south

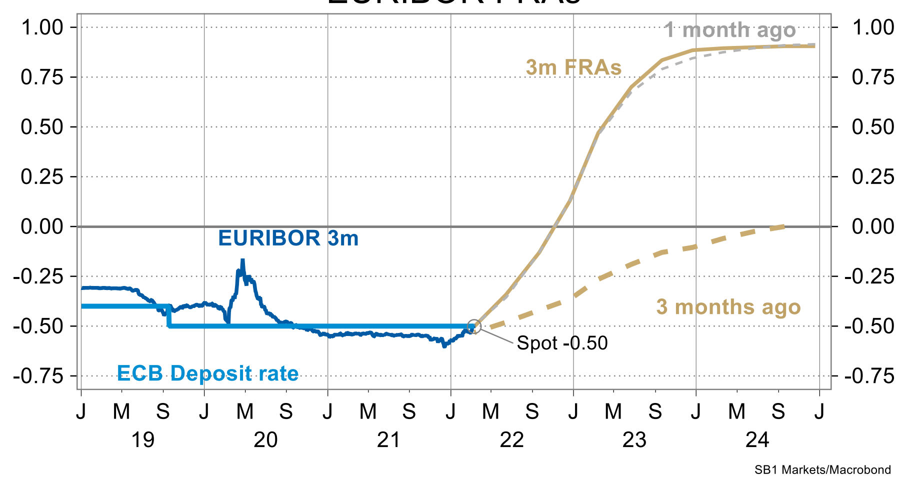
The ECB is more worried about inflation than growth

The bank surprised the market at the hawkish side, the ECB is expected to start hiking in Q3

Dec 22 3m FRA IBORrates



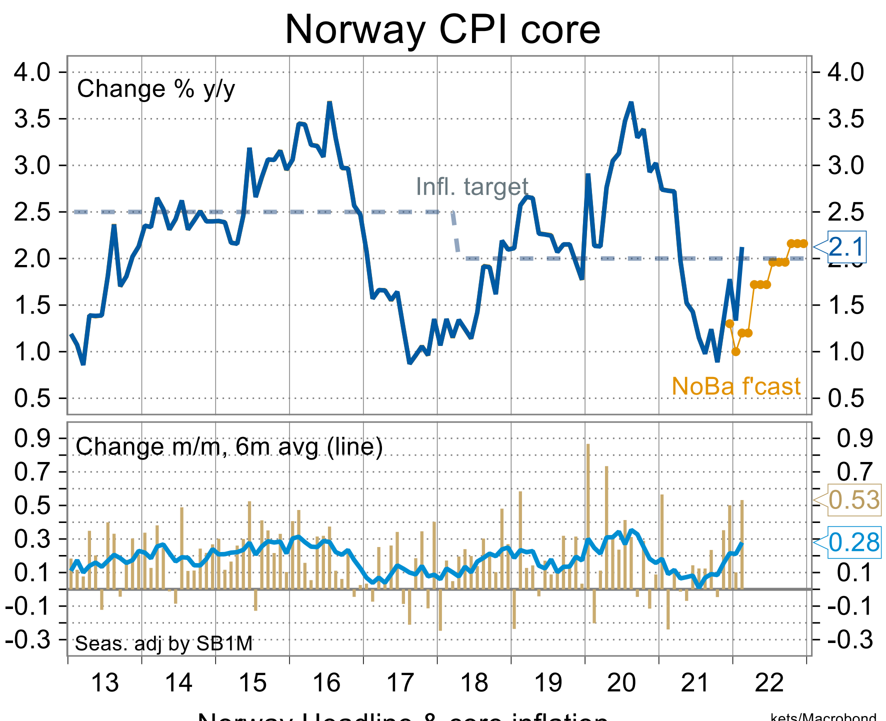
EURIBOR FRAs

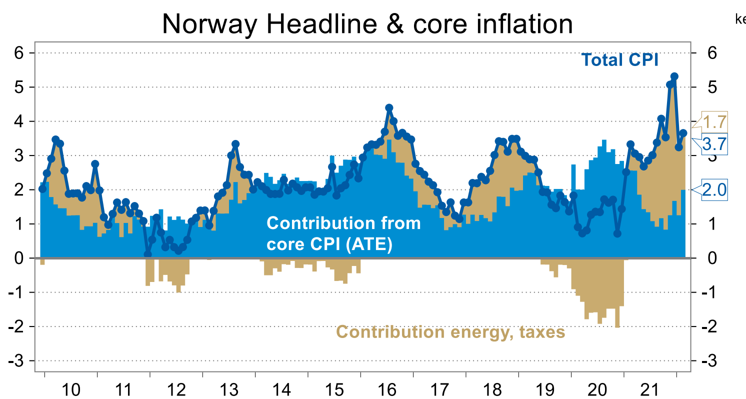


- **Policy decisions**
  - » The **repo rate** remains at -0.5%. The main QE program, the Pandemic Emergency Purchase Programme (PEPP) will halt its bond buying program in March – as decided in December and confirmed in January. The PEPP has acquired some EUR 70 bp/m since mid 2020
  - » The Asset Purchase Programme (APP) will – as previously decided – partially pick up the baton, by lifting its monthly buying to EUR 40 bn from 20 bn from April. However it will be scaled down from May (to EUR 30 bn), and further in June – and not from Q4, as so far has been signalled. If the inflation outlook allows, the bank may continue the APP program in Q3 (and possibly further)
  - » At the same time, the ECB signalled that the bank would not be obliged to start hiking the signal rate 'shortly after' ending the extra QE programs, as until now had been communicated as the standard procedure. Thus, the bank gives itself some leeway vs when to start hiking the signal rate
- **Higher inflation, lower growth**
  - » As expected, the bank revised its **inflation forecast** upwards, to 5.1% in 2022 from the 3.2% forecast back in December. Even so, ECB expect inflation to slow to 2.1% in 2021 and to 1.9% in 2022 – if rates are hiked in line with market expectations
  - » The corresponding **GDP forecasts** were revised down, to 3.7% from 4.2% in 2022, and to 2.8% in 2023 from 2.9%. An adverse (and even more a severe) scenario will yield lower growth, and far higher inflation
- **The market: A more hawkish ECB than expected**
  - » Money market rates rose by 10 bpd (Dec 22 3 m FRA), and by 20 bps (Dec 23)!. The market expect the ECB to hike by more than 50 bps before end of 2022. We think this is rather aggressive
  - » Bond yields rose 7 bps (the 10 y gov), and ended the week up 28 bps!!

Inflation sharply up in February, to well above f'casts, also NoBa's

Headline inflation up 0.5 pp to 3.7%, the core up 0.8 pp to 2.1%

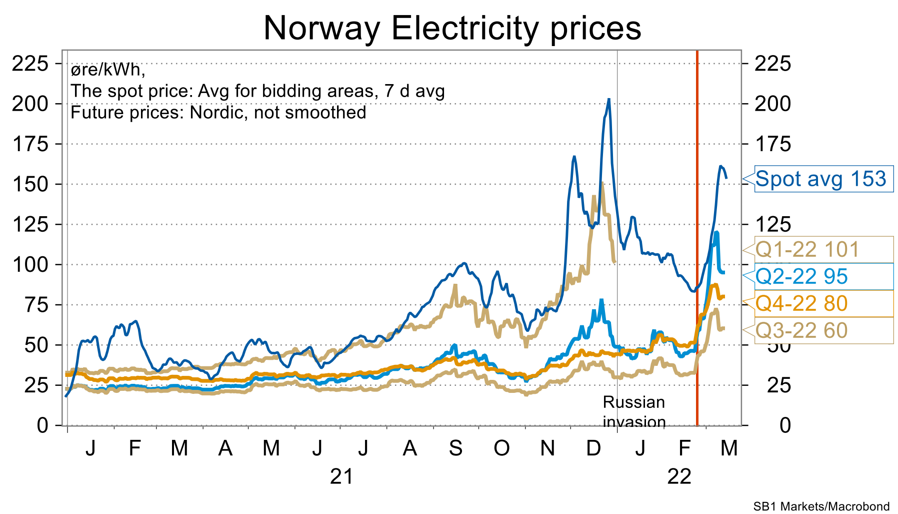


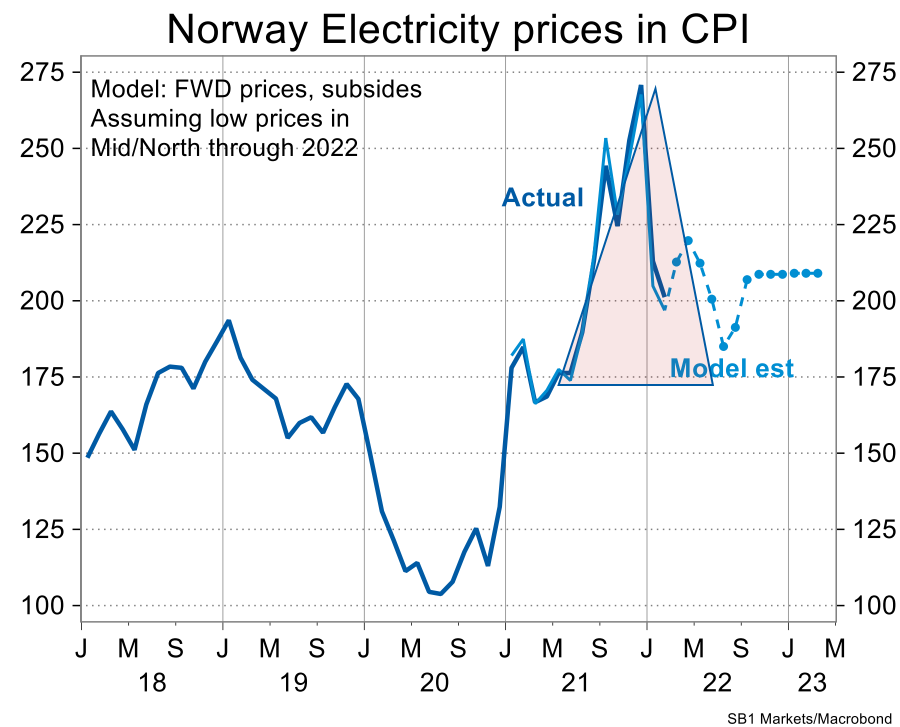


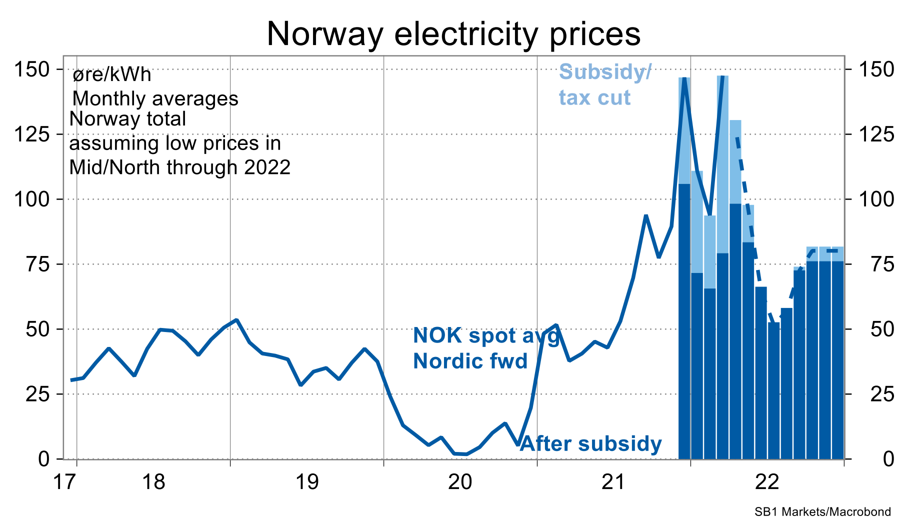
- **Total inflation** is still below the 5.3% rate reported in December, with a substantial contribution from the electricity subsidy
  - » **Electricity prices** fell 4% m/m, but was close to unch seasonally adjusted
  - » Energy prices (and taxes) contributed by 1.7 pp of the 3.7% headline rate
- **CPI-ATE** (ex. energy and taxes) inflation rose 0.5 pp m/m, which lifted the annual rate by 0.8 pp to 2.1%. We expected 1.9%. Since the December MPR, core inflation has been 0.6 pp higher than NoBa expected
  - » **Food prices** rose 1.8% m/m, the largest hike in 5 years. Prices are still up just 1.3% y/y. Norwegian food prices have not been closely correlated to food prices abroad
  - » Prices on **imported goods** rose 1.2% in Feb, far higher than we expected and up 2.4% y/y, while **domestically produced** goods & services were up just 0.1%, and 2.1% y/y
  - » **Core inflation** is running above 2% in 7 sectors, and is below 2% in 6 sectors
- **The outlook**
  - » **The electricity bill** will remain high but the current future prices for the rest of 2022 do not signal higher prices. However, since before the Russian attack el.prices have increased substantially, lifting our CPI estimate by 0.4 pp
  - » **Core inflation** surprised at the upside in February, and we expect the core CPI to remain above 2% through rest of 2023
  - » The TBU (technical committee on wage formation) at Thursday lifted their 2022 CPI estimate by 0.7 pp to 3.3% from the 2.6% f'cast 3 weeks ago, following the 3.5% lift last year
- **So what?**
  - » **Norges Bank** will have to lift it's core CPI forecast by some 0.3 – 0.5 pp, given the elevated starting point, and the indirect impact of electricity prices and other commodity prices
  - » The **wage negotiations** this spring will be challenging, as some public sector groups received a significant slower wage growth than the average 3.5% wage inflation rate in 2021. In the private sector, a 3.6 – 3.8% outcome (as we expect) will lift real wages somewhat in 2022
  - » **Norges Bank** will once more have to revise its wage growth estimate upwards, we expect by 0.3 – 0.5 pp vs. the Dec forecast, to 3.5 – 3.8%

Electricty prices up since before the Russian attack but fell last week

Due to the 80% subsidy, just a 0.4 pp lift in the CPI, even if future prices are up 33 øre/kWh







- The 'unprecedented surge' in electricity prices, represented by the area of the triangular above, equals some 35% of a normal annual electricity bill, or less than 1¼ % of the annual disposable income
- The lift in future electricity prices for the rest of 2022 since before the Russian invasion in Ukraine, will lift the average electricity bill by 10%, and the total CPI by 0.4 pp

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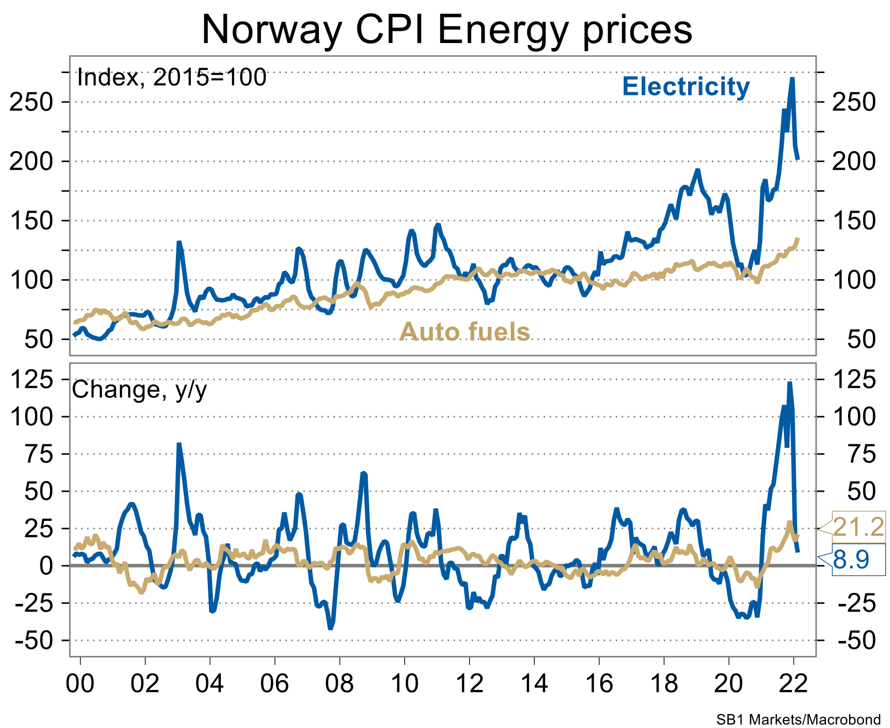
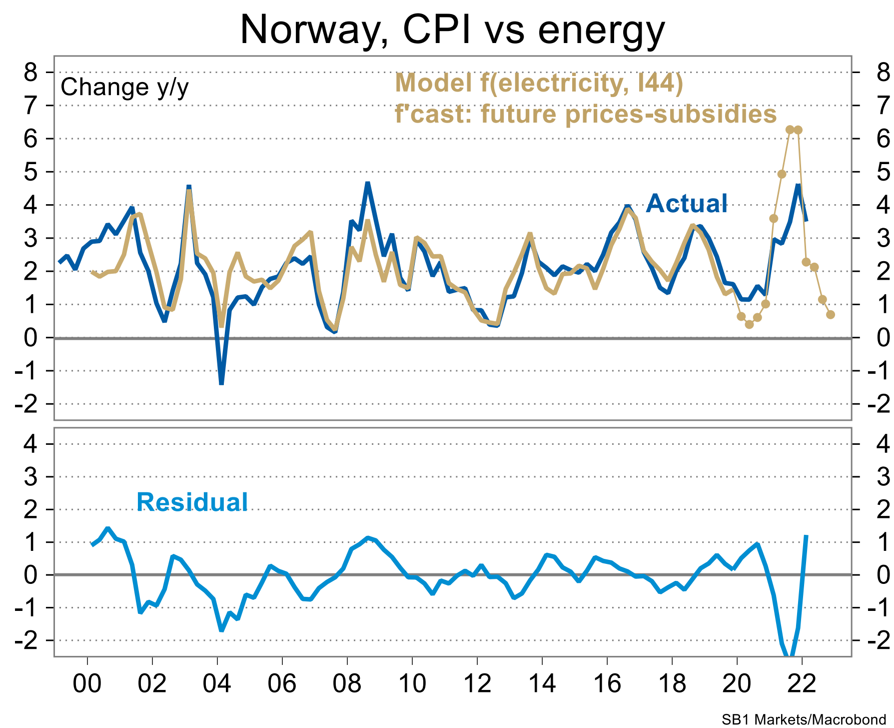
Electricity prices down in Feb, gasoline prices are up

Electricity prices explain almost all of the ups and downs in Norwegian CPI inflation

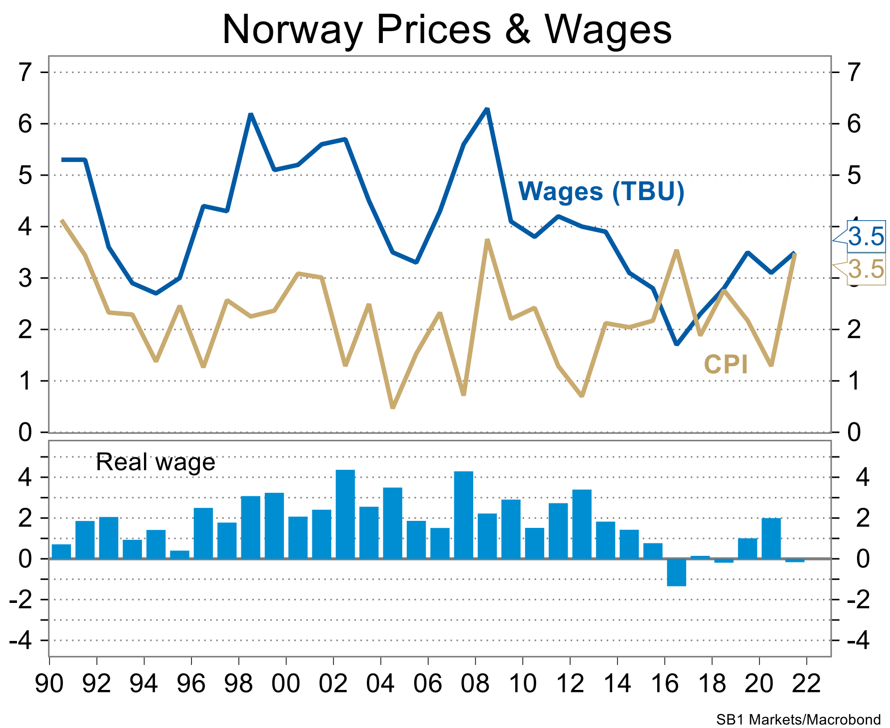




- .. And the current headline inflation rate is close to what the model suggest (it is higher in Q1 but has been lower the previous 4 quarters

The TBU assumes 3.3% CPI infl. in 2022, up from the 2.6% f'cast 3 weeks ago

The upward revision was larger than we assumed – but all sorts of 'war' impacts were added

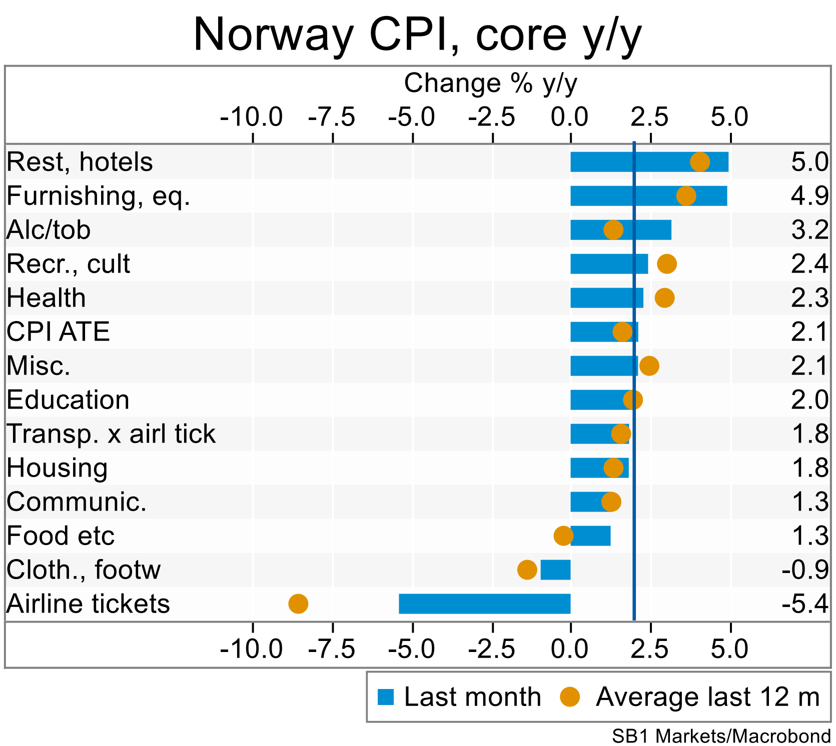


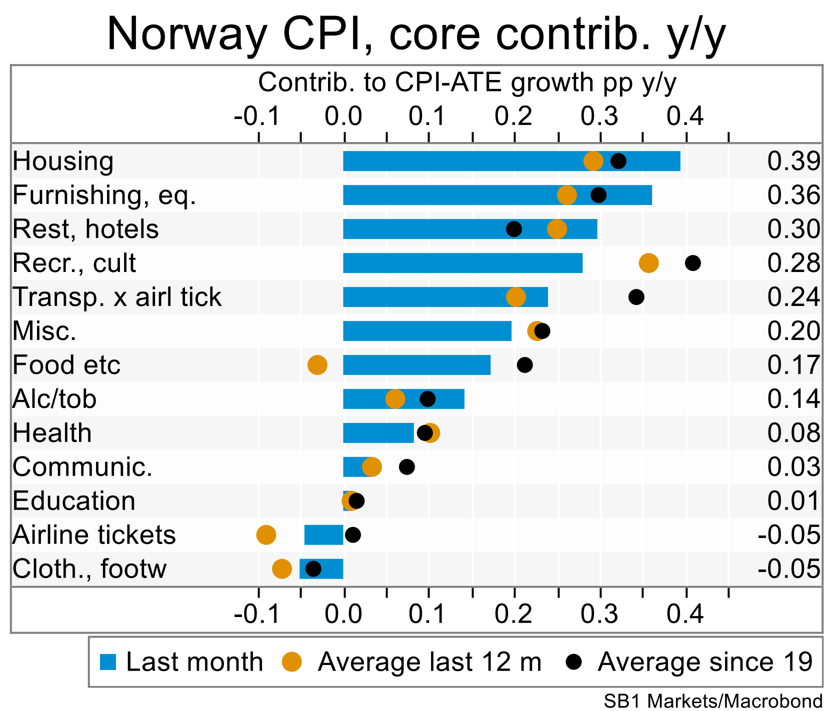
- Last year, CPI inflation reached 3.5% - and the TBU expects a slightly lower rate in 2022

- The **Technical Committee for the wage negotiations** delivered a new 2022 price forecast just after the CPI index was released
- Still, a 3.6 – 3.8% 2022 **wage growth as the agreed outcome** of this spring's negotiation round is still within reach – it will yield some growth in real wages

7 sectors report core inflation above 2%, 6 are still below!

Housing , furnishing, restaurants/hotels, transport x airline tickets have done the heavy lifting last yea

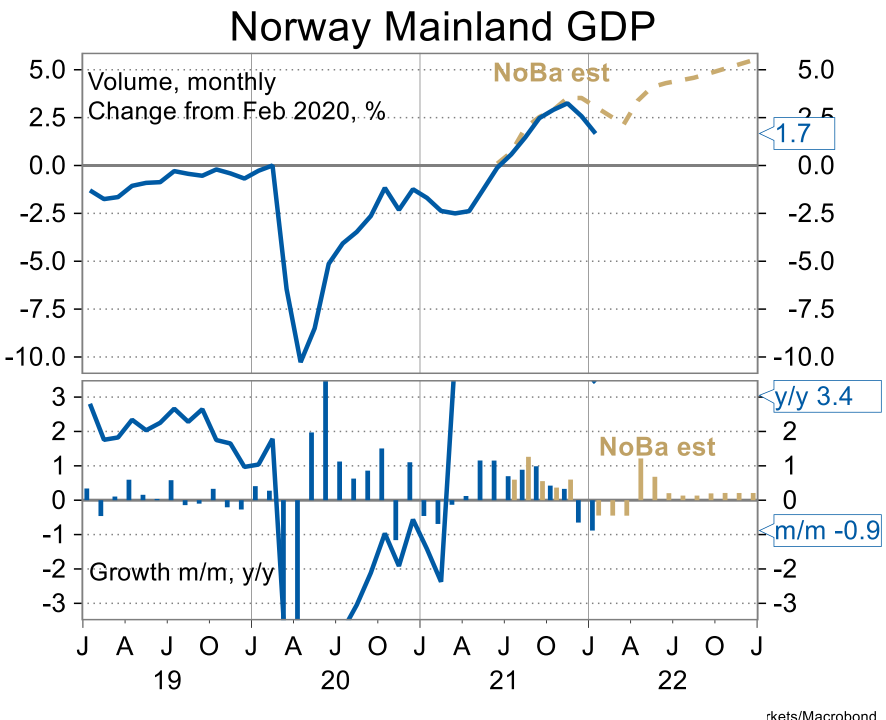


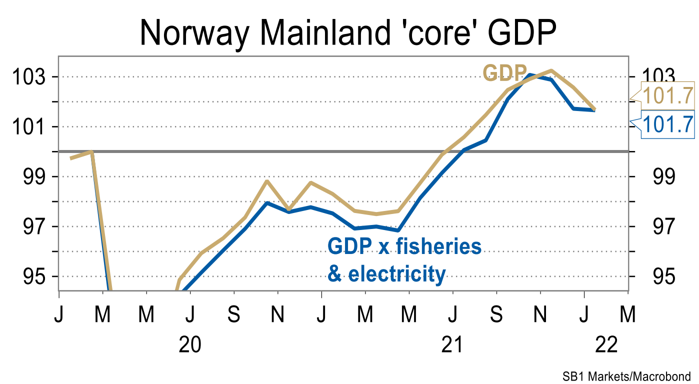


- Food prices have contributed on the downside, as have clothing/footwear – and airfare tickets

Mainland GDP down 0.9% in January but that will be the bottom

Dec revised down 0.4 pp to -0.7%. Both Dec/Jan was below NoBa's f'casts. The recovery to start in Feb

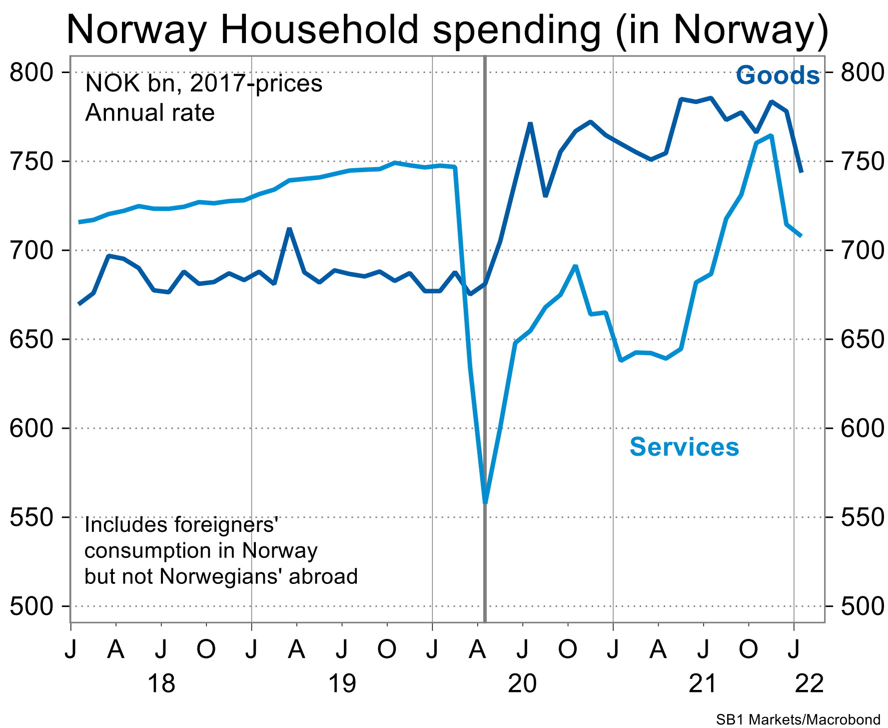


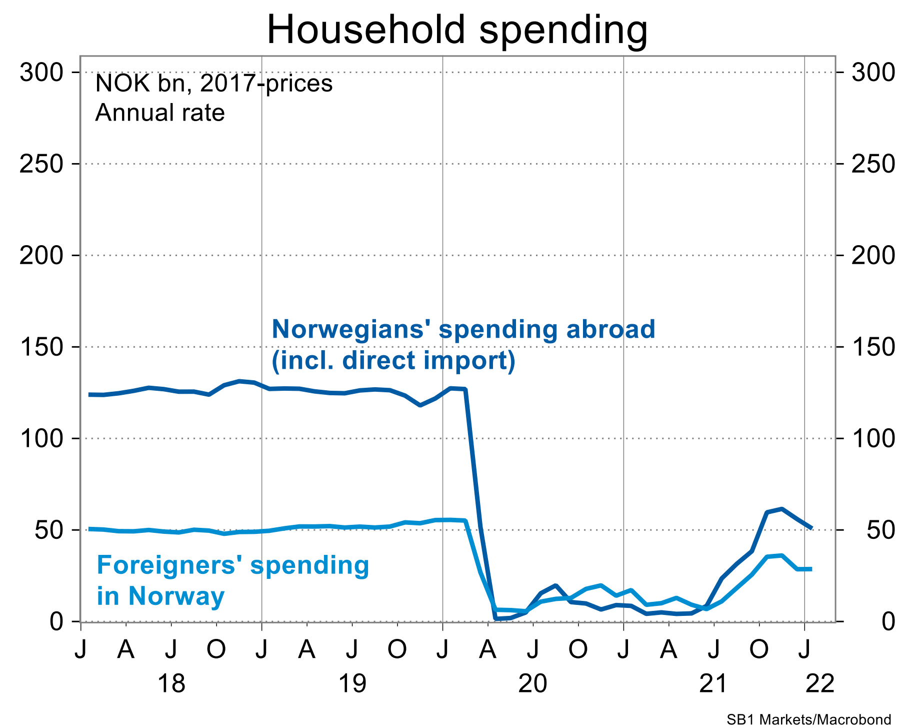


- **Mainland GDP** fell by 0.9% in Dec, Norges Bank expected -0.3% while consensus was for a 0.2% decline (we pencilled -0.3%). The decline in Dec was revises to -0.7%
  - » **Production:** Excluding a steep decline in the two volatile sectors ocean fisheries and electricity production Mainland production was unch. in Jan. Manufacturing production rose. Culture, transport yielded due to Covid restrictions. Trade fell as well
  - » **Demand:** Most components at the downside (counterweighted by increased inventories). Just Mainland business investments rose
- **Mainland GDP** is up 1.7% vs the Feb-20 level
- **The recovery** was intact until Covid restrictions were re-introduced in mid-December. Employment is still increasing and unemployment declining. We expect GDP growth to return to in February, and not in April as NoBa assumed in December – at least if ocean fisheries do not collapses

Consumption down in January, both goods & services

We expect a brisk recovery in services the coming months. Domestic spending on goods still ‘too’ high

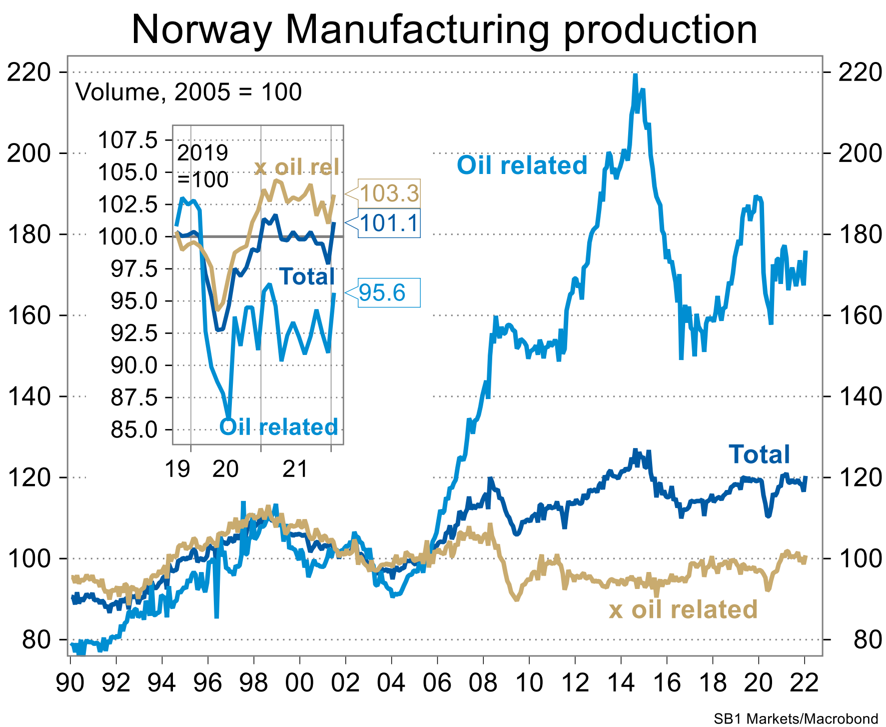


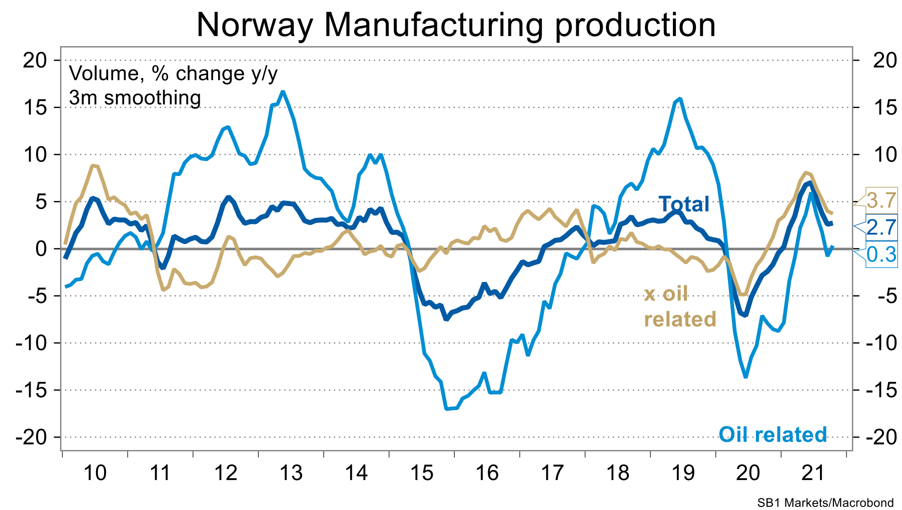


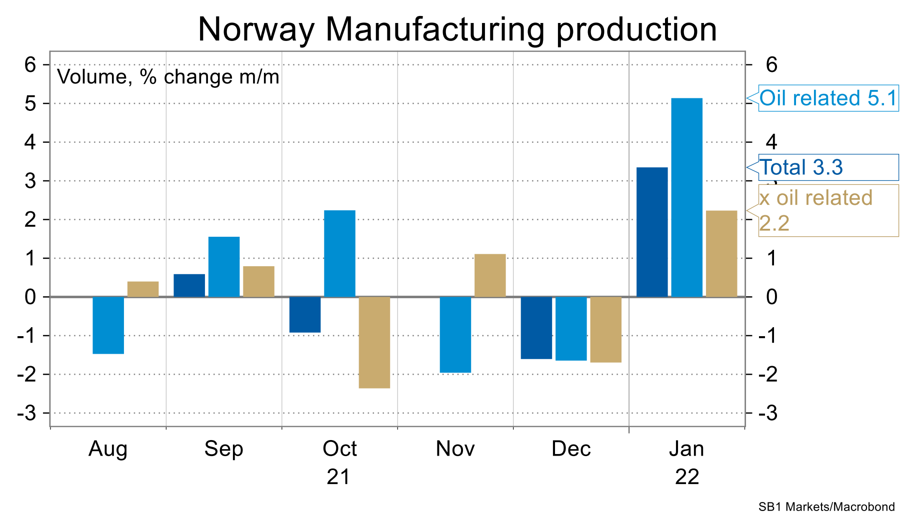
- Spending abroad is still muted, especially for Norwegians

Manufacturing production up in January – but trend still flat

Most sectors reported growth



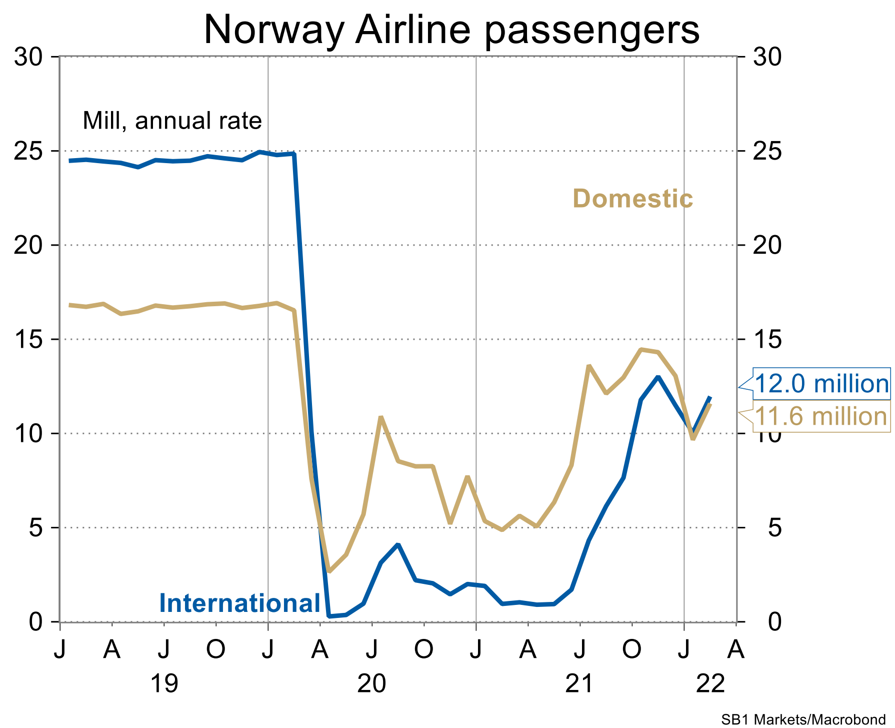


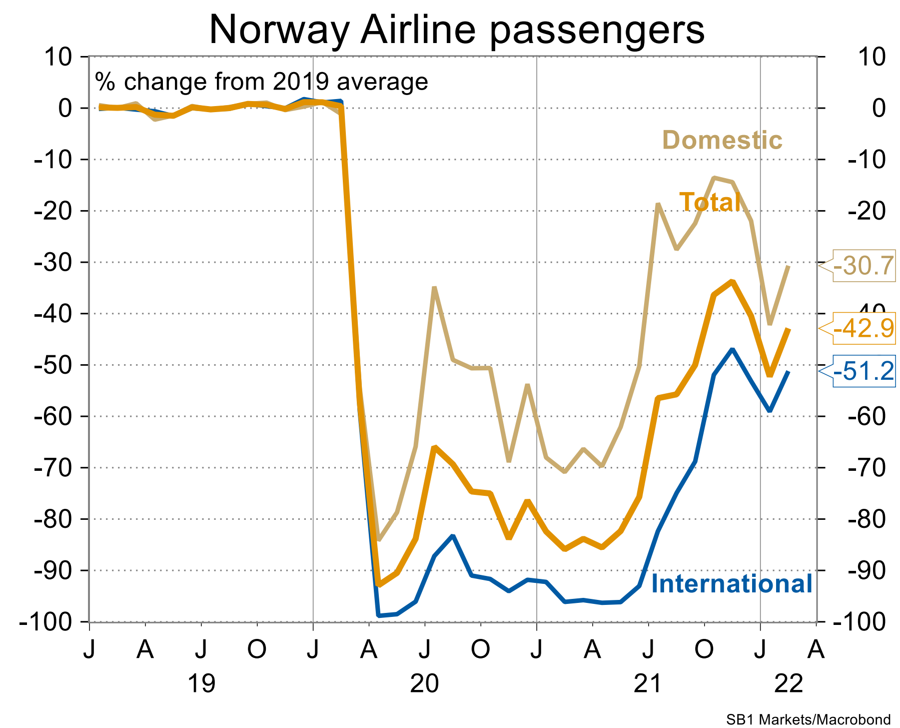


- Production rose 3.3%, well above our 1.5% estimate
  - » Oil related manufacturing production gained 5.1% - but is trending down
  - » Other sectors were up 2.2% - and the short term trend is flat/up
- However, production x oil related sectors is 3.3% above 2019 level, while oil related is down 4.4%!
- Manufacturing surveys are signalling strong growth in activity, but actual production has been flat since last April

Airline traffic up 20% m/m in February, much more to come in March

Domestic traffic down 31% vs 2019, international traffic by 51%

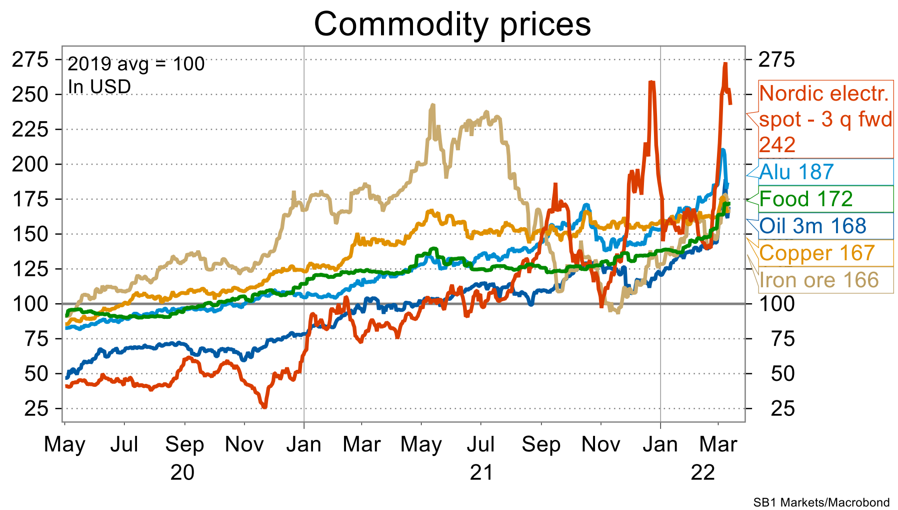


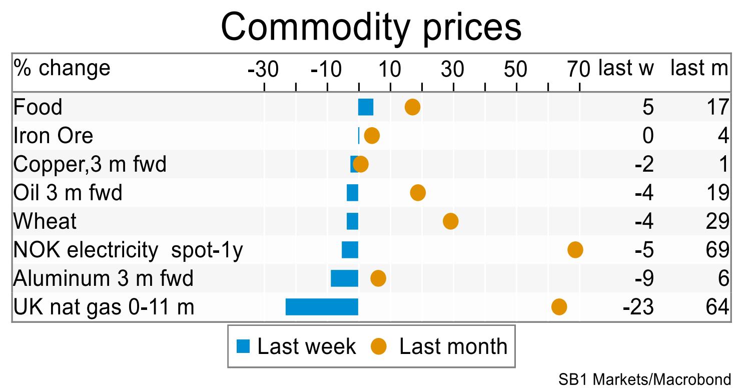


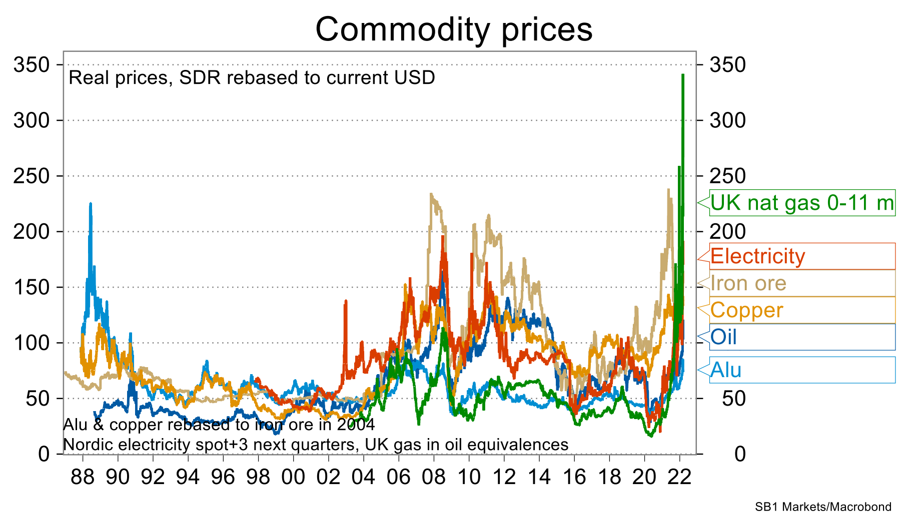
- Total traffic is down 53% vs. the average 2019 level
- Traffic is also below the Nov-21 level, before the Omicron variant hit

Most commodity prices down last week

However, food prices continued upwards on fear of less supplies from Russia/Ukraine





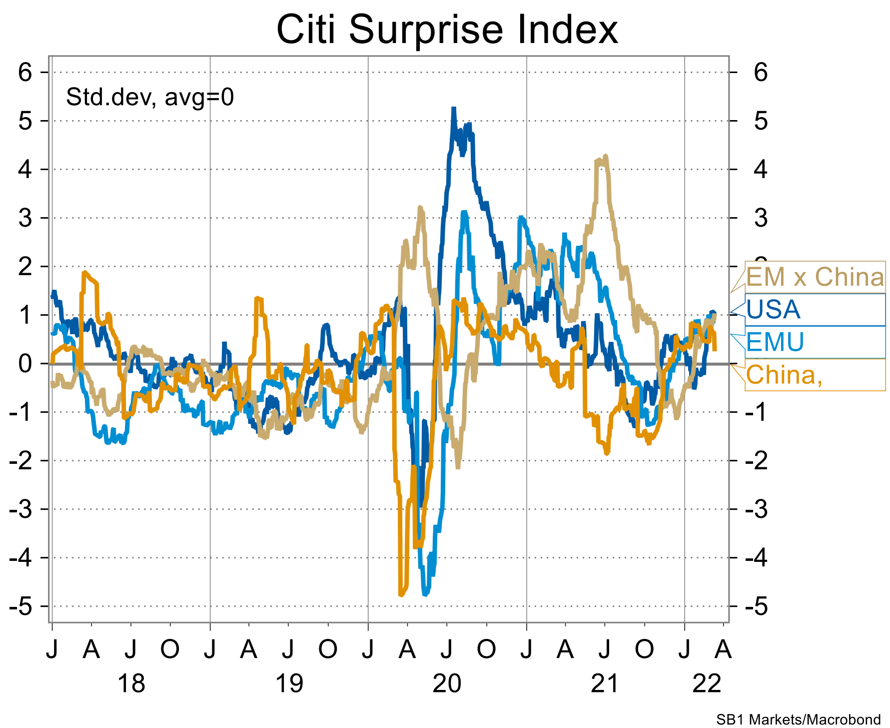


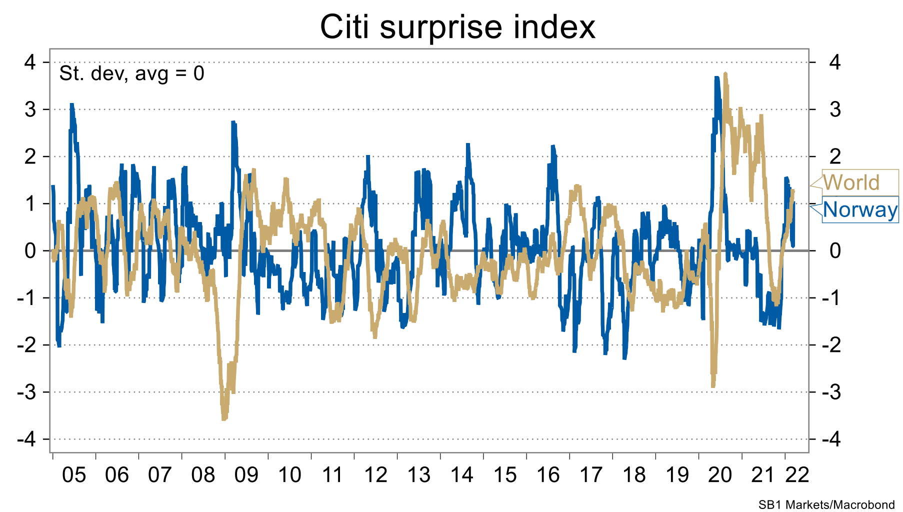
- Will **Russia be allowed to export** oil and gas, will buyers abroad buy the stuff or will **Russia turn the tap off**?
- Will Russia/Ukraine sell grain – restrictions are introduced (as for many other goods)

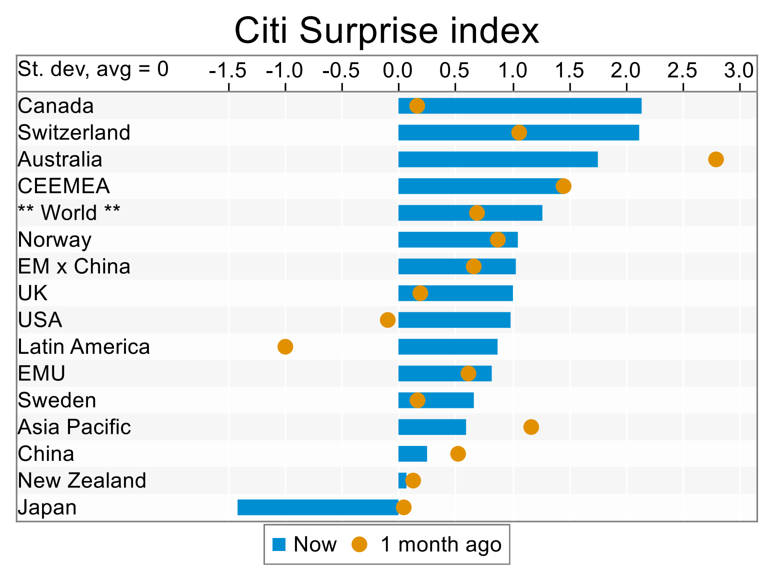
SpareBank 1 MARKETS

The world is surprising even more at the upside. At least so far…

Just Japan at the downside vs expectations







- **Norway** was surprising sharply on the downside through most of 2021, according to Citi. But in early December we crossed the zero line, and shot up in January – and we are still well above average

Surprise-indices measure the difference between economists' expectations and the actual outcome over a 3 month rolling window

Highlights

The world around us

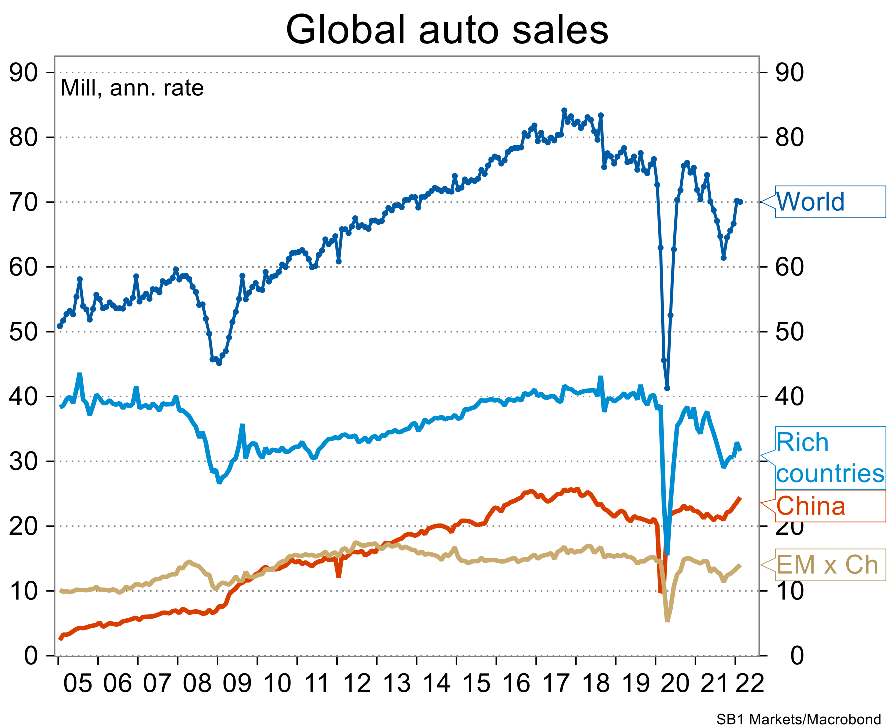
The Norwegian economy

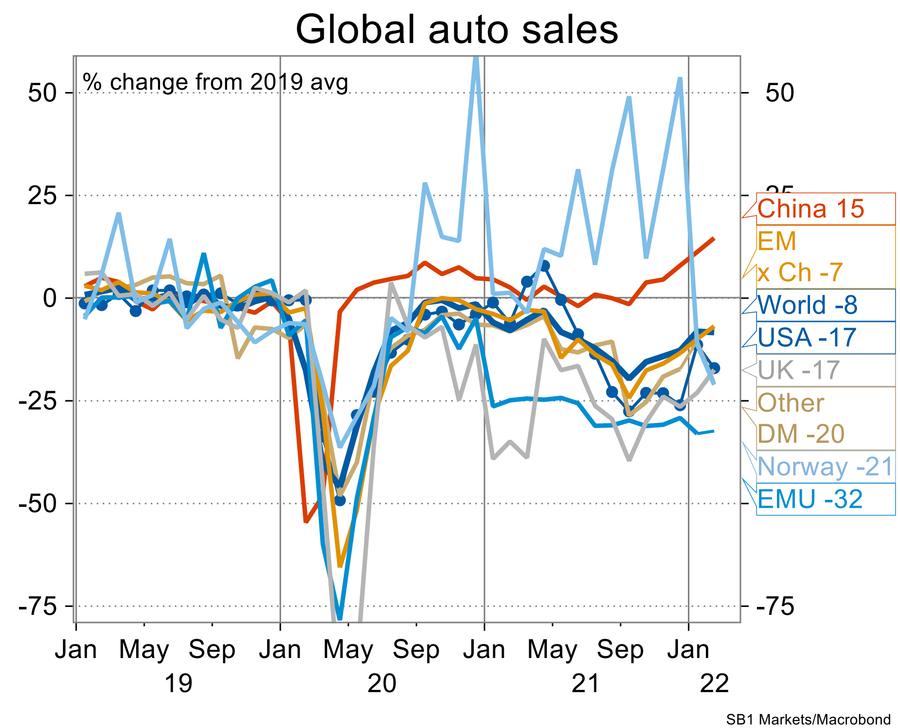
Market charts & comments

SpareBank 1 MARKETS

Auto sales on the way up but not further in February, mostly due to a US decline

Global sales down 1%, and the level is 8% below the 2019 average. China and other EMs in the lead



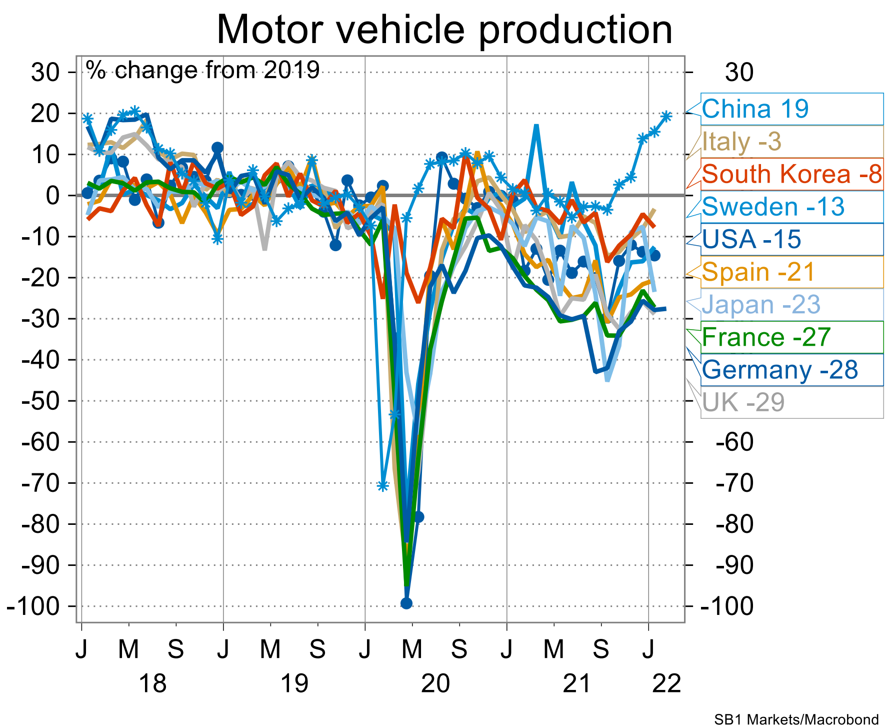


- **Global sales** fell slightly in February, due to a decline in sales in US. Sales in EMU were probably close to unch.
- **US** is down 17% and **EMU** is still down 32%%!
- **Emerging markets** are steady on the way up, China is 15% above the 2019 level, while other Emerging markets are 7% below.
- **Norwegian** sales fell further following very strong sales through 2021
- **Auto production** is gradually recovering – with China in the lead (of course), up 15%
- The new challenge: Will lack of supplies from Russia/Ukraine create substantial new problems? Semiconductors are exposed, as Ukraine is the major producer of neon gas and krypton, both essential in production of semiconductors

SpareBank 1 MARKETS

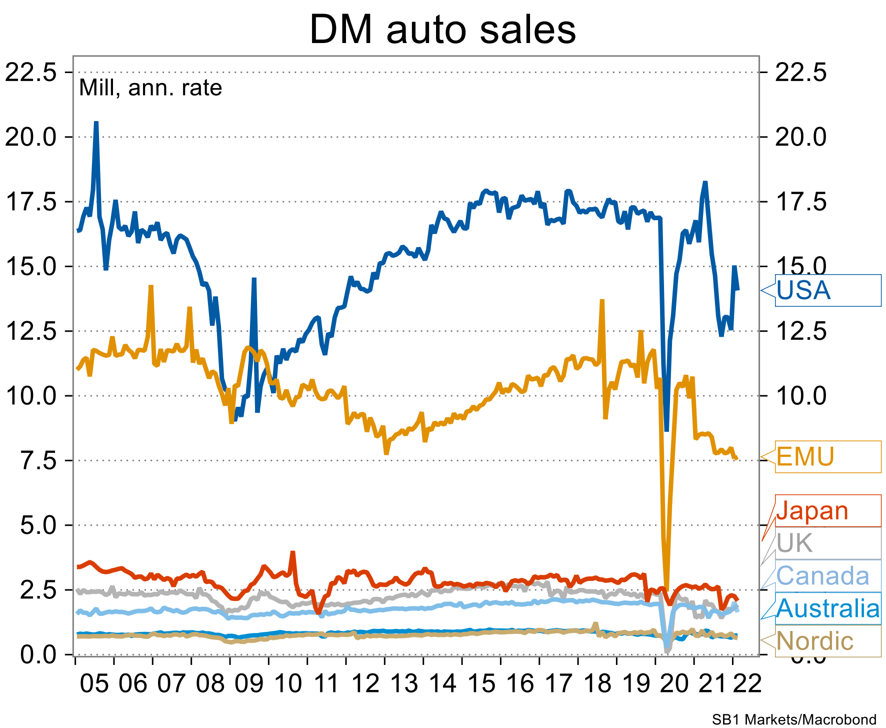
Auto production (mostly) on the way up!

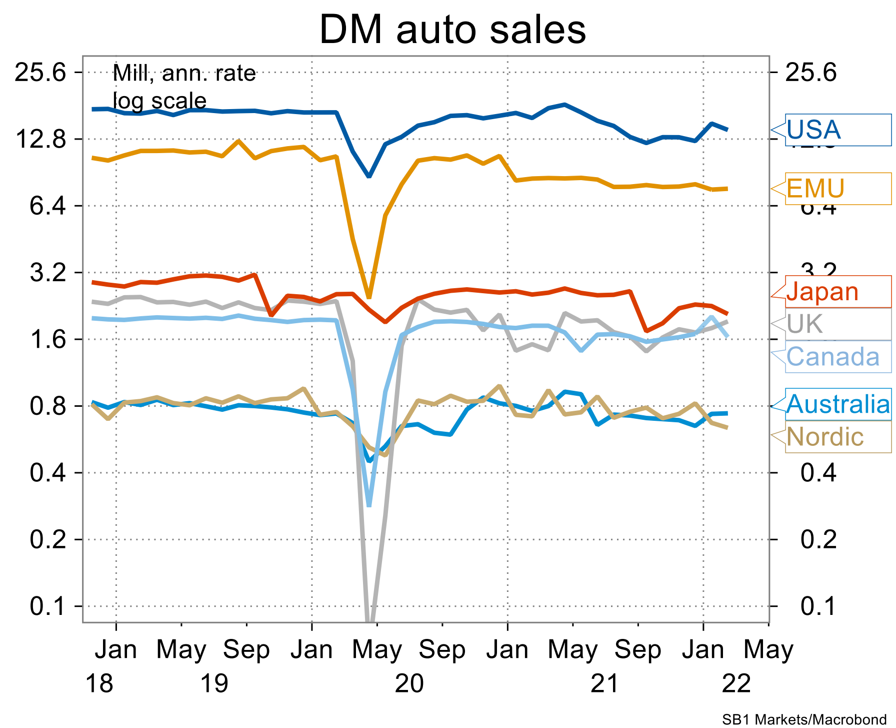
Chinese auto production is 19% above the 2019 level – the others are still below



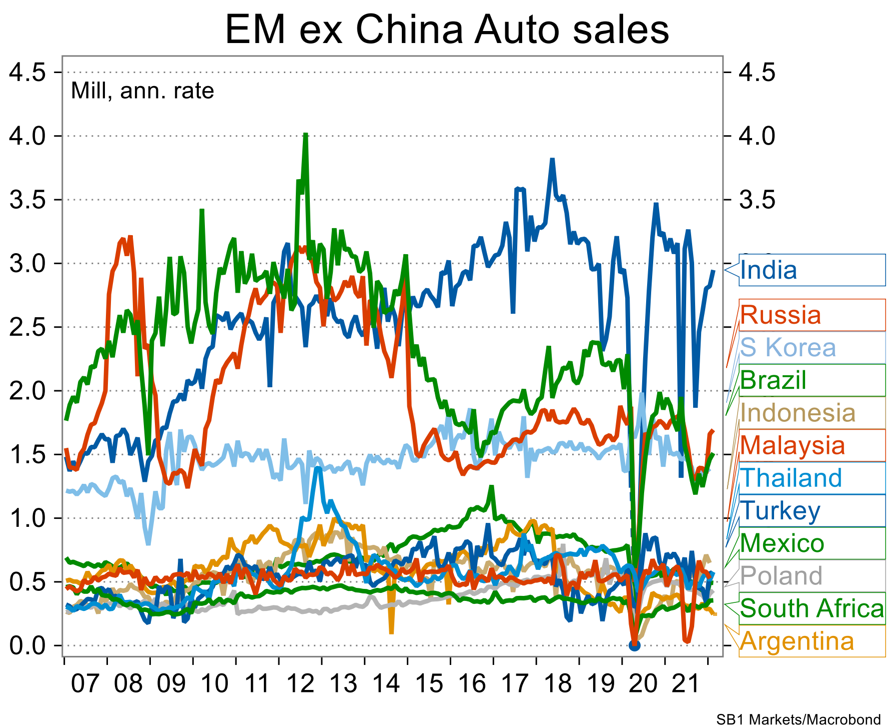
- The war in Ukraine may lead to more supply chain challenges for the auto industry like lack of Ukrainian neon gas for semiconductor production or car parts from Ukraine

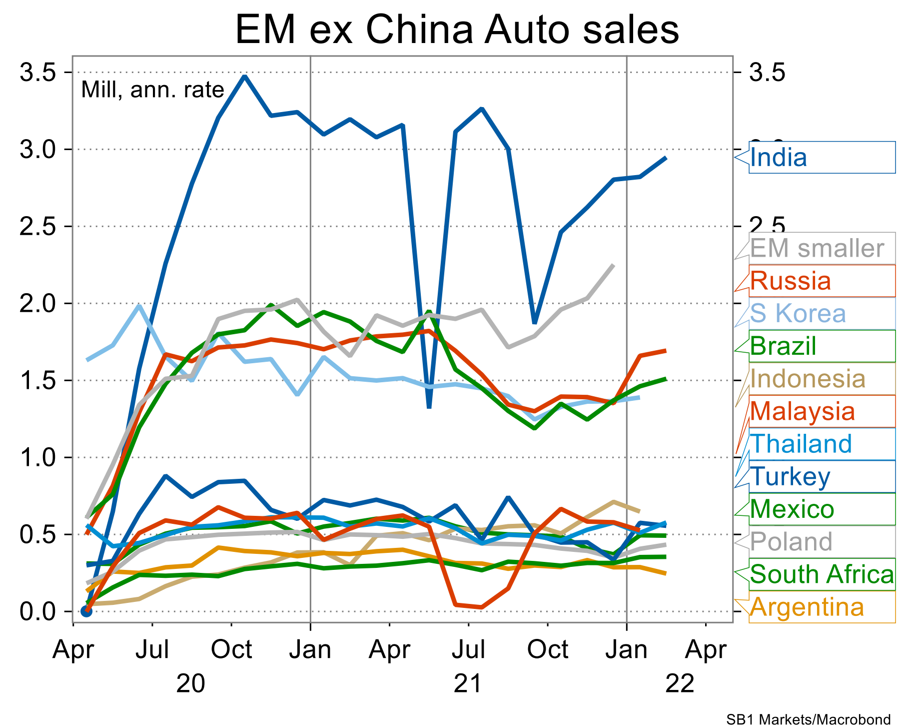
DM sales: Down in February - with EMU as the weakest link





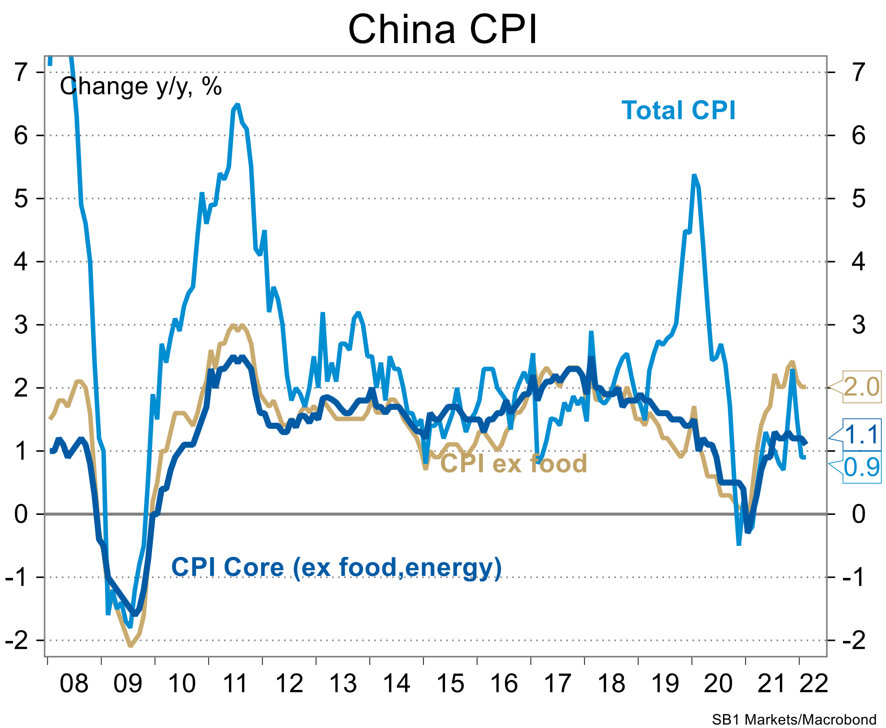
EM: Sales are recovering but still mostly below normal levels

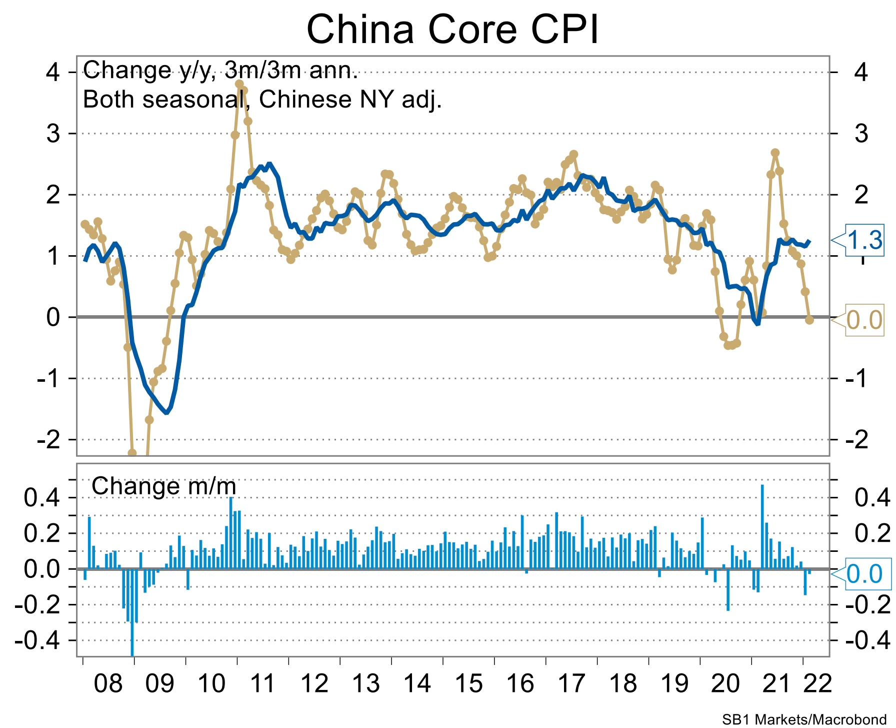




Not all countries have reported yet, and for some countries we have just plugged in figures from media reports that are not always correct

Still no inflation in China, the headline up just 0.9% y/y, the core 1.3%

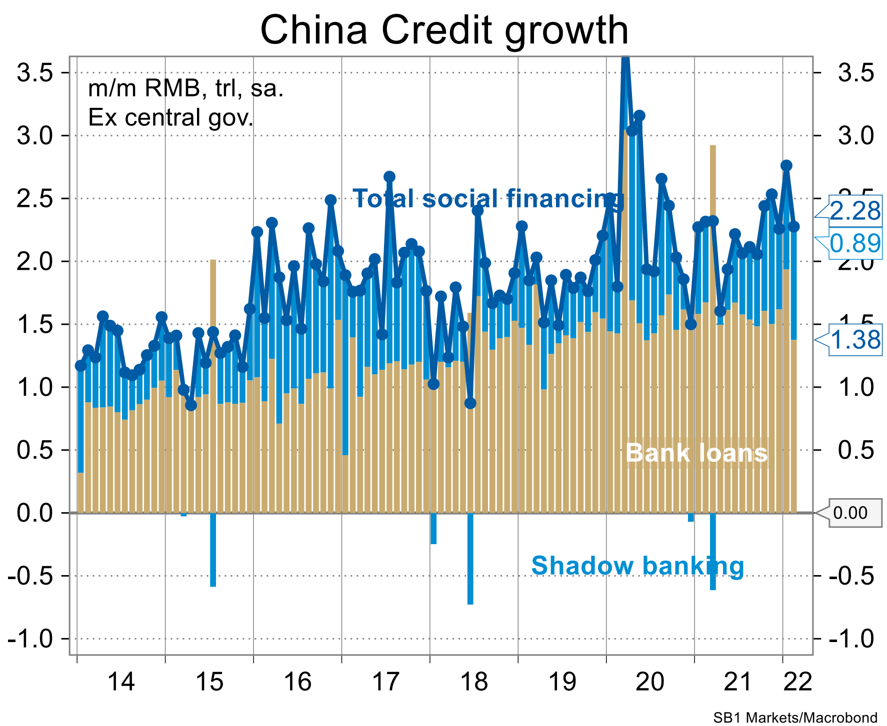


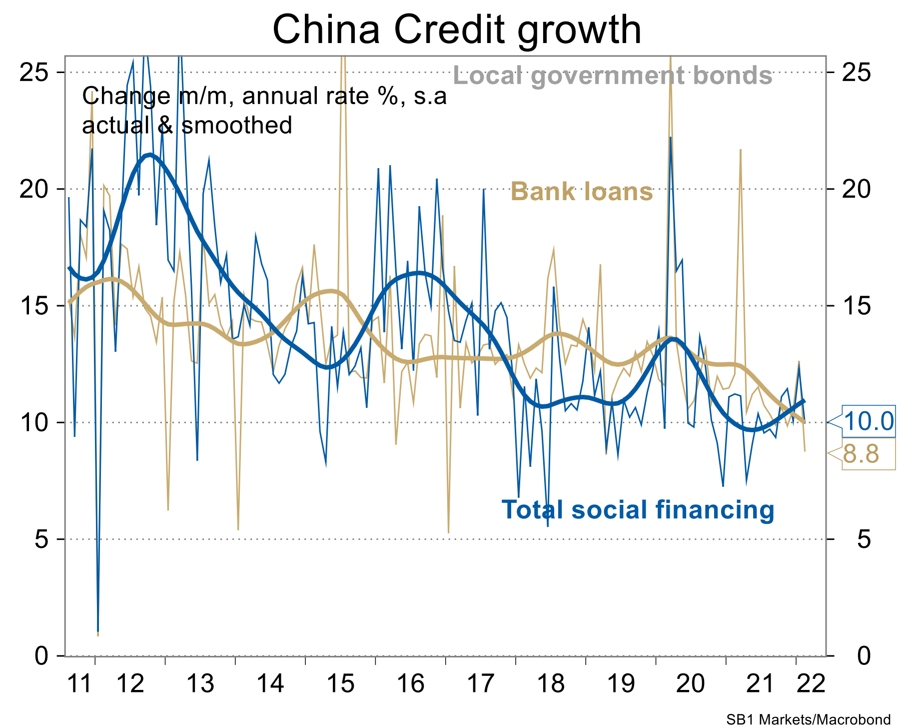


- **Total annual CPI** was as expected stable at 0.9% y/y, as prices rose 0.3% m/m
- **The core CPI (x energy, food)** accelerated 0.1 pp to at 1.3% y/y. Prices were unch m/m. The 3m/3m rate fell to zero as well
- **Food prices** are down 3.9% y/y, as pork prices have returned to Mother Earth, down 43% y/y
- <u>Inflation is low</u>. **Monetary policy** will not respond to actual inflation data if inflation is not really high or low, <u>the real economy and the credit market is more important</u>

Credit growth slowed in February but not by much, and the trend is still upwards

Bank lending fell sharply, to the lowest level in almost 2 years, local gov. bonds still on the way up

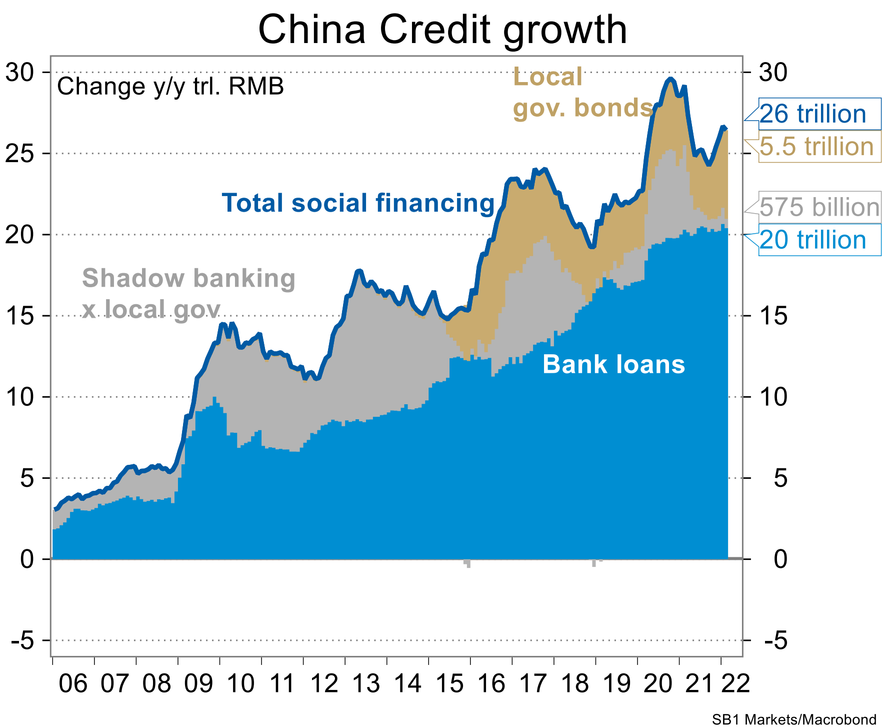


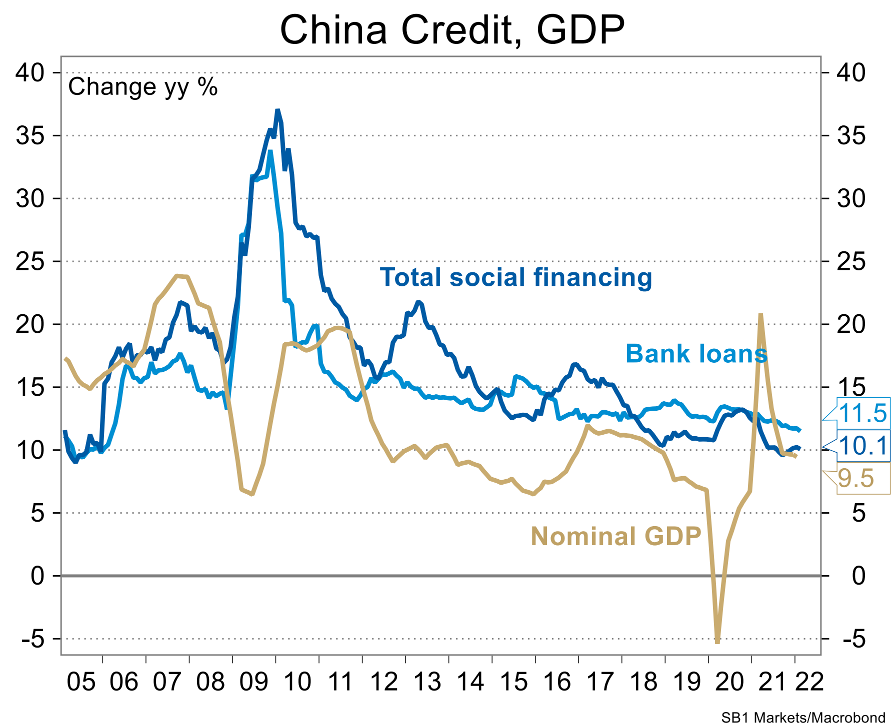


- **Total credit** grew at a 10.0% pace in Feb (m/m, seas. adj. annualised), down from 12.4% in Jan. The underlying growth at some 11% is above the trend growth in nominal GDP (say 5.5% real growth, 2% price inflation). The annual rate slowed 0.1 pp to 10.1%
- **Total credit** rose by RMB 1.2 trl, expected 2.2 trl (not seas. adj). The 'core' total social credit (total ex central gov bonds & corporate equites) grew by 2.3 trl (seas adj), down from 2.8 trl in Jan – which was the fastest growth since April 20
  - **Bank loans** rose by RMB 1.4 trl, s.a, or at a 8.8% annualised pace – well below expectations. Loans are up 11.5% y/y, and growth is trending down
  - **Shadow banking credit** rose by RMB 0.9 trl, well above the average growth rate through last year. **Local governments** were responsible more than half of the (net) uptake, and they have been borrowing more than normal recent months, very likely to compensate for the decline in revenues from sale of land to builders - or in order to finance unfinished building projects. Probably not a lasting business model
- The **annual credit growth** rate has not turned up but the 'underlying' credit cycle has – credit growth has accelerated recent months, primarily outside ordinary banks
- **Reserve requirements and some signal rates** have been cut, and central authorities have 'encouraged' lenders to support the economy, to reduce the risk for bad vibes in parts of the construction sector to spread to the overall credit market. So far, it seems like they have succeeded

Credit growth on the way up again, mostly due to more local gov. bond borrowing

But now other parts of the 'shadow' credit market is expanding too

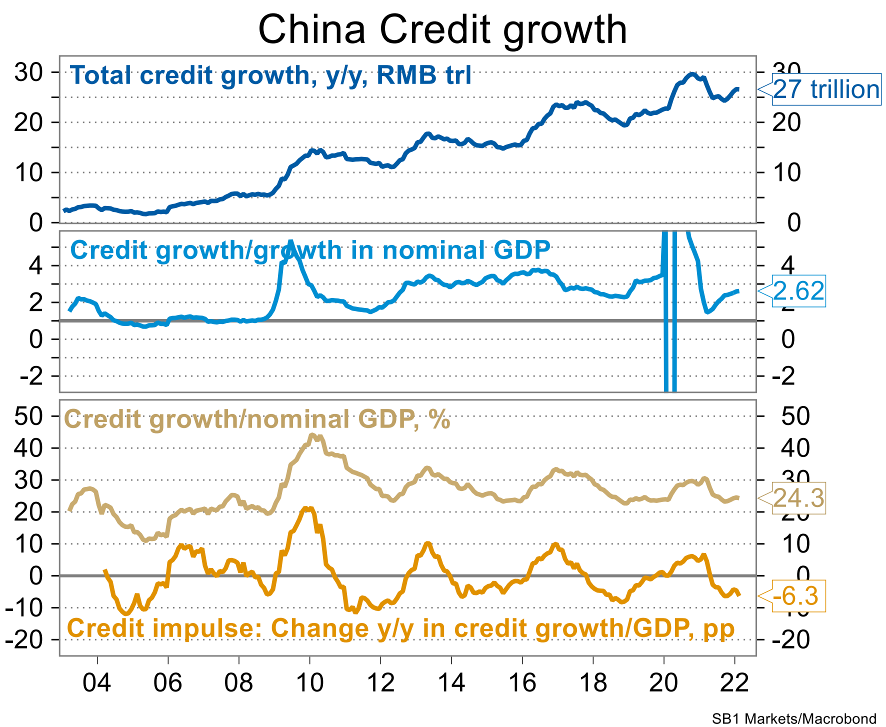


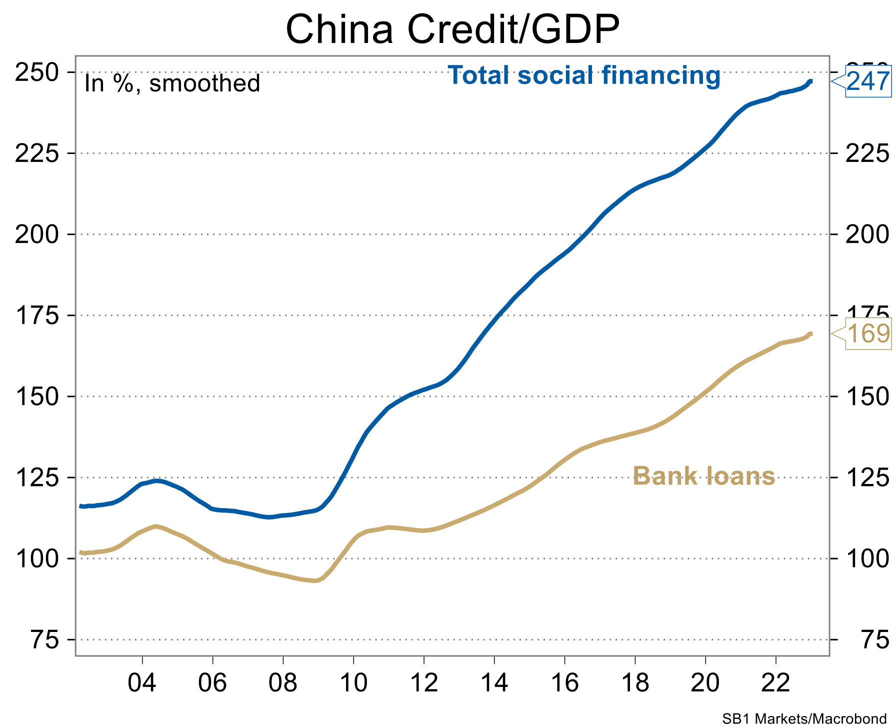


- Over the past year, **total credit** has expanded by RMB 26 trl, equalling more than 24% of annual GDP, up from the 24 trl at the bottom last Sept, (but still down from RMB 30 trl at the peak in 2020)
- **Banks** supplied RMB 20 trl of the y/y increase – and the rate has been flat since early last year
- **Local governments** have accelerated their credit growth, now up 5 trl – to 21% y/y from 13% y/y back in last September!
- Growth in other credit – via the **shadow credit market x local gov bonds** – slowed to RMB 0.6 trl from 5 trl last year (a dramatic slowdown, like many times before…)
- **Total credit** growth slowed 0.1 pp to 10.1% y/y, still above nominal GDP growth before the pandemic, and above our estimate of 5.5% potential GDP growth + a 2% rate of inflation

The credit impulse has bottomed (and in reality it is positive already)

Credit growth (in per cent) never slowed to below underlying nominal GDP growth





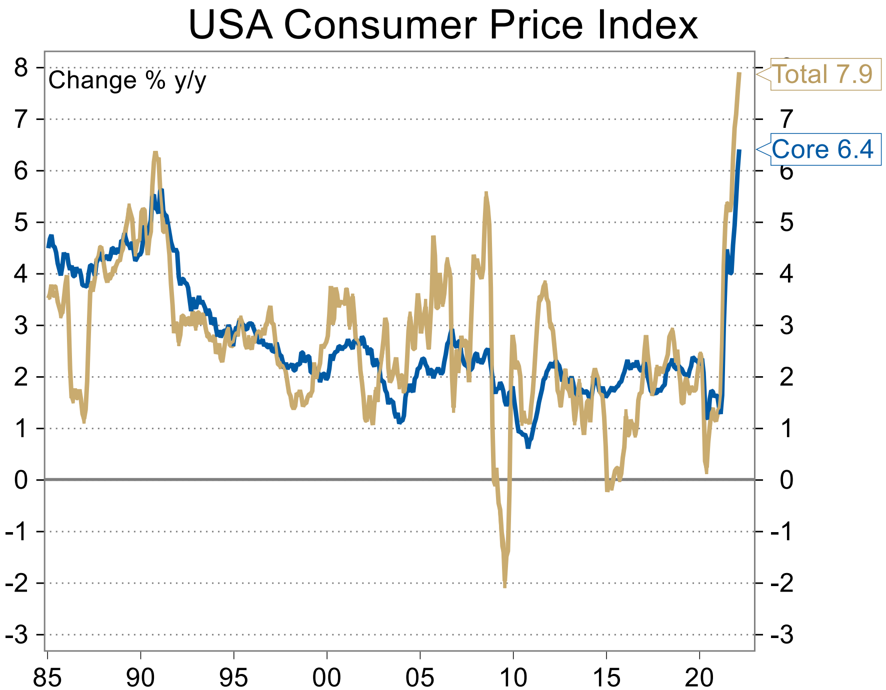
- A positive **credit impulse** implies that the credit growth/GDP ratio is increasing (the 2nd derivative of credit vs the GDP level)
  - » A negative credit impulse indicates credit tightening (or weaker demand) and has been associated with slowdowns in the Chinese economy, which have had impacts at other markets
- The **credit impulse** (here measured as the 12 m change in the 12 m credit growth/GDP ratio) bottomed in late 2018, turned positive one year later, peaked last autumn, fell into negative territory in May last year, bottomed at -6.5% in October, and is now at -6.3%. However, measured over a shorter time span, credit growth is accelerating
- The **authorities** seem to have succeeded in preventing the trouble in in parts of the building sector to spread to the overall credit market

GDP is smoothed in the calculations in the charts above

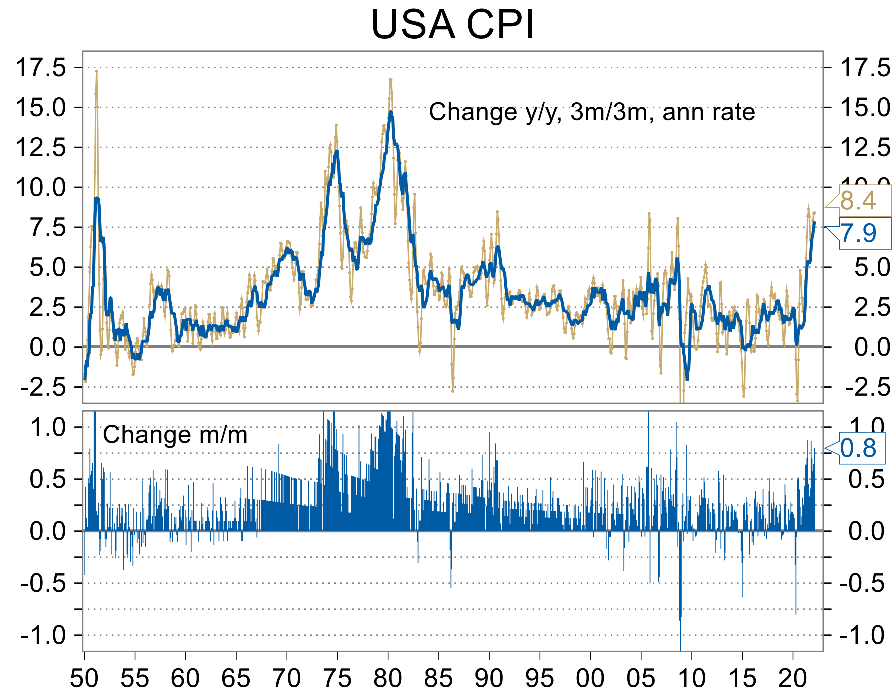
SpareBank 1 MARKETS

Headline at 7.9%, the core 6.4%, both up 0.4 pp, and as expected.

Inflation is broadening further. Because demand >> supply

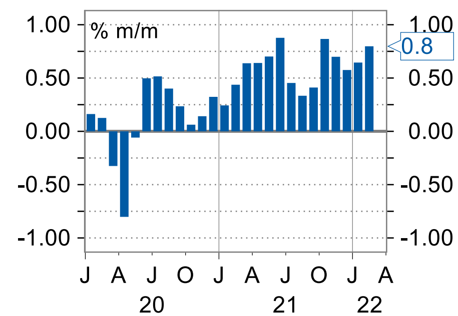


SB1 Markets/Macrobond



SB1 Markets/Macrobond

- **Headline CPI rose** 0.8% m/m in Feb, as expected. The annual rate accelerated 0.4 pp to 7.8%, the highest since 1982. The 3m/3m rate is at 8.4%
- **Energy prices** rose 2.5% m/m, and are 26% up y/y, contributing 1.7 pp to the headline growth, marginally less than in in Jan
- **Used auto prices** fall marginally – but remains far above any long term reasonable forecasts
- However, other prices are climbing faster as price inflation broadened further in February. Cleveland Fed's **trimmed median CPI** accelerated 0.3 pp to 6.9% (6 m pace), another ATH (with data from 1983). Other breadth measures tell the same story
- **Surveys** report further price increases the coming months. The base effect may soon become hard to beat vs the annual rate, prices rose rapidly during the spring last year – and the annual rate 'must' soon peak

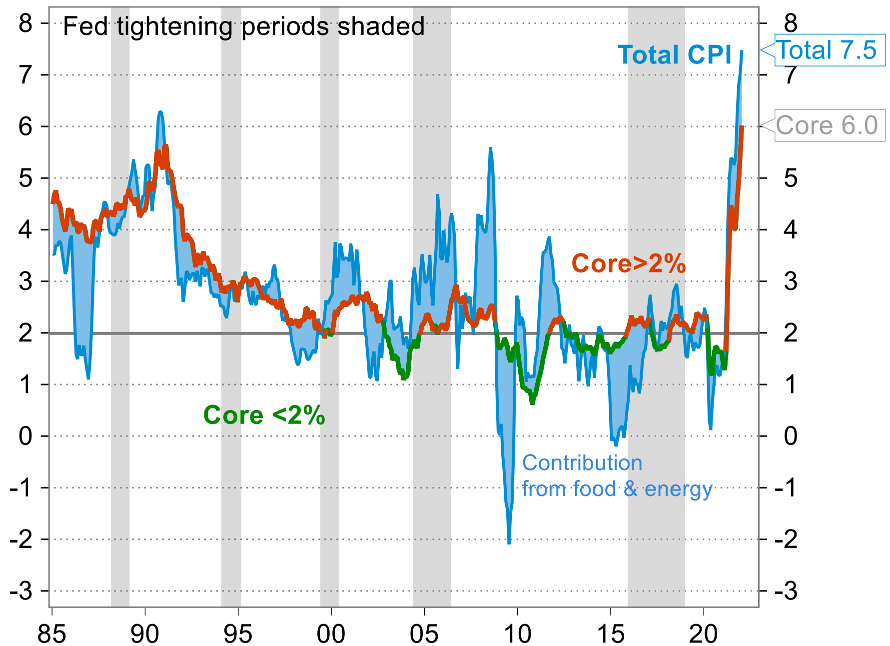


SB1 Markets/Macrobond

Core inflation also at the highest level since early 1980’ies

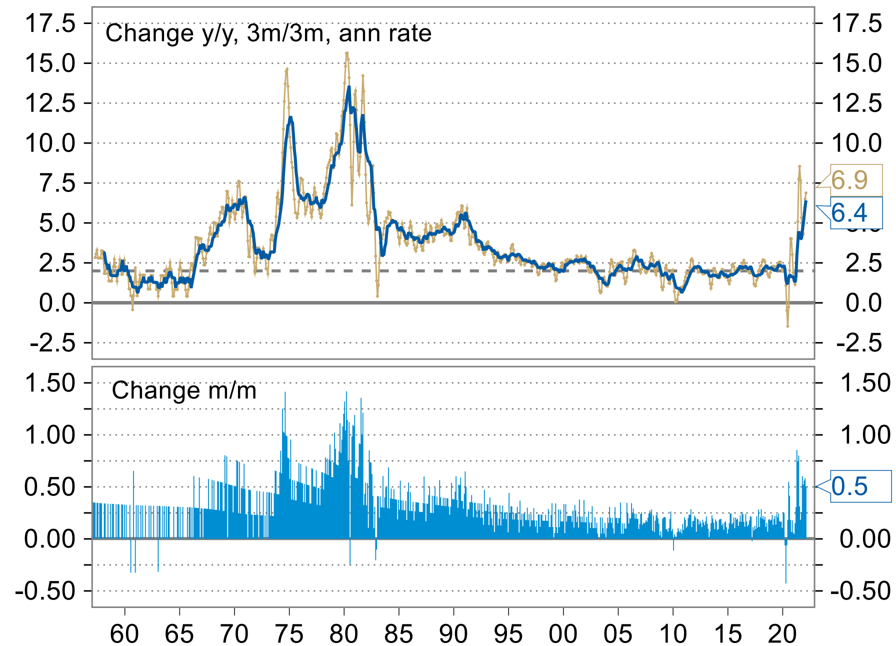
Core prices +0.5% m/m in February, as expected. Prices inflation is broadening rapidly

US CPI



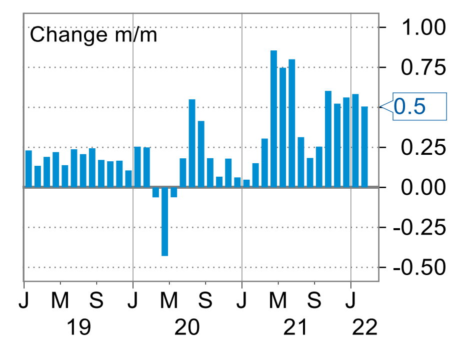
SB1 Markets/Macrobond

USA Core CPI



SB1 Markets/Macrobond

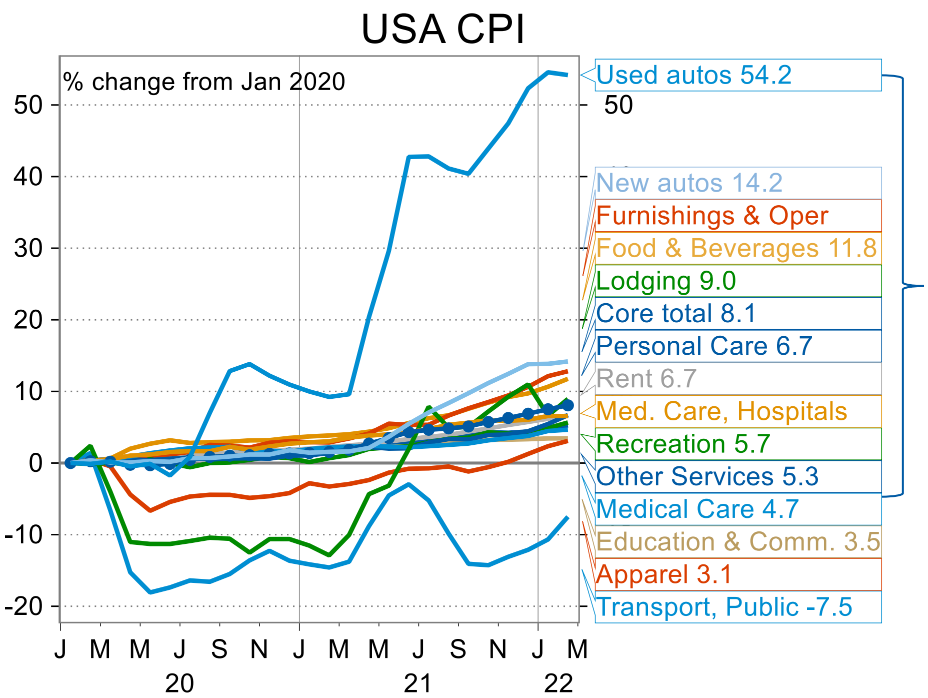
- **The 3rd wave: Core prices** rose rapidly during the summer of 2020, during last spring and now for the 3rd time, for the 5th month in row
- There are still some few ‘base effects’ left – inflation was low one year ago. As these prices are normalising, the annual growth rate is pushed up transitory (yes, transitory!)
- However, prices are up at a 6.9% clip measured 3m/3m – and more prices are climbing faster



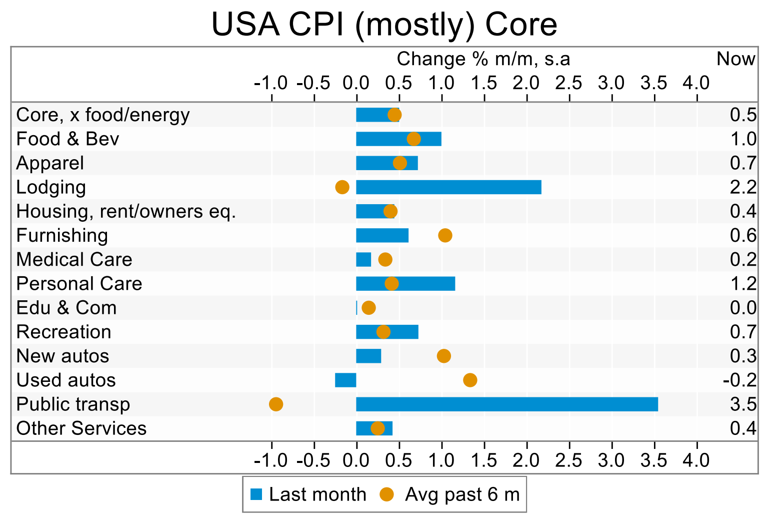
SpareBank 1 MARKETS

Just (super high) used car prices down in February

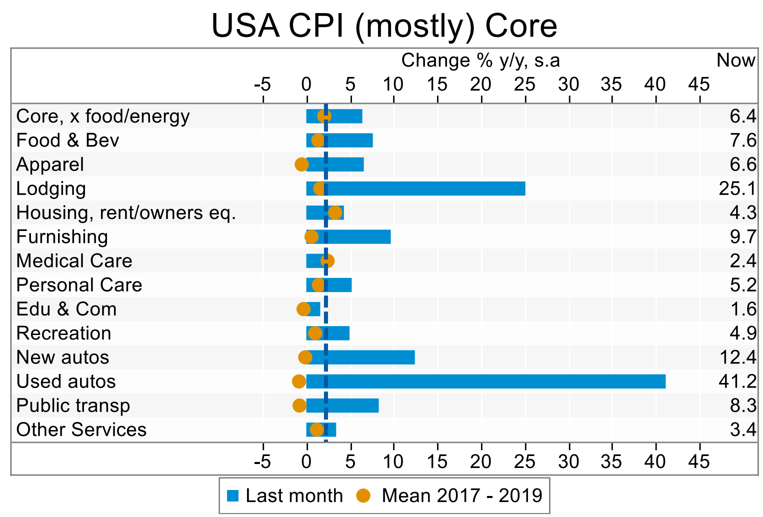
Some sectors will soon 'have to' report lower annual growth rates



SB1 Markets/Macrobond



SB1 Markets/Macrobond

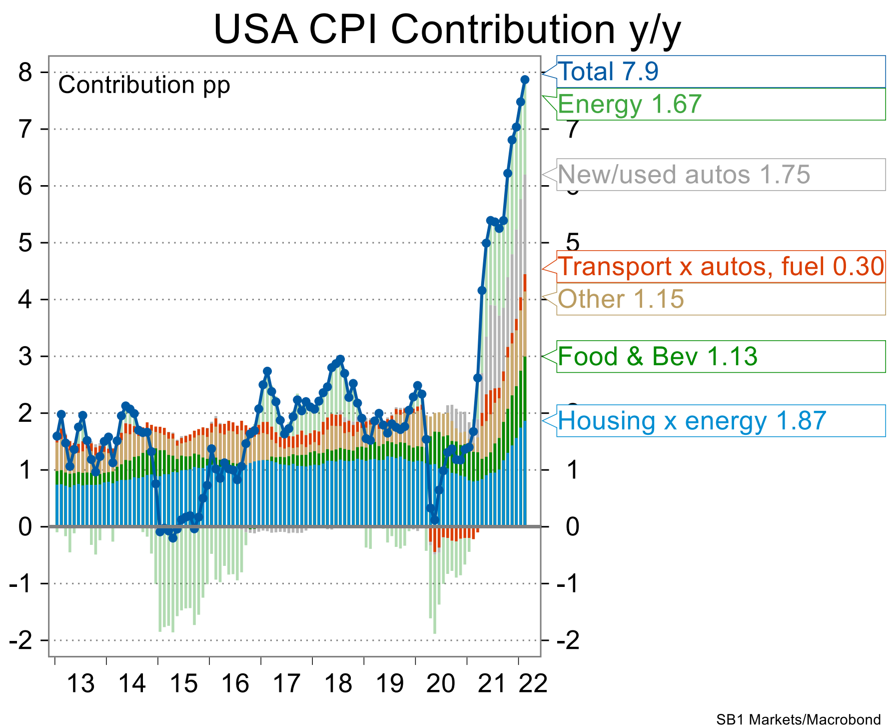


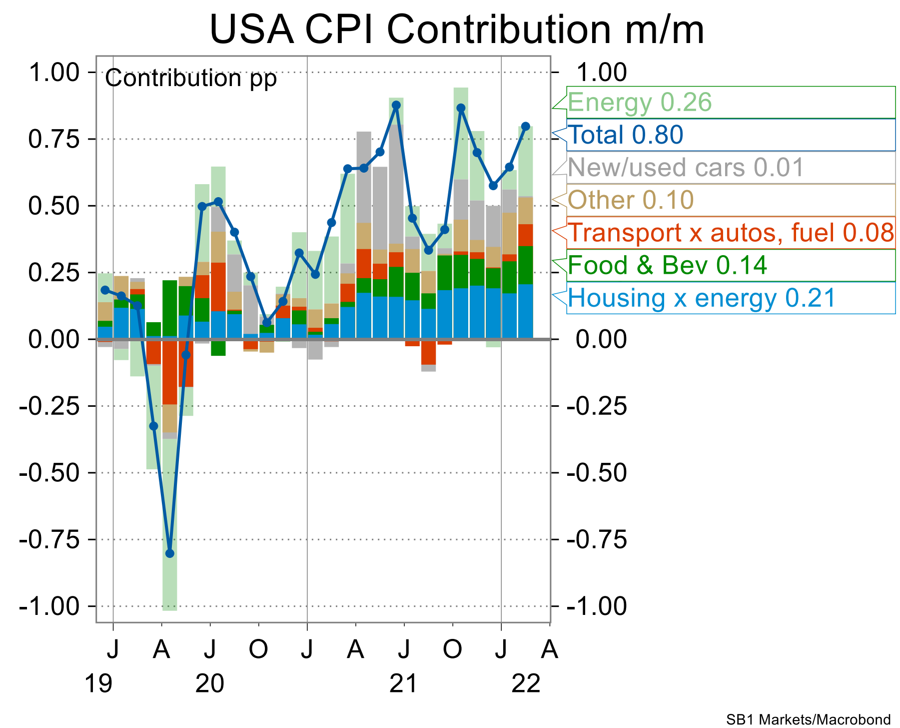
SB1 Markets/Macrobond

- Most sectors report growth above 2% from before the pandemic
  - » All sectors but education and communication are up more than 2% y/y
- One day: A huge downside for used auto prices, some for new autos & furnishings as well. But not in December

Transport (incl. used cars) & energy explain 3.75 pp of the 7.9% lift in total CPI

The problem: The rest is up by well above 4% y/y – and rapidly accelerating





- **Energy** prices rose further in February – and will make a jump in March, due to higher gasoline prices
- **Used car prices** fell marginally in February but new auto prices rose, in sum close to zero m/m – but these prices have contributed to a 1.75 pp lift in total CPI measured y/y. One day, these prices will normalise, and contribute at the downside, perhaps by the same amount
- However, **excluding** the 3.75% pp contribution to the headline CPI from energy & transport, **"remaining" inflation** has accelerating rapidly
- **Housing x energy** (and x lodging) is contributing by 1.8 pp, the highest rate in many years, though partly due to a low base one year ago. Rents as measured in the CPI are up more than 4% y/y, but the upside is probably now limited

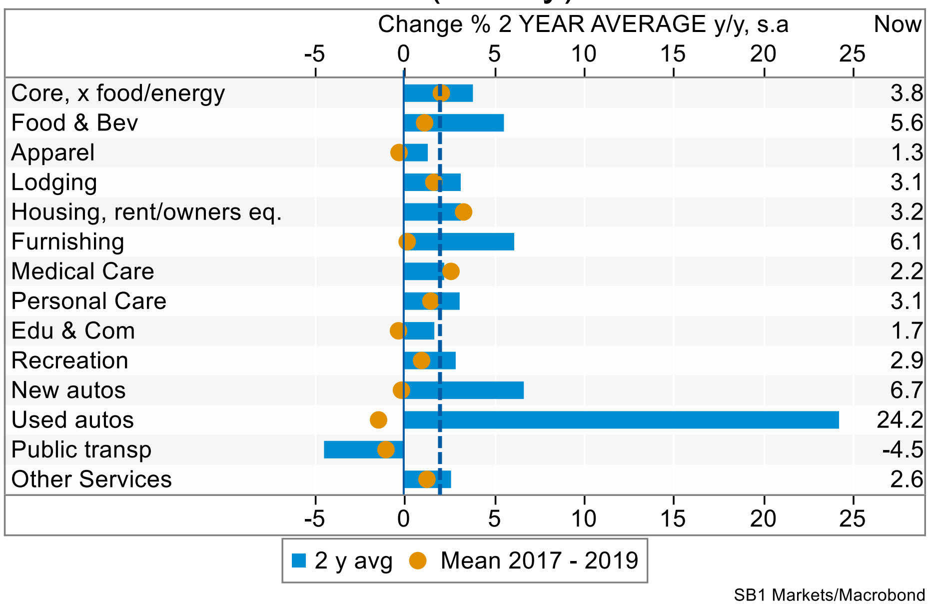
Lodging away from home (incl hotels) is a part of housing at the charts above

SpareBank 1 MARKETS

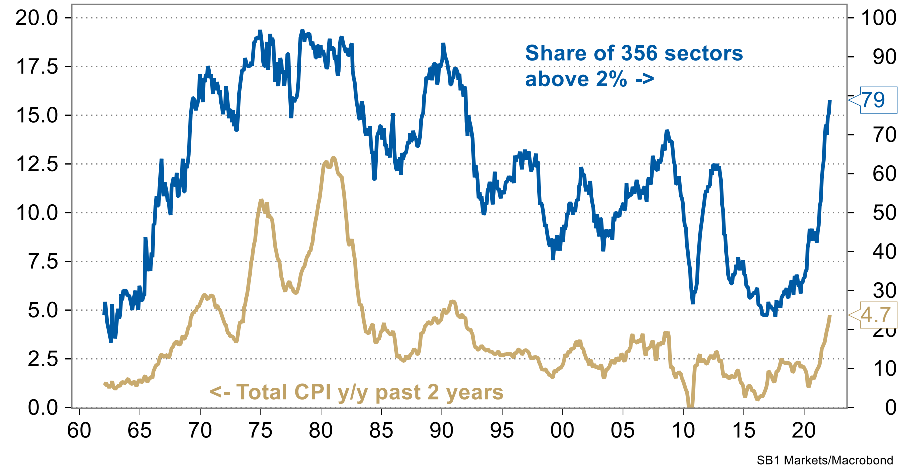
Inflation over the past 2 years: 12 main sectors >2%, 2 up <2%

2 y avg core inflation 3.8%, up from a 2.1% average in 2017 – 2019 – and broadening, 79% up >2%

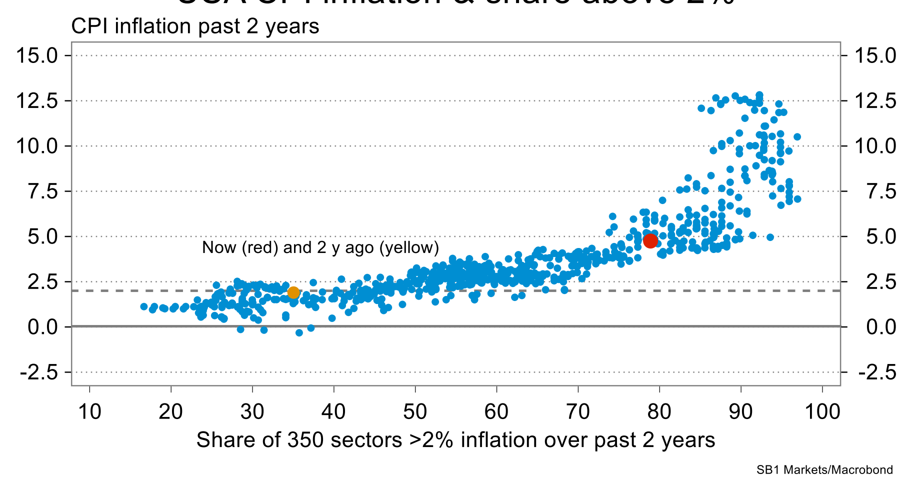
USA CPI (mostly) Core



USA CPI inflation & share above 2%



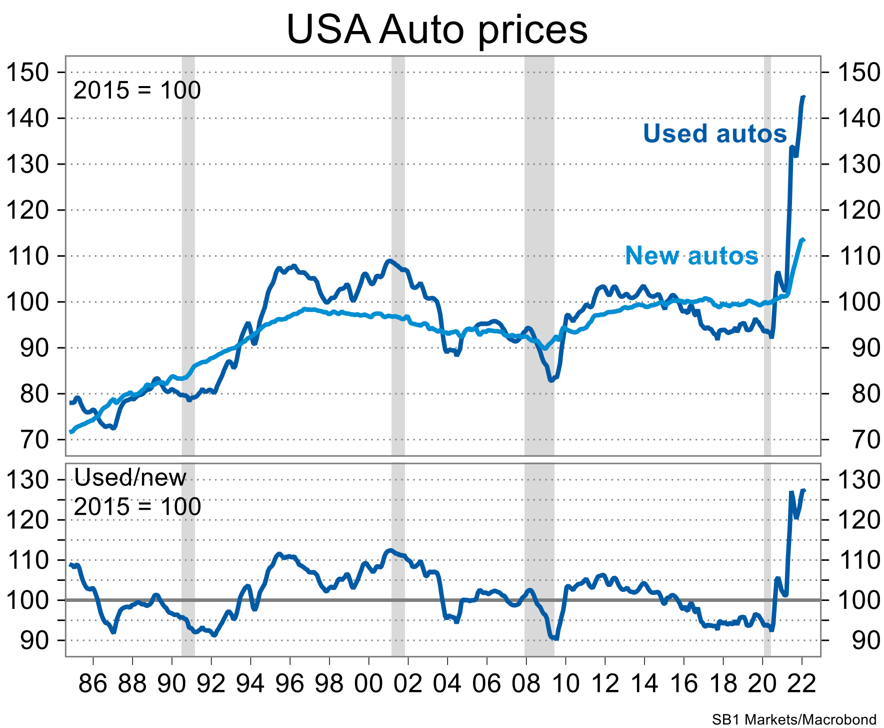
USA CPI inflation & share above 2%



- Measured over the past 2 years vs the 2017-19 average, inflation has accelerated in 10 sectors, and slowed in one sector (public transport, airline traffic has not fully recovered)
- Of 350 sub-sectors, 79% are up more than 2% over the 2 past years, normally signalling an inflation rate at 5% - where we now are – measured over 2 years

2nd hand car prices down 0.2% m/m, but still far from low ☺

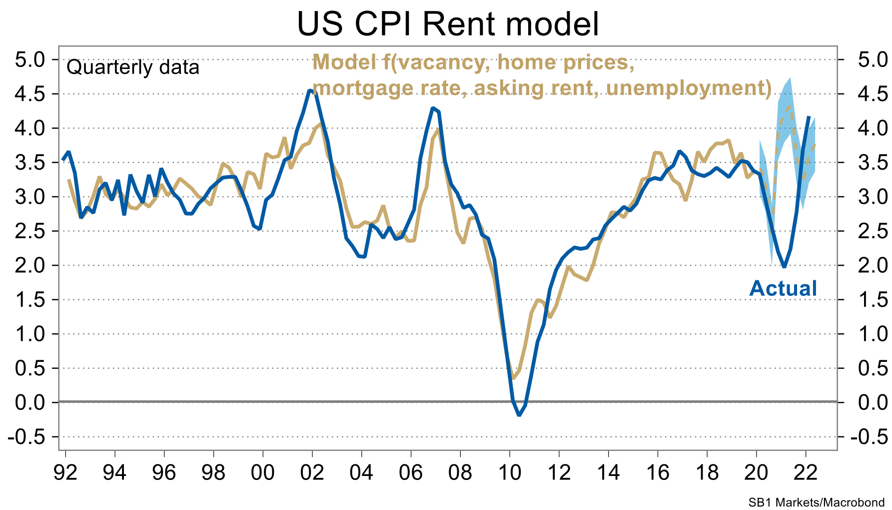
New auto prices added 0.3%. The downside for both are substantial. When auto production recovers



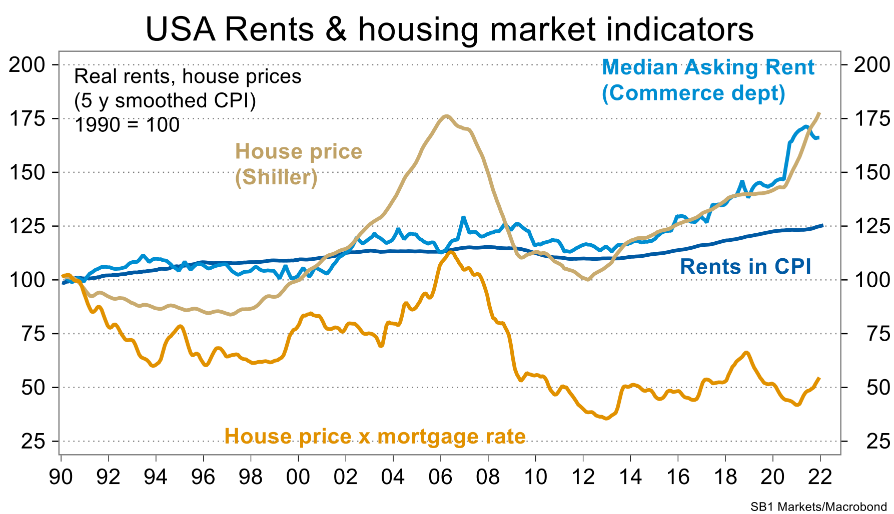
- Production of new cars is still way below demand – but prices are more up in the US than elsewhere
- At one stage at least used auto prices will 'collapse', down to a normal level vs new car prices – and there is a substantial downside for new cars as well

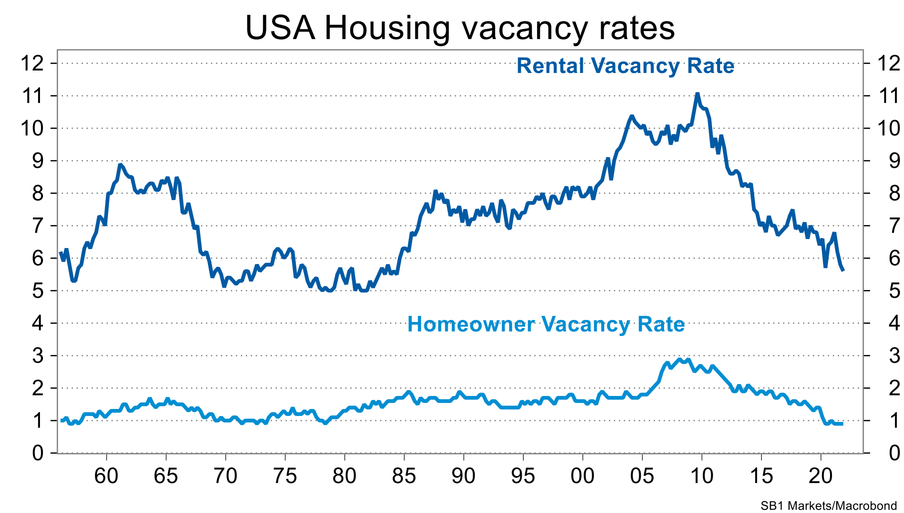
Rents are on the way up – but the upside from here is limited?

Rents are up 4.3% y/y but our model does not suggest a further acceleration



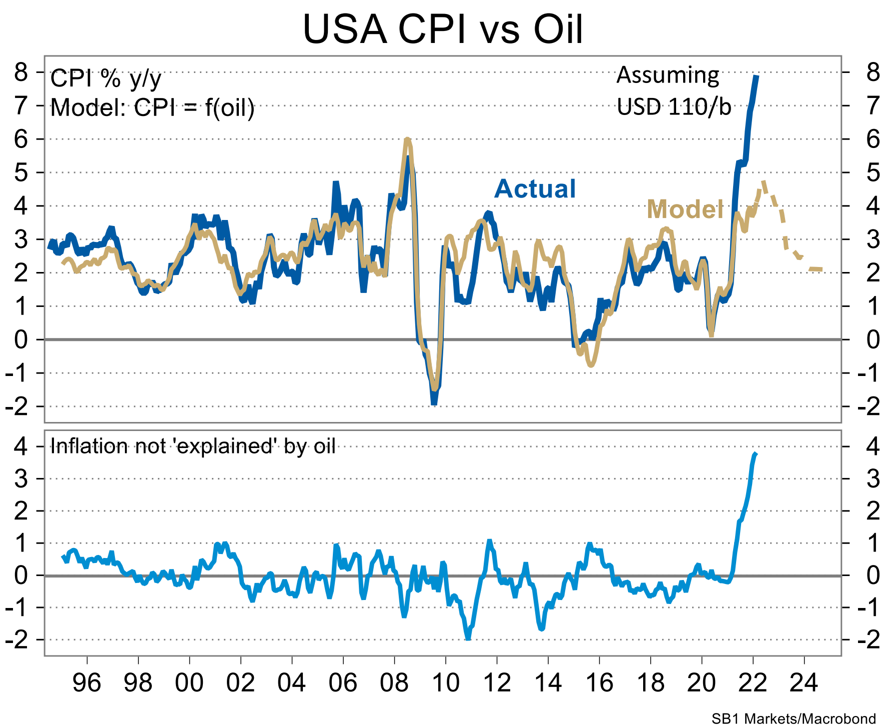
- **The official (Commerce dept) rental asking price** has flattened recent months and rents have been reported down since last autumn. Other rental surveys are still reporting higher rent inflation but from a lower level
- **House prices** are up almost 19% y/y
- **The rental vacancy rate** fell further in Q4, and it is very low. **The homeowner vacancy rate** is trending down, and at a record low level
- **Rent inflation measured in the CPI** has accelerated to 4.3% from 2%, to above the pre-pandemic rate at some 3.5%
- **Our model**, when assuming a market slowdown in rental asking price inflation and in house price inflation the coming quarters but adding a modest increase in mortgage rates, do not signal a further increase in rent inflation, as measured in the CPI

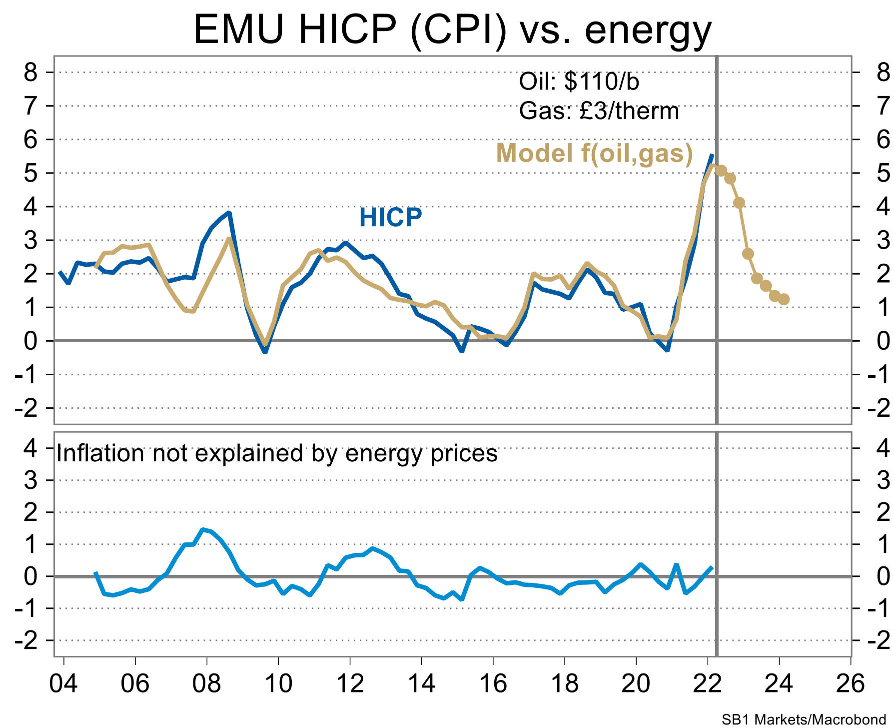




The oil price moves the CPI as usual – but now there is a lot more

CPI is up 4 pp more than explained by the oil price, unprecedented. In EMU, nothing but oil/gas!

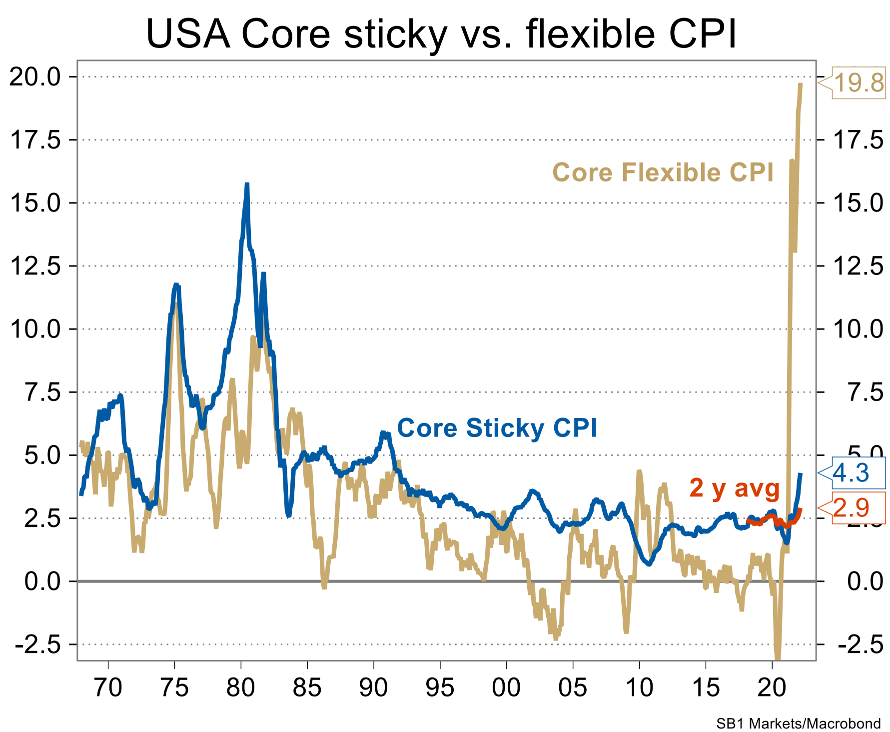


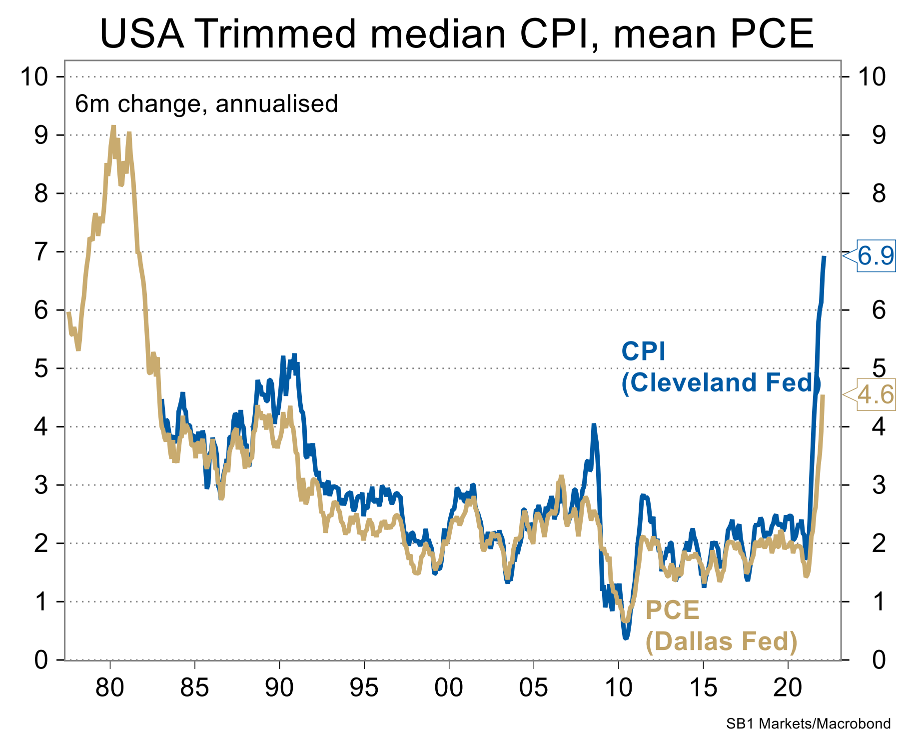


- **Oil price cycles** have explained some 80% of the changes in the US CPI growth the past 30 years, which for practical purposes, is "everything"
  - » In our model we incorporate all direct impacts from changes in the oil price – as well as the impact from other factors that influenced inflation which correlates to the oil price. The current model residual, at almost 4 pp is totally unprecedented, at least vs the past
  - » If the oil price stabilises at USD 110/b, the models signals a 1 pp lift in the headline CPI
- **In EMU**, the CPI acceleration recent months can be fully explained by the increase in energy prices – and if oil/natural gas prices stabilise at current levels (Friday's prices, that is), inflation is now close to the peak, and the annual growth rate will return to below 2% in early 2022. Had energy prices returned to a 'normal' level, inflation would have collapsed now! At least according to our model

Even sticky prices are on the move upwards

… even measured over the past two years

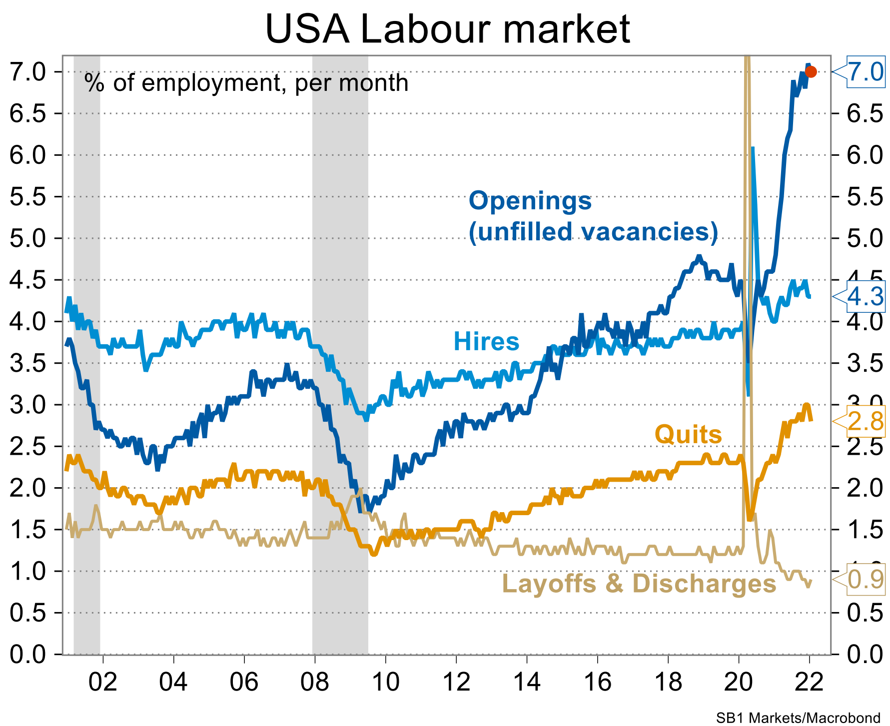




- The Cleveland Fed **trimmed median CPI** is up at a 6.9% pace over the past six months, up from 6.6% in Jan – and miles above anything seen before (data from 1983). Dallas Fed's **trimmed mean PCE** was up 4.6% in Jan, also the highest since early 1980'ies
- In the CPI, almost all of the initial lift in core CPI was due to prices of good & services that often fluctuate, with rapid price increases followed by deep price cuts. These prices are '**flexible' and** represent some 10% of the core CPI. The core flexible CPI is up 20% y/y – almost twice the level ever seen before, 11% in 1975! However, these prices are flexible both ways, and the cycles are normally short lived
- The **sticky components** (90 % of the core CPI) are up 4.3% y/y, the highest level since 1992. Part of the lift

The vacancy rate remains at a record high level

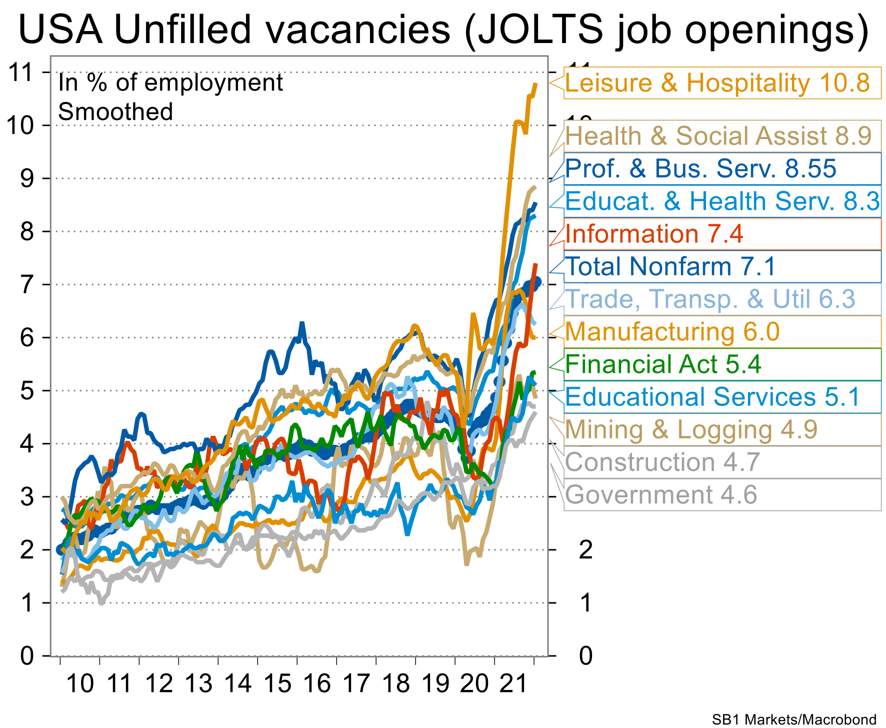
Hiring is brisk – many are quitting, and 'nobody' are laid off

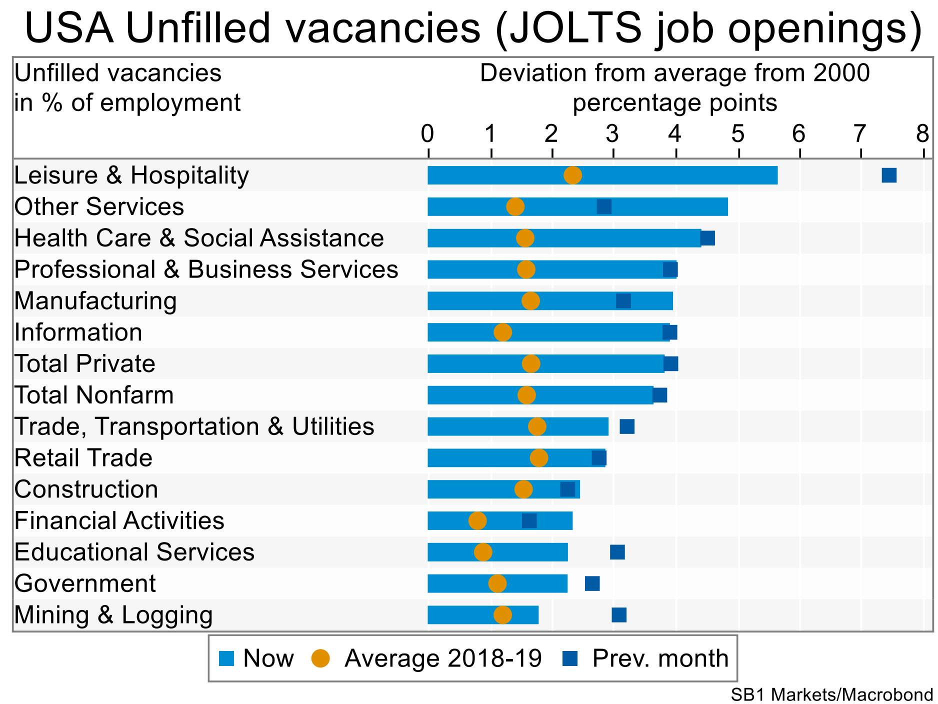


- The no. of **unfilled vacancies** fell by 0.2 mill to 11.3 mill, after a 0.4 mill upward revision – expected 10.95 mill. After the upward revision of Dec (and these data have mostly been revised up recently), Dec was the ATH – equalling 7.1% of those employed. The Jan rate was 7.0%
  - » The highest print ever before the pandemic was 4.7%, and the rate was 4.5% just before the pandemic hit
  - » **The SMBs (NFIB survey)** reported a marginal increase in the share companies that are able to fill open positions in February. These two series are very closely correlated – and both have been at levels never seen before since early last year
- **New hires** was unchanged at 6.5 mill persons, equalling 4.3% still an unusual high level
- The rate of **voluntary quits** fell by 0.2 mill to 4.3 mill (from a 0.2 mill upward revised level), or down 0.2 pp to 2.8% of the no. of employed. As with unfilled vacancies, quits are closely correlated to wage inflation – for obvious reasons
- **Layoffs** rose 0.1 pp to 0.9%, a very low level
- **In sum:** The report data confirm an extreme tight labour market
- There are some media reports on **better supply of labour** in February and into early March

All sectors are reporting more vacancies than before the pandemic

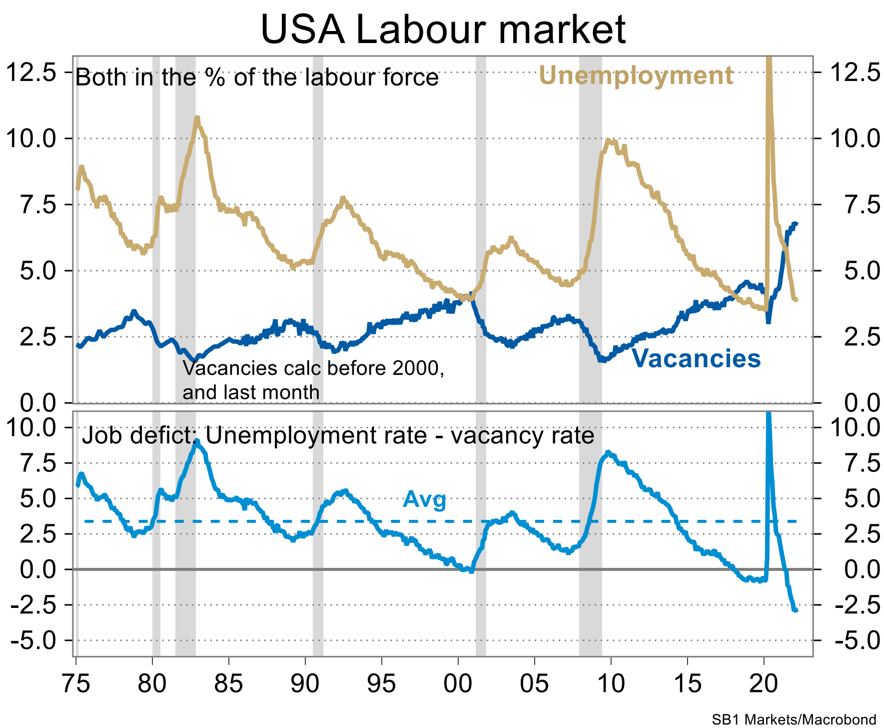
Mostly small changes in the vacancy rates sector wise in January – but a steep decline in hotel/rest-

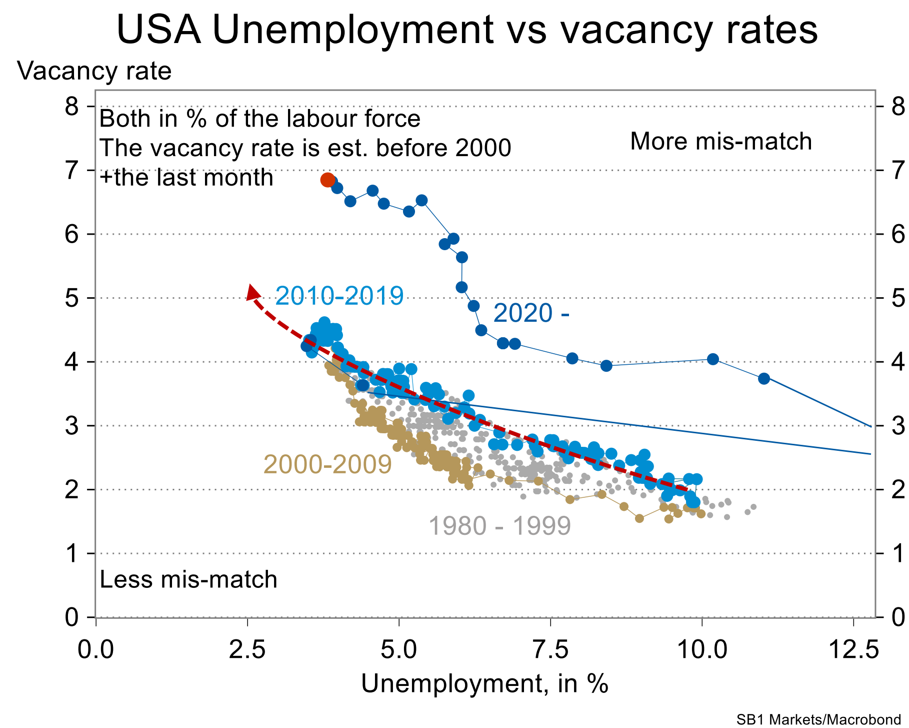




An unprecedented tight labour market – and still a large mis-match

6.5 mill were unemployed in Jan, and at the same time there were 11.3 mill unfilled job openings!

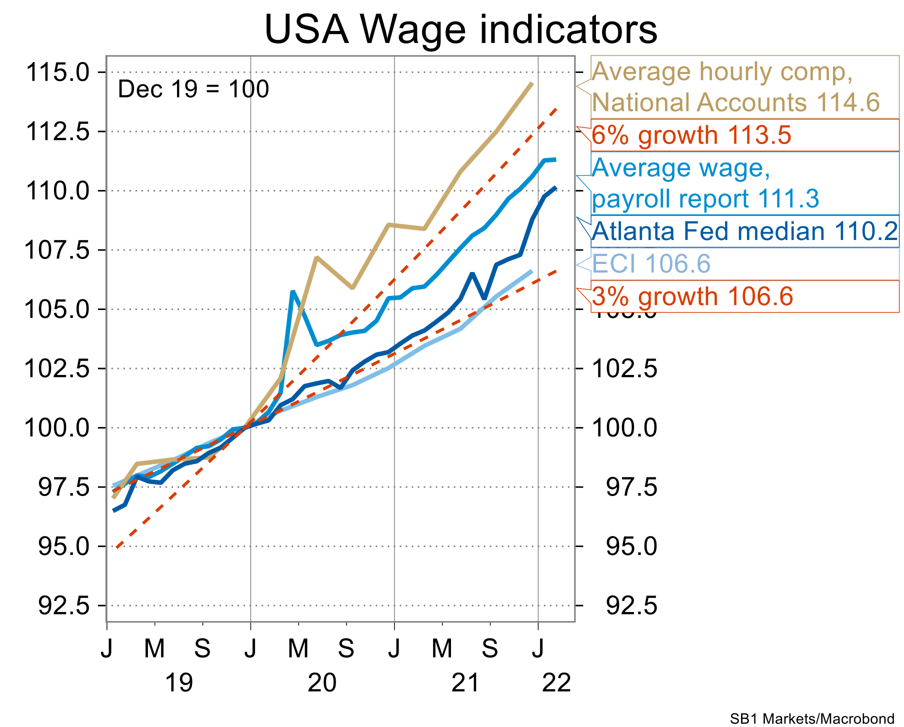


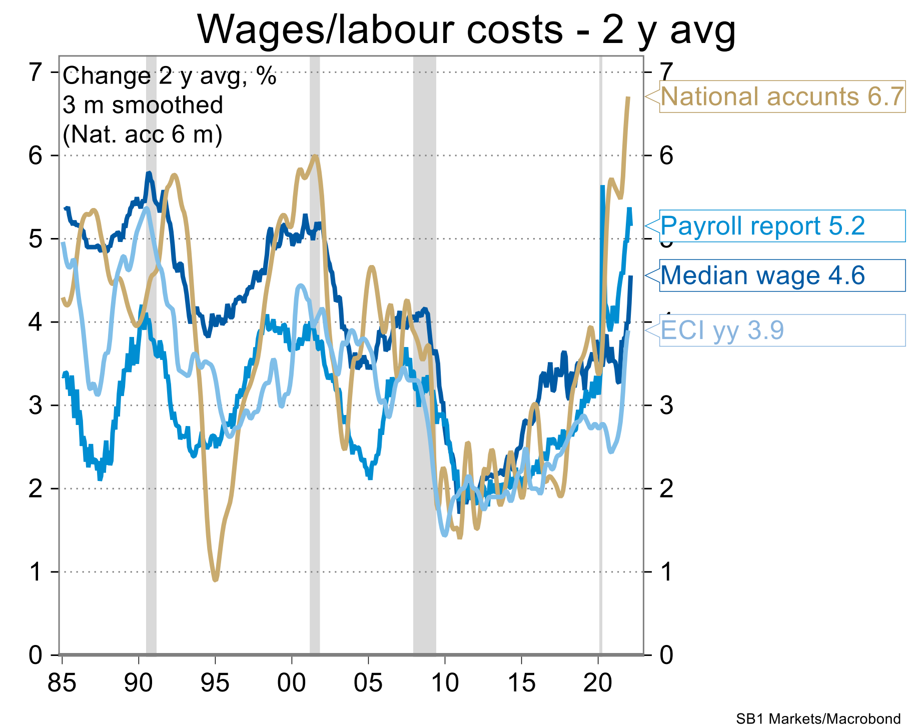


- We have never seen a gap like this before!
- **The Unemployment - Vacancy-curve** (UV, Beveridge curve) is still moving in the north-west direction, signalling a gradually tighter labour market. The only silver lining may be that unemployment is falling faster than the vacancy rate increases, signalling that the mismatch at the labour market may be easing somewhat

Wage inflation sharply up in February too, according to Atlanta Fed's tracker

The median wage tracker is up 5.8% y/y, and underlying growth recent months is far higher

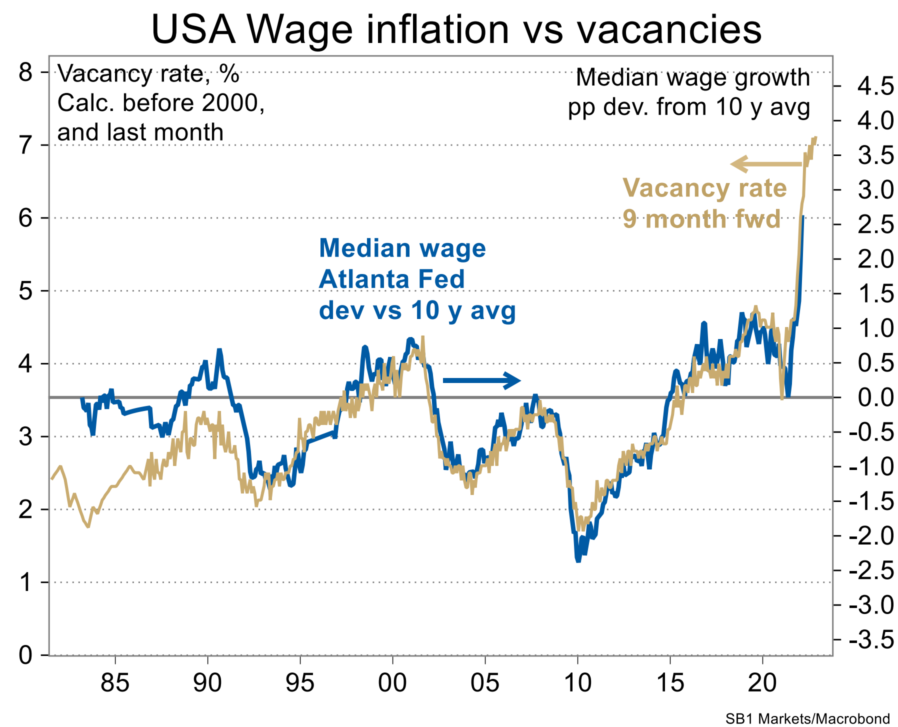


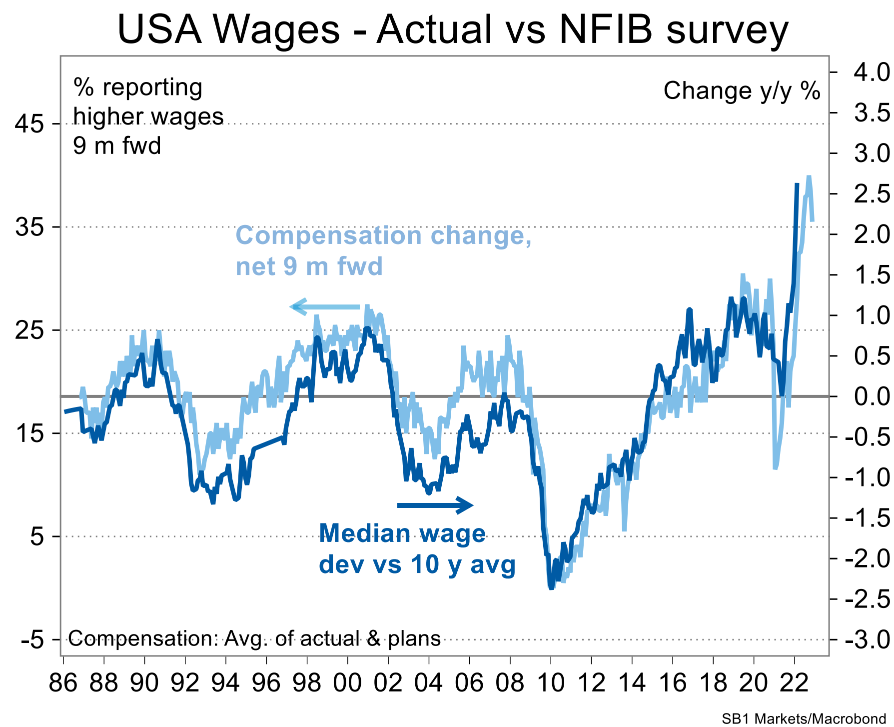


- Over the past 2 years, the median wage is up 4.6%, far above the normal wage growth in the US recent years – which have yielded an average rate of inflation at 2% at the best (and now far more than that)
  - » Wages are accelerating the most among the lower paid
- **All wage indicators** are reporting faster wage growth, and all reporting wage growth well above the average recent years, also if we apply a 2-year average growth rate, to exclude the impact of changes during the first part of the pandemic (chart to the right)
- Growth in wage/earnings/compensation indicators are up 1.5 – 3.5 pp vs the their respective 10 y averages. There is an obvious risk that wage inflation will accelerate further (check the following pages) – probably until the next recession hits as the labour market is extremely tight
- Over the past 10 years, inflation has been close to 2%, and well above 2% if calculated over a shorter period
- It will be a 'challenge' to keep inflation at 2% if wage inflation remains at 5- 6 %. Productivity growth has not accelerated by much. Profit margins may take a beating – and they very likely will – but probably not sufficient to bring inflation down.

There seems to be a connection here??

The correlation between the vacancy rate and changes in median wage growth is extremely tight

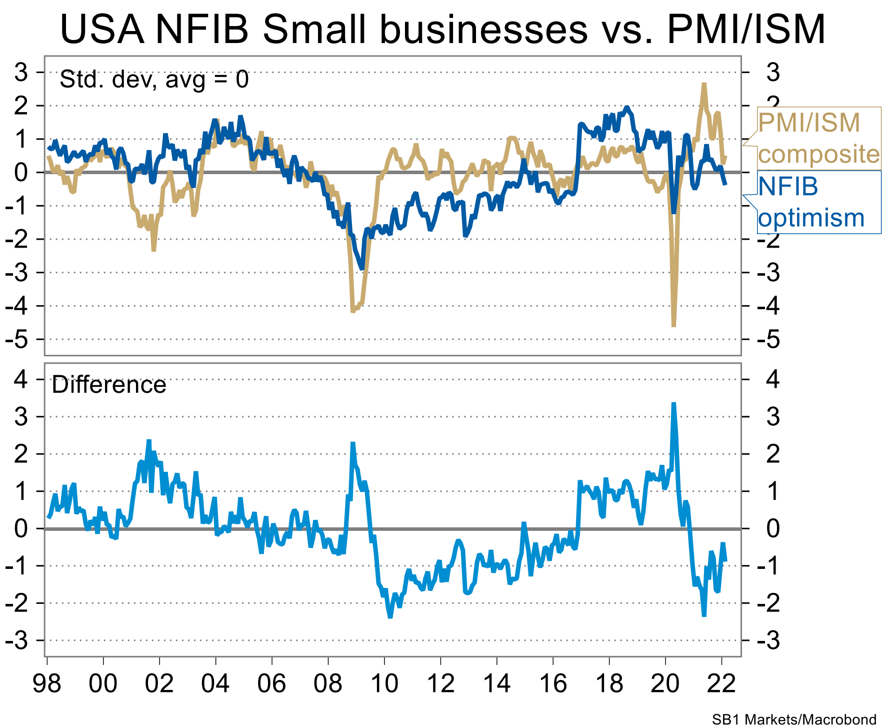


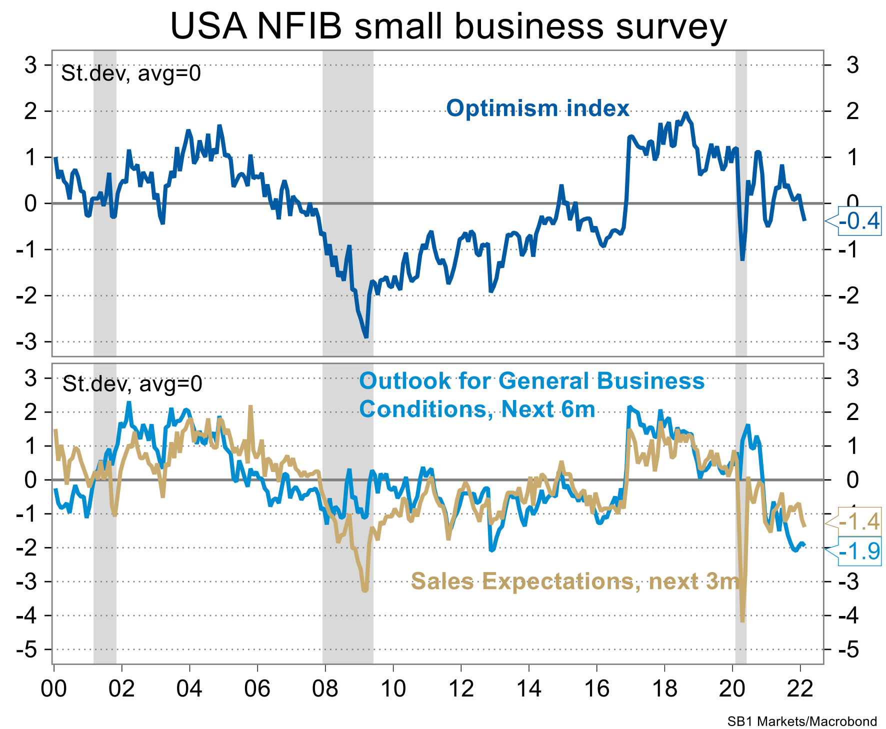


- Our ‘Phillips curve’ signal a further increase in wage inflation the coming quarters, the vacancy leads changes in wage inflation by 9 months
- In addition, an unusual share of companies reports they have lifted compensation and that they plan to do so the over next months as well. The correlation changes in actual wage growth is not that bad (again with a 9 month lead)

Small businesses optimism further down in February – but not far below avg

Sales are still very strong but expectations are weak, 'us usual'. Hiring plans down

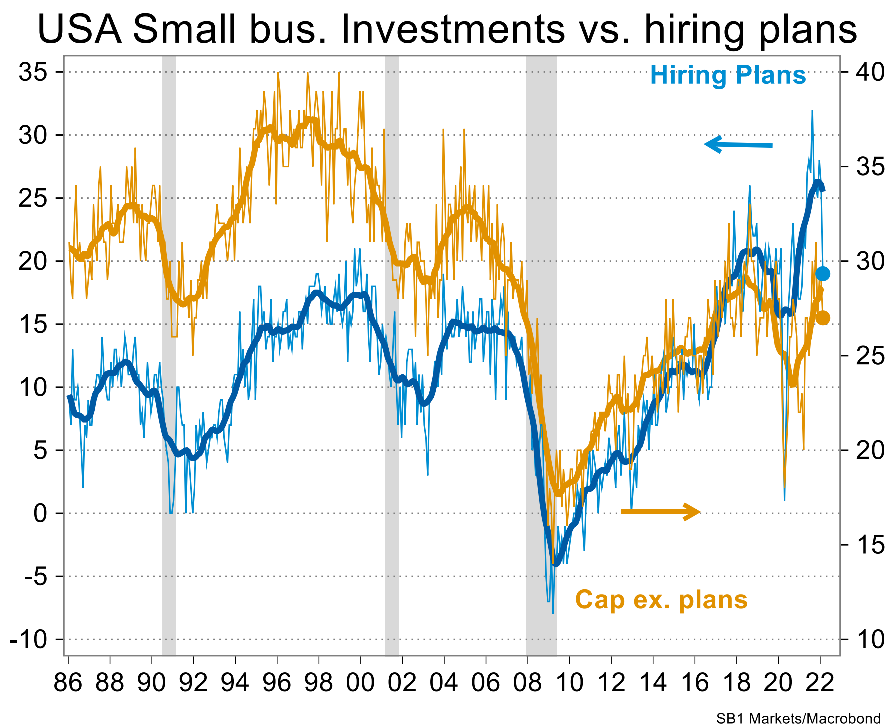


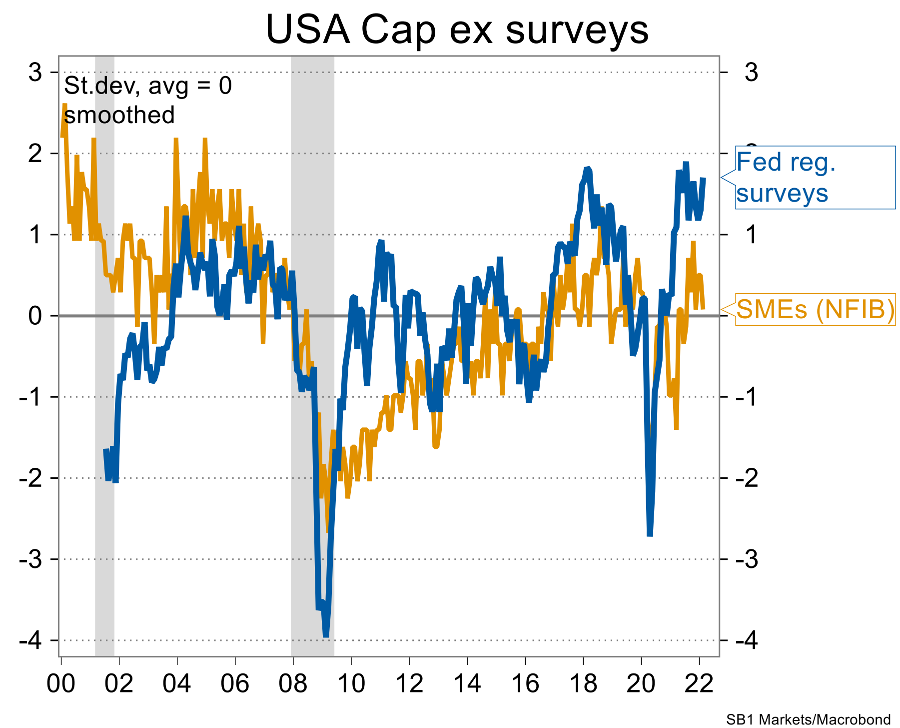


- The **NFIB optimism index lost** 1.4 p to 95.7 in February, expected up 0.2 p to 97.3. The index 0.4 st.dev below average. The distance up to the average of PMI/ ISMs has been reduced, as the latter have fallen faster than NFIB optimism
- **The outlook for the next 6 months** fell slightly at remains weak, at 1.9 st.dev below par, close to all-time low, and well below the dark days of the Financial crisis. Lack of qualified labour, labour costs and inflation worries. 'Nobody' is complaining about current sales, and close to a record companies report they plan to lift prices further. **Investment plans** were revised down but remains a tad above an average level
- **Hiring plans** were cut back in February, but remains far above normal levels. Even so, somewhat more SMEs were not able to **fill their vacancies.** An usual large share of companies report planned further **compensation increases**
- The share of companies **planning to lift prices** fell slightly but remains at a level not seen before this cycle

The SMEs cut sharply back on their hiring plans – but they remain far above avg

Investment plans are above average too

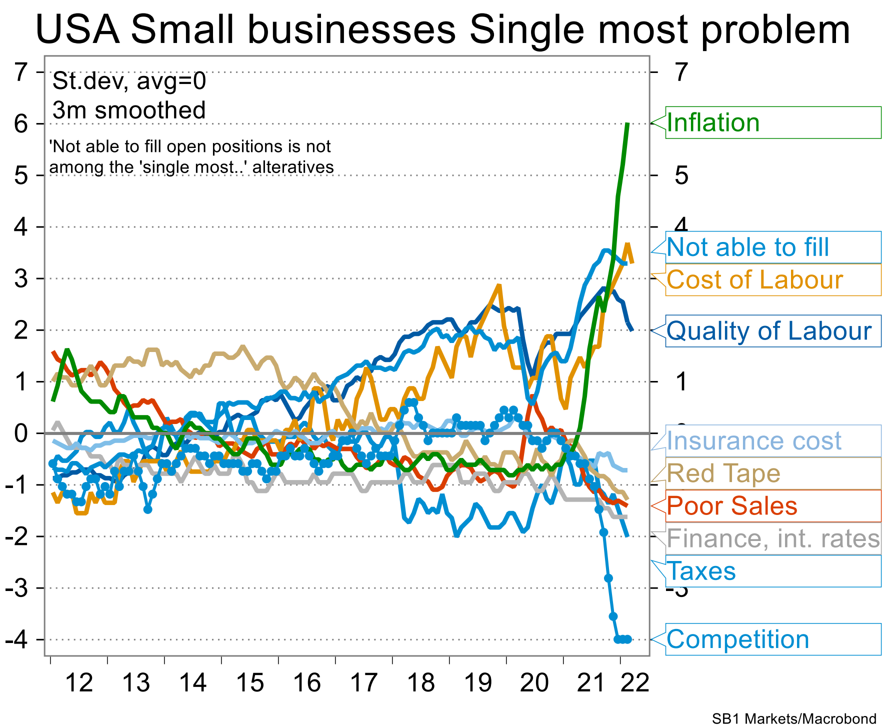


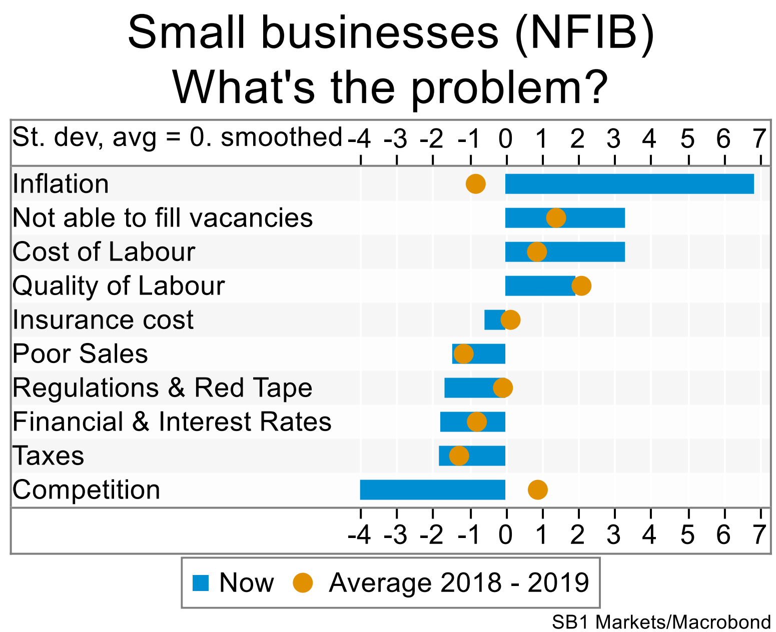


- Other investment surveys are still more upbeat than the small business survey – and they were – in average – strong in January

Record few companies complain about poor sales & competition from large companies

Some easing of labour shortages/quality – but still extreme. And inflation, even if they are 'selling it'



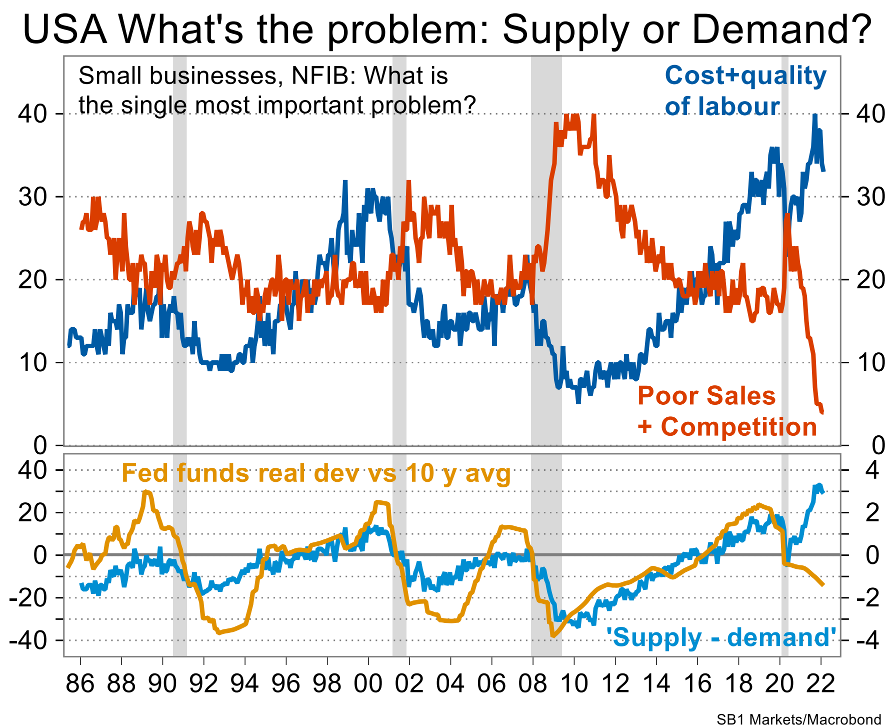


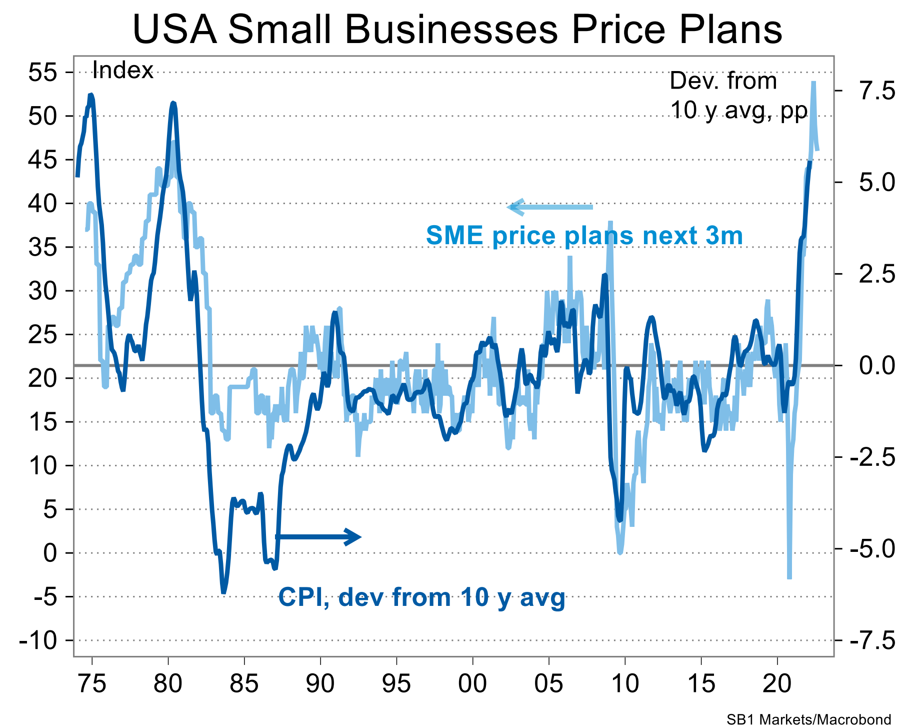
- Thus, companies still report they are constrained from the **supply side**, not from the **demand side**
- In addition, **inflation** is now quoted as the most important problem for the SMBs. However, the SMBs themselves are making the problem even larger – more companies than ever before plan to increase their selling prices ☺

In the charts above, we have included the 'Not able to fill open positions' data from the survey, but this is (rather strangely) not an alternative in the single-most-problem question in the survey. We still show it at the chart

Sales are fantastic, labour supply is still the challenge

Even so, some fewer companies report that they plan to lift their selling prices

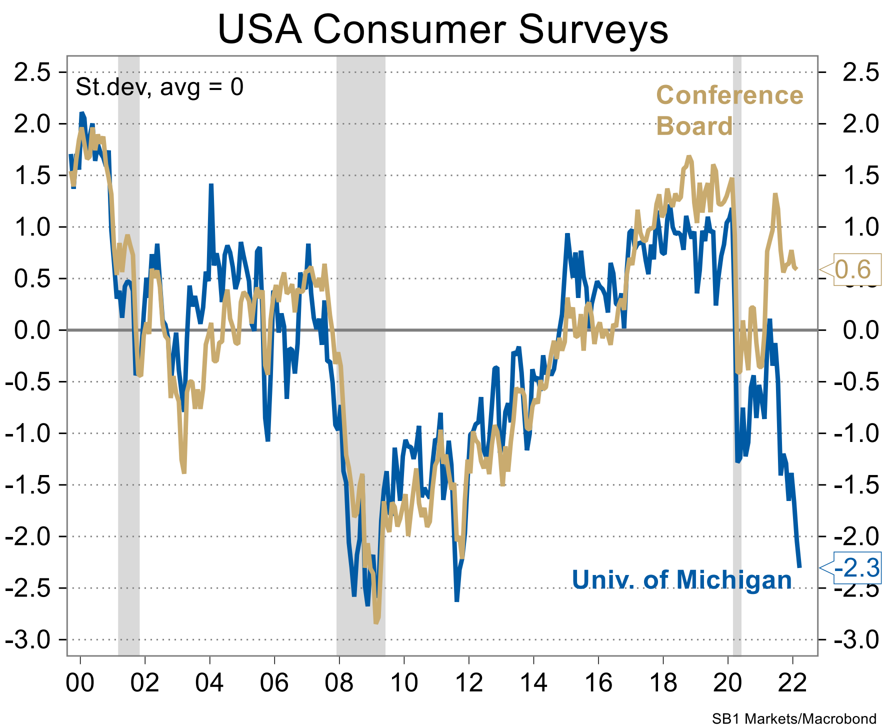




- The share of SMEs that plan to hike their **selling prices** fell 2 pp, but the share, 47% is an extreme print, check the chart to the right!
- The **'demand surplus'** has widening from a high level since early 2021 –and the Fed's will start the tightening campaign now, far later than normal vs the cycle – '*the bank is far behind the curve*'

Univ. of Mich. consumer sentiment sharply down in early ~~February~~ March too

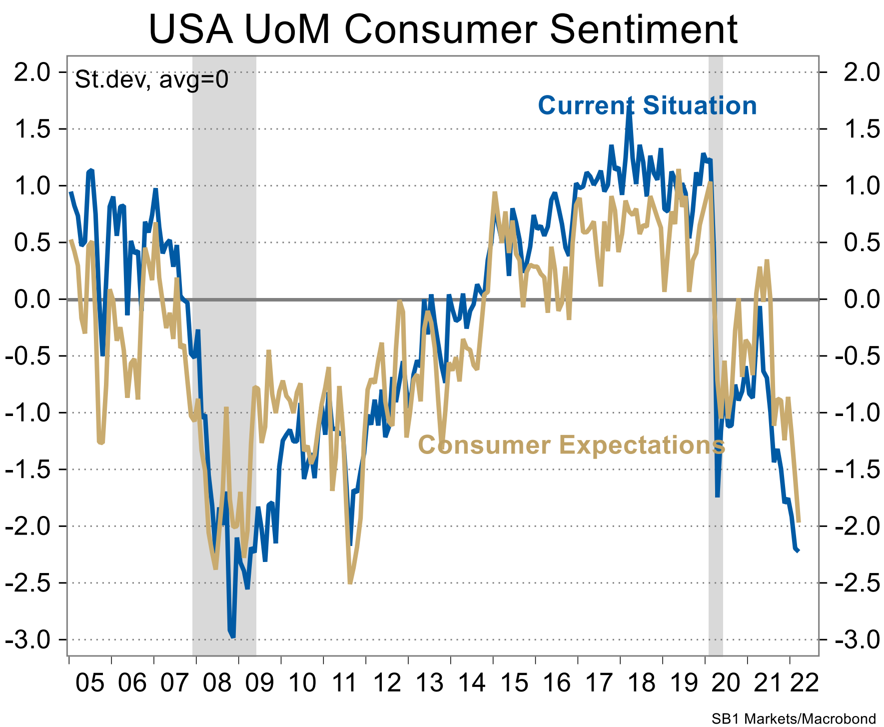
Inflation is a major concern, for good reasons. Still, sentiment is far below any fair 'model estimate'

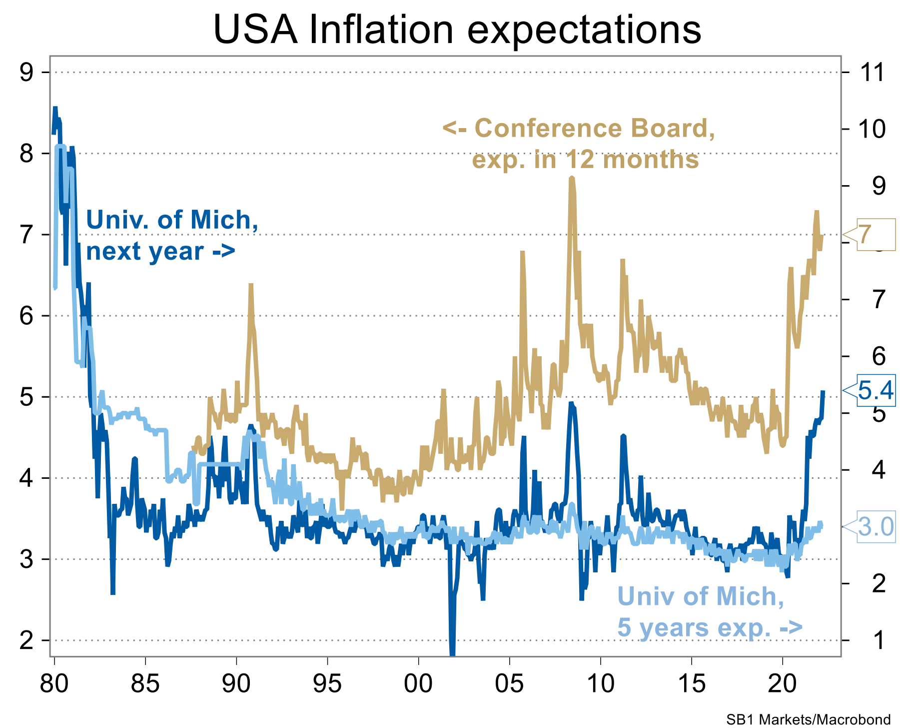


- **University of Michigan's consumer sentiment** index plunged fell by 2 p to 59.7, expected up 0.3 p to 62 - equalling -0.3 st.dev to -2.3, among the lowest levels on record
  - » Both households' assessment of the current situation, and their expectations declined, and are at very low levels
- **2 of the other 3 consumer surveys** we are following report a confidence level far below average levels. Just Conference Boards measure is still above average (at +0.6 st.dev) in February
- Sure, inflation is a HUGE worry, the stock market is wobbling (but still at a high level), and mortgage rates are on the way up (but are still at a low level). Even if some flags are red, it is not possible to explain the current extremely bad mood among households by any standard model. The war in Ukraine and the recent hike in gasoline prices may explain the drop in sentiment in March but not the low level in February
  - » Unemployment is close to record low, and the housing market is going strong. Covid is not included in the model, but the pandemic is on a rapid retreat in the US too
- The risk: The UM survey often has been an early bird in the cycle, and the survey may be 'right'

Univ of M: The current situation is really bad. Really? Expectations weak too

Inflation expectations sharply up, but just for the coming year

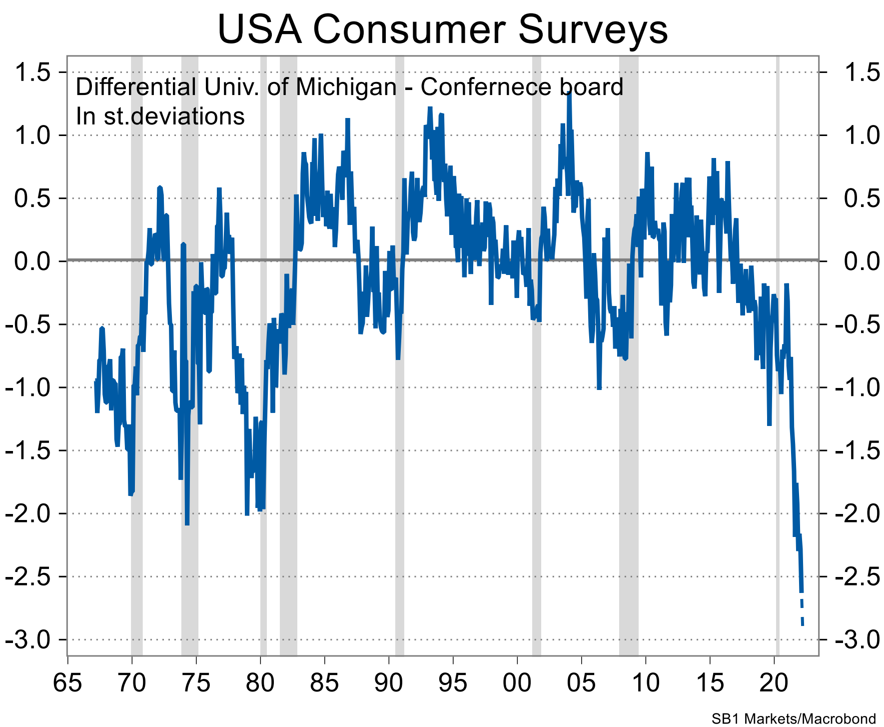


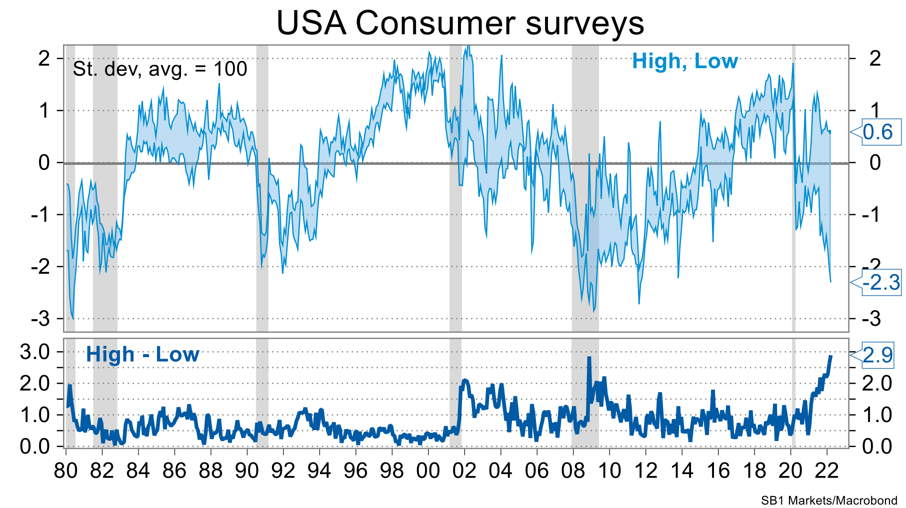


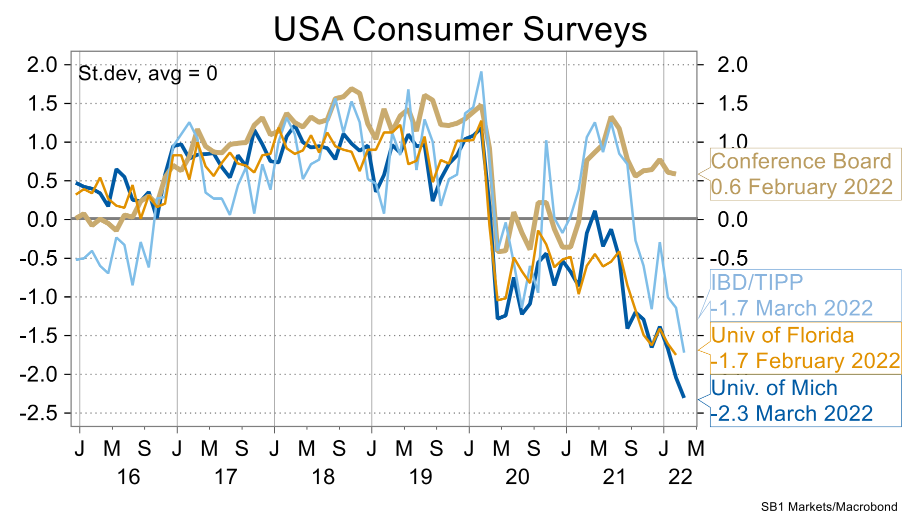
- The 12 m inflation f'cast rose 0.4 pp to 5.4%, the highest level since 1983.
- The 5 y inflation expectation was unch at 3%, clearly above the average over the past 10 years – but not much higher than several times during the 2005 – 2012 period

The gap between Conf. Board & Univ. of Mich unprecedented

However, two other surveys are very downbeat as well



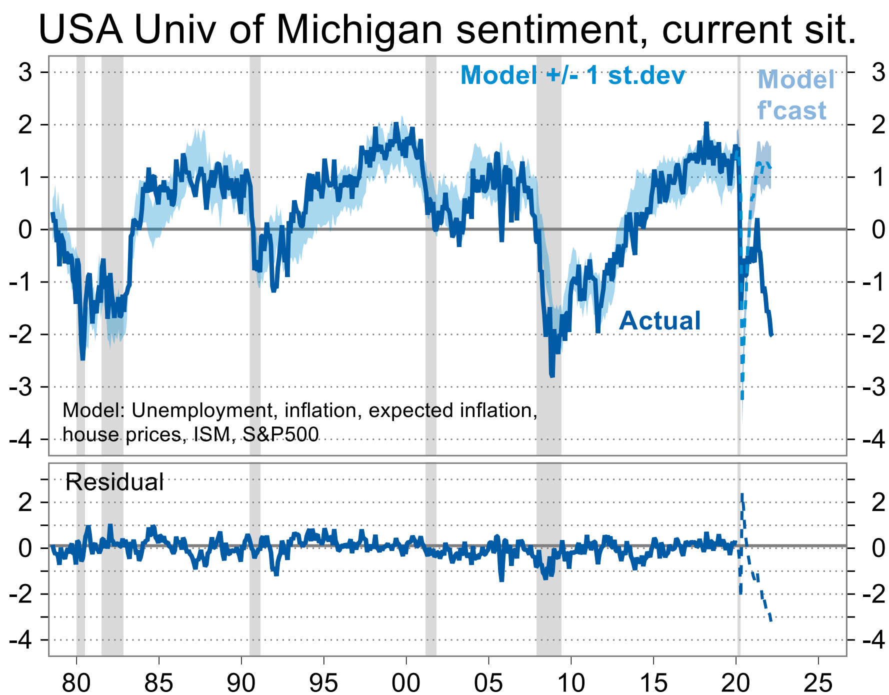


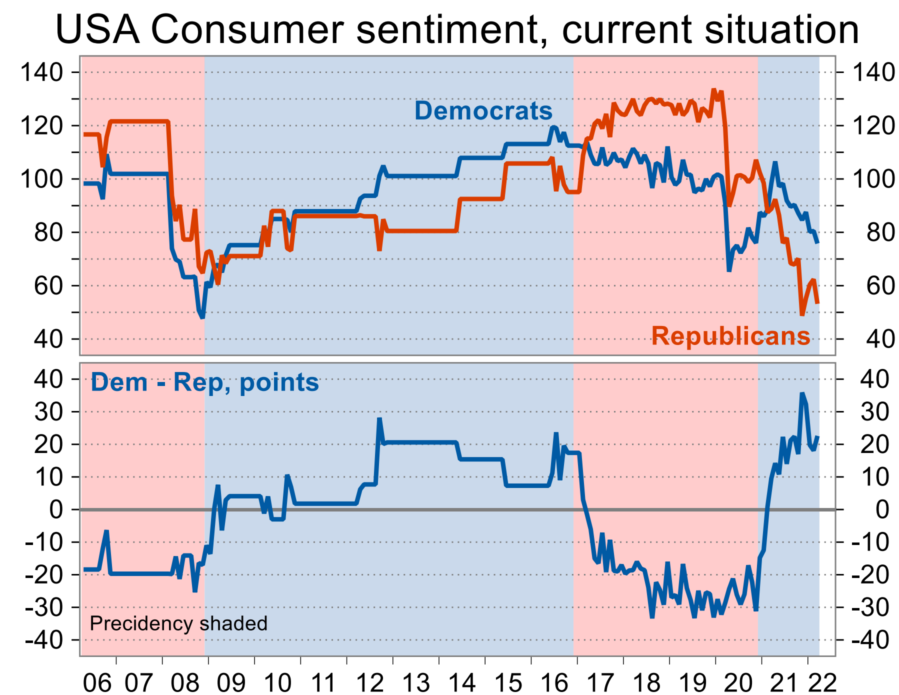


- Quite often, the UM survey has been the canary in the mine vs. recessions, it yields earlier than Conference Board's survey, and the current stance is a bad sign
- Still, as the virus is now at the retreat, there are not many other arguments for an imminent recession, and it will take time for the Federal Reserve to create one. Angst for a war at the other side of the Atlantic – or higher gasoline prices – are probably not sufficient either
- Both the IBD/TIPP, and the Univ. of Florida surveys were 1.7 st.dev below par in February, and both are declining at the same speed as the Univ. of Mich survey The Conference Board survey was 0.6 st.dev above in February

Households should have been quite happy by now, even if inflation is high

Outside the model: The pandemic – but that treat faded in early February

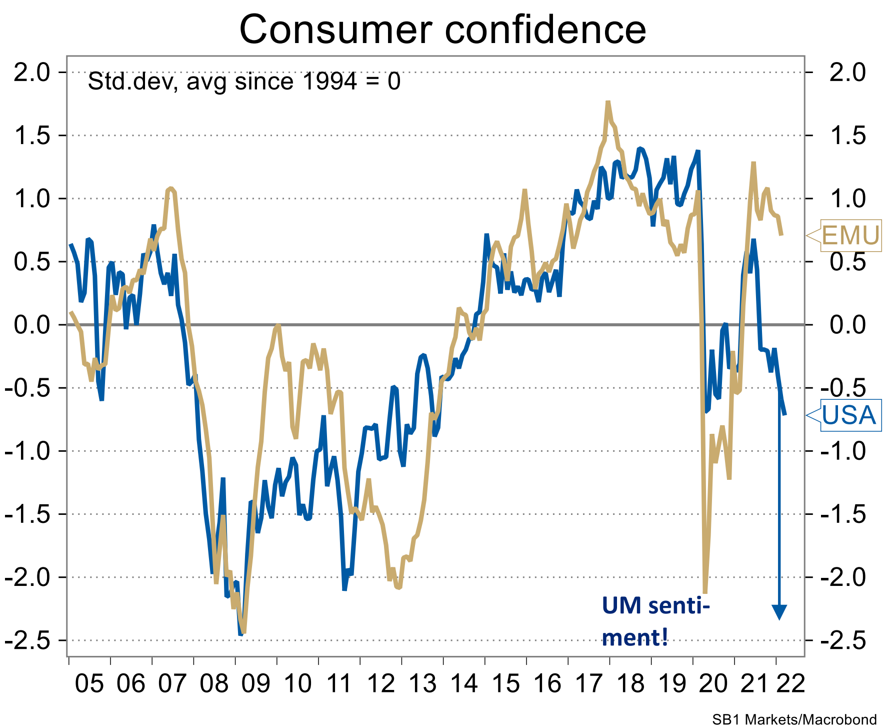




- **Our simple model** explaining the current situation part of UM's sentiment survey has worked pretty well, explaining all important ups and downs by standard economic indicators
  - » Unemployment, inflation – both actual and expectations - growth (ISM), the stock & housing markets, all contributing significantly with the 'right' signs. The deviation in the early phase of the pandemic is due to the unusual developments in our lives, in the economy at markets
- However, given the normal drivers, <u>the UM sentiment should have been far above an average level now</u> – even if both actual and expected inflation is far above normal – the other drivers should have more than compensated for the drag from inflation (like unemployment, the housing & the stock market
  - » We can not blame overly pessimistic Republicans too much either (they are very negative but not more so the recent months)

… and why are the (Continental) Europeans so happy??

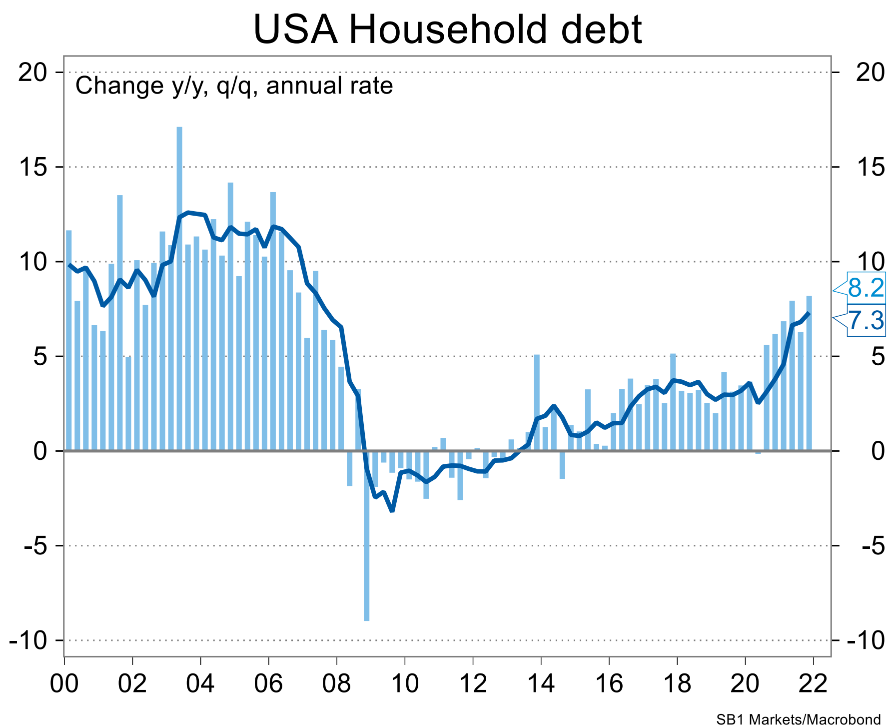
The gap between consumer confidence in Europe and the US UM survey is unprecedented, by far

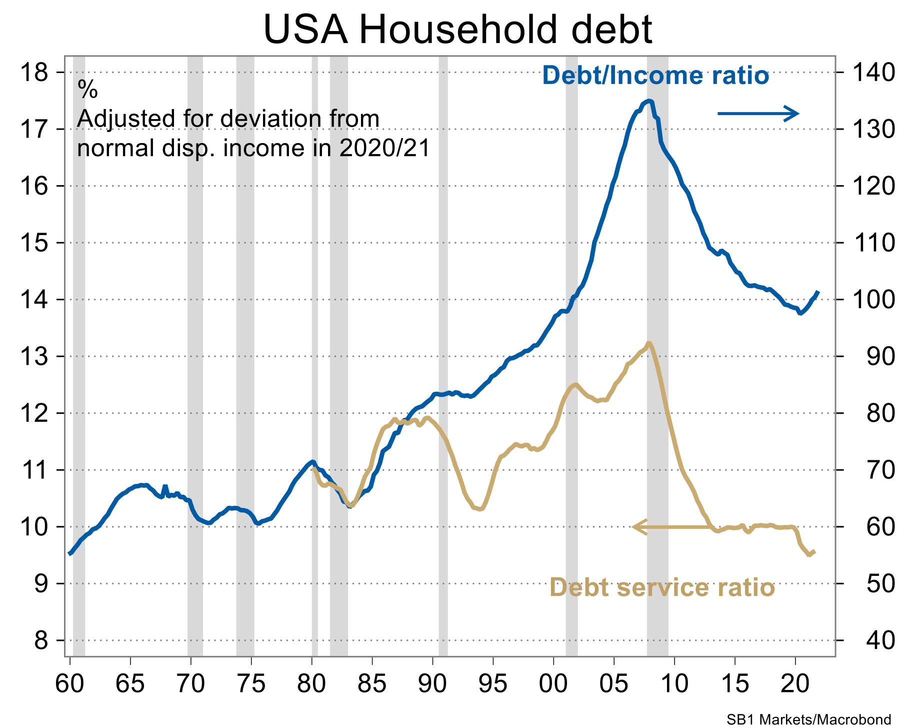


- **Inflation** is sharply up in the Euro zone too
- **Unemployment** is low in both EMU and in the US
- **House prices** are up in the EMU, but far less than in the US
- **Stock markets** have been less upbeat in Europe than in the US
- *Still, the **Americans** are in a much weaker mood than Europeans. How come??*
- Well, March may tell another story, the war in Ukraine may dampen confidence in Europe – if so, for good reasons

So low rates do have an impact? Household credit growth has accelerated

The debt/income ratio is growing again, though from far below the pre-financial crisis level



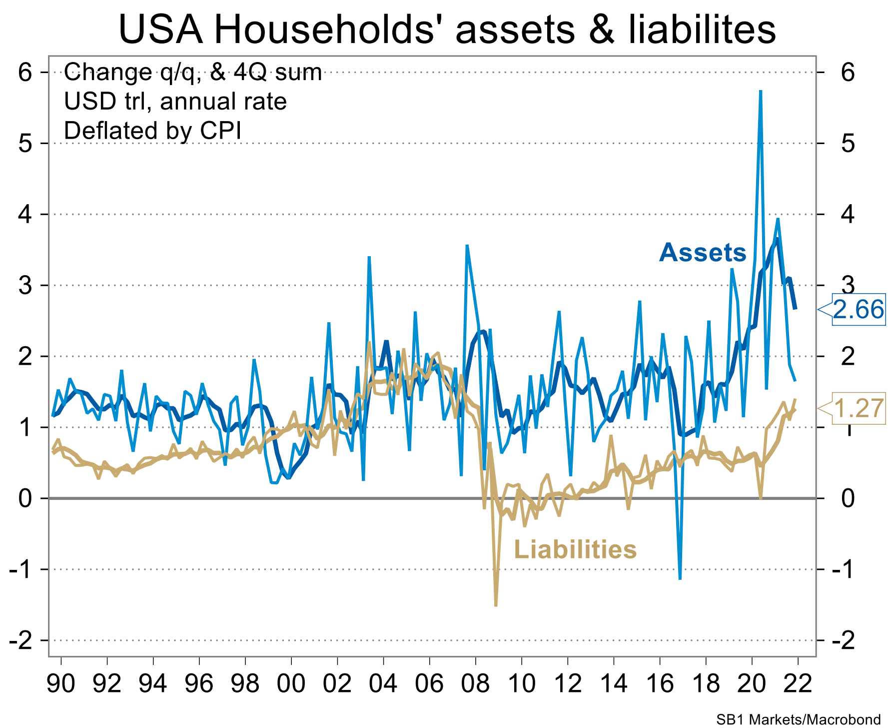


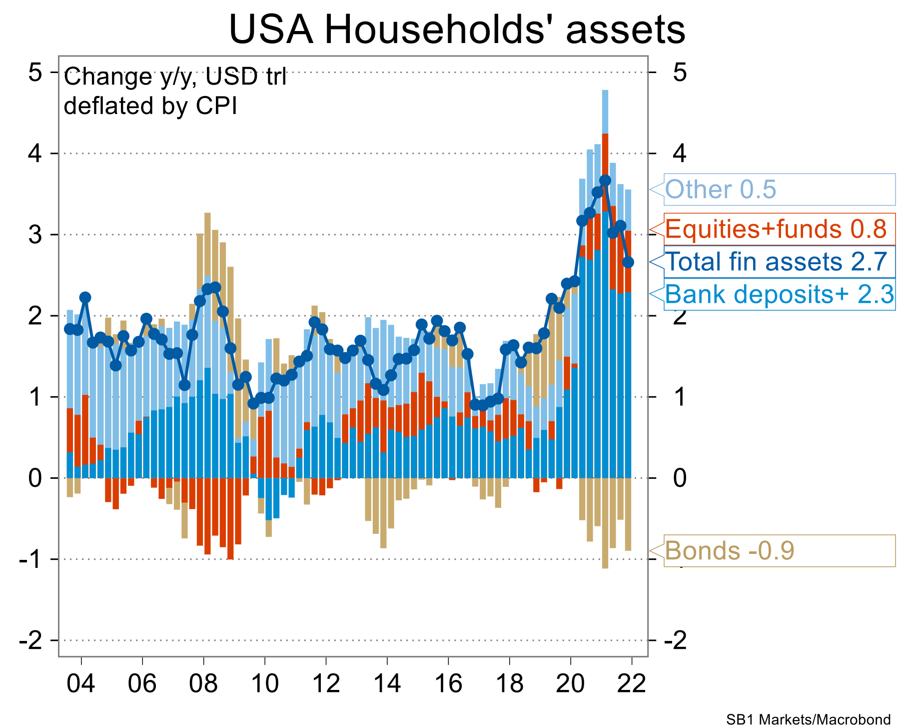
- Households have reduced their **debt burden** in an unprecedented way past 12 years – until Q1 2020
  - » From Q2-20, growth in household debt has outpaced income growth (adjusted for the income impact of the pandemic)
- In Q4-21, **debt** grew at a 8.2% pace, up from 6.3% in Q3 – which was the highest growth rate since 2007, up from 3% in the years before the pandemic. In the years before the financial crisis, debt grew by some 12% per year over several years (2003 – 2006)
  - » The more than a decade long consolidation period from 2007 was the toughest ever, in US. And the initial turn-around almost killed the economy, when credit demand (and supply) collapsed in 2008
  - » Now, the debt/income ratio is at low level – no reason to worry. (Norwegian households entertain a debt to income ratio that is twice as high)
- The **debt/income debt service ratio** is record low, due to the low mortgage rate. However, as mortgage rates are on the way up, alongside the increase in debt ratio

SpareBank 1 MARKETS

Flow of funds: Growth in financial assets back to normal

As debt growth is well above a normal level

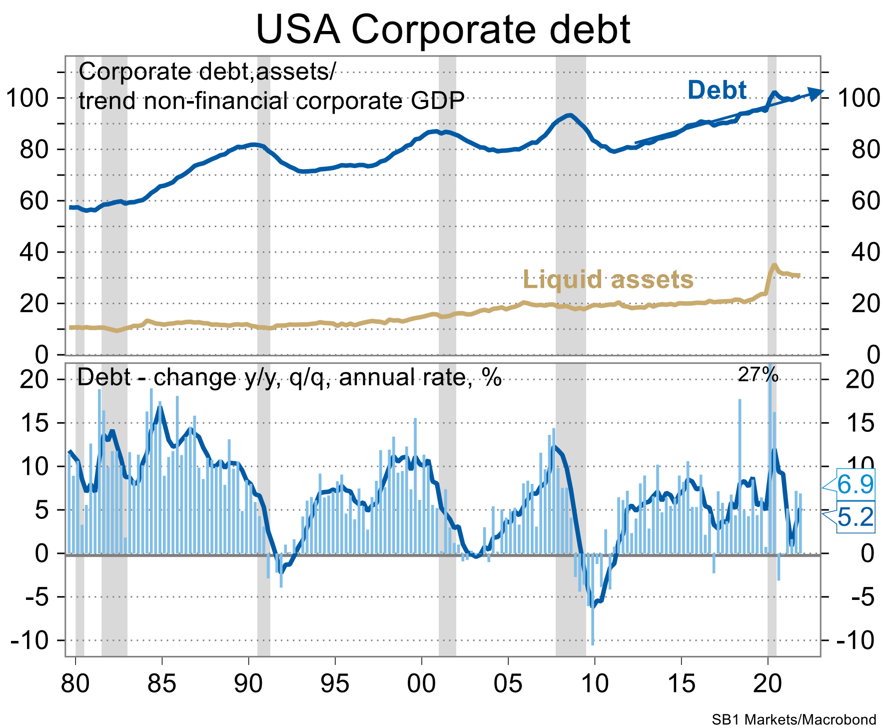


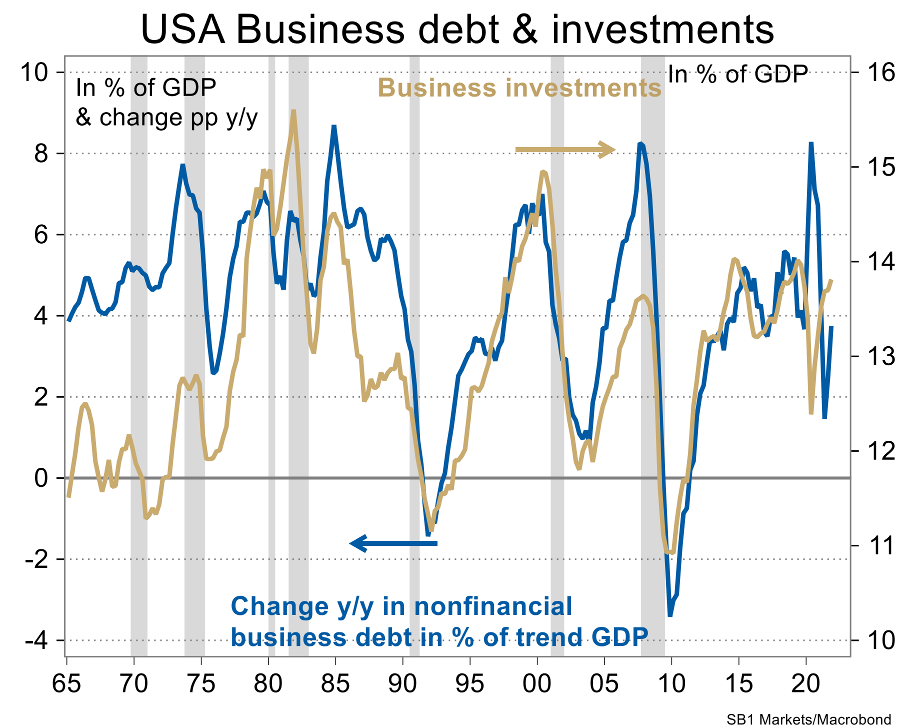


- **Households have increased their financial assets <u>through transactions</u>** by USD 2.7 trl through 2021, twice the 'normal' rate but down from 3.6 bn in early 2021. In Q4, growth in assets was back to a normal level. During the pandemic, savings exploded. Now the <u>savings rate</u> is back to a normal level
  - » **Bank accounts** have swelled by USD 2.3 trl, or by 85% of the total (net) increase in assets over the past year. Normally, bank deposits grow by some ¾ trl per year!
  - » Over the past 4 quarters, households have bought **equities and fund shares** for USD 0.8 trl (net), slightly down from the peak! In Q4, net investments equalled just 0.15 trl (annual rate)
  - » Households are still selling **bonds** at a close to unprecedented pace by USD 1 trl. Are bonds not an alternative??
- Growth in assets is partly supported by a much faster growth in debt (the balance sheet is boosted, check the chart above)

Corporate debt growth on the way up again? Debt up by 7 – 5%

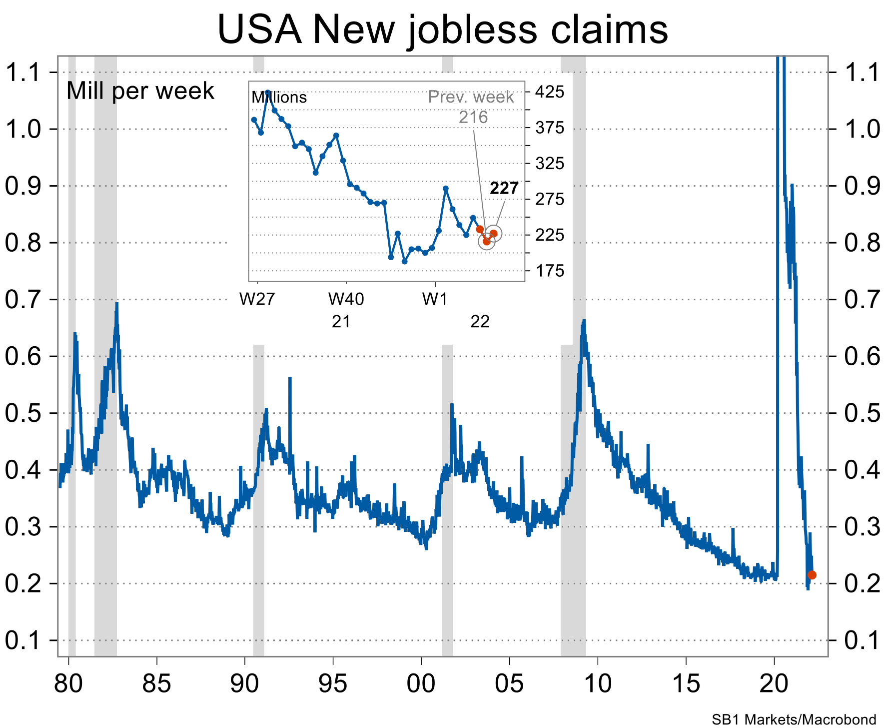
The debt level is high – but so is the level of liquid assets too ☺

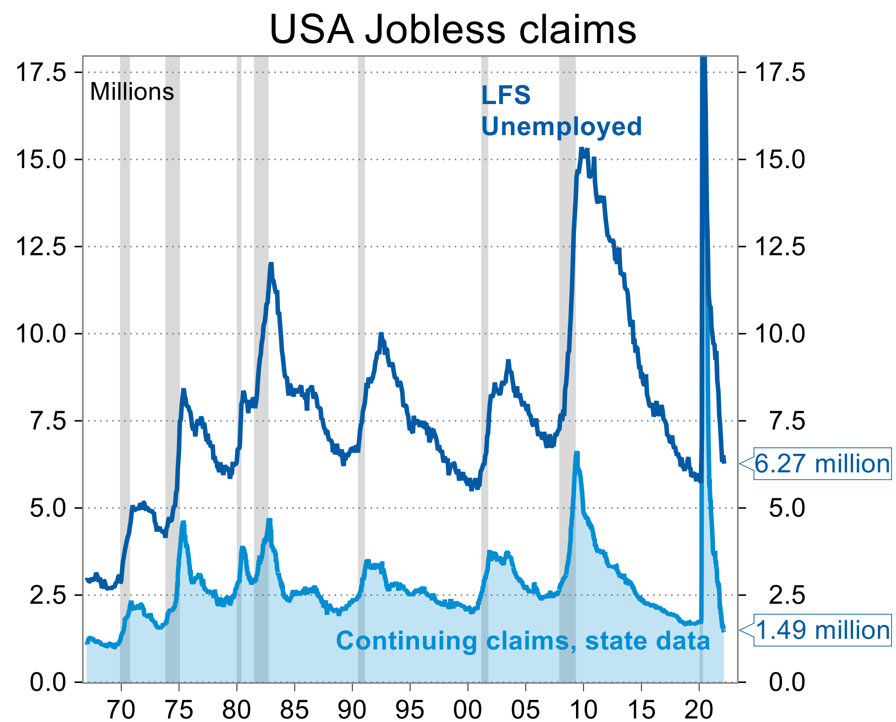




- **Corporate debt** rose 6.9% (annualised) in Q4, up from 6.3% in Q3. Measured y/y, debt is up by 5.1%, which is not that high vs. previous peaks. The corp debt/GDP ratio is close to the long-term trend
- On the other hand, companies have also increased their **liquid assets** sharply since before the pandemic, to the highest level ever. However, the level of liquid assets is not shrinking, at least in % of corporate GDP
- **In sum:** Companies still have some capacity to further lift their investments – even if the profit cycle turns south

New jobless claims down last week – and very few left on the dole

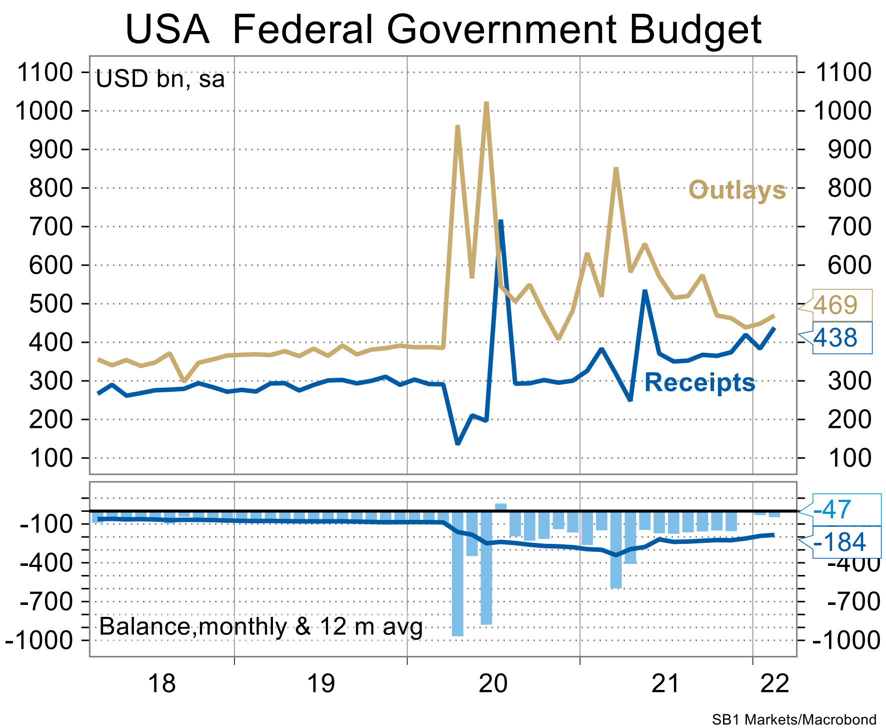


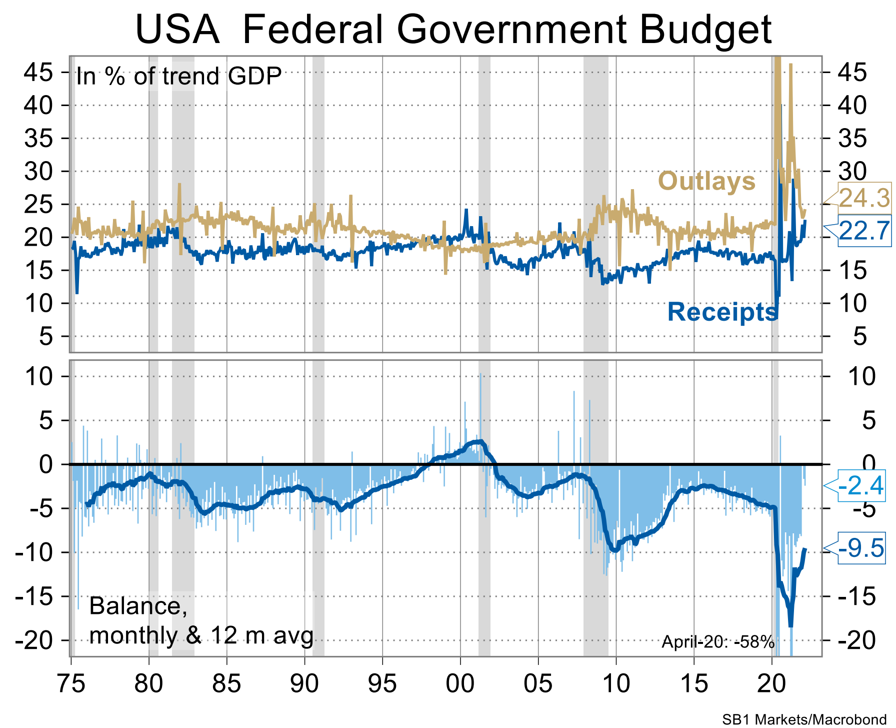


- **New jobless claims** rose marginally to 227' in week 9 from 216' the previous week. The inflow is low – however somewhat above the level late last year
- **Ordinary continuing claims** added 25' persons in week 8, at 1.49 mill, very close to lowest level since 1970 (the previous week), and as share of the labour force, the lowest ever, by far

The budget towards… ‘balance’?

The deficit has fallen below 3% the past 3 months. A substantial fiscal tightening underway

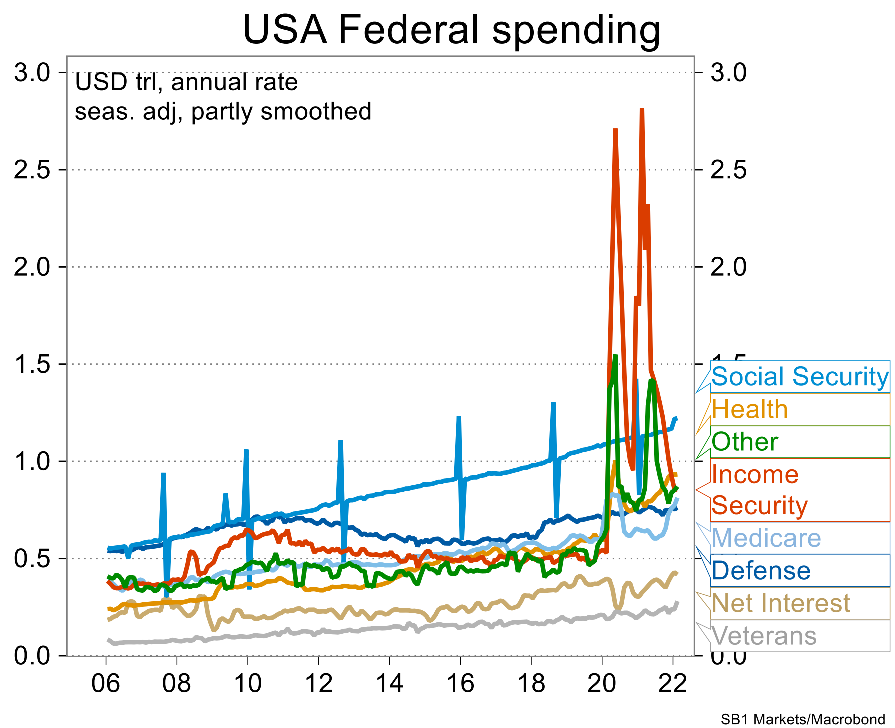


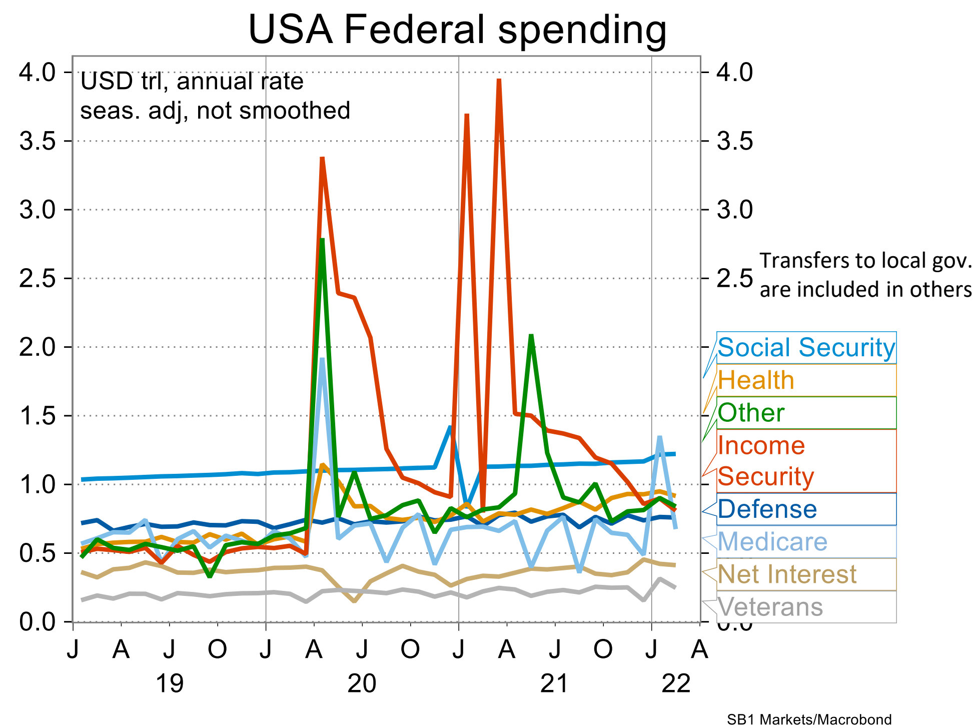


- **Federal expenses** are gradually declining as pandemic programs are scaled down. Spending equalled 24.3 of GDP in Feb, still higher than the 21 – 22% pre-pandemic level
- **Federal receipts** have recovered sharply since last summer, due to robust growth in GDP and employment. Revenues equalled 22.7% of GDP, which is <u>far above the pre-Covid level</u> at some 17%
- The actual **deficit** was just USD 217 bn in Dec, as expected. The seas. adj deficit equalled USD 47 bn or 2.4% of GDP. Over the past 12 months the Federal deficit has equalled 9.5% of GDP. Before corona, the federal deficit was at close to 5% - in a booming economy

Income security & ‘other’ spending (much to states) are normalising

However, health spending is accelerating again, due to the fight against the virus, we assume

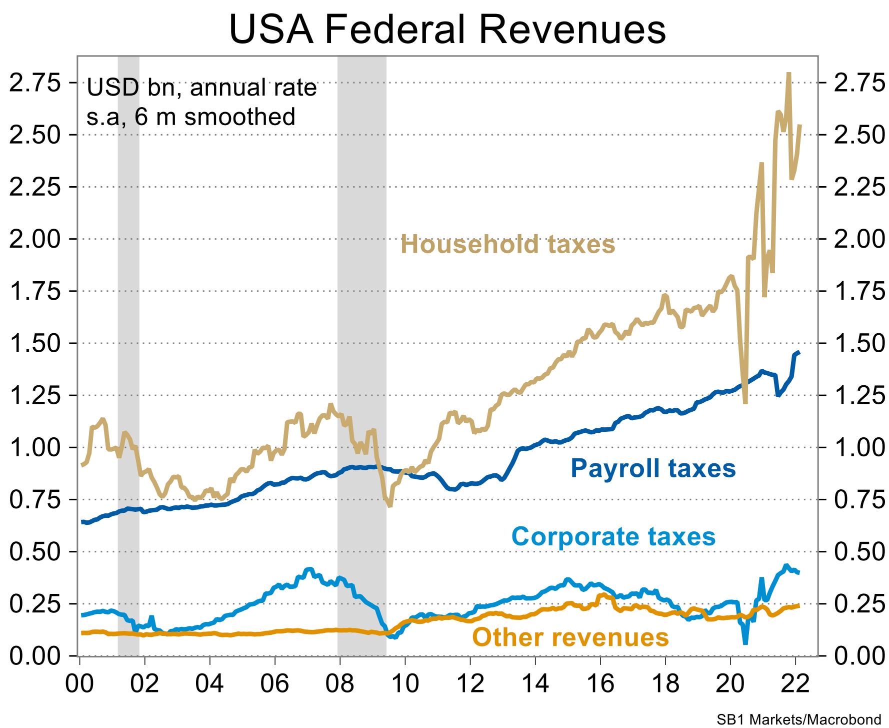


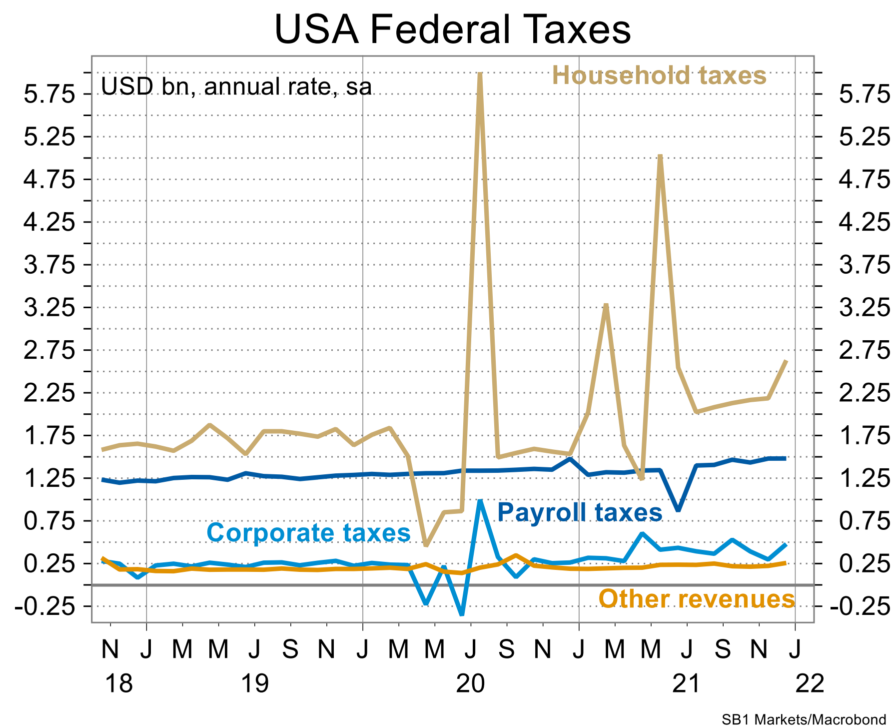


- Both Income security and ‘other spending’ are well above the pre-pandemic level. Health spending is up too
- We still deem most of this extra spending to be temporary and due to the stimulus packages, and other Covid related measures

Tax revenues have are significantly higher than before the pandemic

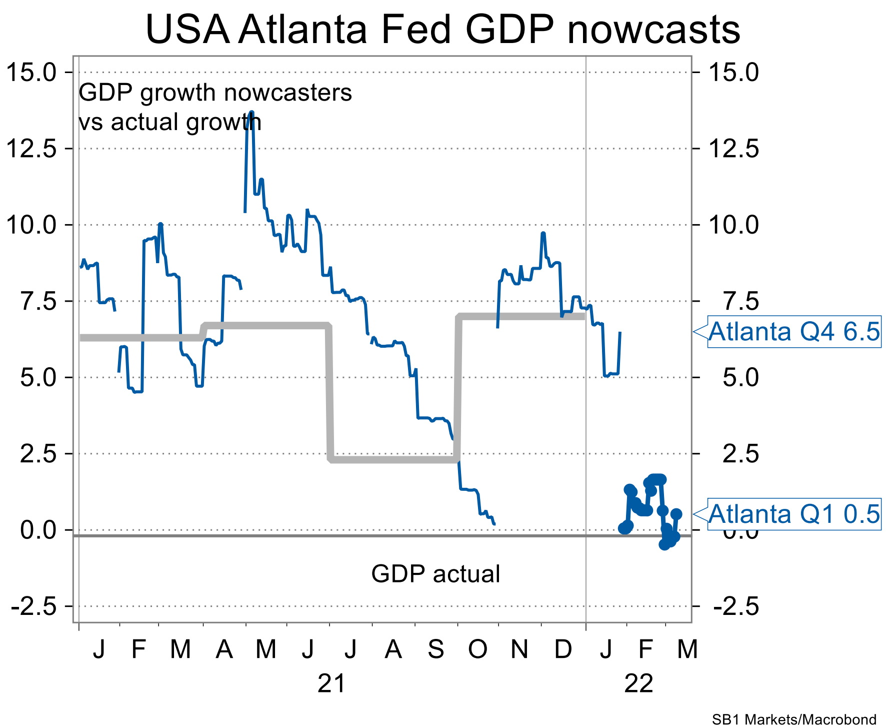
Especially taxes paid by household and corporates

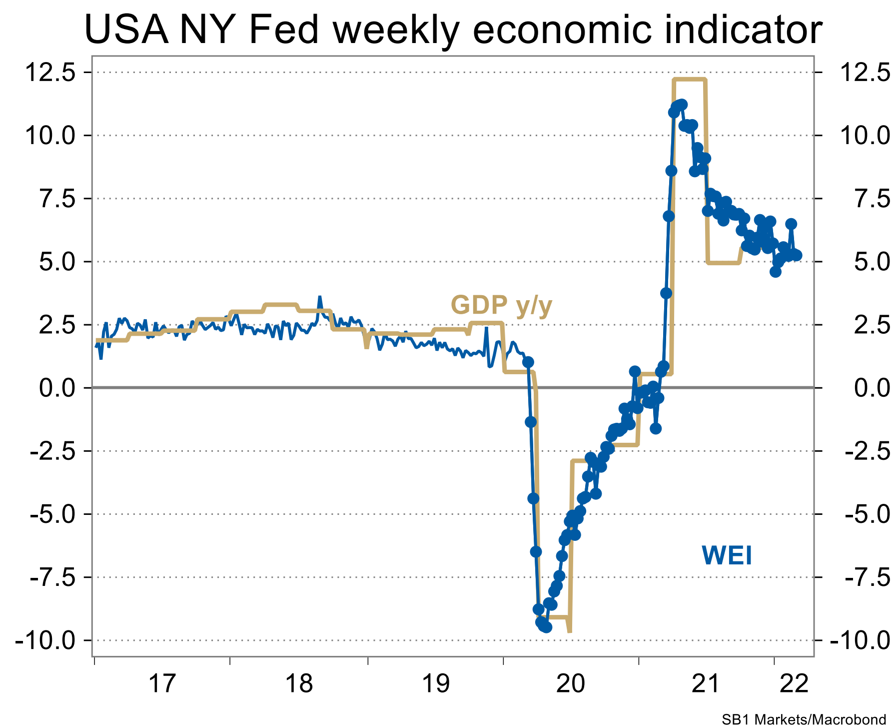




Atlanta Fed's nowcaster suggests 0.5% growth in Q1

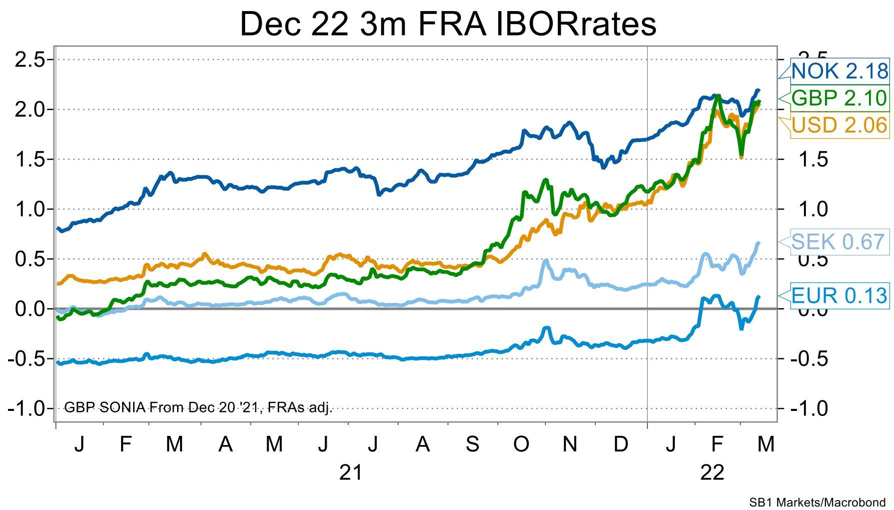
Net trade & inventories contributes at the downside, according to Atlanta Fed

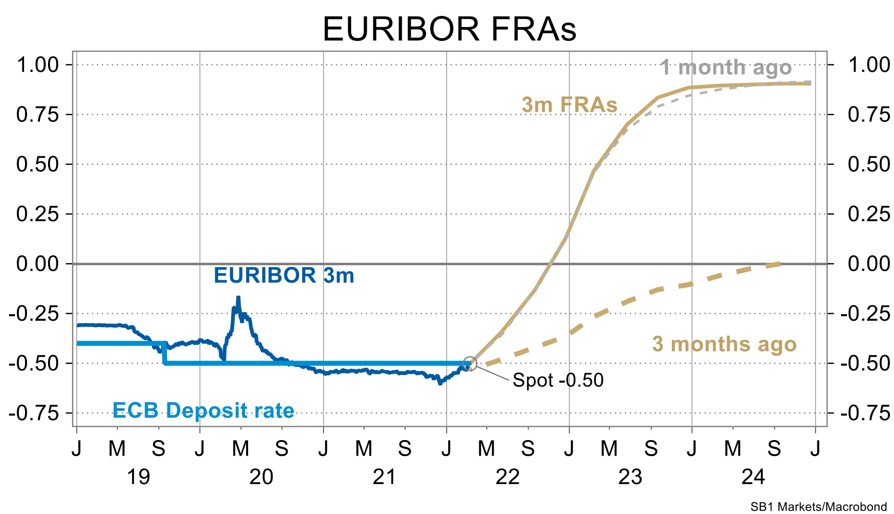




The ECB is more worried about inflation than growth

The bank surprised the market at the hawkish side, the ECB is expected to start hiking in Q3

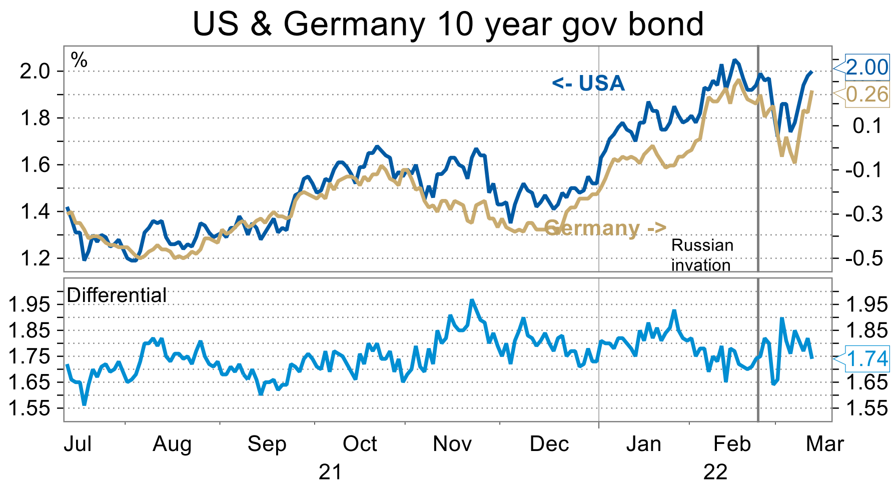


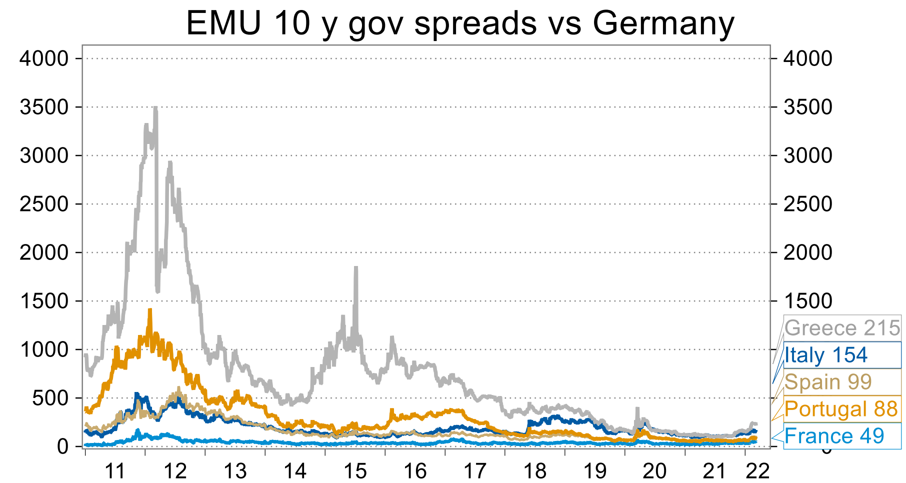


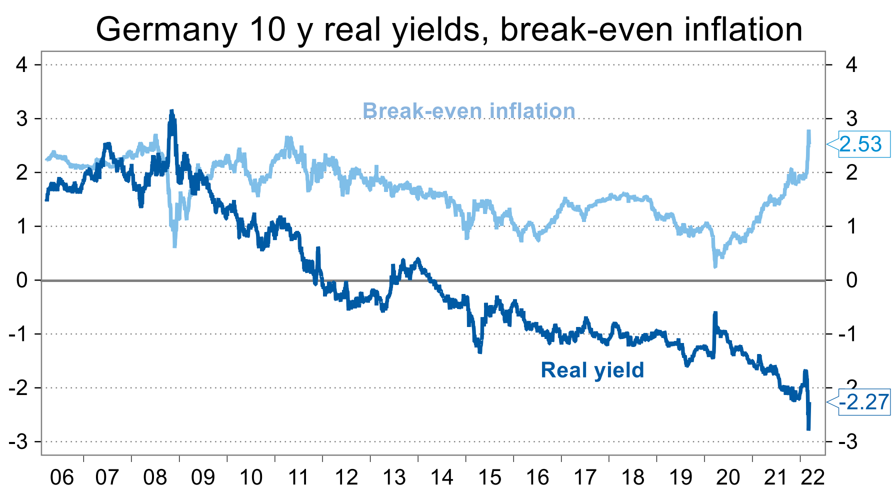
- **Policy decisions**
  - » The **repo rate** remains at -0.5%. The main QE program, the Pandemic Emergency Purchase Programme (PEPP) will halt its bond buying program in March – as decided in December and confirmed in January. The PEPP has acquired some EUR 70 bp/m since mid 2020
  - » The Asset Purchase Programme (APP) will – as previously decided – partially pick up the baton, by lifting its monthly buying to EUR 40 bn from 20 bn from April. However it will be scaled down from May (to EUR 30 bn), and further in June – and not from Q4, as so far has been signalled. If the inflation outlook allows, the bank may continue the APP program in Q3 (and possibly further)
  - » At the same time, the ECB signalled that the bank would <u>not</u> be obliged to start hiking the signal rate 'shortly after' ending the extra QE programs, as until now had been communicated as the standard procedure. <u>Thus, the bank gives itself some leeway vs when to start hiking the signal rate</u>
- **Higher inflation, lower growth**
  - » As expected, the bank revised its **inflation forecast** upwards, to 5.1% in 2022 from the 3.2% forecast back in December. Even so, ECB expect inflation to slow to 2.1% in 2021 and to 1.9% in 2022 – if rates are hiked in line with market expectations
  - » The corresponding **GDP forecasts** were revised down, to 3.7% from 4.2% in 2022, and to 2.8% in 2023 from 2.9%. An adverse (and even more a severe) scenario will yield lower growth, and far higher inflation
- **The market: A more hawkish ECB than expected**
  - » Money market rates rose by 10 bpd (Dec 22 3 m FRA), and <u>by 20 bps</u> (Dec 23)!. The market expect the ECB to hike by more than 50 bps before end of 2022. We think this is rather aggressive
  - » Bond yields rose 7 bps (the 10 y gov), and ended the week up 28 bps!!

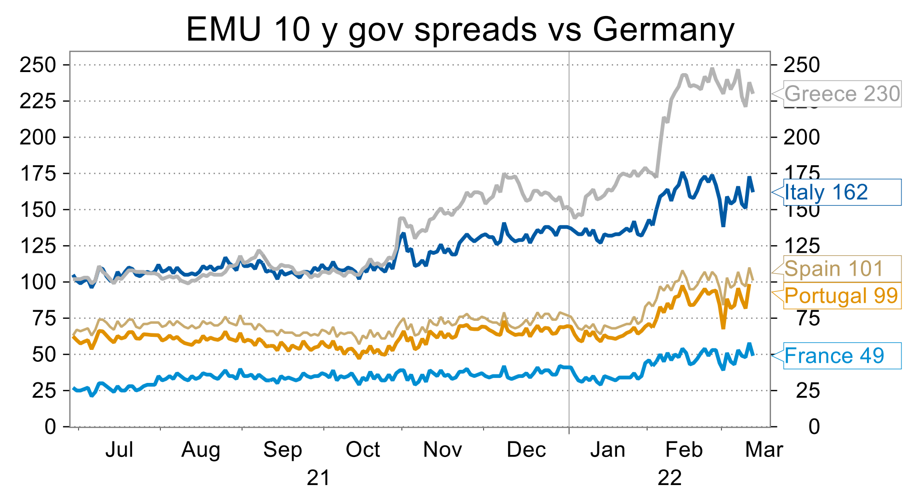
Nominal bond yields down, and then sharply up, also in the Euro zone

Quite stable spreads within the EMU





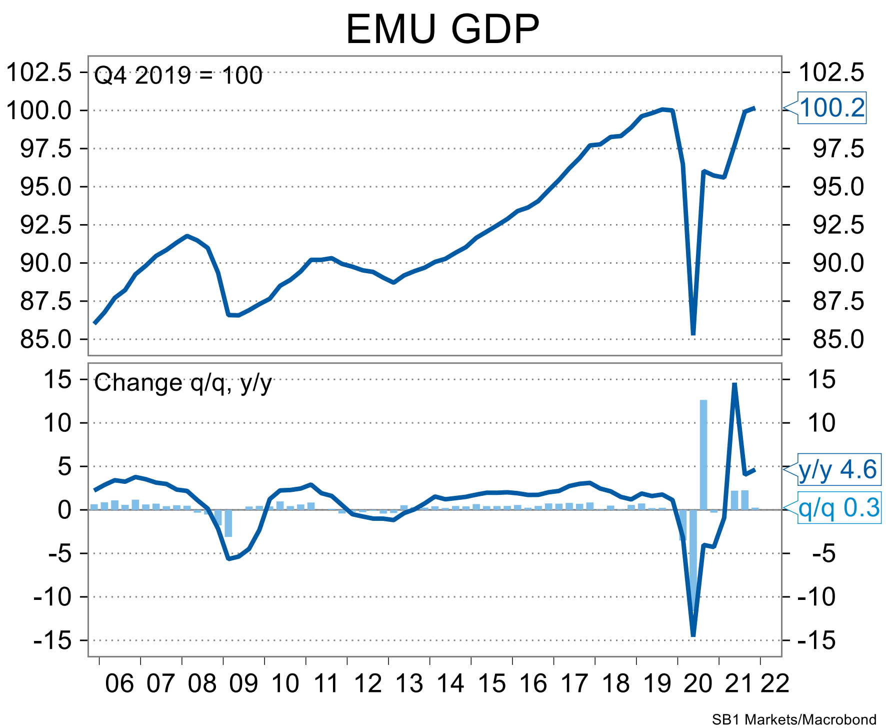


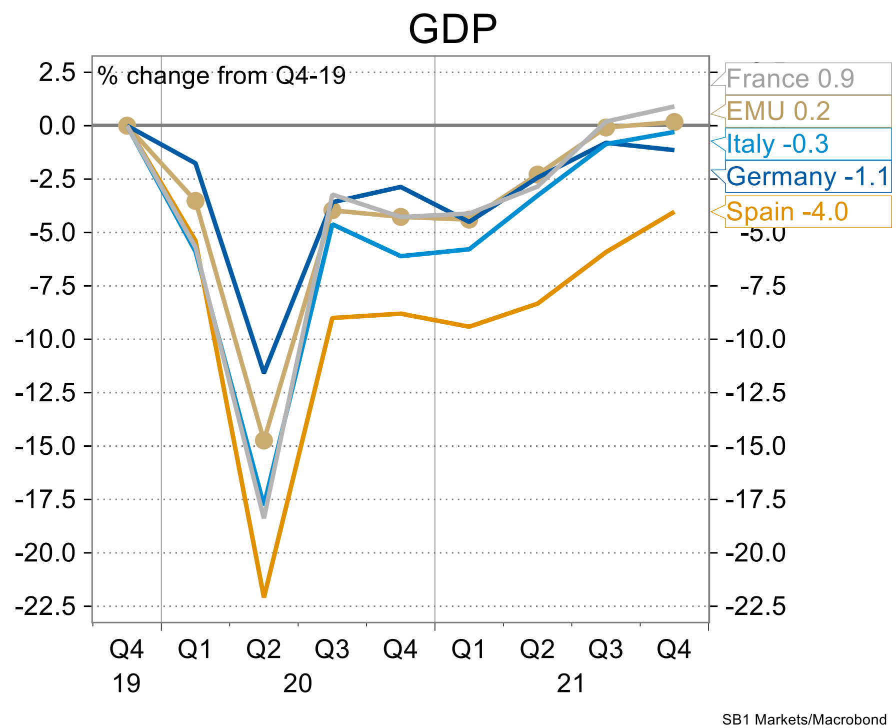


SpareBank 1 MARKETS

GDP confirmed up 0.3% in Q4 (1.2% annualised), 0.2% above the pre-pand. level

Germany down, the other big 4 up.

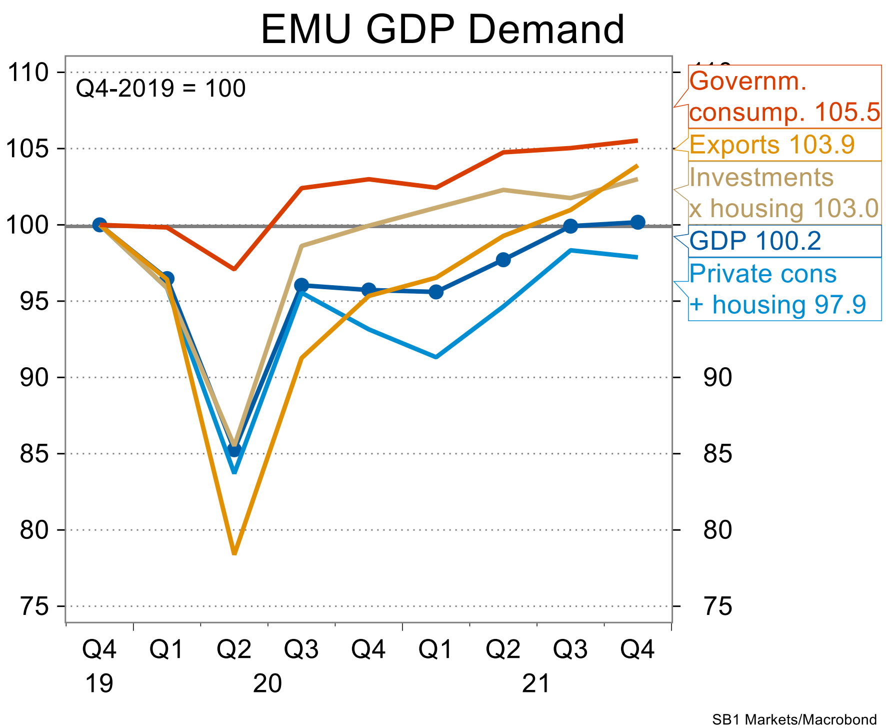


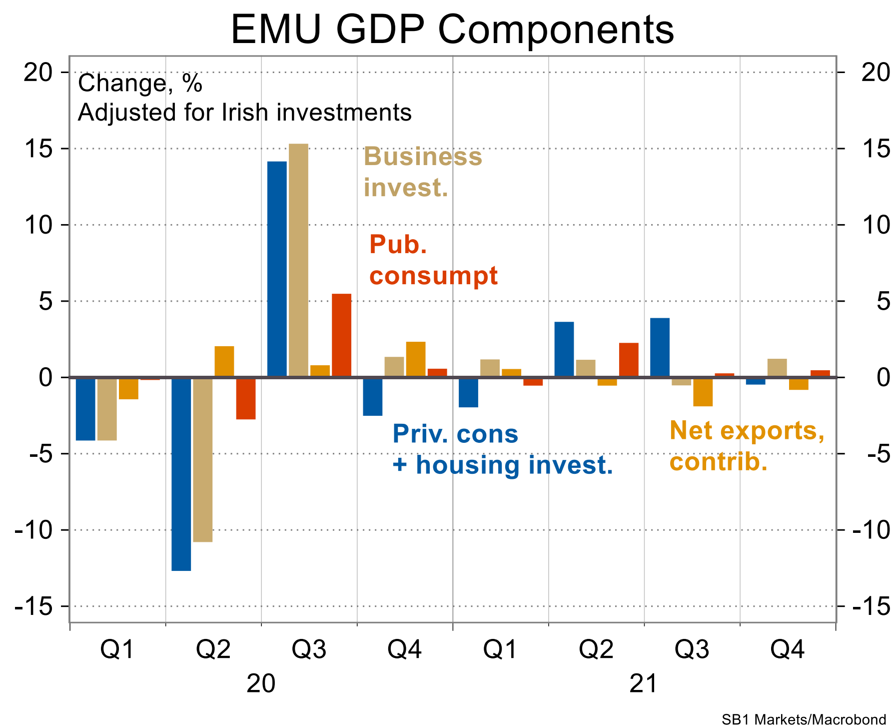


- None of the 4 big countries have returned to the pre-pandemic level. France is closest

SpareBank 1 MARKETS

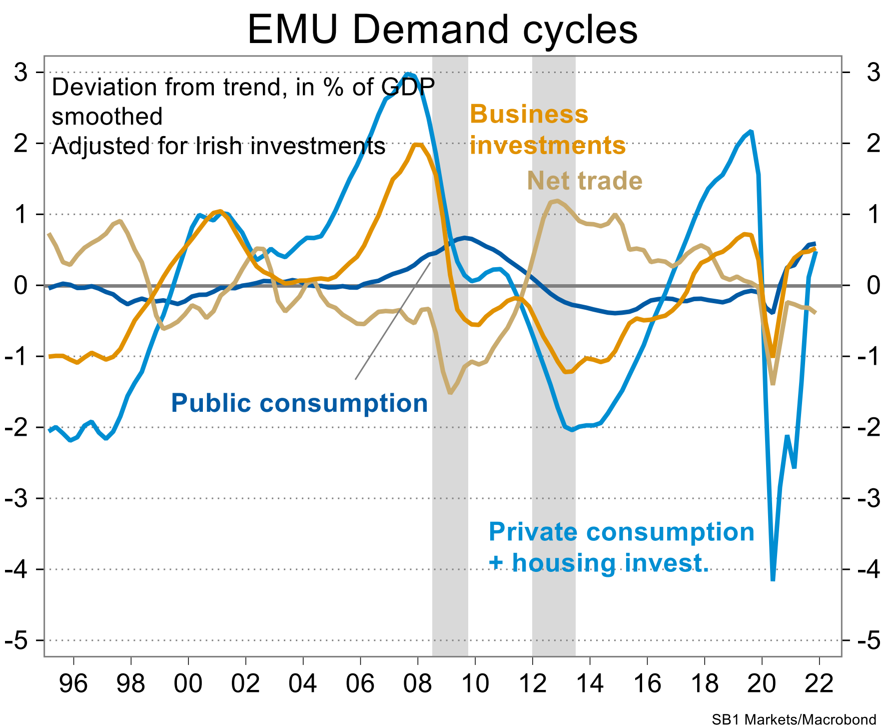
Household took a break in Q4, other demand components strengthened





Household demand back on track. Net trade is slowing

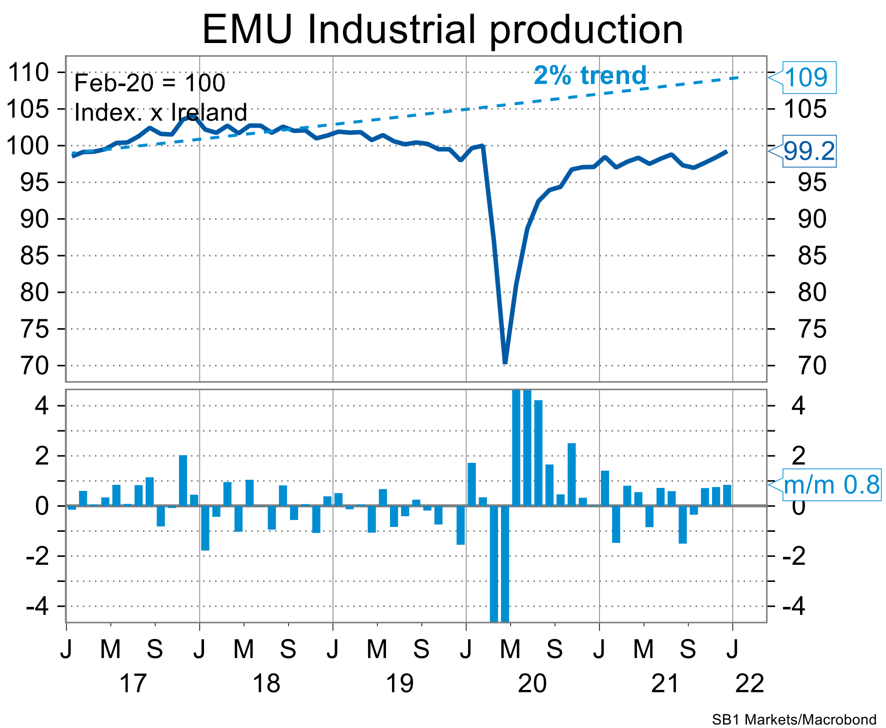
… as imports are growing faster than exports

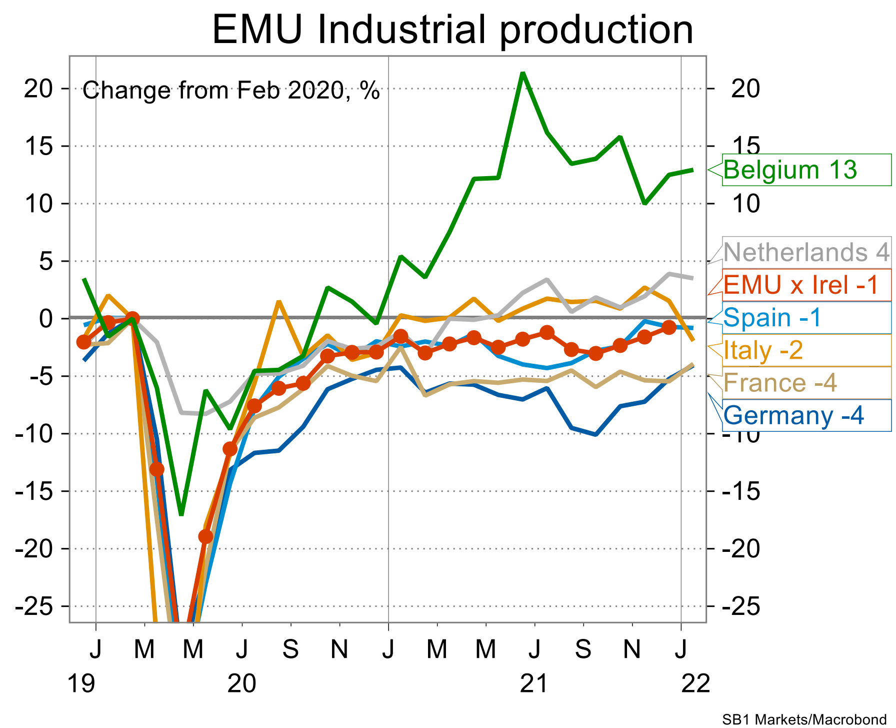


- Probably still an upside potential for **household demand**, as savings have been higher than normal during the pandemic
- **Business investments** are above the long term trend

Industrial production probably slightly up in January, some 0.2%

Germany, France has reported decent growth, 1.2 – 1.6% m/m. However, Italy down 3.4%

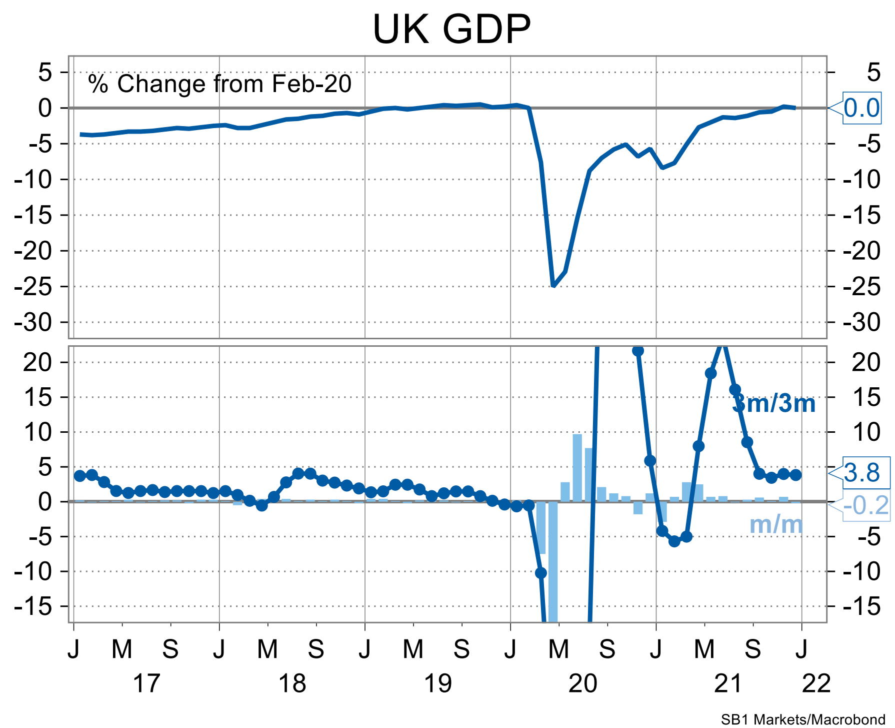


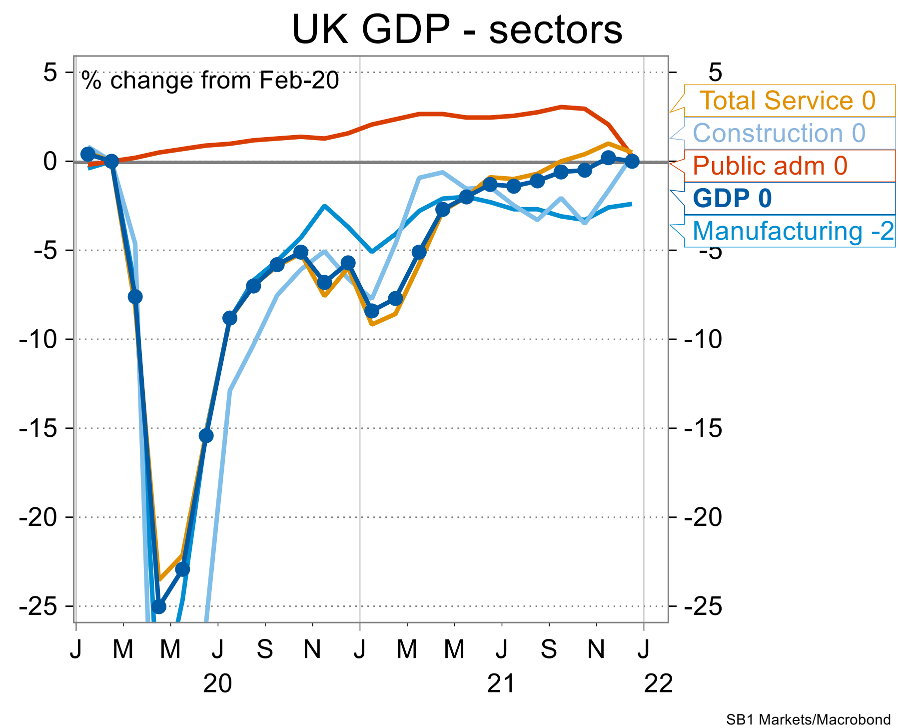


- Manufacturing production in both France & Germany down 4% vs 2020, mostly due to the auto industry

GDP down 0.2% in December, less than the expected -0.5%, up 1.0% in Q4

GDP is back to the Feb-20 level – and far below a reasonable trend path (but GDP was flat during '19)

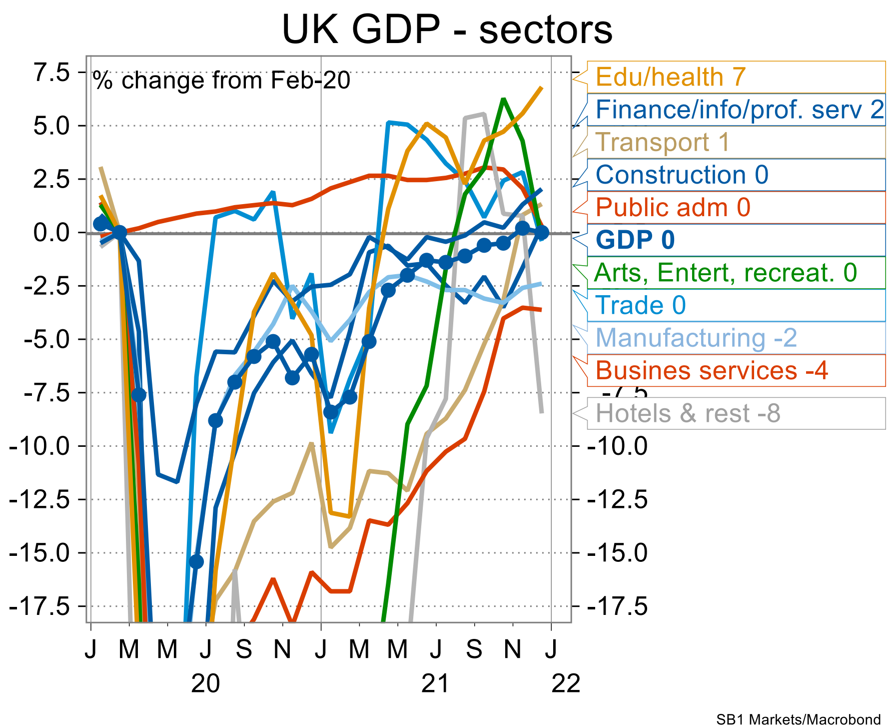




- **GDP growth** has been modest since June but finally the GDP level rose to above the Feb-20 level. The accumulated losses through the pandemic has been larger than almost all other rich countries, as GDP initially fell by 25% (vs. 10% in Norway)
- **Service production** added 0.8% in November, and **manufacturing production** 1.0%. Services in total is back to the pre pandemic level, manufacturing is still below. Construction activity rose sharply in Nov, and is above the p-p level too
- **Public demand** has been the main growth engine through the pandemic but is now slowing. **Household demand** is now recovering but are still well below the pre-pandemic level. **Business investments** may have bottomed but remains well below par. Exports are down, but so are imports, and net trade is close to neutral

Hotels & restaurant, recreation down in Omicron December – will come back

Professional services/finance, construction, manufacturing, education/health up

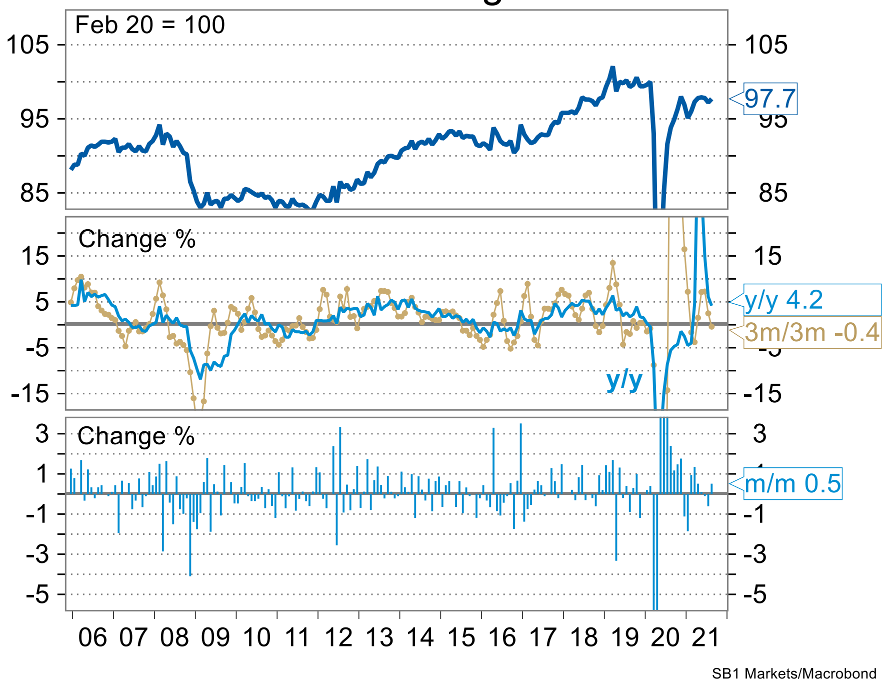


- Activity in hotels/restaurants down 9% in December

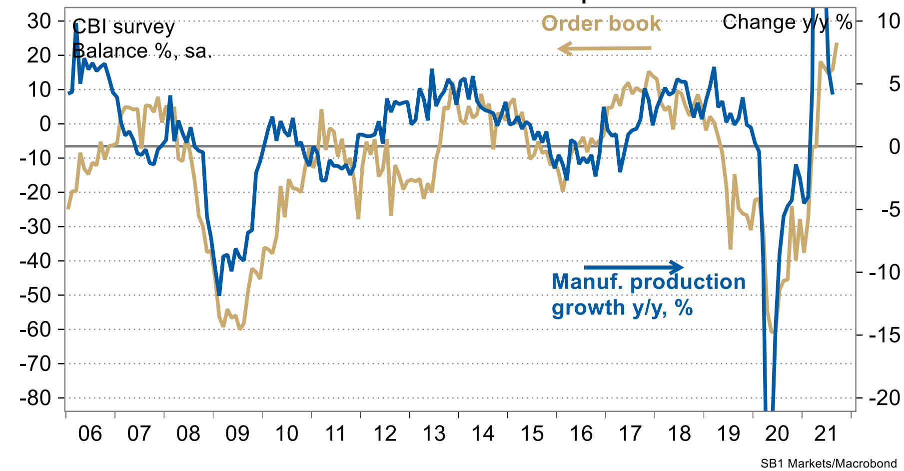
Manufacturing production up 0.5% in August, expected 0.1%

Trend down recent months but surveys still signal growth the coming months - and orders are strong

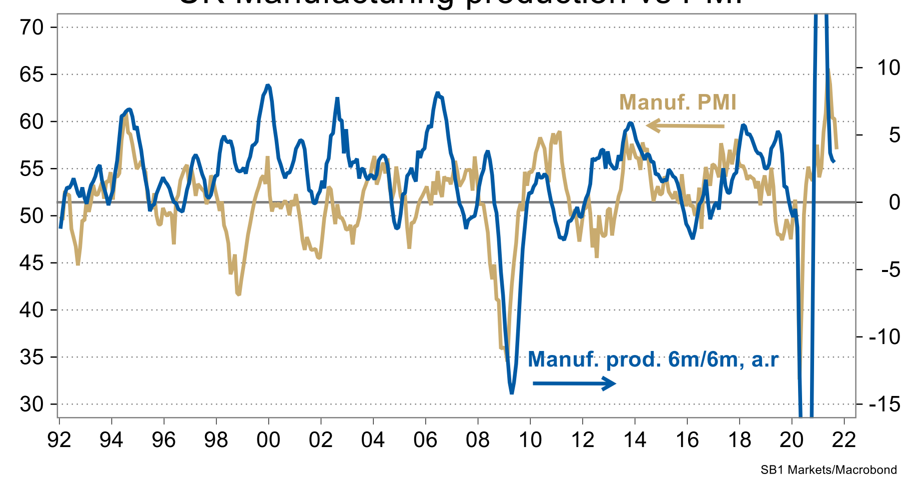
UK Manufacturing Production



UK CBI Orders vs Manuf. production



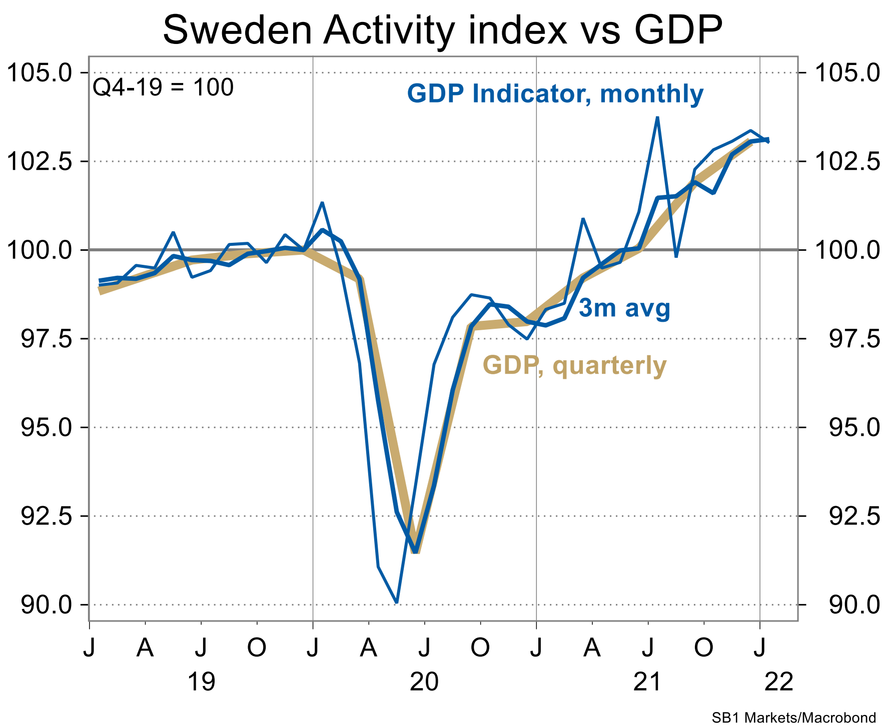
UK Manufacturing production vs PMI

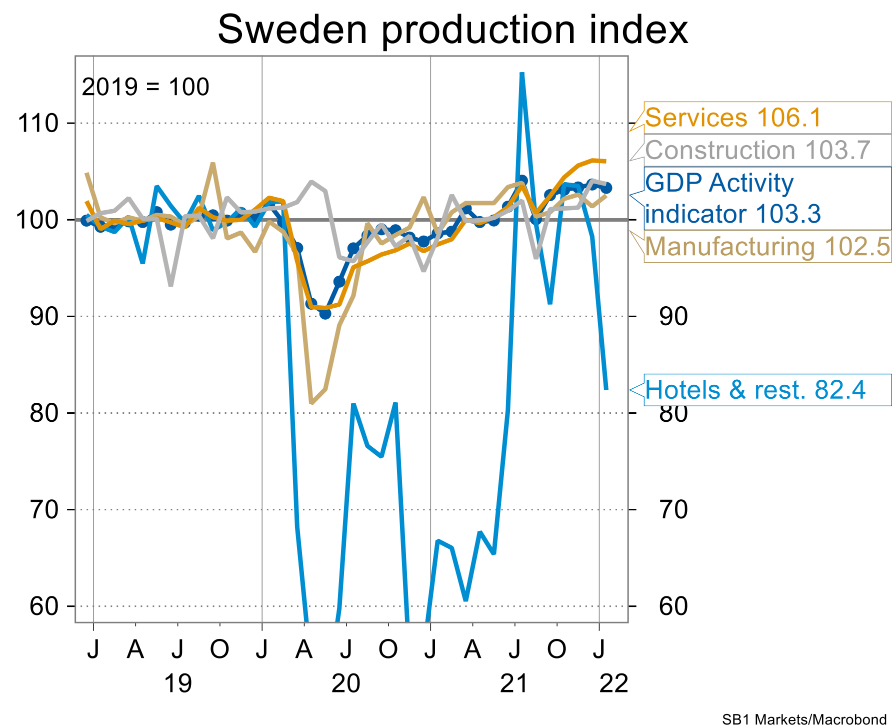


- August production beat expectations, but the July figure was revised down by 0.8 pp to -0.2%, so in sum not all that impressive
- Production of transport equipment (autos included) rose further in August (+3.9%) but the level is still down 24% vs. Feb-20.
- Total industrial production up 0.8% m/m

GDP slightly down in Jan but still up 3.3 vs. pre-pandemic level. Hotels to 'blame'

GDP fell by 0.3%, following the 0.3% lift in Dec.

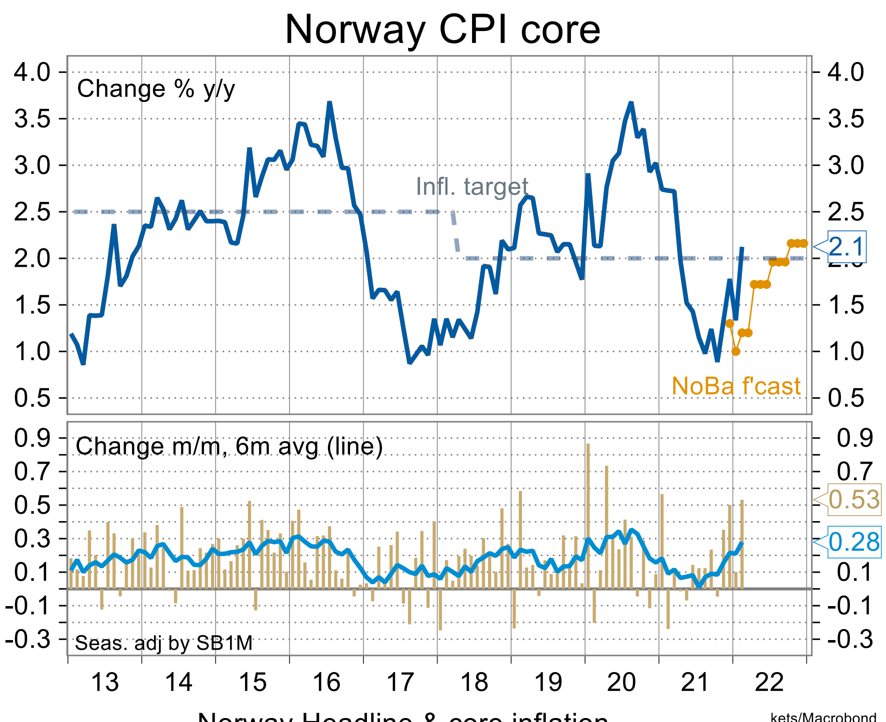


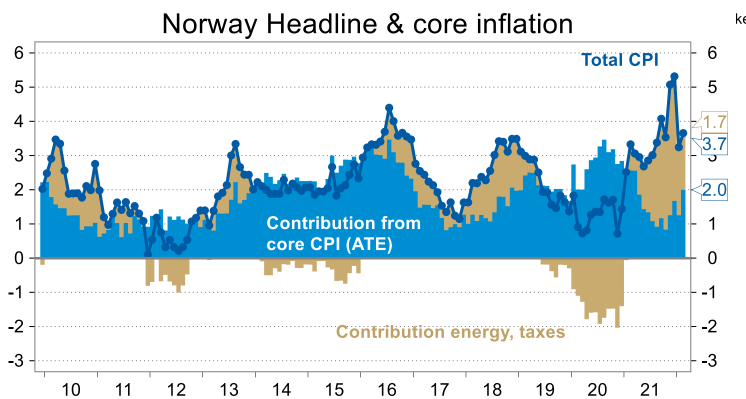


- **The outlook** remains excellent, according to Swedish companies. THE KI (NIER) survey is still close to ATH, and the PMI is the best in the world
- Now, new challenges are showing up at the horizon

Inflation sharply up in February, to well above f'casts, also NoBa's

Headline inflation up 0.5 pp to 3.7%, the core up 0.8 pp to 2.1%

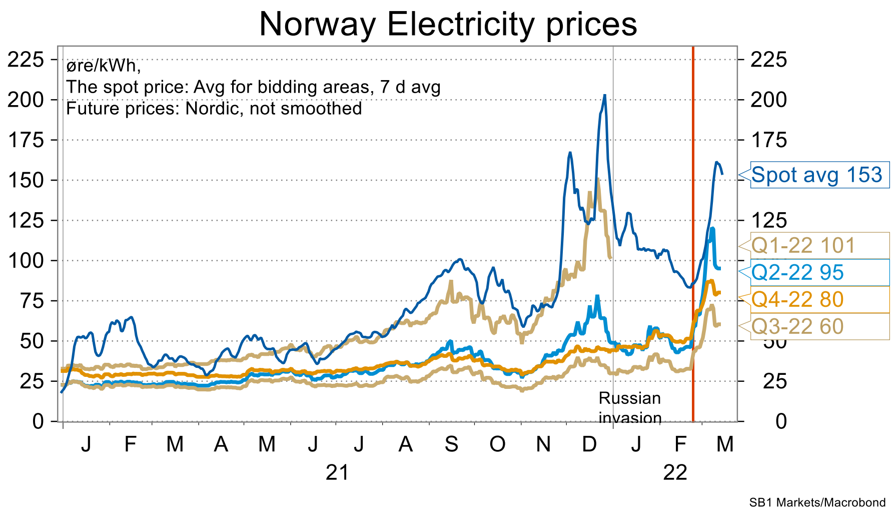


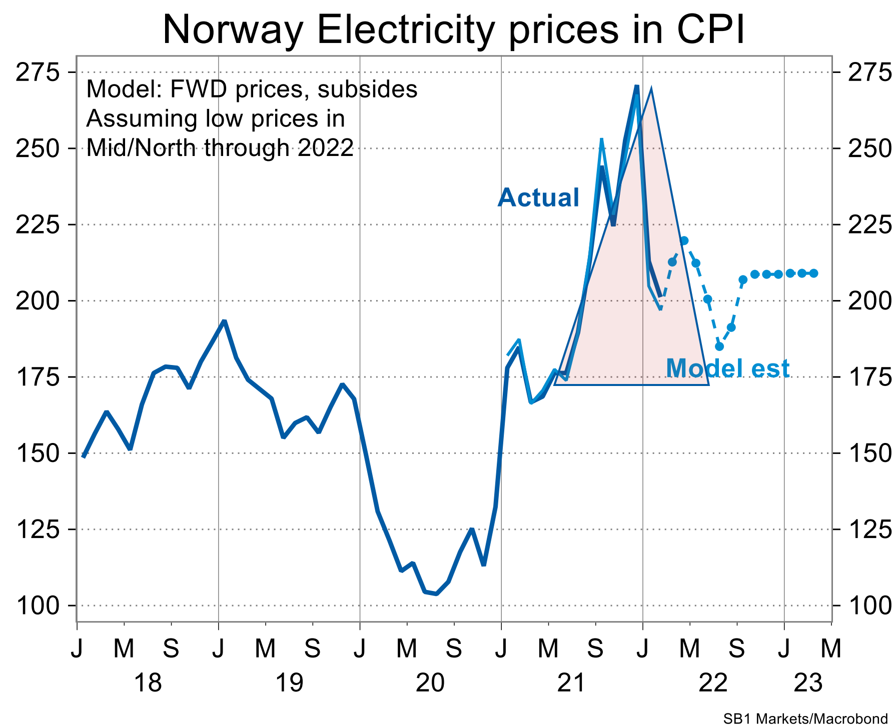


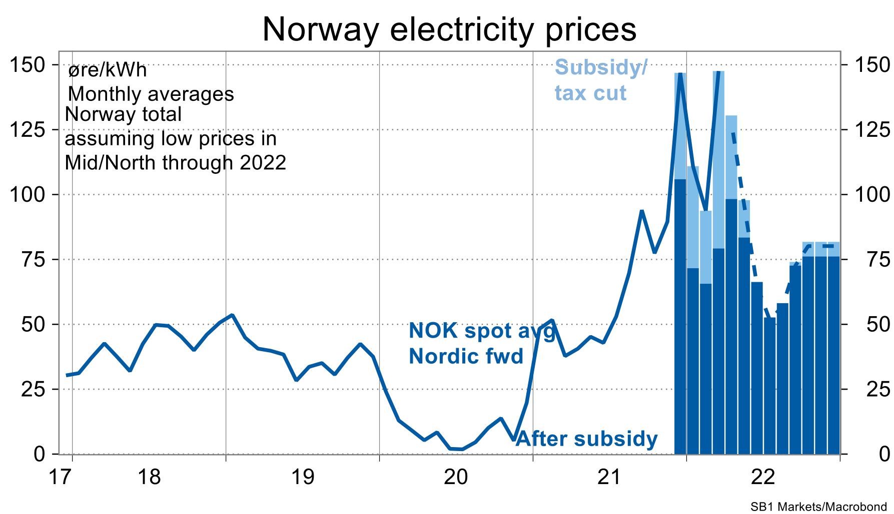
- **Total inflation** is still below the 5.3% rate reported in December, with a substantial contribution from the electricity subsidy
  - » **Electricity prices** fell 4% m/m, but was close to unch seasonally adjusted
  - » Energy prices (and taxes) contributed by 1.7 pp of the 3.7% headline rate
- **CPI-ATE** (ex. energy and taxes) inflation rose 0.5 pp m/m, which lifted the annual rate by 0.8 pp to 2.1%. We expected 1.9%. Since the December MPR, core inflation has been 0.6 pp higher than NoBa expected
  - » **Food prices** rose 1.8% m/m, the largest hike in 5 years. Prices are still up just 1.3% y/y. Norwegian food prices have not been closely correlated to food prices abroad
  - » Prices on **imported goods** rose 1.2% in Feb, far higher than we expected and up 2.4% y/y, while **domestically produced** goods & services were up just 0.1%, and 2.1% y/y
  - » **Core inflation** is running above 2% in 7 sectors, and is below 2% in 6 sectors
- **The outlook**
  - » **The electricity bill** will remain high but the current future prices for the rest of 2022 do not signal higher prices. However, since before the Russian attack el.prices have increased substantially, lifting our CPI estimate by 0.4 pp
  - » **Core inflation** surprised at the upside in February, and we expect the core CPI to remain above 2% through rest of 2023
  - » The TBU (technical committee on wage formation) at Thursday lifted their 2022 CPI estimate by 0.7 pp to 3.3% from the 2.6% f'cast 3 weeks ago, following the 3.5% lift last year
- **So what?**
  - » **Norges Bank** will have to lift it's core CPI forecast by some 0.3 – 0.5 pp, given the elevated starting point, and the indirect impact of electricity prices and other commodity prices
  - » The **wage negotiations** this spring will be challenging, as some public sector groups received a significant slower wage growth than the average 3.5% wage inflation rate in 2021. In the private sector, a 3.6 – 3.8% outcome (as we expect) will lift real wages somewhat in 2022
  - » **Norges Bank** will once more have to revise its wage growth estimate upwards, we expect by 0.3 – 0.5 pp vs. the Dec forecast, to 3.5 – 3.8%

Electricty prices up since before the Russian attack but fell last week

Due to the 80% subsidy, just a 0.4 pp lift in the CPI, even if future prices are up 33 øre/kWh



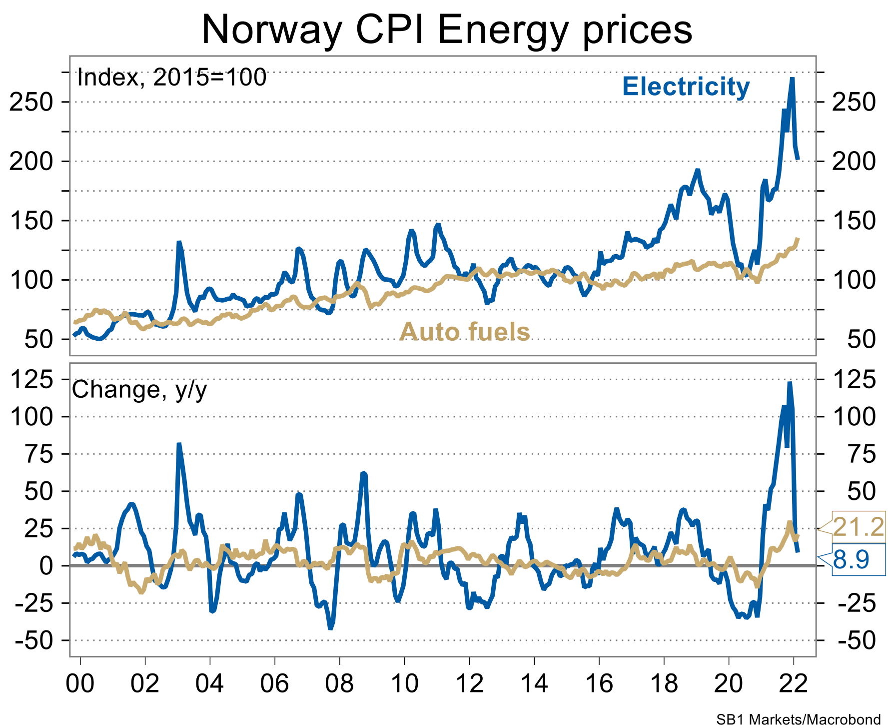


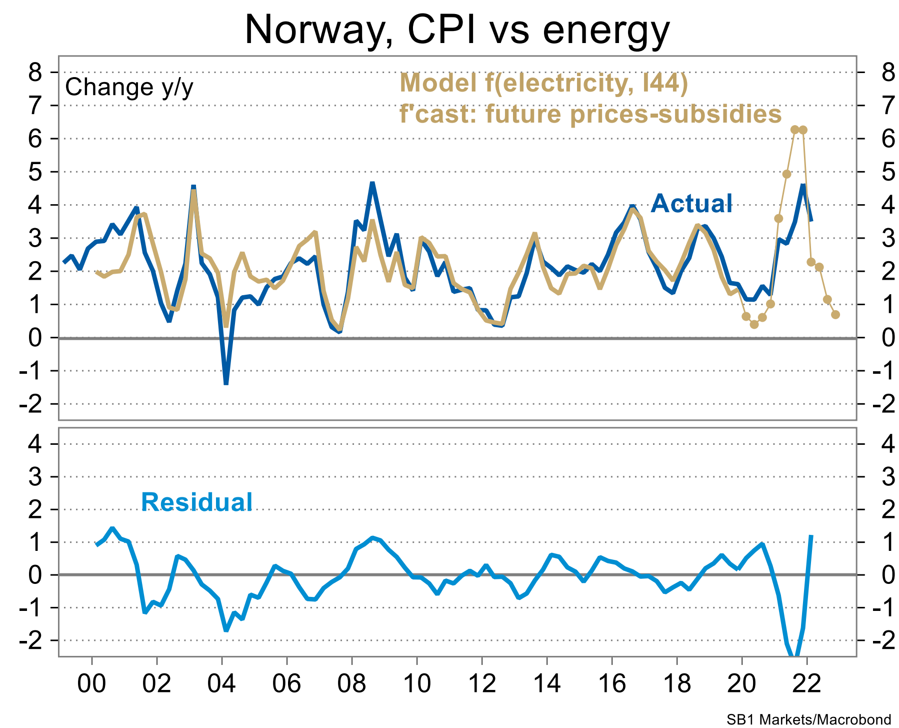


- The 'unprecedented surge' in electricity prices, represented by the area of the triangular above, equals some 35% of a normal annual electricity bill, <u>or less than 1¼ % of the annual disposable income</u>
- <u>The lift in future electricity prices for the rest of 2022 since before the Russian invasion in Ukraine, will lift the average electricity bill by 10%, and the total CPI by 0.4 pp</u>

Electricity prices down in Feb, gasoline prices are up

Electricity prices explain almost all of the ups and downs in Norwegian CPI inflation

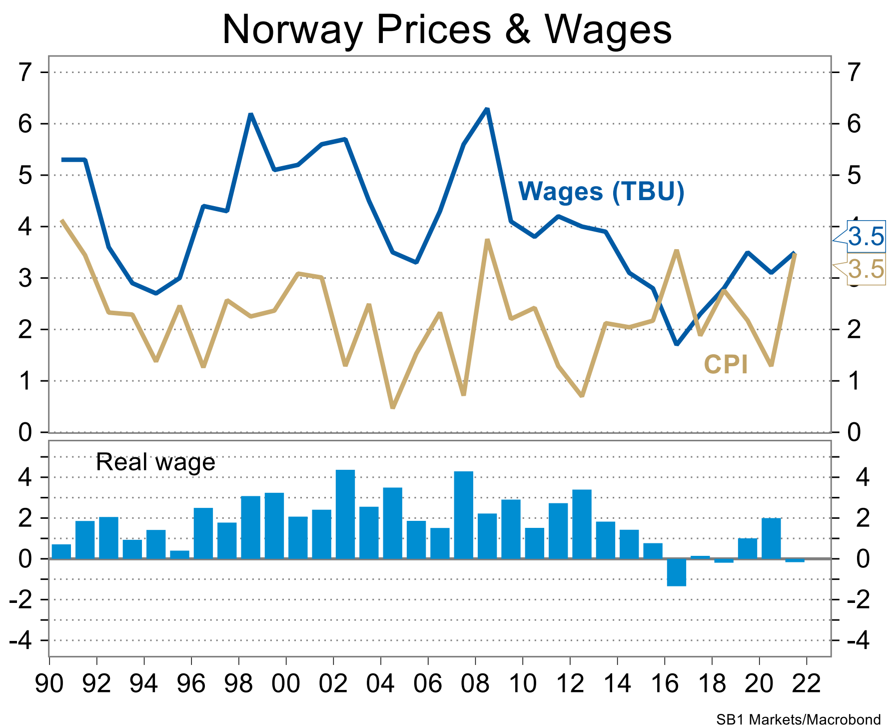




- .. And the current headline inflation rate is close to what the model suggest (it is higher in Q1 but has been lower the previous 4 quarters

The TBU assumes 3.3% CPI infl. in 2022, up from the 2.6% f'cast 3 weeks ago

The upward revision was larger than we assumed – but all sorts of 'war' impacts were added

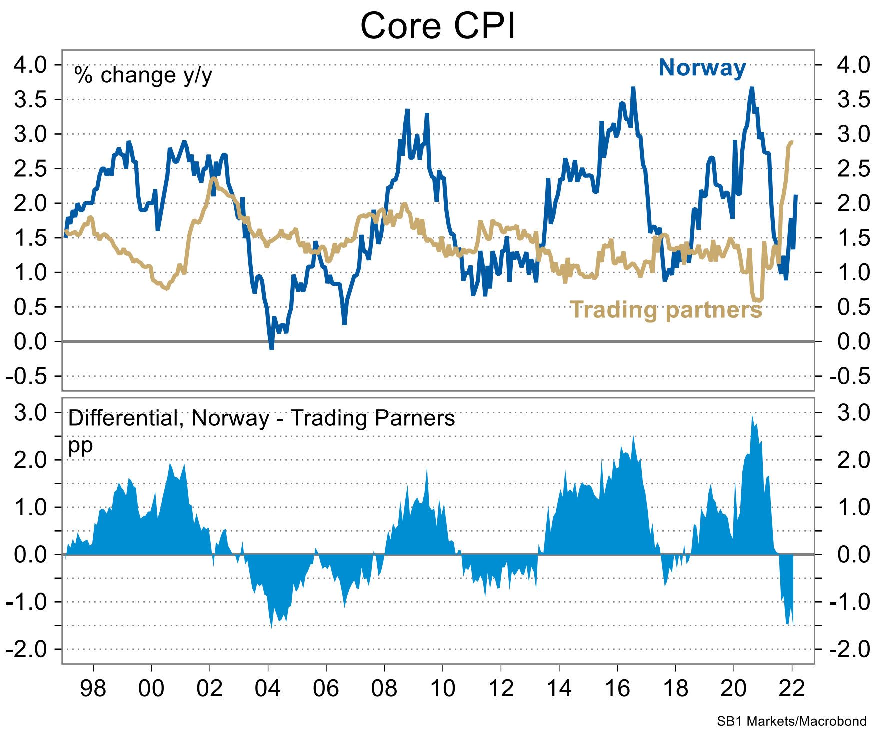


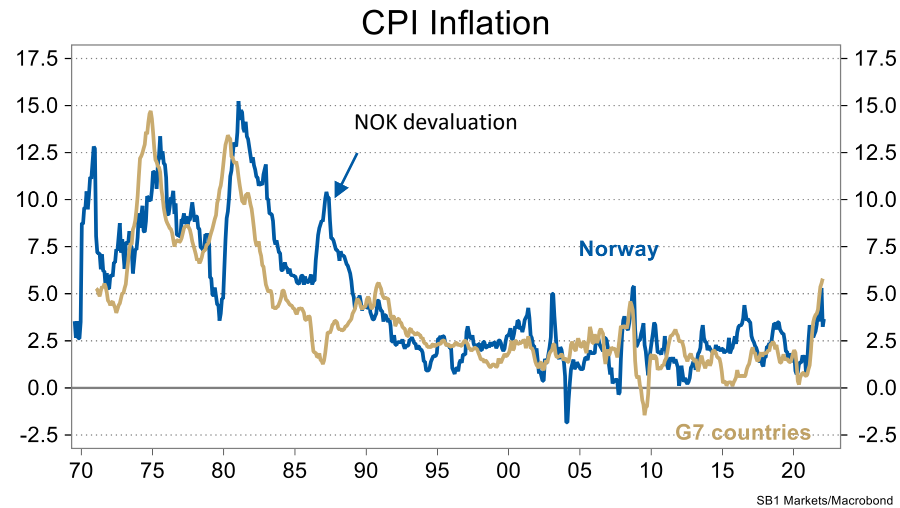
- Last year, CPI inflation reached 3.5% - and the TBU expects a slightly lower rate in 2022

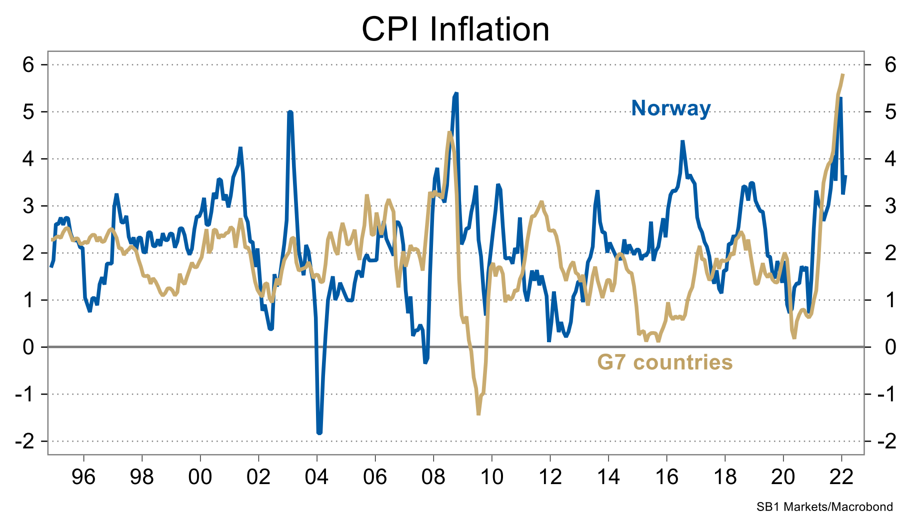
- The **Technical Committee for the wage negotiations** delivered a new 2022 price forecast just after the CPI index was released
- Still, a 3.6 – 3.8% 2022 **wage growth as the agreed outcome** of this spring's negotiation round is still within reach – it will yield some growth in real wages

Norway vs ROW: Long term CPI 'regimes' have been correlated

But limited short term correlations, at least in the 'low inflation regime'







- Norwegian core CPI vs. trading partners' core has been close to uncorrelated past 20 years. The headline CPIs have been somewhat better correlated, due to co-movements in energy prices
- During the last large inflation cycle '70s early '80s Norwegian headline inflation was quite closely correlated to the global (G7) CPI cycle (and mostly lagging)

Most core elements surprised at the upside

Electricity prices up, but not by much (as we assumed), and annual inflation down. More to come!

		Change m/m, seas. adj			Change y/y			Contribution, pp		
Feb-22	Weight	Out-	SB1M	Dev.	Prev.	Out-	SB1M			Dev. vs
CPI ATE	%	come	f'cast	pp	month	come	f'cast	m/m	y/y	f'cast
Food, non alc bev	12.9	1.8	1.5	0.3	-1.2	1.3	0.6	0.23	0.16	0.03
Alcohol, tobacco	4.2	0.6	0.2	0.4	2.1	3.2	2.5	0.02	0.13	0.02
Clothing, footwear	5.1	0.1	0.3	-0.2	-2.3	-0.9	-2.1	0.01	-0.05	-0.01
Housing x. energy	20.2	0.1	0.2	-0.0	1.7	1.8	1.9	0.02	0.37	-0.01
Furnishing	6.9	0.8	0.3	0.5	3.6	4.9	3.7	0.06	0.34	0.04
Health	3.4	0.5	0.3	0.2	2.3	2.3	2.0	0.02	0.08	0.01
Transp. ex. gas, airl. tick	12.2	0.0	0.3	-0.3	1.5	1.5	1.7	0.00	0.18	-0.03
Airline tickets	0.8	2.9	5.0	-2.1	-6.7	-5.4	-1.7	0.02	-0.04	-0.02
Communication	2.4	0.6	0.1	0.6	0.3	1.3	0.5	0.01	0.03	0.01
Recreation, culture	10.8	1.0	0.2	0.8	1.3	2.4	1.4	0.11	0.26	0.09
Education	0.5	-	-	-	2.0	2.0	2.0		0.01	0.00
Restaurants, hotels	5.6	0.2	0.3	-0.1	4.5	5.0	5.1	0.01	0.28	-0.00
Other	8.7	0.7	0.2	0.5	1.7	2.1	1.5	0.06	0.18	0.05
CPI-ATE	93.7	**0.5**	**0.4**	0.1	**1.3**	**2.1**	**1.9**			0.09
Norges Bank est.			**0.1**		**1.0**		***1.2***			
Imported	36	1.2	0.2	1.0	1.2	2.4	1.1	0.44	0.87	0.37
Domestic	57	0.1	0.6	-0.5	1.3	2.1	1.9	0.06	1.22	-0.28
Energy, housing	4.4	-0.0	-4.0	4.0	19.2	8.5	5.1	-0.00	0.37	0.17
Energy, transport	2.0	4.4	4.0	0.4	16.7	21.1	19.0	0.08	0.41	0.01
CPI Total	100	**0.7**	**0.3**	0.4	**3.2**	**3.7**	**3.1**	0.68	3.66	0.36

Change m/m, seasonally adjusted (calc by SB1M)
Sum of parts does not necessarily add up to totals
Norges Bank m/m s.a. estimate is implied, calc by SB1M

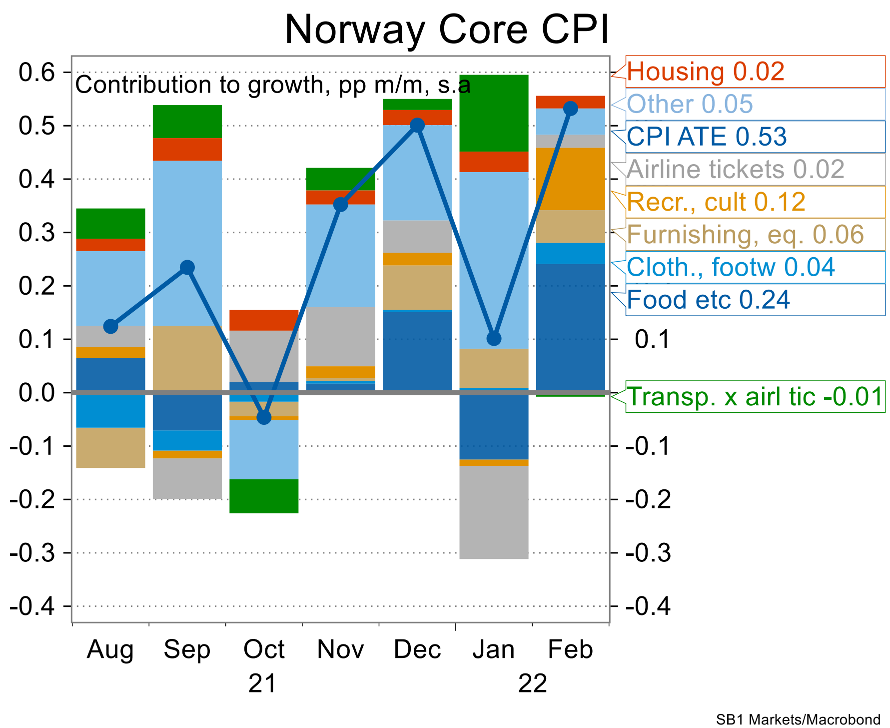
- **Food** prices rose 1.8% m/m, up from -1% in Jan. We expected 1.5%. The annual rate is still just 1.3%. Imported food contributed the most in Feb
- **Clothing** prices rose 0.1%, and are down 0.9% y/y
- **Furniture/hardware/equipm** prices up further by 0.8% m/m, up 4.9% y/y, and rising
- **Transport ex. gas/airfare tickets** flat, and up just 1.5% y/y
- **Airline ticket** prices rose 2.9% m/m but are still at a low level. Look up for a reversal during the spring!
- **Recreation** prices up 1.0%, up 2.4% y/y
- **Restaurant/hotels** up 0.2% m/m, up 2.1% y/y

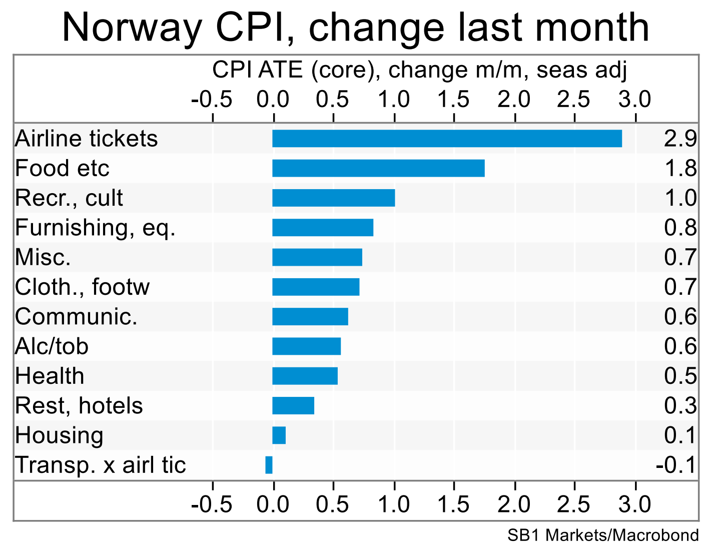
- **CPI-ATE** up 0.5% m/m, 2.1% y/y, well above consensus at 1.7%, and above our 1.9% f'cast. NoBa expected 1.2%
- Prices on **imported goods** rose 1.2%
- Prices on **domestically produced** goods & services were up just 0.1%. The annual rate at 2.1, up from 1.3% in Jav
- **Electricity** were unchanged seasonally adjusted
- … **headline inflation climbed to** 3.7%, we expected 3.1%, not an impressive estimate…

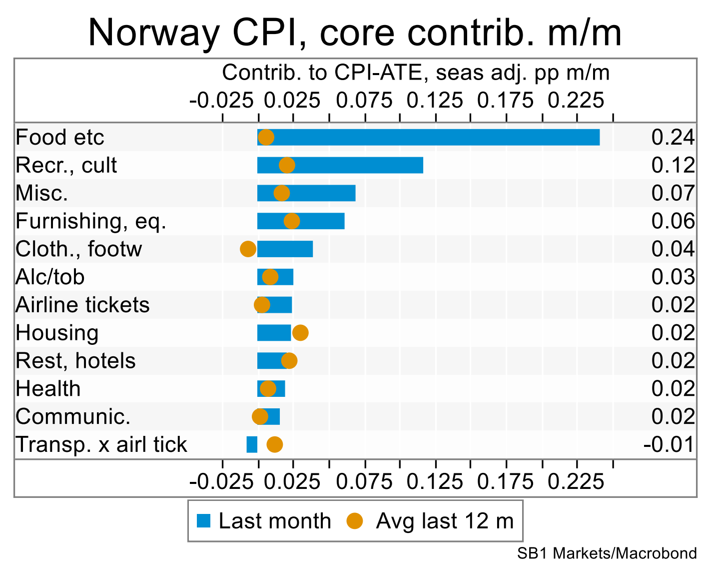
Monthly changes are seasonally adjusted by SB1 Markets. The weighted sum of the components does not necessarily sum exactly up to the total, and deviations m/m and y/y do not necessarily add up. Norges Bank m/m s.a. estimate is implied, calculated by us. Sources: SSB, Norges Bank, SB1 Markets calculations

Food prices, recreation & culture contributed at the upside

Airline ticket prices fell sharply – we assumed close to unchanged



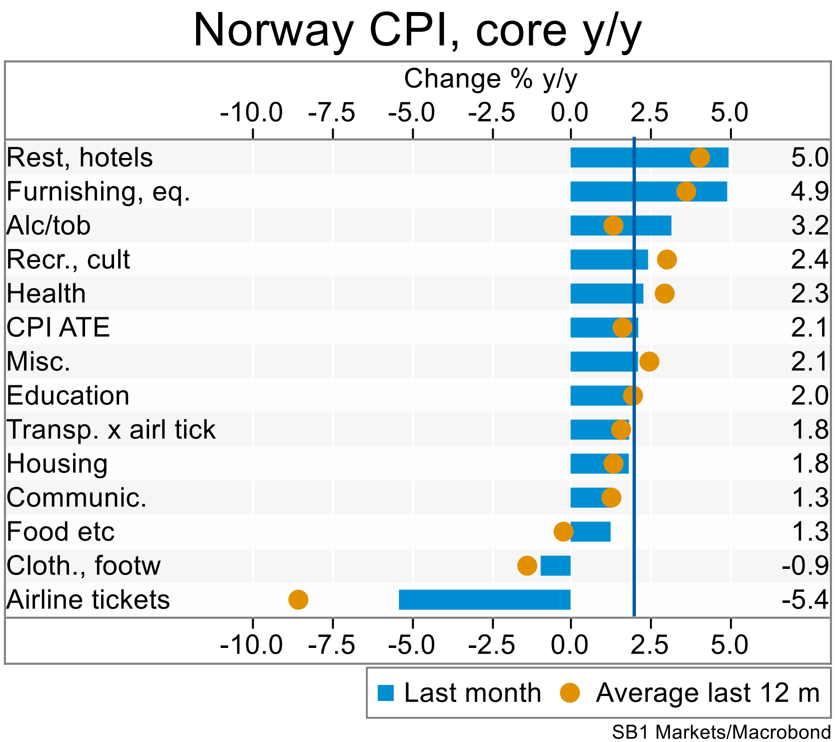


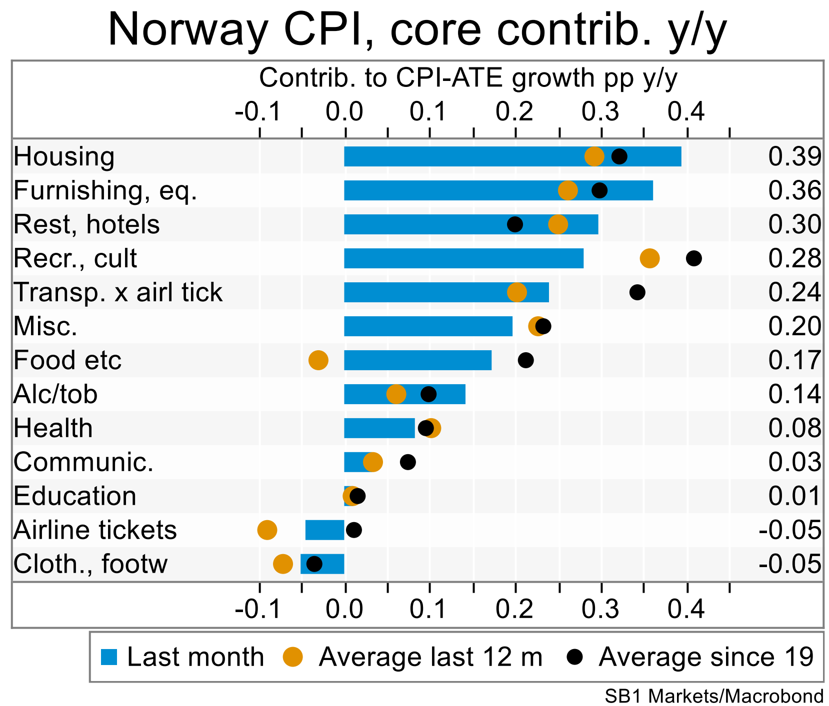


SpareBank 1 MARKETS

7 sectors report core inflation above 2%, 6 are still below!

Housing , furnishing, restaurants/hotels, transport x airline tickets have done the heavy lifting last yea



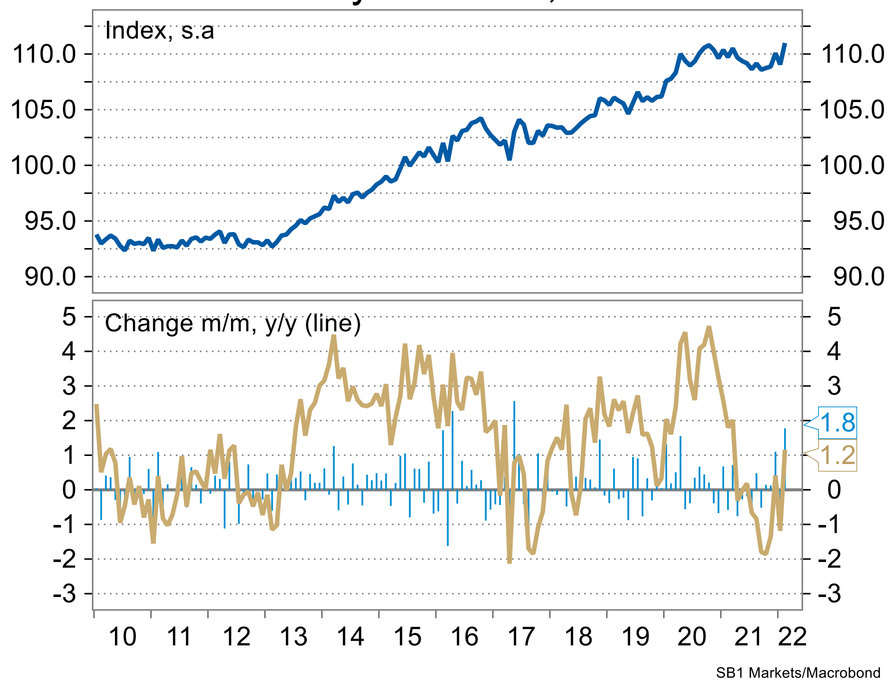


- Food prices have contributed on the downside, as have clothing/footwear – and airfare tickets

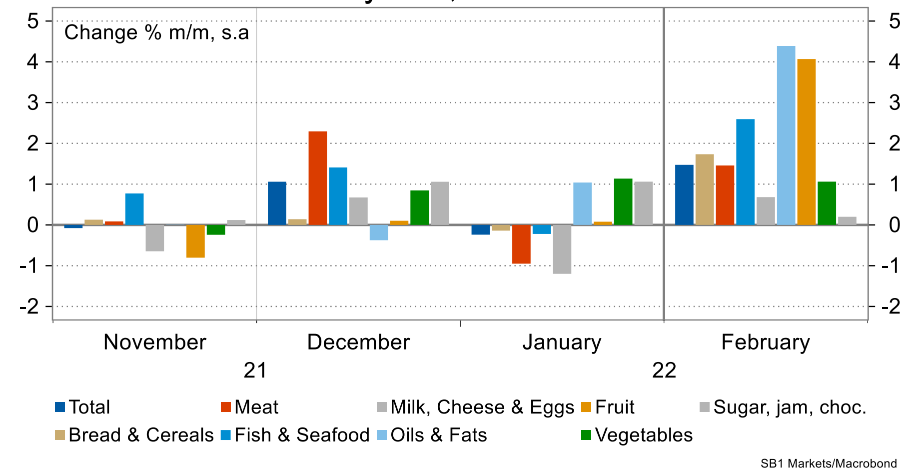
Food prices sharply up in February, oil/fats, fruits the most

Prices rose by 1.8% m/m, the most in 5 years. Prices are still up just 1.2% past 12 months

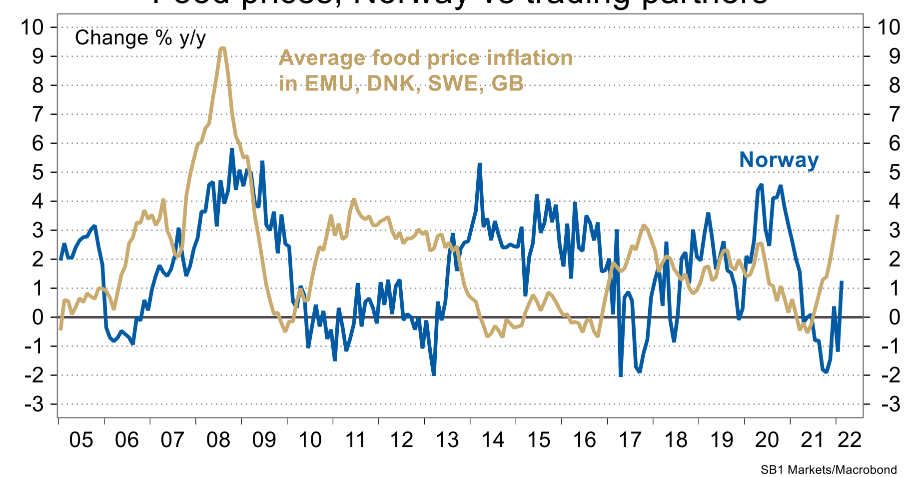
Norway core CPI, Food



Norway CPI, Food details



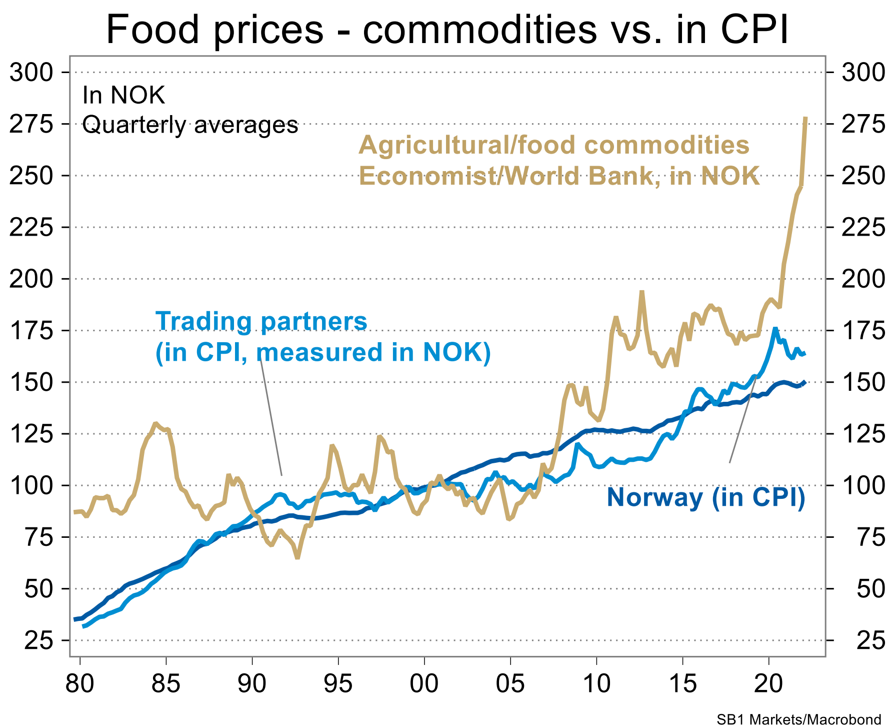
Food prices, Norway vs trading partners

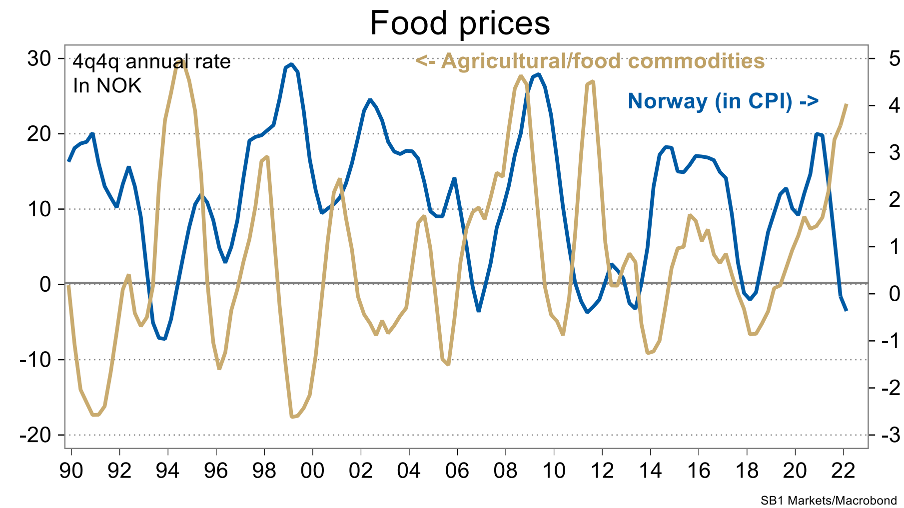


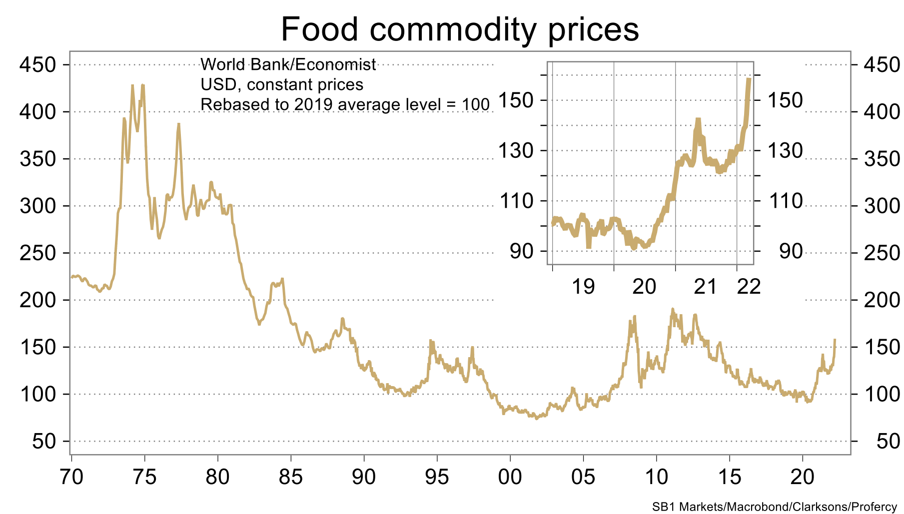
- **The bi-annual negotiation** between the large producers and retail sales chains resulted in higher price increases than normally – but sill way smaller price increases than some chock reports in media
- **Norwegian food prices** have been trending down since October 2020, until November. The past 3 months, prices are up by 1.9%
- **Food prices** have been kept in check among our European peers too, at least until some months ago, even if food commodity prices have been on the way up for a long while
- **Norwegian CP food prices** are not correlated with food prices among our European neighbours. The NOK exchange rate explains quite a lot

Food commodity prices: Very limited correlation to trading partners food prices

… And no stable correlation at all to Norwegian food prices (in the CPI)



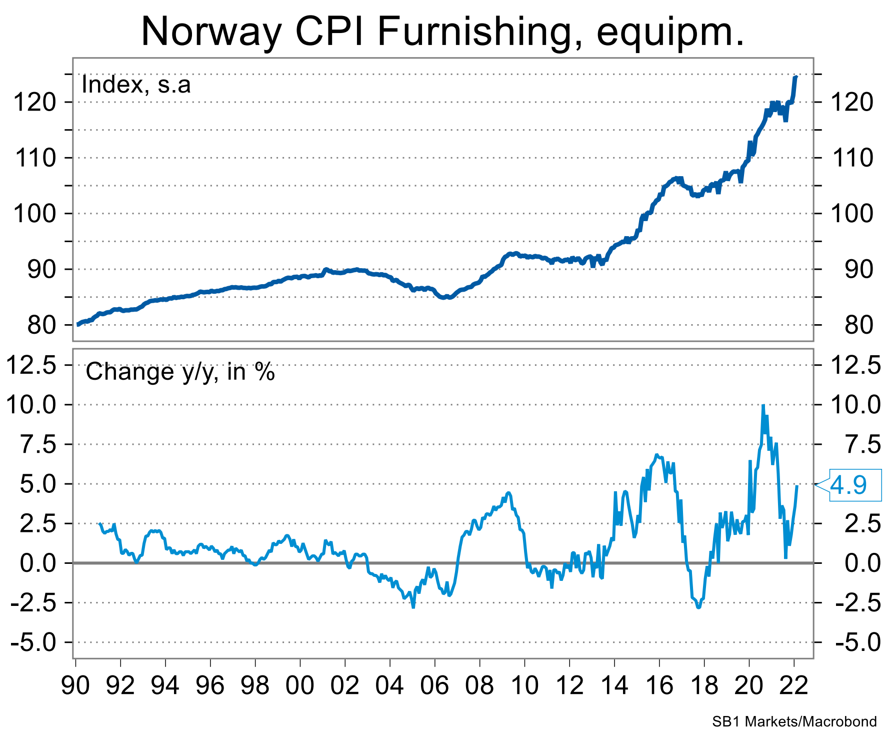


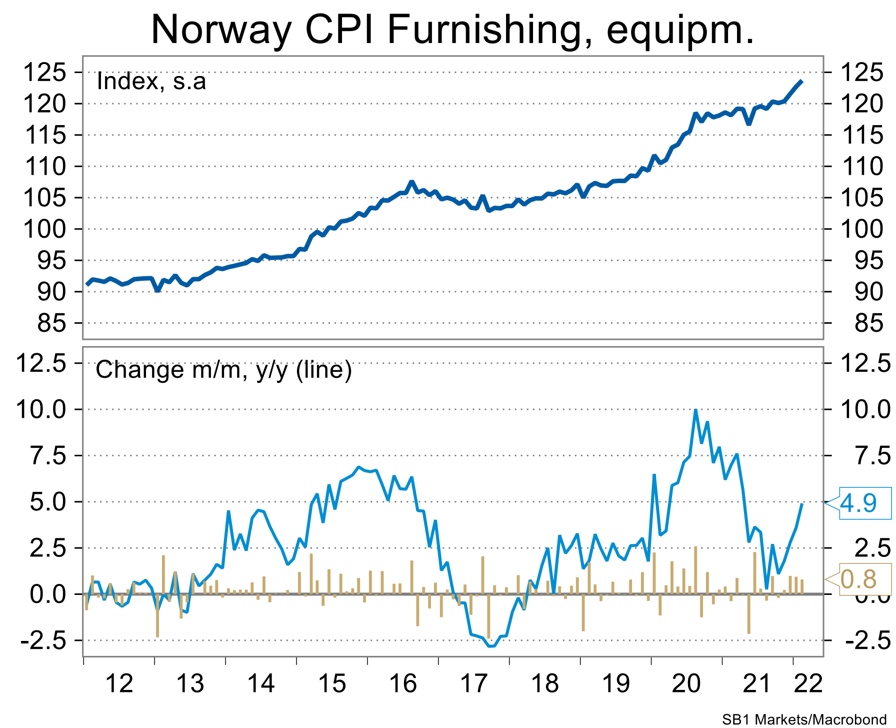


- Try to find a close, and stable correlation on the chart above to the right. There are some co-movements over short periods but no consistency at all
- Agricultural/food commodity prices are sharply up from mid 2020, and by more than 20% since early 2021 but the increase is still not worse than we have seen many times before. In real terms, prices are far from record high

Furnishing prices up again, the annual rate up to almost 5%

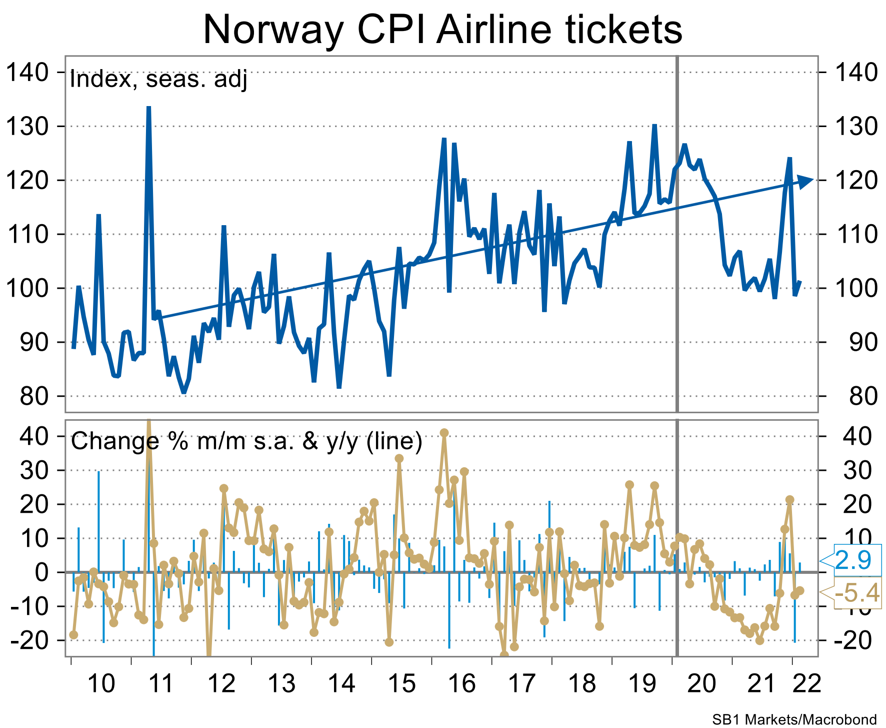
The NOK ‘collapse’ lifted prices sharply in 2020 – now there is no such excuse





Airfare ticket prices: 'Too' low in both Jan & Feb?

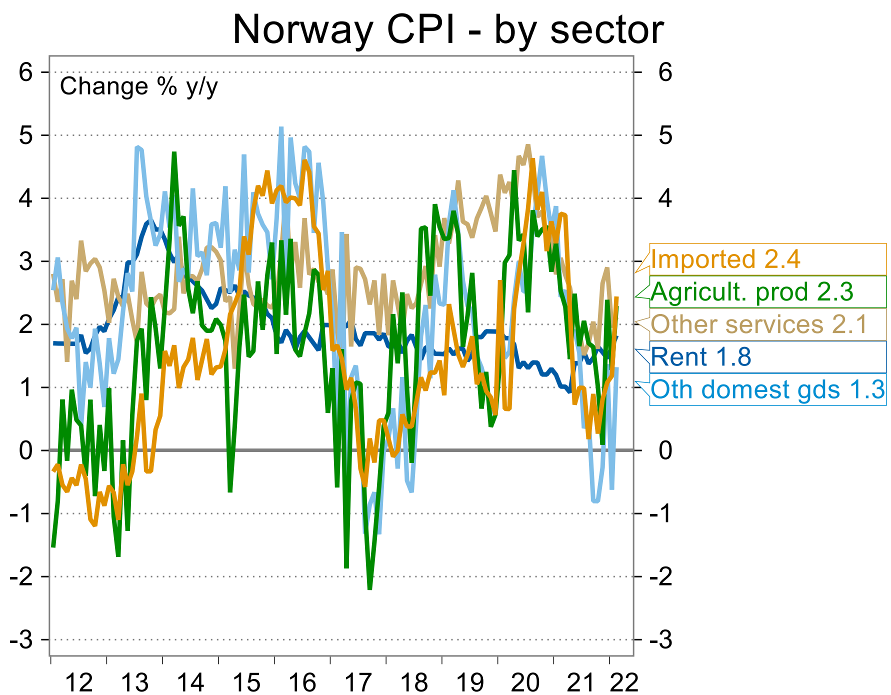
Ticket prices will return to the 'normal' path? The current price level is very likely too low

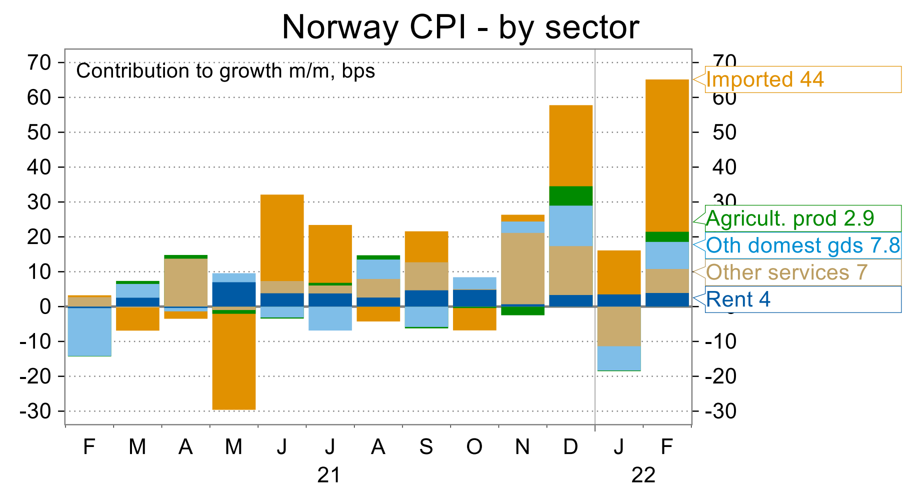


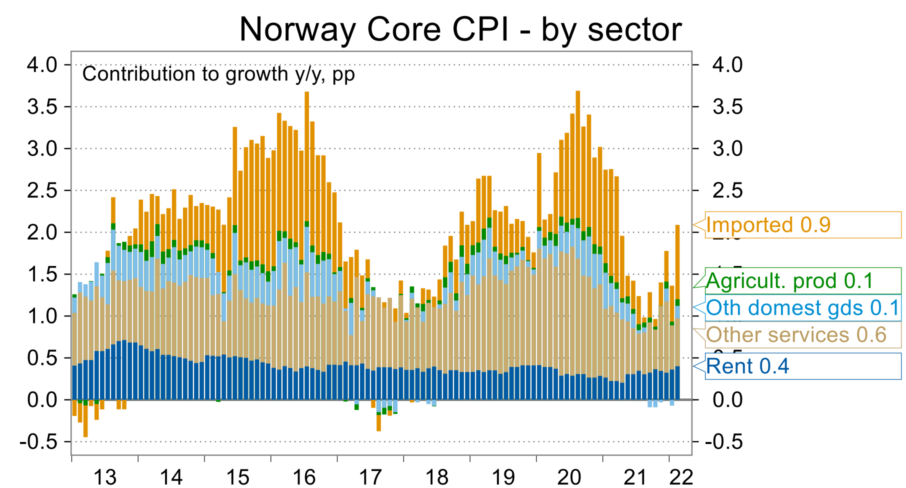
- **Airfare ticket prices** fell sharply in January, reversing the substantial lift the previous two months – and remained close to unchanged in February
- If not in March or April: Airlines will be able to lift their prices again

Imported prices contributed to 2/3 of the lift in prices in February

The contribution from rents is still low but increasing, while services are on the way up



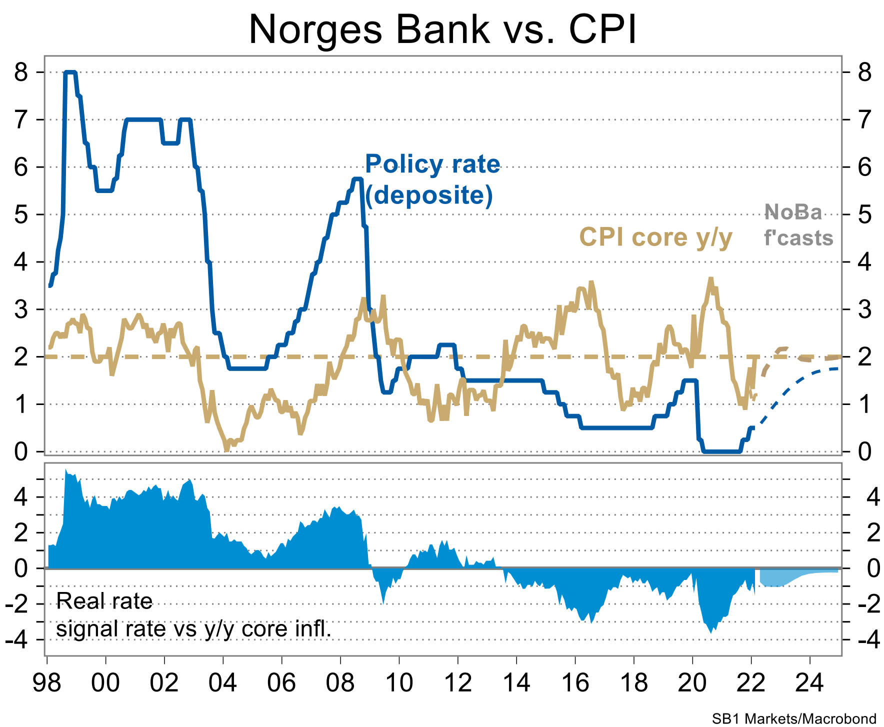


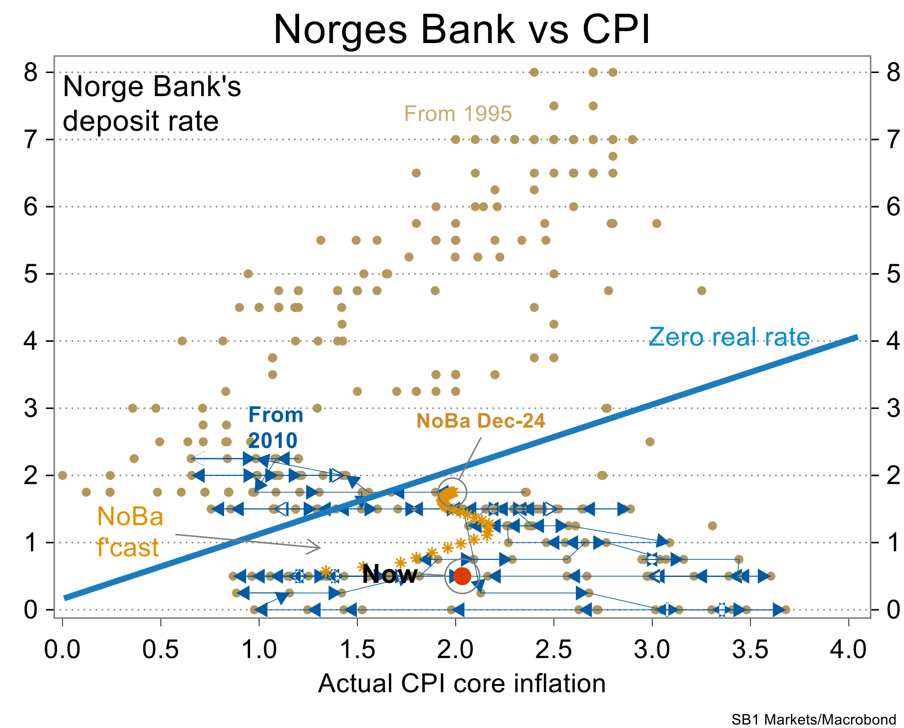


- **Domestic services inflation ex rents** slowed sharply during the corona crisis, and not just only due to cheaper airline tickets, other non-labour-intensive services have contributed as well
  - » Now, price inflation is gaining some speed again, and services are up 2.1% y/y
- **Rent inflation** has accelerated to 1.8% from 1% in early 2021 but is still just in line with the 1.7% – 2% rate before corona
- **Other goods** than agricultural & imported products are up 1.3% y/y, and contributed by less than 0.1 pp in Feb – not disturbingly high rates

Norges Bank has not been an inflation nutter (since 2010, at least)

Actual inflation has not at all been correlated to interest rates – for good reasons

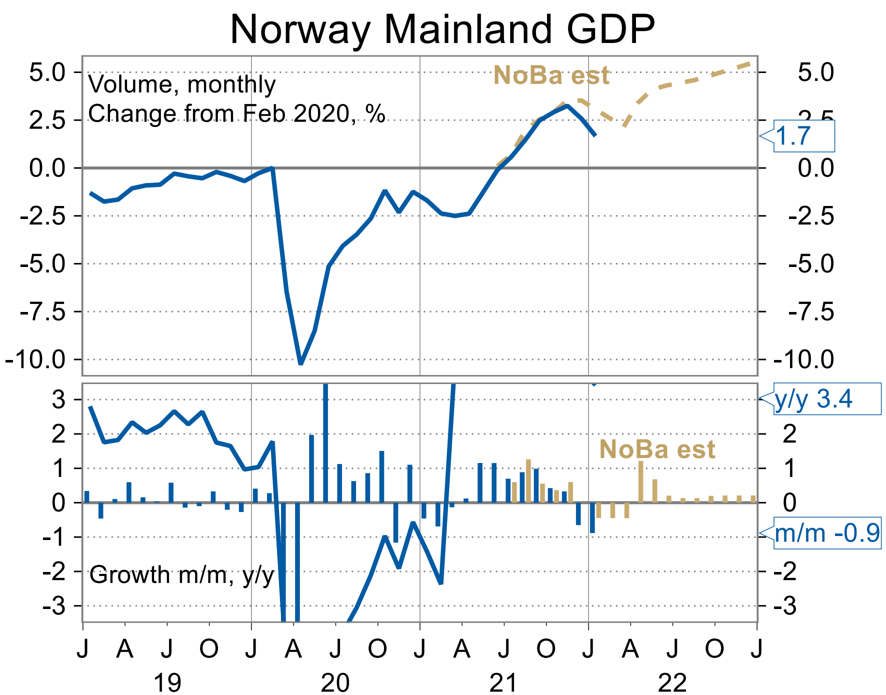


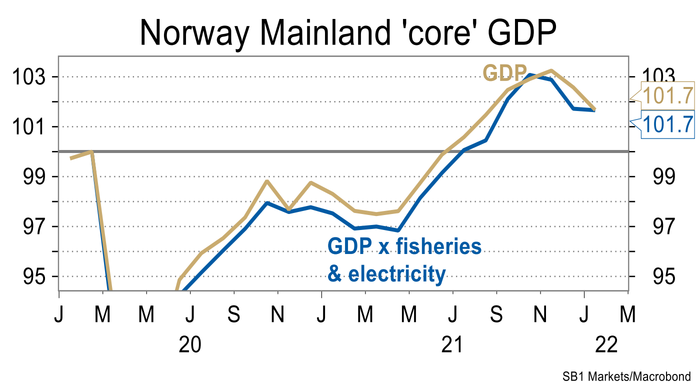


- In December, the Bank assumed the signal rate would be hiked gradually to approx 1.75%, while core inflation was expected to drift slowly up from the present level to slightly above 2% in 2023 and then return to the 2% target in 2024
  - » Thus, the bank expected a continued negative real signal rate vs core inflation the coming four years – and at best a zero 3 m NIBOR real rate
- Now, inflation the past 3 months has been 0.6 pp higher than Norges Bank assumed in December – and the inflation forecast will now doubt be revised substantially up. It the interest rate path is not substantially lifted – a much lower real rate the coming years

Mainland GDP down 0.9% in January but that will be the bottom

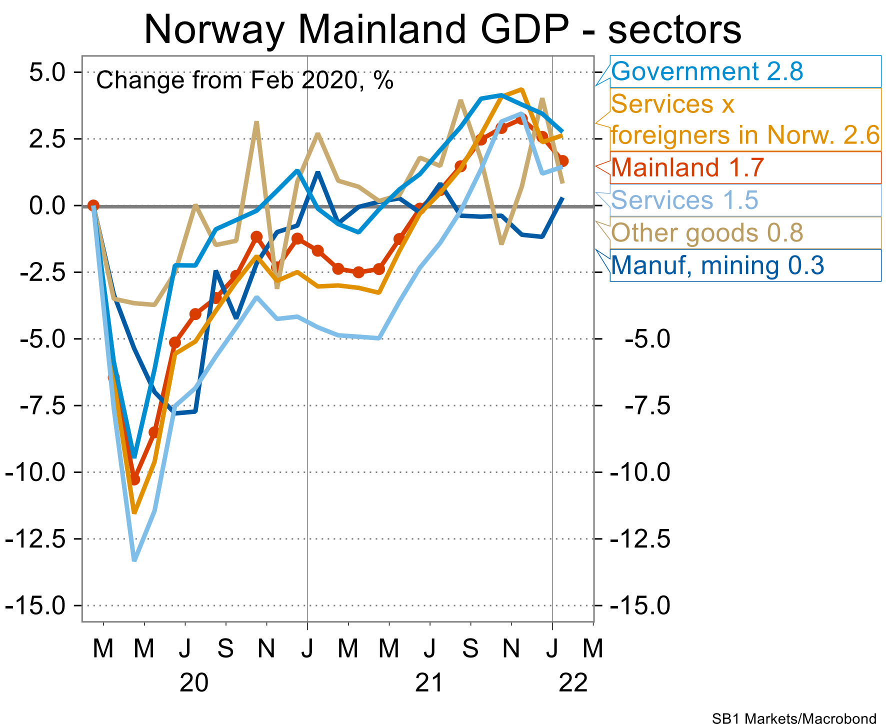
Dec revised down 0.4 pp to -0.7%. Both Dec/Jan was below NoBa's f'casts. The recovery to start in Feb

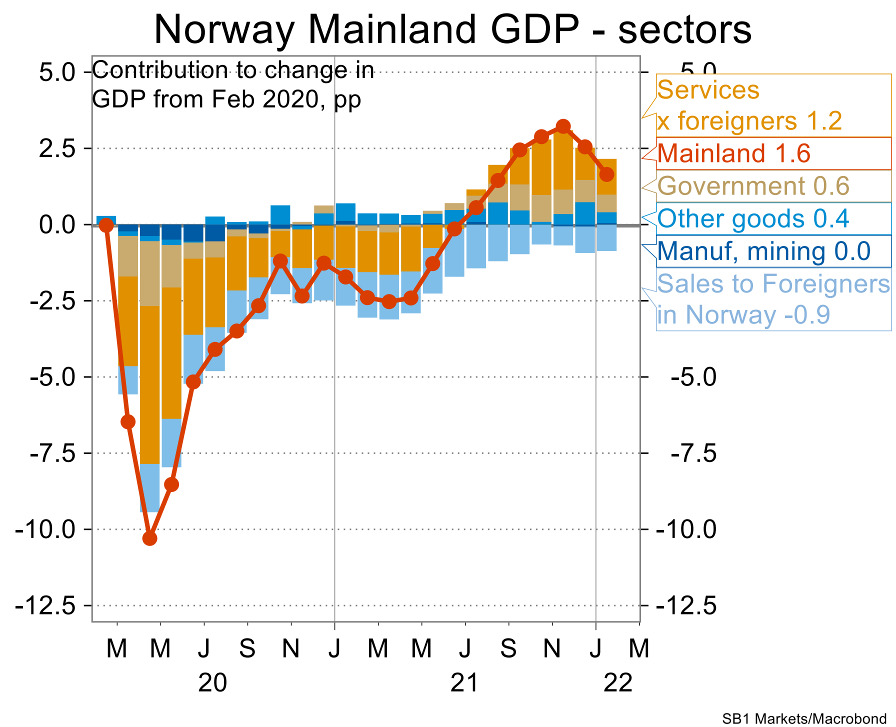




- **Mainland GDP** fell by 0.9% in Dec, Norges Bank expected -0.3% while consensus was for a 0.2% decline (we pencilled -0.3%). The decline in Dec was revises to -0.7%
  - » **Production:** Excluding a steep decline in the two volatile sectors ocean fisheries and electricity production Mainland production was unch. in Jan. Manufacturing production rose. Culture, transport yielded due to Covid restrictions. Trade fell as well
  - » **Demand:** Most components at the downside (counterweighted by increased inventories). Just Mainland business investments rose
- **Mainland GDP** is up 1.7% vs the Feb-20 level
- **The recovery** was intact until Covid restrictions were re-introduced in mid-December. Employment is still increasing and unemployment declining. We expect <u>GDP growth to return to in February, and not in April as NoBa assumed in December</u> – at least if ocean fisheries do not collapses

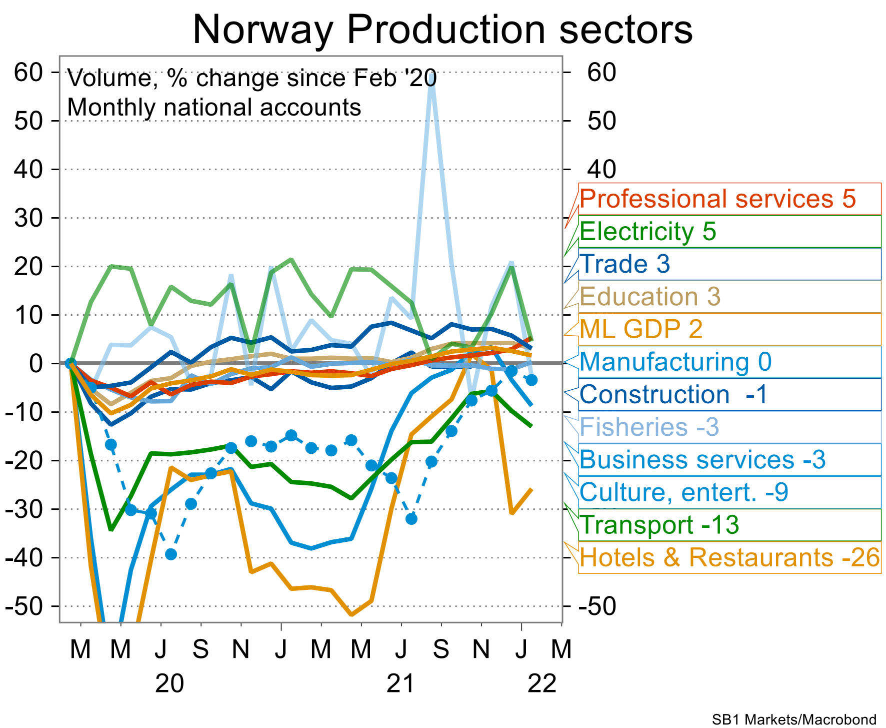
Production: Services slightly up in January, much more to come!

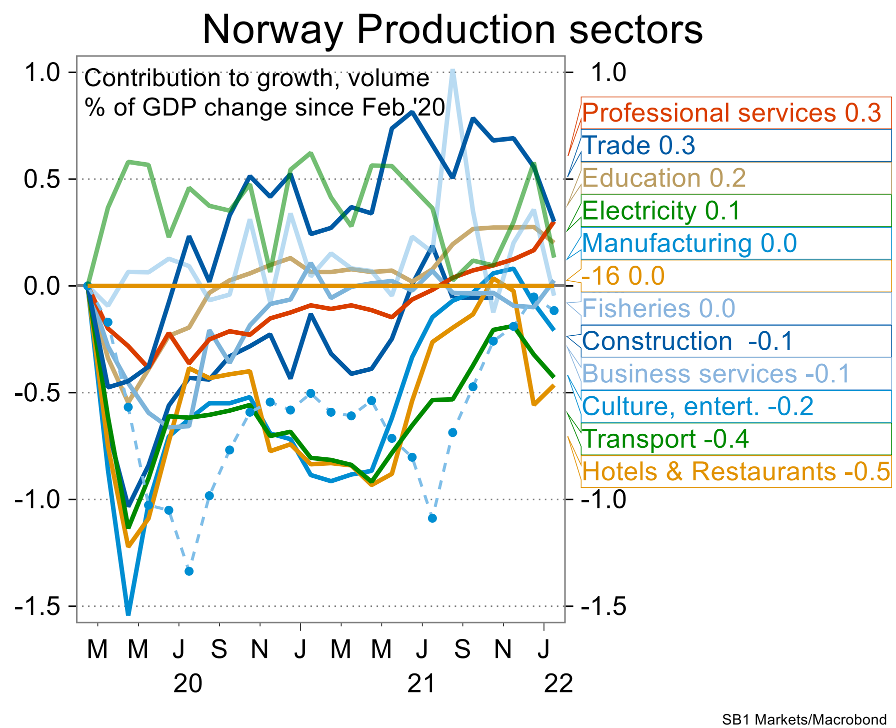




Prod. details: Hotels/rest. far below par again

Trade is heading down – and fisheries, electricity contributed substantially on the downside in Jan

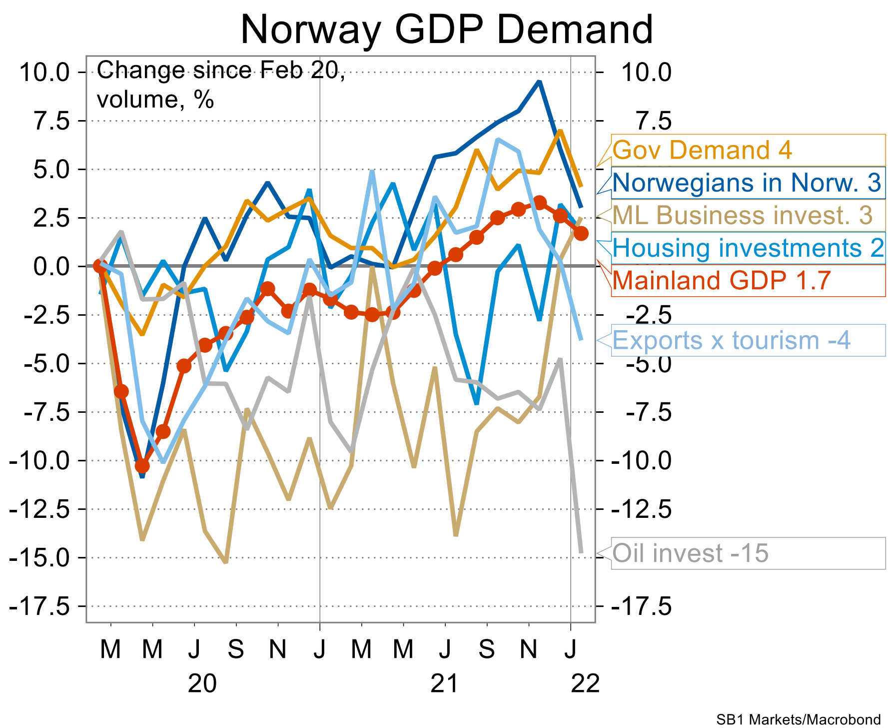


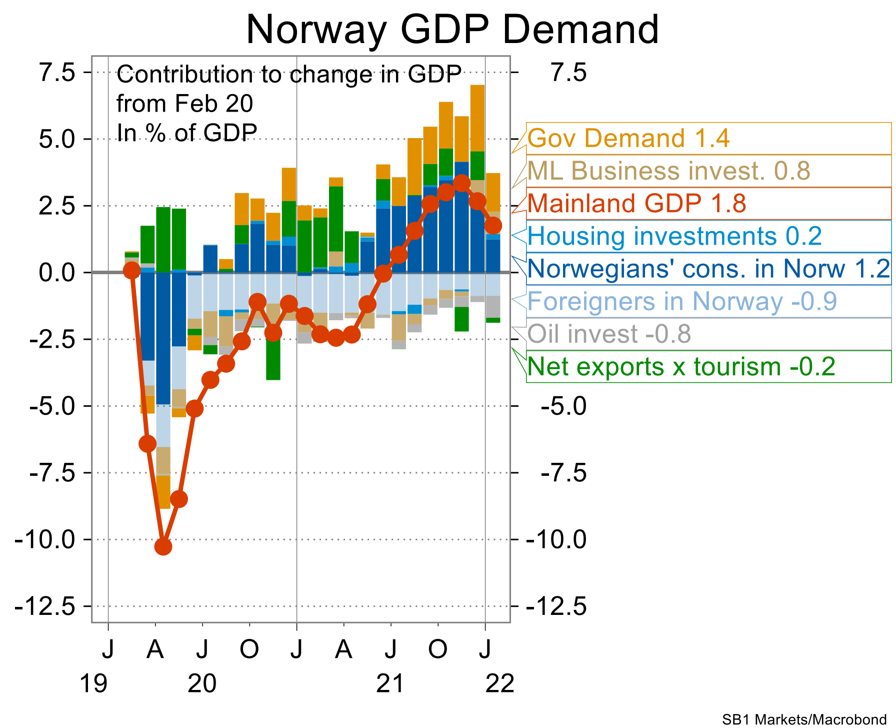


Business services: Temp services, travel agencies, call centres, congresses, cleaning, canteens, property services, leasing

Demand: A broad decline in Dec/Jan – except Mainland business investments

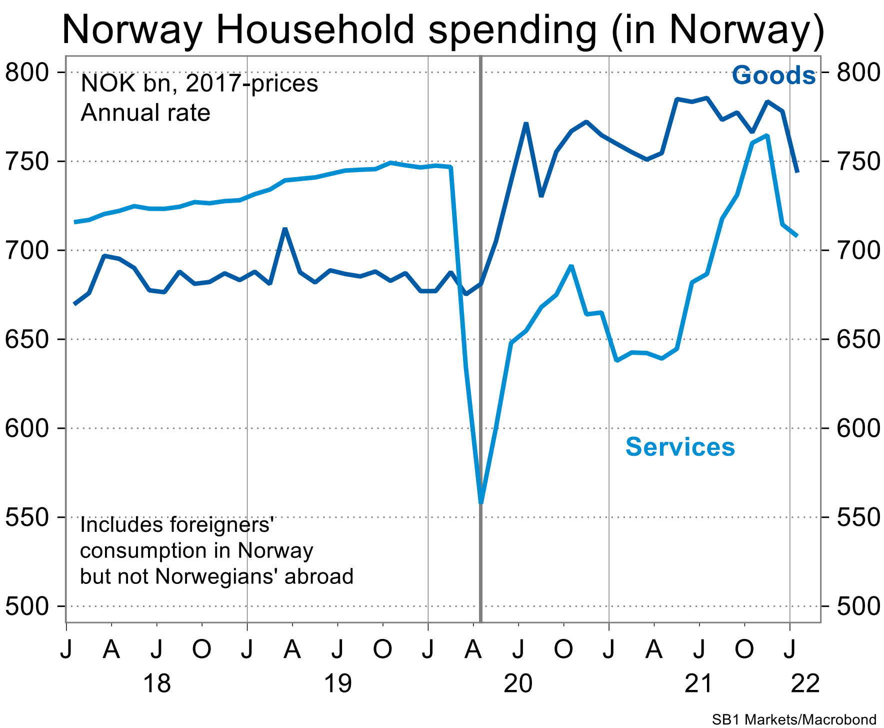
Oil investments sharply down in January, but data are very volatile

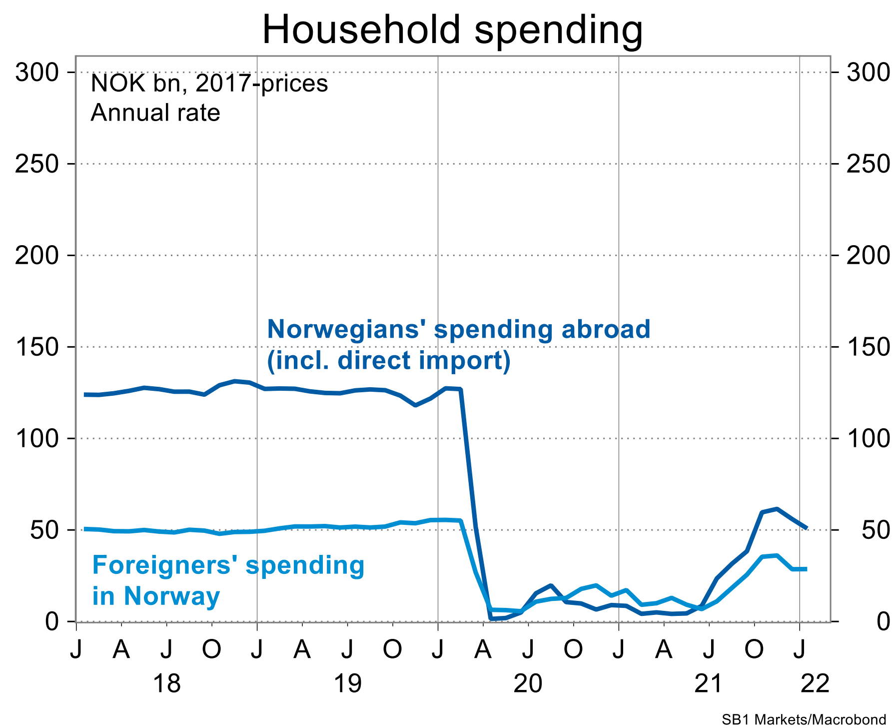




Consumption down in January, both goods & services

We expect a brisk recovery in services the coming months. Domestic spending on goods still 'too' high



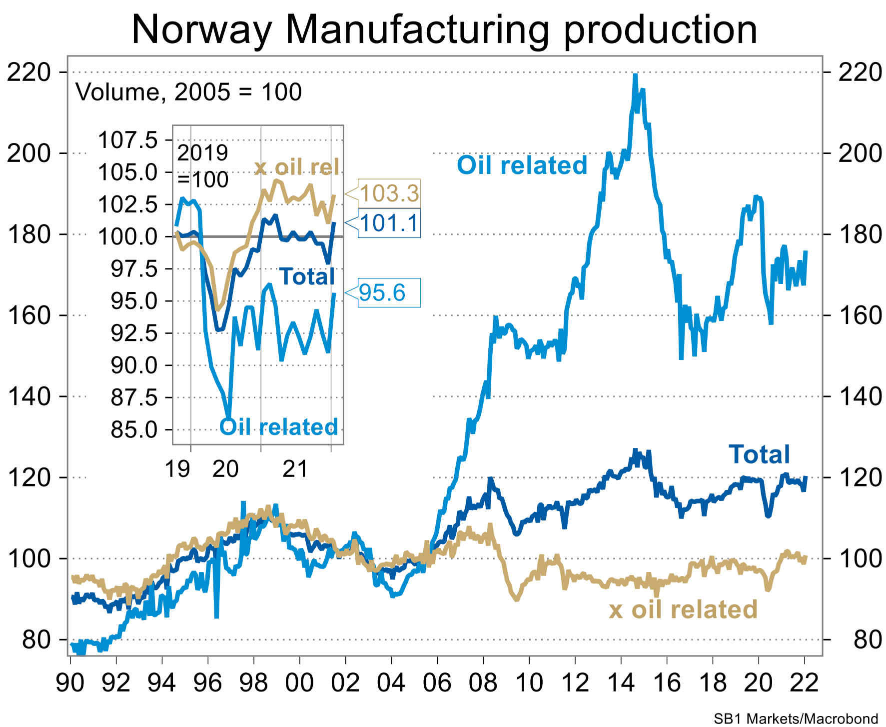


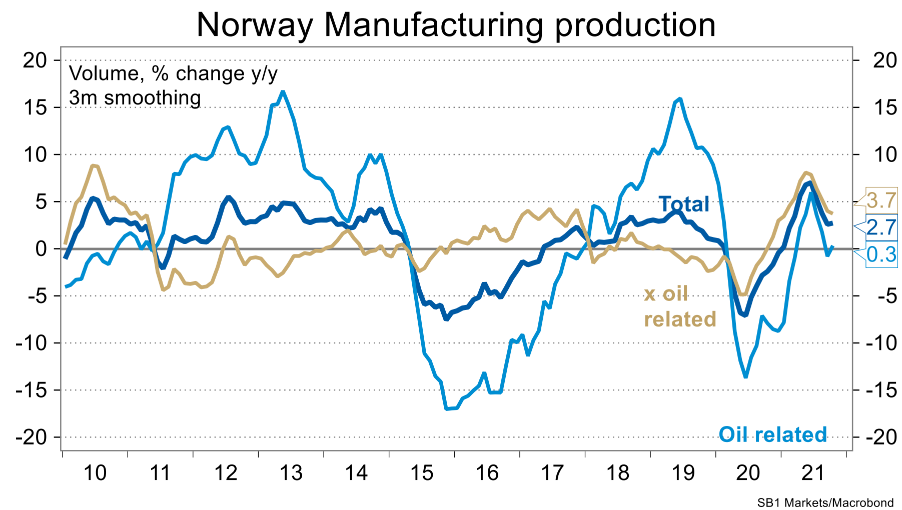
- Spending abroad is still muted, especially for Norwegians

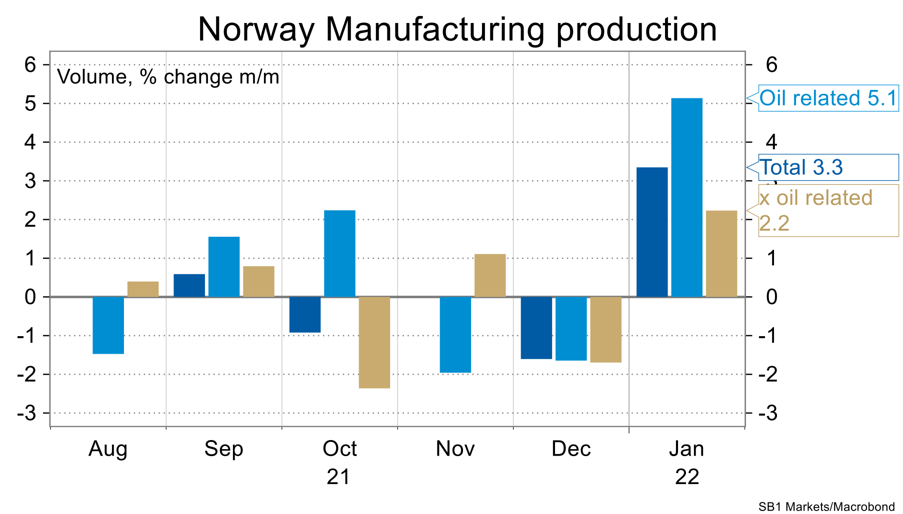
SpareBank 1 MARKETS

Manufacturing production up in January – but trend still flat

Most sectors reported growth



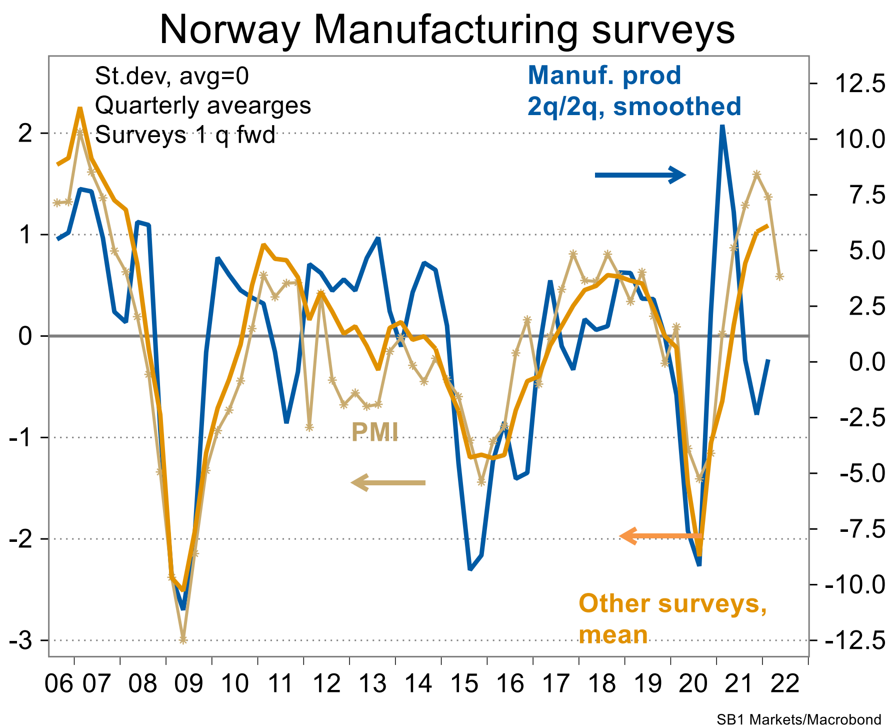




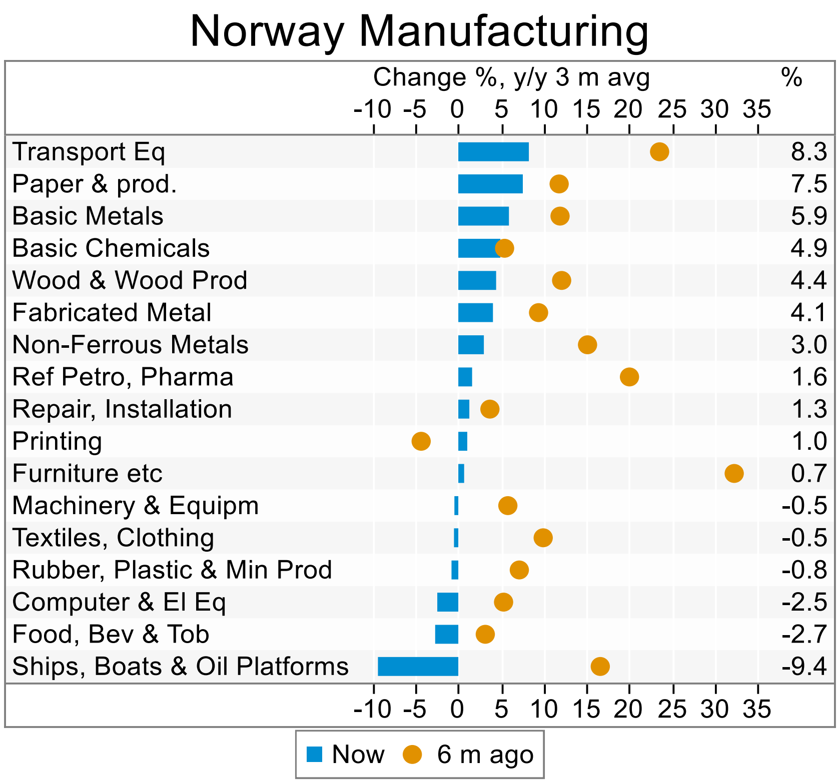
- Production rose 3.3%, well above our 1.5% estimate
  - » Oil related manufacturing production gained 5.1% - but is trending down
  - » Other sectors were up 2.2% - and the short term trend is flat/up
- However, production x oil related sectors is 3.3% above 2019 level, while oil related is down 4.4%!
- Manufacturing surveys are signalling strong growth in activity, but actual production has been flat since last April

Surveys are signalling growth (like elsewhere)

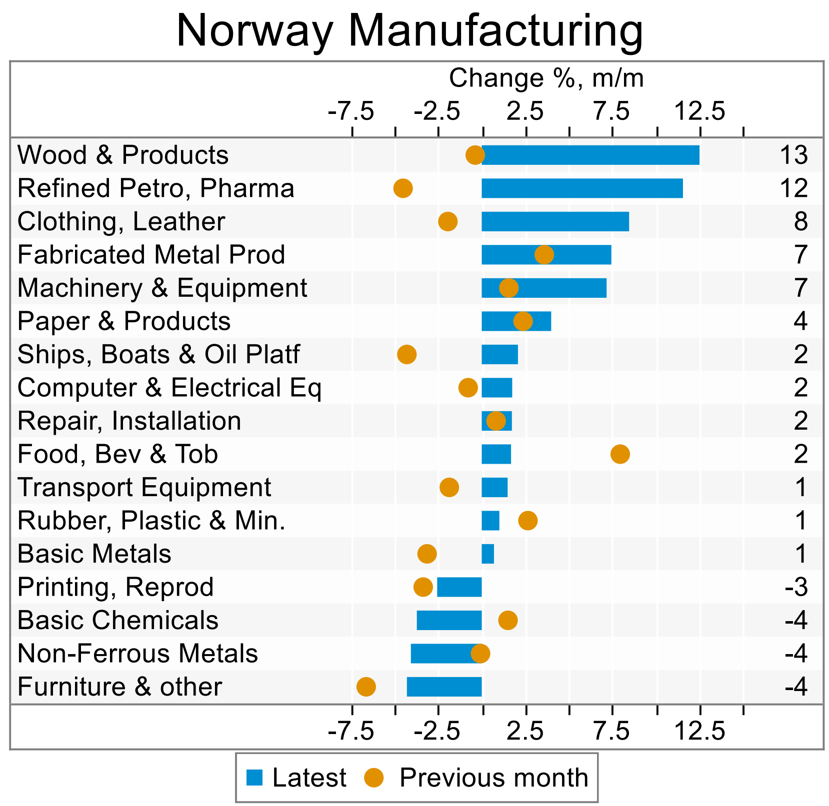
… but so far production has not been that impressive (like most other places)



Rather mixed between sectors: Electronics, food, ships down y/y



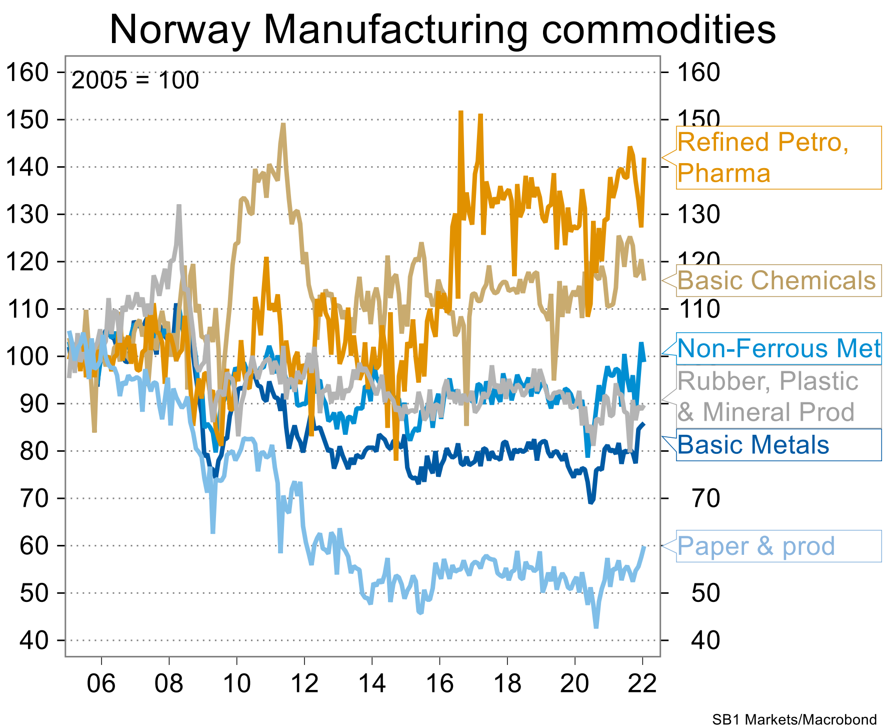
SB1 Markets/Macrobond

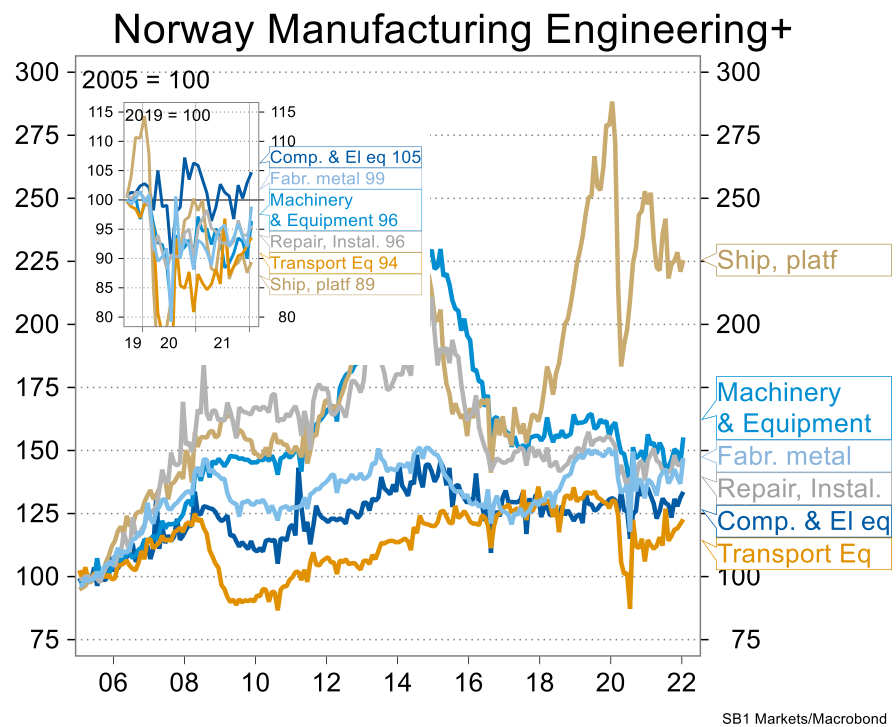


SB1 Markets/Macrobond

Engineering on the way up, barring ships & platforms

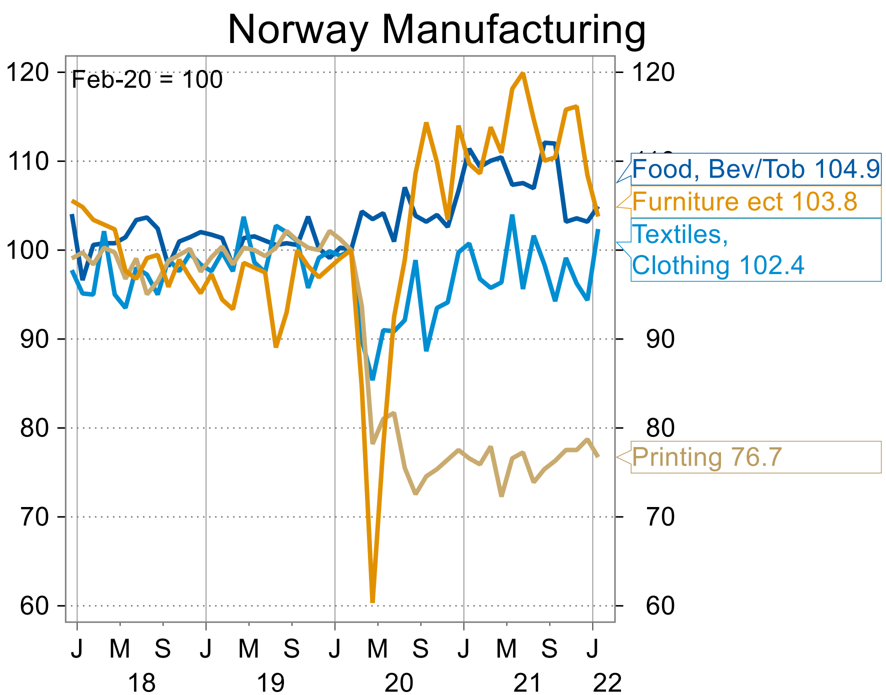
Intermediate goods (metals, chemicals, paper) mostly on the way up





- **Production of ships & platforms** has flattened – other engineering sectors are on the way uo
  - » **Corona measures** (lack of foreign labor, contacts with foreign vendors/customers), supply chain challenges probably explained parts of the decline in the early phase of the pandemic, while demand has slowed as well – but oil investments is now covering (at least for a while)
- **Commodities** have been on the way up, but some branches have reported lower production recent months

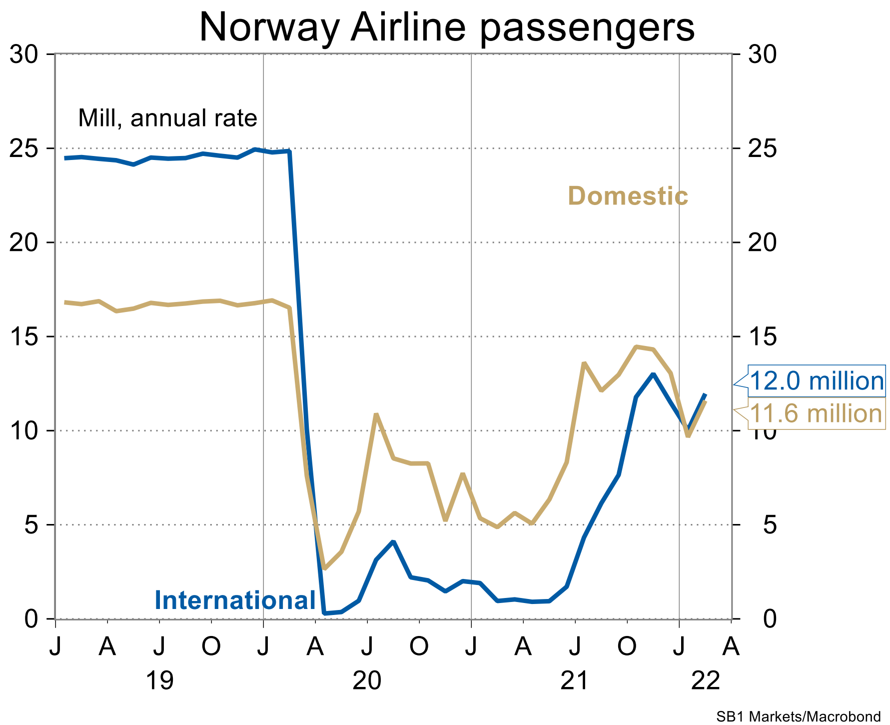
Food production is back to a normal level – and furniture prod. is approaching it

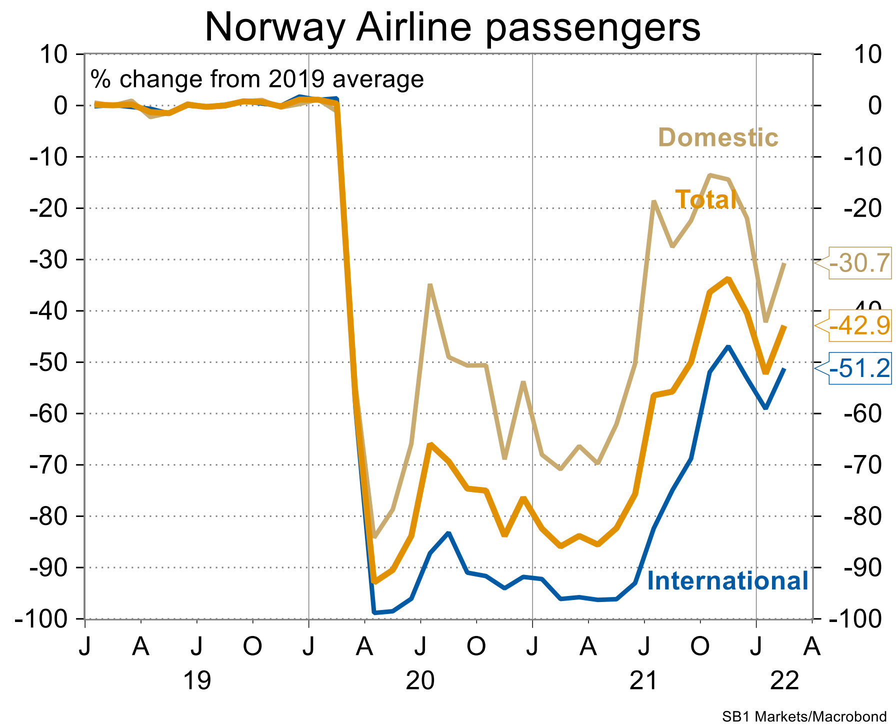


SB1 Markets/Macrobond

Airline traffic up 20% m/m in February, much more to come in March

Domestic traffic down 31% vs 2019, international traffic by 51%



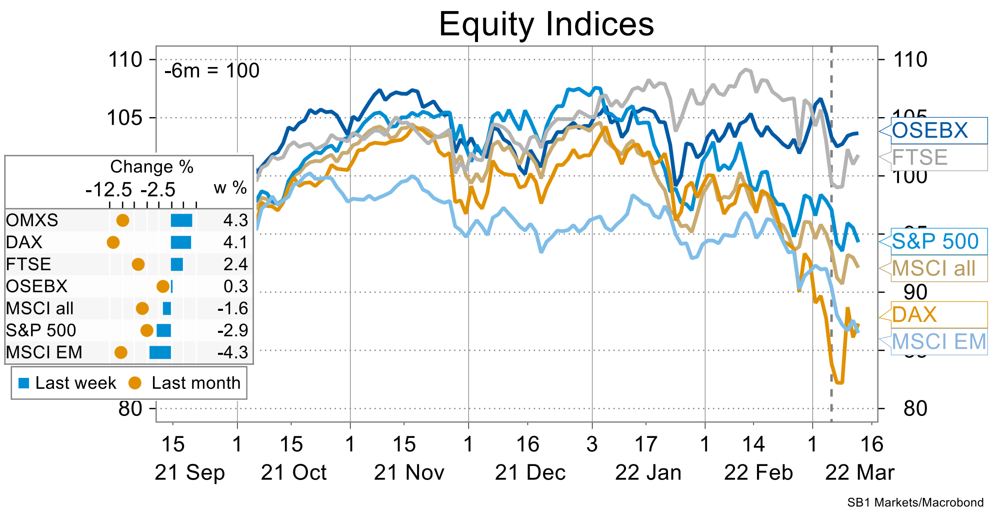


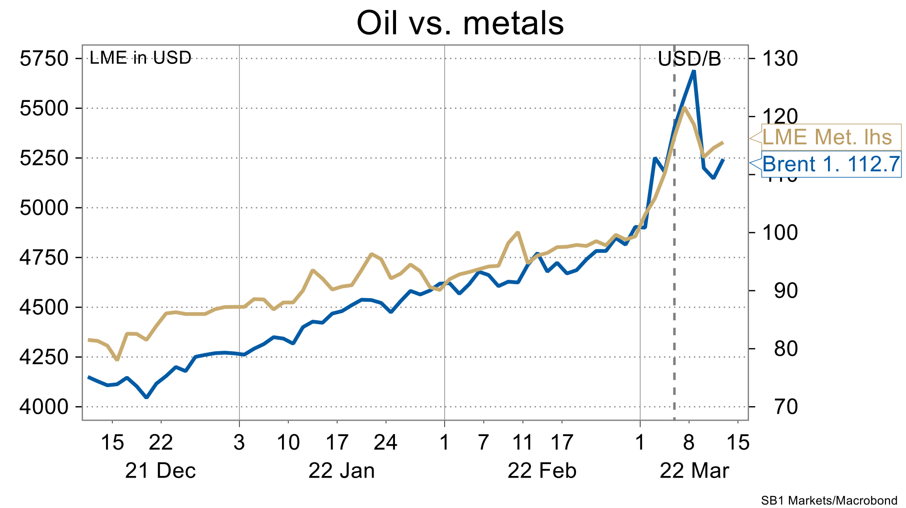
- Total traffic is down 53% vs. the average 2019 level
- Traffic is also below the Nov-21 level, before the Omicron variant hit

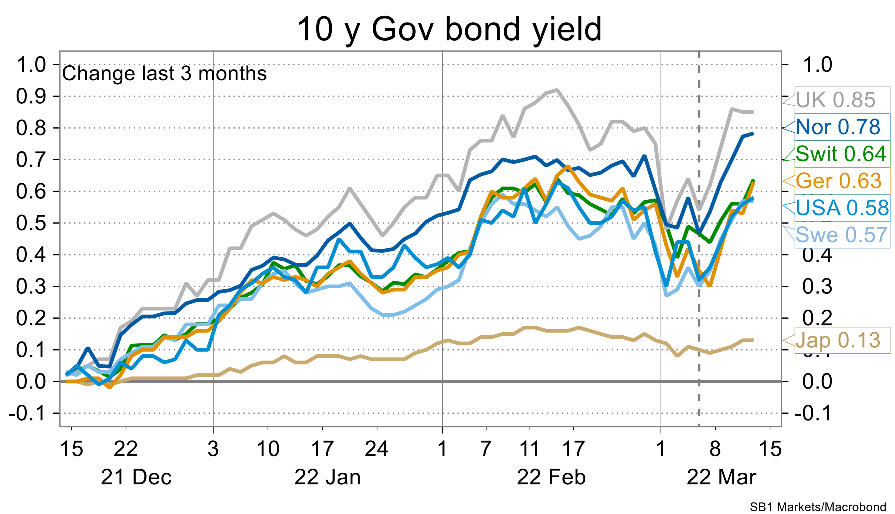
SpareBank 1 MARKETS

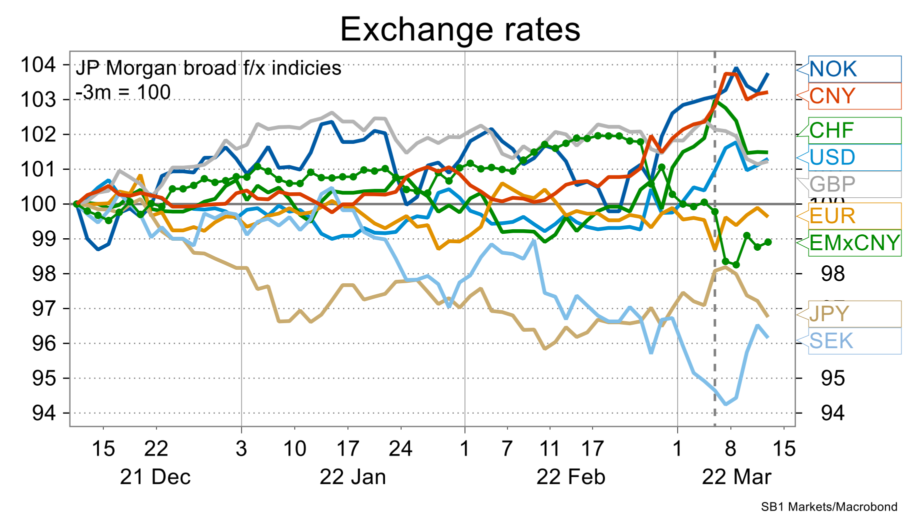
S&P500 down 2.9%, the DAX up 4.1%. Bond yields up, oil down

Markets all over the place, day by day: Uncertainty creates volatility, of course



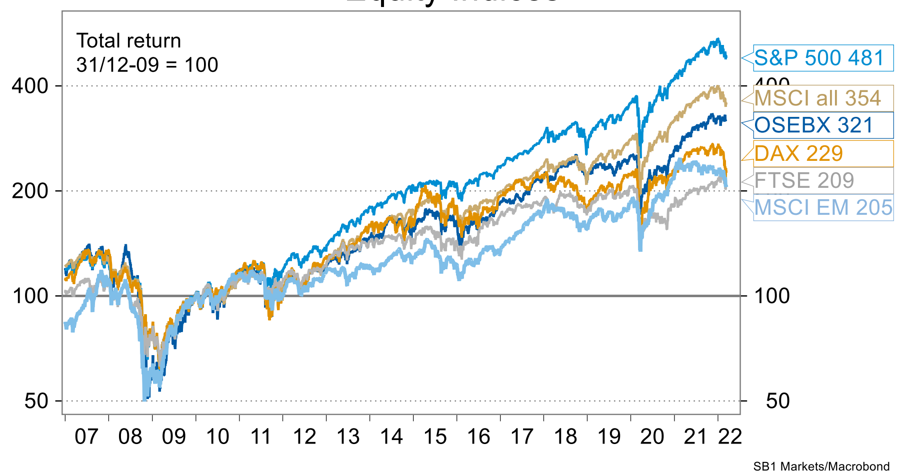




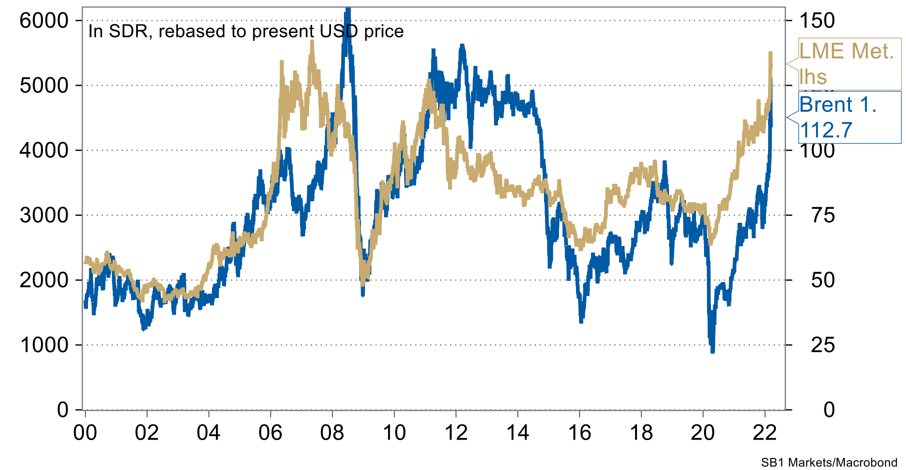


The big picture: Stock markets down, bond yields up

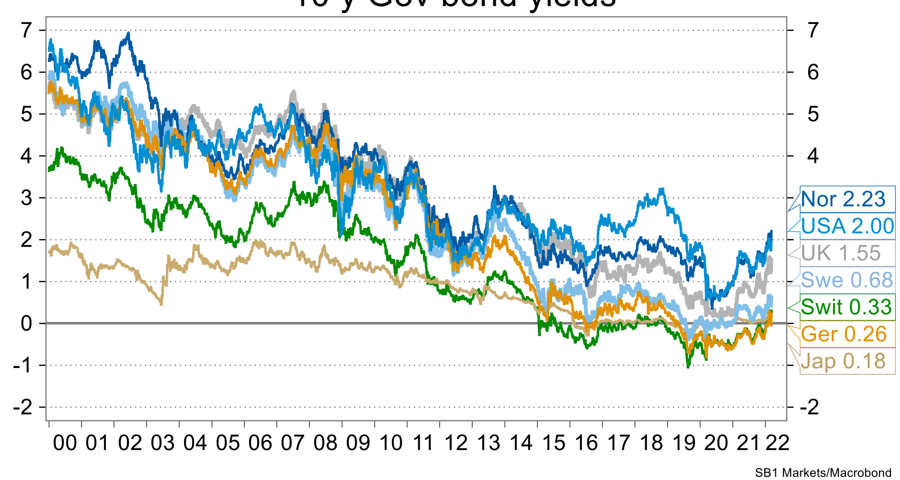
Equity Indices



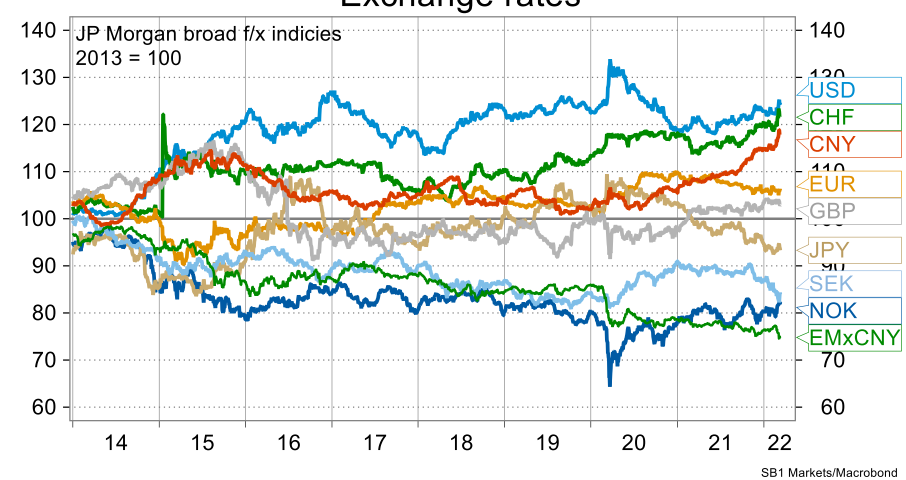
Oil vs. metals



10 y Gov bond yields



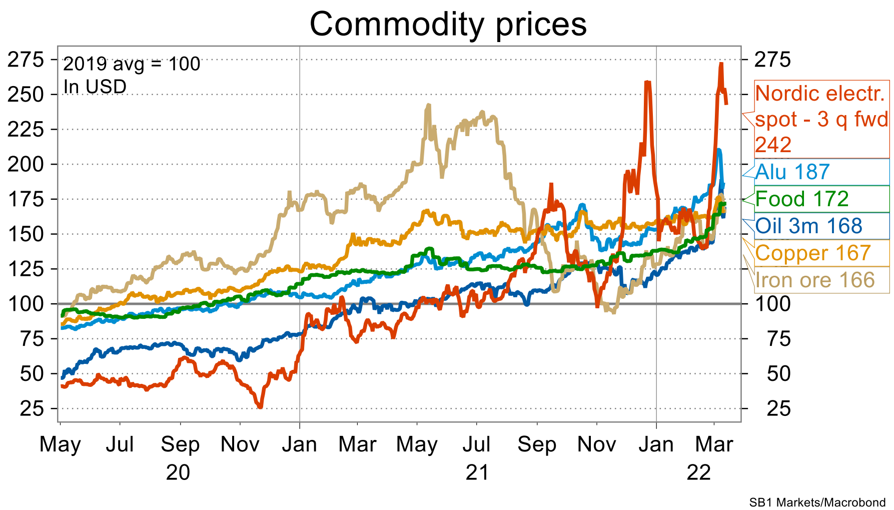
Exchange rates

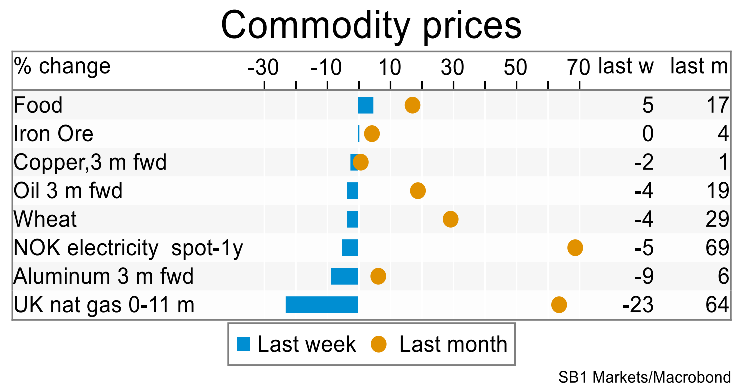


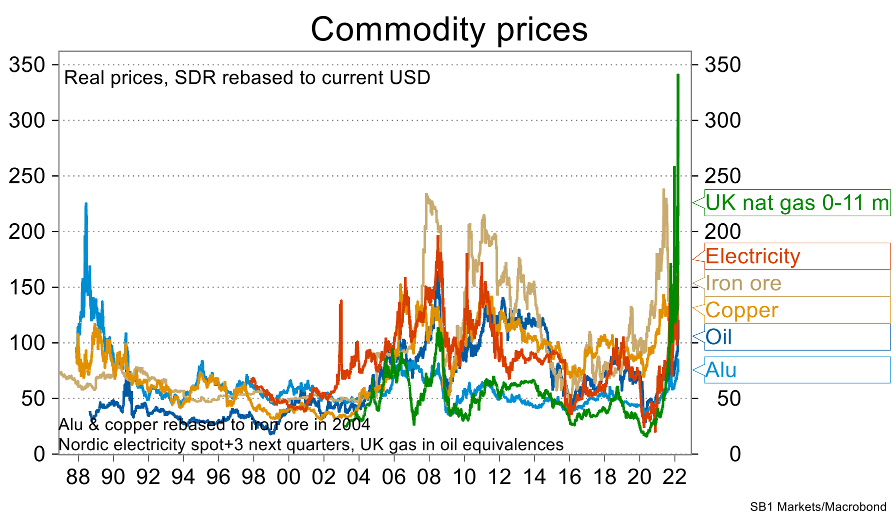
SpareBank 1 MARKETS

Most commodity prices down last week

However, food prices continued upwards on fear of less supplies from Russia/Ukraine





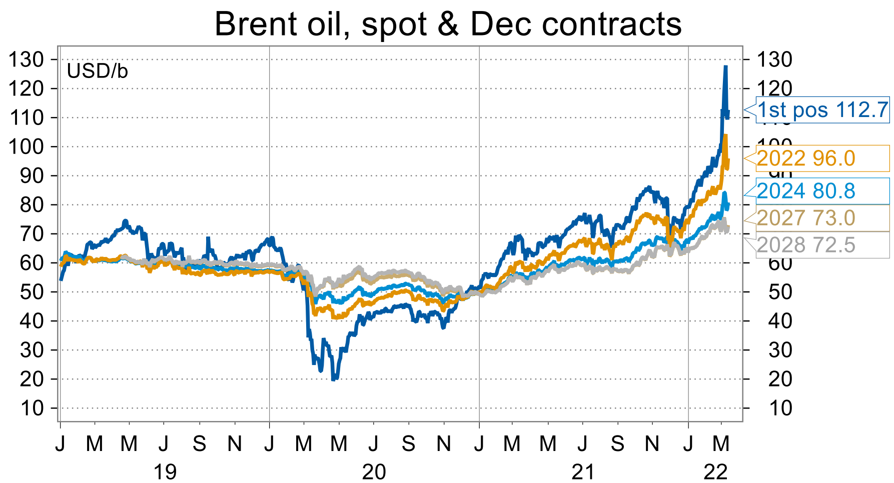


- Will **Russia be allowed to export** oil and gas, will buyers abroad buy the stuff or will **Russia turn the tap off**?
- Will Russia/Ukraine sell grain – restrictions are introduced (as for many other goods)

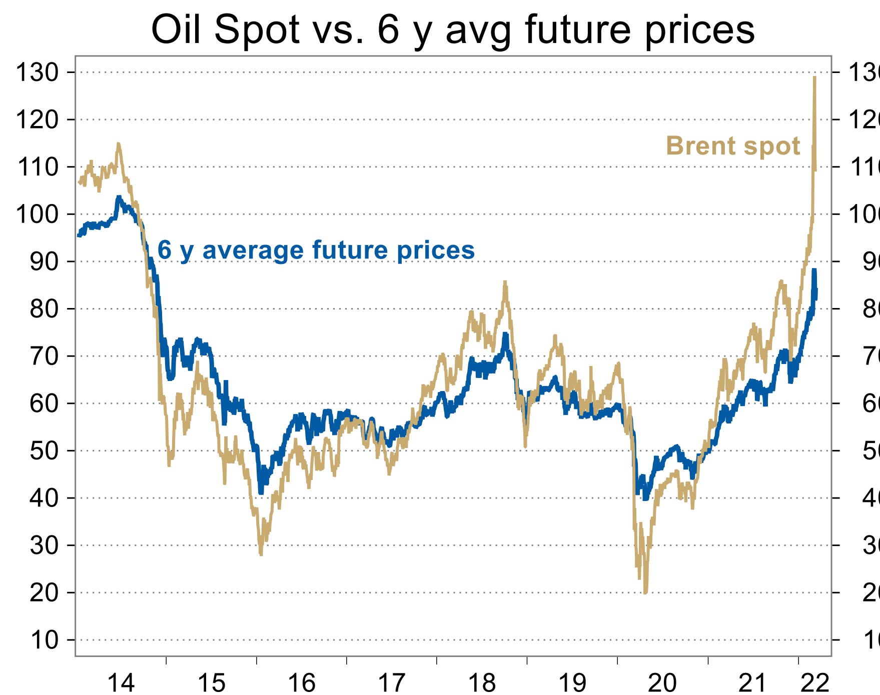
SpareBank 1 MARKETS

The whole oil price down last week – all over the curve

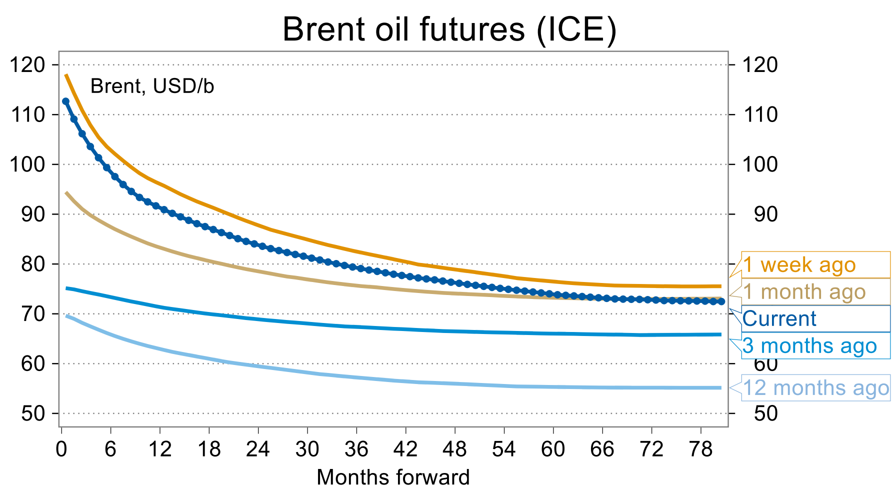
Future prices have been much more stable than the short end of the curve



SB1 Markets/Macrobond



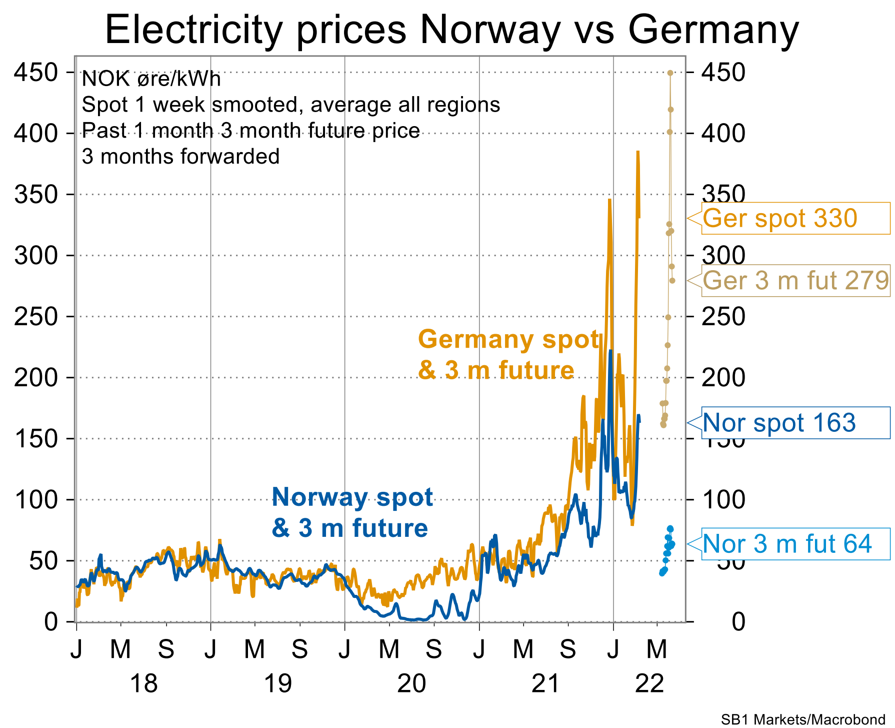
SB1 Markets/Macrobond

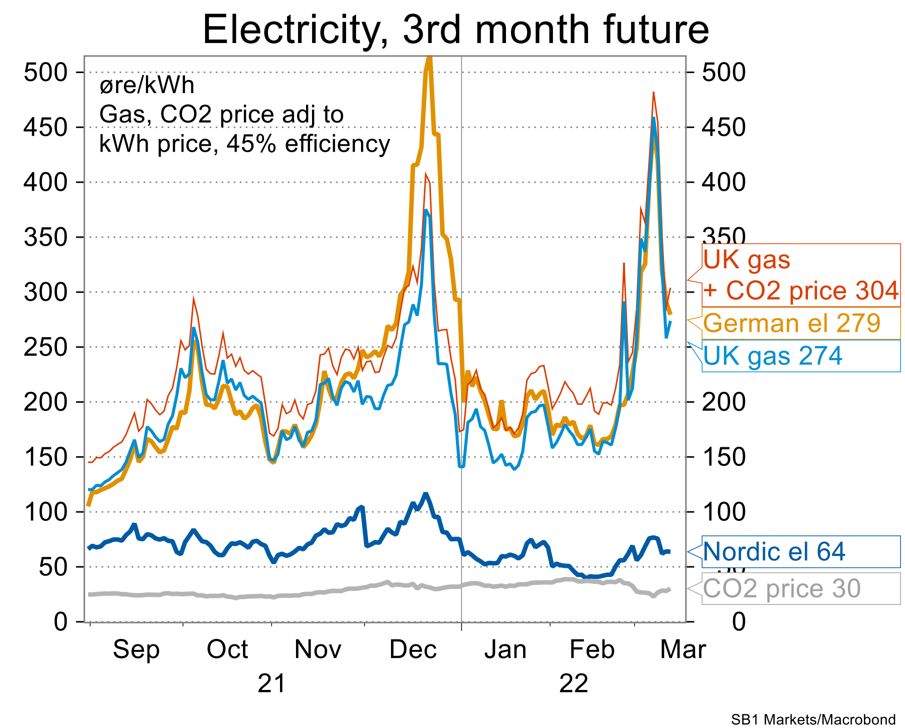


SB1 Markets/Macrobond

Will the Russian gas keep flowing? EU does not want it, long term

Russia may choose to keep the flow up - at least markets were calmed down last week

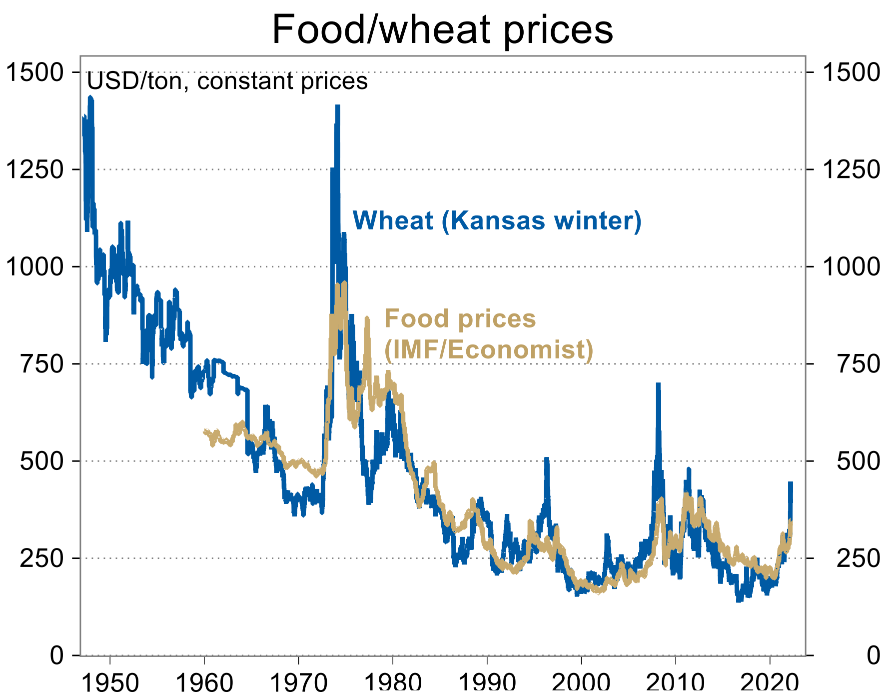


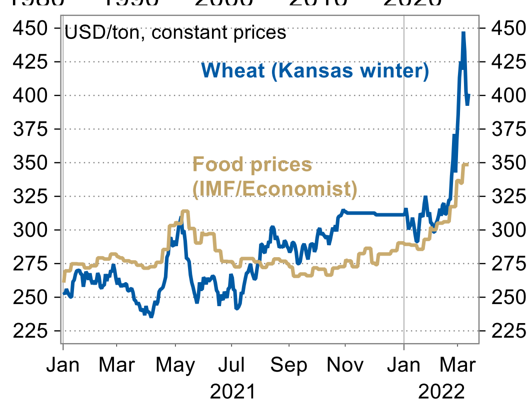


- **The 'Norwegian' risk**: Nordic future electricity prices remain far below European forward prices
- The Norwegian 2022 prices are up by approx. 33 øre/kWh since before the Russian invasion. At the CPI level (assumed continued subsidies, and low prices in Mid/Northern Norway), 2022 prices will be lifted , lifting the overall 2022 CPI by 0.4 pp
  - » The 80% subsidy for prices above 70 øre/kWh reduces the impact of higher electricity prices for Norwegian consumers substantially

Food prices are rising steeply but we have seen far higher prices before

… and even in Russia & Ukraine is are huge grain exporters, their exports equal just 4% of global cons.



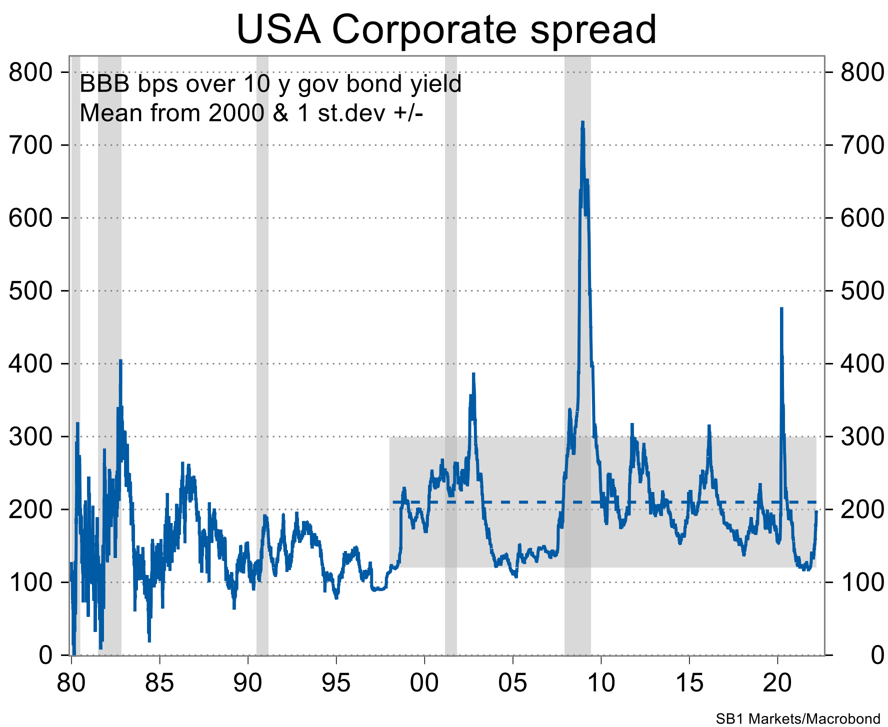


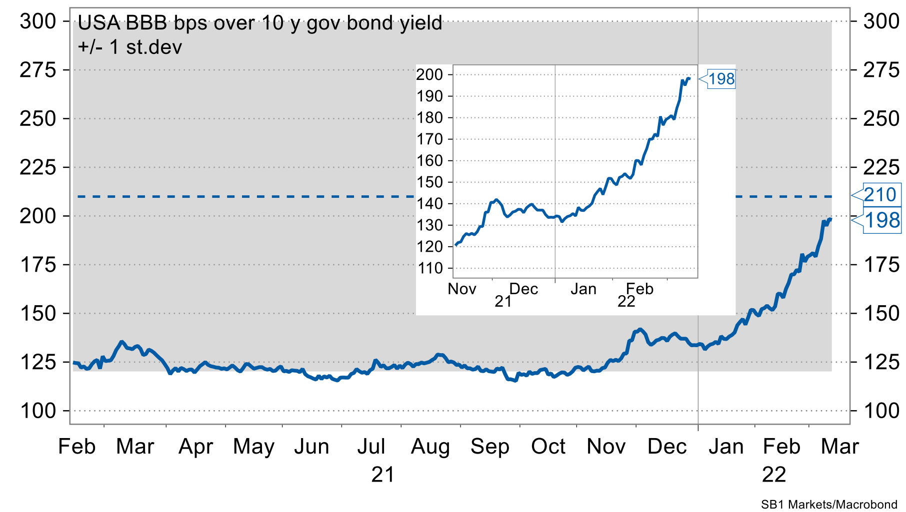
- **Russia and Ukraine** together exports 24% of global grain exports (and 25% of all wheat exports)
- However, exports (and imports) of grains equals 'just' 18% of **total consumption** – and Russian/Ukrainian exports equals 'just' 4% of global consumption – and somewhat higher for wheat
- **Russia & Ukraine exports** 103 mill tons in grains. Grain production is increasing over time, but is also declining from time to time – like by 50 mill tons in 2017/18 – without sending prices to the sky
- **Grain stocks** are somewhat below normal but not by much, at 26-27% vs. the 28% average (of annual consumption
- Of total consumption, less than **1/3 is eaten by humans**, while almost 50% is used as feedstock for animals/birds (we then eat)
  - » If just a small fraction of the proteins that are used for feedstock was consumed directly by humans, instead if eaten like meat, the world is well supplied without and imports from Russia or Ukraine

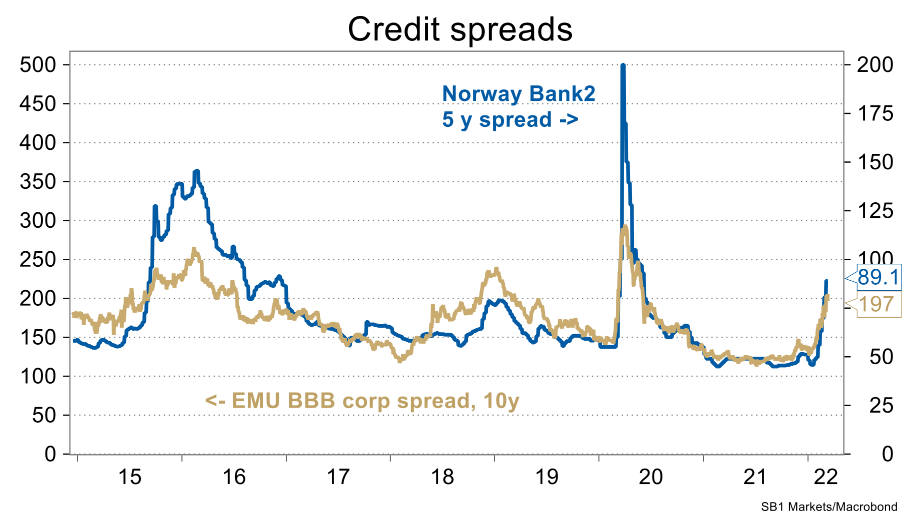
SpareBank 1 MARKETS

Credit spreads widens further, in Norway also, of course

Norwegian bank's borrowing cost rose by 8 bps (to 89 bps, Bank 2, 5 y, up from below 50 bs 1 m ago)





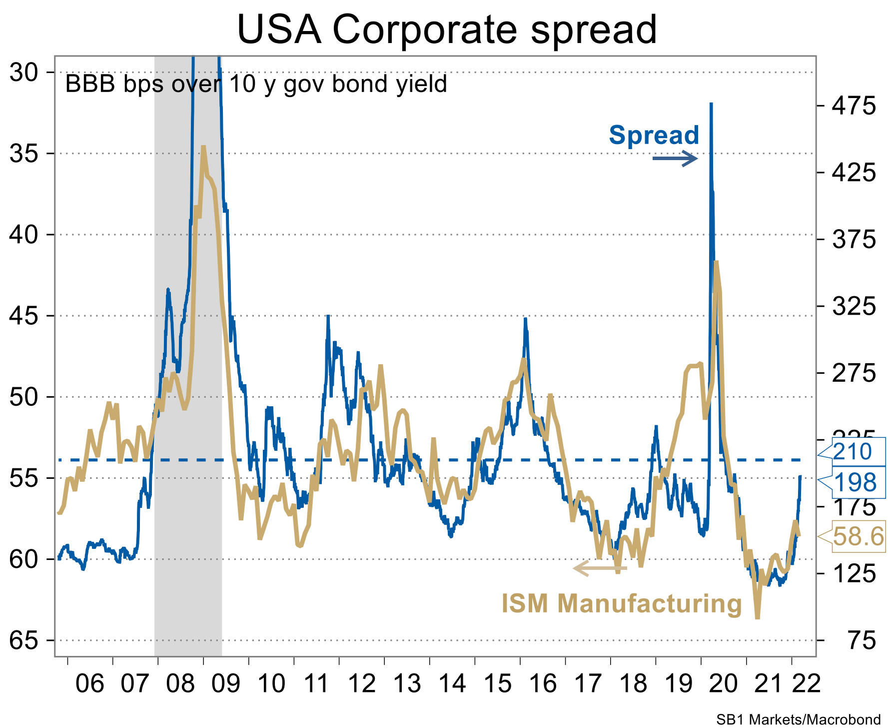


- The increase in US Corporate BBB spread now equals almost 1 st.dev, still far from a normal full 'small' credit cycle
  - » The credit cycle is often closely correlated to the economic cycle, check next page

SpareBank 1 MARKETS

It could be the economy, stupid

Growth has to be slowed to get inflation under control. If that happens…



- Growth has already slowed somewhat, according to the US manufacturing ISM – and all other surveys
- And now some other risks have materialised

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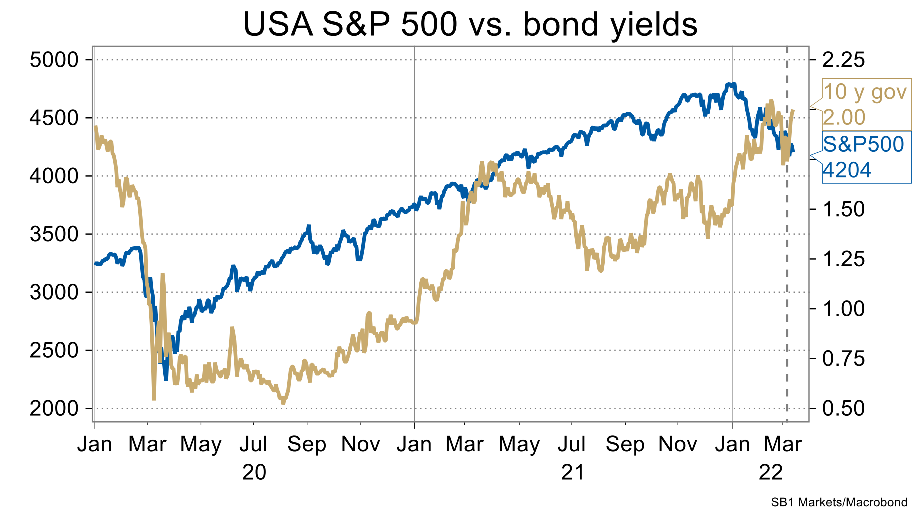
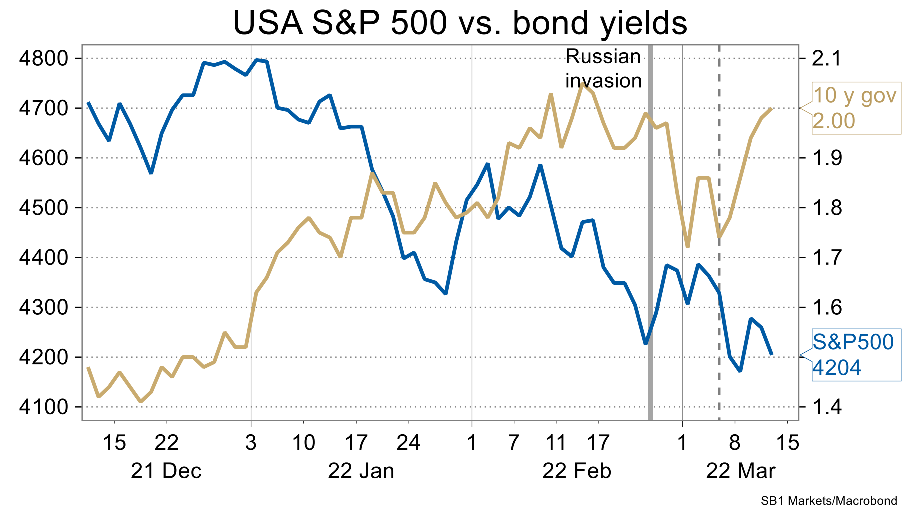
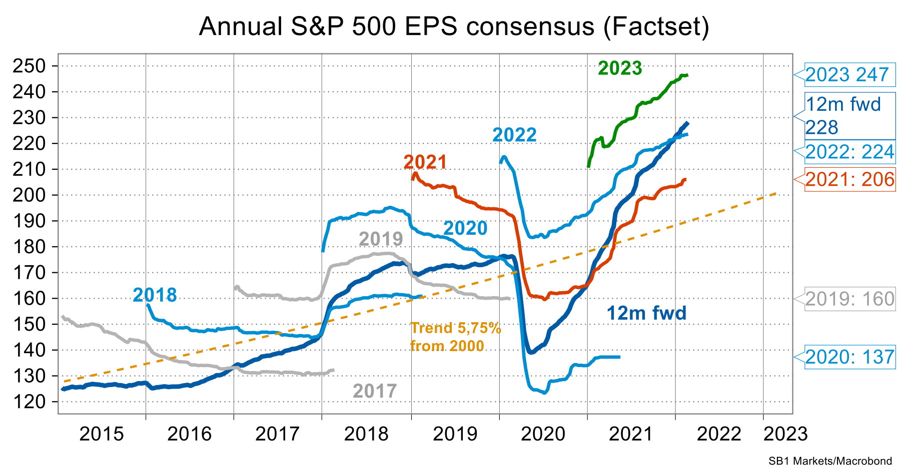
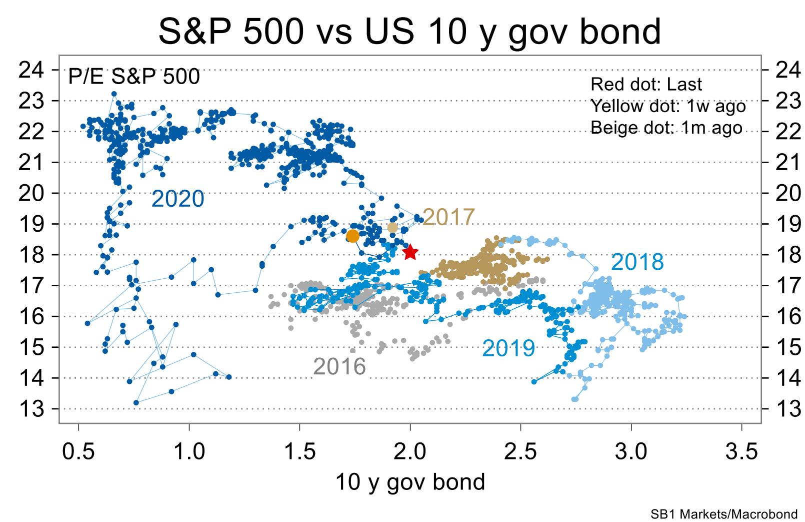
S&P down last week – but up from before the Russian invasion

Bond yields reversed the previous week's decline; the 10 y bond yield up by 26 bps to 2.00%





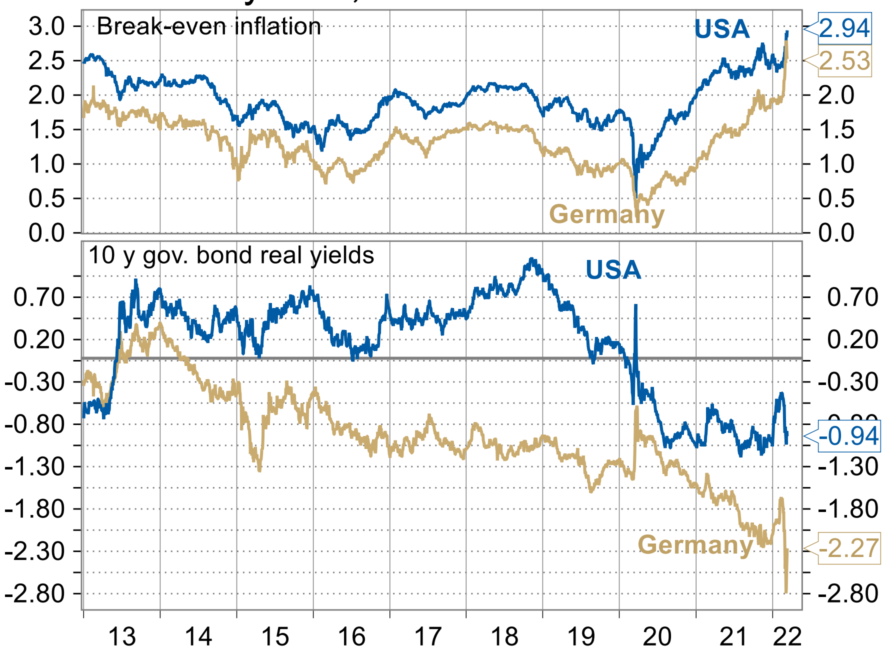




Wild bond market gyrations!

10 y US inflation expectations up 27 bps, is approaching 3%! Not OK for the Fed!
German real rates up 22 bp! Inflation expectations at 2.53% is far above ECB's comfort zone

Real yields, break-even inflation



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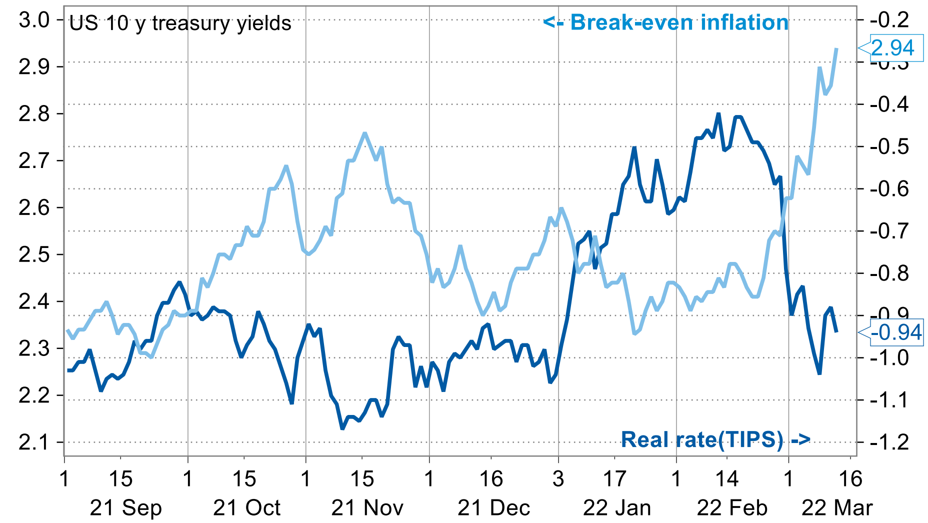

US & Germany 10 y Gov bond yield

	Yield	Change 1w	Change 1m	Since Feb 18	Min since April-20
USA nominal treasury	2.00	0.26	0.08	0.08	0.52
.. break-even inflation	2.94	0.27	0.51	0.53	1.06
.. TIPS real rate	-0.94	-0.01	-0.43	-0.45	-1.19
Germany nominal bund	0.26	0.28	-0.01	0.04	-0.65
.. break-even inflation	2.53	0.06	0.60	0.54	0.40
.. real rate	-2.27	0.22	-0.61	-0.50	-2.80

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- **Higher energy & raw material prices** due to the supply shock (if Russian energy & other raw materials are kept out of European/global markets) will push inflation further up – and growth will very likely slow, due to reduced disposable incomes perhaps also due to increased geopolitical uncertainty. German 10 y inflation expectations at 2.53% is unprecedented (up 54 bps since before the invasion)
- **The sanction regime** is being tightened by the day, and we do not know how Putin's regime will respond, by cutting exports of energy, food & raw materials the West still (possibly) wants to buy
- **Real rates** are still extremely low, especially in Germany

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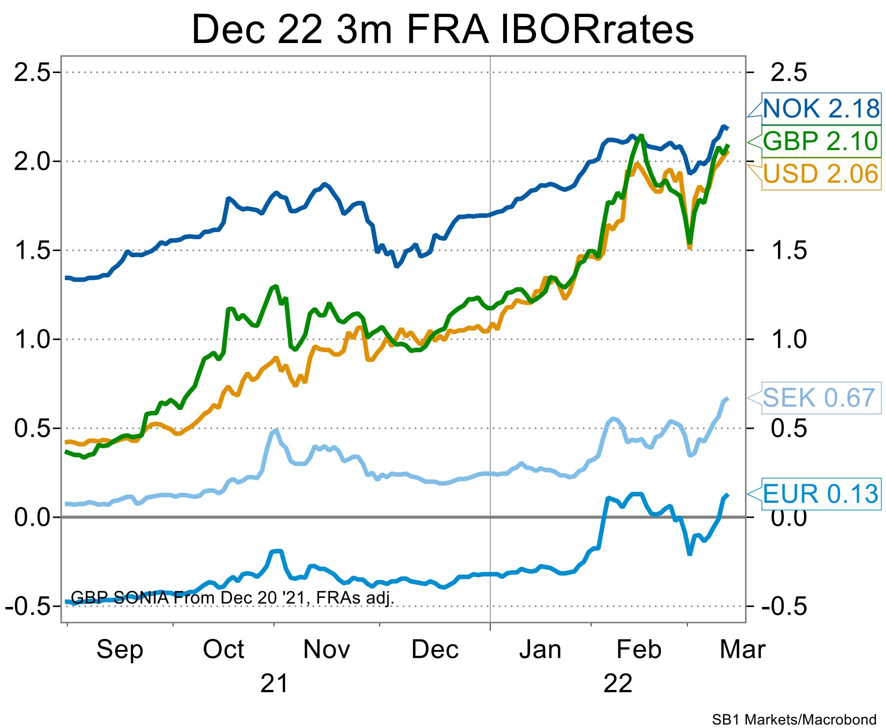
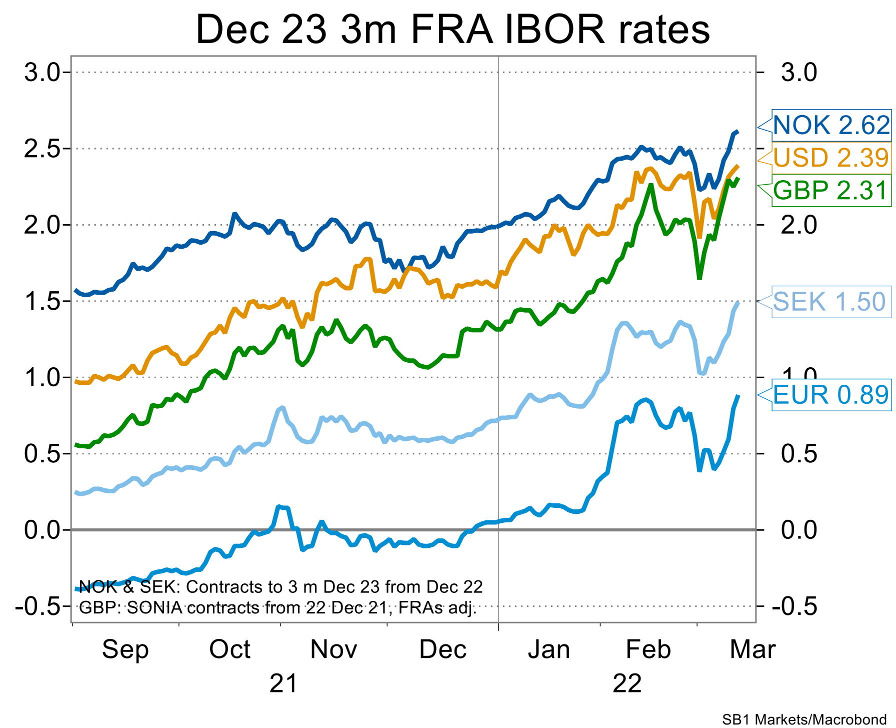
And then a huge lift in rate expectations – up to cycle highs everywhere

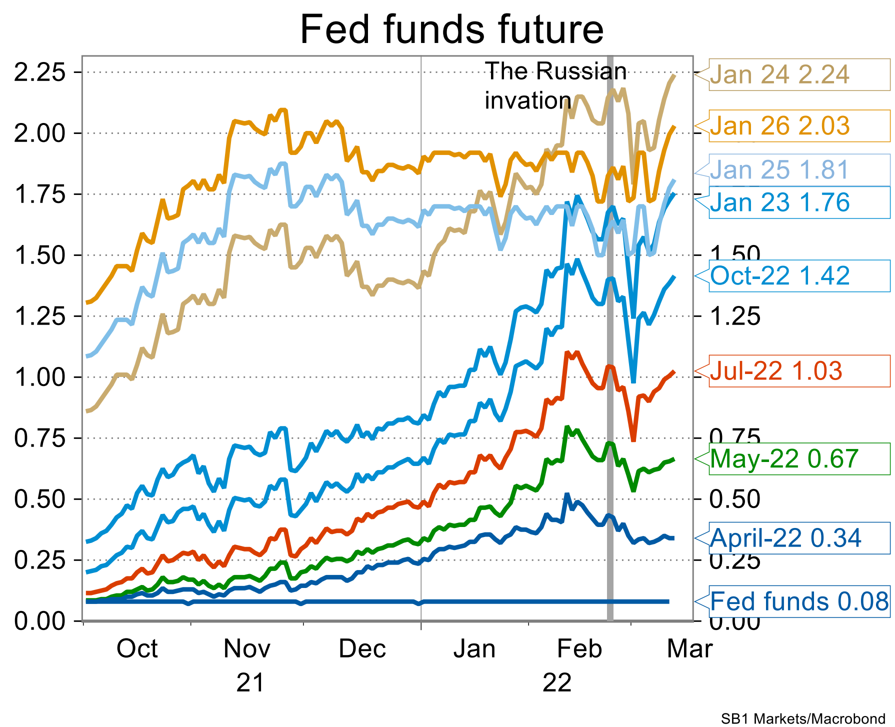
Inflation worries are once again dominating growth uncertainty, even in the Euro area

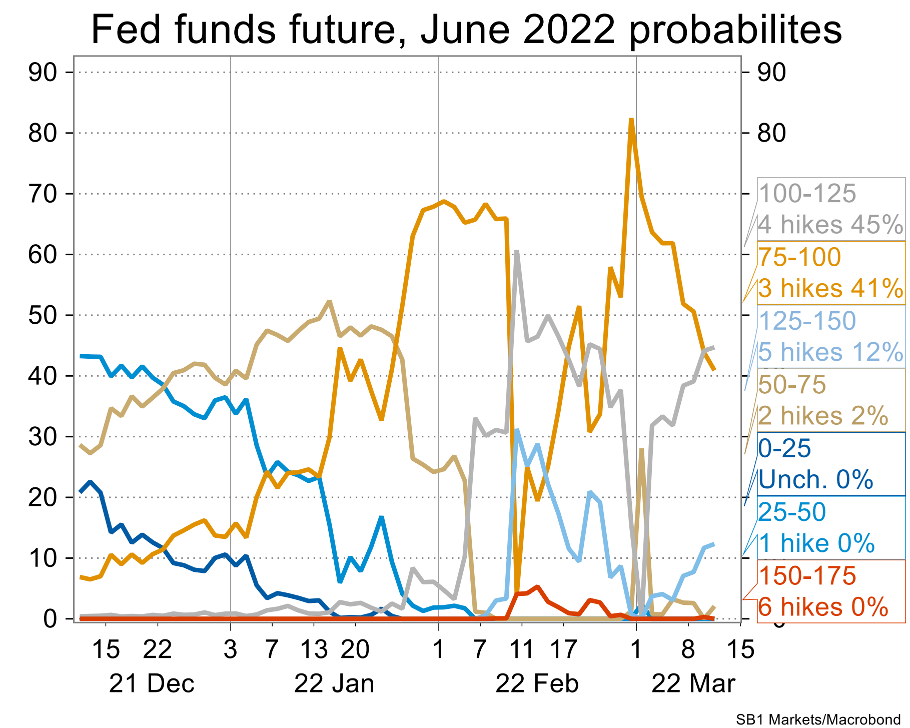




Fed funds future curve is steeping rapidly. 4 x 0.25 bps likely by the end of June!

.. And 3 more before the end of 2022. Prices and wages have taken the front seat agian

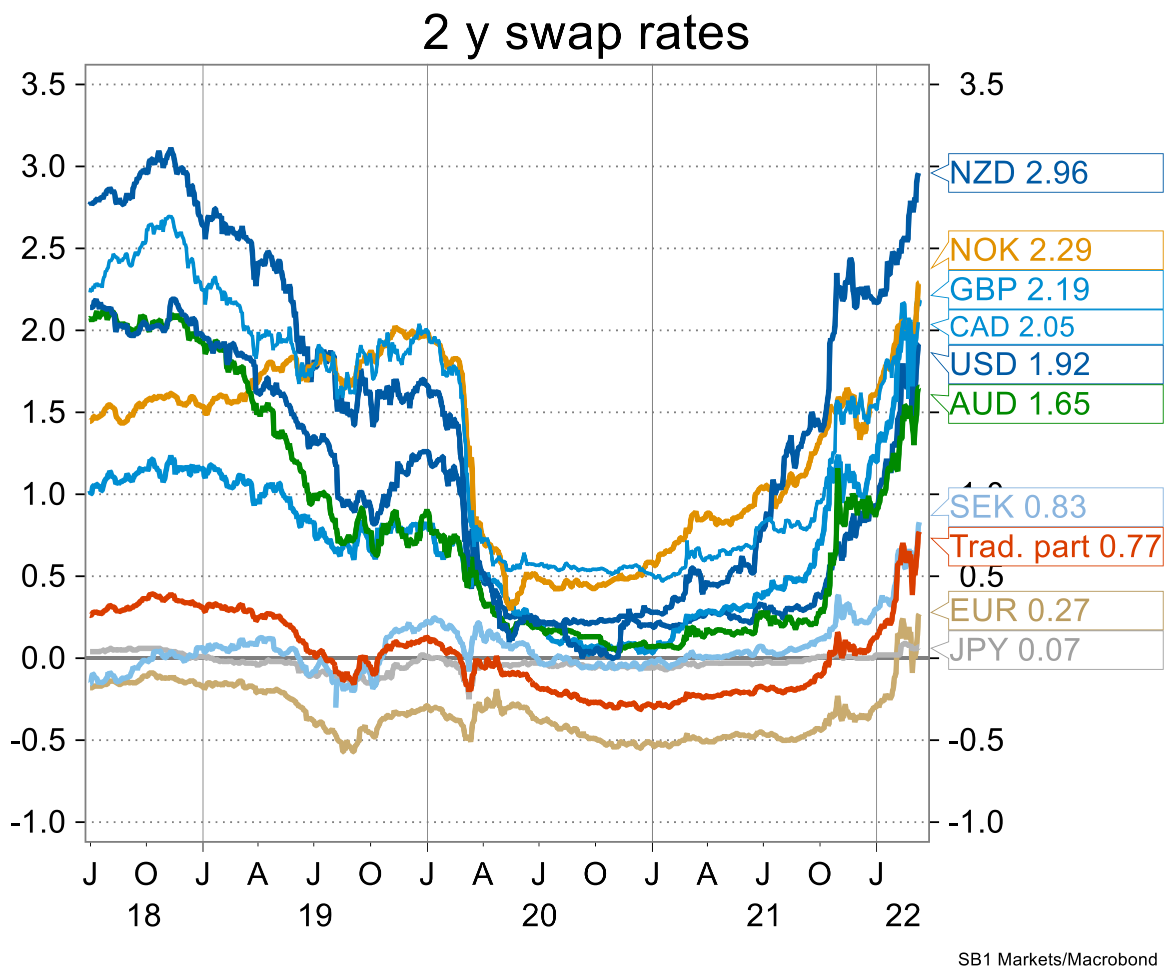


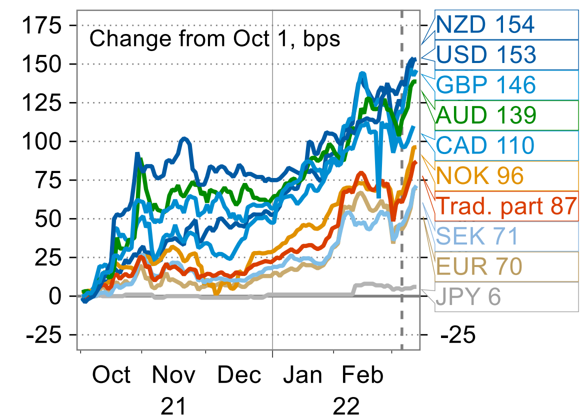


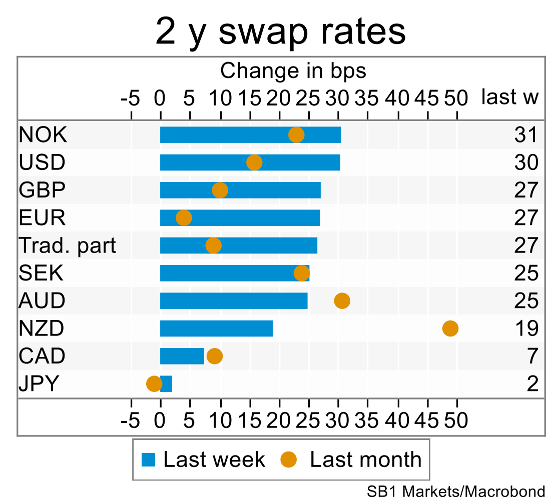
- A March 23 25 bps hike is taken for granted, and a 50 bps hike is deemed unlikely
- From there, more hikes are expected in May and June, in total 3 x 25 bps, in addition to the March hike

Geopolitics makes our charts unreadable – too much volatility

Anyway, the short end of the curve rose massively last week

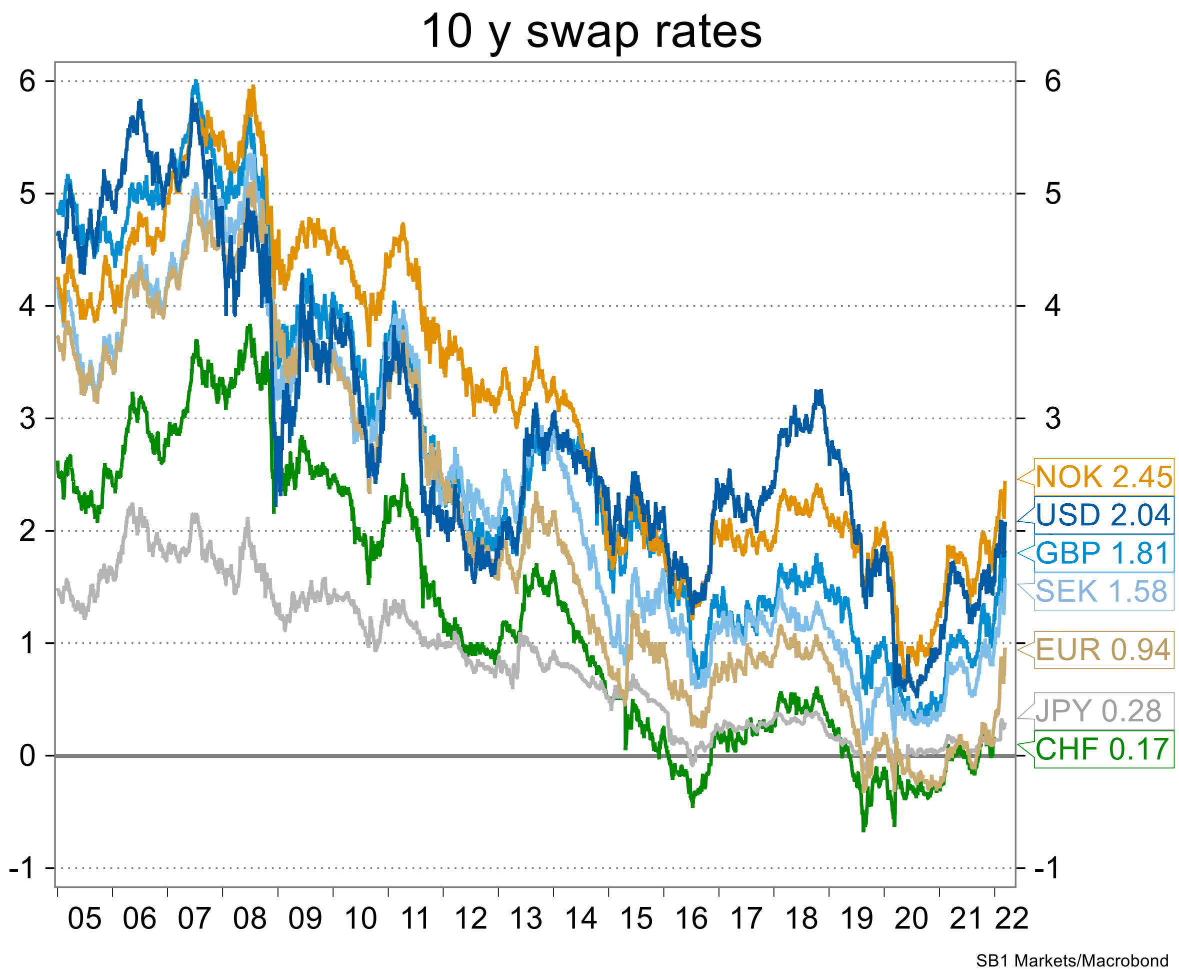


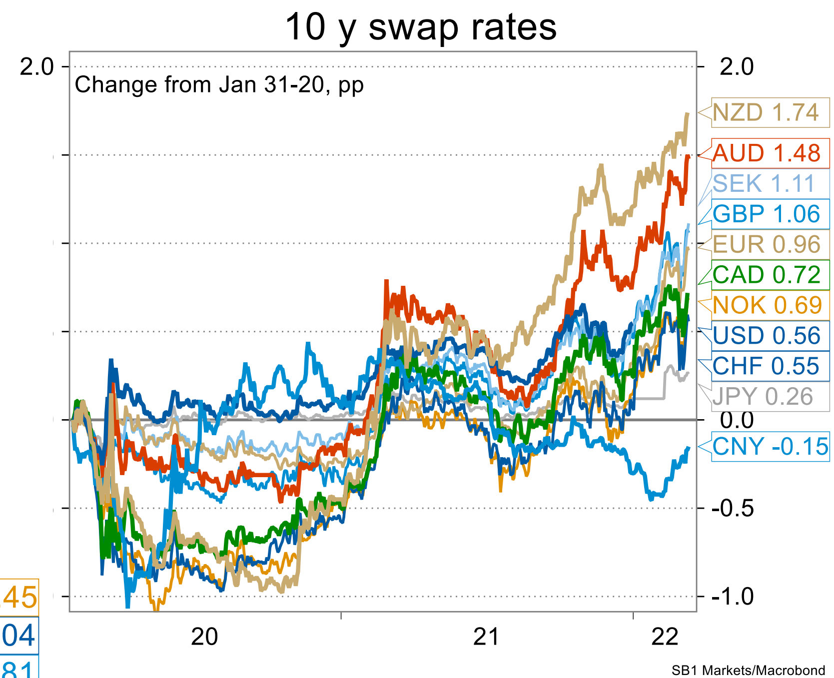


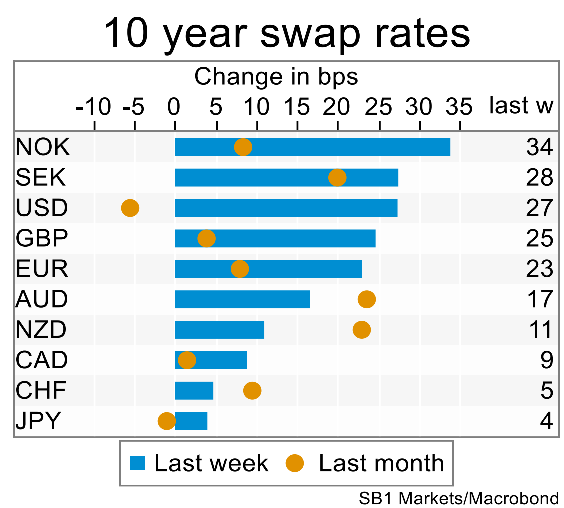


Most 10 y rates sharply ~~down~~ up last week

And the most in Norway (and Sweden)!

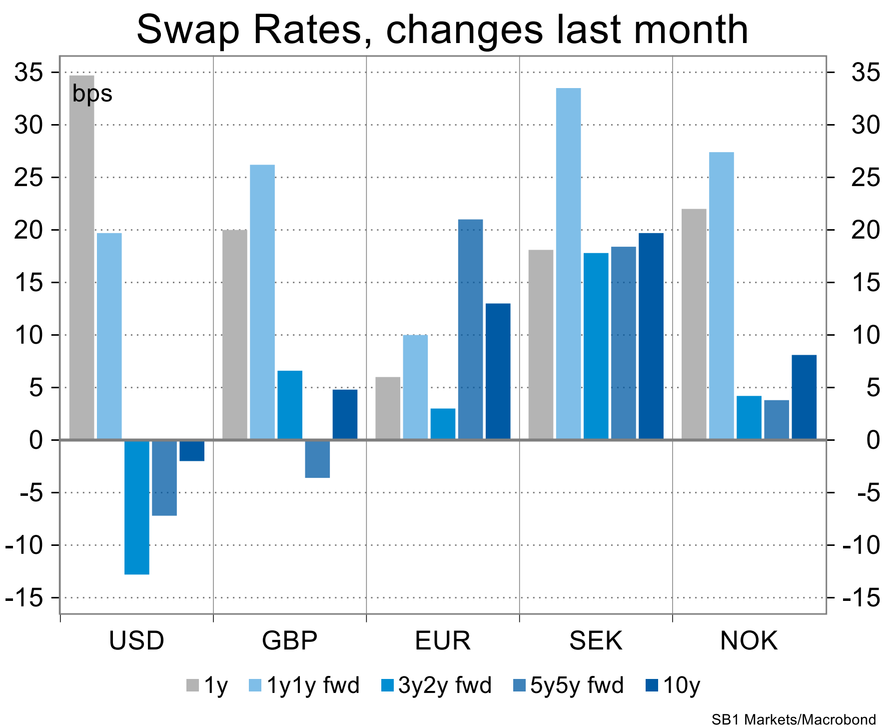


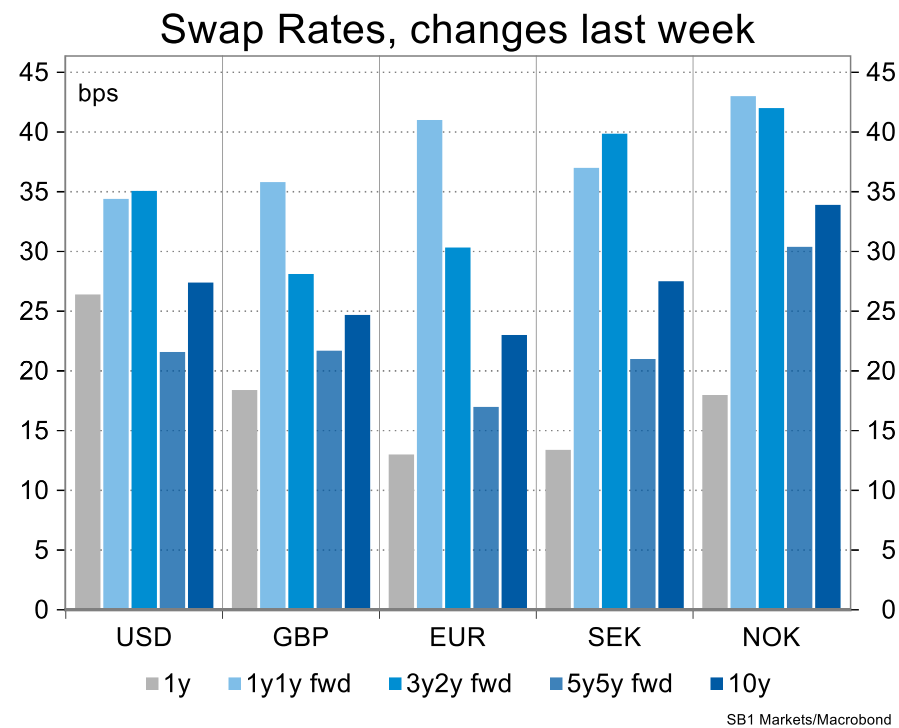




Rates shot all over the curve, everywhere last week

Most up to cycle highs as well





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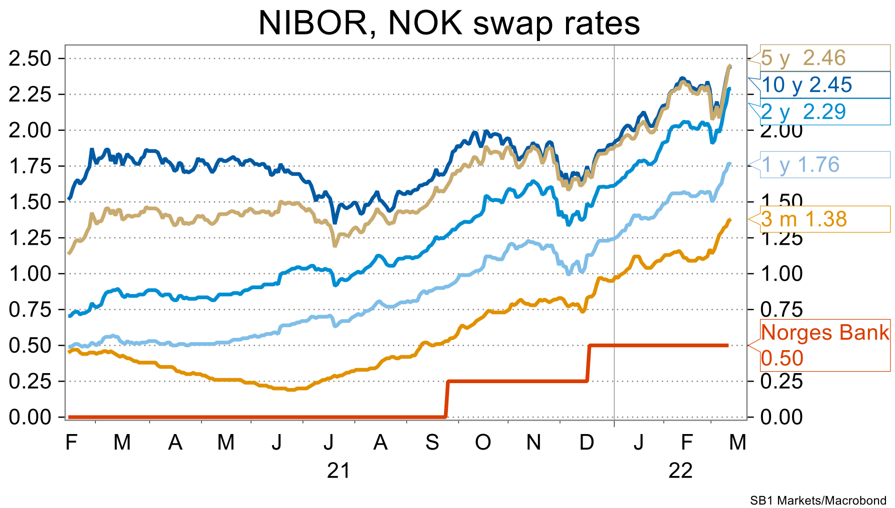
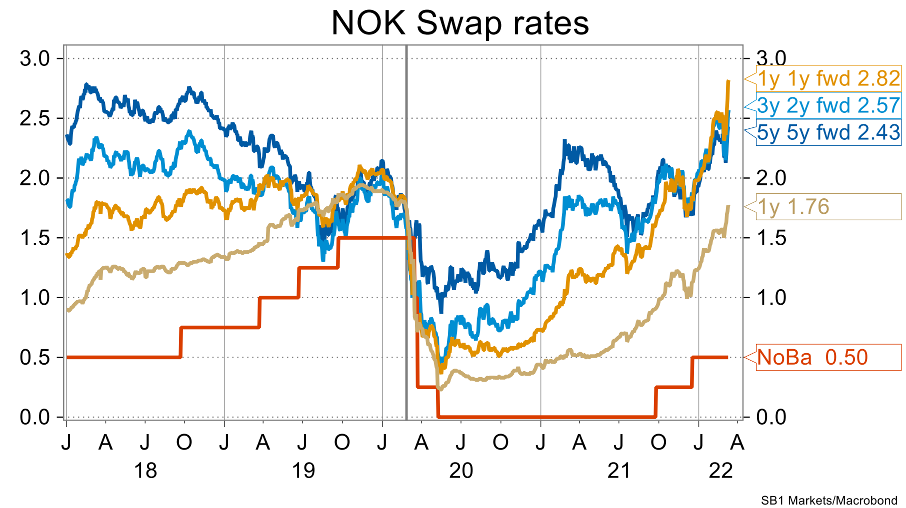
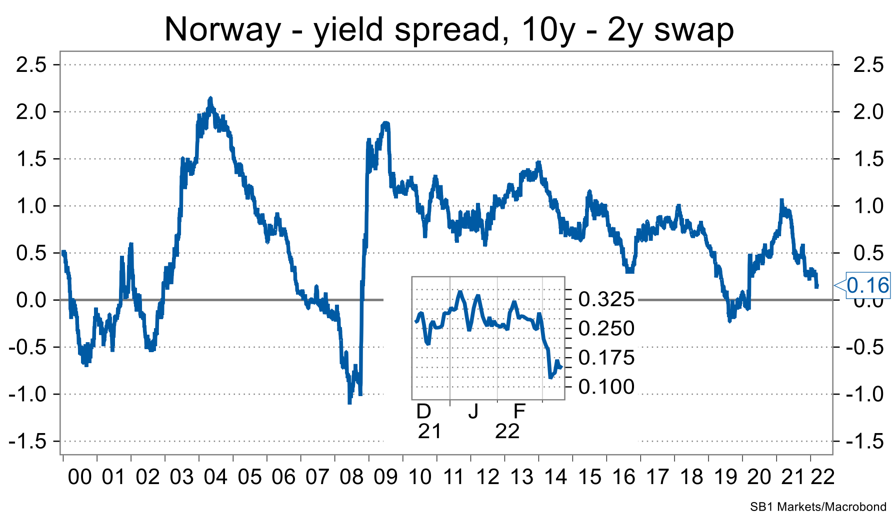
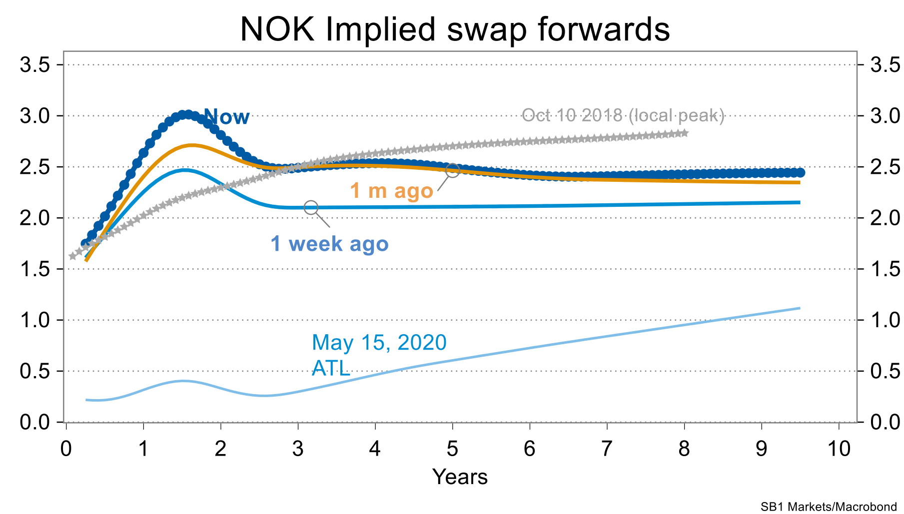
Rates steeply up – the 10 y up 34 bps to 2.45%!

The 1 y 1 y fwd up to 2.8%

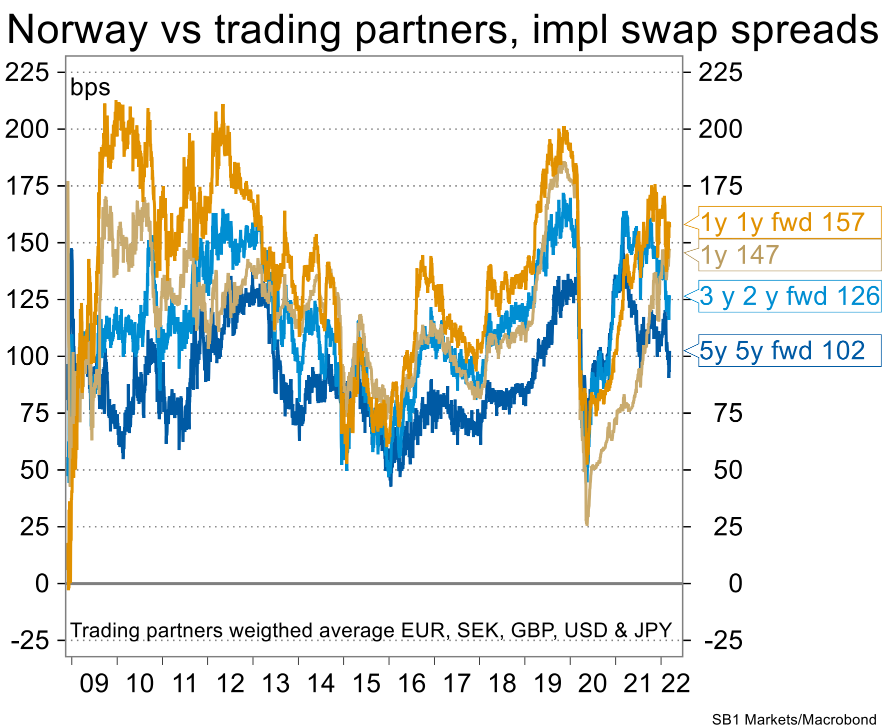


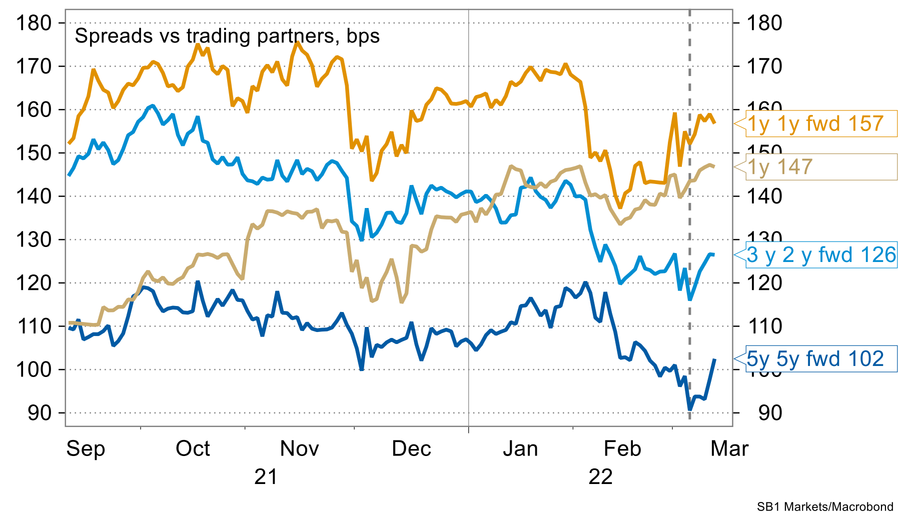


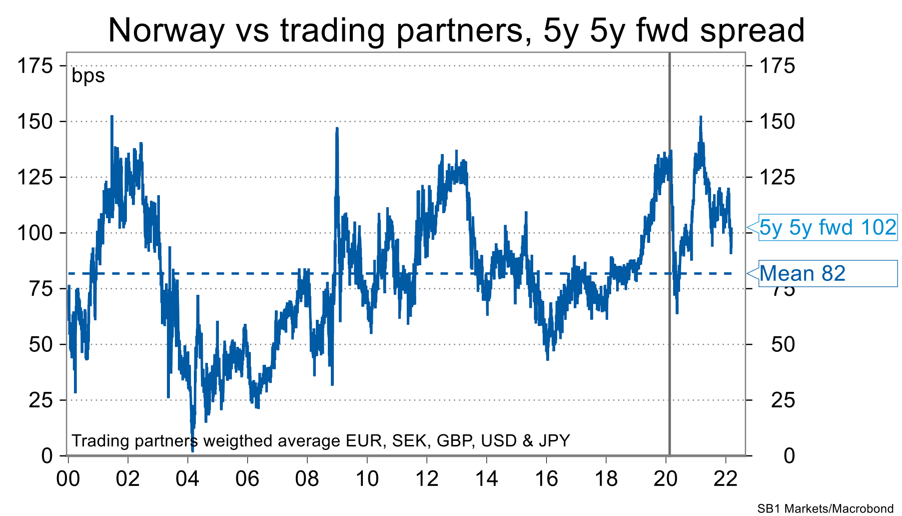




Spreads up again last week – in very volatile rate markets

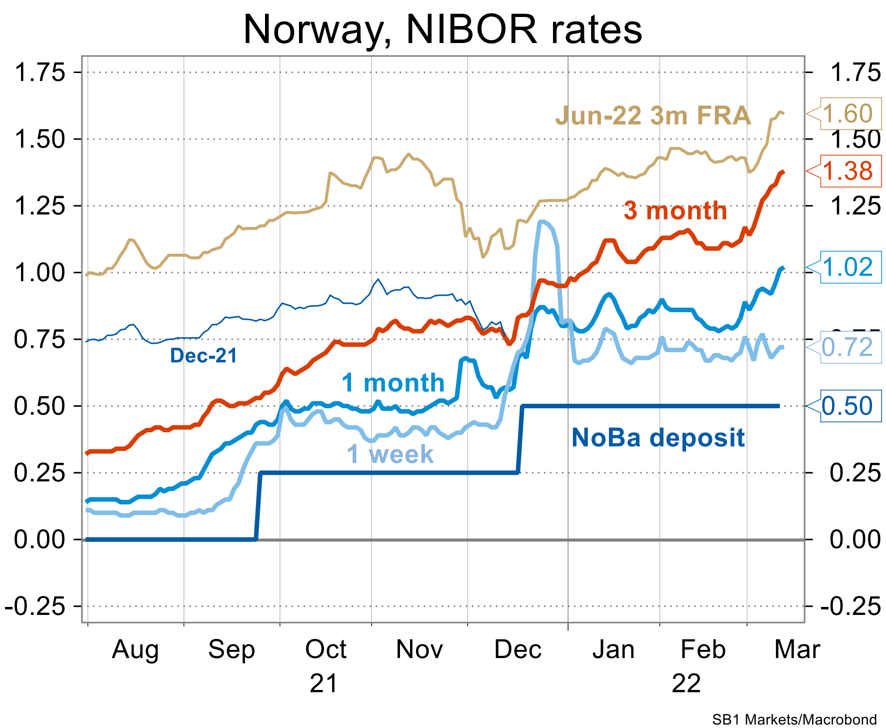


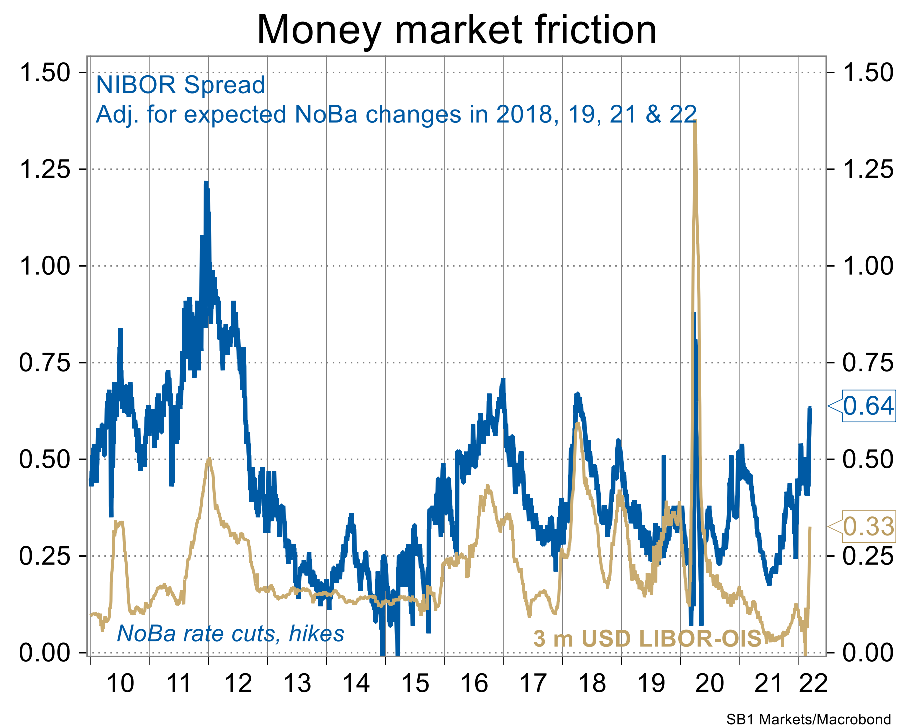




The 3m NIBOR up 11 bps to 1.38%, as the NIBOR spreads (very likely) widen sharply

The NIBOR spread up 9 bps to 64 bps (if NoBa hikes 'just' 25 bps in March, and not further in May)





- The **USD LIBOR-OIS spread** shot up 18 bps to 0.33 bp, the highest level since the outbreak of the pandemic in March 2020
- Liquidity issues may follow sanctions – but most likely not, and Norges Bank will have no problems countering them by offering banks more liquidity

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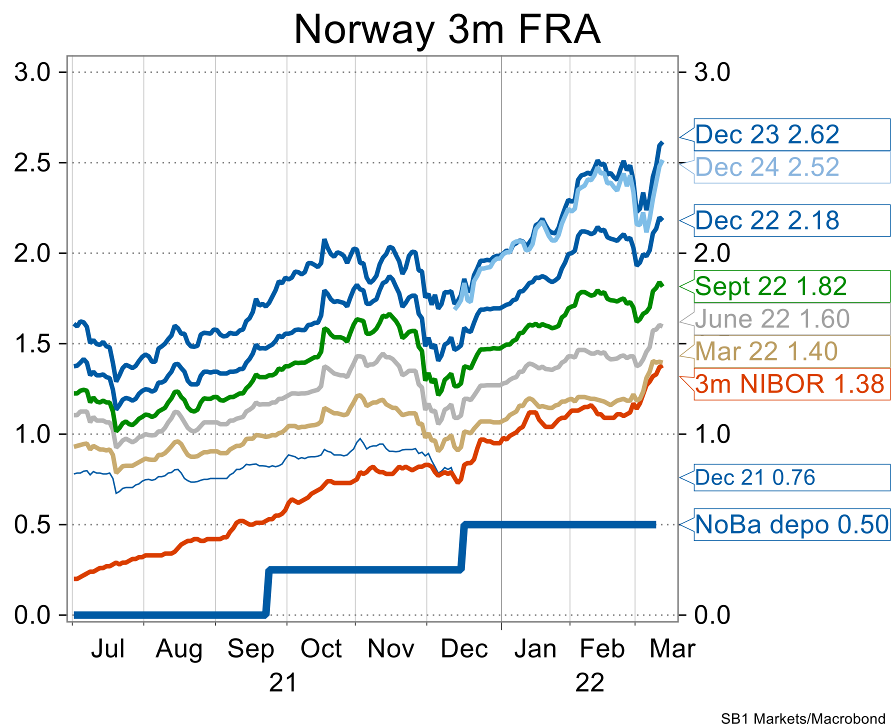
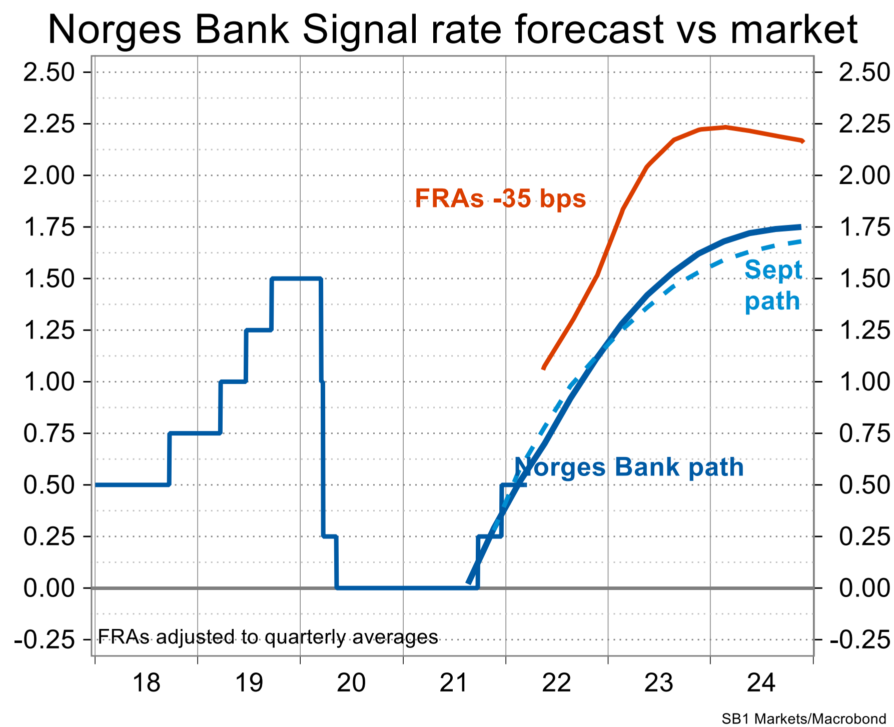
Here we go again, FRA rates sharply up by up to 40 bps. Inflation in the front seat again

All FRAs up to new records for this cycle





- Market FRAs rose at an unusually pace last week
- If NoBa hikes March 24 (by 25 bps, and not in May), the average NoBa rate will be 0.73% in the March FRA period
- Thus, the **March-22 3 m** contract at 1.40 implies 100% probability for a 25 hike with a 67 bps NIBOR spread!
- The June contract at 1.60% captures a lot of different scenarios, including a substantial probability for a June signal rate at 1.25%

US vs. Norway: The need for a monetary policy tightening

Less need for tightening in Norway, and households' response to higher short term rates far stronger

	USA	Norway
Inflation	Total 7.9%/core 6.5%	Total 3.7%, core 2.1%
Inflation expectations	Market 10 y at 2.9%, households 3%++	Not higher (but probably not much lower either)
Employment rate	Still below par	Well above the p-p level
Unemployment	Close to record low	Below average
Vacancies	Record high	High
Wage inflation	Accelerating rapidly, 6%++	Accelerating slowly, 3.5%
House prices	Up 30% from Q4-19 Up 18% y/y now	Up 16% from Q4-19 Up 6% y/y now
Household debt	To 8% y/y from 3%	Unch at 5%
Househ. debt/inc. Ratio (vs. impact of higher short term rates)	>100%, from 135% in '08	246%, from 196% in '08
Floating or fixed mortgage rates	Fixed	Floating

- US has a majority of the 'red' cells – in favour of a faster monetary tightening
  - » The economy is 'hotter'
  - » The impact of higher rates will be stronger in Norway than in the US

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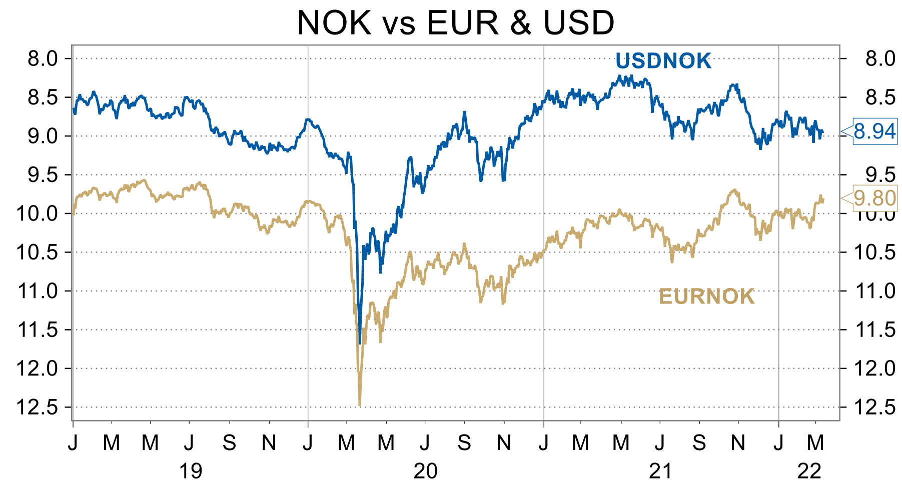
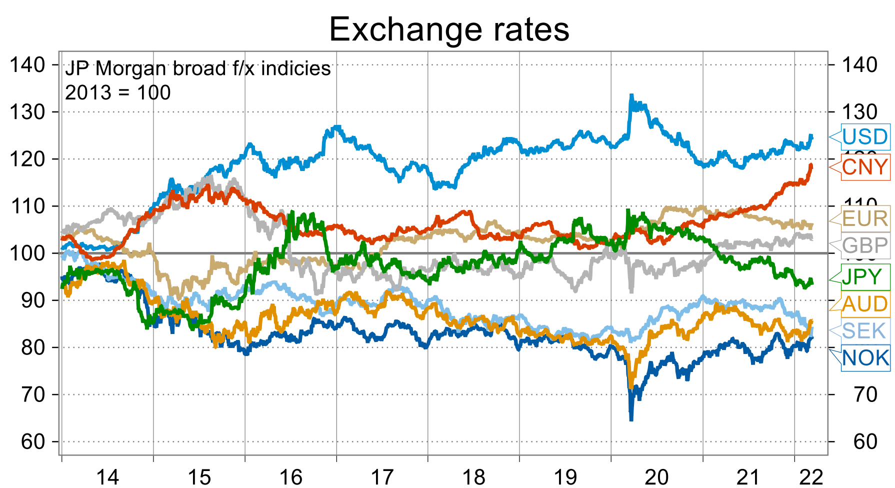
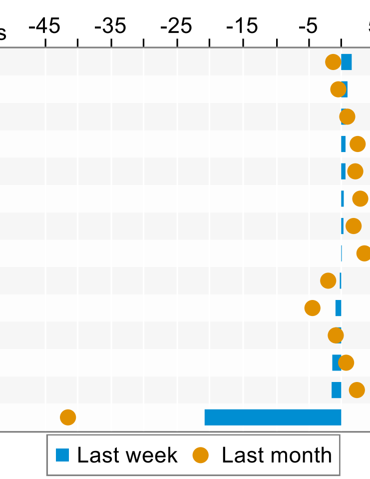
EUR, SEK recovered last week – alongside higher rates, less sanction angst





F/x markets



JP Morgan f/x broad indices + 3 f/x crosses	Last week	Last month
SEK	1.6	-1.2
EUR	1.0	-0.4
CAD	0.7	0.9
NOKEUR	0.7	2.5
NOK	0.6	2.1
CNY	0.4	2.9
USD	0.3	1.9
AUD	0.1	3.5
USDNOK	-0.2	-2.0
EURUSD	-0.9	-4.4
GBP	-0.9	-0.8
JPY	-1.4	0.7
CHF	-1.5	2.4
RUB	-20.7	-41.5

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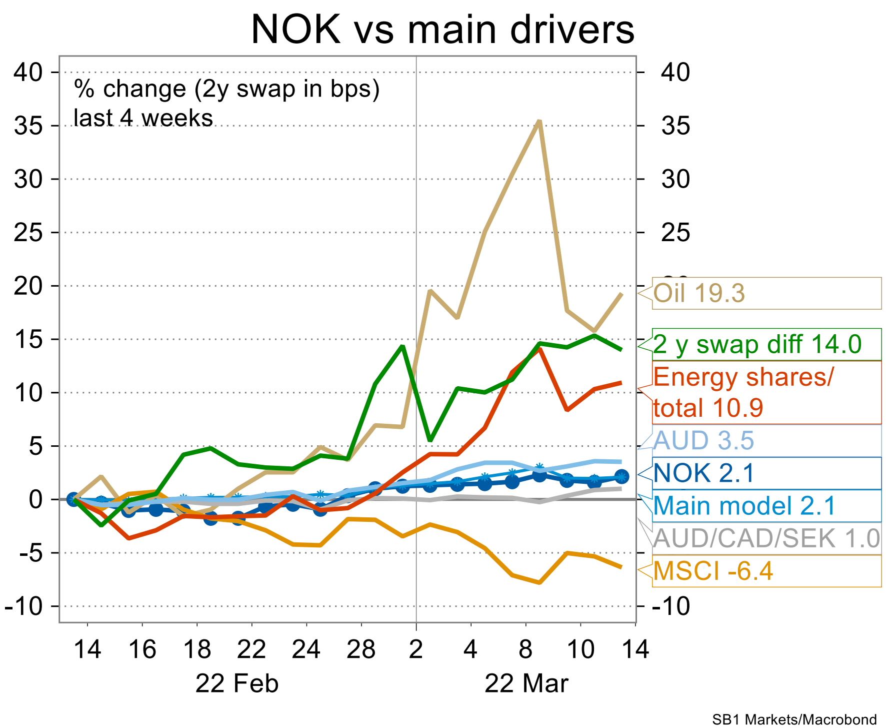
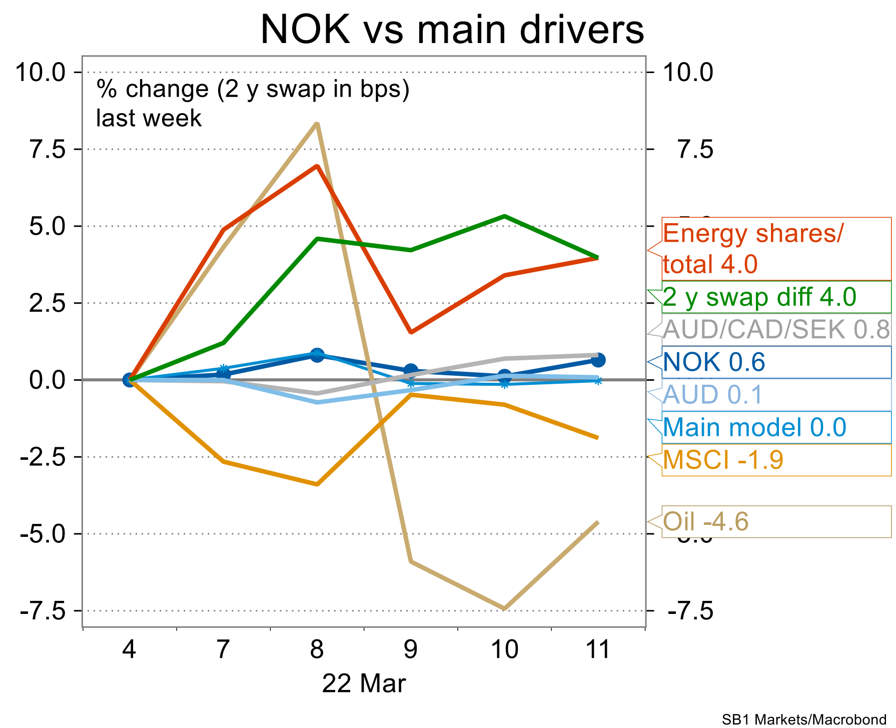
The oil prices ended down last week, the NOK still up 0.6%, from a 'low' level

Our model suggested an unchanged NOK





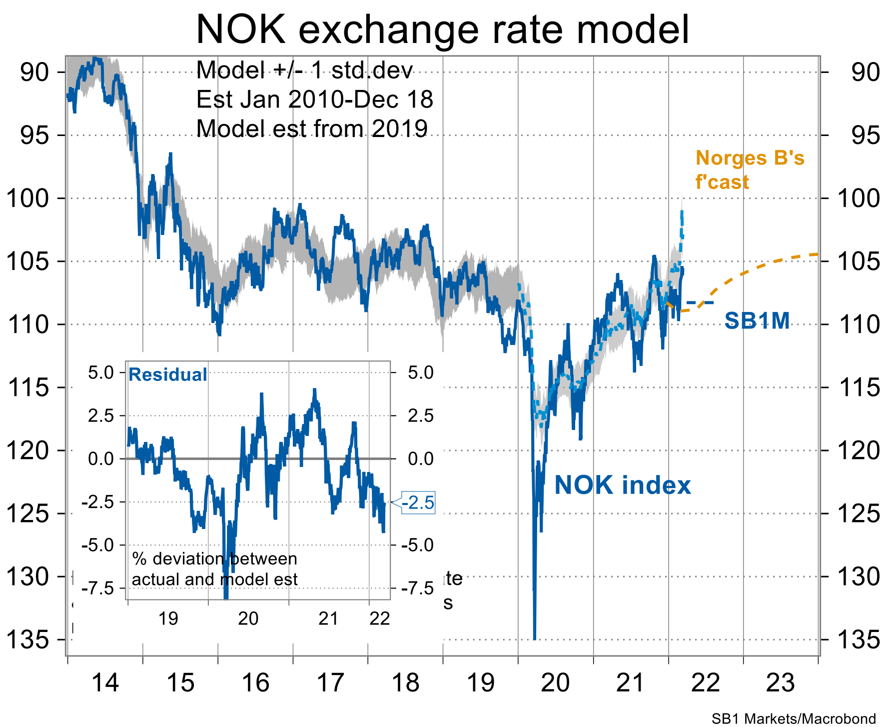
The status vs. the normal drivers:

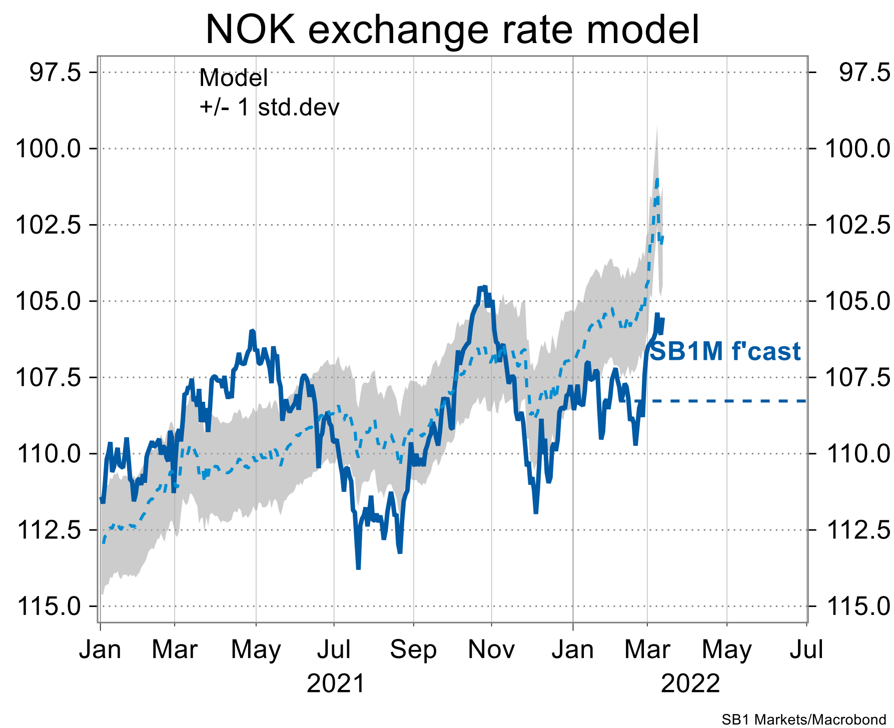
- ***The NOK up 0.6% - but even so the NOK is 2.5% below the model est (from -4%)***
- The NOK is 2% weaker than our AUD/CAD/SEK-model, our 'super-cycle peers', predicts (unch)
- NOK is 3% stronger than a model which includes global energy companies equity prices (vs the global stock market), but less than last week (unch)

At this and the following pages we have swapped Norges Bank's I44 index for JP Morgan's broad NOK index and rebased it to the current index value for the I44. The I44 has an earlier closing time than the 'official' closing time for f/x crosses. There are no substantial difference between these two indices over time

NOK lags our model by 2.5%

Time to buy? Possibly – but longer dated oil contracts are well below the spot price





- Normally, the short end of the oil curve is most important for the NOK, not the 'whole' curve, which would have been more logic
- Gas prices are not included in our model either. Gas prices have been so closely correlated to the oil price, so it is not easy to estimate the impact of the gas price, historically

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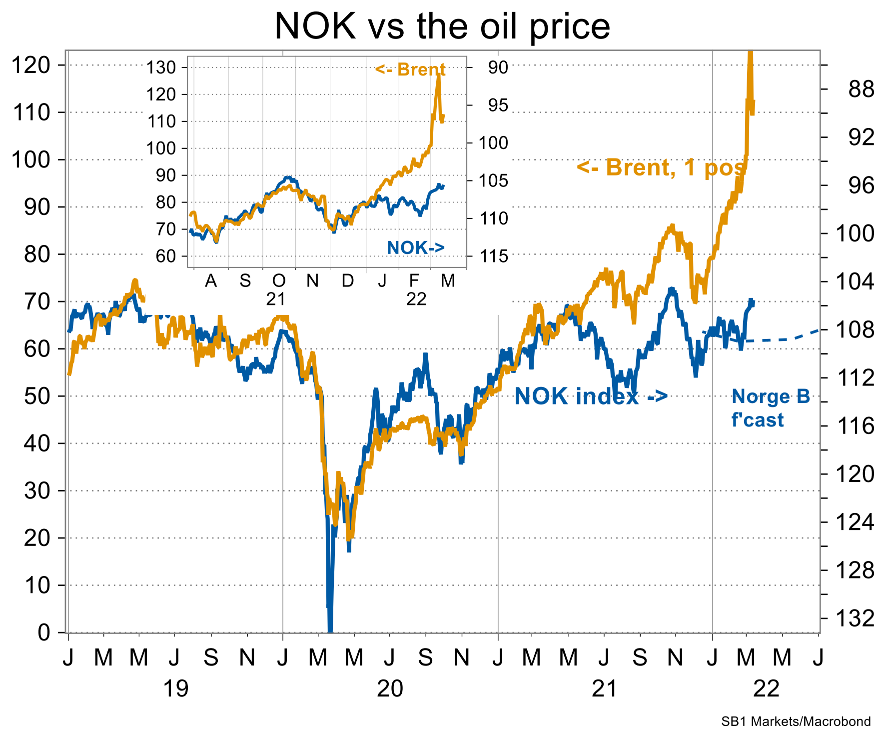
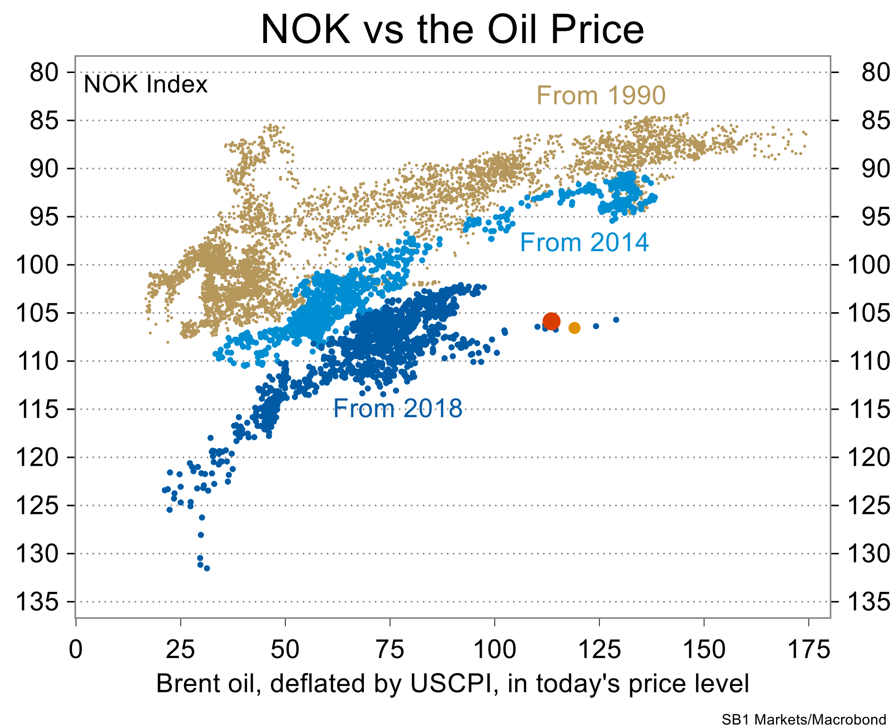
Extreme oil price volatility due to embargo decisions, the NOK took it easy

NOK has not bee closely correlated to the oil price lately, at least not the short end of oil curve

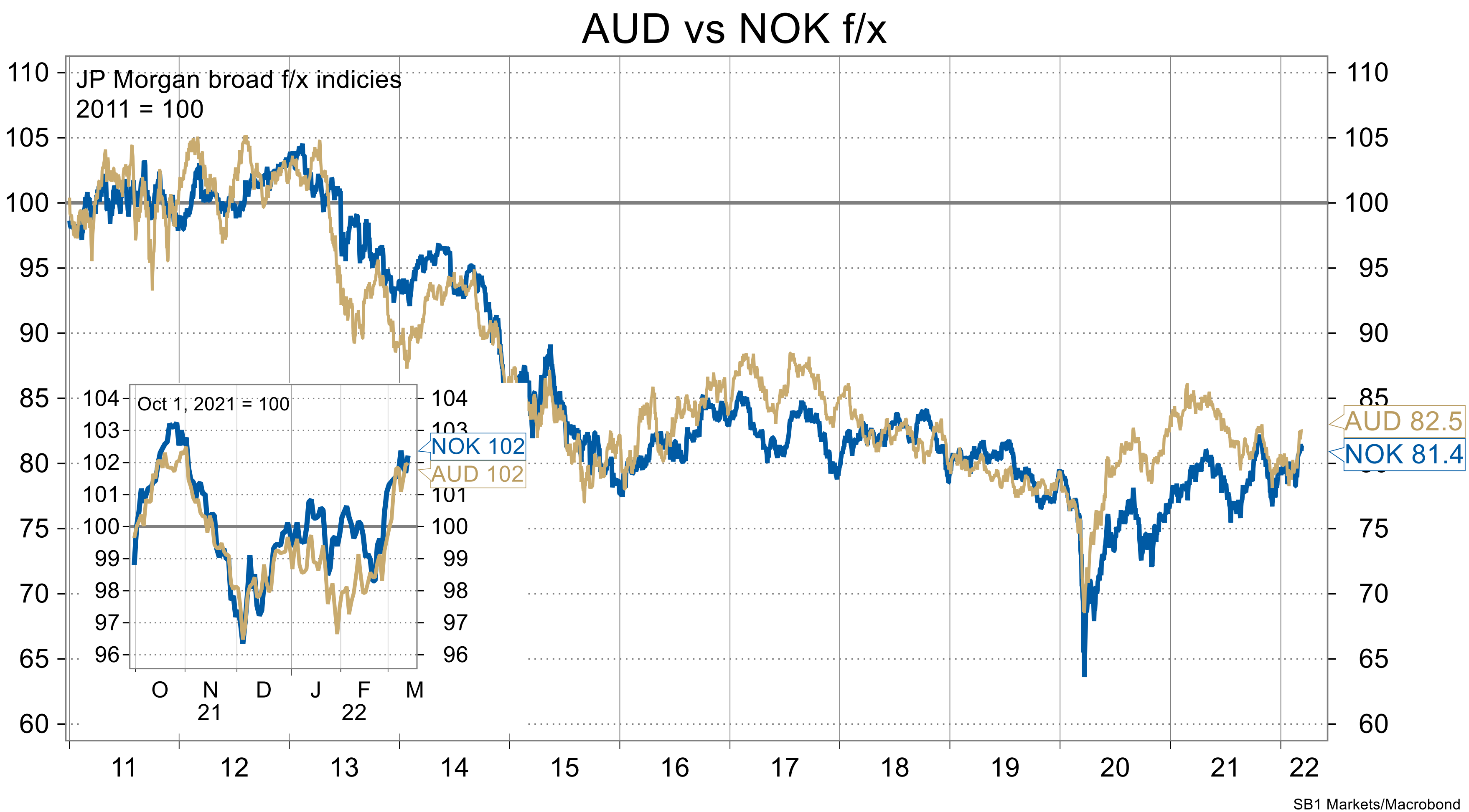




- NOK is normally correlating quite closely to the oil price but at a lower level than before 2018 – and now the NOK is weak even vs the past 3 years' (and now also the previous 6 month's relationship)
- A USD 10 drop in the oil price weakens the NOK by some 4%, as a partial effect. Within a broader model, the impact is substantially smaller

NOK is still dancing closely with the AUD

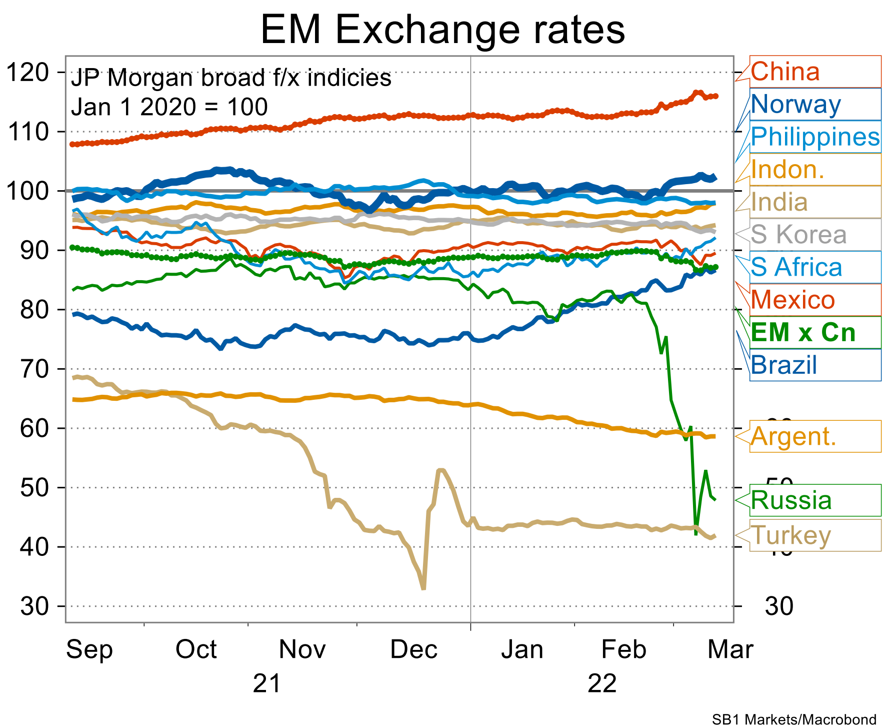
The surge in commodity prices is supporting both currencies

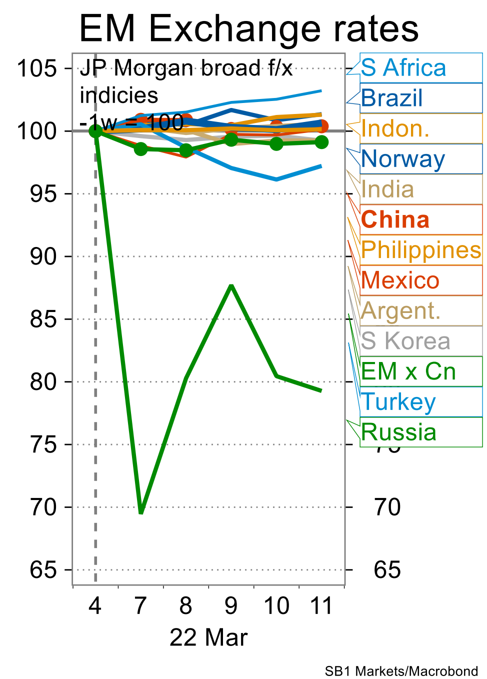


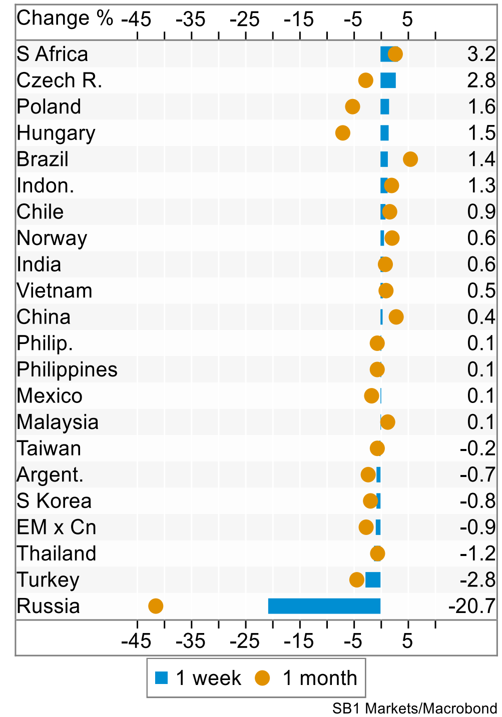
The two f/x indices are back to the 2011 parity (vs each other, from which they never since have deviated much)

The rouble rubbish

Down another 21% last week as the world recognises the humanitarian, economic catastrophe







- The CNY is still on the way up

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