

SpareBank MARKETS



Macro Weekly

Week 20/2022

May 16 2022

Harald Magnus Andreassen

Phone : (+47) 24 13 36 21

Mobile : (+47) 91 14 88 31

E-mail : hma@sb1markets.no

Tina Norden

Phone : (+47) 24 13 37 48

Mobile : (+47) 93 22 62 24

E-mail : tina.norden@sb1markets.no

SpareBank 1 Markets

Phone : (+47) 24 14 74 00

Visit address : Olav Vs gate 5, 0161 Oslo

Post address : PO Box 1398 Vika, 0114 Oslo

SpareBank
MARKETS 

Highlights

The world around us

The Norwegian economy

Market charts & comments

Last week, part I

- **The War/Sanctions**

- » **The Russians** are not able to make much progress in the Eastern provinces, and have been pushed back in the North East, seemingly after heavy losses
- » **Most commodity prices** fell last week, probably at least partly due demising growth expectations. Food prices are sliding down – but are still above the pre-war level. European gas prices are lower than before the war, even if prices at the Continent

- **The virus**

- » In **Shanghai**, the lockdown was further east last week but mobility is still very low. In **Beijing** mobility fell again last week, although not down to Shanghai levels. April was not the best of months in the Chinese economy. The current zero tolerance policy is challenging for the economy, to put it mildly.

Last week, part II

- **Global auto sales**

- » **Global auto sales** fell 10% in April, like in March, and are down 25% vs the 2019 level. Sales have fallen 50% in China since February, and by 75% in Russia. In the rest of the world, sales rose slightly in April, following the decline in March (when EMU sales fell sharply –but they rose just marginally in April). Sales in the US are trending up, and sales rose in India, Brazil, and South Korea in April. German auto production shot up 10% in April, while Chinese production collapsed, as factories were closed down

- **China**

- » **A sharp downturn in real economy indicators in April** due to the lockdowns – and much weaker than expected. Still not that surprising, given the decline in the PMIs. The decline in activity is (so far) some 1/3 – ½ of the decline during the initial lockdowns in early 2020

- **USA**

- » **Annual CPI inflation** rates declined – and the peak may have been in March, but prices rose more than expected m/m in April too. Some few prices fell, including energy prices but inflation is generally still broadening – and it is too high anyway, also m/m now. Just half of the 8.3% headline rate of inflation can be explained by the lift the oil prices.
- » **Atlanta Fed** reported further acceleration of median wage inflation, which at 6% is now way to high to yield 2% CPI inflation over time. All groups of employees enjoy far higher wage increases than before

- **EMU**

- » **Industrial production** fell 2.1% in March. Germany was a drag, auto production fell sharply (but it recovered sharply in April)

- **Sweden**

- » **CPI inflation** accelerated but not more than expected. Energy prices still explains the lions' share of the surge but inflation is clearly broadening, here too

- **Norway**

- » **CPI inflation** surprised on the upside, big time. SSB reported a much steeper lift in electricity prices than both we and other analysts expected (our model is usually in rather well line with SSB's but not in March and April)
- » **Mainland GDP** gained 1% in March as services recovered following the Dec/Feb Covid restriction. Production is 3.1% above the Feb-20 level – but in line with the activity in November last year. All sectors contributed to the lift production in March, as did all main demand components, household demand and Mainland businesses the most. Wage and cost inflation is accelerating but Mainland businesses (x electricity) lifted their prices faster in Q1, and the profit share rose. However it is at a rather low level, according to our calculus
- » **The revised budget** was revised much more than usually – both on the spending and revenue side. The balance was weakened (after heavy adjustments for the strong cycle) and the budget is now just marginally counteractive – vs. the large tightening that was decided last autumn. Still, the budget was not far from NoBa's assumptions and while the impact on the interest rate outlook is not downwards, it is not an argument for lifting the interest rate path much either.

The (thin) Calendar: US retail sales & housing starts. NoBa expectations survey

Time	Count.	Indicator	Period	Forecast	Prior
Monday May 16					
08:00	NO	Trade Balance	Apr		138.4b
11:00	EU	Trade Balance SA	Mar	-16.5b	-9.4b
14:30	US	Empire Manufacturing	May	15	24.6
Tuesday May 17					
08:00	UK	Average Weekly Earnings	Mar	5.4%	5.4%
08:00	UK	ILO/LFS Unemployment	Mar	3.8%	3.8%
11:00	EU	Employment QoQ	1Q P		0.5%
14:30	US	Retail Sales Advance MoM	Apr	0.9%	0.5%
14:30	US	Retail Sales Control Group	Apr	0.8%	-0.1%
15:15	US	Manufacturing (SIC) Production	Apr	0.3%	0.9%
16:00	US	NAHB Housing Market Index	May	75	77
Wednesday May 18					
01:50	JN	GDP Annualized SA QoQ	1Q P	-1.8%	4.6%
03:30	CN	New Home Prices MoM	Apr	--	-0.1%
08:00	UK	CPI YoY	Apr	9.1%	7.0%
08:00	UK	CPI Core YoY	Apr	6.2%	5.7%
11:00	EU	CPI YoY	Apr F	7.5%	7.4%
11:00	EU	CPI Core YoY	Apr F	3.5%	3.5%
14:30	US	Building Permits	Apr	1820k	1873k
14:30	US	Housing Starts	Apr	1766k	1793k
Thursday May 19					
06:00	SW	Valueguard HOX Sweden Home-			
11:00	EU	Construction Output MoM	Mar		1.90%
14:30	US	Philadelphia Fed Business	May	16.9	17.6
14:30	US	Initial Jobless Claims		200k	203k
16:00	US	Existing Home Sales	Apr	5.65m	5.77m
16:00	US	Leading Index	Apr	0.0%	0.3%
Friday May 20					
08:00	UK	Retail Sales Inc Auto Fuel MoM	Apr	-0.3%	-1.4%
08:00	NO	Housing starts	Apr		
08:00	NO	Norges Bank expectation surv.	Q2		
16:00	EU	Consumer Confidence	May A	-21.5	-22

• USA

- » **Retail sales** is expected up in April, following the substantial decline in core sales (in volume terms) in March. Consumption of goods is very likely above a long term trend
- » The first May manufacturing surveys, **NY Fed Empire state & Phil Fed**. We doubt eventual weakness in the economy will turn up in the manufacturing sector first (rather check demand)
- » The **housing market** is still going strong. Check out the homebuilders' survey & housing starts. Demand for mortgages has slowed but is not weak, and has stabilised past two weeks. At one stage, the surge in mortgage rates will bite

• EMU

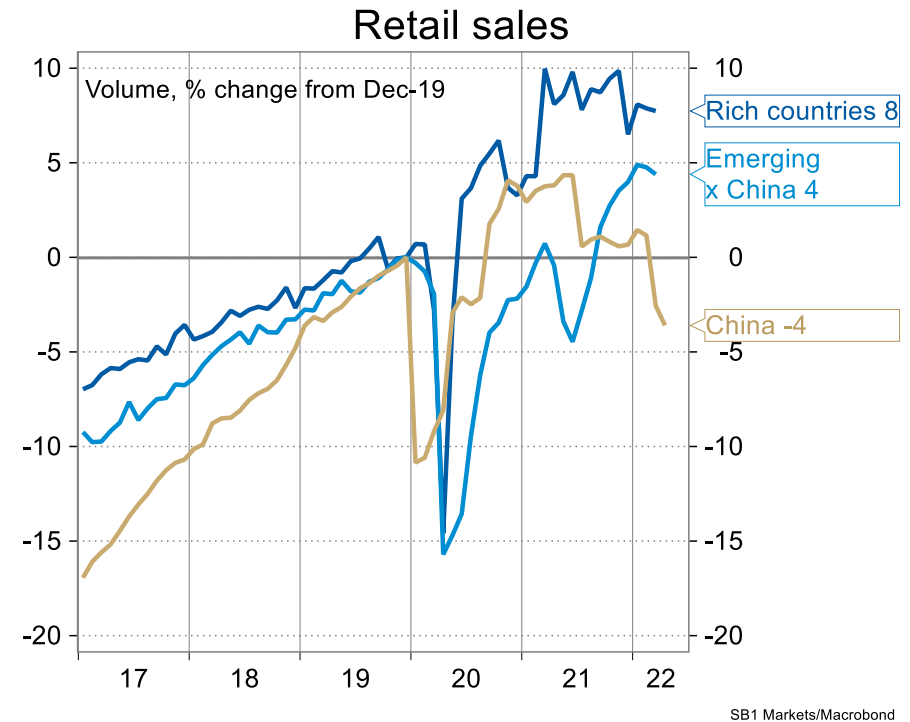
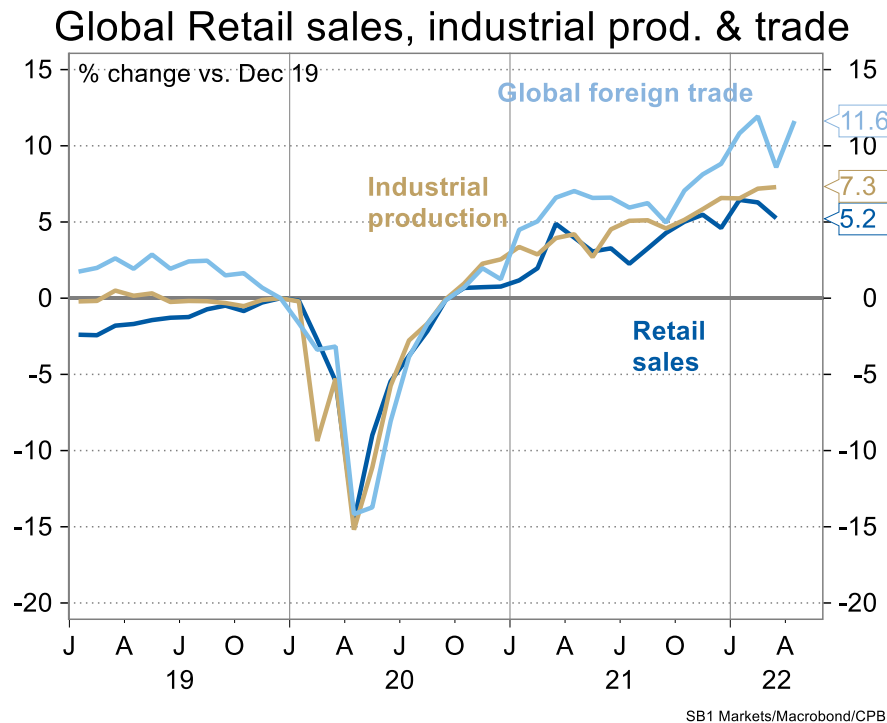
- » **Final CPI** data will probably not reveal any surprises – but it will remind us that inflation is very high. So far, energy is the main culprit, by far. But inflation is broadening, here too

• Norway

- » Another month with **extraordinary strong export data**, and unprecedented surpluses due to the high natural gas prices. However, the April surplus will decline substantially due to the 30% decline in gas prices – and they have been falling further, so far in May
- » **Norges Bank's expectations survey** (not the Regional Network) will probably confirm that inflation expectations are slipping
- » SSB has so far reported a high level for **building permits**

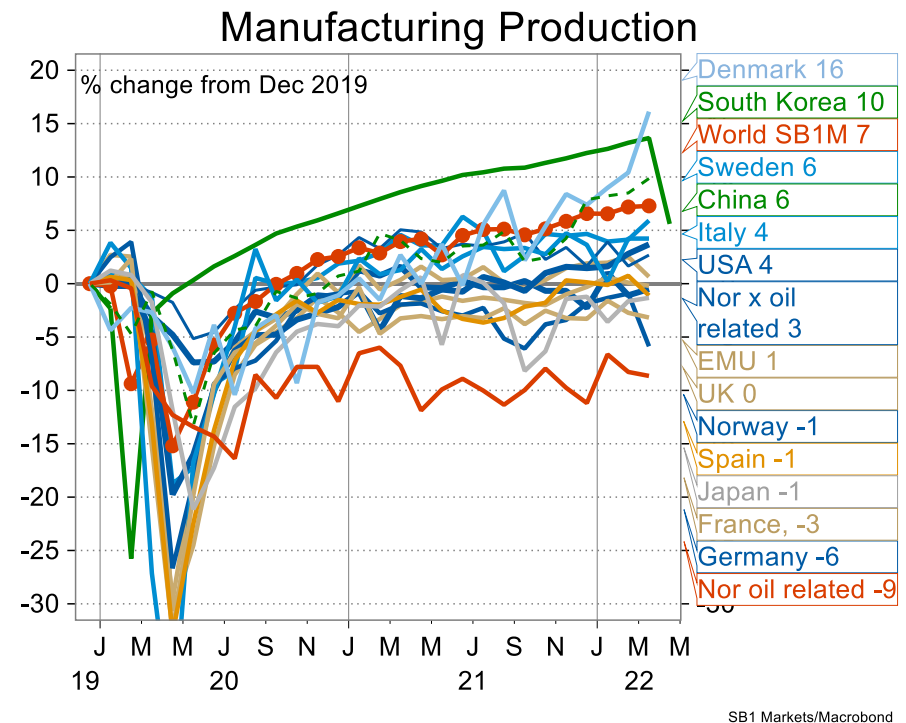
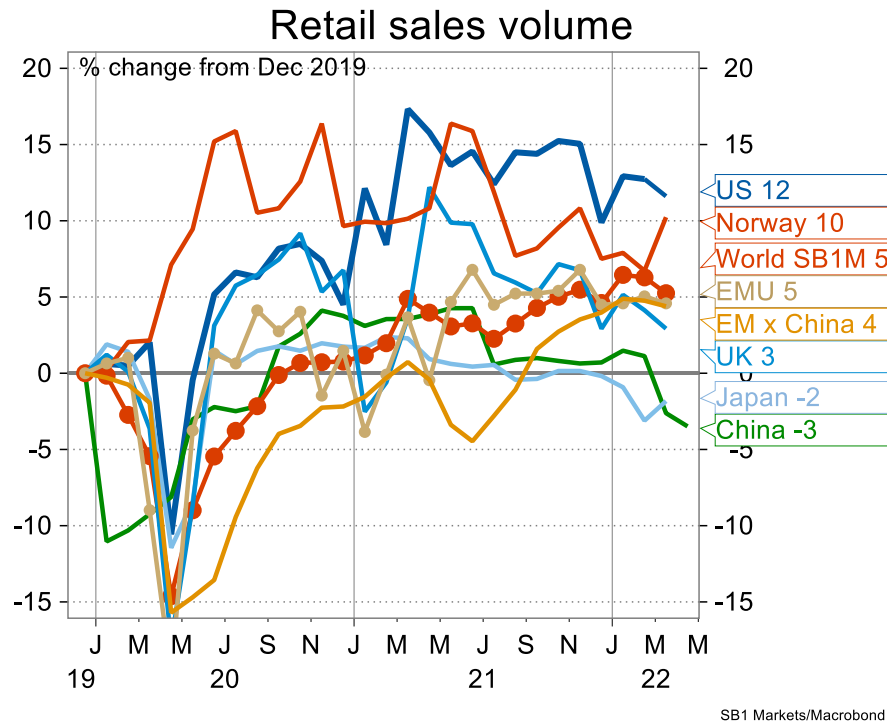
Global retail sales remained strong in February. Emerging markets on the way up

Industrial production on the right track too – probably global foreign trade too



Retail sales down in March too, industrial production probably further up

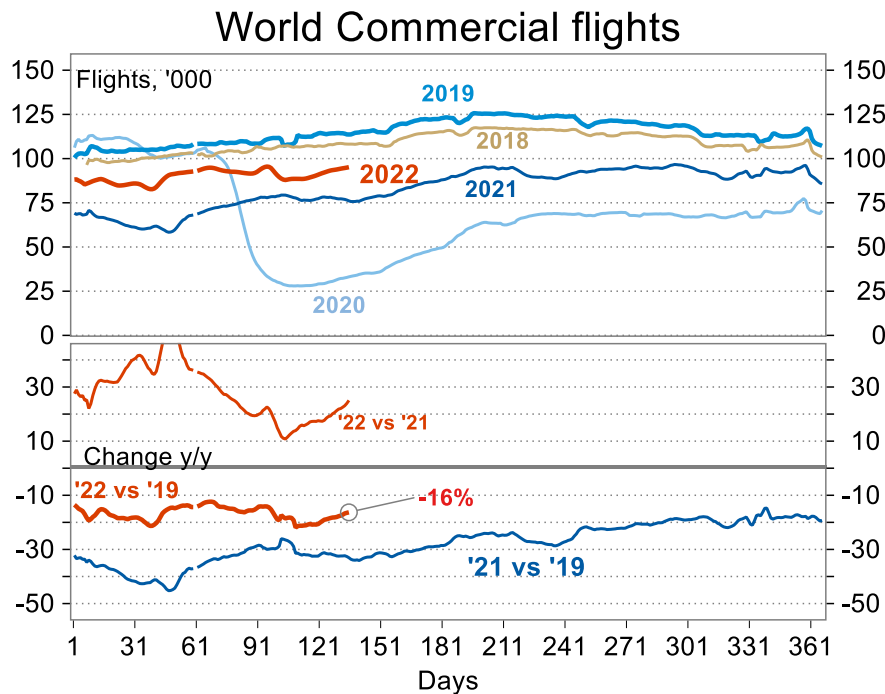
The retail sales trend is very likely down in the rich part of the world. Manufacturing prod. still OK



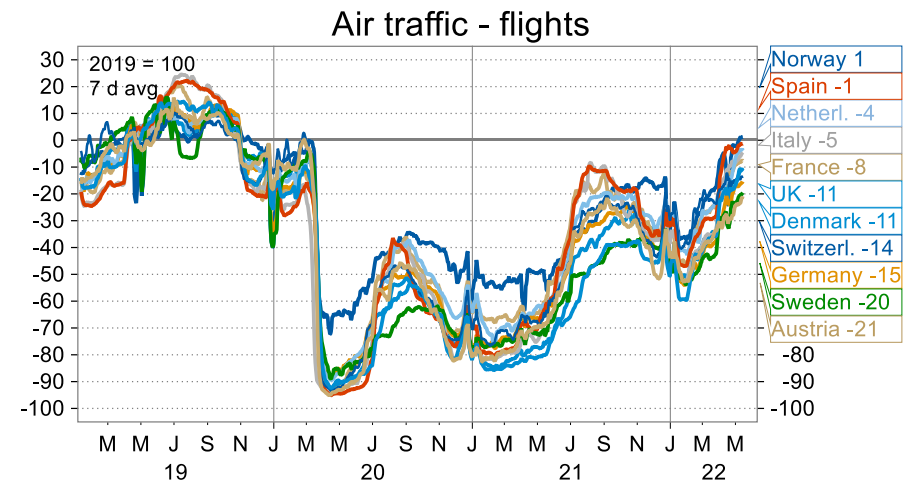
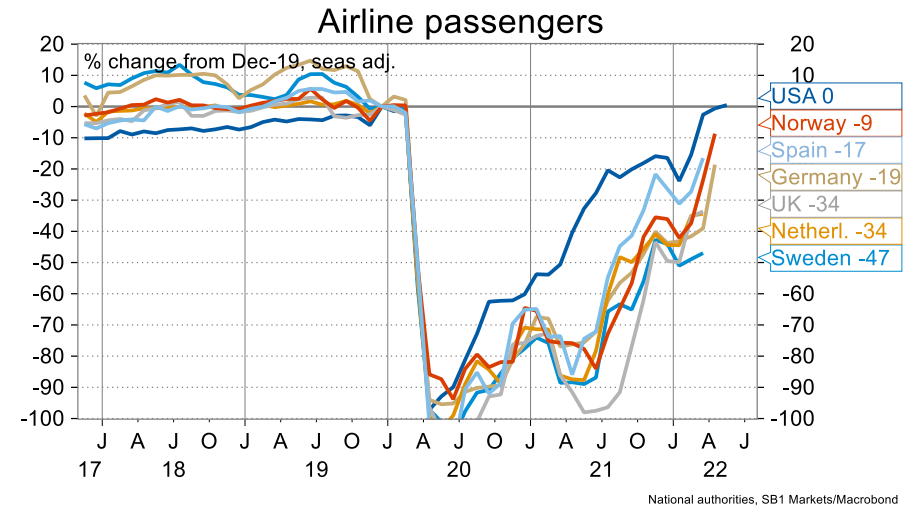
- **Retail sales** in Emerging Markets x China are recovering but is far below pre-pandemic trends
- **Manufacturing production** has been hampered by a deep decline in auto production. The manufacturing PMIs are down from the peak but are still signalling growth above trend
- China reported steep decline in

Global airline traffic up last week – still 16% down from 2019

Geopolitics? Trouble in China? Western Europe & US on the way up

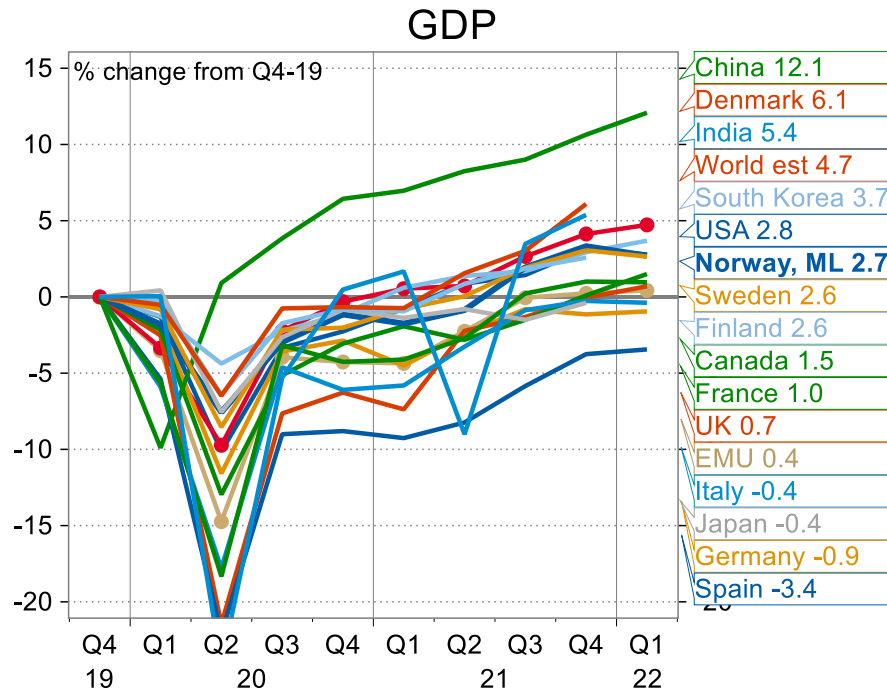


Flightradar24 SB1 Markets/Macrobond

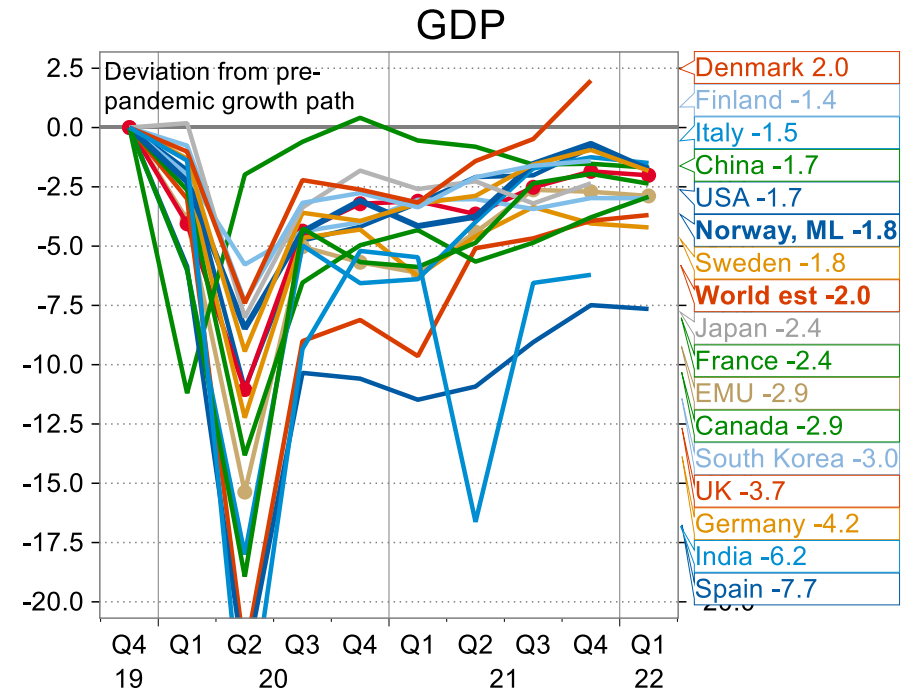


GDP slowed in Q1, to 0.6% (2.4% annualised) from 1.4% (5.7%) in Q4

US explains most of the slowdown. GDP is still below the pre-pandemic growth path, some 2%



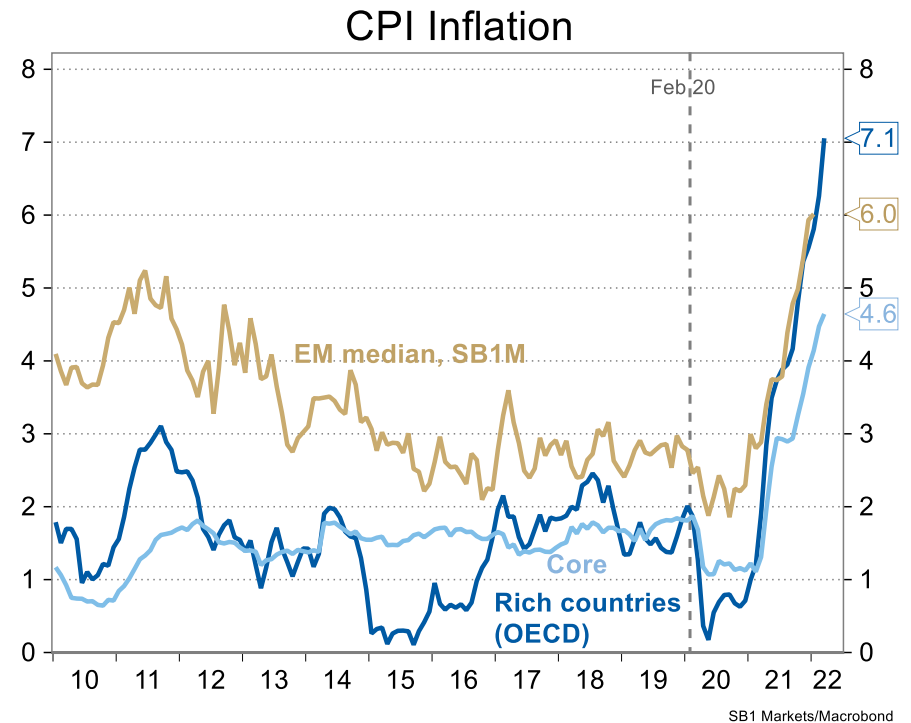
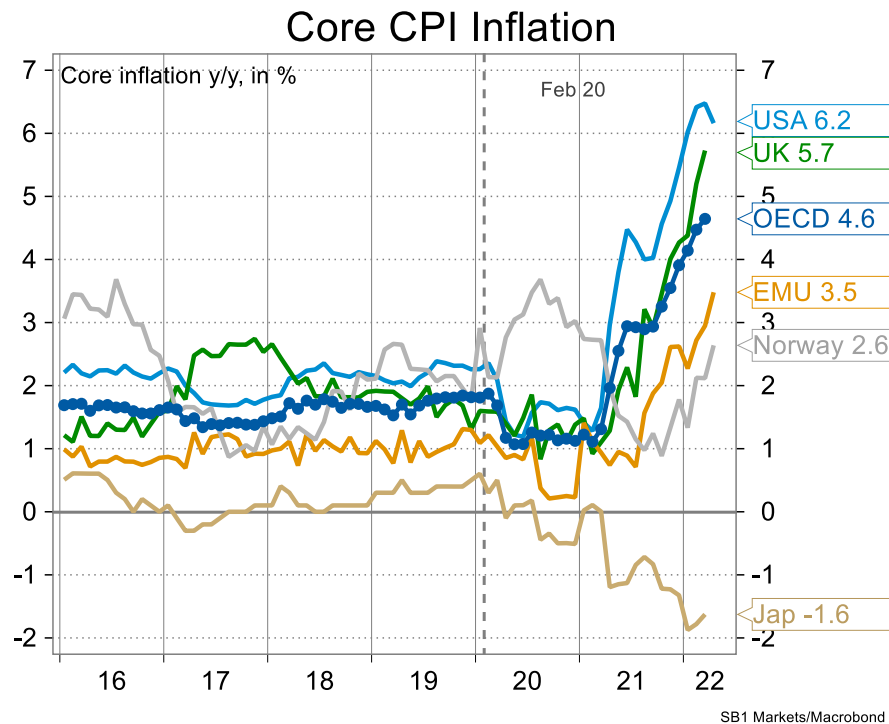
SB1 Markets/Macrobond



SB1 Markets/Macrobond

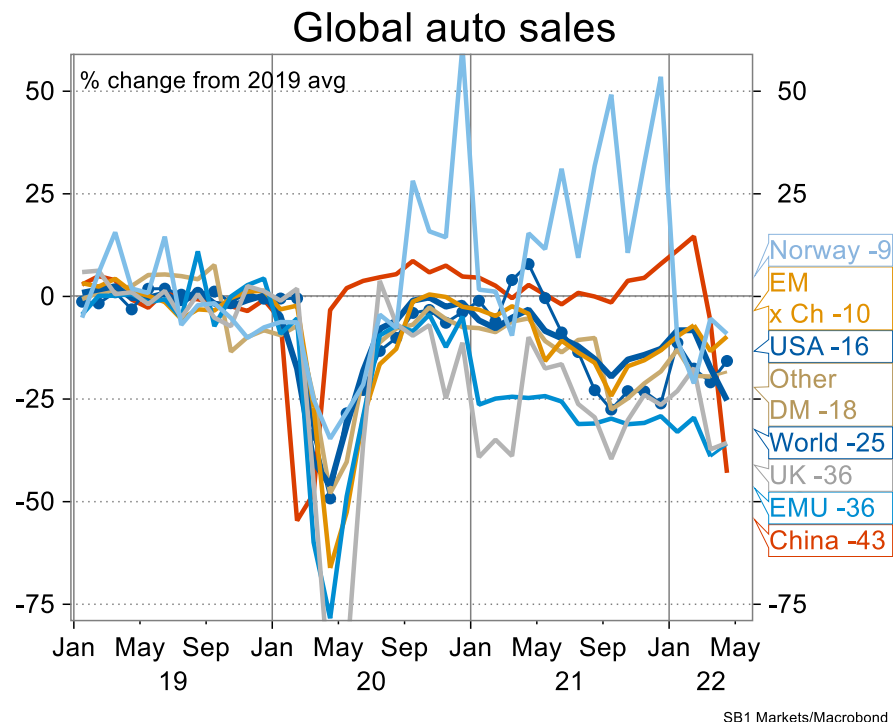
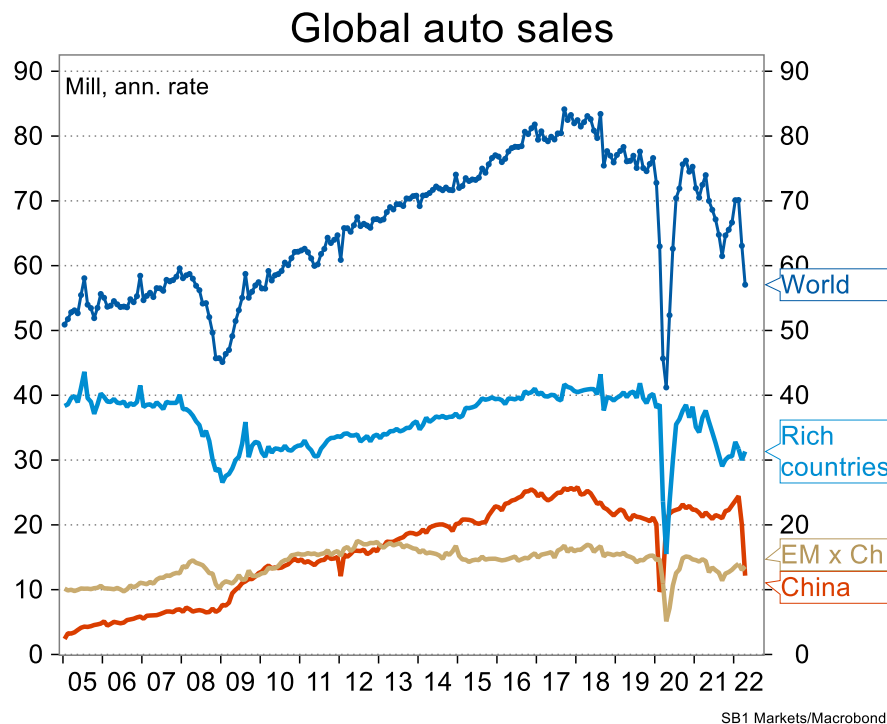
Inflation still the main challenge most places

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



Chinese auto sales down 50% vs the pre-lockdown level in April

Sales rose slightly in ROW, both in the rich part of the world, and in EM – even if Russian sales fell

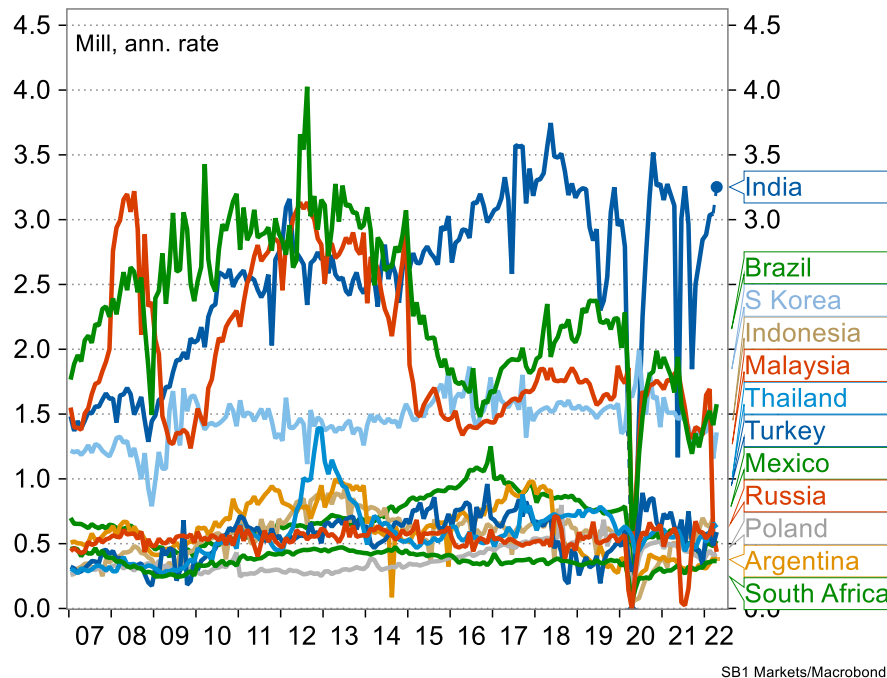


- **The decline in global sales** fell 10% m/m in both March and April, and sales are down 25% vs the 2019 level
- Sales in **China** fell even more in April than in March, and are down 50% since February. Lockdowns to blame, no doubt, probably both due to lower supply & demand. Russian sales are down 75% since before the war, probably both due to lack of supply (imported cars at least) and reduced demand from households
- Sales in the **US** rose in April, but sales are still 16% below the 2019 level
- In the **EMU**, sales fell sharply in March and the uptick in April was small – sales are down 36% vs 2019. **UK** is down 36% too. Sales in **Norway** rose are down 9%
- **Auto production** is limiting sales most places. German production fell sharply in March but recovered sharply in April (+10%). The Chinese factories closed down, it seems like

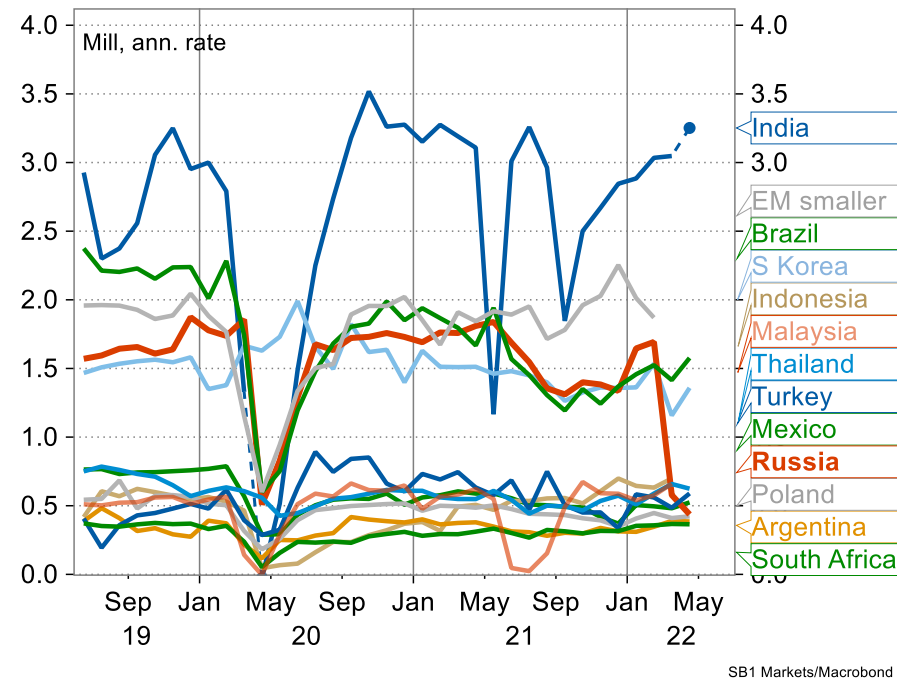
EM: Russian sales further down in April, down 75% from before the war

Sales in other EM ok – Indian sales probably further up, higher sales in Brazil and S Korea up too

EM ex China Auto sales



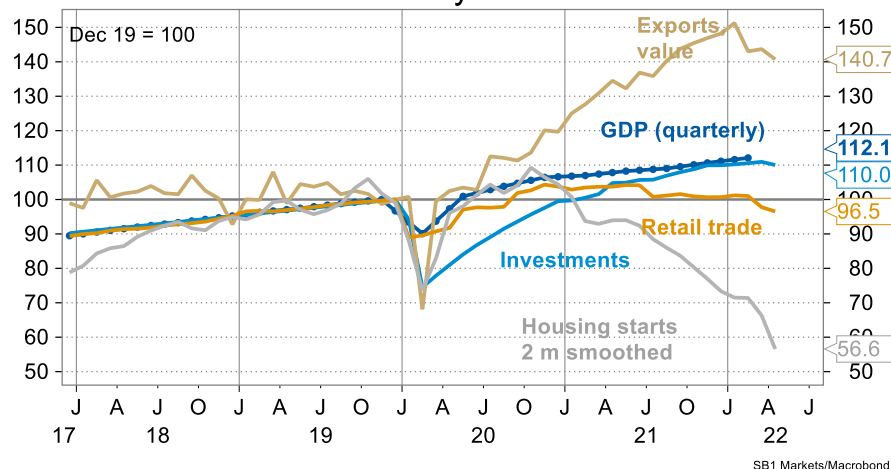
EM ex China Auto sales



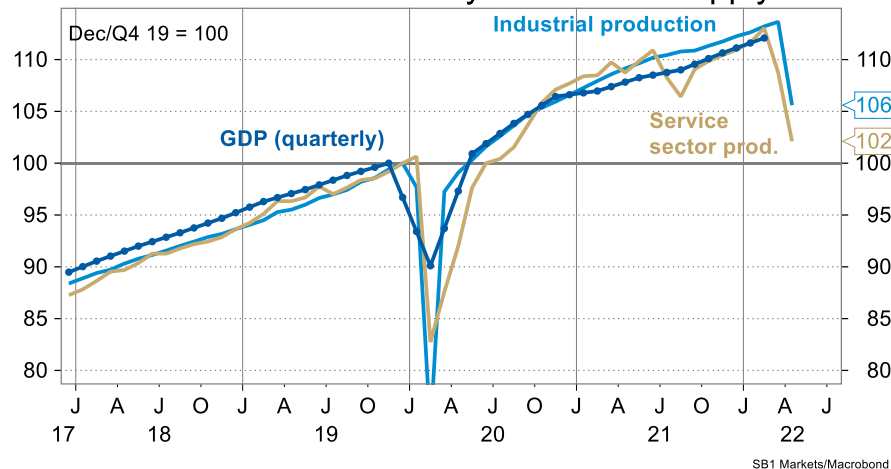
Activity in April badly hit by lockdowns. For how long can this go on?

A huge decline in activity in April, still just 1/3- ½ of the cost of the first lockdowns in February 2020

China GDP vs monthly indicators - demand



China GDP vs monthly indicators - supply

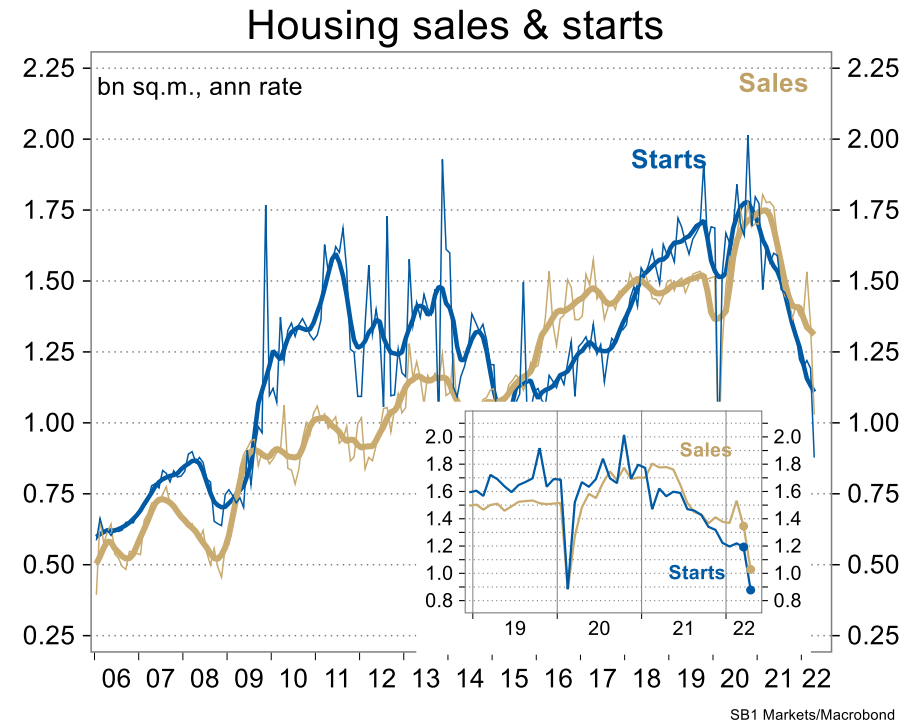
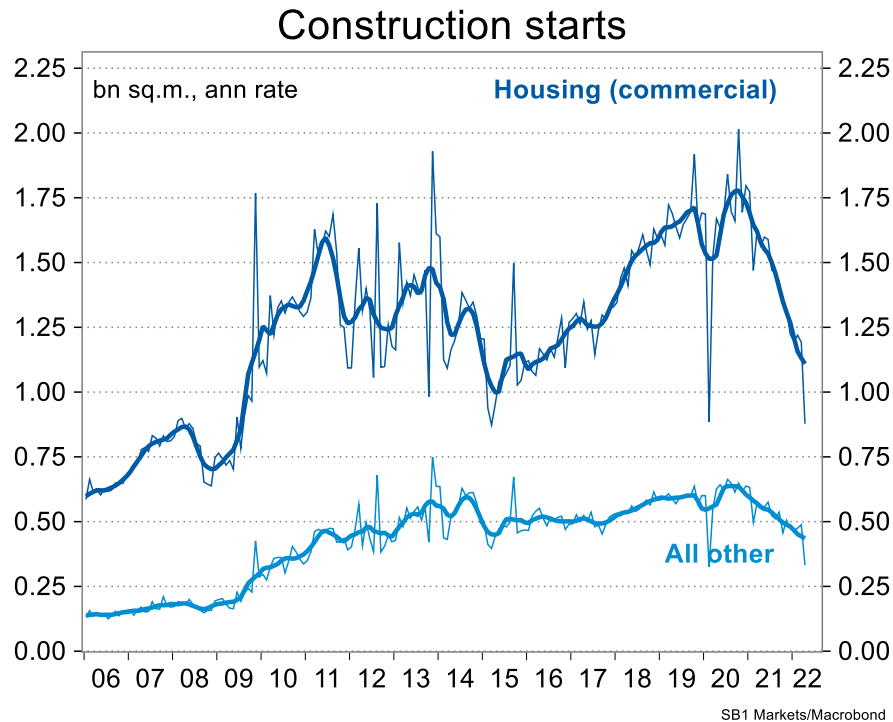


- **Industrial production** fell 7% m/m in April and is down 3% y/y, expected unch.
- **Service sector production** declined 6% in April, following the 4% setback in March. Production is down 6% y/y
- **Retail sales** are down 11% y/y in nominal terms in April, expected -6%. Monthly data are inconsistent, but sales very likely declined sharply m/m in April too (officially just 0.7%, and that does not seem likely). **Auto sales** are down 25% from February
- **Investments** fell 0.8% m/m, and are up 5% y/y – but probably down in volume terms
- **New homes sales and starts** fell 25% in April, starts to below the level during the first lockdowns in 2020. Both are down 45 – 50% y/y, as are other construction starts. Incredible data
- **Credit growth** slowed sharply in April. Bank lending fell to a 4% m/m pace.
- **CPI inflation** has increased somewhat, but remains low (2.2%), especially ex. food & energy (0.9%)
- From the previous week: Both **exports & imports** have fallen so far in 2022 – and before the lockdowns hit

In sum: Weak PMI data from March and April are confirmed

New homes sales & starts down 25% m/m in April, down 40 – 50% y/y

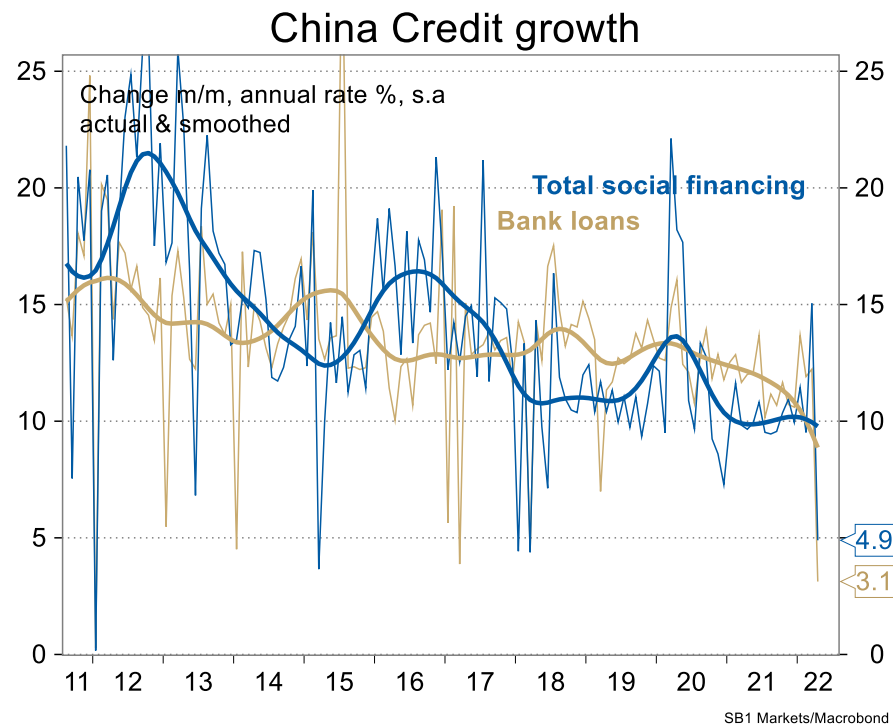
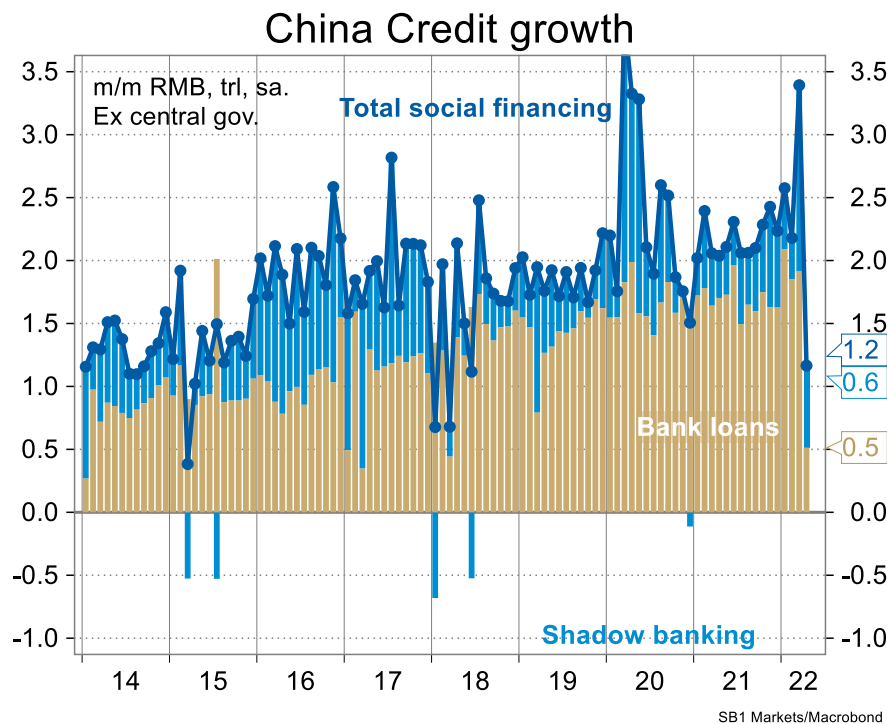
Let's hope and pray lockdowns are to blame. The alternative would be far worse



- **Sales & starts data** are probably far weaker than expected, and starts are lower than during the first lockdowns in 2020.
- **Big picture, before the lockdowns: Non-residential construction starts** had flattened, following a 25% decline since mid 2020. Both housing & non-residential starts were at the lowest level since 2017

Lockdowns even locked down banks in April

Bank lending was almost brought to a halt, the credit flow outside banks also slowed

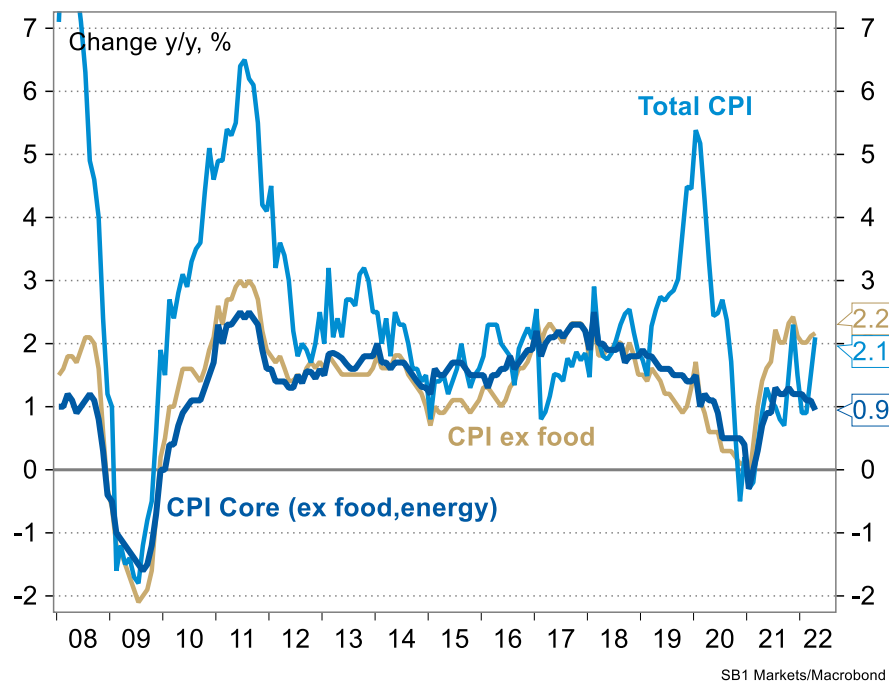


- **Total credit** grew at a 4.9% pace in April (m/m, seas. adj. annualised), down from 13.3% in March. Growth was the lowest in 4 years. No doubt, the lockdowns have made even loan activities troublesome. The average of the two past months is in line the previous months, but the setback in April very was for real, credit taps were not opened in March in anticipation of a crunch in April. The annual rate fell 0.4 pp to 10.1%. Until April, underlying growth was approx. 12%, and growth had accelerated somewhat
- **Total credit** rose by RMB 0.9 trl, expected 2.2 trl (not seas. adj). The 'core' total social credit (total ex central gov bonds & corporate equities) grew by 1.2 trl (seas adj), down from 3.34 trl in March
 - » **Bank loans** rose by RMB 0.5 trl, s.a, or at a 3.1% annualised pace, less than half of expectations. Growth has been slowing since mid 2020
 - » **Shadow banking credit** rose by RMB 0.6 trl, not much lower than the previous months (barring the surge in March), and is up 8% y/y. **Local governments have been** responsible for most of the increase in credit outside banks recent months. Less revenues from sale of land, and public financing of unfinished building projects may explain the steep increase in debt (25% y/y)

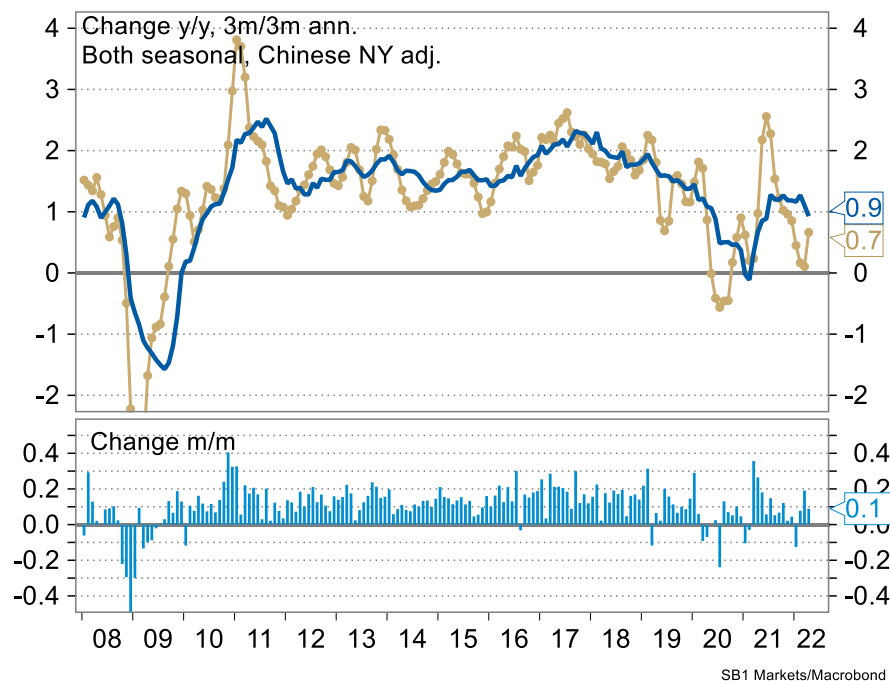
Headline inflation up in April, still at just 2.2%. The core down 0.2 pp to 0.9%

Inflation is not China's predominant challenge these days

China CPI



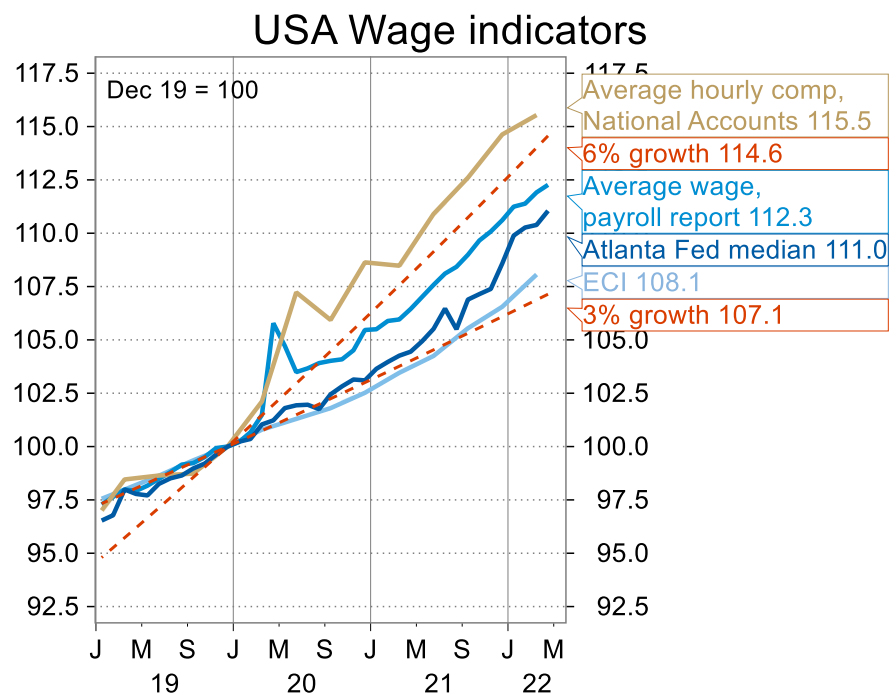
China Core CPI



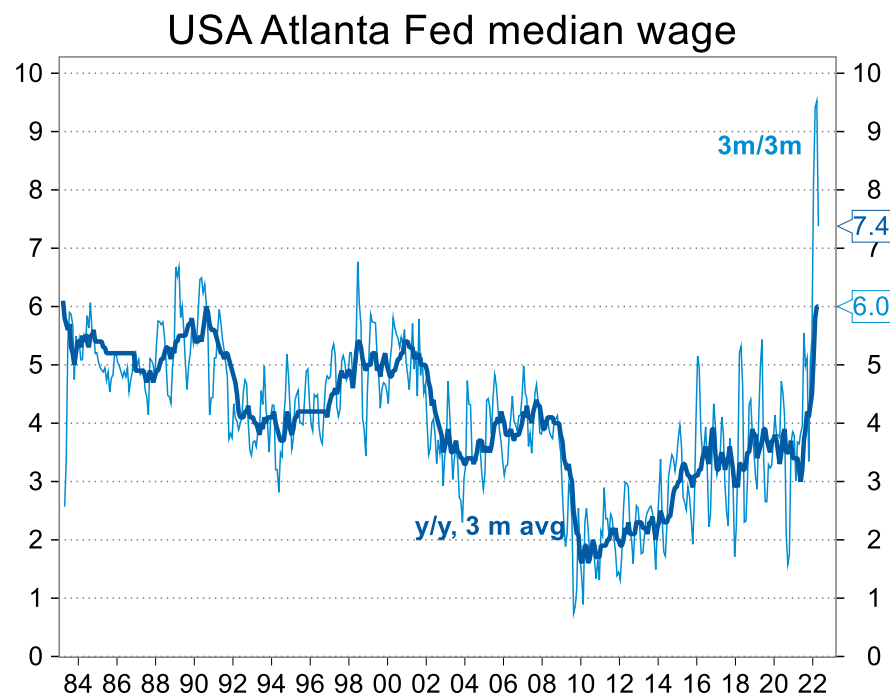
- **Total annual CPI** accelerated further to 2.2% in April from 1.5% in March and 0.9% in Feb. Prices rose 0.6% m/m, following the 0.5% lift in March
- **The core CPI (x energy, food)** decelerated 0.2 pp to 0.9% y/y. Prices rose 0.1 pp m/m. The 3m/3m rate is at 0.7%
- **Food prices** are up 1.9 y/y, even if pork prices are down 33% - which implies that other food prices are up some 8% (vegetables are up 25%)
- **Gas prices** are up 27%
- **Both core & headline inflation is still low.** Monetary policy will not respond to actual inflation data if inflation is not really high or low, the real economy and the credit market is more important

USA Atlanta Fed's wage tracker reports a further (smoothed) wage acceleration

The median wage up 6.0% y/y, following a totally unprecedented acceleration since last spring



SB1 Markets/Macrobond

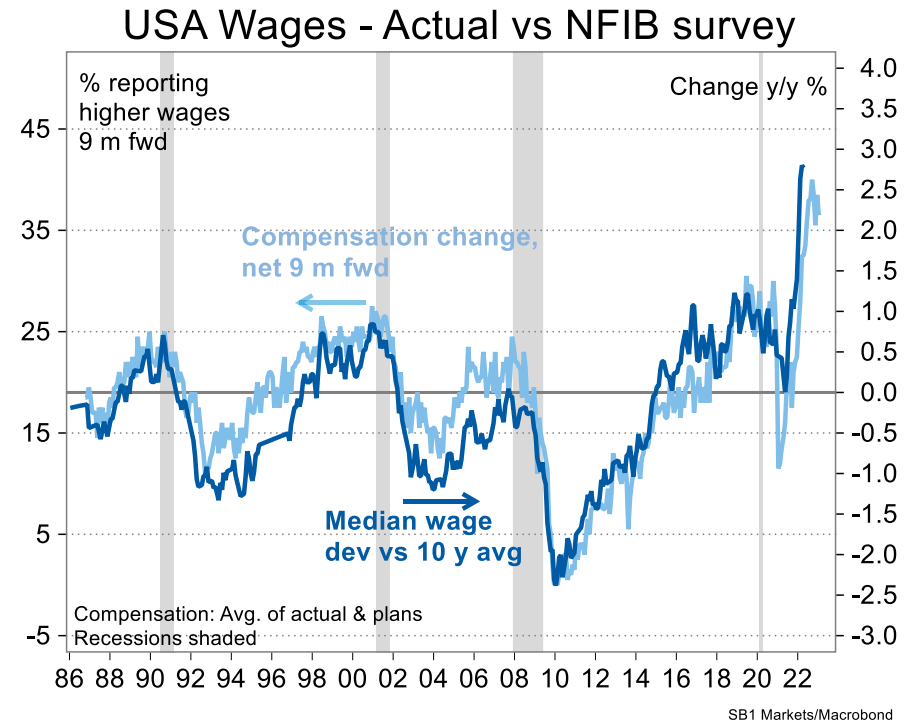
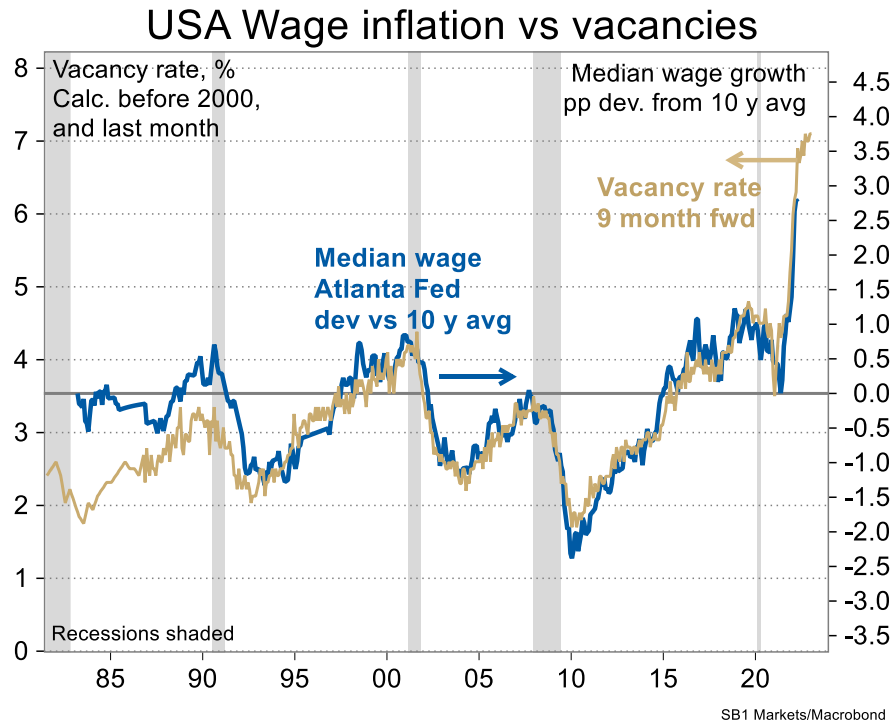


SB1 Markets/Macrobond

- **The Atlanta median wage tracker** was up 6.0% y/y in 1990, and in March 1983, the first observation – and in March & April 2022
 - » **The acceleration in wage growth** since late last spring is unprecedented, also check next page
 - » The only positive sign: Following an extremely rapid m/m increase in Q4, m/m growth (calculated by us) has slowed slightly so far in 2022- but the 3m/3m rate is still 7.4%
- **All other wage indicators** are reporting faster wage growth, and all are reporting wage growth well above the recent years' average
- It will be a 'challenge' to keep inflation at 2% if wage inflation remains at current levels. It does not seem likely that wage inflation will turn south before the labour market weakens (check next page). Productivity growth has not accelerated. Profit margins may take a beating – they very likely will – but that will not be 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

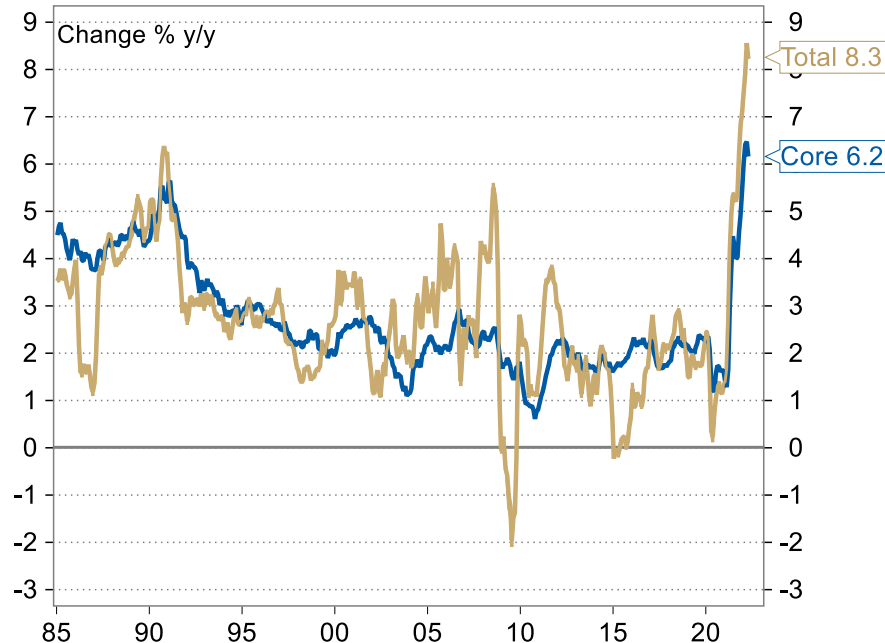


- Our 'Phillips curve' signal a further increase in wage inflation the coming quarters, as the vacancy leads changes in wage inflation quite consistently by 3 quarters. However, we doubt our model works that well when the vacancy rate is as high as it is today
- The correlation between compensation plans and future actual wage growth is not that bad either (again with a 3 quarter lead). These compensations plans do not suggest a further wage growth acceleration, from the current 6% pace (which is far too high to achieve 2% CPI inflation over time)

Annual inflation down but less than expected, and the core still up 0.6% m/m

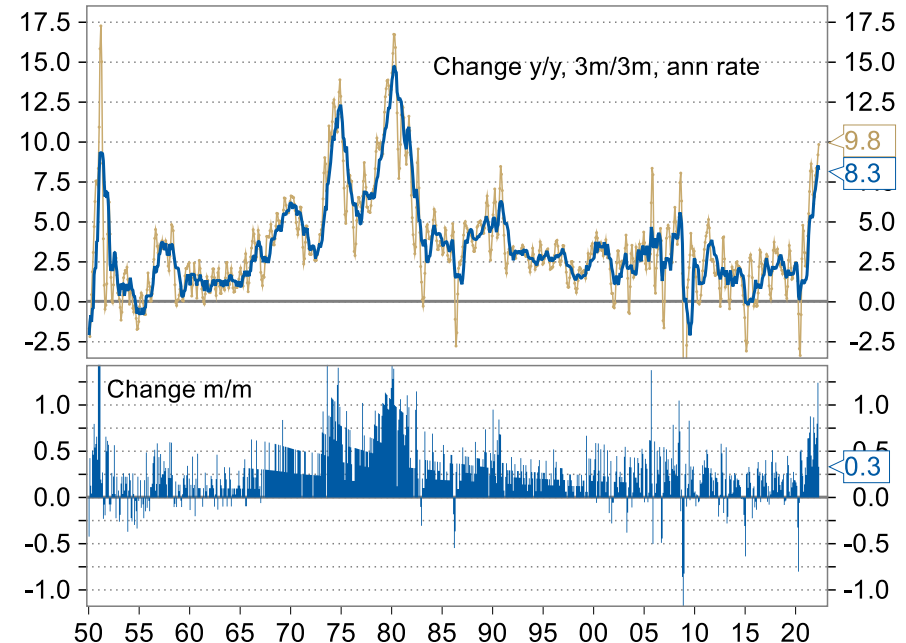
Inflation is broadening further, as demand >> supply. At the same time, some 'transitory' retreat?

USA Consumer Price Index



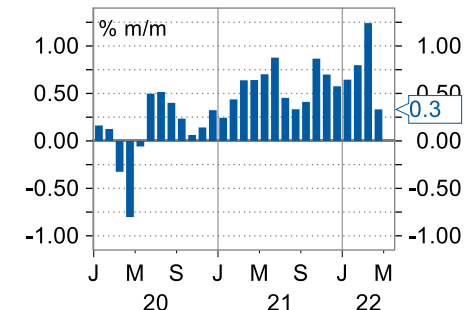
SB1 Markets/Macrobond

USA CPI



SB1 Markets/Macrobond

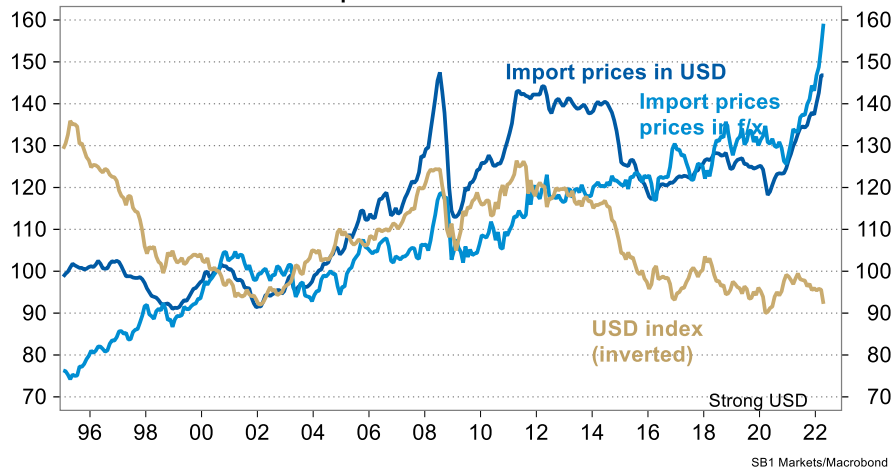
- **Headline CPI** rose 0.3% m/m in April, 0.1 pp more than expected. The annual rate slowed by 0.2 pp to 8.4%, one tenth above expectations. The 3m/3m rate accelerated to 9.8%, the highest since 1981
- **Energy prices** rose 3% m/m, lowering the CPI by 0.2% (other sectors rose 0.6%). The energy component of the CPI is up 30% up y/y, contributing 2.1 pp to the headline CPI growth
- **Food prices** rose 0.8% m/m and are up 9% y/y
- **Airline fares** shot up 19% m/m, and are up 33% y/y (almost like in Norway), contribution by 0.2 pp to the core CPI y/y
- **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, if energy prices do not explode from here



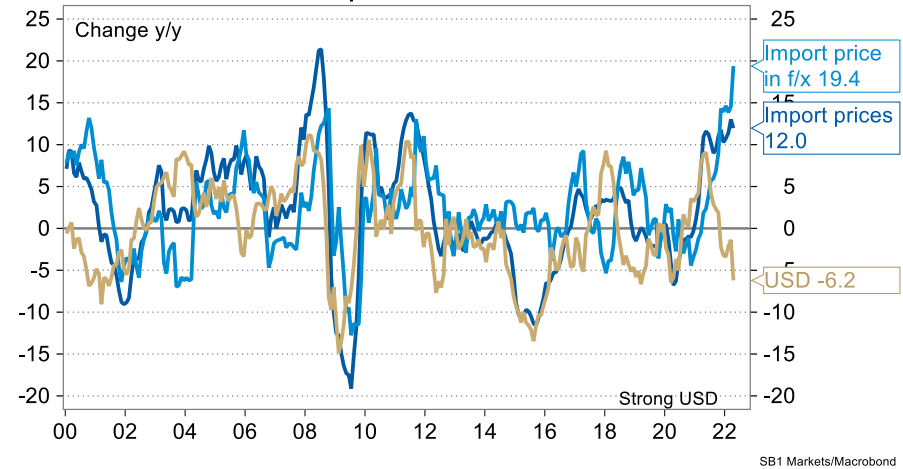
Import prices are surging but they cannot explain domestic US inflation at all

Import prices are up 12% y/y, but 'just' 8% ex oil & gas. Consumer goods are up just 3%

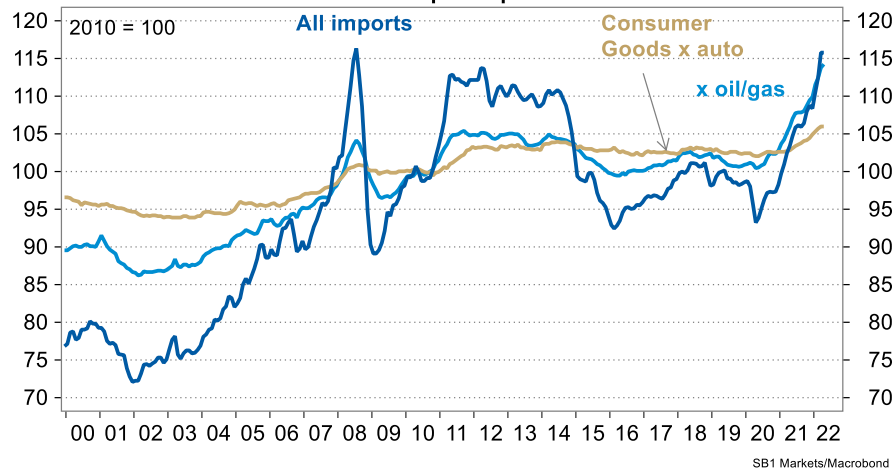
USA Import Prices & the USD



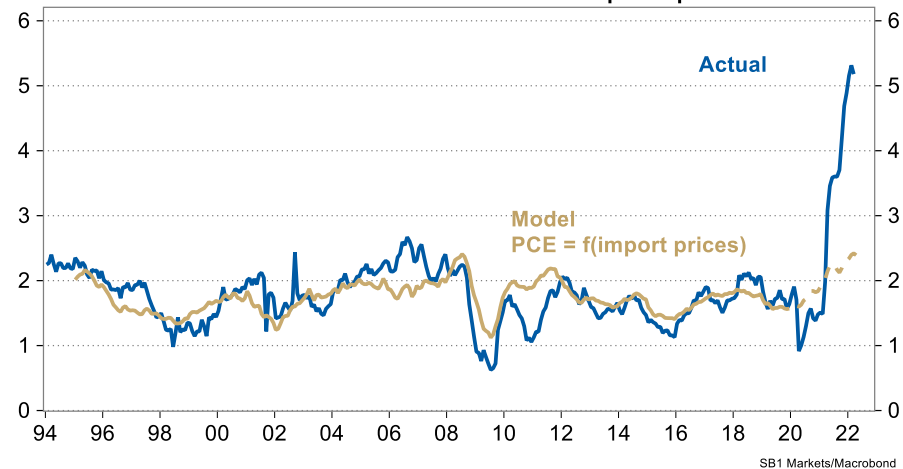
USA Import Prices & the USD



USA Import prices



USA Core PCE inflation vs import prices

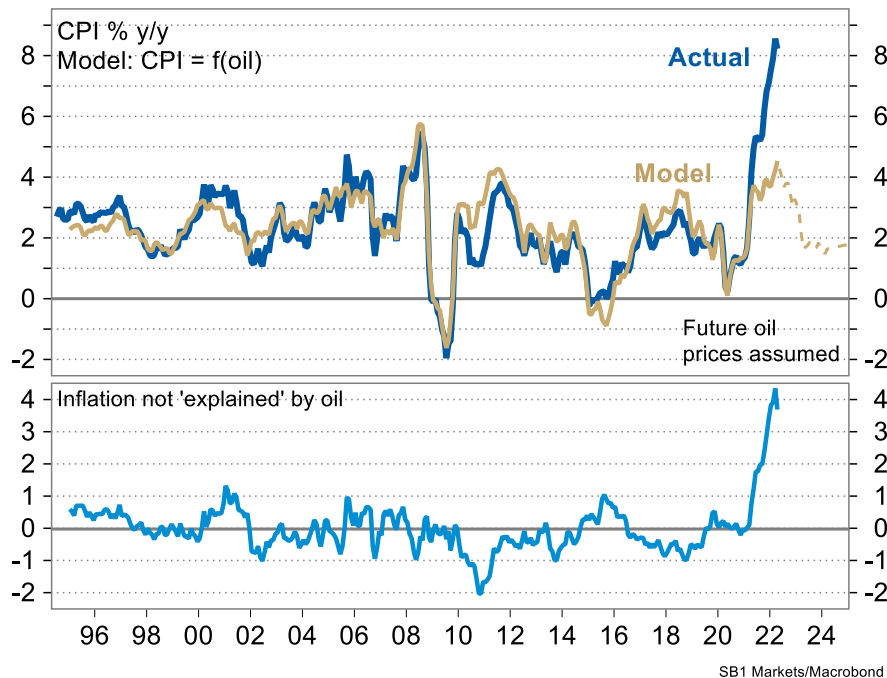


Import prices correlates with US consumer prices but the current take off in US inflation cannot be explained by the lift in import prices

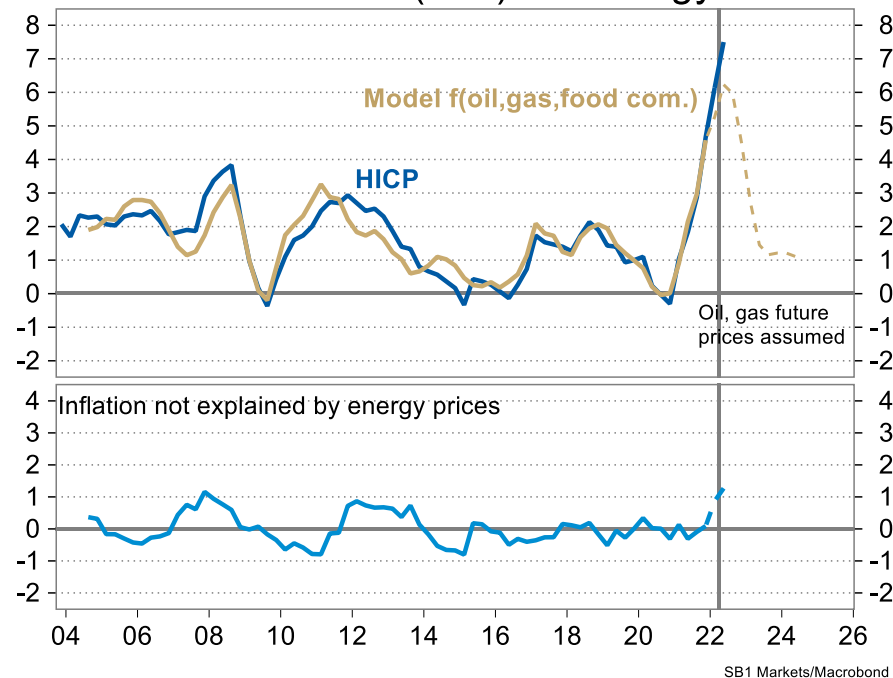
If it just was energy, CPI would have been up 4%. The problem is the next 4 pp

CPI is up 4 pp more than explained by the oil price, unprecedented. In EMU, 1pp more?

USA CPI vs Oil



EMU HICP (CPI) vs. energy

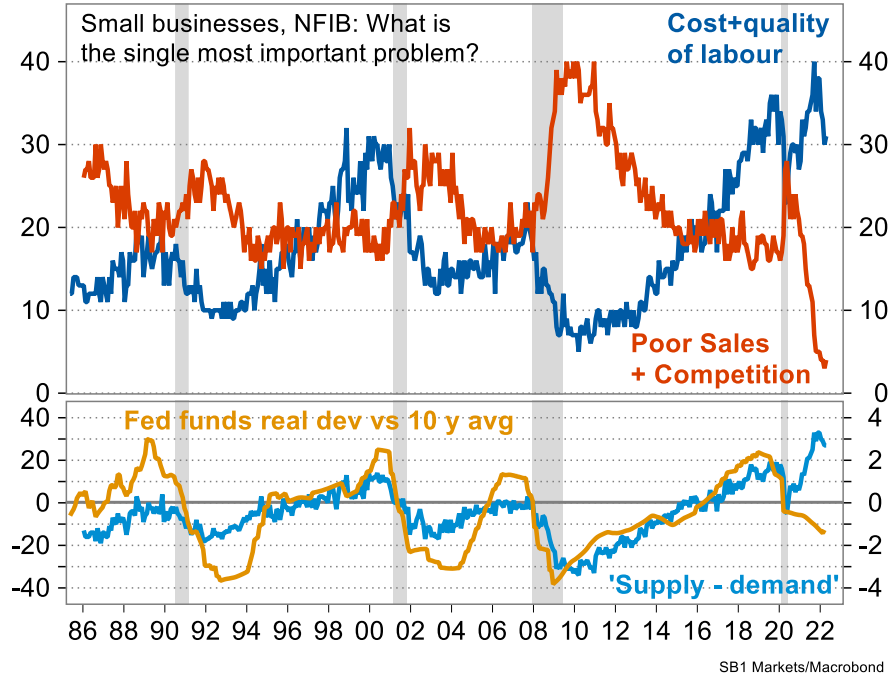


- **Oil price cycles** have explained some 80% of the changes in the US CPI growth the past 30 years, which for all practical purposes, is “everything”
 - » In our model we incorporate all direct impacts from changes in the oil price – as well as the impact from other factors that influence inflation which correlates to the oil price. The current model residual, at almost 4 pp is totally unprecedented
 - » 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

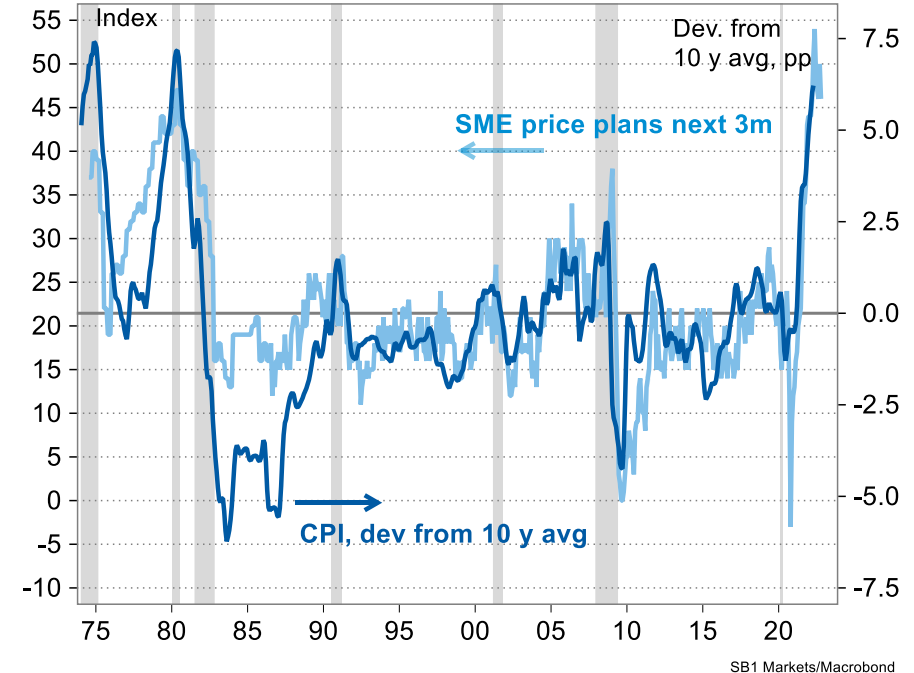
Sales are fantastic, labour supply is still the challenge

A small decline in share of companies that plan to hike prices (but it is still at an extremely high level)

USA What's the problem: Supply or Demand?



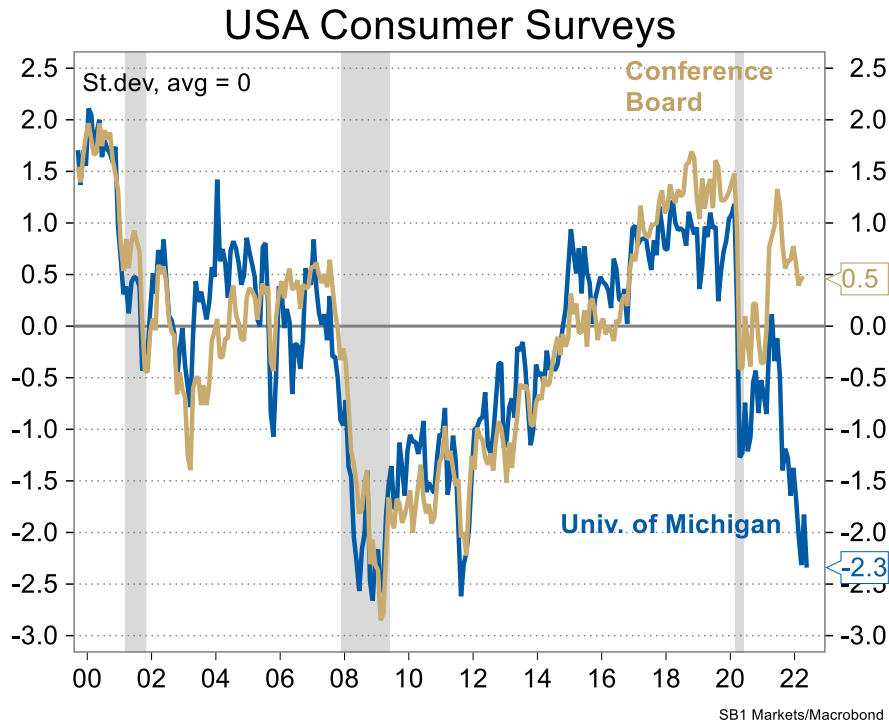
USA Small Businesses Price Plans



- The share of SMEs that plan to hike their **selling prices** fell 4 pp to 46%, not far below the ATH prints the previous months
- Cost & quality of labour is stated as the most important problem for a much higher share of companies than normal. However, the share has fallen somewhat from the peak, if not further in May
- The '**demand surplus**' has widening from a high level since early 2021 –and the Fed's started their tightening campaign just two months ago, far later than normal vs the cycle – '*the bank is far behind the curve*'

Univ. of Mich. consumer sentiment down in May, the weakest since 2011

Both assess. of the current situation & expectations down; High inflation, gasoline prices to blame

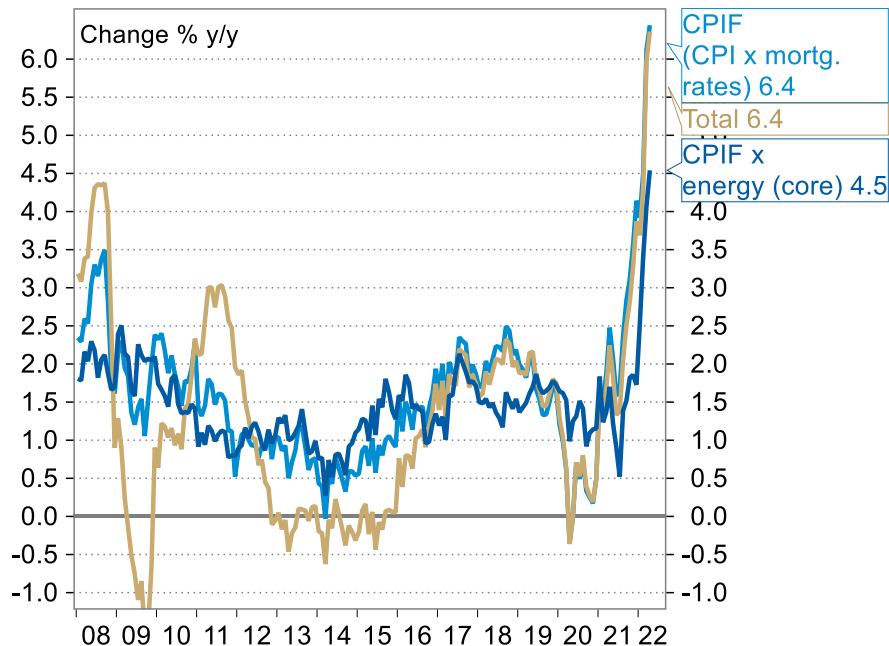


- **University of Michigan's consumer sentiment fell to 59.1 in May from 65.2 in April, expected up to 64. The index fell to -2.3 st.dev below average, from -1.8**
 - » Both households' assessment of the current situation and their expectations fell by approx. the same amount
- **2 of the other 3 consumer surveys** we are following report a confidence level far below average levels, and they fell
- Just the Conference Board's measure is still above average (at +0.5 st.dev) in March
- 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
 - » 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'

Inflation further up: Headline +0.4 pp to 6.4%, the core +0.4 pp to 4.5%

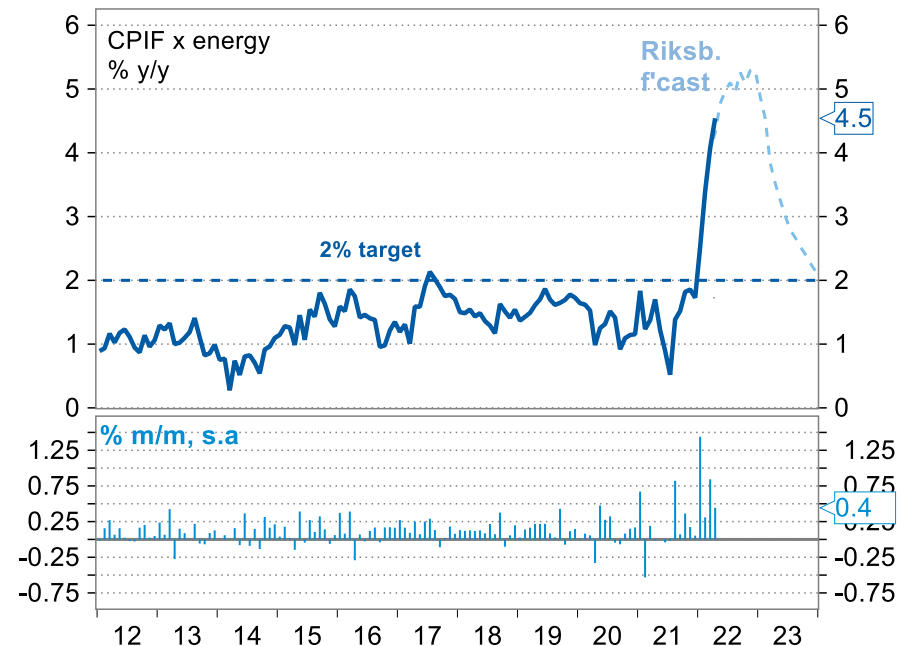
0.1 – 0.2 pp higher than expected. Now it is more than energy which contributes, here too

Sweden CPI



SB1 Markets/Macrobond

Sweden CPI core

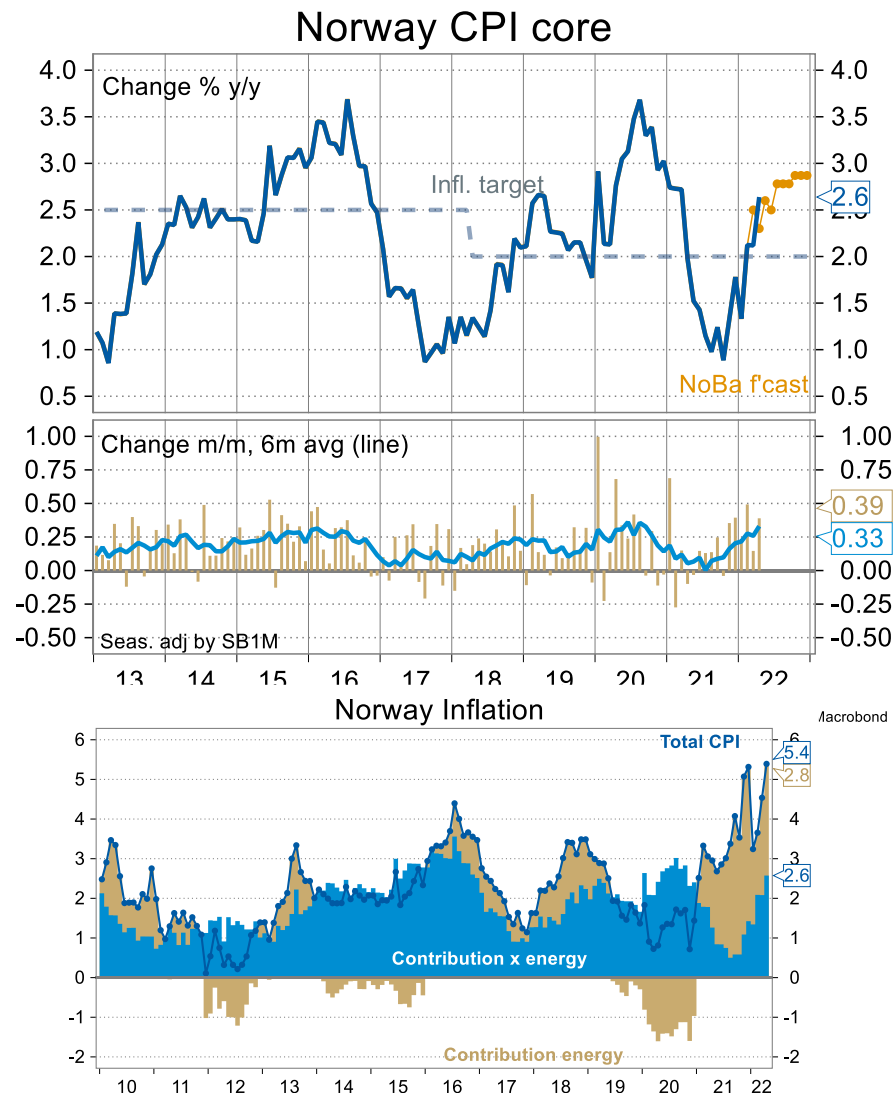


SB1 Markets/Macrobond

- **CPI-F x energy, the 'real core'**, rose 0.4% in April (seas. adj). The core rate has accelerated sharply recent months, to 4.5% from 1.7% in December
 - » Why is inflation so high? Food prices are up 6.6% y/y, hotels & restaurants 7.1%, furnishings 8.5%
 - » All other measures of underlying inflation are sharply up – and at the highest level in some 30 years
 - » Until Q4, inflation was pretty well explained by higher energy prices, now
- **Headline inflation** also accelerated, and not because energy prices accelerated

Inflation shot up in April, we (and everybody else) missed vs SSB est. of el. prices

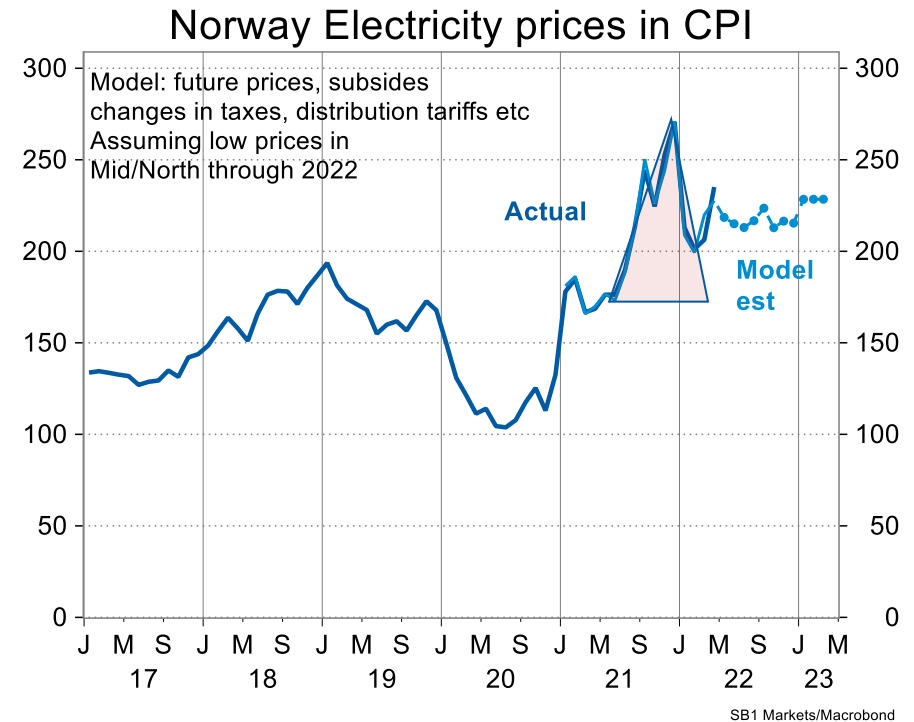
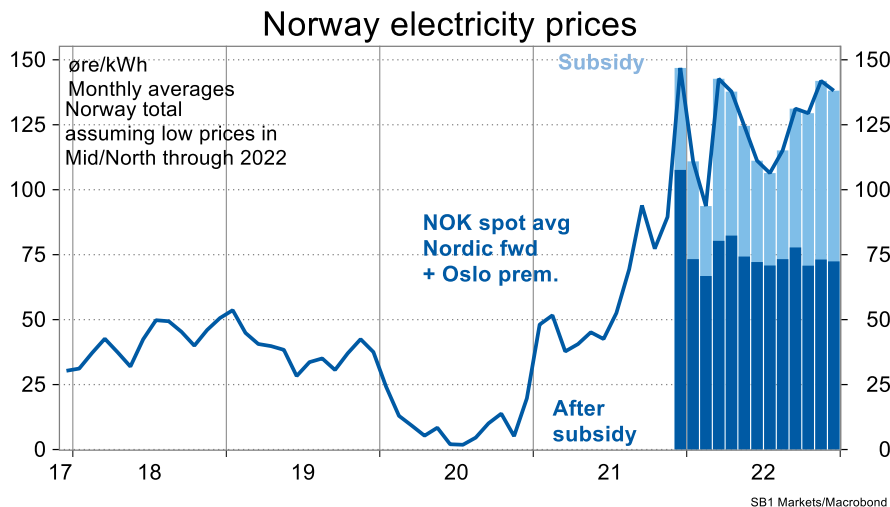
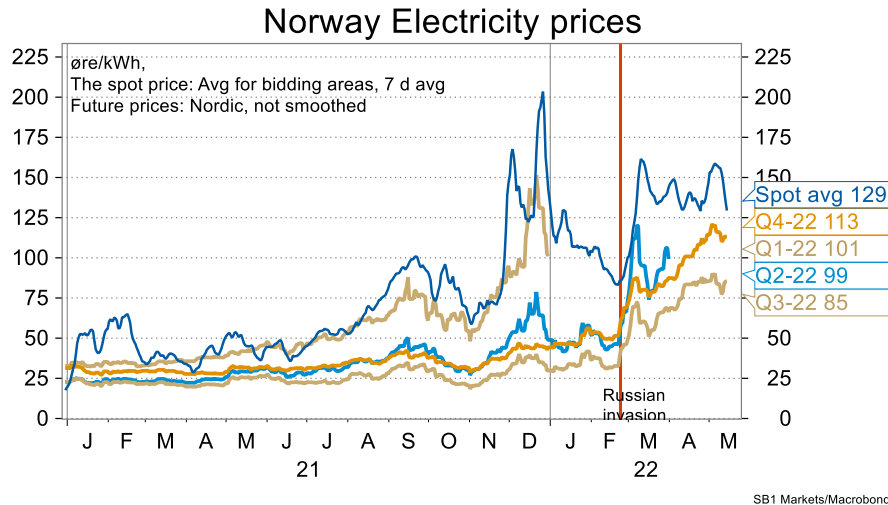
Headline inflation up 0.9 pp to 5.4% (we expected 4.5%). The core up 0.5 pp to 2.6% (exp. 2.4%)



- **Total inflation** shot up, much more than expected. Electricity price rose much more than we (and others had assumed), and airfare ticket prices shot up much more than we expected. Elsewhere in sum close to our forecasts – and inflation is broadening somewhat
 - » **Electricity prices** rose 14%, according to SSB. We estimated a 4% increase, an unusual miss (with the opposite sign vs. our large March miss!)
- **CPI-ATE** (ex. energy and taxes) rose 0.4 pp m/m, and the annual rate climbed 2.6%, expected up to 2.4% (consensus & SB1M) or 2.3% (Norges Bank). In March, the CPI-ATE was well below consensus (and NoBa's est.)
 - » **Food prices** rose 0.9%, reversing the 0.7% decline in March. Food prices are now 1% below the level in Q4-2020
 - » Prices on **imported goods** rose 0.2% m/m, as we assumed, and are up 2.3%, while **domestically produced goods & services** were up 0.5% m/m and 2.6% y/y – and accelerating
 - » More sectors reported growth above 2%, and domestic inflation is accelerating moderately
- **The outlook**
 - » **The electricity bill** will remain high but the current future prices for the rest of 2022 do not signal higher prices
 - » **Core inflation** will probably accelerate somewhat through 2022
 - » If so, **average 2022 inflation** will be well above the 3.3% – 3.4% 'official' estimates, in fact above 4%
- **So what?**
 - » **The uncertainty** is still large both vs. energy and food prices, as well as other impacts of the war in Ukraine
 - » **Wage inflation** may in the end surprise on the upside in a tight labour market, but so far the wage negotiations have delivered exactly the expected outcome
 - » For **Norges Bank** wage inflation is the dominant risk, and the bank will probably need some time to build a case for a faster tightening

Electricity prices fell in April, but the tax cut was reversed, and our model missed

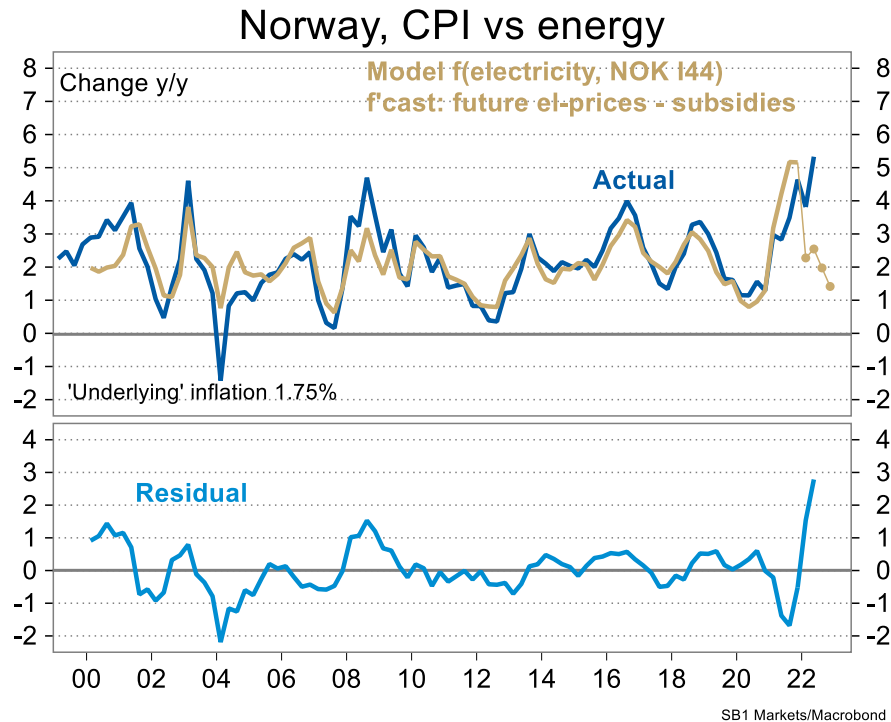
We assumed the electricity bill would increase by 4% m/m in April, but it climbed by 15%



- In March, we missed at the other side – something is rotten in our rather detailed model, which copes with all regions, the subsidy program, electricity taxes, transfer tariffs and the different VAT rules, and it usually works well. (Other economists have experienced the same problem with SSBs March & April electricity component in the CPI index)
- The cost of the unprecedented surge in electricity prices, represented by the triangular area above, so far equals a 30% extra cost, above a 'normal' high price level (like in 2018-19), or 1¼ % of one year's disposable income

Inflation suddenly substantially higher than suggested by electricity prices & NOK

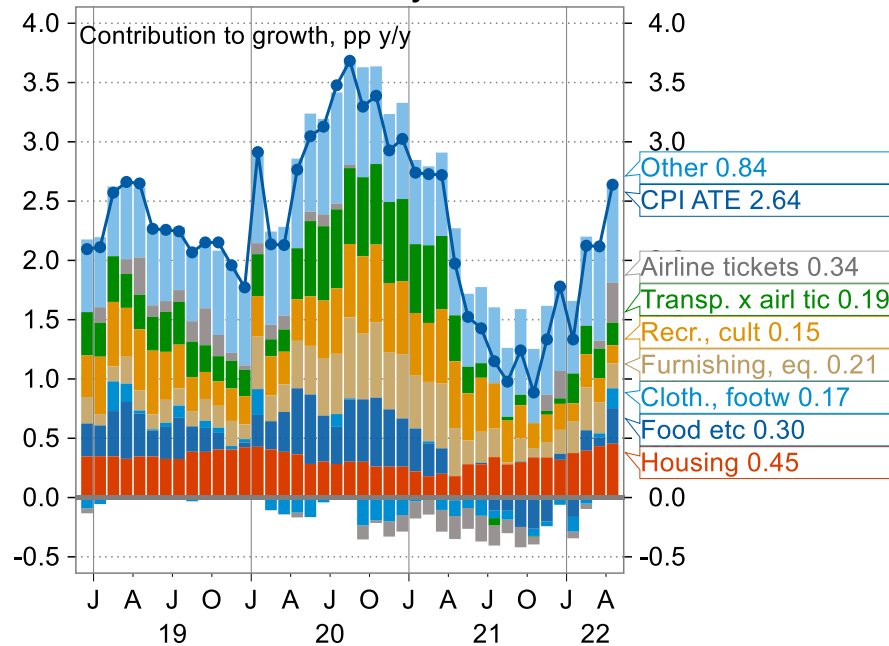
Our simple model indicates that inflation has broadened during Q1 and so far in Q2



- On the other hand, actual inflation was well below the model forecast through 2021

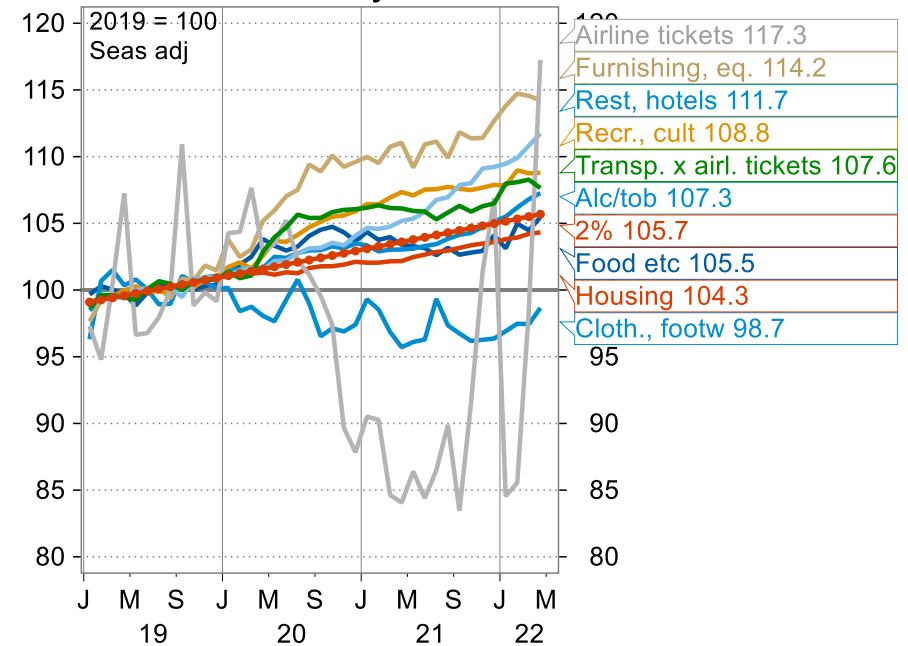
Signs of faster/broader price growth recent months

Norway Core CPI



SB1 Markets/Macrobond

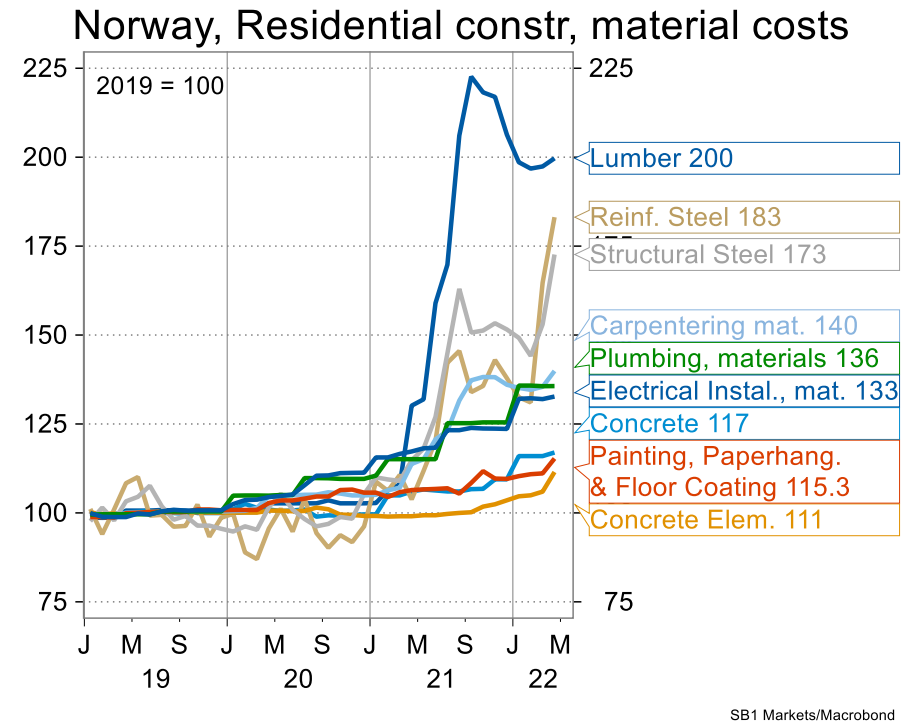
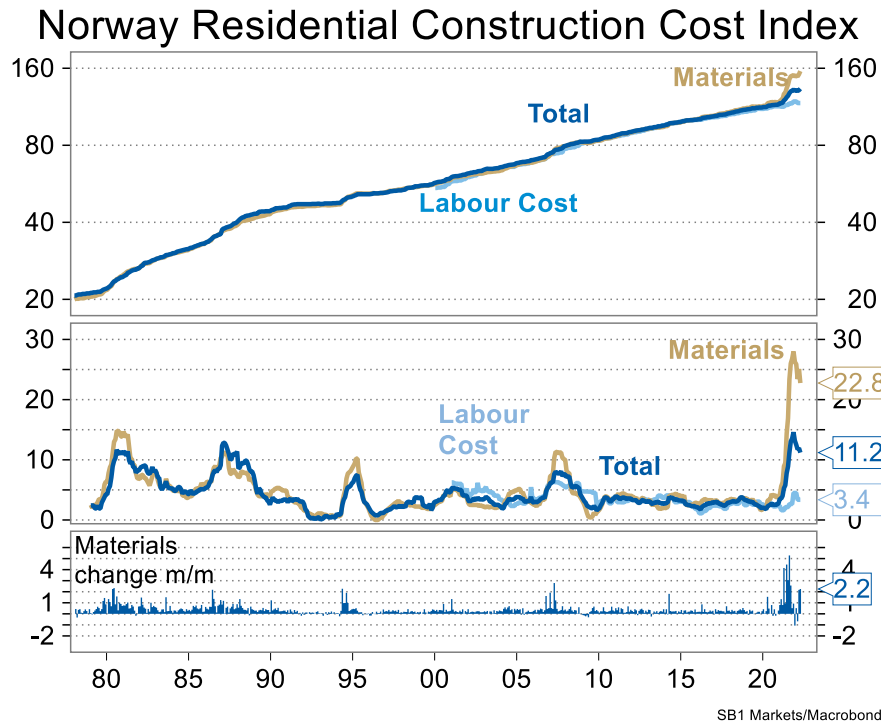
Norway Core CPI-ATE



SB1 Markets/Macrobond

Building costs: More materials prices up 2% m/m, 23% y/y

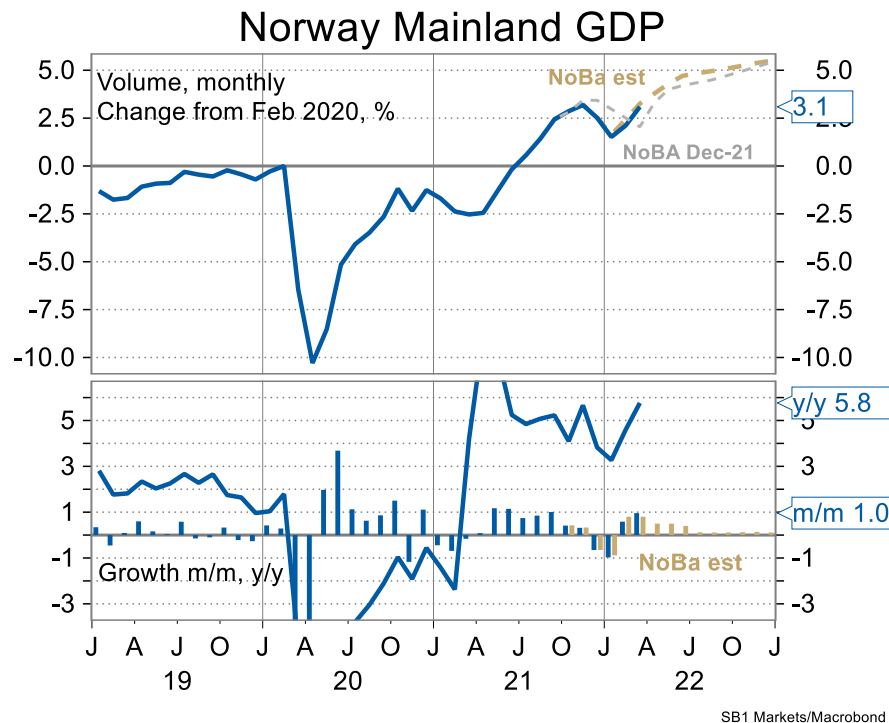
Steel prices surged in March and rose further in April. Cement on the move too. Lumber slightly up



- **Material prices** (houses and apartments) added 2.2% in April, and prices are up 22.8% y/y
 - » Lumber prices rose marginally following a 10% decline since last autumn. Prices are up 100% from the 2019 level. Steel is up 70% – 80%
 - » Other material prices are trending up, from 11% (concrete) to plumbing and carpentering material 36% – 40%
- **Labour costs** were up to 3.4% y/y in Q1, down from 4.5% in Q4 (which was the highest growth rate since 2009)
- Including labour costs, the **total building** cost index is up by 11.2%, down from the ATH at 14.6% at the peak last Oct

Mainl. GDP up 1% in March, more than expected but just back to the Nov. level

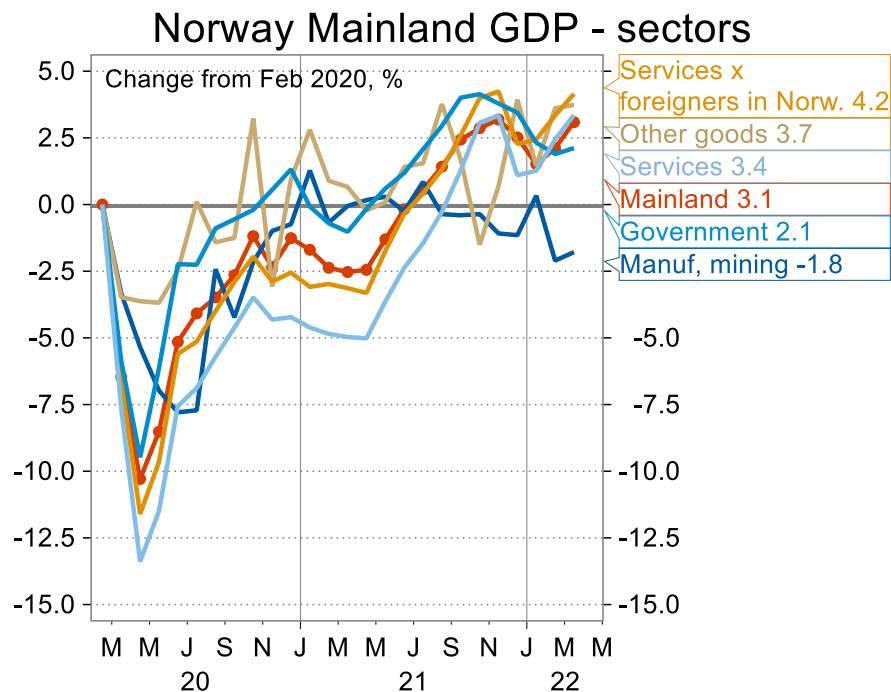
Very likely, GDP will recover further in April and in Q2, the latter probably >1.5%



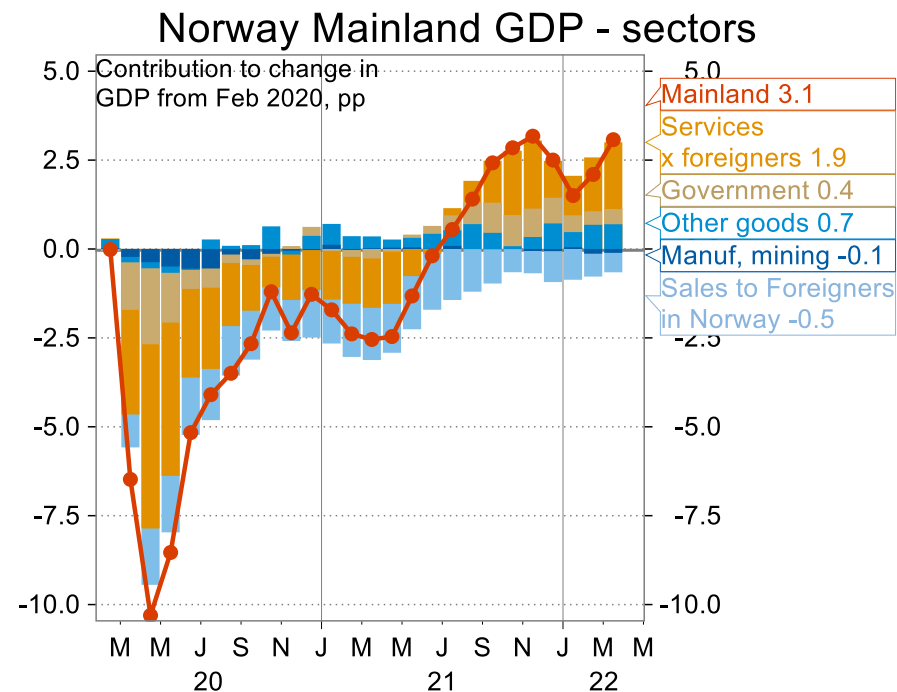
- The **Q1 GDP** fell 0.6%, more on that [here](#). We first discuss the March outcome
- **Mainland GDP** fell in both December and January due to Covid restrictions and changes in behaviour but recovered the setback in February in March. Activity is in line with the November
 - » **Production:** All main sectors contributed to growth in production in March, services the most
 - » **Demand:** All main components contributed on the demand side; Private consumption the most
- **Mainland GDP** is up 3.1% vs the Feb-20 level, which is well below a normal growth path over these two year (4 – 4.5%), indicating an output gap well below the level 2 years ago
 - » However, unemployment is well below the pre-pandemic level, the employment rate (among Norwegian citizens) is far above, and businesses are reporting unusual lack of labour
 - » Businesses are also reporting a much higher capacity utilisation than before the pandemic
 - » Thus, Norges Bank is very likely right when it assumes that the output gap is substantially higher now, than before the pandemic

Production: Services gained traction in March, up 3.5% vs. Feb-20

Manufacturing is the weakest sector, down 1.8% vs the pre-corona level



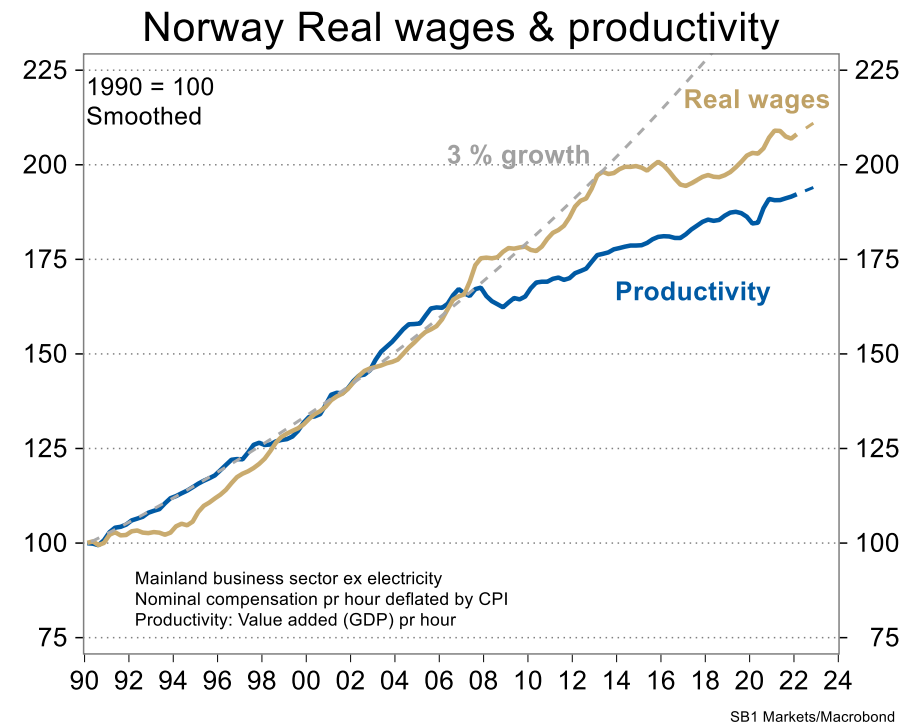
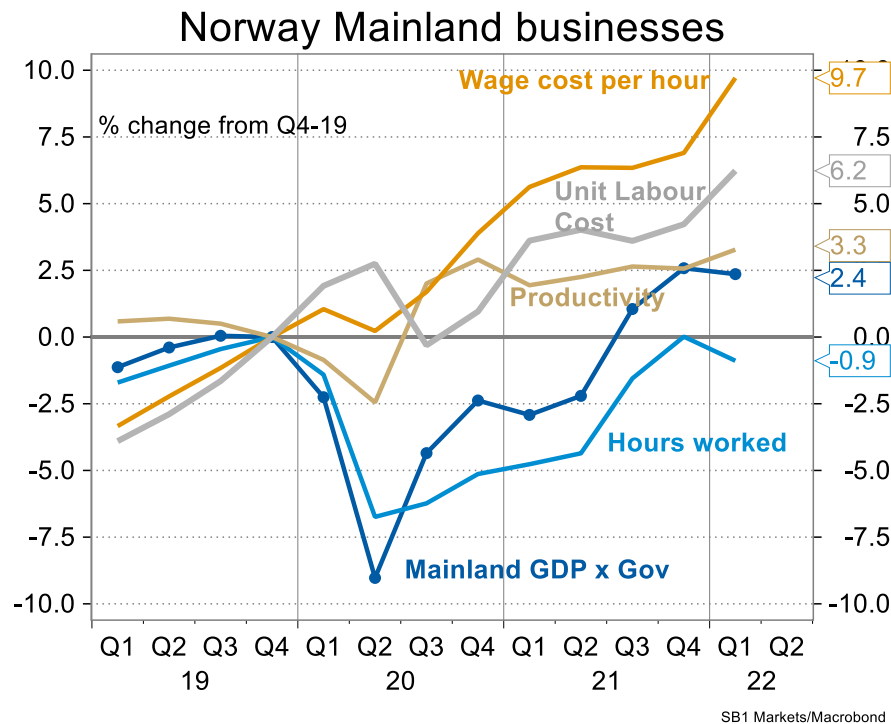
SB1 Markets/Macrobond



SB1 Markets/Macrobond

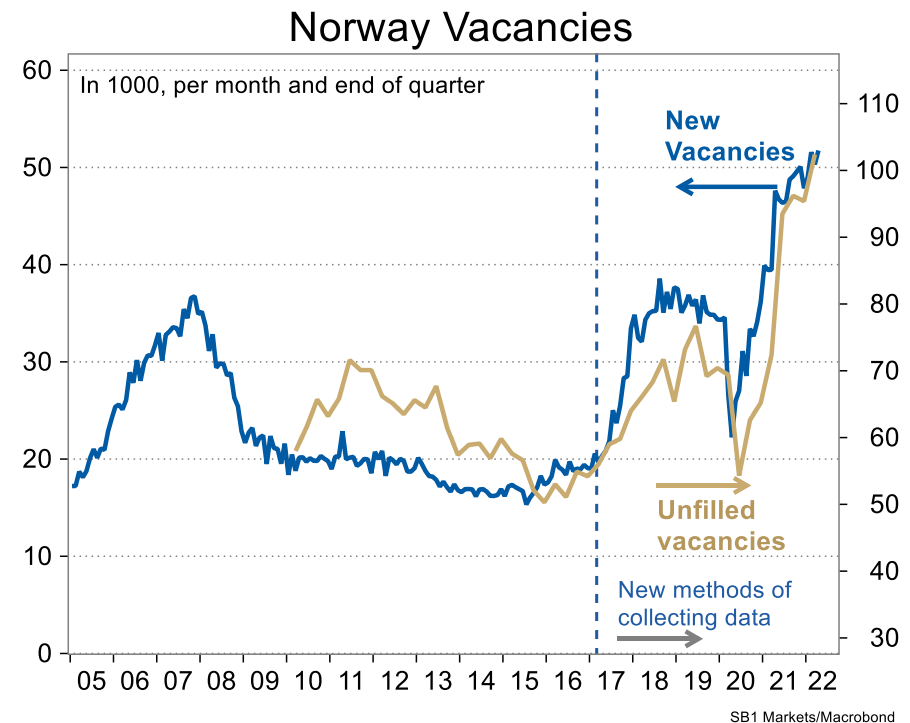
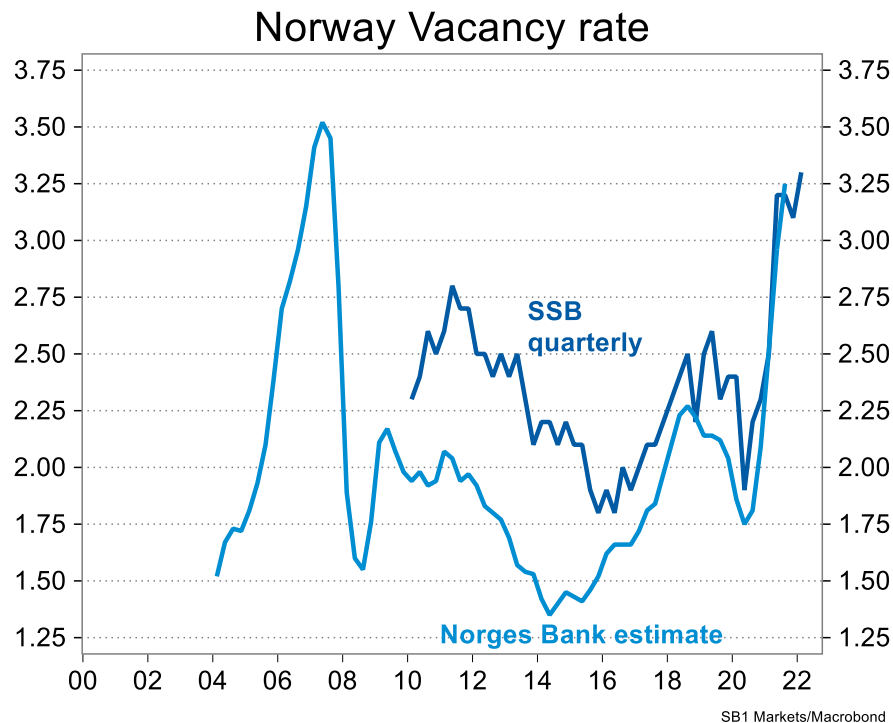
Unit labour cost inflation at a 2.7% pace since Q4-19

Wages are up a 4.3% pace, productivity 1.5%. Not assuring vs the 2% inflation target



- Wage cost pr hour rose in sharply in Q1 but quarterly data are rather volatile
- **Productivity** has almost flattened since Q4-20
- **Unit labour cost** also rose sharply in Q1, and they are climbing at a faster pace than normal
- **Real wages** fell in Q3-Q1 due to higher electricity prices

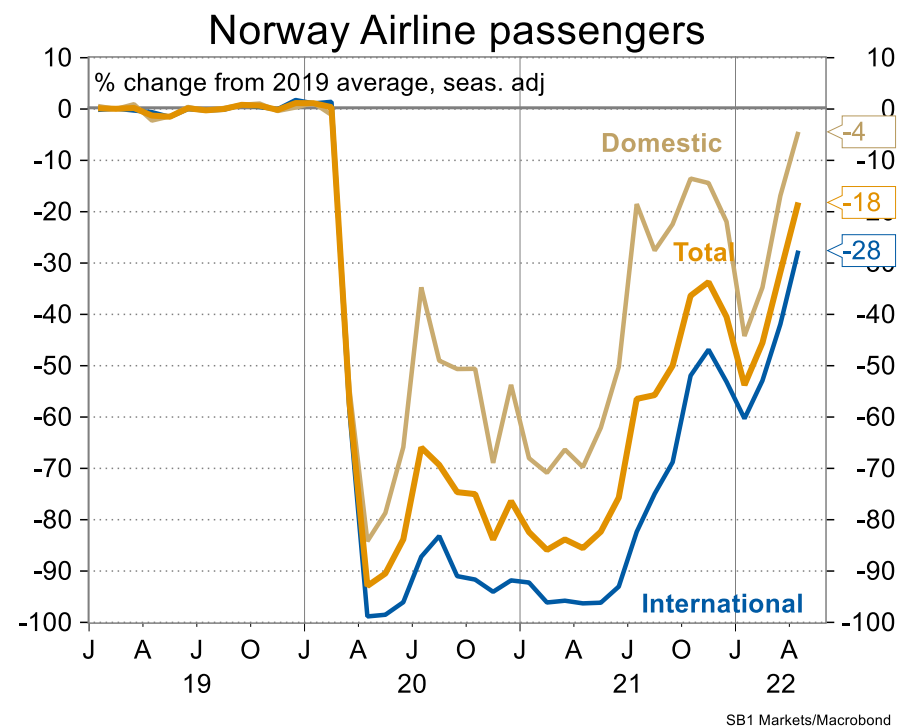
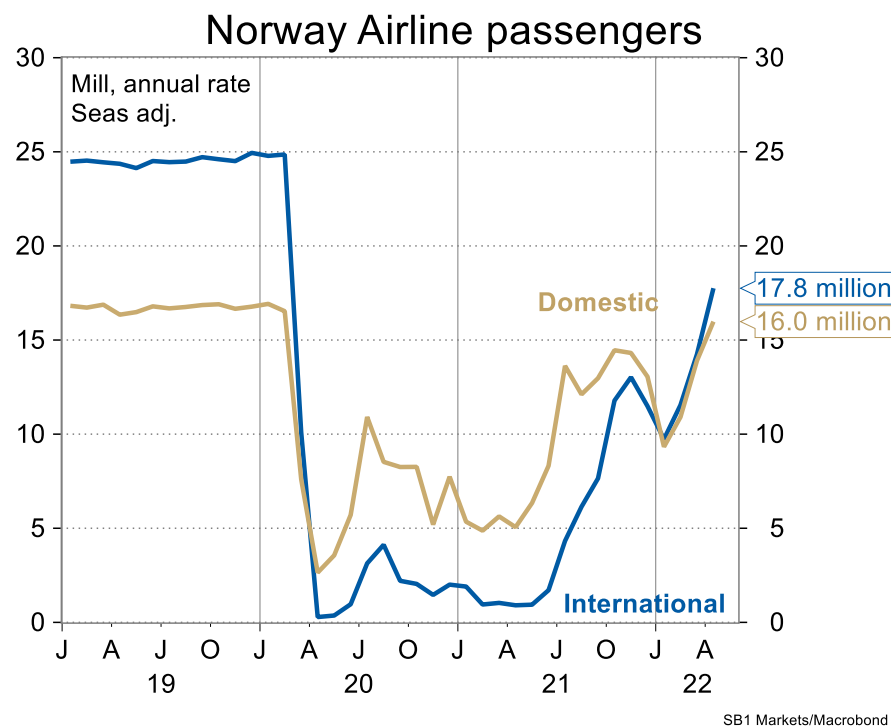
The vacancy rate up in Q1, to 3.3% from 3.1%



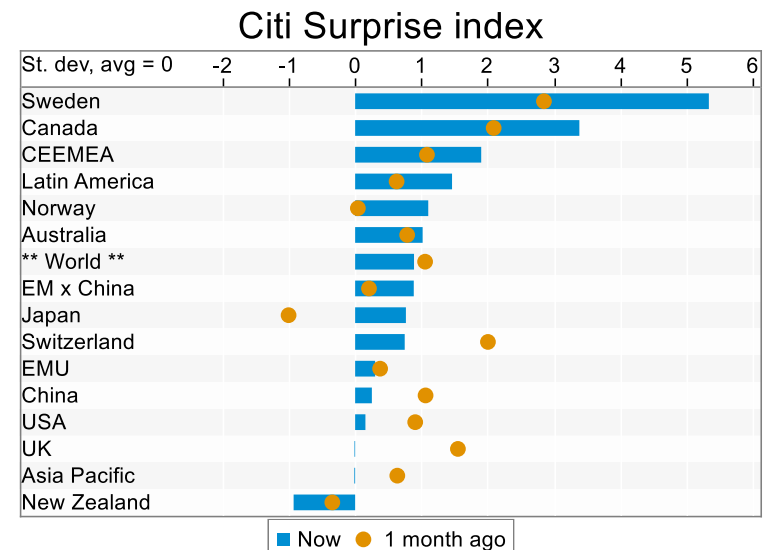
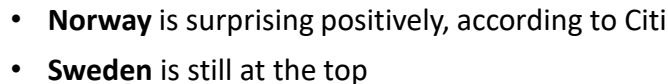
- Lack of access to foreign workers may explain a part of the 30' increase in unfilled vacancies from before the pandemic the 100+ level. The no. foreign workers on short-term stay was still down some 15' vs. the pre-pandemic level in Q1

Total airline traffic up 25% m/m in April, domestic traffic almost back to normal

Number of domestic passengers down -4% vs. 2019, international traffic is still down 28%



- We expect a further growth in May, the most in international traffic



Highlights

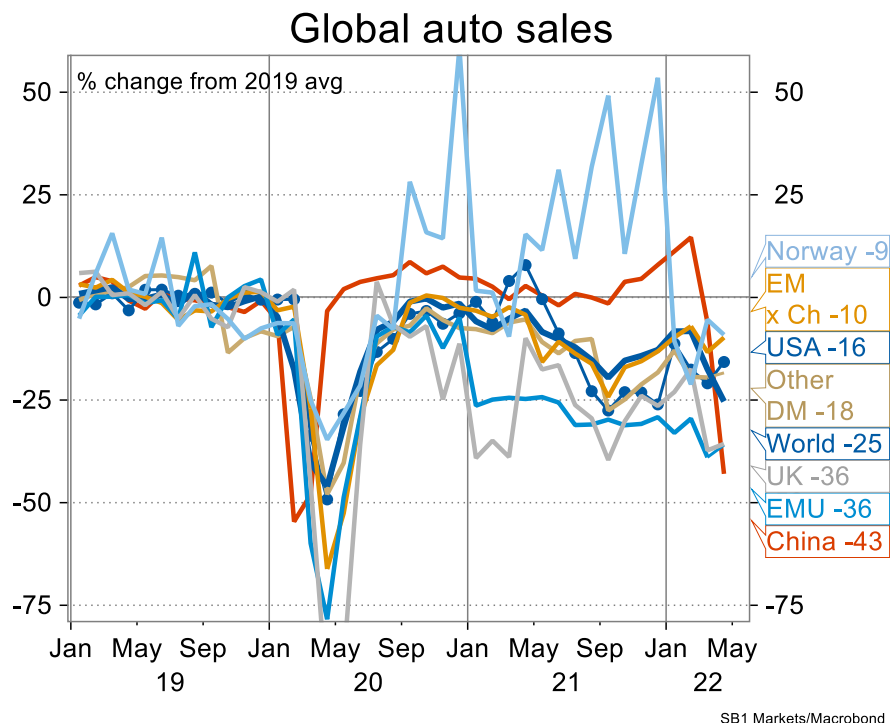
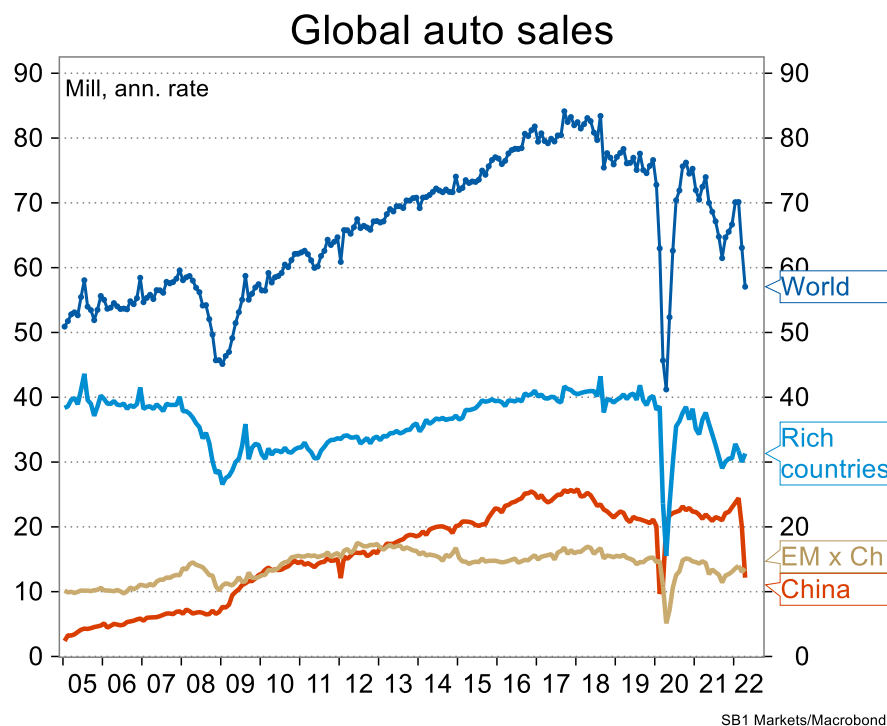
The world around us

The Norwegian economy

Market charts & comments

Chinese auto sales down 50% vs the pre-lockdown level in April

Sales rose slightly in ROW, both in the rich part of the world, and in EM – even if Russian sales fell

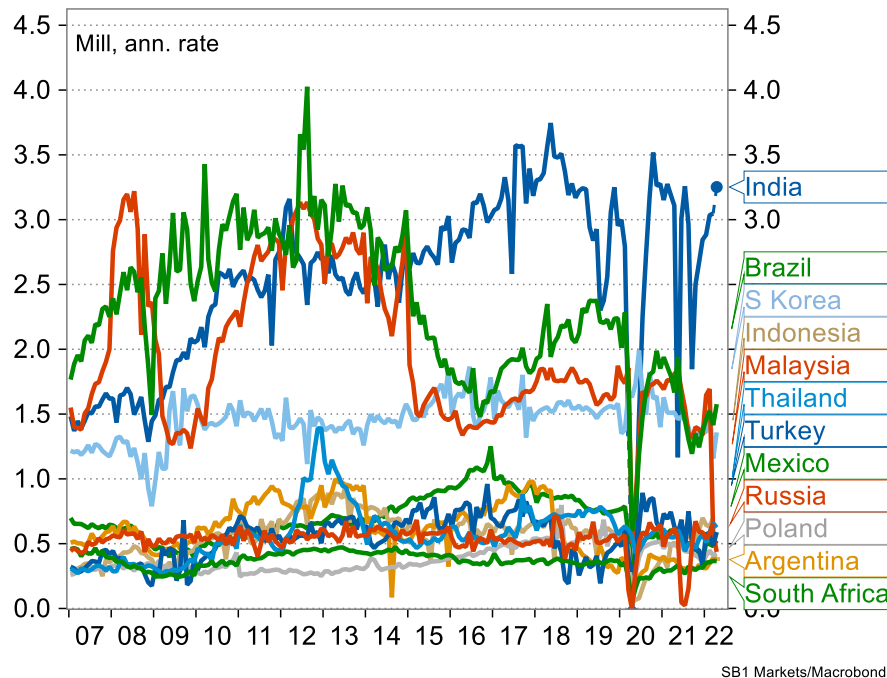


- **The decline in global sales** fell 10% m/m in both March and April, and sales are down 25% vs the 2019 level
- Sales in **China** fell even more in April than in March, and are down 50% since February. Lockdowns to blame, no doubt, probably both due to lower supply & demand. Russian sales are down 75% since before the war, probably both due to lack of supply (imported cars at least) and reduced demand from households
- Sales in the **US** rose in April, but sales are still 16% below the 2019 level
- In the **EMU**, sales fell sharply in March and the uptick in April was small – sales are down 36% vs 2019. **UK** is down 36% too. Sales in **Norway** rose are down 9%
- **Auto production** is limiting sales most places. German production fell sharply in March but recovered sharply in April (+10%). The Chinese factories closed down, it seems like

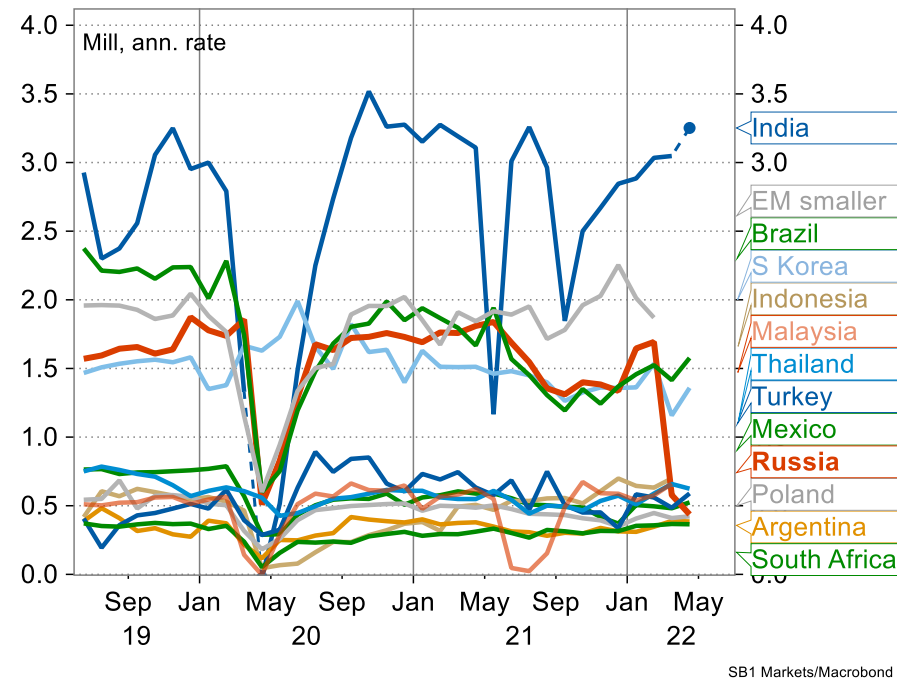
EM: Russian sales further down in April, down 75% from before the war

Sales in other EM ok – Indian sales probably further up, higher sales in Brazil and S Korea up too

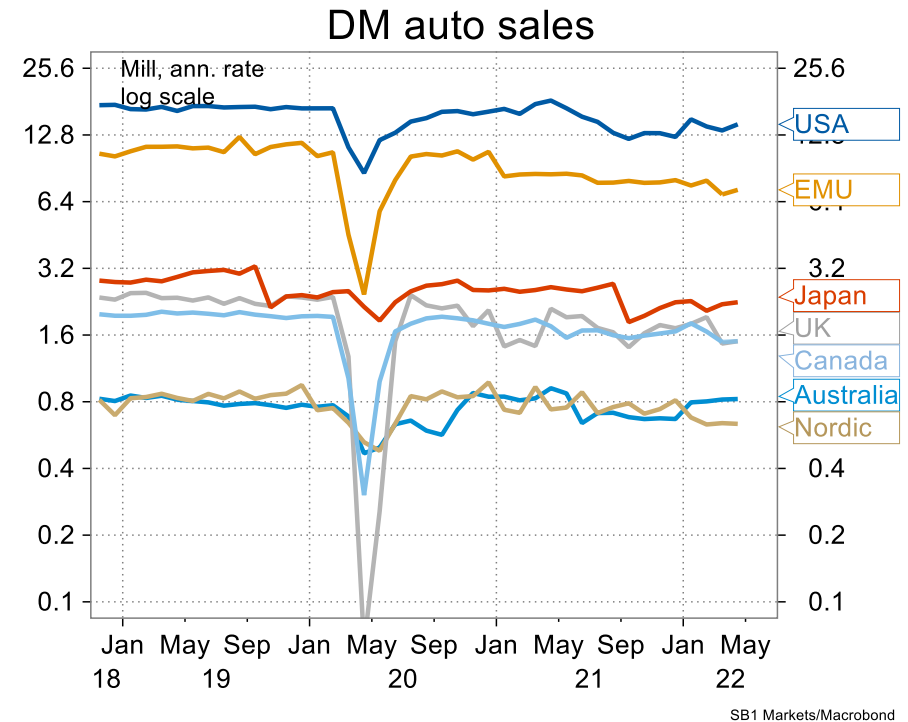
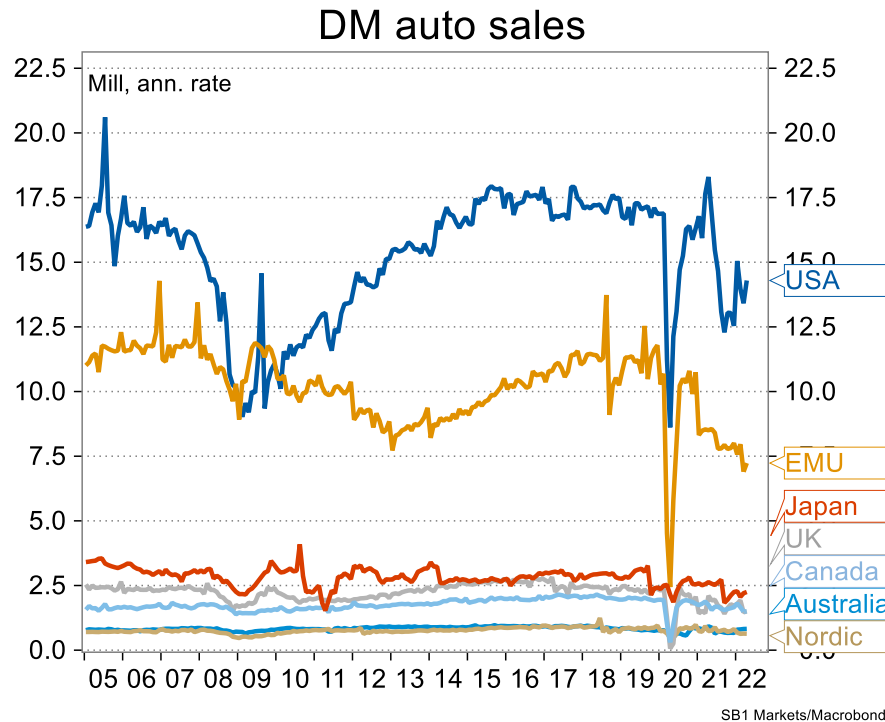
EM ex China Auto sales



EM ex China Auto sales

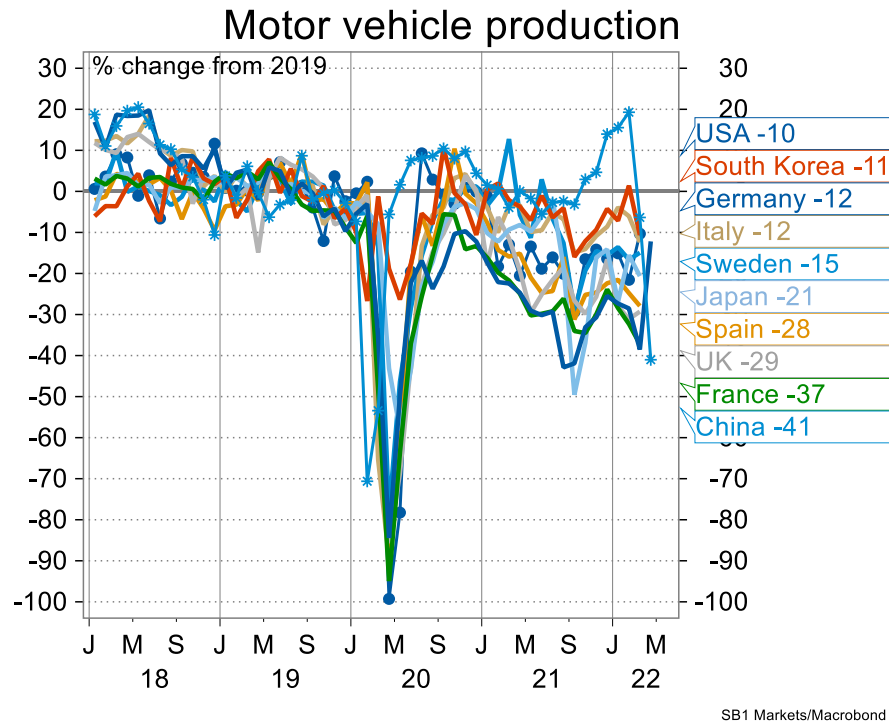


DM sales: Sales in Europe & Japan are still very low. US sales are trending up!



German auto production reported sharply up in April – from a weak March

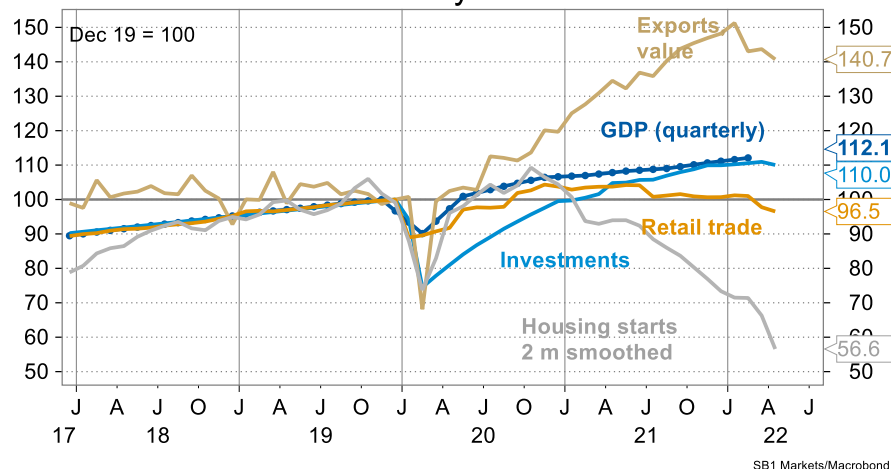
Chinese auto production fell sharply in April



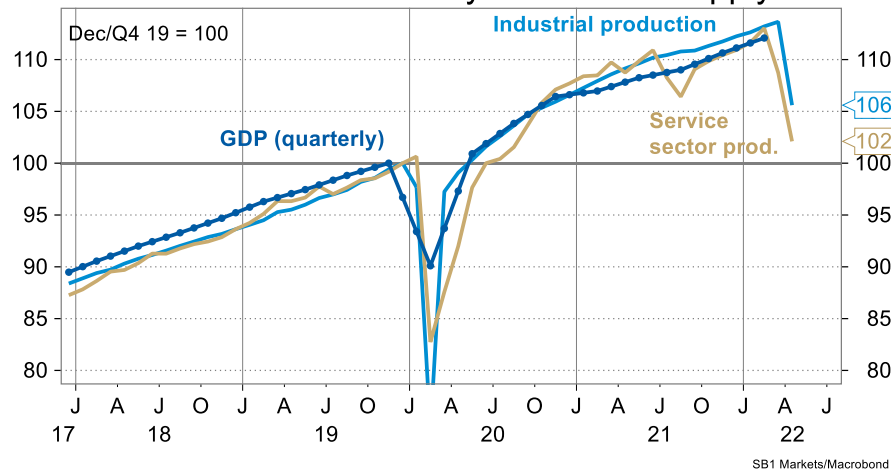
Activity in April badly hit by lockdowns. For how long can this go on?

A huge decline in activity in April, still just 1/3- ½ of the cost of the first lockdowns in February 2020

China GDP vs monthly indicators - demand



China GDP vs monthly indicators - supply

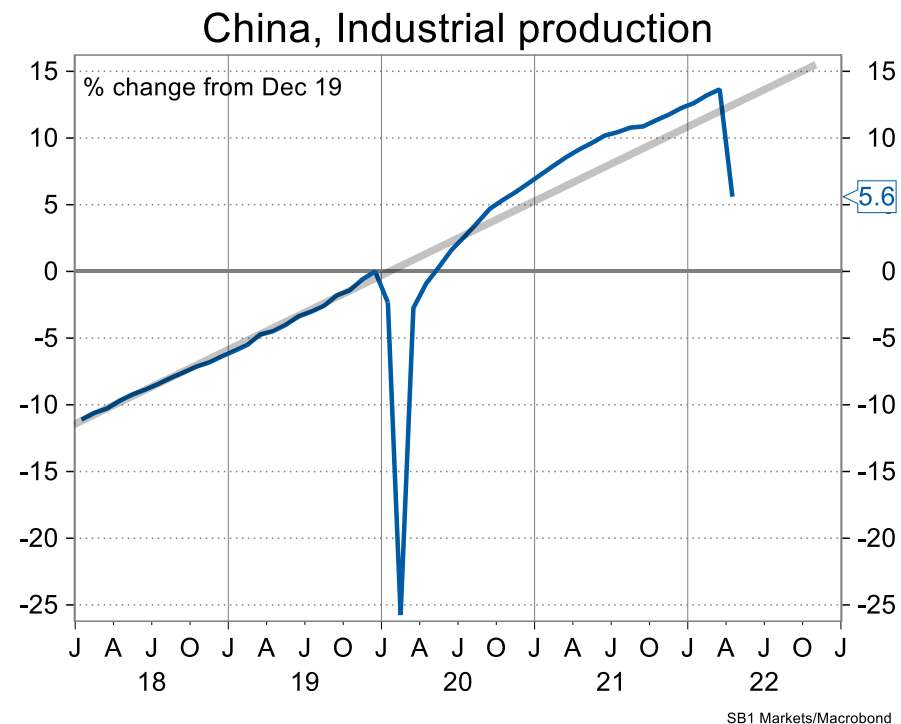
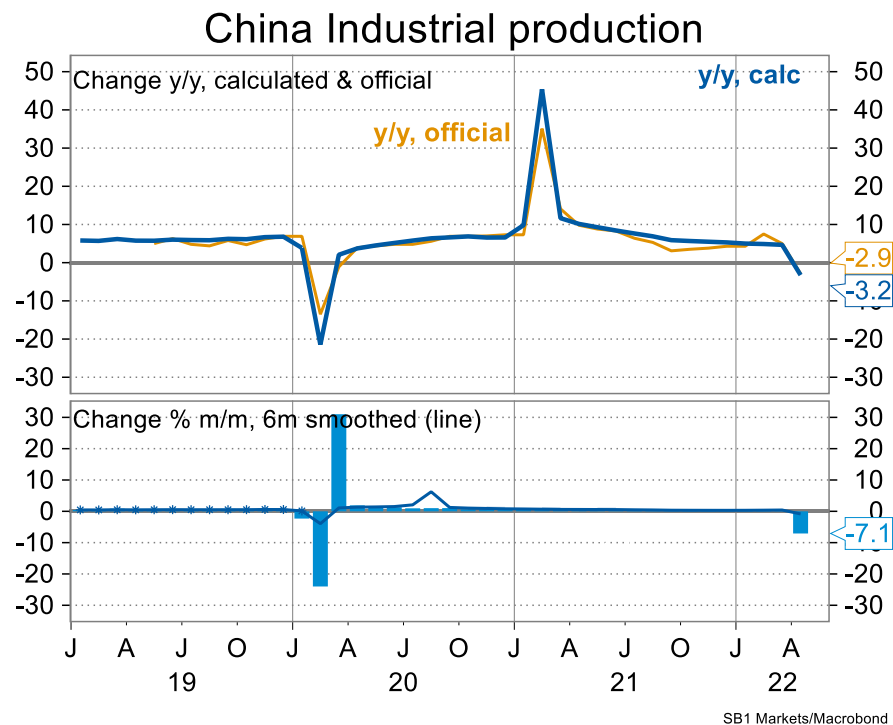


- **Industrial production** fell 7% m/m in April and is down 3% y/y, expected unch.
- **Service sector production** declined 6% in April, following the 4% setback in March. Production is down 6% y/y
- **Retail sales** are down 11% y/y in nominal terms in April, expected -6%. Monthly data are inconsistent, but sales very likely declined sharply m/m in April too (officially just 0.7%, and that does not seem likely). **Auto sales** are down 25% from February
- **Investments** fell 0.8% m/m, and are up 5% y/y – but probably down in volume terms
- **New homes sales and starts** fell 25% in April, starts to below the level during the first lockdowns in 2020. Both are down 45 – 50% y/y, as are other construction starts. Incredible data
- **Credit growth** slowed sharply in April. Bank lending fell to a 4% m/m pace.
- **CPI inflation** has increased somewhat, but remains low (2.2%), especially ex. food & energy (0.9%)
- From the previous week: Both **exports & imports** have fallen so far in 2022 – and before the lockdowns hit

In sum: Weak PMI data from March and April are confirmed

Industrial production fell 7% in April, down 3% y/y, expected flat

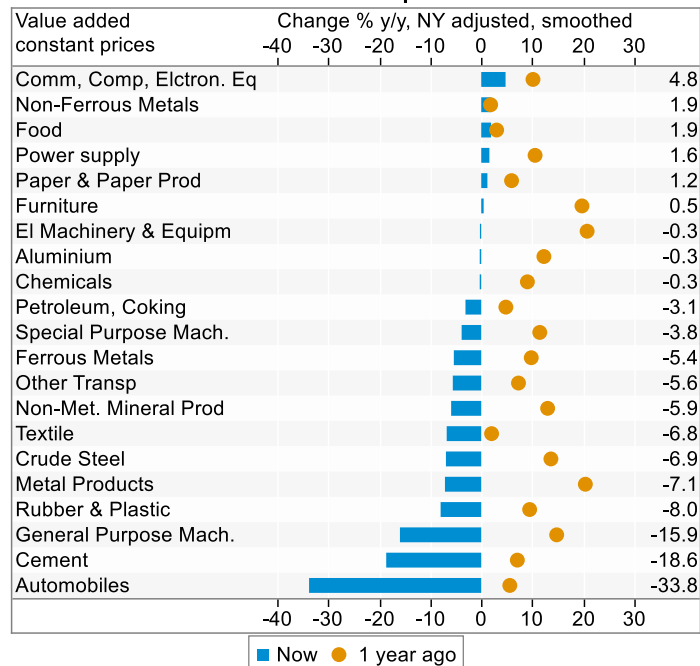
In Feb-20, production fell 25%, so the current lockdown in 'mild'



- **Production** growth has been stable at a 0.3% m/m increase since last October (regrettably not visible at the chart to the left). This almost ½ of a 'normal' Chinese growth rate, and the 'real' annual rate is trending down. Still, the production level was well above the pre-pandemic trend path. That is, until April
- Production was far lower than expected in April

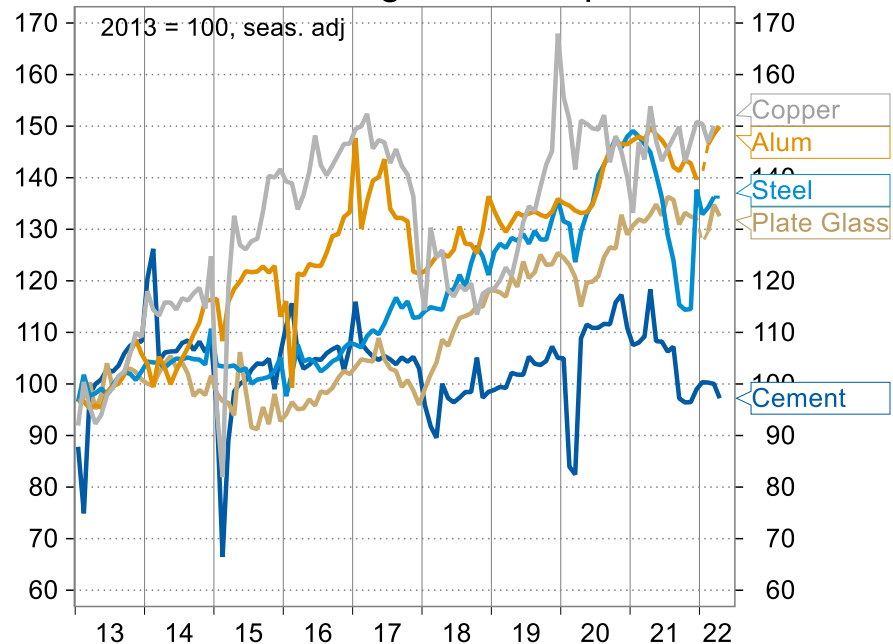
Mixed between sectors: Aluminum up, steel flat, cement down just 3%

China Industrial production



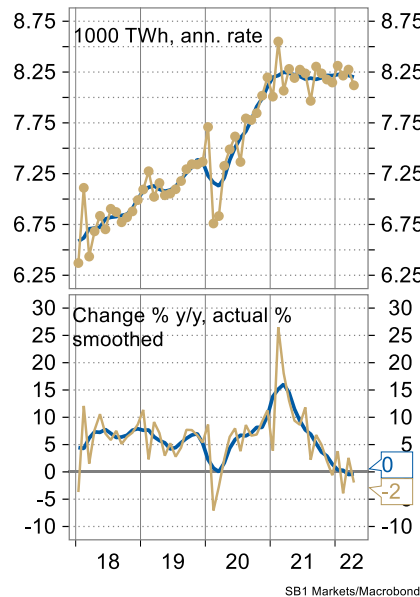
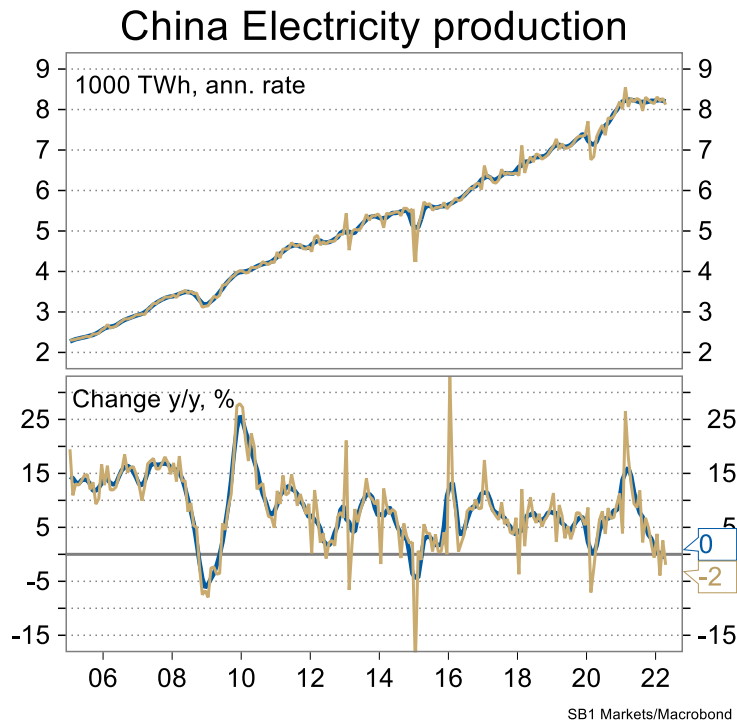
SB1 Markets/Macrobond

China 'Building' material production



SB1 Markets/Macrobond

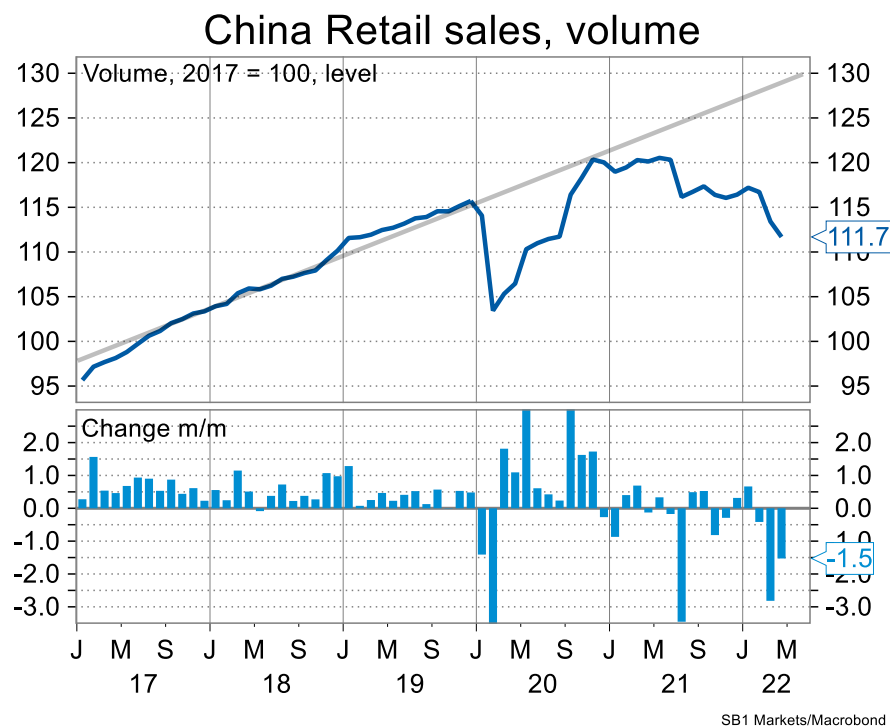
Electricity production has flattened, down 2% m/m (& y/y) in April



- Seaport traffic is not terrific either, with imports on the downside, exports on the upside (but the sum should have been positive)

Retail sales (probably) sharply down, but data are still completely inconsistent

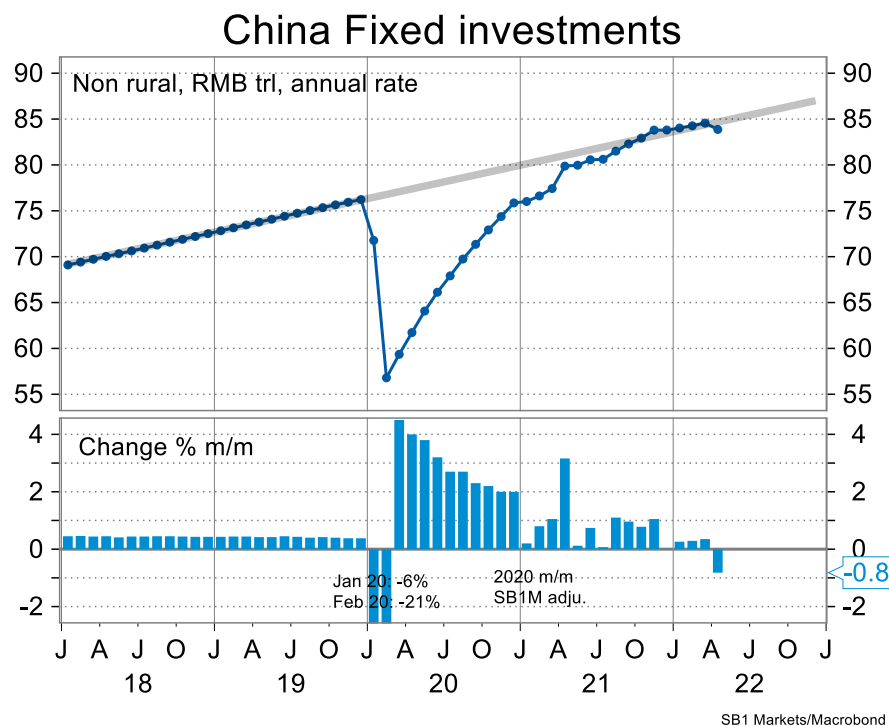
Sales down 11% y/y, expected -6%. Monthly sales data seem unreasonable



- **Official nominal retail sales** were down 11% y/y in April, much weaker than expected (-6%).
- Sales fell 0.7% m/m in **nominal terms**, we assume 1.5% in **real terms**, following the 2.8% decline in March
 - » These data seem to underestimate the decline in sales in March and April. At the same time, monthly growth rates last autumn also seem to be on the low side, vs official y/y growth data. (These two data sets are now far from consistent. We will revise our models before the May report)

Investments slightly down in April, the first decline since Feb-20

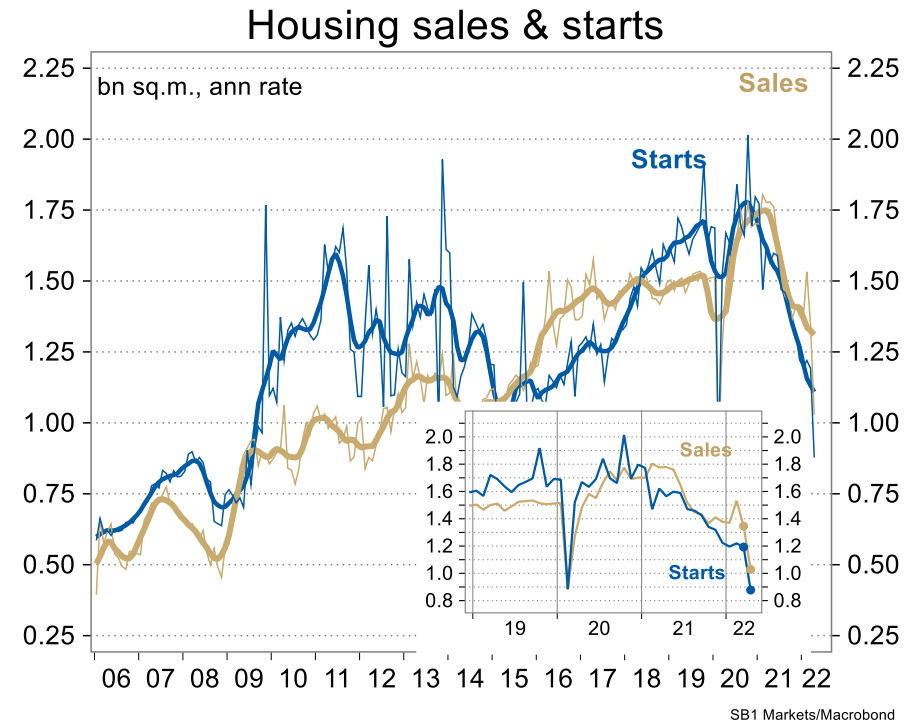
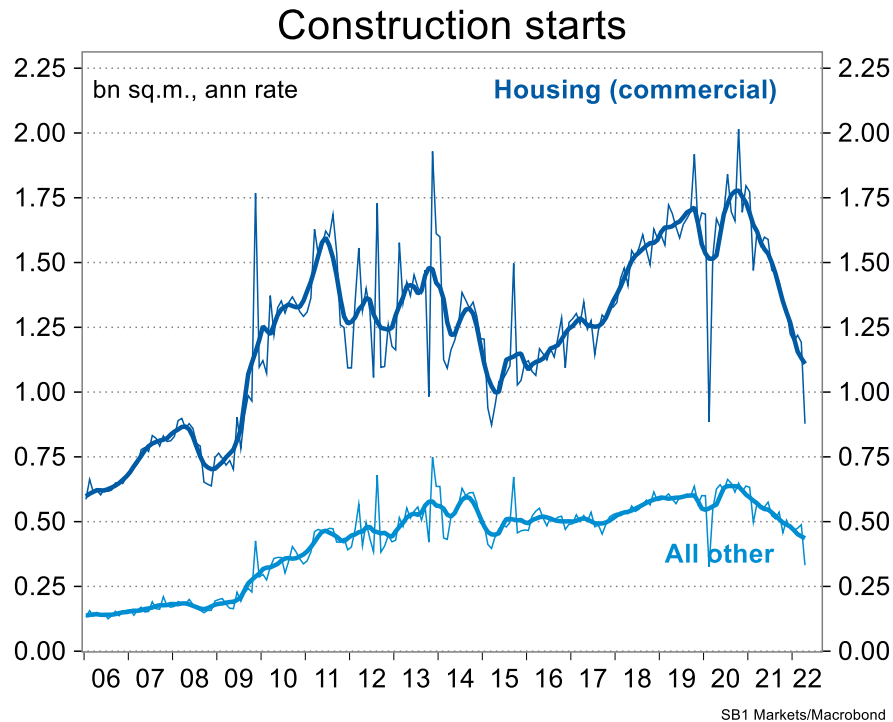
... at least in value terms. Prices are sharply up, and in real terms growth is muted indeed



- **Measured YTD**, nominal urban investments rose 6.8%, below the expected 7.2%, down from 9.3% in March. Growth was 5% measured y/y in April
 - » However, in volume terms, growth was probably negative (our estimate)
- The **investment level** has been back to the pre-pandemic growth trajectory since last September but fell below in April

New homes sales & starts down 25% m/m in April, down 40 – 50% y/y

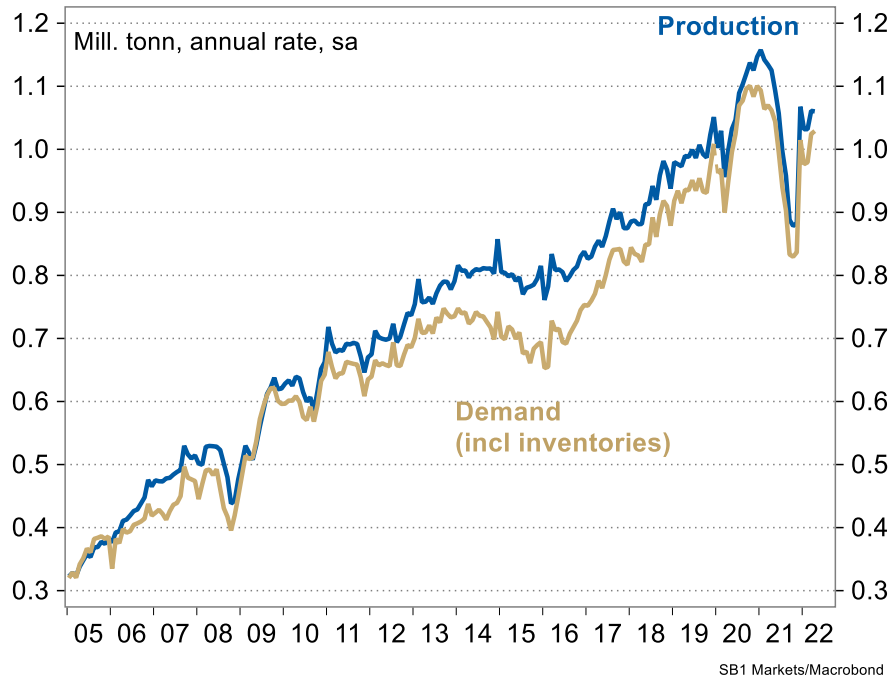
Let's hope and pray lockdowns are to blame. The alternative would be far worse



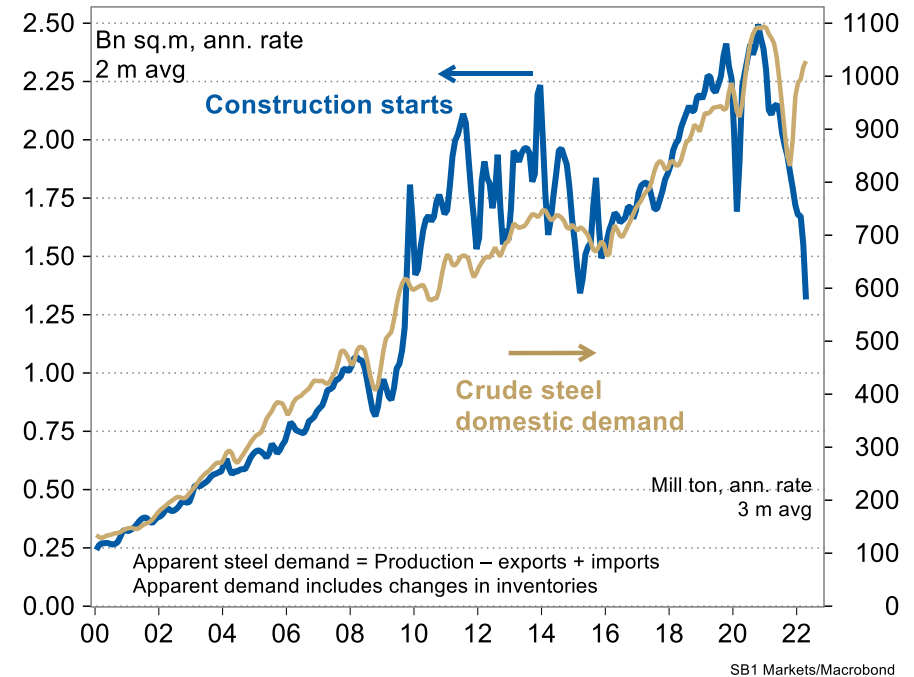
- **Sales & starts data** are probably far weaker than expected, and starts are lower than during the first lockdowns in 2020.
- **Big picture, before the lockdowns: Non-residential construction starts** had flattened, following a 25% decline since mid 2020. Both housing & non-residential starts were at the lowest level since 2017

Steel production flat in April. Construction starts not

China Steel

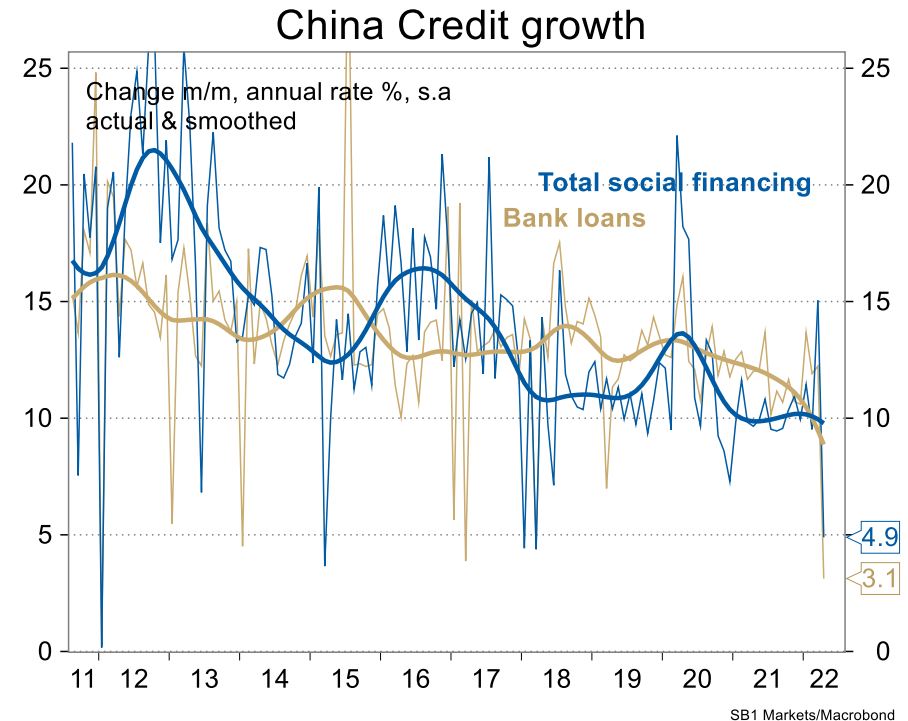
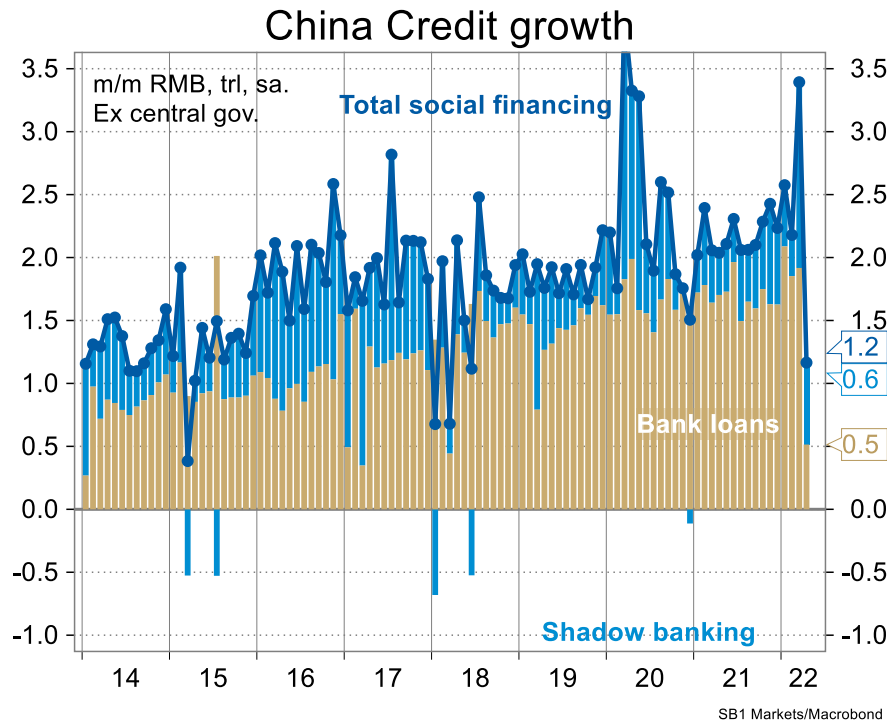


China Construction vs steel



Lockdowns even locked down banks in April

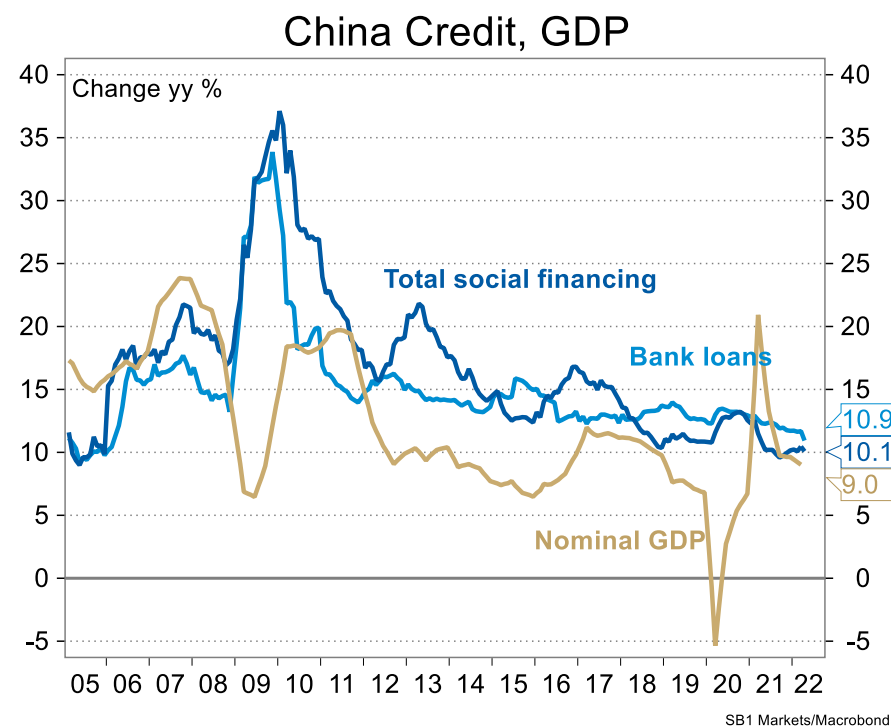
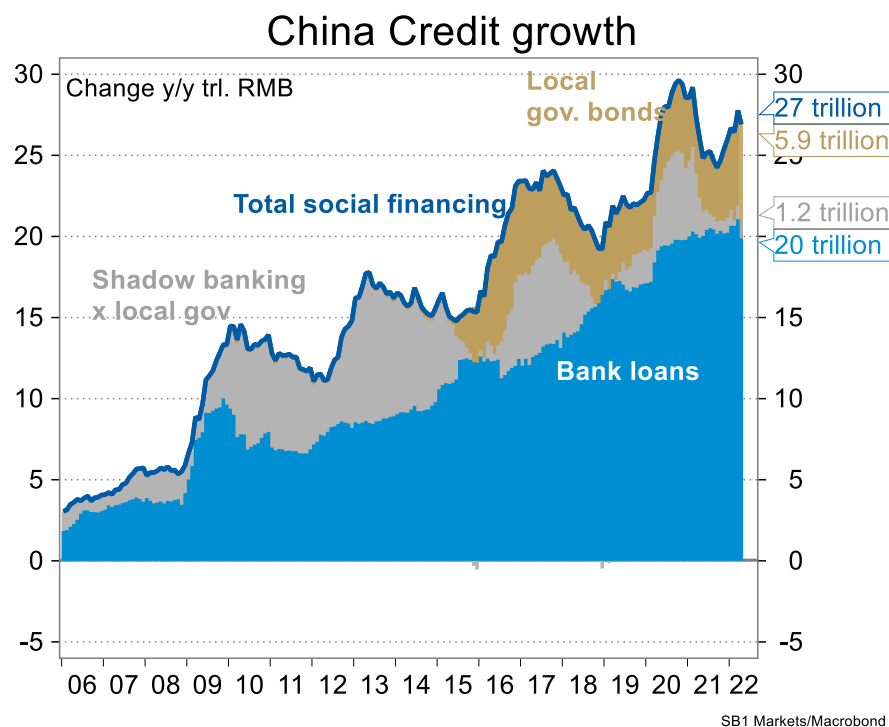
Bank lending was almost brought to a halt, the credit flow outside banks also slowed



- **Total credit** grew at a 4.9% pace in April (m/m, seas. adj. annualised), down from 13.3% in March. Growth was the lowest in 4 years. No doubt, the lockdowns have made even loan activities troublesome. The average of the two past months is in line the previous months, but the setback in April very was for real, credit taps were not opened in March in anticipation of a crunch in April. The annual rate fell 0.4 pp to 10.1%. Until April, underlying growth was approx. 12%, and growth had accelerated somewhat
- **Total credit** rose by RMB 0.9 trl, expected 2.2 trl (not seas. adj). The 'core' total social credit (total ex central gov bonds & corporate equities) grew by 1.2 trl (seas adj), down from 3.34 trl in March
 - » **Bank loans** rose by RMB 0.5 trl, s.a, or at a 3.1% annualised pace, less than half of expectations. Growth has been slowing since mid 2020
 - » **Shadow banking credit** rose by RMB 0.6 trl, not much lower than the previous months (barring the surge in March), and is up 8% y/y. **Local governments have been** responsible for most of the increase in credit outside banks recent months. Less revenues from sale of land, and public financing of unfinished building projects may explain the steep increase in debt (25% y/y)

Until April (and probably after April, or May), credit growth was on the way up

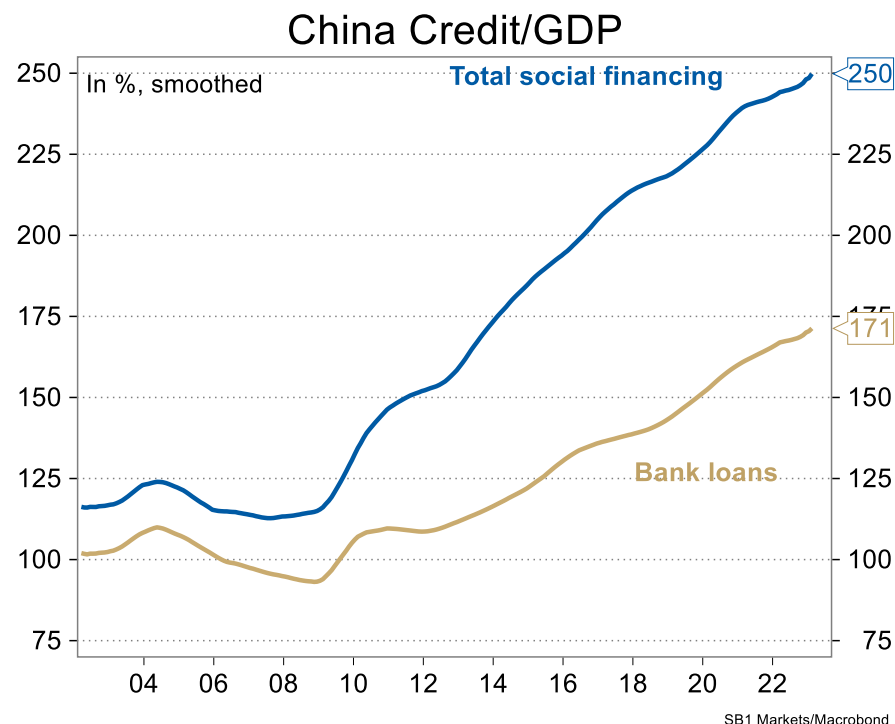
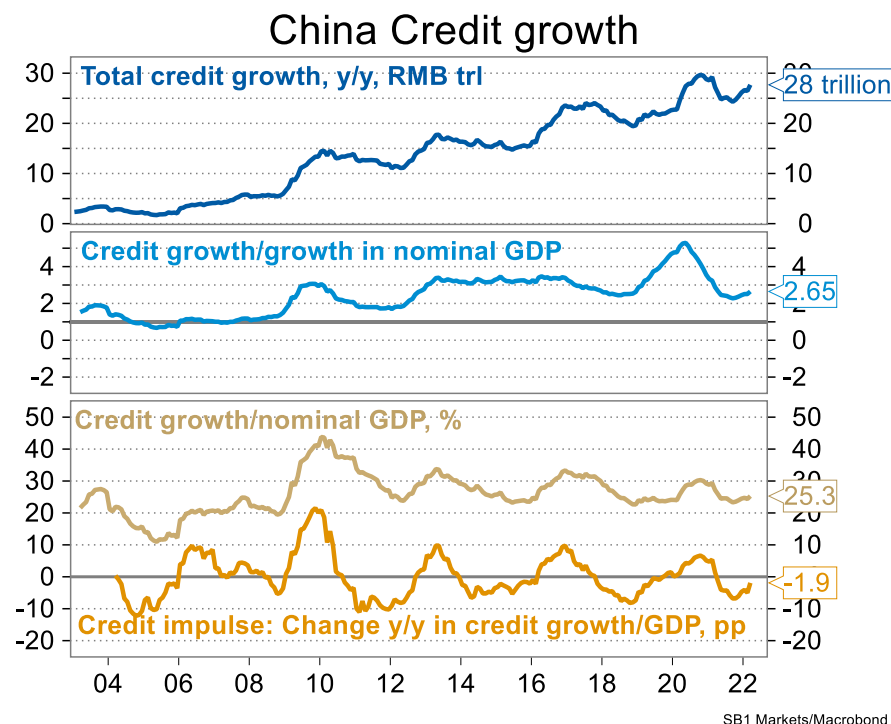
Bank lending and local government bond borrowing are the main contributors to credit growth



- Over the past year, **total credit** has expanded by RMB 27 trl, equalling more than 25% 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 almost flat since early last year
- Local governments** have accelerated their credit growth, now up 6 trl – to 24% 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 1 trl from 5 trl in 2020 (a dramatic slowdown, like many times before...)
- Total credit** growth decelerated 0.4 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 = 7.5% growth in nominal incomes. Today this estimate may be on the upside

The credit impulse has bottomed (and in reality it is positive already, except for April)

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



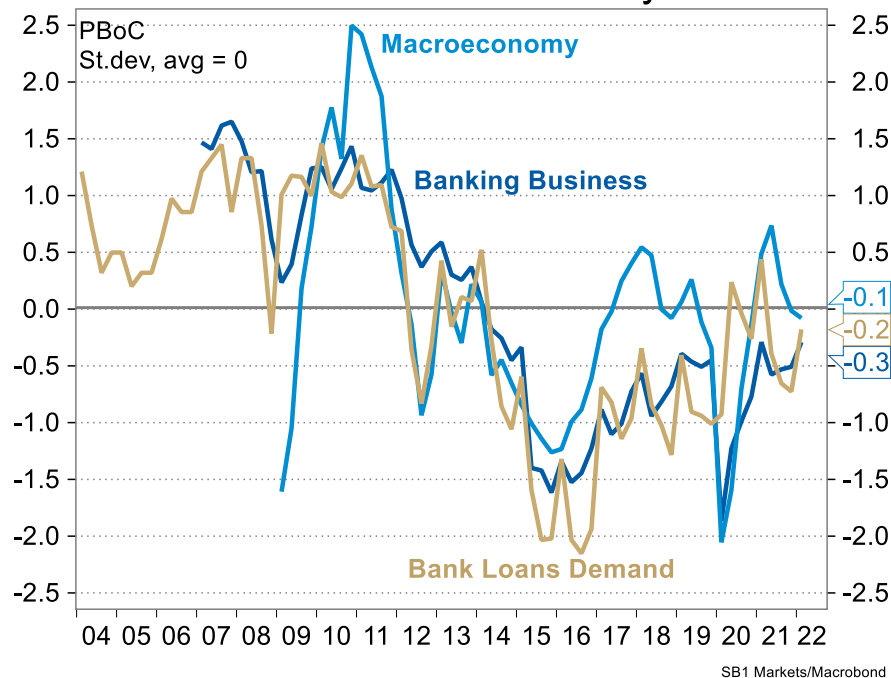
- A positive **credit impulse** implies that the credit growth/GDP ratio is increasing (the 2nd derivative of credit vs the GDP level)
 - » A negative credit impulse indicates credit tightening (or weaker demand) and has been associated with slowdowns in the Chinese economy, which have had impacts at 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 -1.9%, even with the 0.4 pp loss in the annual rate in April. However, measured over a shorter time span, credit growth has been accelerating
- The **authorities** seem to have succeeded in preventing the trouble in parts of the building sector to spread to the overall credit market

GDP is smoothed in the calculations in the charts above

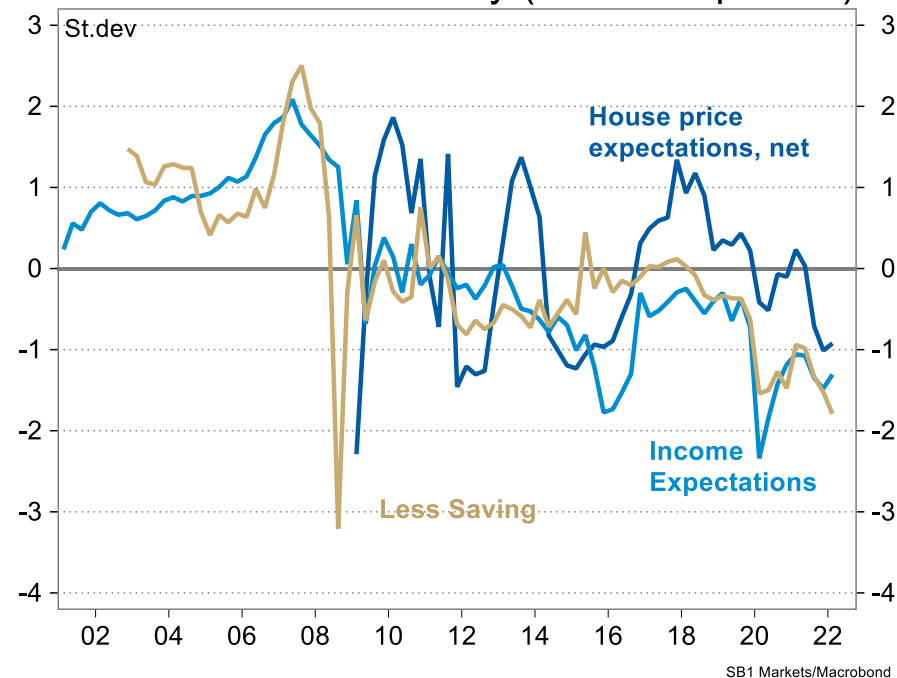
Bankers are not depressed, and demand for loans is still OK, they say

Households are more cautious; have less confidence in future income

China Bankers' survey



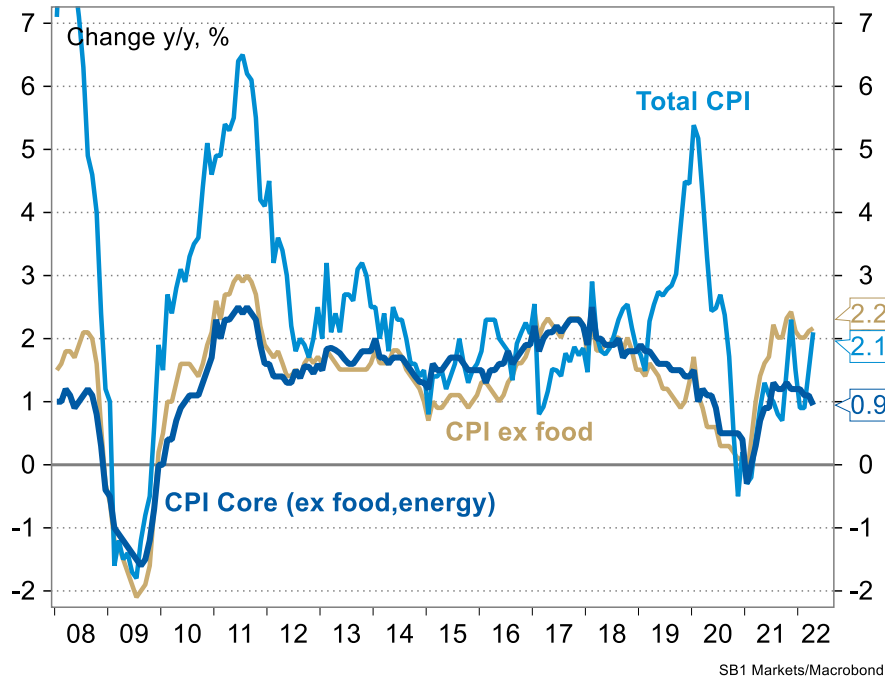
China Consumer survey (Urban Depositor)



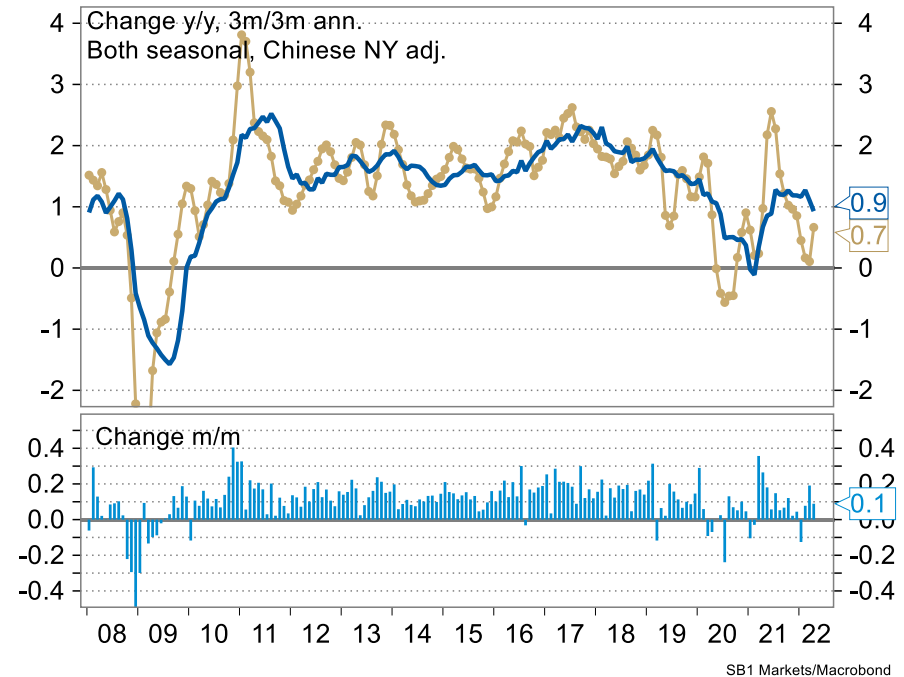
Headline inflation up in April, still at just 2.2%. The core down 0.2 pp to 0.9%

Inflation is not China's predominant challenge these days

China CPI



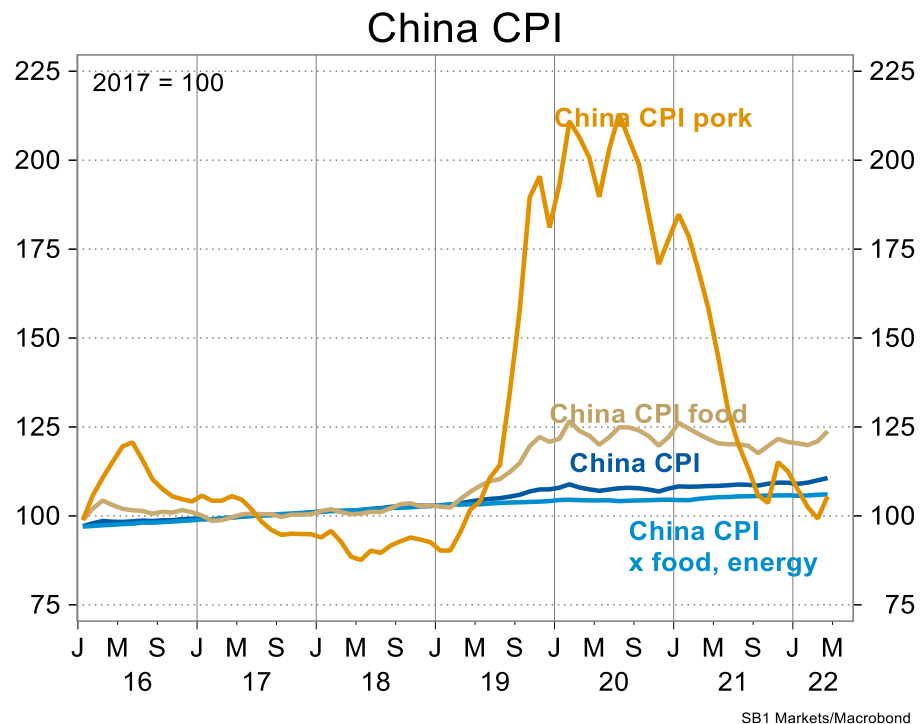
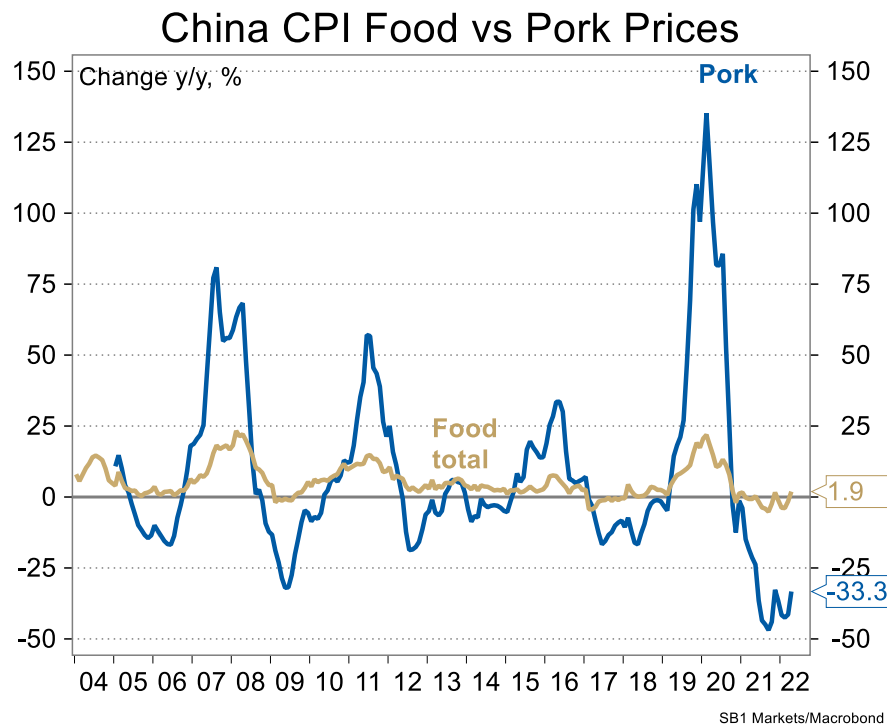
China Core CPI



- **Total annual CPI** accelerated further to 2.2% in April from 1.5% in March and 0.9% in Feb. Prices rose 0.6% m/m, following the 0.5% lift in March
- **The core CPI (x energy, food)** decelerated 0.2 pp to 0.9% y/y. Prices rose 0.1 pp m/m. The 3m/3m rate is at 0.7%
- **Food prices** are up 1.9 y/y, even if pork prices are down 33% - which implies that other food prices are up some 8% (vegetables are up 25%)
- **Gas prices** are up 27%
- **Both core & headline inflation is still low.** Monetary policy will not respond to actual inflation data if inflation is not really high or low, the real economy and the credit market is more important

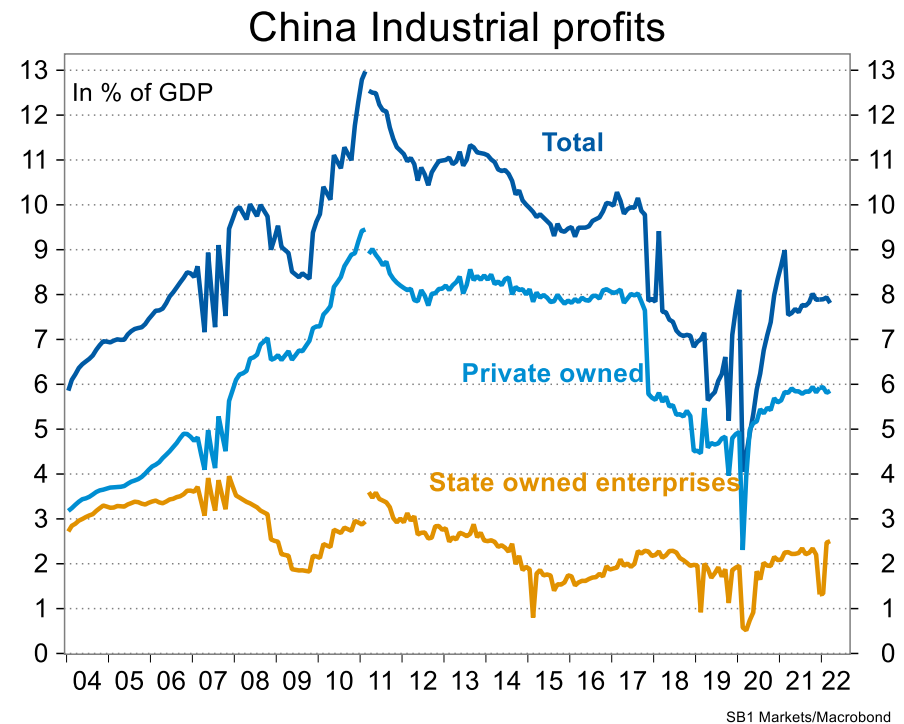
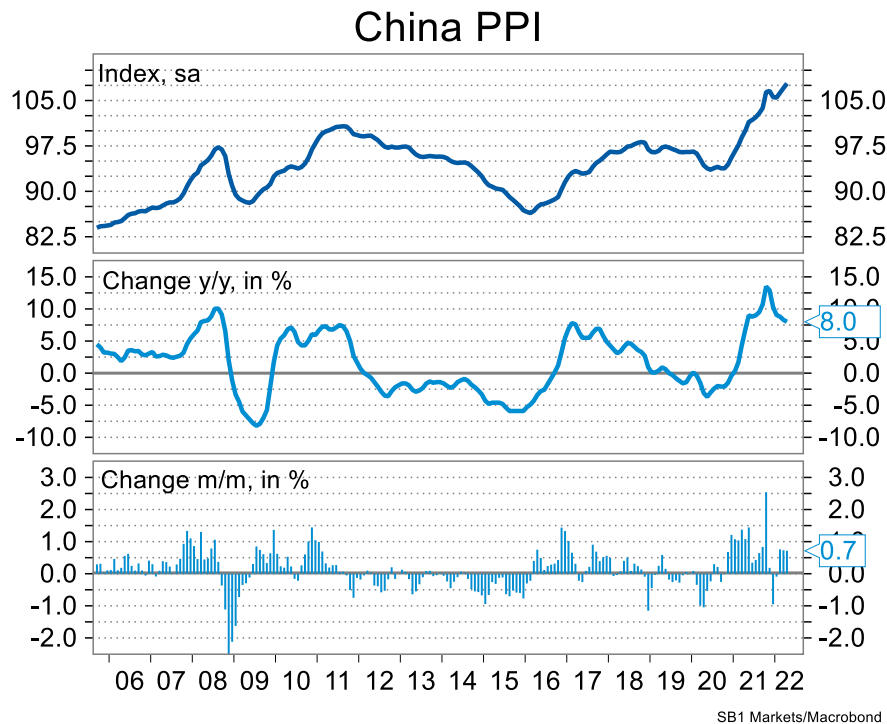
Pork prices are coming back to a normal level

.. And the negative contribution to headline CPI will now fade rapidly



Producer prices up again but the annual rate well down from the peak

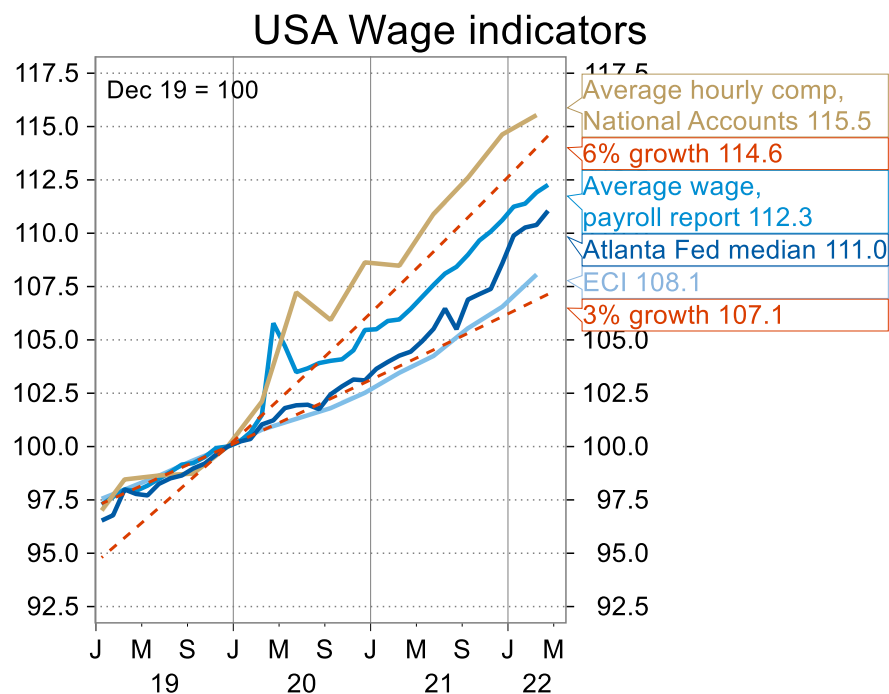
Prices rose 0.7% m/m in April, and by 8% y/y. Consumer goods close to unch. y/y



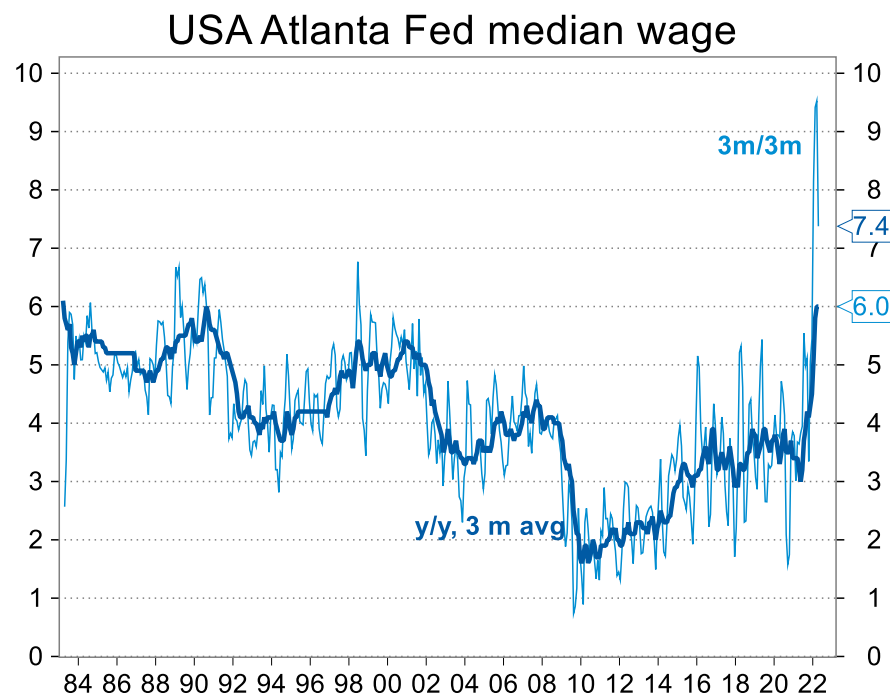
- **The PPI** has turned up over the 3 past months, by 0.7% per month. Still, the annual rate has declined further, now down to 8.0%, more 5 pp below the peak
 - » Consumer goods are up 1.0%, durable consumer goods are down 0.1% y/y, raw materials are up 17%. The correlation between PPI and CPI in China is not impressive
- **Profits in privately owned industrial enterprises** have flattened, in % of GDP

Atlanta Fed's wage tracker reports a further (smoothed) wage acceleration

The median wage up 6.0% y/y, following a totally unprecedented acceleration since last spring



SB1 Markets/Macrobond

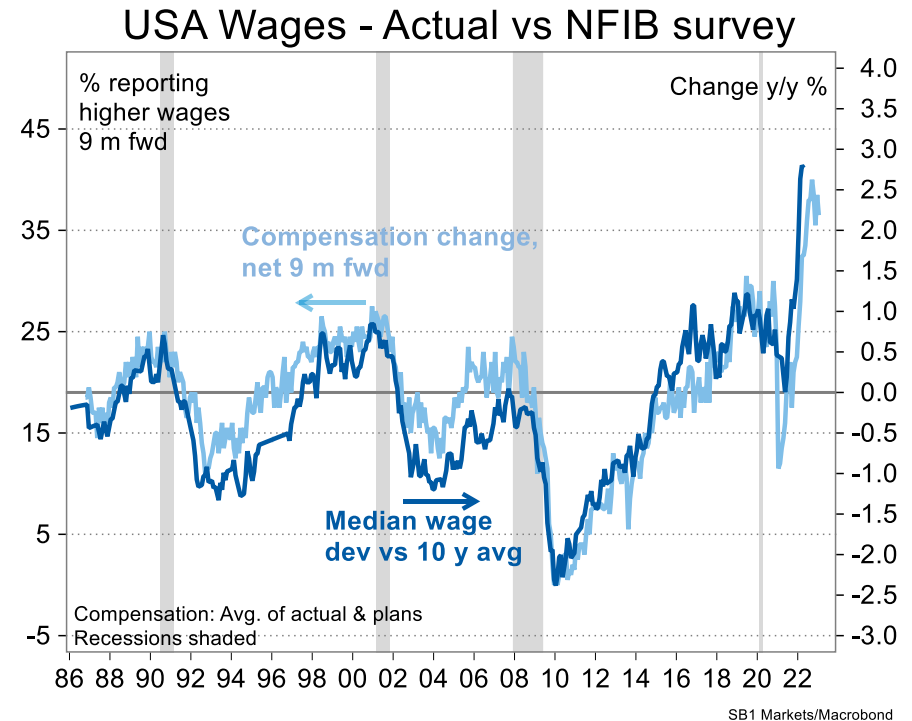
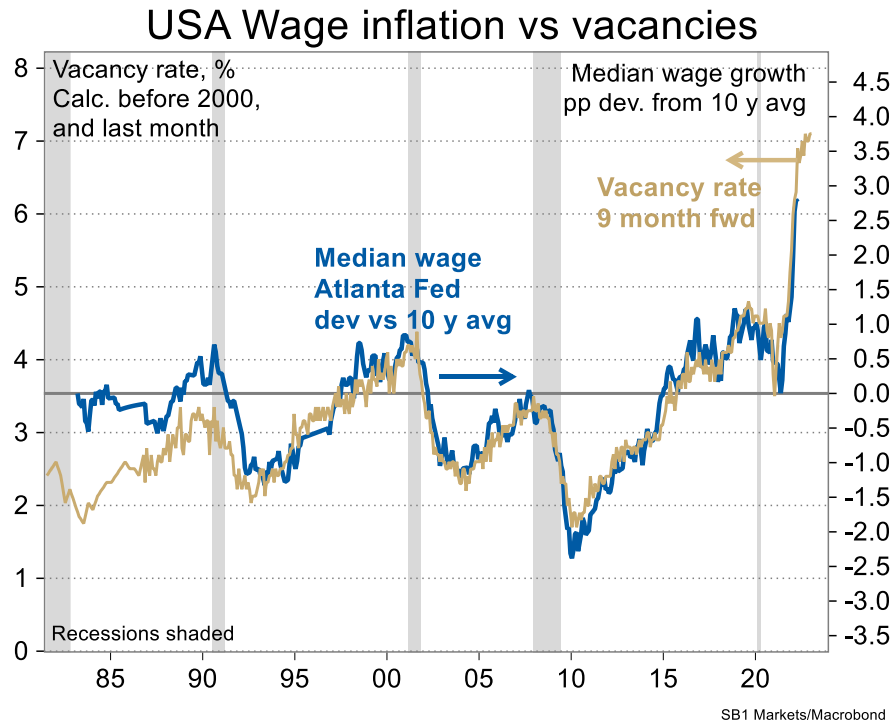


SB1 Markets/Macrobond

- **The Atlanta median wage tracker** was up 6.0% y/y in 1990, and in March 1983, the first observation – and in March & April 2022
 - » **The acceleration in wage growth** since late last spring is unprecedented, also check next page
 - » The only positive sign: Following an extremely rapid m/m increase in Q4, m/m growth (calculated by us) has slowed slightly so far in 2022- but the 3m/3m rate is still 7.4%
- **All other wage indicators** are reporting faster wage growth, and all are reporting wage growth well above the recent years' average
- It will be a 'challenge' to keep inflation at 2% if wage inflation remains at current levels. It does not seem likely that wage inflation will turn south before the labour market weakens (check next page). Productivity growth has not accelerated. Profit margins may take a beating – they very likely will – but that will not be 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

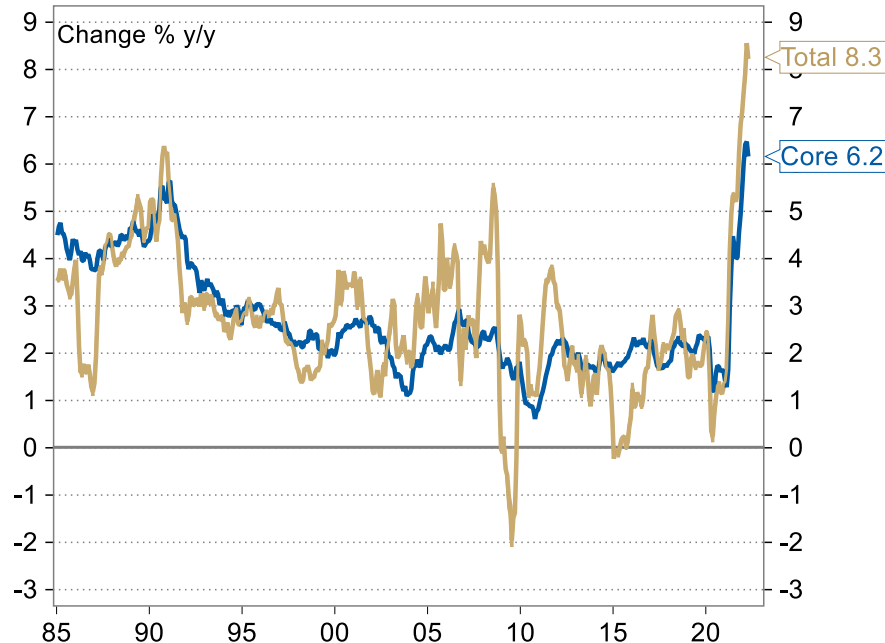


- Our 'Phillips curve' signal a further increase in wage inflation the coming quarters, as the vacancy leads changes in wage inflation quite consistently by 3 quarters. However, we doubt our model works that well when the vacancy rate is as high as it is today
- The correlation between compensation plans and future actual wage growth is not that bad either (again with a 3 quarter lead). These compensations plans do not suggest a further wage growth acceleration, from the current 6% pace (which is far too high to achieve 2% CPI inflation over time)

Annual inflation down but less than expected, and the core still up 0.6% m/m

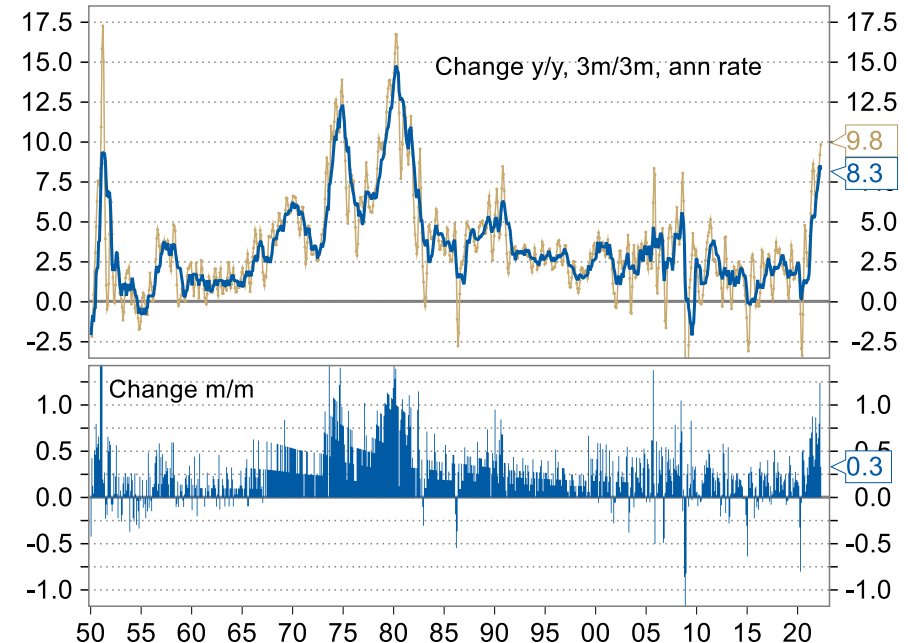
Inflation is broadening further, as demand >> supply. At the same time, some 'transitory' retreat?

USA Consumer Price Index



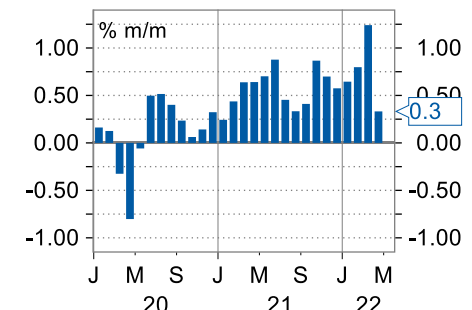
SB1 Markets/Macrobond

USA CPI



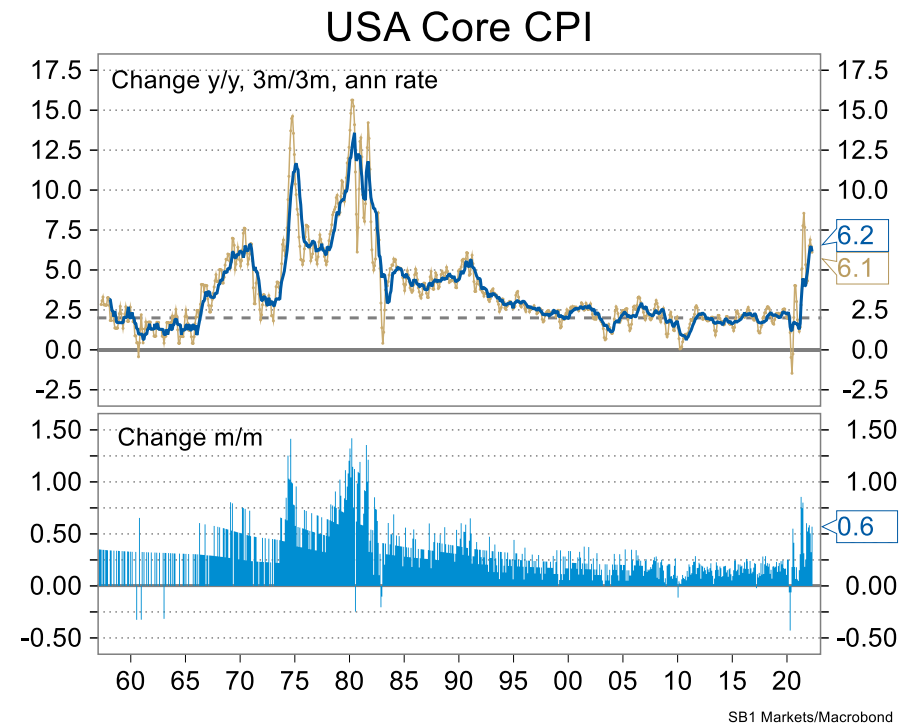
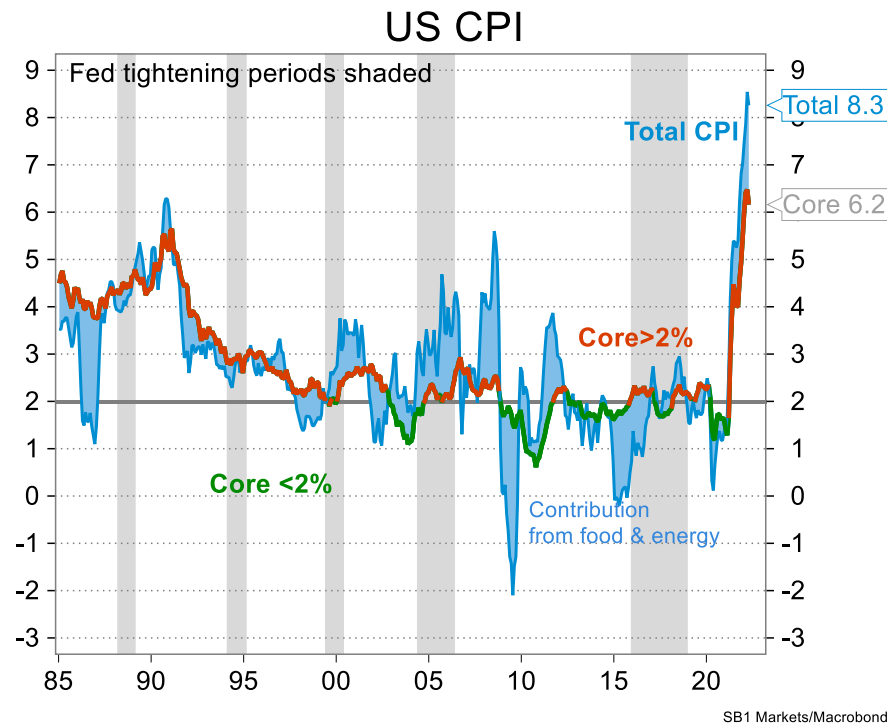
SB1 Markets/Macrobond

- **Headline CPI** rose 0.3% m/m in April, 0.1 pp more than expected. The annual rate slowed by 0.2 pp to 8.4%, one tenth above expectations. The 3m/3m rate accelerated to 9.8%, the highest since 1981
- **Energy prices** rose 3% m/m, lowering the CPI by 0.2% (other sectors rose 0.6%). The energy component of the CPI is up 30% up y/y, contributing 2.1 pp to the headline CPI growth
- **Food prices** rose 0.8% m/m and are up 9% y/y
- **Airline fares** shot up 19% m/m, and are up 33% y/y (almost like in Norway), contribution by 0.2 pp to the core CPI y/y
- **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, if energy prices do not explode from here

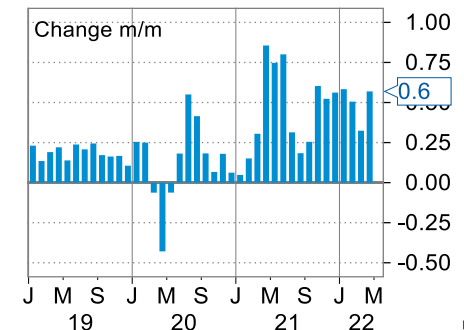


Core inflation higher than expected, airline fares straight up

Prices food & energy rose 0.6% in April, expected 0.4%

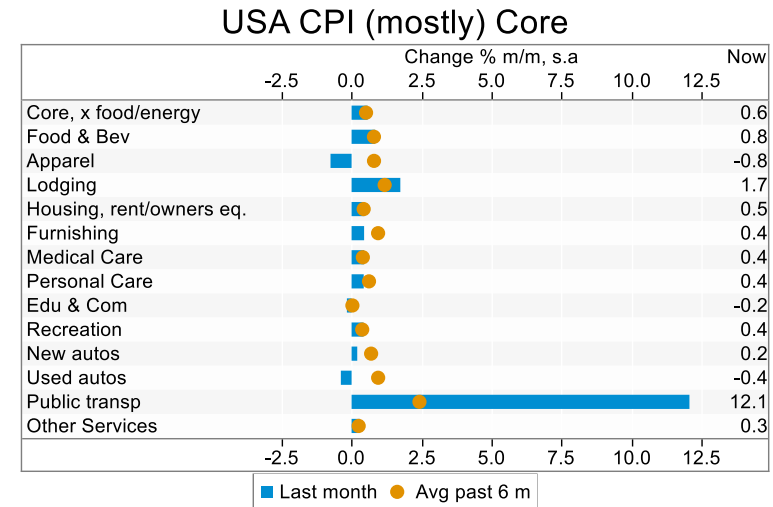
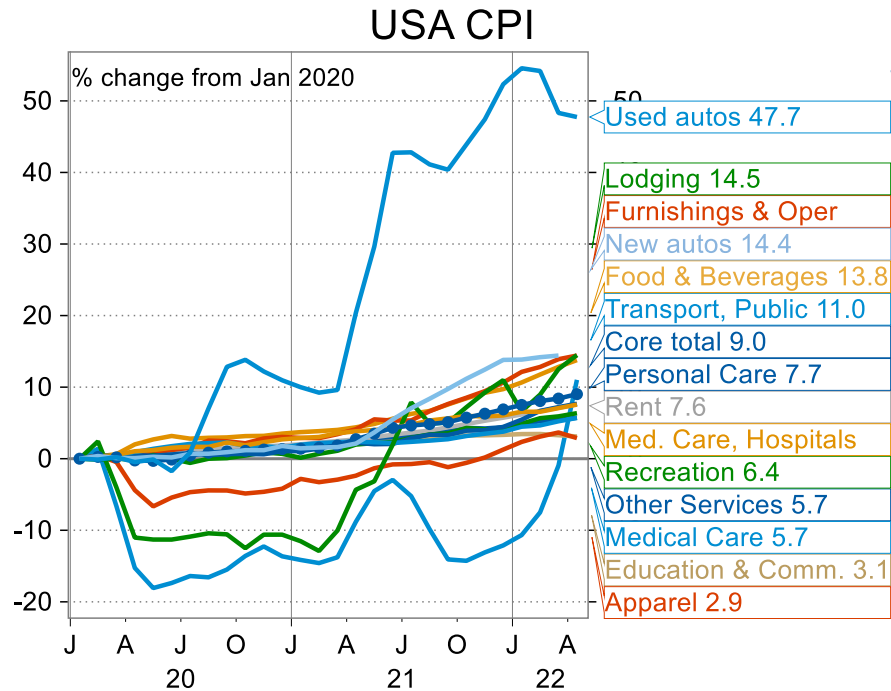


- The annual rate declined 0.3 pp to 6.2%, expected down to 6.1% . The 3m/3m rate also at 6.1% (down 0.4 pp)
- **Peak inflation?** In May last year core prices rose 0.75% and by 0.8% in June, and most likely the monthly change the coming two months will be less than that. If so, the annual growth rate will decline. But the underlying growth rate – and the broadening of inflation, confirms the Fed's challenging position

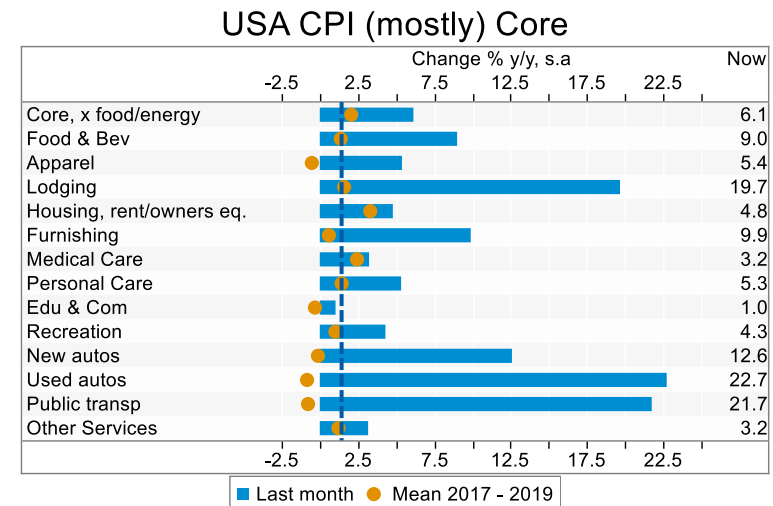


Used autos, apparel, education & communication cheaper. But others up

Public transport (airline fares the sinner) up 12% m/m



SB1 Markets/Macrobond

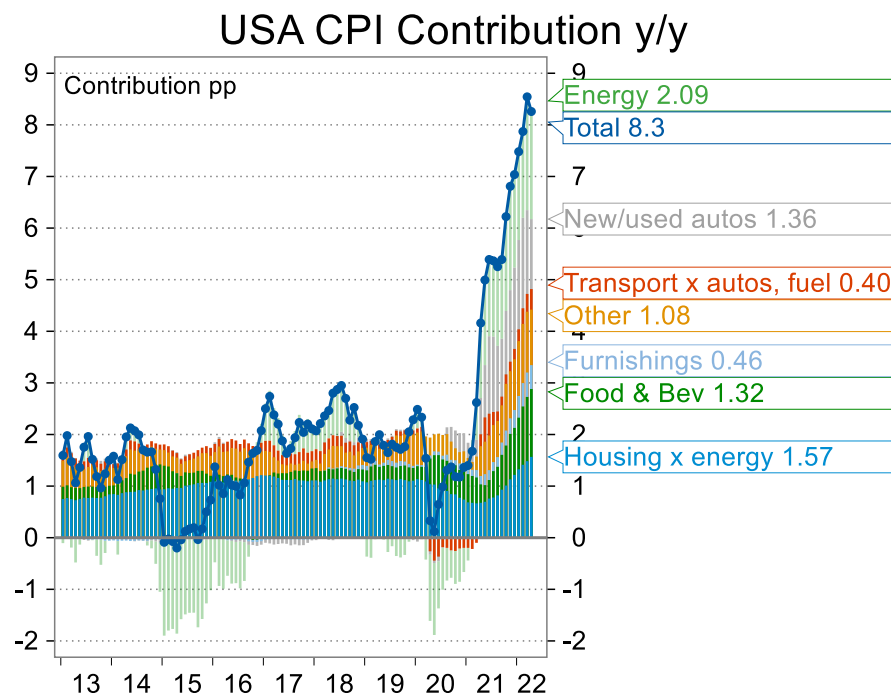


SB1 Markets/Macrobond

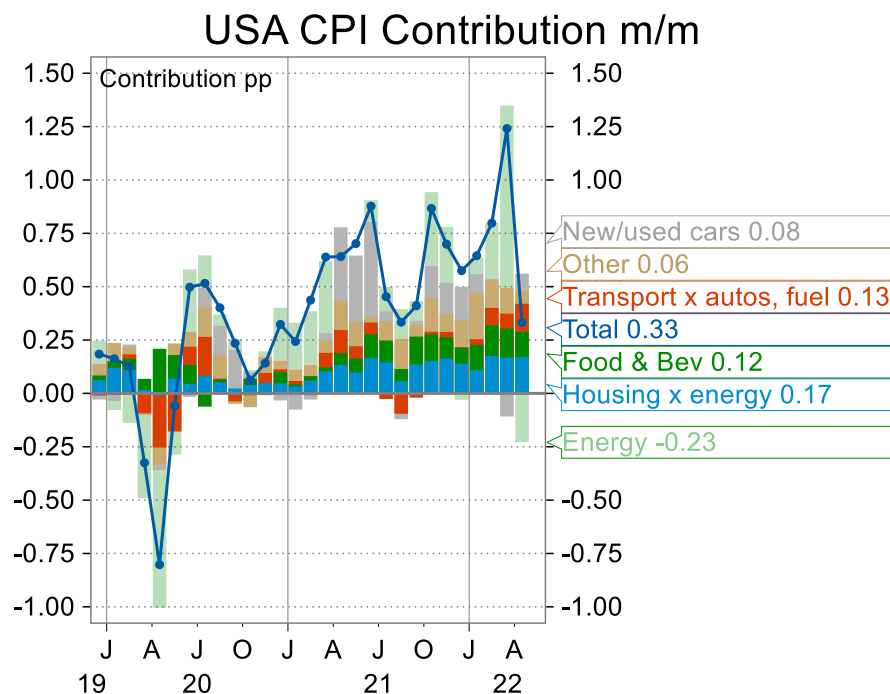
- Most sectors report growth above 2% from before the pandemic, just education & communication below
- All but two sectors, apparel and edu. & com, are up at more than a 2% pace from before the pandemic
- One day: A huge downside to used auto prices – and hopefully for some others as well

Transport (incl. used cars) & energy explain 3.8 pp of the 8.3% lift in total CPI

The problem: The rest is up by well almost 5% y/y – and accelerating. Housing contributes 2.0 pp!



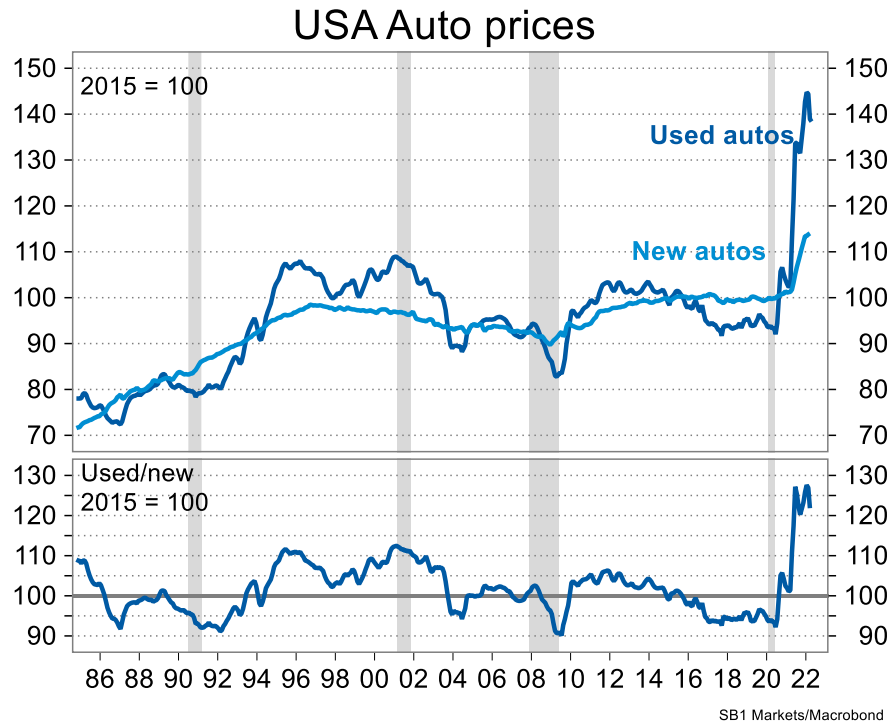
SB1 Markets/Macrobond



SB1 Markets/Macrobond

- **Energy** prices finally fell slightly in April – but may increase again in May (natural gas, gasoline)
- **Excluding** the 3.8% pp contribution to the headline CPI from energy & transport, “**remaining**” inflation has accelerating rapidly
- **Housing x energy** (and x lodging) is contributing by 1.6 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 almost 5% y/y, but the upside is probably now limited

Second-hand car prices finally down, still far above a long term normal level

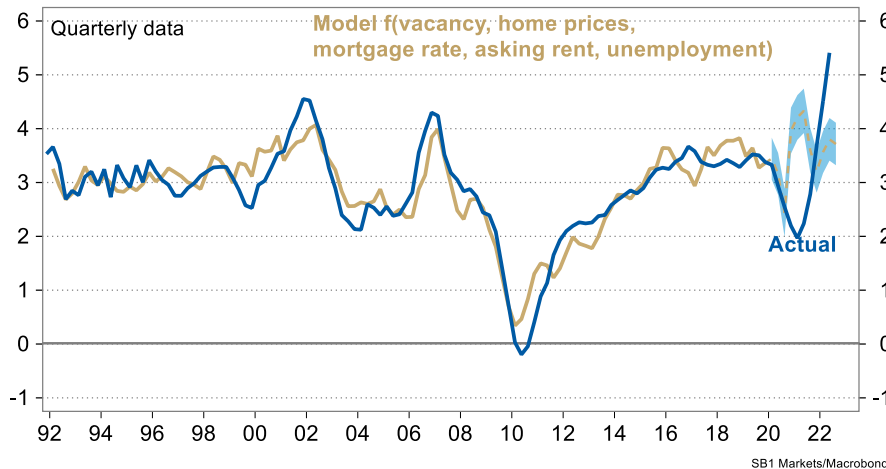


- Production of new cars is still way below demand – but prices are more up in the US than elsewhere
- At one stage, at least used auto prices will ‘collapse’, down to a normal level vs. new car prices – and there is a substantial downside for new cars as well

Rents are accelerating, though from a low level last year

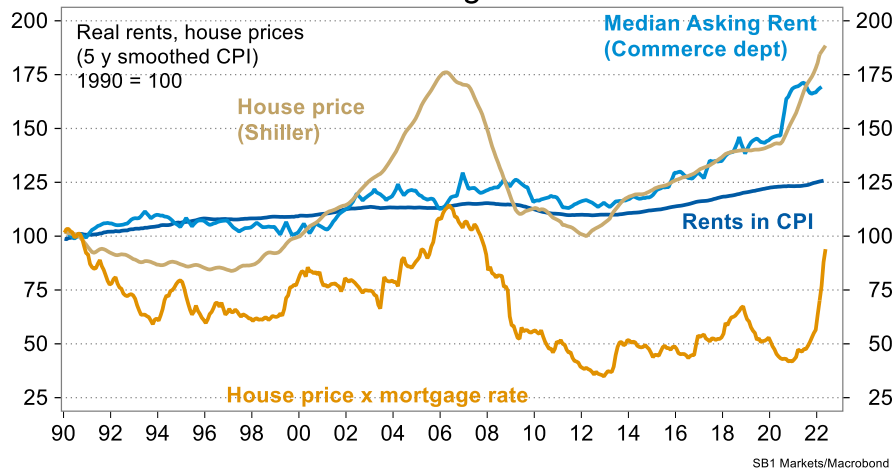
Rents are up 4.8% y/y, but up 3.5% past 2 years. Still rents are climbing rapidly m/m now >5.5%

US CPI Rent model

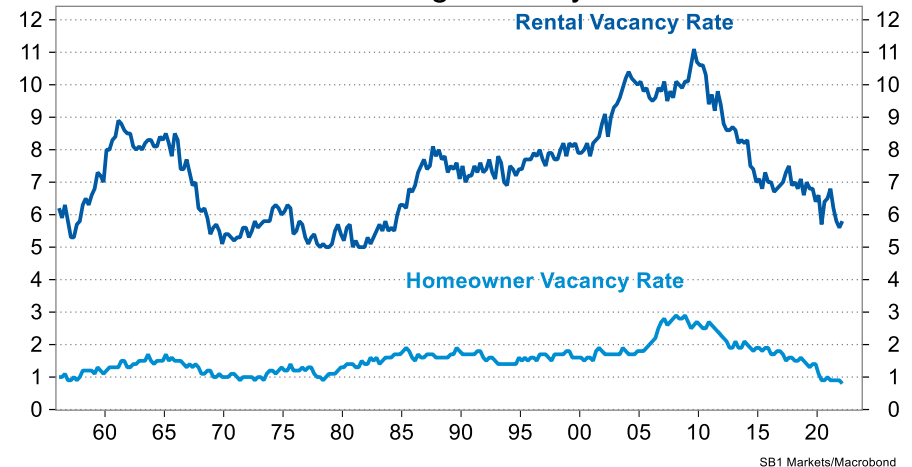


- **The official (Commerce dept) rental asking price** has flattened recent months and rents have been reported down since last autumn. Other rental surveys are still reporting higher rent inflation but from a lower level
- **House prices** are up 20%, and the owner cost (price x mortgage rate) is almost doubled
- **The rental vacancy rate** has fallen sharply recent quarters, to ATL. The **homeowner vacancy rate** is trending down, and is at a record low level
- **Rent inflation measured in the CPI** has accelerated to close to 5%, from a base below trend last year. Now, rents are climbing at a 5.5% pace (m/m), and total housing costs (ex energy) contributes 2% to headline inflation!
- **Our model**, when assuming a market slowdown in rental asking price inflation and a gradual decline in existing house price inflation the coming quarters, and a flattening of the 30 y mortgage rate at 30%, does not signal a further increase in rent inflation, as measured in the CPI

USA Rents & housing market indicators



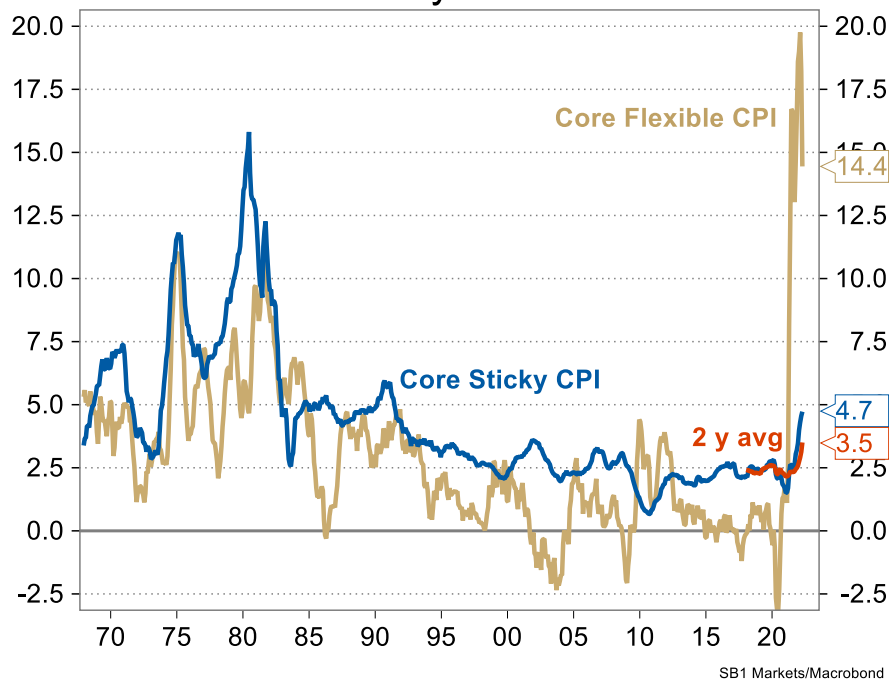
USA Housing vacancy rates



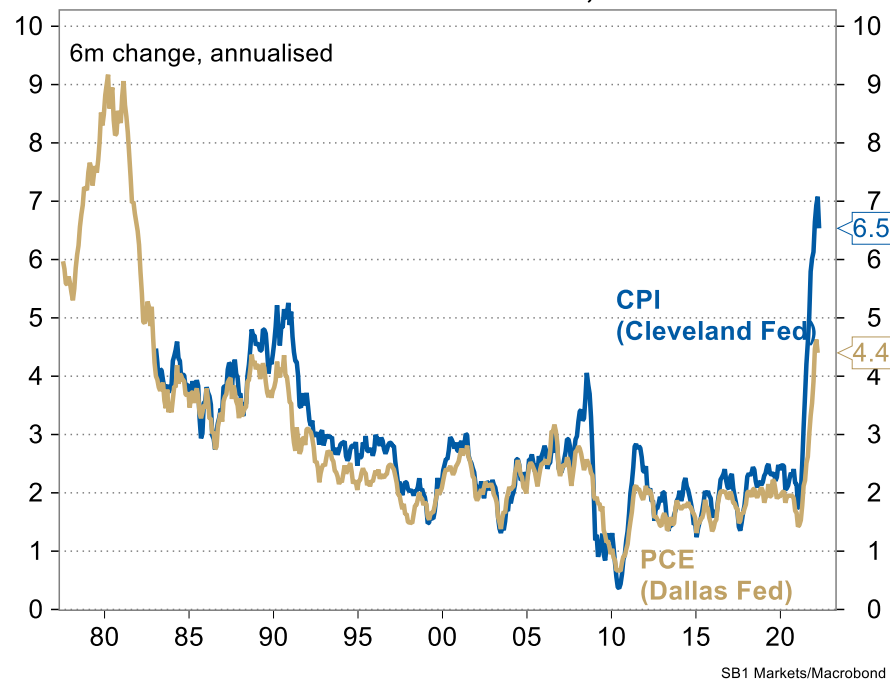
Flexible prices may have peaked but sticky prices still on the way up

... even measured over the past two years. No more excuses left, of course

USA Core sticky vs. flexible CPI



USA Trimmed median CPI, mean PCE

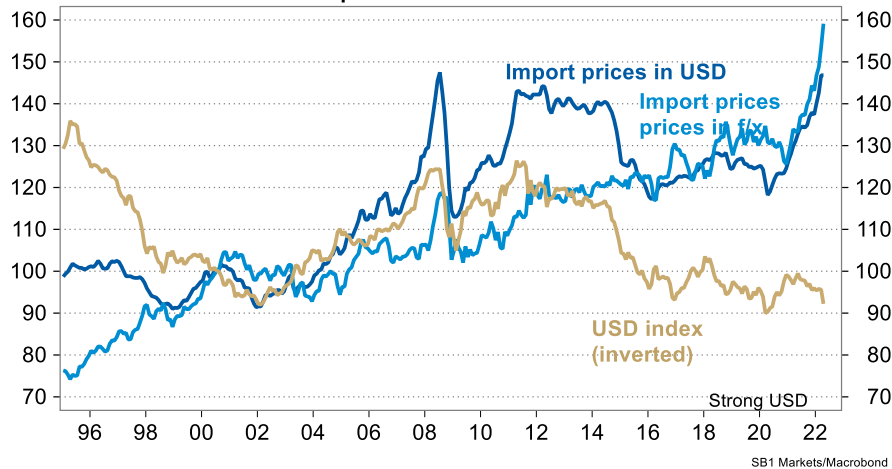


- The Cleveland Fed **trimmed median CPI** is up at a 6.5% pace over the past six months, down from 7.1% in March – but still miles above anything seen before (data from 1983). Dallas Fed's **trimmed mean PCE** was up 4.4% in March, down 0.3 pp from February – but still extremely high
- Almost all of 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 14% y/y, down from almost 20% at the peak! But still higher than anytime before (was 11% in 1981)
- The new challenge: The **sticky components** (90 % of the core CPI) are up 4.7% y/y, the highest level since 1992 – and even the 2 y avg. is at 3.5%

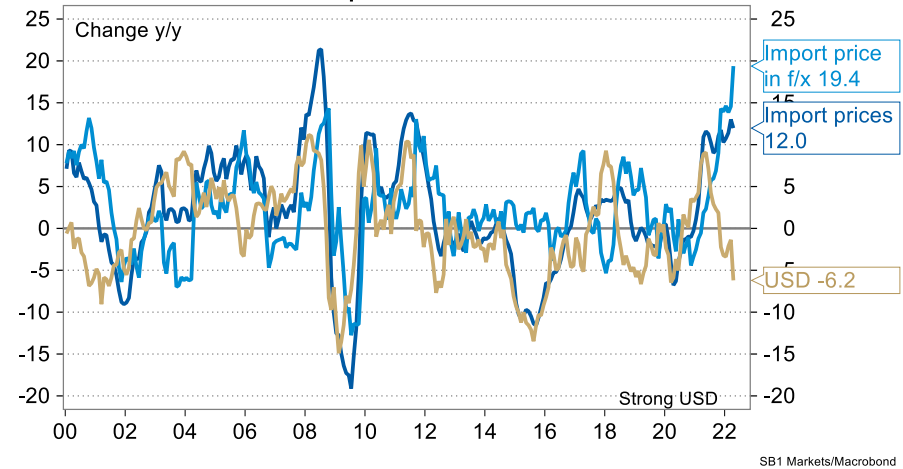
Import prices are surging but they cannot explain domestic US inflation at all

Import prices are up 12% y/y, but 'just' 8% ex oil & gas. Consumer goods are up just 3%

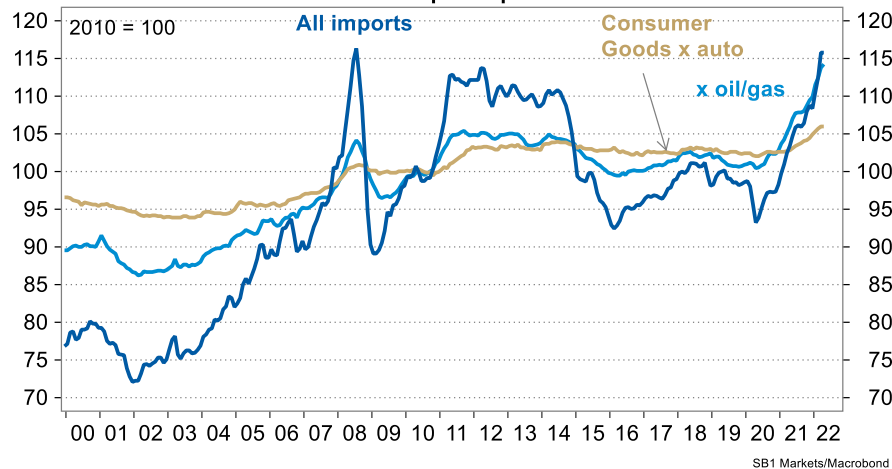
USA Import Prices & the USD



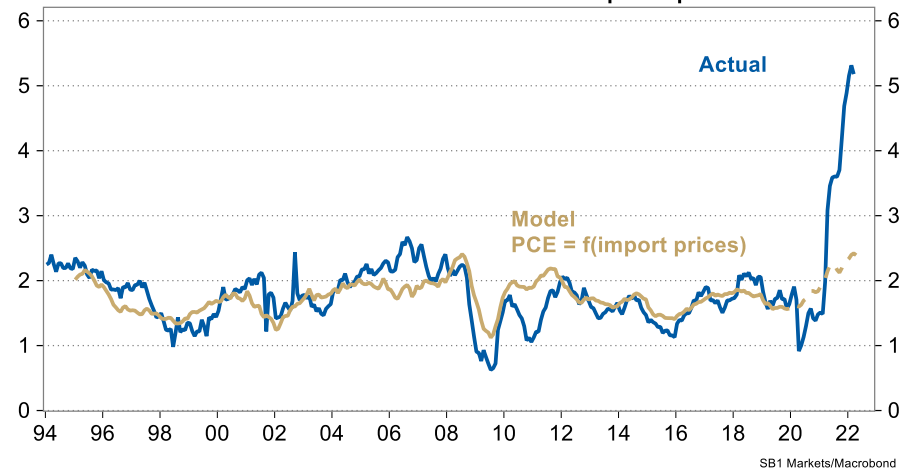
USA Import Prices & the USD



USA Import prices



USA Core PCE inflation vs import prices

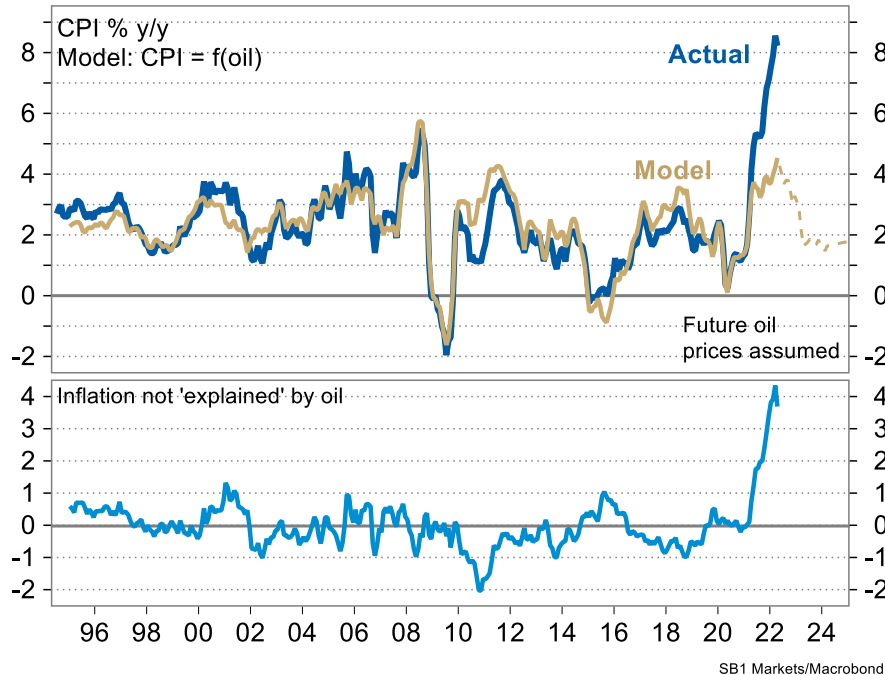


Import prices correlates with US consumer prices but the current take off in US inflation cannot be explained by the lift in import prices

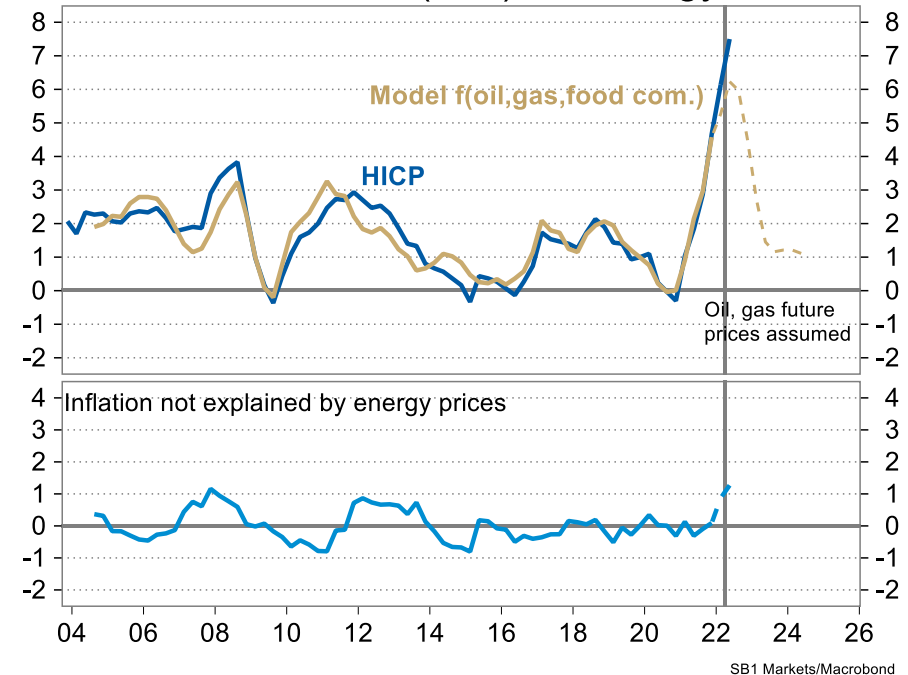
If it just was energy, CPI would have been up 4%. The problem is the next 4 pp

CPI is up 4 pp more than explained by the oil price, unprecedented. In EMU, 1pp more?

USA CPI vs Oil



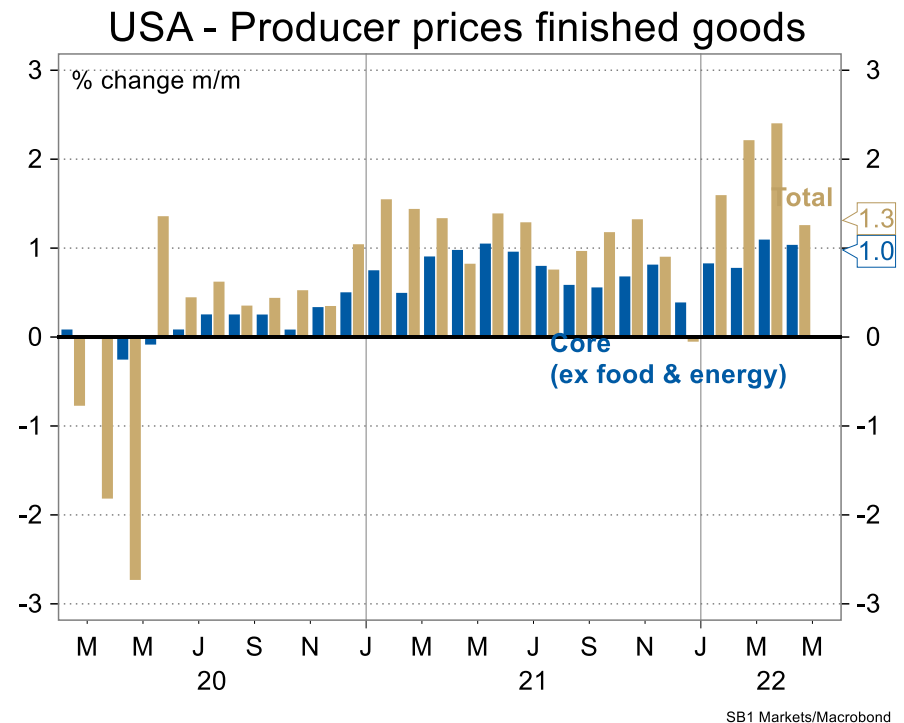
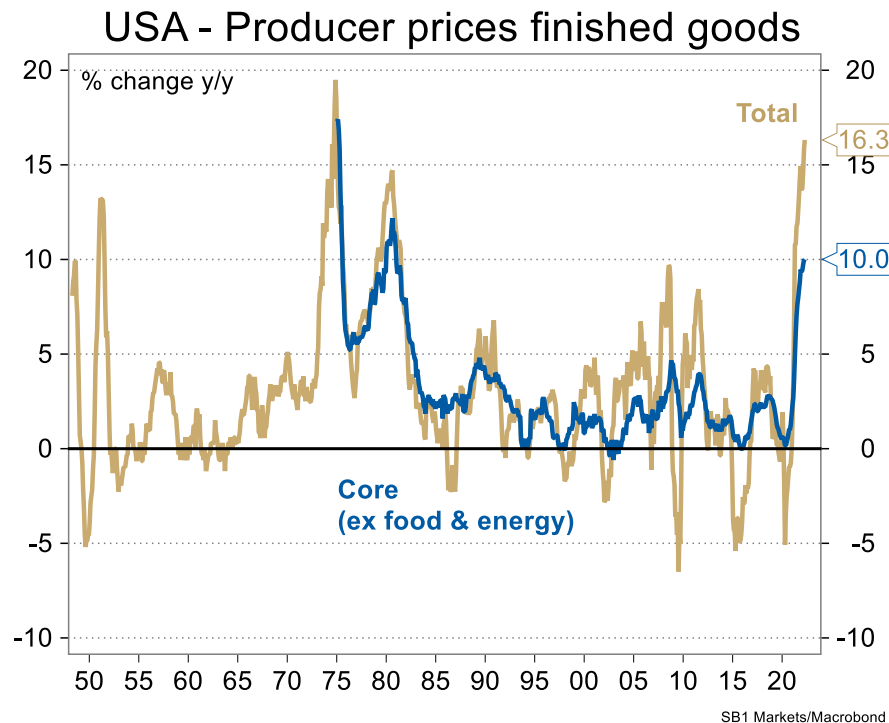
EMU HICP (CPI) vs. energy



- **Oil price cycles** have explained some 80% of the changes in the US CPI growth the past 30 years, which for all 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 influence inflation which correlates to the oil price. The current model residual, at almost 4 pp is totally unprecedented
 - » 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 industrial PPI up 1.3% in April, up 16.3% y/y. The core up 1% m/m & 10% y/y

Crude materials (ex energy) turned up again, after some softer months

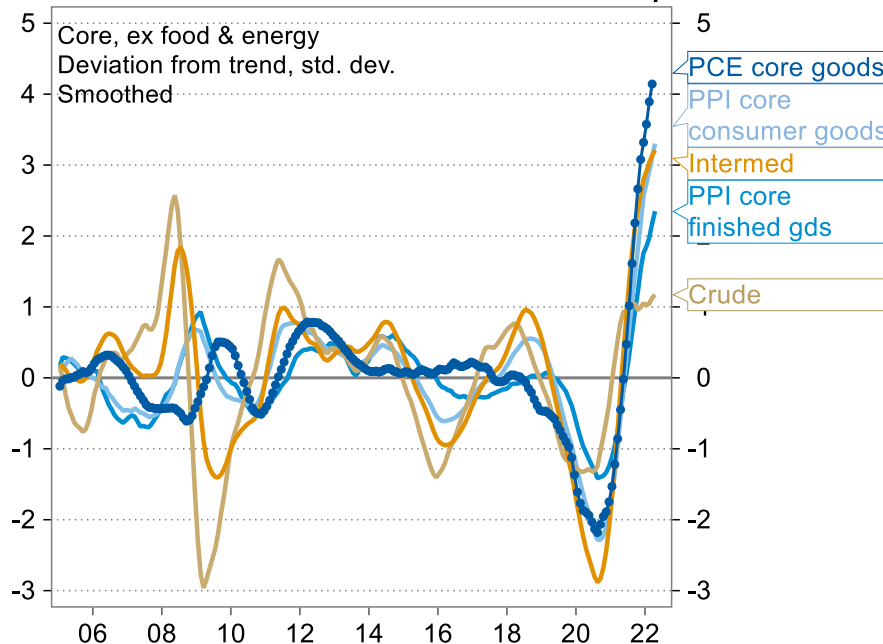


- **The headline finished goods PPI** rose 1.3% in April, down from an upward revised 2.4% in March. The annual rate accelerated to 16.3%, the highest since 1975
- **Core finished goods x food & energy** PPI rose by 1.0%. The annual growth rate was unch. at 10%, the highest since 1982
- **Crude material prices** have been on the retreat since early last summer – normally the first sign of easing price pressures in the supply chain. However, in March, crude goods ex food and energy rose again, possibly influenced by new value chain challenges, and prices remained at a high level in April
- **Core consumer goods prices** (PCE, like the CPI) have already climbed more than usual vs. PPI prices (partly due to second-hand auto prices, not included in the PPI), limiting the upside risk
- **The 'official' total final demand PPI**, including services, rose by 1.4% m/m. The annual rate was 0.6 pp higher than expected, at 11.2%!

Crude core materials turned sharply up in March, flattened in April

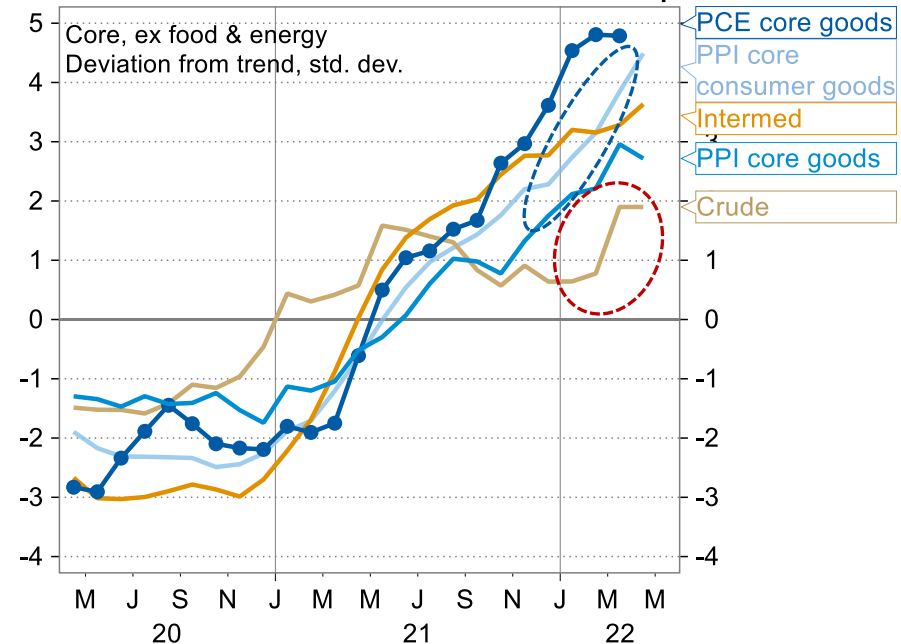
Some risk vs. prices further down the supply chain

USA Producer & consumer prices



SB1 Markets/Macrobond

USA Producer & consumer prices

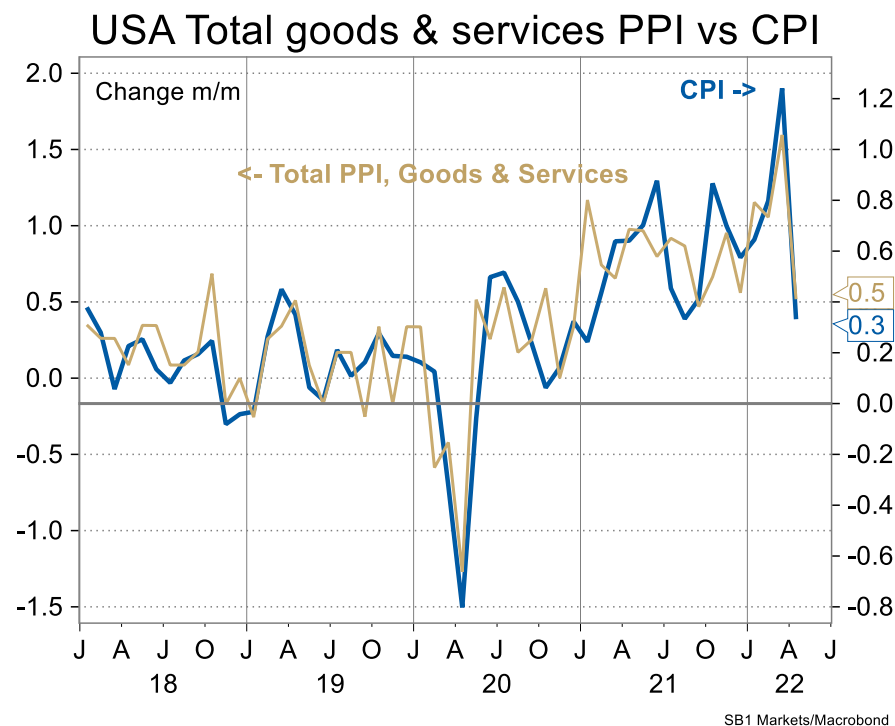
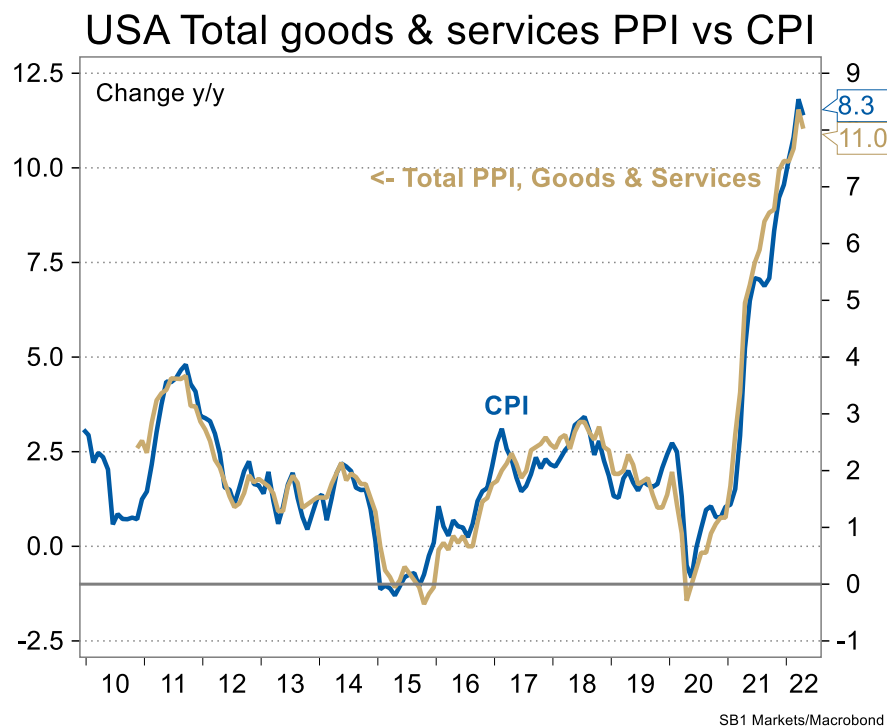


SB1 Markets/Macrobond

- **Crude goods prices** are leading intermediate goods prices by 4 months, and consumer prices by 12 months. Following several months with slow growth in these prices, they shot up again in March and remained at a high level in April – which is not a good sign. **Intermediate prices** climbed faster April
- ‘Luckily’, consumer prices are higher than normal vs. the producer prices, and it is not given that somewhat higher intermediate prices will push consumer prices even higher – especially if final demand slows due to the monetary tightening underway

Total PPI (services incl.) up 11.0%, down 0.2 pp but 0.3 pp above expectations

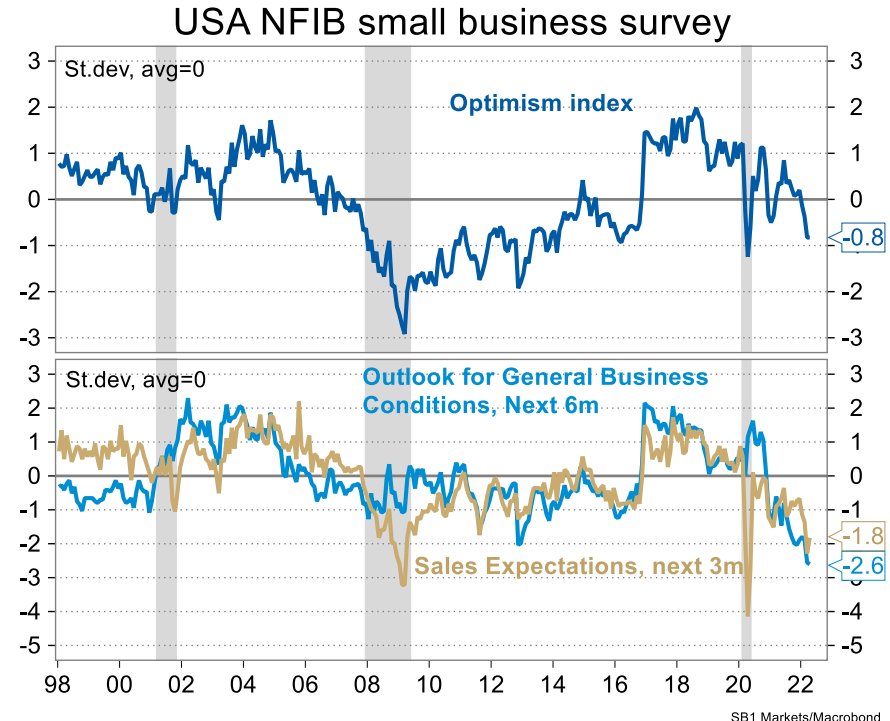
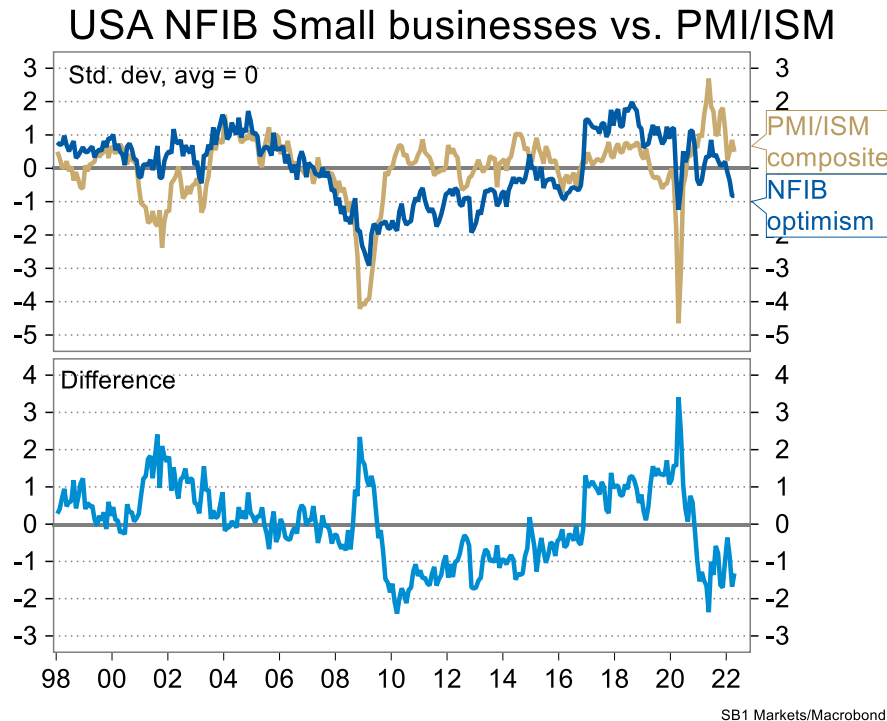
The silver lining: Up 'just' 0.5% m/m (6% annualised...), the lowest increase since last September



- The correlation between the total PPI, which includes all sorts of services in addition to goods, and the CPI is quite close. The current 11% annual growth rate totally out the PPI's 12-year-old history. Still, it seems to be in line with the 8.3% headline CPI inflation

Small businesses optimism flat in May but weak; the outlook the worst ever

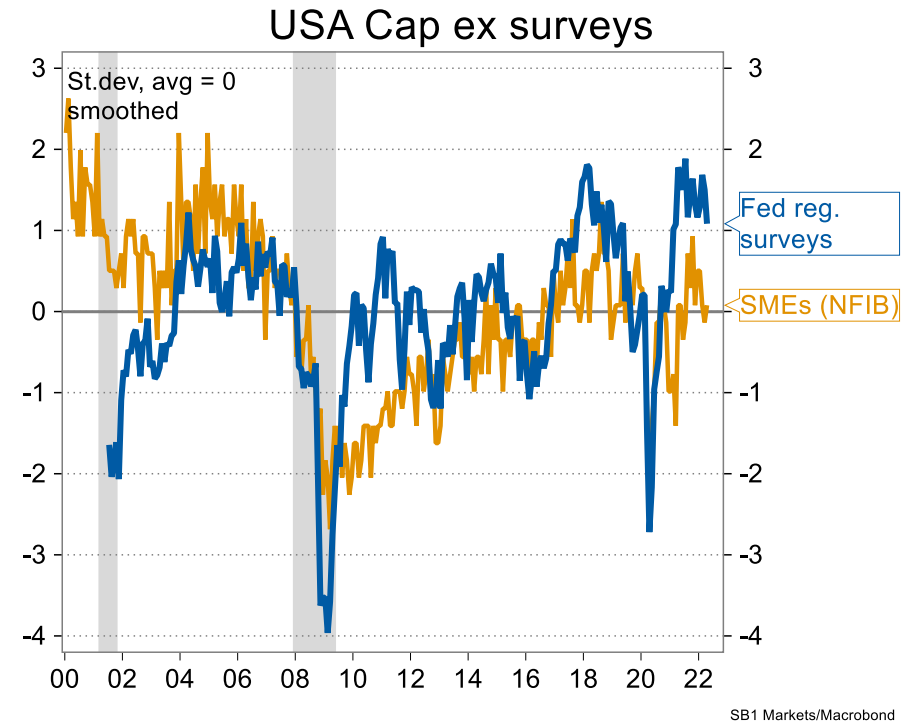
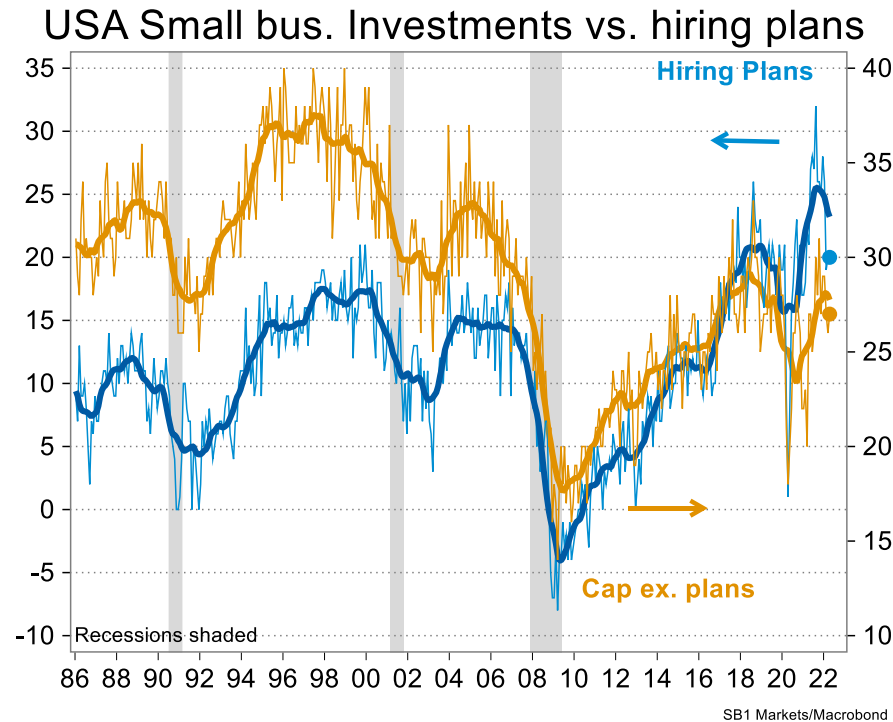
The optimism is 0.8 st.dev below par but the outlook is 2.6 below, the weakest ever!



- The **NFIB optimism index** was **unch. at 93.2 in May, expected further down to 92.9**. The index 0.8 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 recent months – but the gap is still substantial, the SMEs are rather negative
- **The outlook for the next 6 months** remained at the lowest level ever in May. Lack of qualified labour, labour costs and inflation worry the SMEs. 'Nobody' is complaining about current sales, and close to a record share of companies report they plan to lift prices further. **Investment plans** remain close to an average level
- Published the previous week: **Hiring plans** are down from the ATH level some months ago but is still at a very high level. The SMEs are still not able to **fill their vacancies**. An usual large share of companies report planned further **compensation increases**

The SMEs have cut back on their investments plans, but plans are still at average

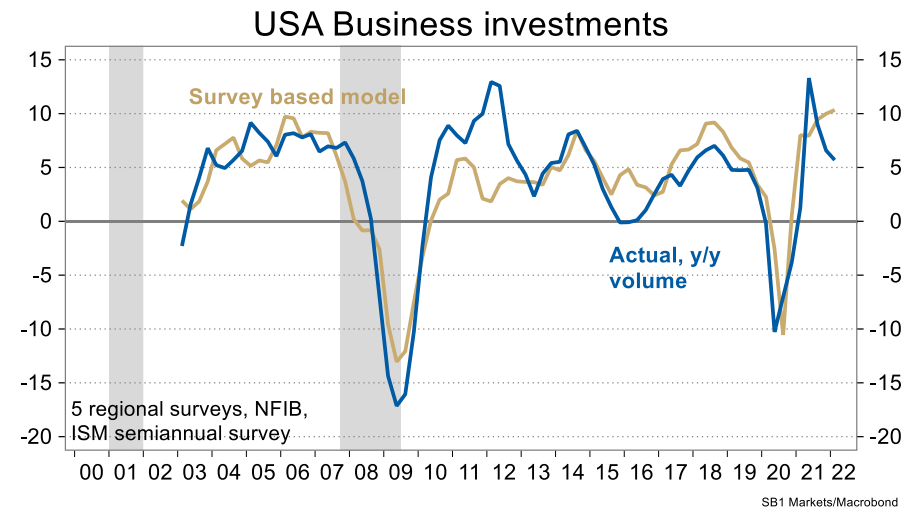
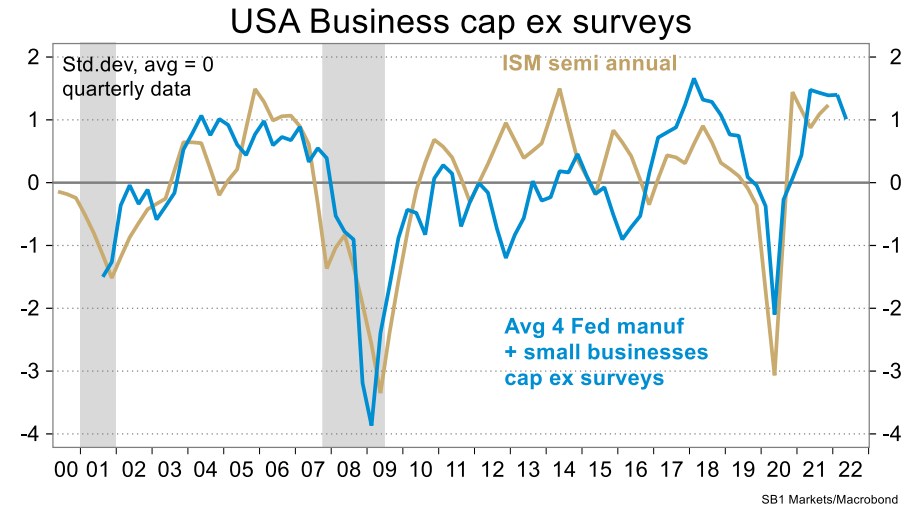
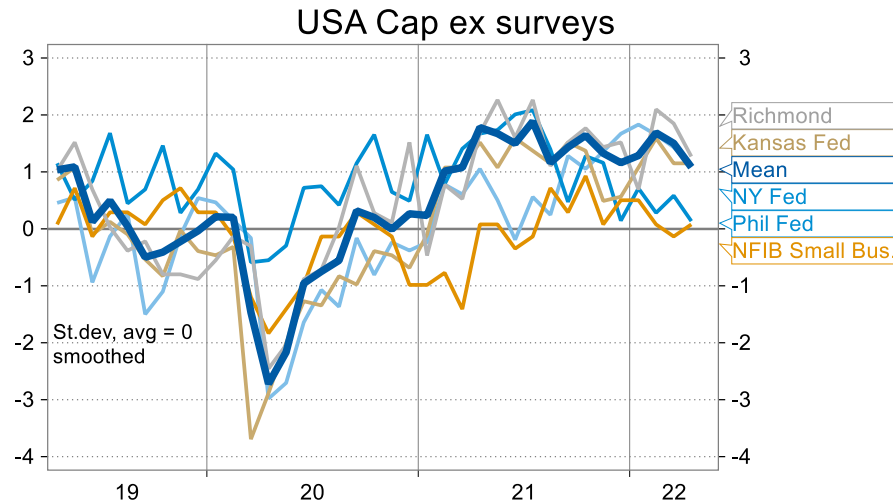
Hiring plans are still well above normal levels but down from the peak



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

Investment surveys have peaked – but are still upbeat

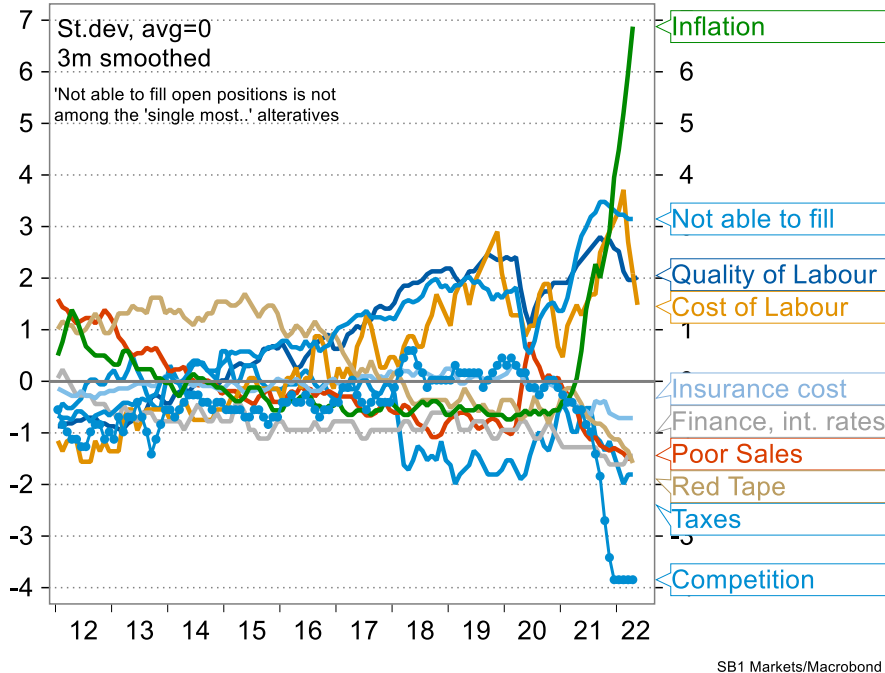
Taken together, aggressive investment plans



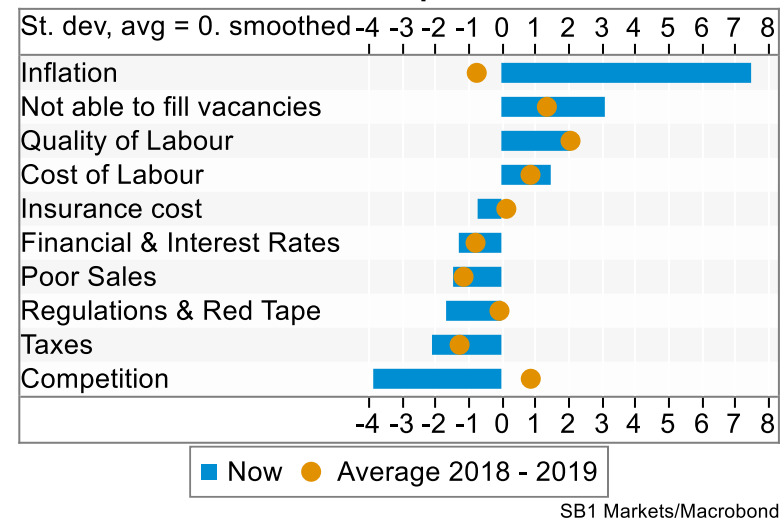
Record few SMEs complain about poor sales & competition from large companies

Some easing of labour shortages/quality – but still extreme. Now, inflation is the BIG problem

USA Small businesses Single most problem



Small businesses (NFIB) What's the problem?

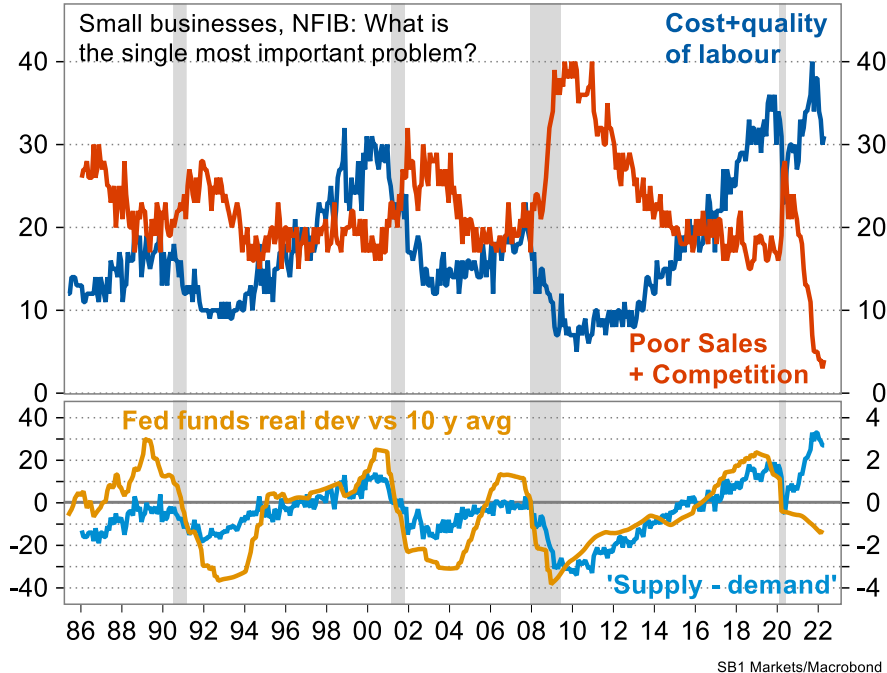


- Companies still report they are constrained from the **supply side**, not from the **demand side**
- In addition, **inflation** is now quoted as the most important problem for the SMEs. However, the SMEs themselves are making the problem even larger – more companies than ever before plan to increase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

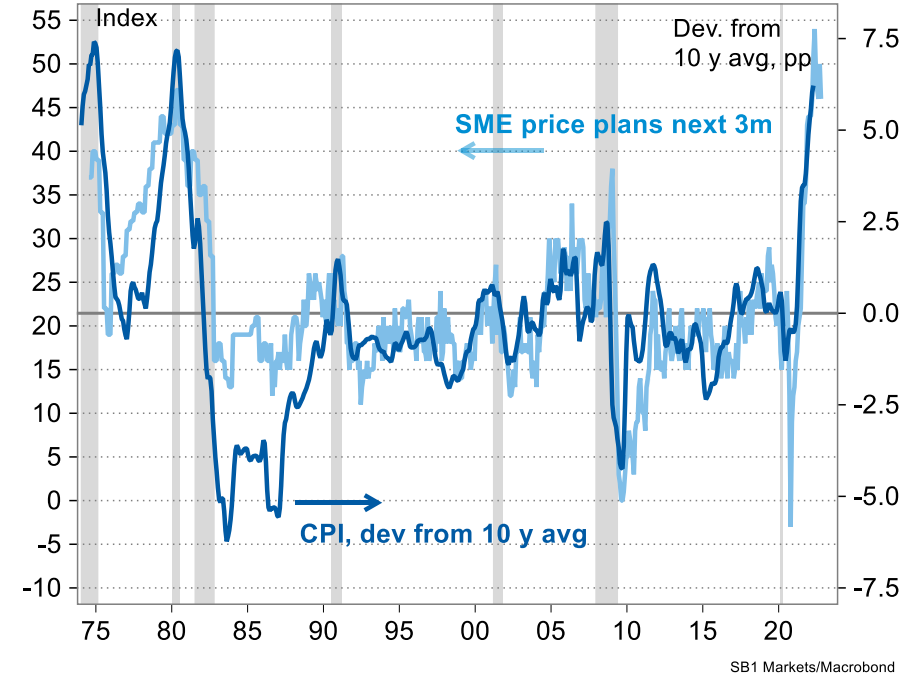
Sales are fantastic, labour supply is still the challenge

A small decline in share of companies that plan to hike prices (but it is still at an extremely high level)

USA What's the problem: Supply or Demand?



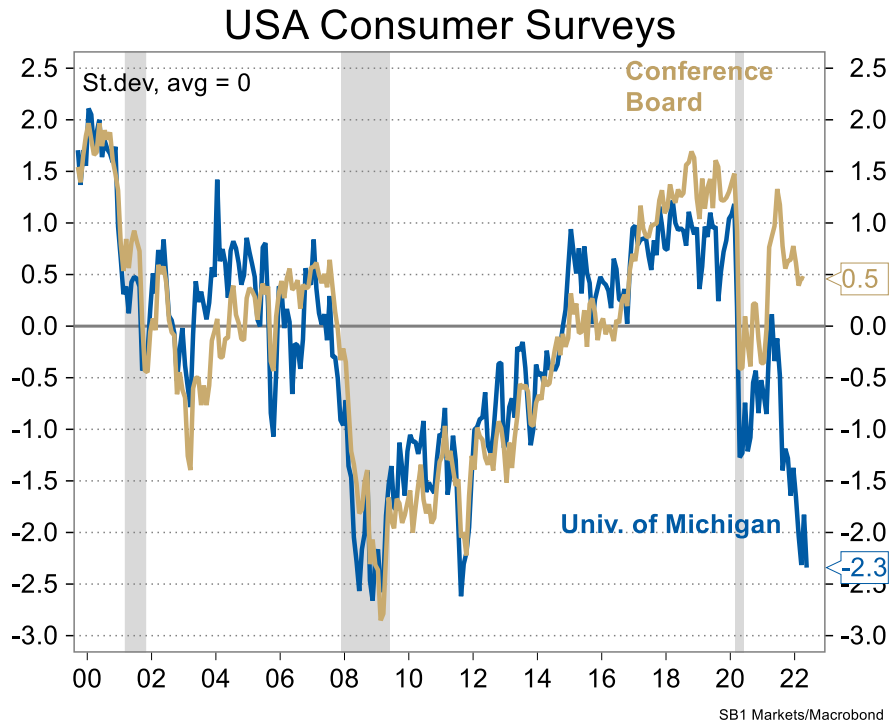
USA Small Businesses Price Plans



- The share of SMEs that plan to hike their **selling prices** fell 4 pp to 46%, not far below the ATH prints the previous months
- Cost & quality of labour is stated as the most important problem for a much higher share of companies than normal. However, the share has fallen somewhat from the peak, if not further in May
- The '**demand surplus**' has widening from a high level since early 2021 –and the Fed's started their tightening campaign just two months ago, far later than normal vs the cycle – '*the bank is far behind the curve*'

Univ. of Mich. consumer sentiment down in May, the weakest since 2011

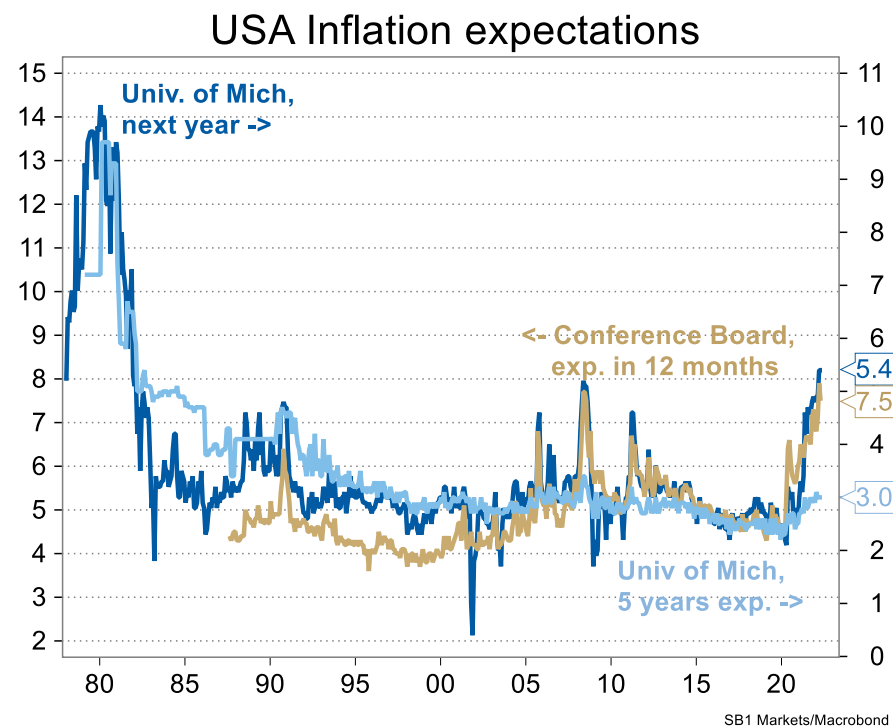
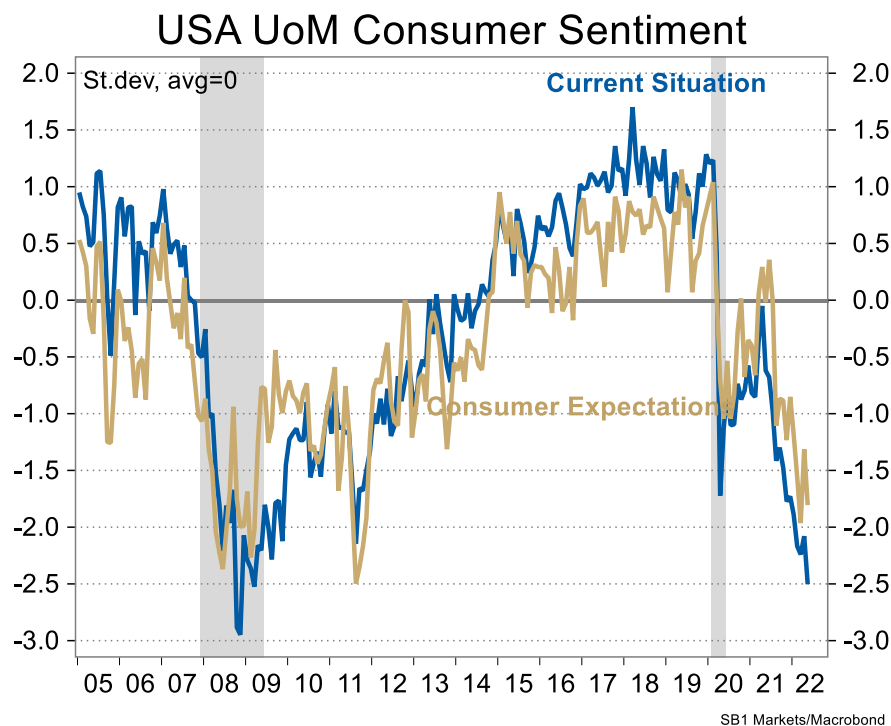
Both assess. of the current situation & expectations down; High inflation, gasoline prices to blame



- **University of Michigan's consumer sentiment fell to 59.1 in May from 65.2 in April, expected up to 64. The index fell to -2.3 st.dev below average, from -1.8**
 - » Both households' assessment of the current situation and their expectations fell by approx. the same amount
- **2 of the other 3 consumer surveys** we are following report a confidence level far below average levels, and they fell
- Just the Conference Board's measure is still above average (at +0.5 st.dev) in March
- 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
 - » 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'

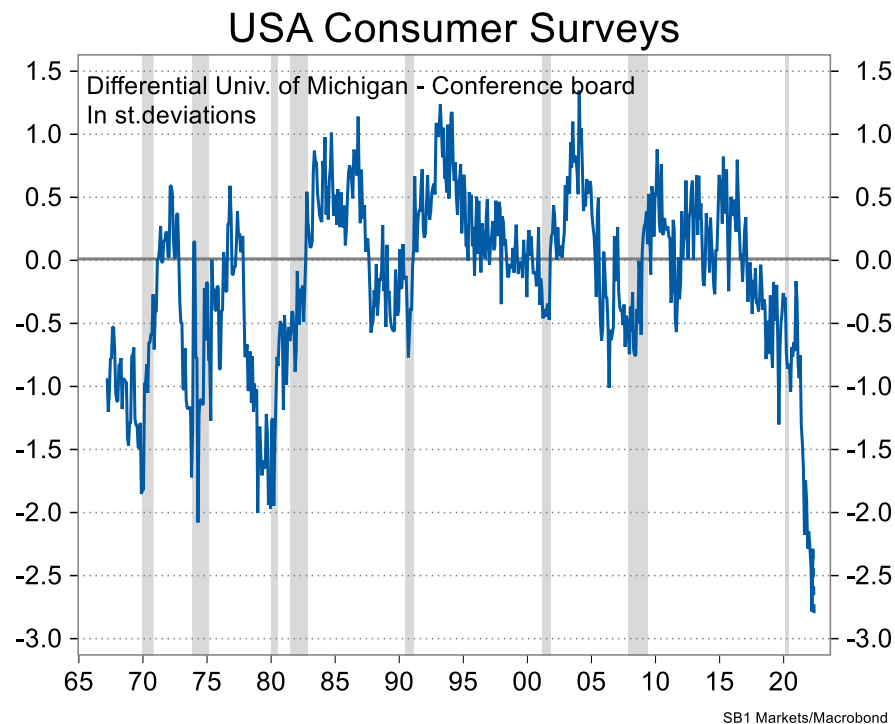
Univ of M: Finally, expectations up – but still at a rather low level

Inflation expectations stabilised – at a far higher level than normal (in the short end)

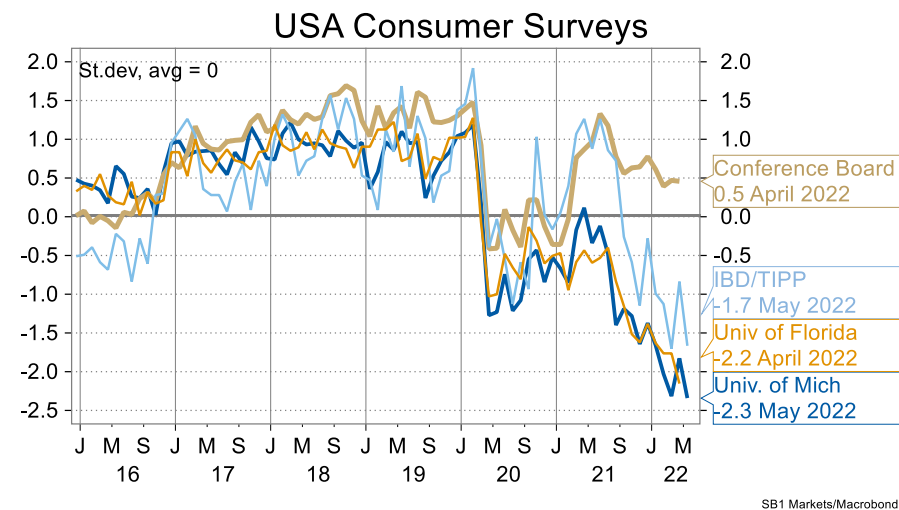
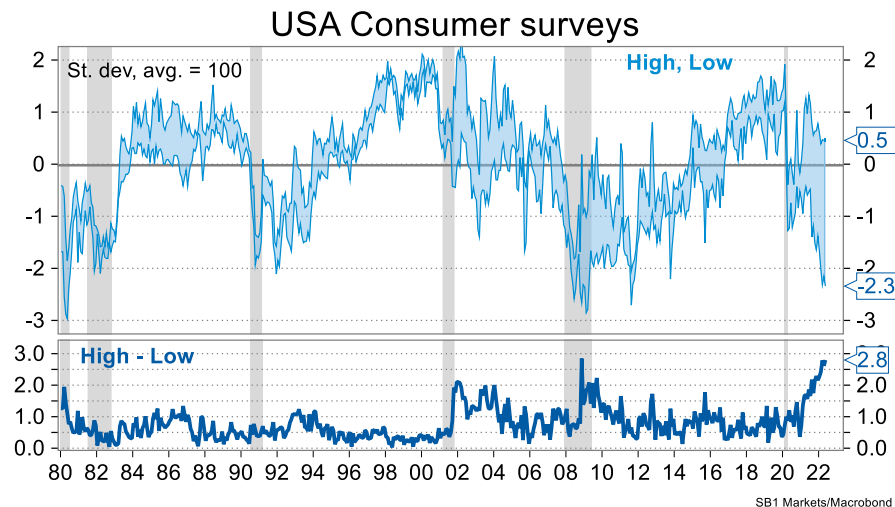


- The 12 m inflation f'cast was unch. at 5.4%, the highest level since 1983
- The 5 y inflation expectation was unch. at 3%, clearly above the average over the past 10 years – but not much higher than several times during the 2005 – 2012 period

The gap between Conf. Board & Univ. of Mich is larger than even seen before



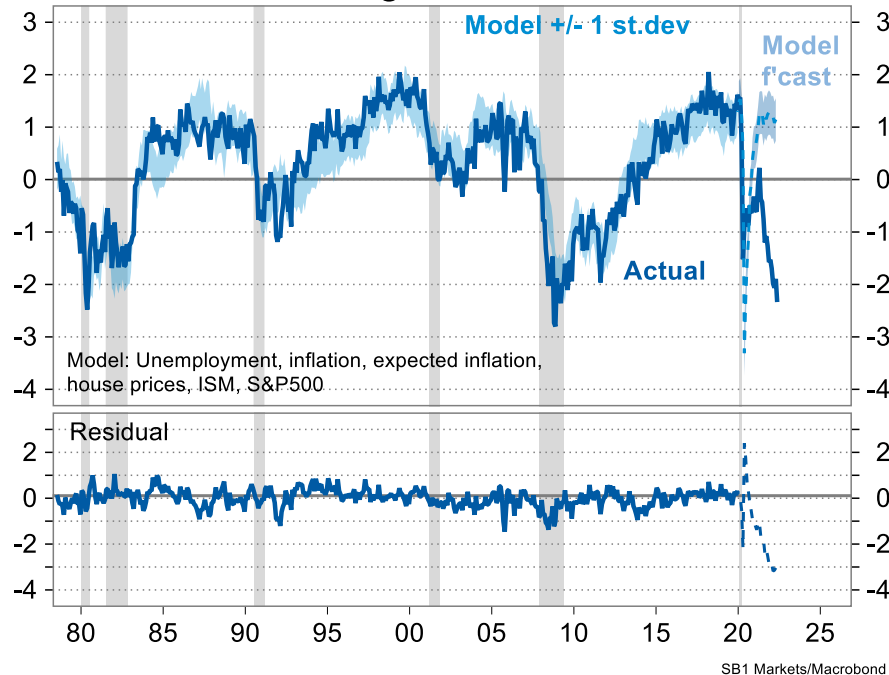
- Quite often, the UM survey has been the canary in the mine vs. recessions, it yields earlier than Conference Board's survey, and the current stance is a bad sign – we have never see anything like it!
- The IBD/TIPP survey also fell in May, and the Univ. of Florida survey reported a decline in April



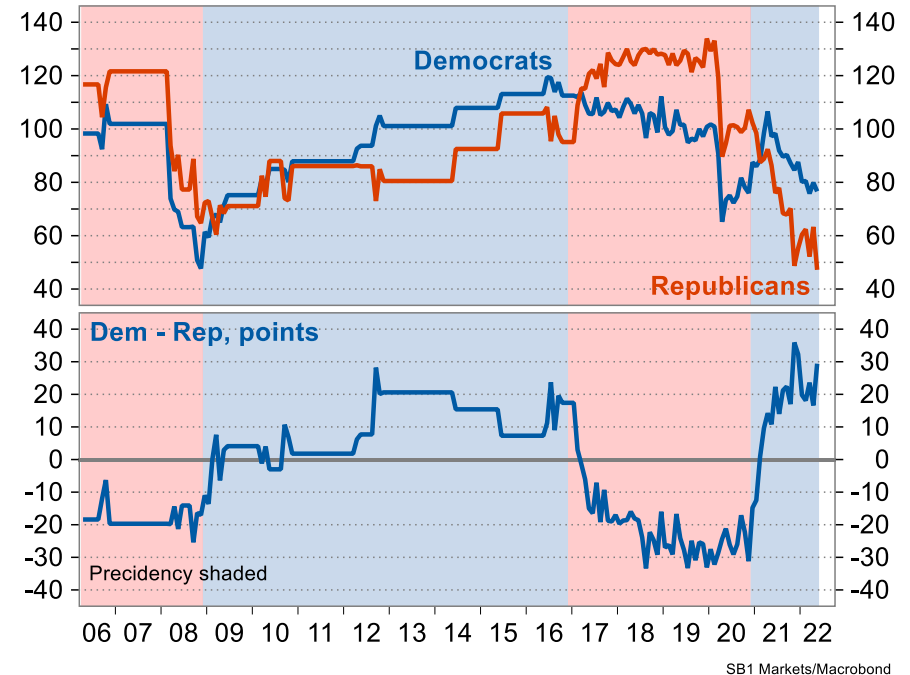
Households should have been quite happy by now, even if inflation is high

The pandemic is not included in the model

USA Univ of Michigan sentiment, current sit.



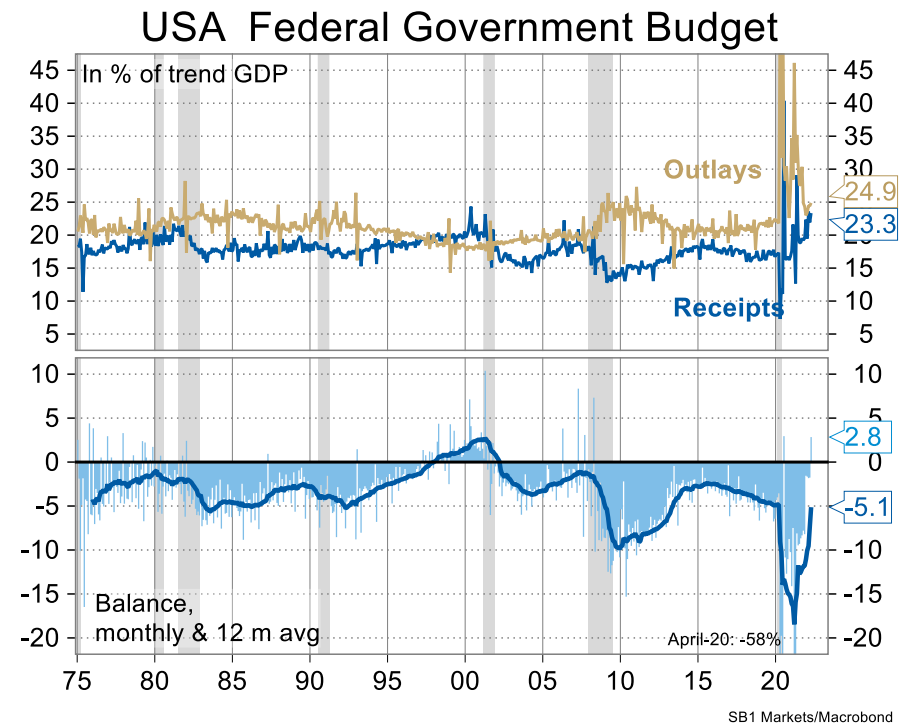
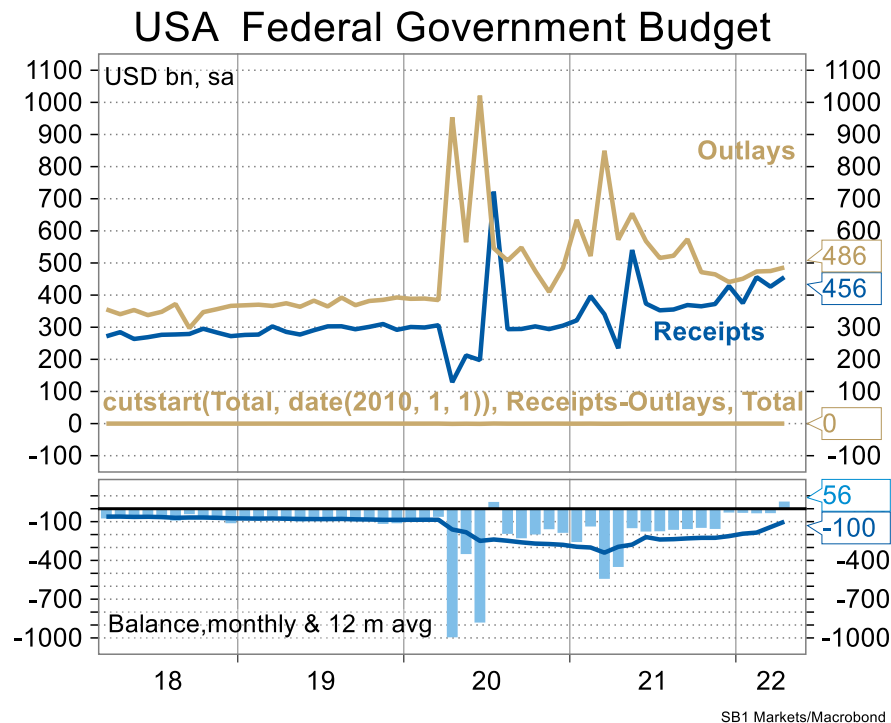
USA Consumer sentiment, current situation



- **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 growth (both actual and expectations, ISM), the stock & housing markets, are 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 and in the markets. What's the 'unknown' factor now?
- 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)

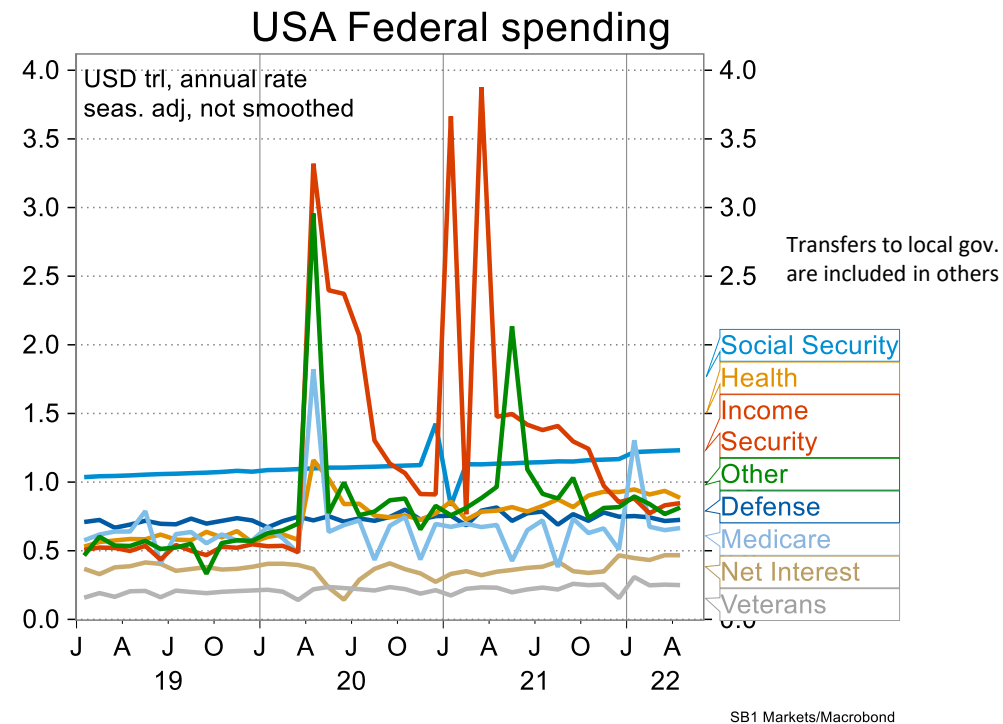
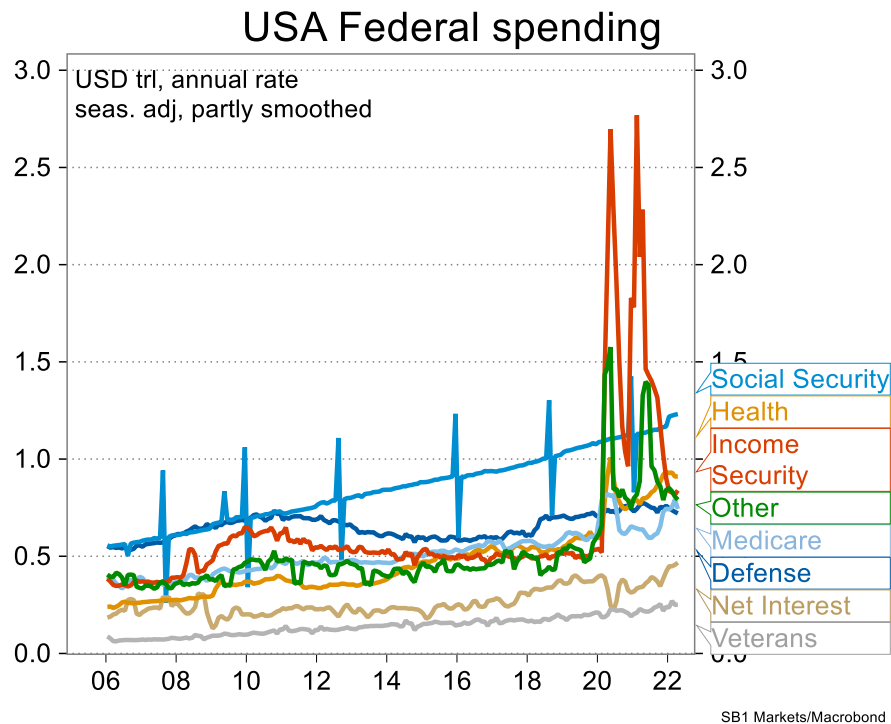
The budget towards... surplus??

The balance was positive in April, and the accumulated deficit past 12 m has fallen to 5%



- **Federal expenses** fell through last year but are now trending slowly upwards again – and are 22% above the pre-pandemic level. The expenditures equal 25% of GDP, up from 21% – 22% before the pandemic
- **Federal receipts** have recovered sharply since last summer, due to robust growth in GDP and employment. Revenues are up 52% (yes, fifty-two) vs the late 2019 level. Revenues equalled 23% of GDP, which far above the pre-Covid level at some 17%
- The actual **surplus** was just USD 308 bn in April, expected 260 bn, so no big surprise. The seas. adj surplus equalled USD 56 bn or just 2.8% of GDP. Over the past 12 months the Federal deficit has equalled 5% of GDP. Before corona, the federal deficit was at close to 5% too. Luckily, the deficit over the recent months is much smaller, though in an even more booming economy, where the surplus should have been substantial
 - » The deficit is calculated seasonally direct deficit, and not as the difference between seasonally receipts and outlays, and from time to time these two figures differ somewhat – like in April

Income security & 'other' spending (much to states) on the way down, still high

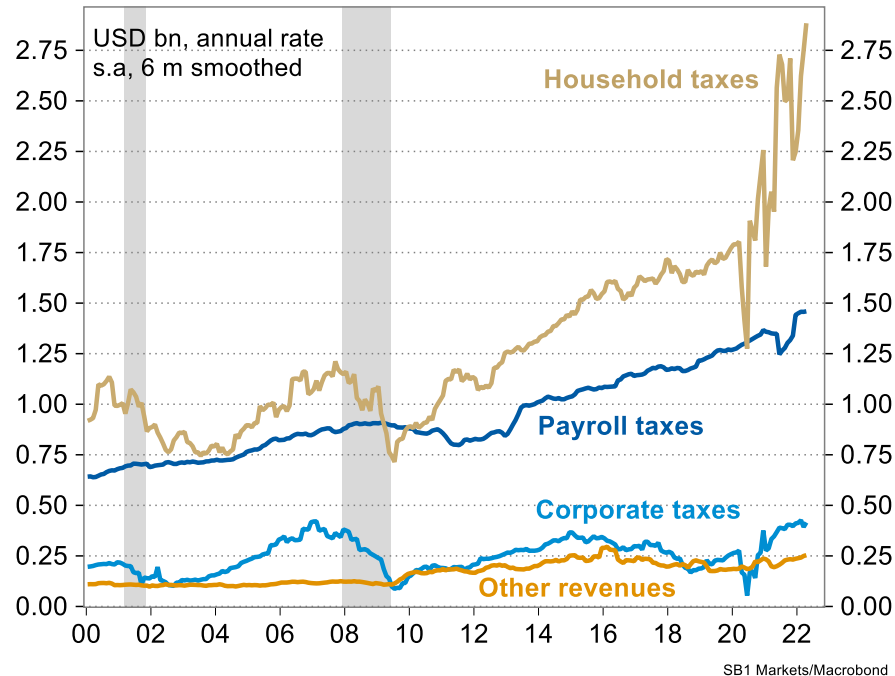


- Both Income security and 'other spending' are well above the pre-pandemic level. Health spending is up too
- We still deem most of this extra spending to be temporary and due to the stimulus packages, and other Covid-related measures

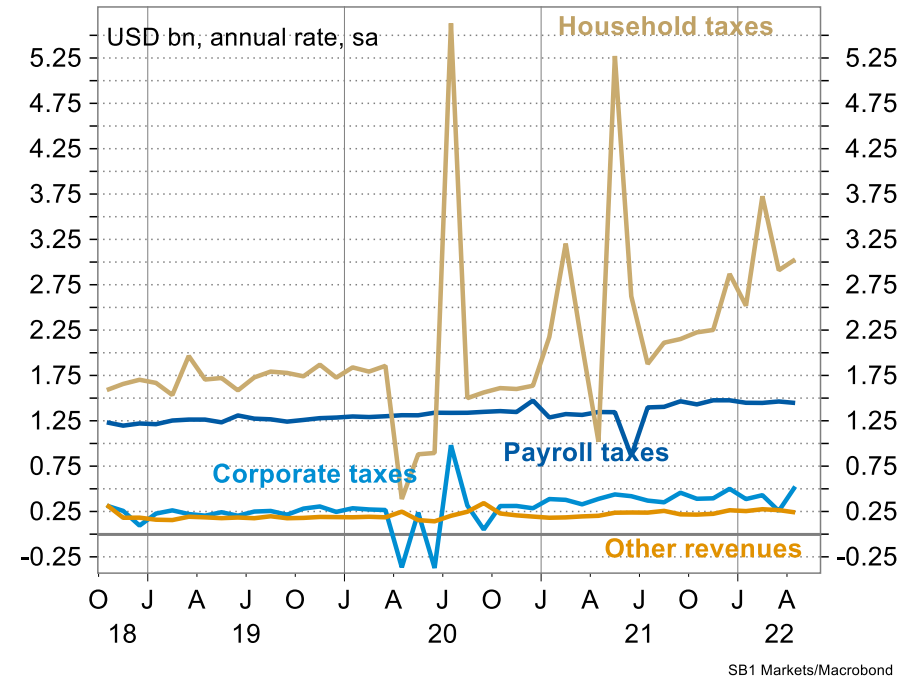
Tax revenues are remarkably higher than before the pandemic

Especially taxes paid by households (+65%) and corporates (50%+)!

USA Federal Revenues

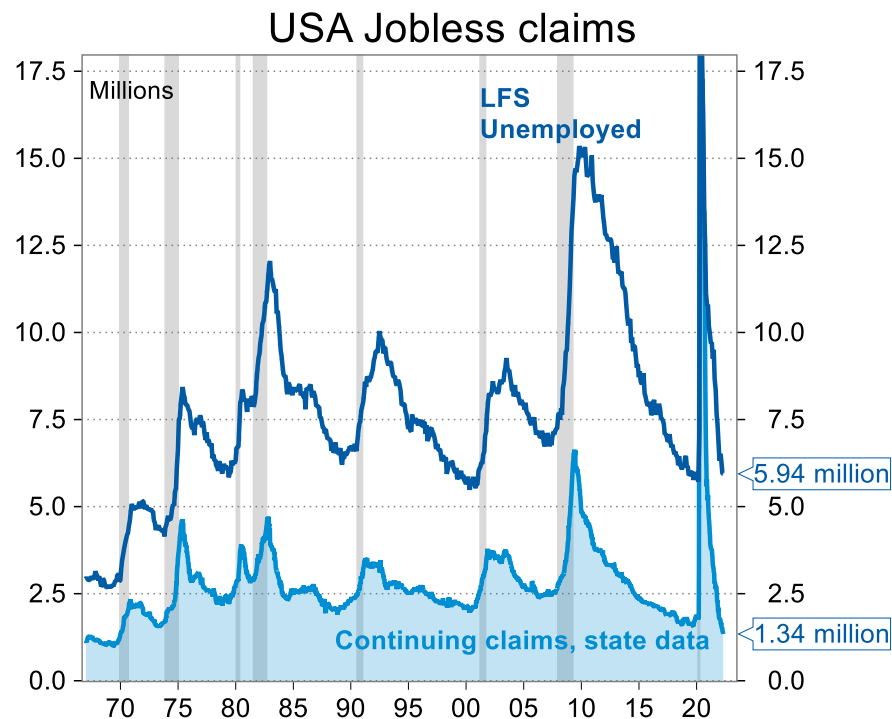
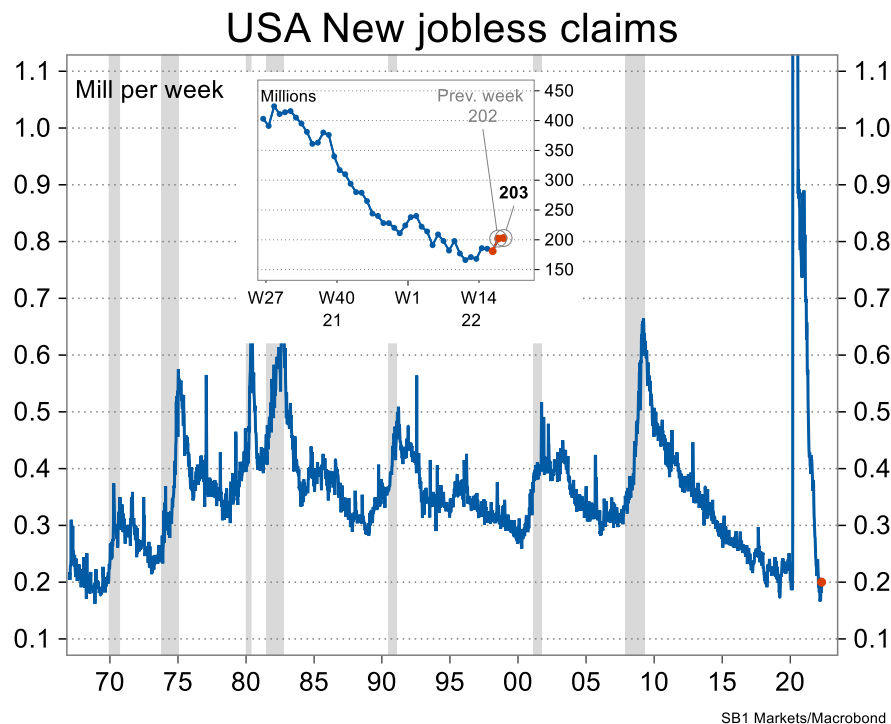


USA Federal Taxes



New jobless claims virtually flat last week

Continued claims fell further – to the lowest level since early 1970s

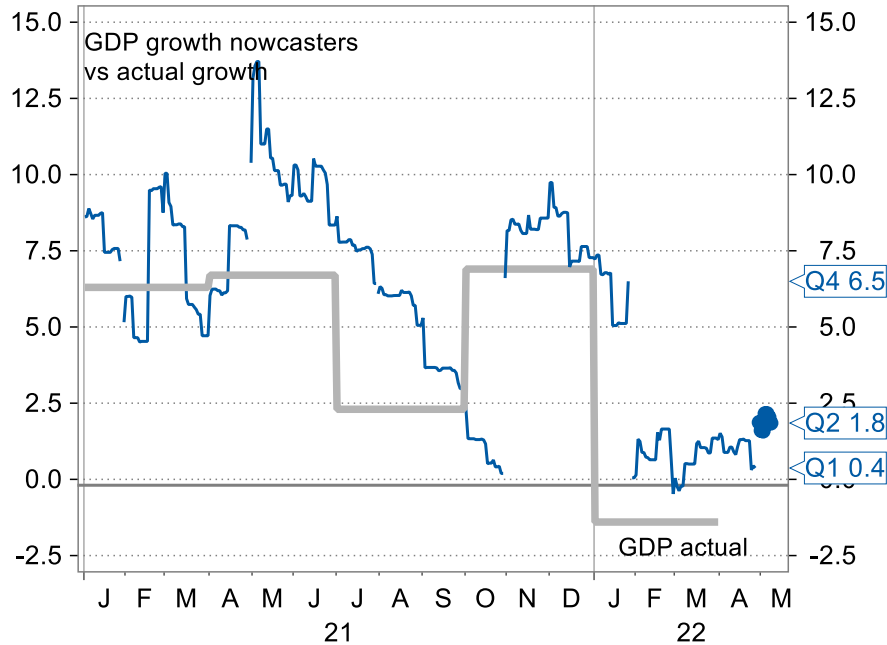


- **New jobless claims** grew by 1' in week 18 to 203'. Recent weeks, the inflow has increased marginally. Still, the inflow is close to the lowest level since 1968, when the labour force was 2 times larger than today
- **Ordinary continuing claims** declined by 44' to 1.31 mill in week 16, not seen since January 1970
- Another confirmation that the **labour market** is extremely tight

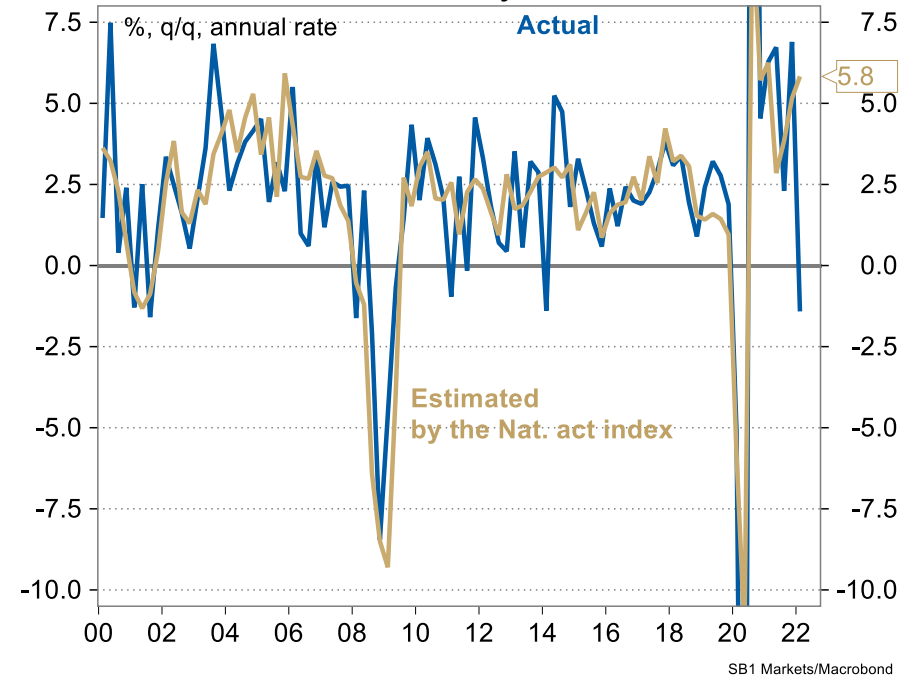
Atlanta Fed's nowcaster suggests 1.8% growth in Q2, the Nat. Activity index 6%

Q1 was far weaker than expected and signalled by other data

USA Atlanta Fed GDP nowcasts

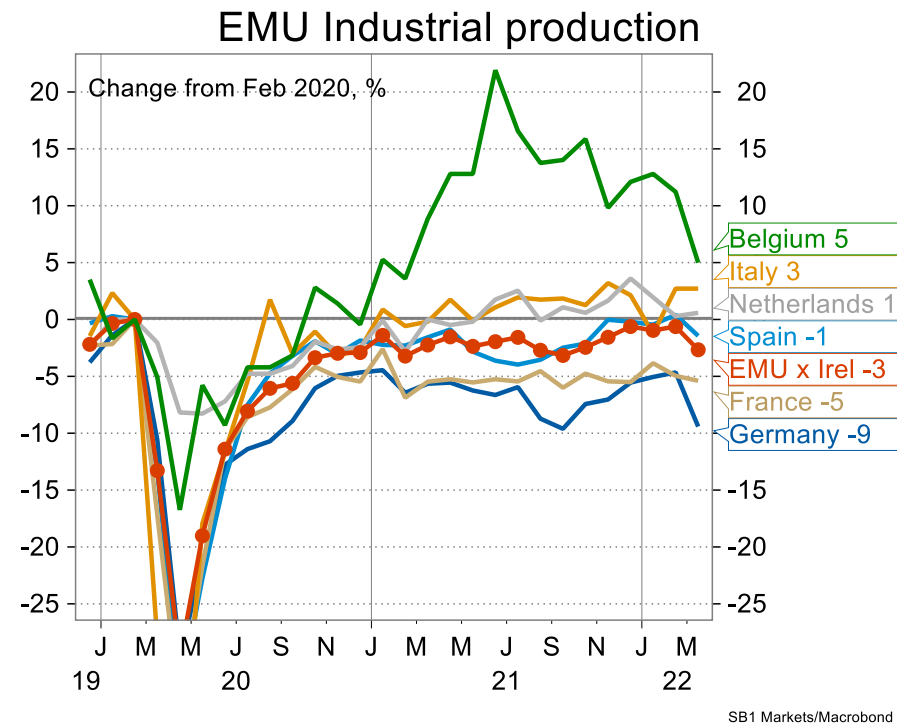
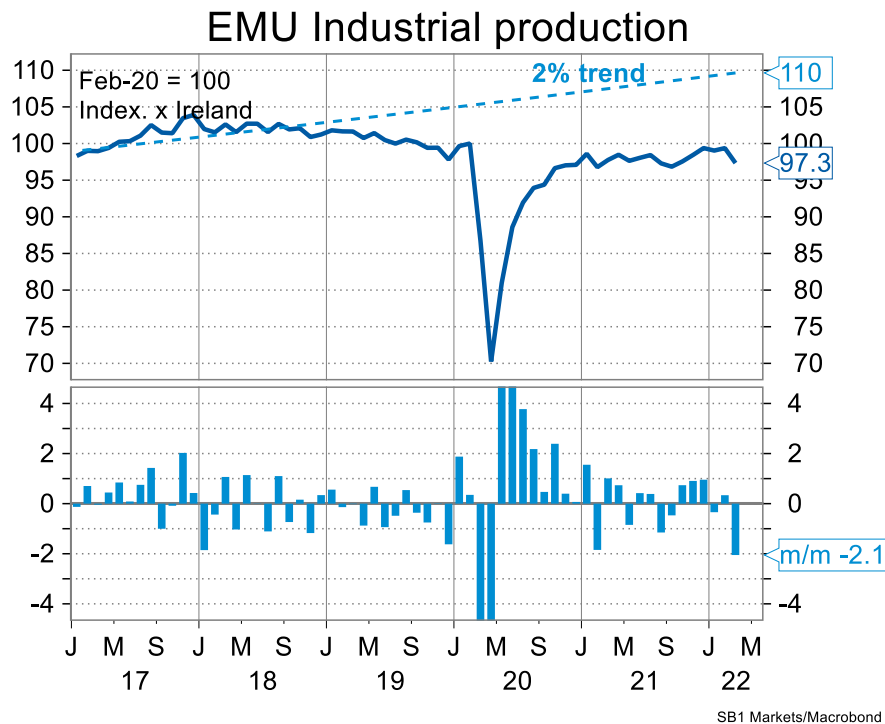


USA National activity index vs GDP



Industrial production down 2.1% in March, Germany contributed the most

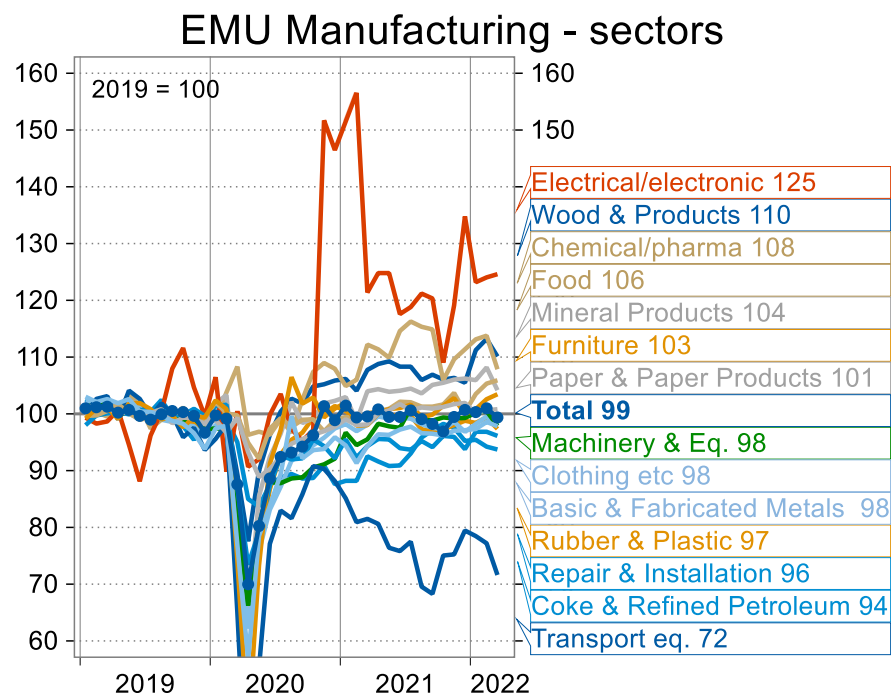
German auto production fell sharply in March (but recovered in May)



- German manufacturing production is down 9% vs the pre-pandemic level. Italy is UP 3%! The auto industry mostly to blame

Transport equipment down 28% vs the 2019 level, a 3% drag on total production

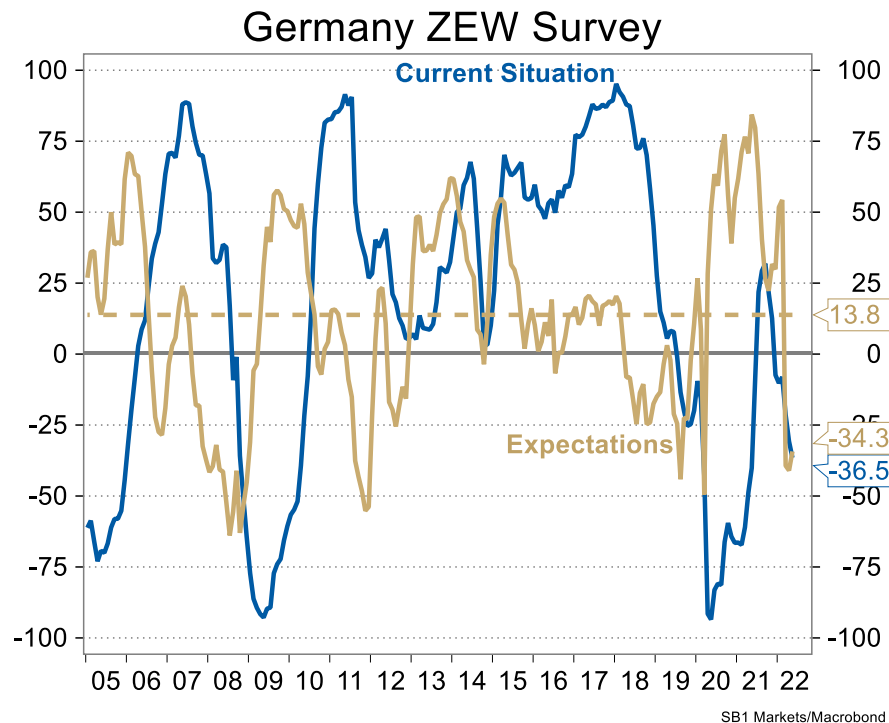
(before indirect impacts). Electrical/electronics at the top, up 25%



SB1 Markets/Macrobond

No light to be seen in the tunnel: ZEW expectations still very weak in May

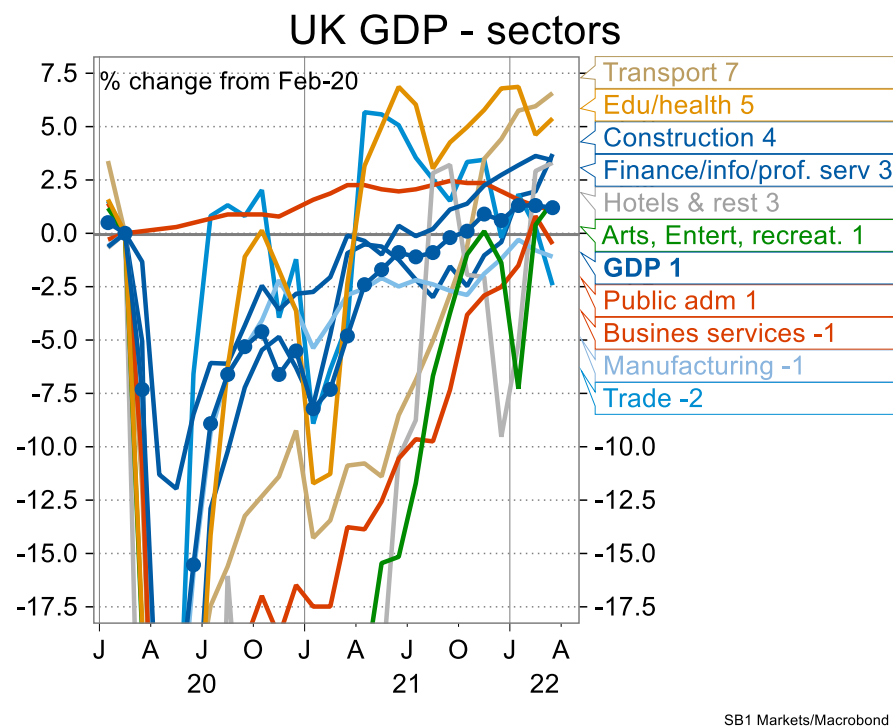
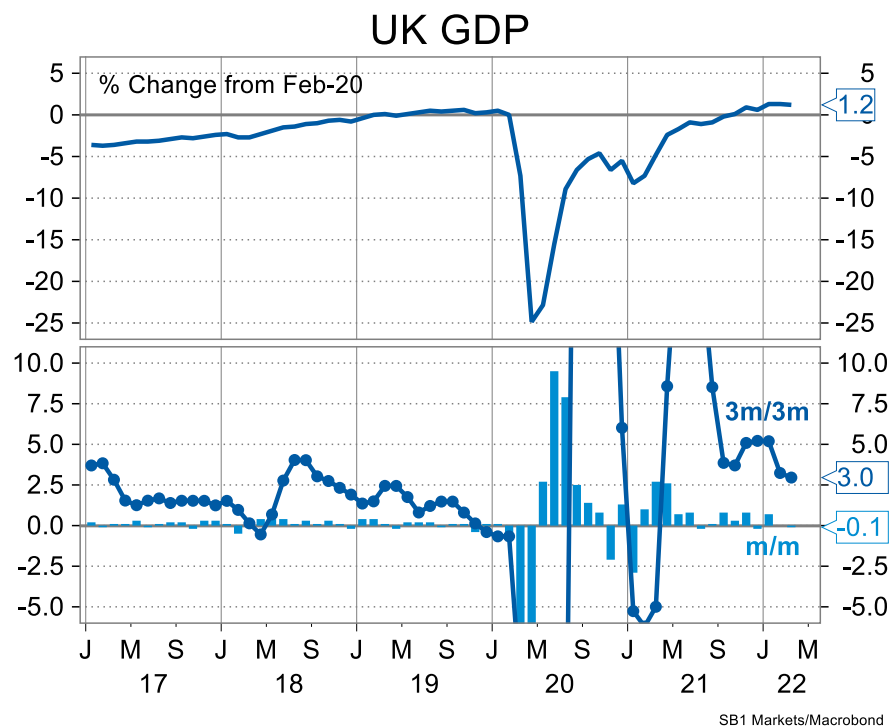
German investors/analysts are still totally shocked by the war & its possible consequences



- The **ZEW expectation** index fell to -39 in March from +54 in February, or from +1 above st.dev to -1.7 st.dev below average, and fell 2 more points in April –and recovered to -34 in May – expected down to -42. However the increase is hardly visible at the chart, and the level is still very low
- The decline in March was the largest by far (-94 p in March vs. the largest drop so far, -58 in March 2020). The level normally signals a substantial decline, and May is not any better. There is of course just one possible explanation
- Assessment of the **current situation** has also fallen deep into contraction territory, and it fell further in May

GDP flattened through Q1, up just 1% from before the pandemic

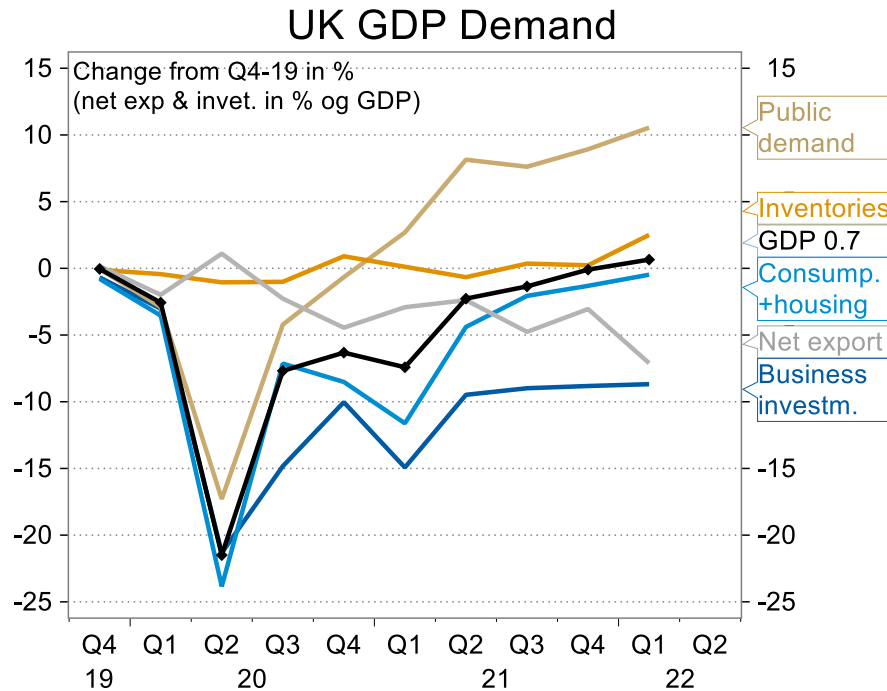
GDP fell 0.1% in March, expected unch., and February revised down 0.1 pp to 0.0%. Still up 3% q/q



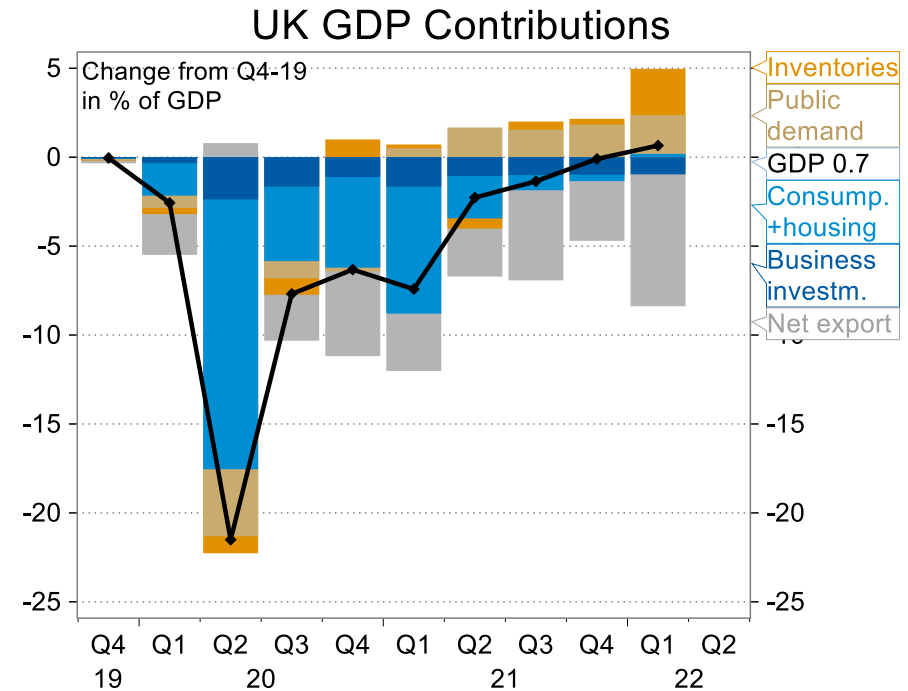
- **GDP** grew 0.7% in January, when Covid restrictions were eased – but not further growth thereafter. Still, GDP grew 3.0% in Q1 (0.8% not annualised, expected 1.0%)
- GDP is just 1% above the pre-pandemic level, not that impressive – but in line with continental Europe
- **Services** are stronger than **manufacturing** vs. the pre-pandemic level. Hotels are 3% above the Feb-20 level
- **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

Household demand finally back to start, investments too

A huge negative drag from trade in Q1 – and exports have been sagging since 2019



SB1 Markets/Macrobond

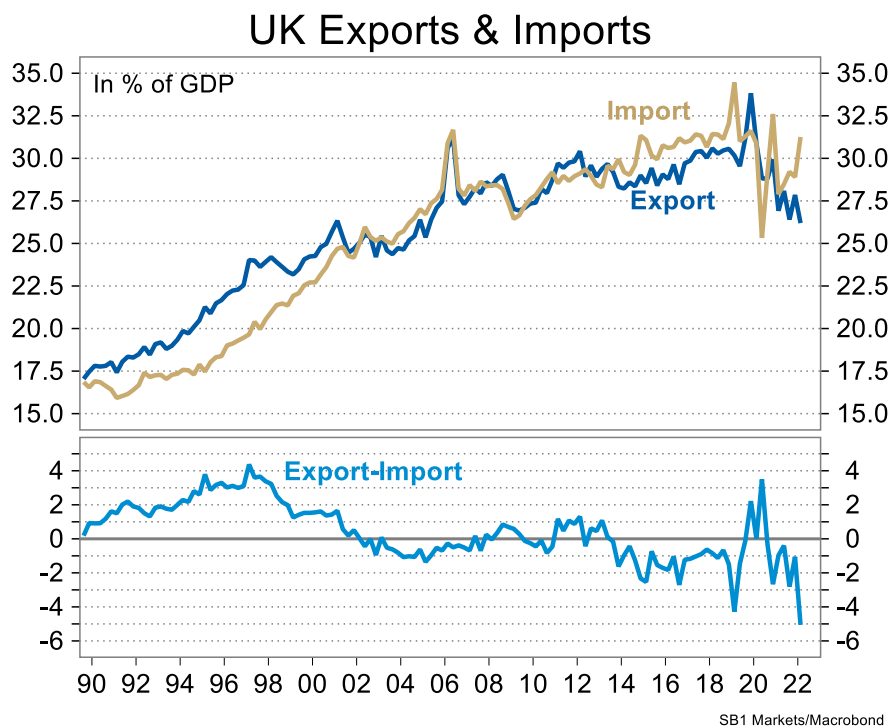


SB1 Markets/Macrobond

- The Q1 negative contribution from trade is partly compensated by a substantial inventory buildup (high imports were not consumed or invested). A reversal in Q2 likely
- Public demand has been the main contributor to growth in demand since Q4-19

Household demand finally back to start, investments too

A huge negative drag from trade in Q1 – and exports have been sagging since 2019

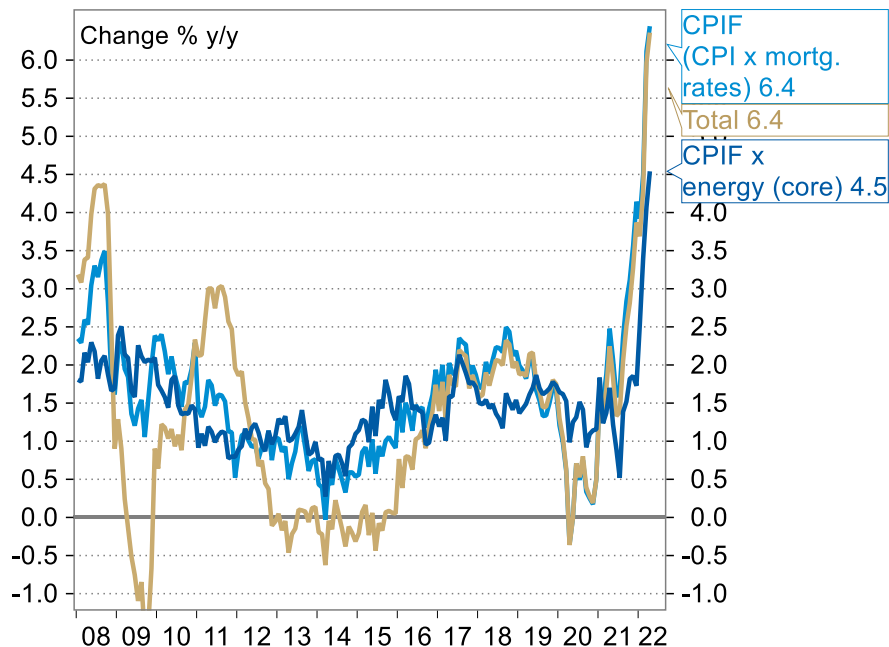


- The Q1 negative contribution from trade is partly compensated by a substantial inventory buildup (high imports were not consumed or invested). A reversal in Q2 likely

Inflation further up: Headline +0.4 pp to 6.4%, the core +0.4 pp to 4.5%

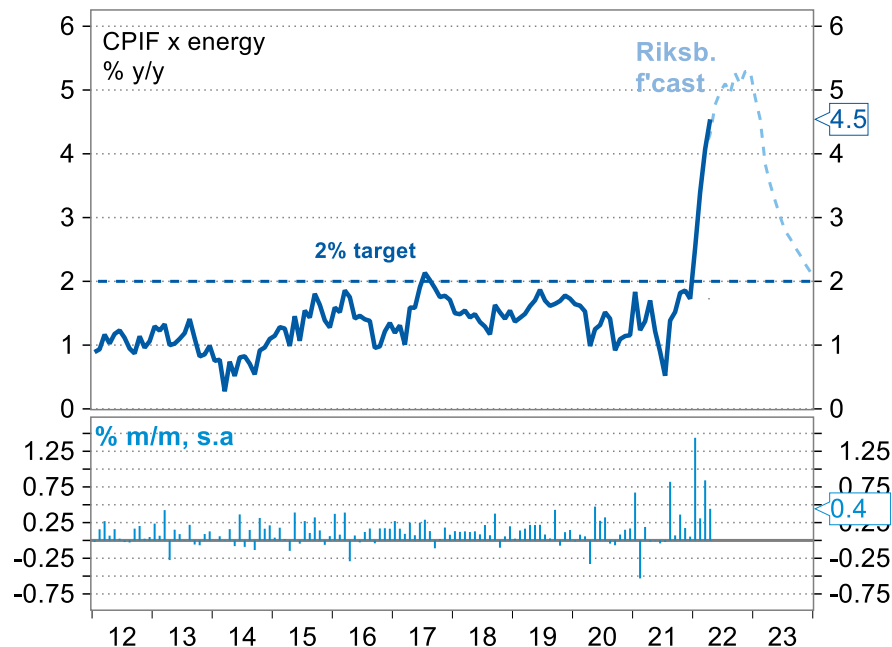
0.1 – 0.2 pp higher than expected. Now it is more than energy which contributes, here too

Sweden CPI



SB1 Markets/Macrobond

Sweden CPI core

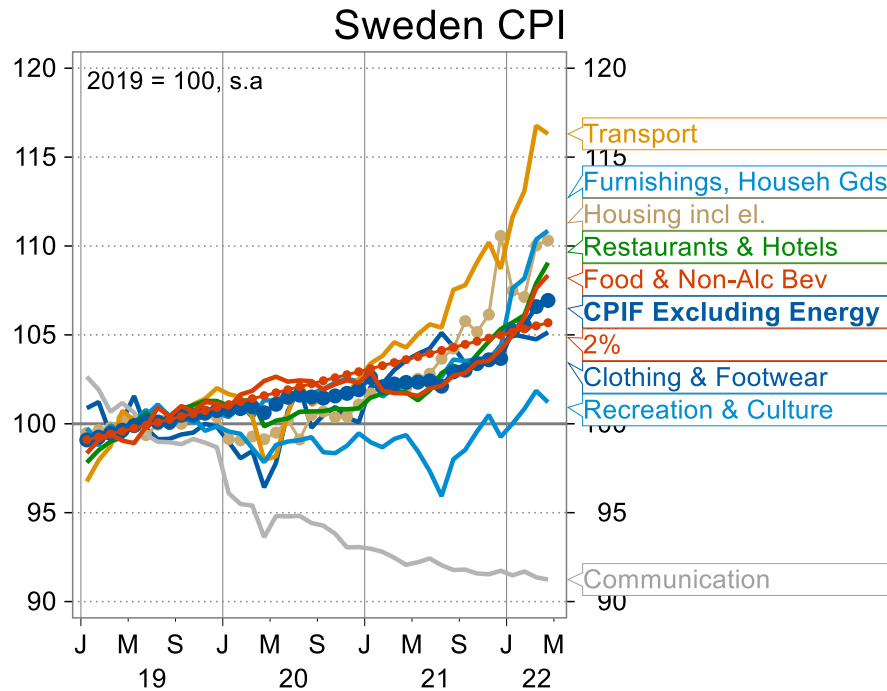


SB1 Markets/Macrobond

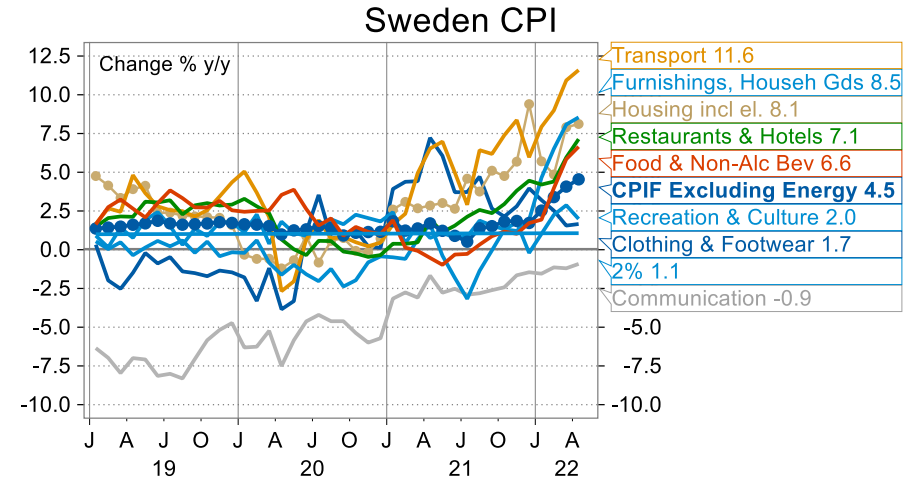
- **CPI-F x energy, the 'real core'**, rose 0.4% in April (seas. adj). The core rate has accelerated sharply recent months, to 4.5% from 1.7% in December
 - » Why is inflation so high? Food prices are up 6.6% y/y, hotels & restaurants 7.1%, furnishings 8.5%
 - » All other measures of underlying inflation are sharply up – and at the highest level in some 30 years
 - » Until Q4, inflation was pretty well explained by higher energy prices, now
- **Headline inflation** also accelerated, and not because energy prices accelerated

Inflation in Sweden: a broad acceleration

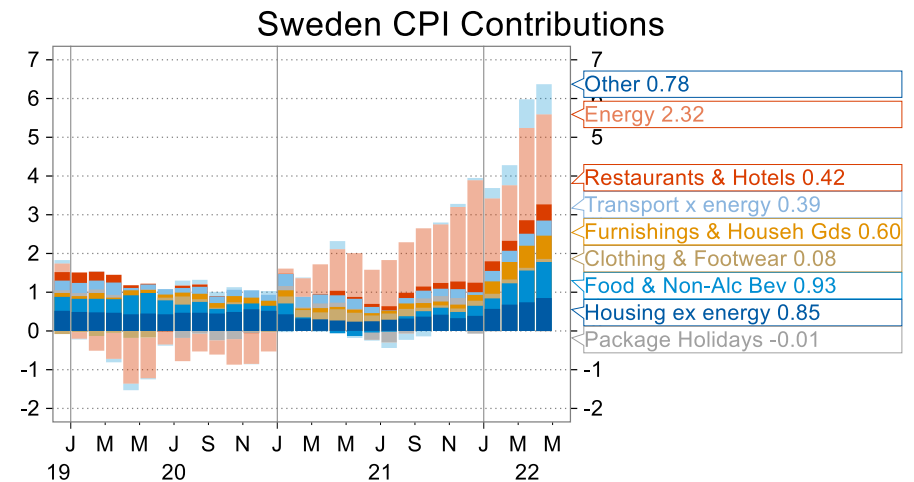
Few sectors report inflation below 2%



SB1 Markets/Macrobond

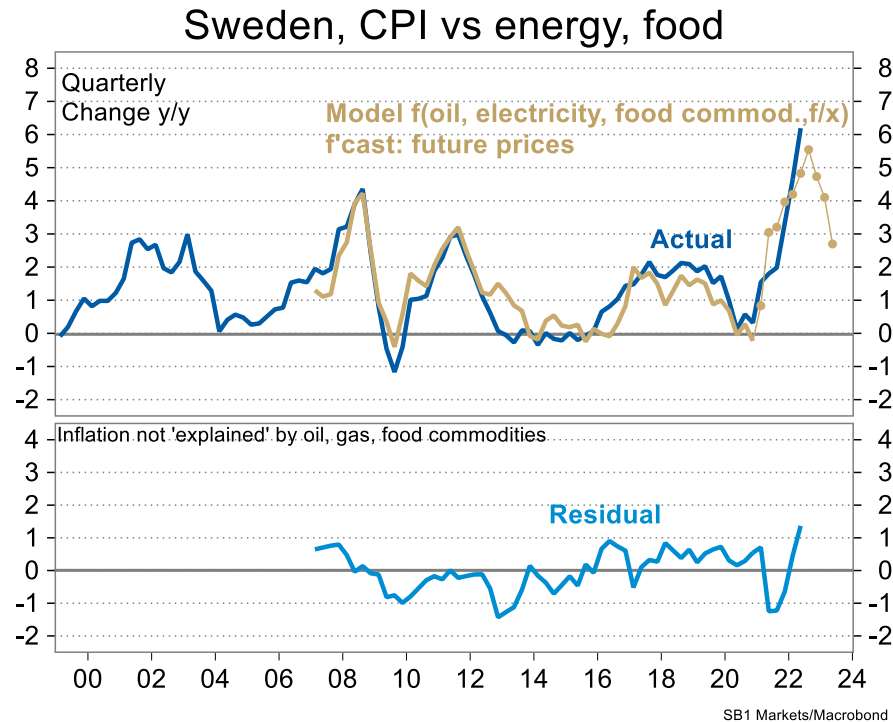


SB1 Markets/Macrobond



SB1 Markets/Macrobond

Our simple inflation model also tells it is more than energy prices



Highlights

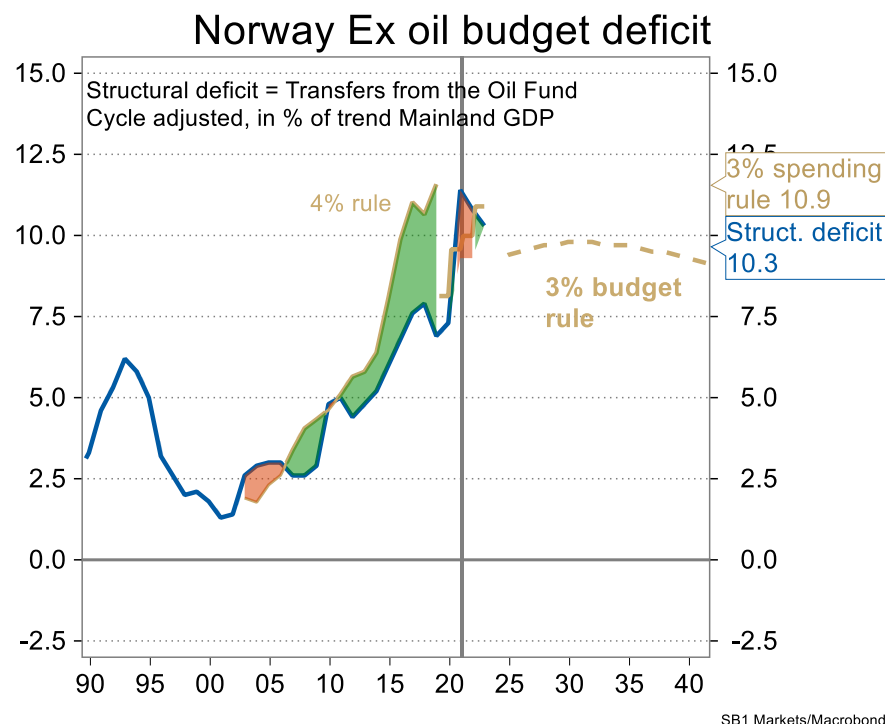
The world around us

The Norwegian economy

Market charts & comments

Huge revisions in the revised budget, policy is moderately on the tight side

The budget is rather close to NoBa's assumption, no big impact on the interest rate outlook



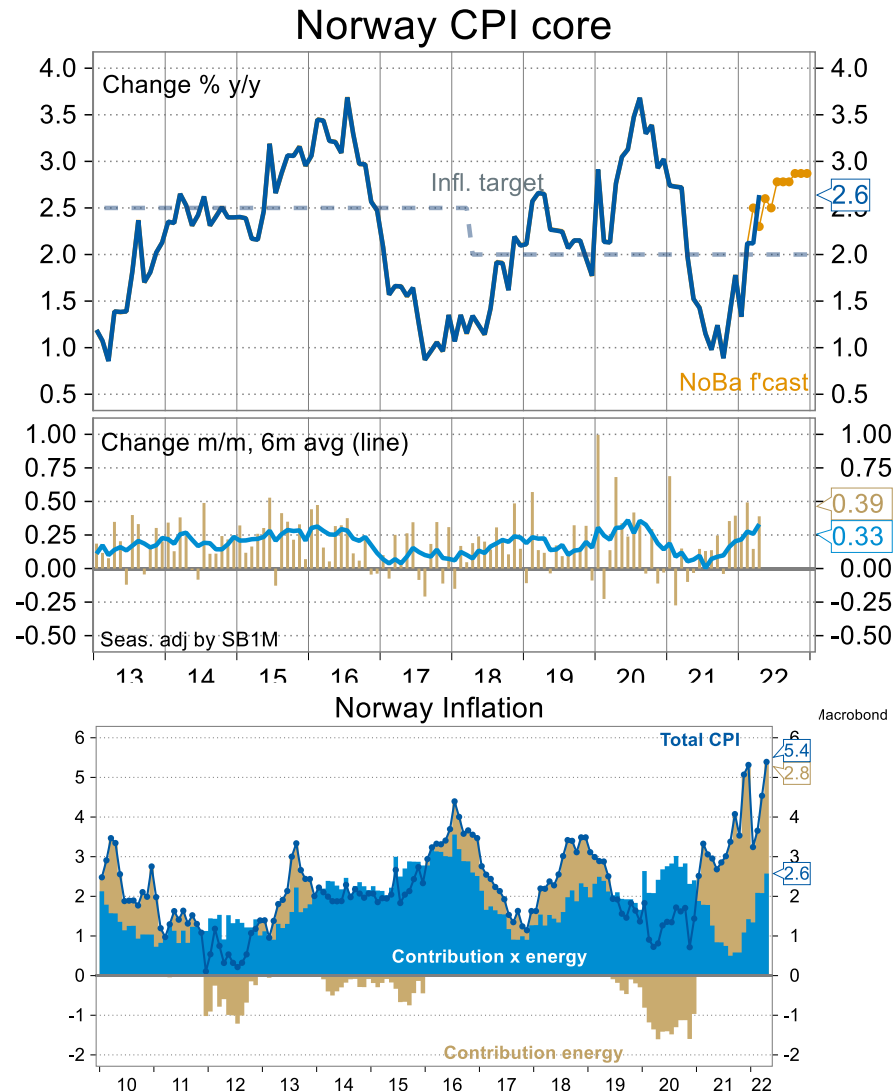
Fiscal indicators				Rev. Bud	Pre rev.	Pre rev.
NOK bn, per cent	2019	2020	2021	2022	2021	2022
Actual surplus, incl. oil	277	-39	133	865	-31	203
Surplus ex. oil	-228	-371	-369	-303	-413	-300
Structural surplus ex oil	-224	-361	-354	-352	-397	-322
.. change in bn	-10	-137	7	2	-28	75
.. in % of GDP	-7.3	-11.4	-10.8	-10.3	-12.1	-9.5
... Change (fiscal indicator)	-0.4	-4.1	0.6	0.5	-0.4	2.6
.. in % of Oil Fund value	2.7	3.7	3.2	2.9	3.6	2.6
Spending rule, bn.	-261	-303	-327	-370	-327	-367
Deviation from rule, bn.	37	-58	-27	18	-70	45
Pandemic measures	0	135	94		94	
Real growth in underlying spending	1.8	8.6	-1.3	0.8	1.0	-3.4
Petroleum Fund, bn, ult.	10086	10907	12340	12354	12250	12918

Min of Finance, Sparebank 1 Markets

- The revised budget assumes 0.5% **fiscal tightening** (reduction in the ex oil structural deficit), far below the original budget's 2.6% tightening, even if the economy is stronger than anticipated last autumn (but 2021 was substantially tighter than assumed last autumn). **Underlying spending** is up 0.8% vs the proposed -3.4%! (2021 revised down 2.3pp to -1.3%). More electricity subsidies, refugees from Ukraine, defence spending, a lift in subsidies to farmers all contributed to an 8% upward revision of central government spending (goods & services/wages), and a 4% increase in transfers to the private sector vs the budget decided last autumn
- At the same time, **non-oil revenues** were revised up by the same amount. However, since most of the extra revenue from the Mainland economy is supposed to be temporary, the structural balance was weakened by 0.8% of GDP to 10.3% of GDP. Still, the deficit is below the long term spending rule at 3% of the Petroleum Fund.
- It seems to us that the Min of Finance has been rather clever at declaring extra spending as 'structural' and the extra revenues as 'temporary', thus overstating the weakening of the structural balance. However, a separate calculation in the budget confirms that the total impact of the budget is just marginally contractive – and it has usually been wise to trust the bureaucrats' calculations
- Just so you do not forget it: The **overall surplus** was revised up some NOK 700 bn, and it now equals 21% of GDP. An ATH by a wide margin, of course – due to high oil and gas prices

Inflation shot up in April, we (and everybody else) missed vs SSB est. of el. prices

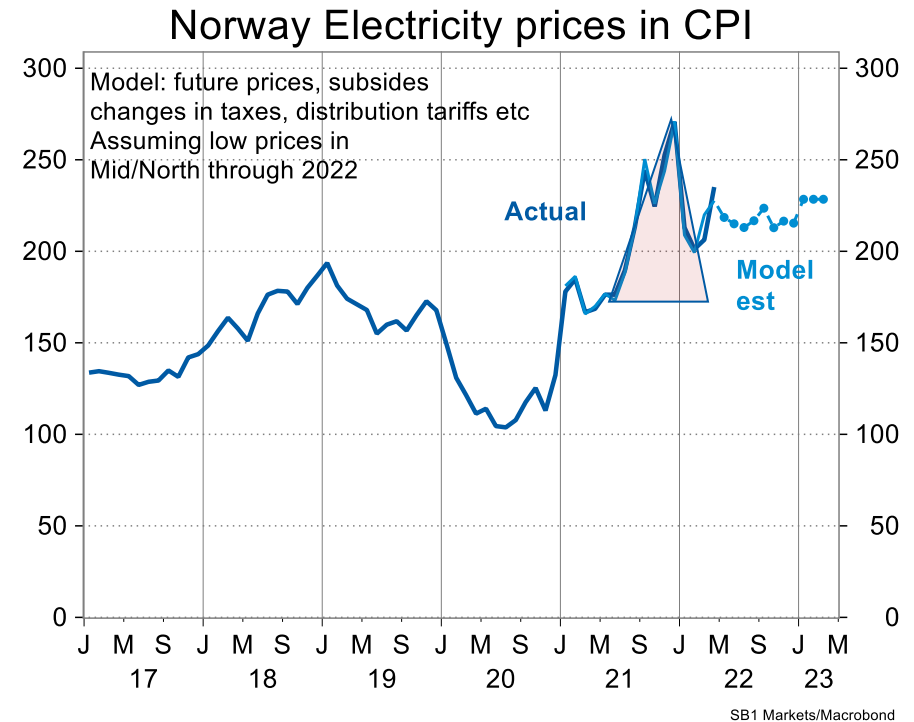
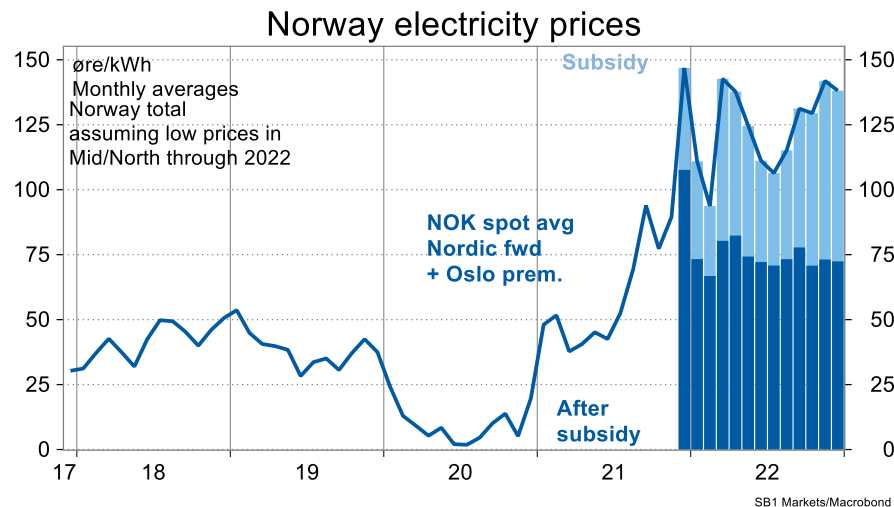
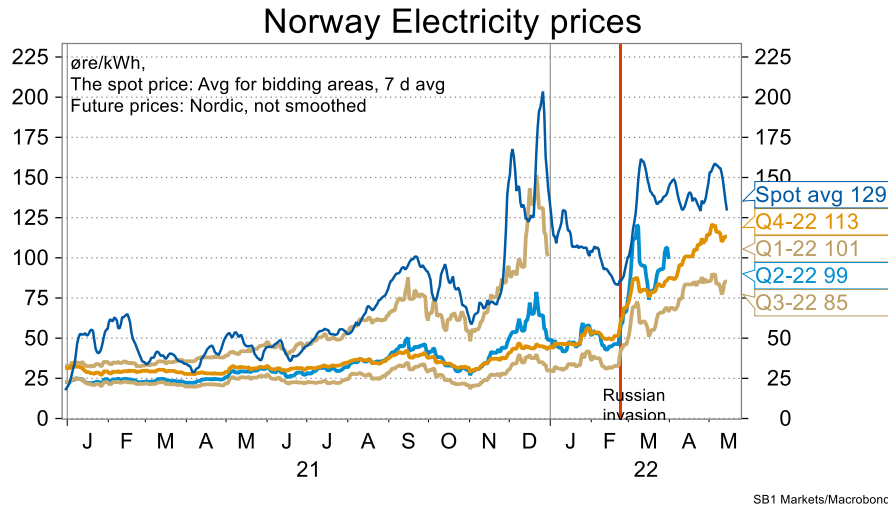
Headline inflation up 0.9 pp to 5.4% (we expected 4.5%). The core up 0.5 pp to 2.6% (exp. 2.4%)



- **Total inflation** shot up, much more than expected. Electricity price rose much more than we (and others had assumed), and airfare ticket prices shot up much more than we expected. Elsewhere in sum close to our forecasts – and inflation is broadening somewhat
 - » **Electricity prices** rose 14%, according to SSB. We estimated a 4% increase, an unusual miss (with the opposite sign vs. our large March miss!)
- **CPI-ATE** (ex. energy and taxes) rose 0.4 pp m/m, and the annual rate climbed 2.6%, expected up to 2.4% (consensus & SB1M) or 2.3% (Norges Bank). In March, the CPI-ATE was well below consensus (and NoBa's est.)
 - » **Food prices** rose 0.9%, reversing the 0.7% decline in March. Food prices are now 1% below the level in Q4-2020
 - » Prices on **imported goods** rose 0.2% m/m, as we assumed, and are up 2.3%, while **domestically produced goods & services** were up 0.5% m/m and 2.6% y/y – and accelerating
 - » More sectors reported growth above 2%, and domestic inflation is accelerating moderately
- **The outlook**
 - » **The electricity bill** will remain high but the current future prices for the rest of 2022 do not signal higher prices
 - » **Core inflation** will probably accelerate somewhat through 2022
 - » If so, **average 2022 inflation** will be well above the 3.3% – 3.4% 'official' estimates, in fact above 4%
- **So what?**
 - » **The uncertainty** is still large both vs. energy and food prices, as well as other impacts of the war in Ukraine
 - » **Wage inflation** may in the end surprise on the upside in a tight labour market, but so far the wage negotiations have delivered exactly the expected outcome
 - » For **Norges Bank** wage inflation is the dominant risk, and the bank will probably need some time to build a case for a faster tightening

Electricity prices fell in April, but the tax cut was reversed, and our model missed

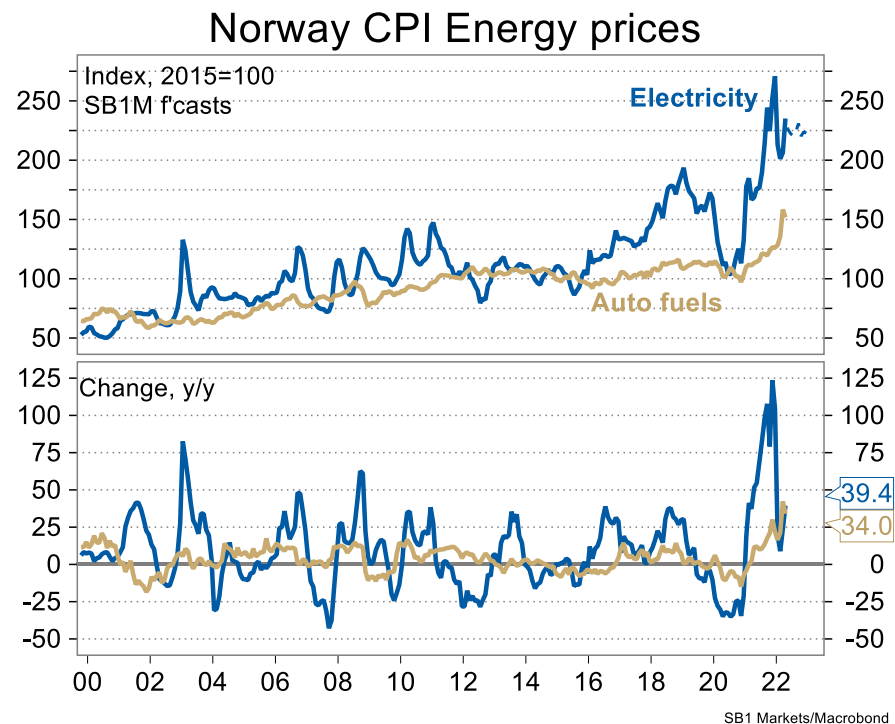
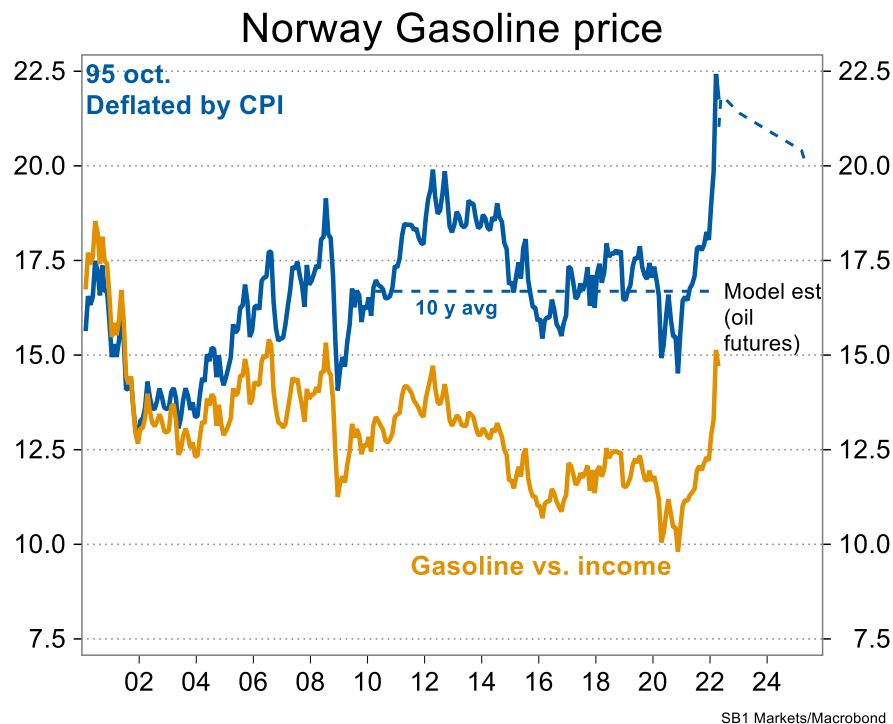
We assumed the electricity bill would increase by 4% m/m in April, but it climbed by 15%



- In March, we missed at the other side – something is rotten in our rather detailed model, which copes with all regions, the subsidy program, electricity taxes, transfer tariffs and the different VAT rules, and it usually works well. (Other economists have experienced the same problem with SSBs March & April electricity component in the CPI index)
- The cost of the unprecedented surge in electricity prices, represented by the triangular area above, so far equals a 30% extra cost, above a 'normal' high price level (like in 2018-19), or 1¼ % of one year's disposable income

Gasoline prices fell in April – and may be heading further down

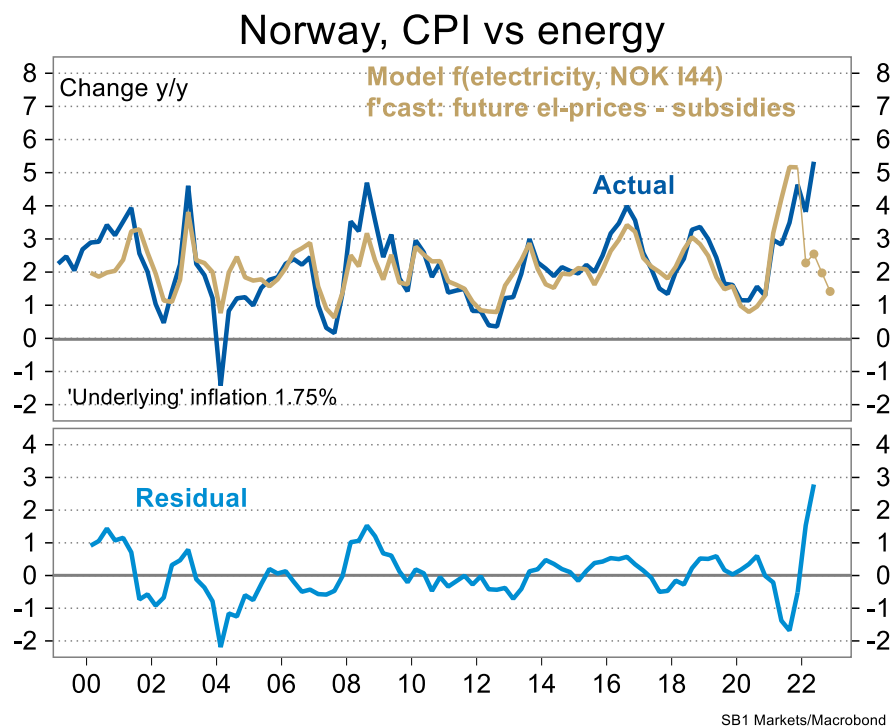
Gasoline (and even more diesel) prices have increased more than suggested by crude prices



- Product spreads widened in March but seem to be narrowing in April

Inflation suddenly substantially higher than suggested by electricity prices & NOK

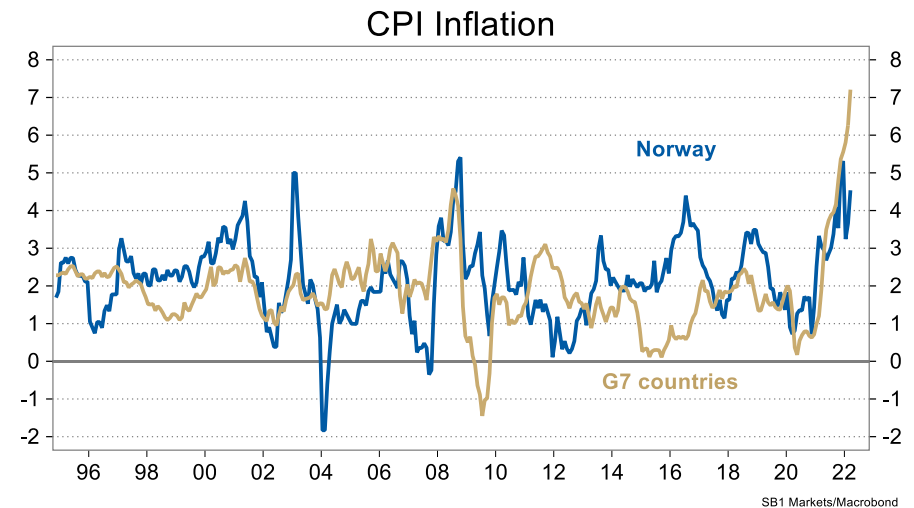
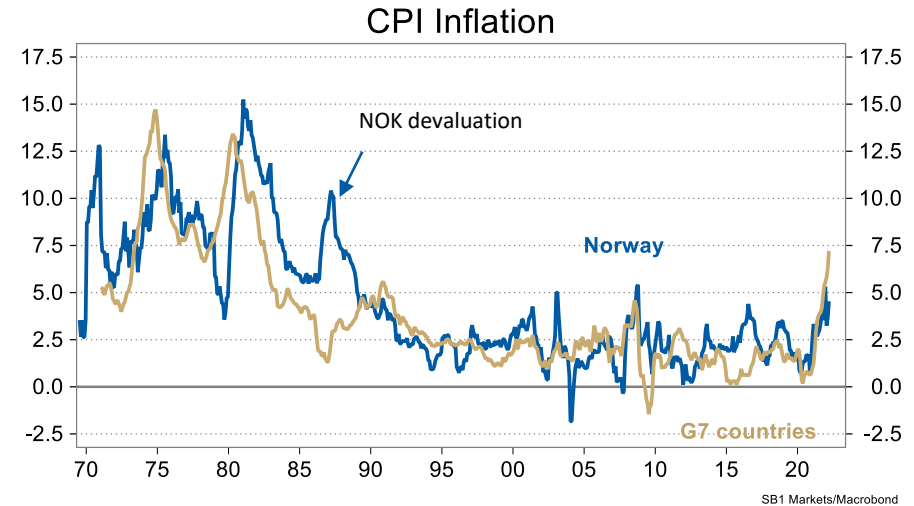
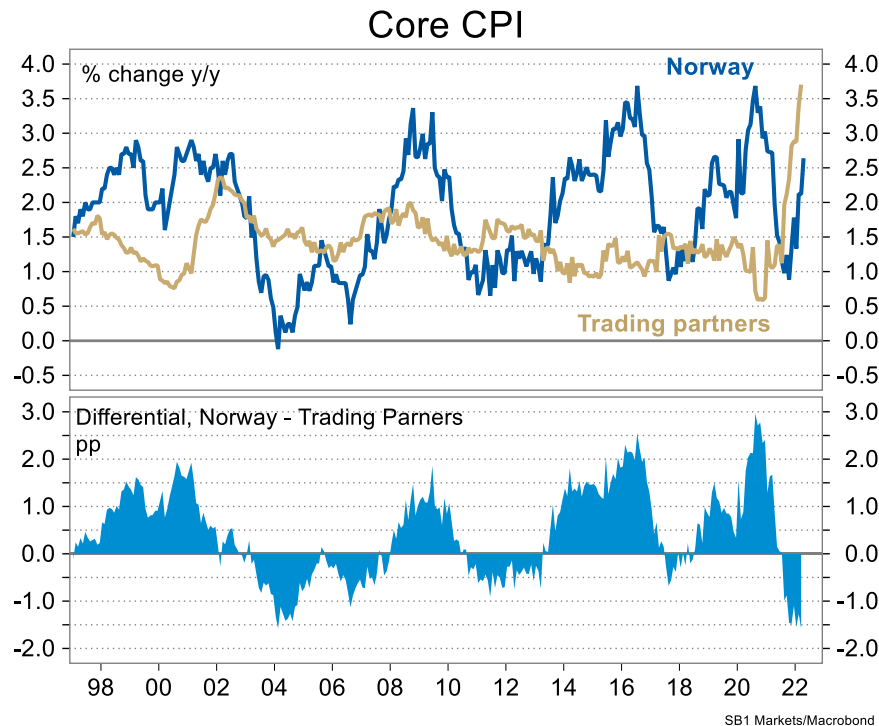
Our simple model indicates that inflation has broadened during Q1 and so far in Q2



- On the other hand, actual inflation was well below the model forecast through 2021

Norway vs ROW: The large, long-term CPI 'regimes' have been correlated

But limited short-term correlation, at least in the 'low-inflation regime'. Now: Some risk on the upside



- 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)

Electricity prices rose much more than our (and others') models signalled

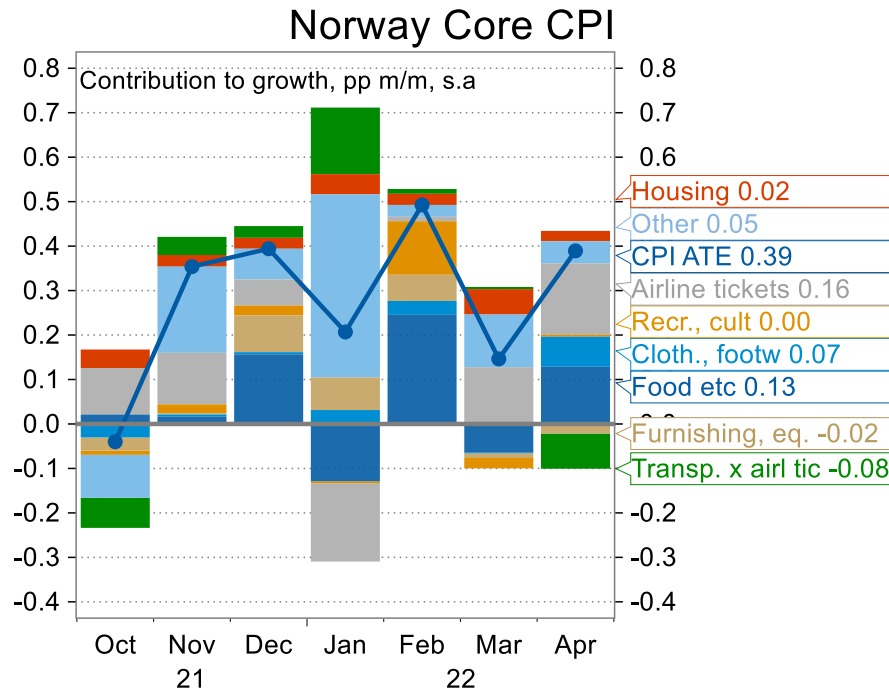
... And the headline rate shot up 0.9 pp to 5.4%, highest in 30X years!

Apr-22	Weight	Change m/m, seas. adj			Change y/y			Contribution, pp		
		Out- come	SB1M f'cast	Dev. pp	Prev. month	Out- come	SB1M f'cast	m/m	y/y	Dev. vs f'cast
CPI ATE	%									
Food, non alc bev	12.9	0.9	0.4	0.5	0.5	2.1	1.7	0.12	0.26	0.07
Alcohol, tobacco	4.2	0.4	0.4	0.0	3.7	4.1	4.0	0.02	0.17	0.00
Clothing, footwear	5.1	1.2	0.0	1.2	0.6	3.1	1.6	0.06	0.16	0.06
Housing x. energy	20.2	0.1	0.2	-0.1	2.0	2.1	2.2	0.02	0.42	-0.02
Furnishing	6.9	-0.3	0.3	-0.5	3.6	3.0	3.8	-0.02	0.21	-0.04
Health	3.4	0.3	0.2	0.1	1.7	2.0	1.8	0.01	0.07	0.00
Transp. ex. gas, airl. tick	12.2	-0.8	0.3	-1.0	1.7	1.1	2.0	-0.09	0.14	-0.13
Airline tickets	0.8	19.0	4.0	15.0	7.8	29.2	13.1	0.15	0.23	0.12
Communication	2.4	-0.5	0.1	-0.5	0.9	0.1	0.7	-0.01	0.00	-0.01
Recreation, culture	10.8	0.0	0.2	-0.2	1.8	1.4	1.4	0.00	0.15	-0.02
Education	0.5	-	-	-	2.0	2.0	2.0		0.01	0.00
Restaurants, hotels	5.6	0.8	0.5	0.3	5.8	6.3	5.7	0.04	0.36	0.02
Other	8.7	0.4	0.3	0.1	1.9	2.0	1.8	0.04	0.17	0.01
CPI-ATE, s.a	93.7	0.4	0.3	0.1	2.1	2.6	2.4			0.09
<i>Norges Bank est.</i>			-0.2		2.5		2.3			
Imported	36	0.2	0.2	0.0	2.1	2.3	2.3	0.05	0.84	0.00
Domestic	57	0.5	0.4	0.2	2.1	2.6	2.4	0.31	1.51	0.09
Energy, housing	4.4	14.9	4.0	10.9	24.6	40.0	24.6	0.65	1.75	0.48
Energy, transport	2.0	-2.3	-4.0	1.7	41.7	34.1	33.8	-0.04	0.67	0.03
CPI Total, s.a	100	0.7	0.4	0.3	4.5	5.4	4.6	0.67	5.39	0.30
<i>Norges Bank est.</i>			-0.1		4.9		4.5			
Change m/m, seasonally adjusted (calc by SB1M)										
Sum of parts does not necessarily add up to totals										

- **Food** prices rose 0.9% (ex taxes, seas. adj), 0.5 pp more than we exp. The annual growth is 2.1%
- **Clothing** prices rose 1.2%, and are up 3.1% y/y, a high figure
- **Furniture/hardware/equipm** prices fell 0.3% m/m, up 3.0% y/y
- **Transport ex. gas/airfare tickets** up fell 0.8%, and are up 1.1% y/y
- **Airline ticket** prices rose 19% m/m but, and are up 40% y/y, both due to demand & fuel costs
- **Recreation** prices were flat, up 1.4 y/y
- **Restaurant/hotel prices** up 0.8% m/m 6.3% y/y, and far above a 2% path (starting in 2019)
- **CPI-ATE** up 0.4% m/m, 2.6% y/y, 0.1 to 0.2pp above our forecast/consensus/Norges Bank
- Prices on **imported goods** rose 0.4%, and are up 2.3% y/y
- Prices on **domestically produced** goods & services rose 0.5%. The annual rate at 2.6%
- **Electricity (and other heating)** prices rose 15%, we expected 4%, an unusual miss, are up 40% y/y
- Gasoline/diesel prices fell 2% m/m but are up 34% y/y
- ... **headline inflation climbed to 5.5%**, we expected 4.6%, not an impressive estimate... (but all others missed, we guess due to the miss on electricity prices, we will discuss the matter with SSB)

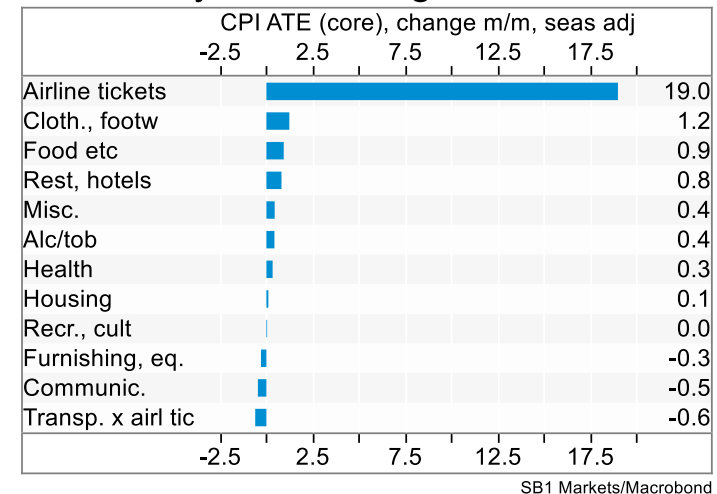
Monthly changes are seasonally adjusted by SB1 Markets. The weighted sum of the components does not necessarily sum exactly up to the total, and deviations m/m and y/y do not necessarily add up. Norges Bank m/m s.a. estimate is implied, calculated by us. Sources: SSB, Norges Bank, SB1 Markets calculations

Airfare ticket prices lifted the core CPI by 0.16% m/m. Food prices 0.13%

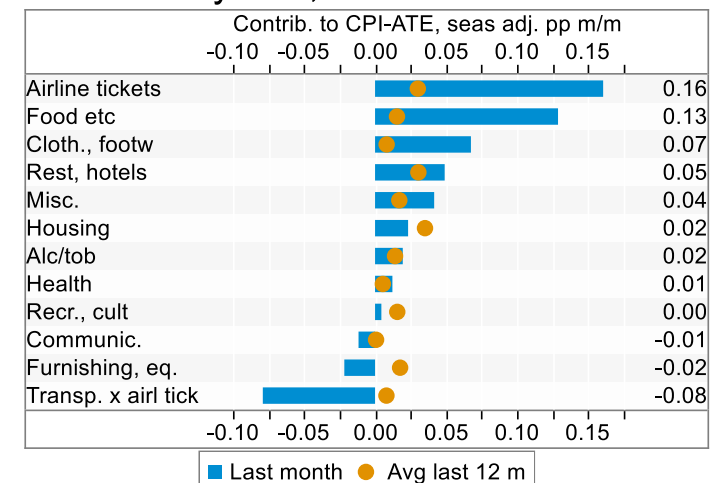


SB1 Markets/Macrobond

Norway CPI, change last month



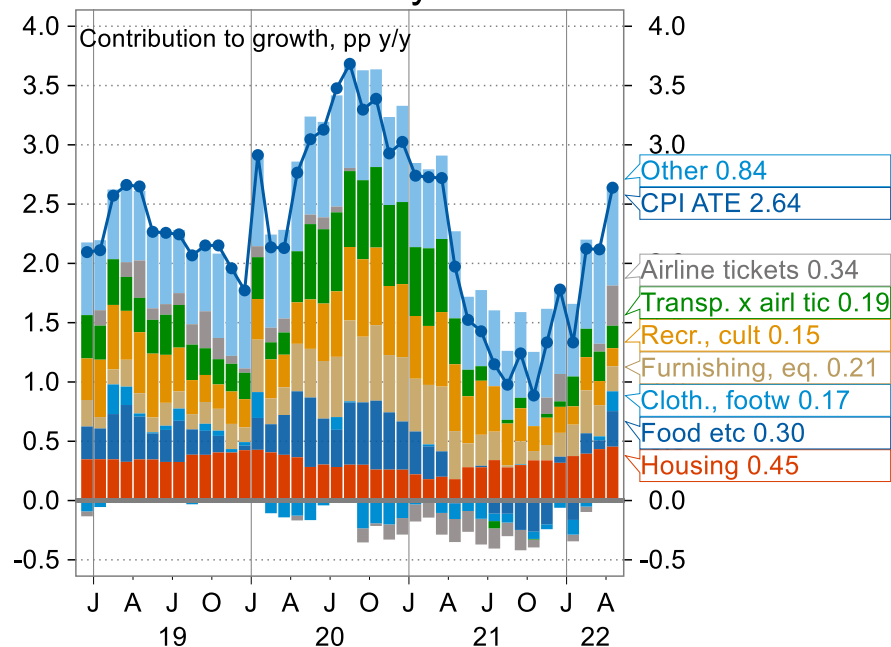
Norway CPI, core contrib. m/m



SB1 Markets/Macrobond

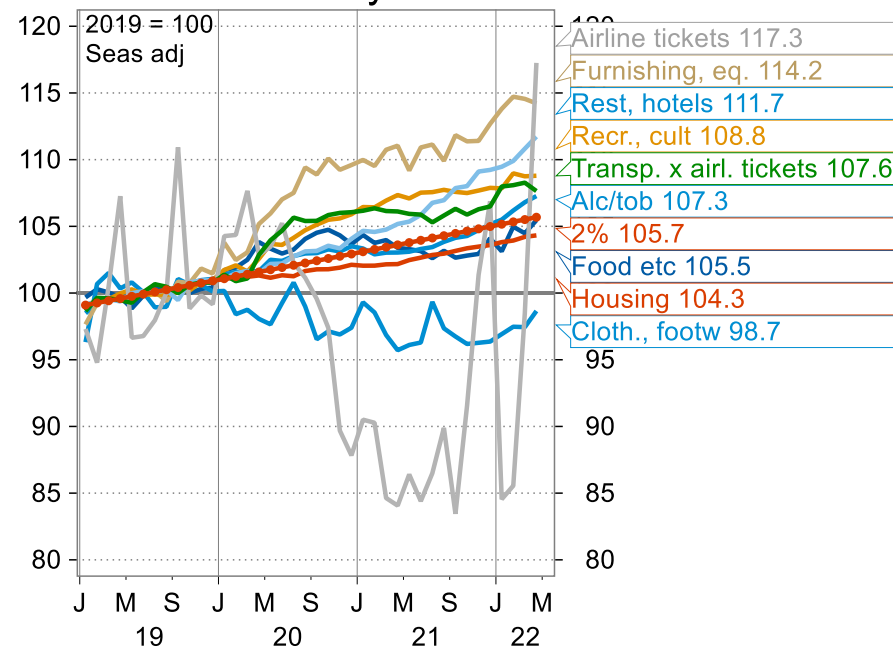
Signs of faster/broader price growth recent months

Norway Core CPI



SB1 Markets/Macrobond

Norway Core CPI-ATE

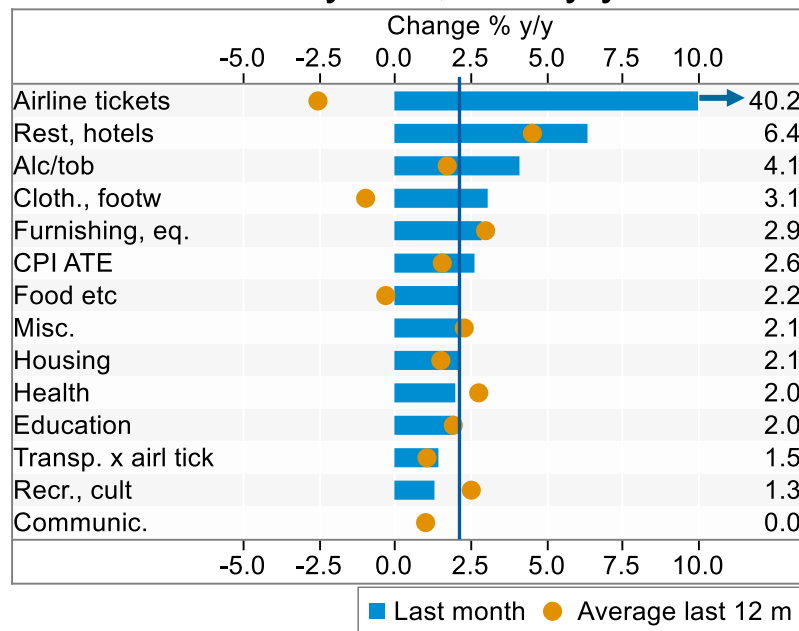


SB1 Markets/Macrobond

9 sectors report core inflation above 2.0%, just 5 are at 2% or below!

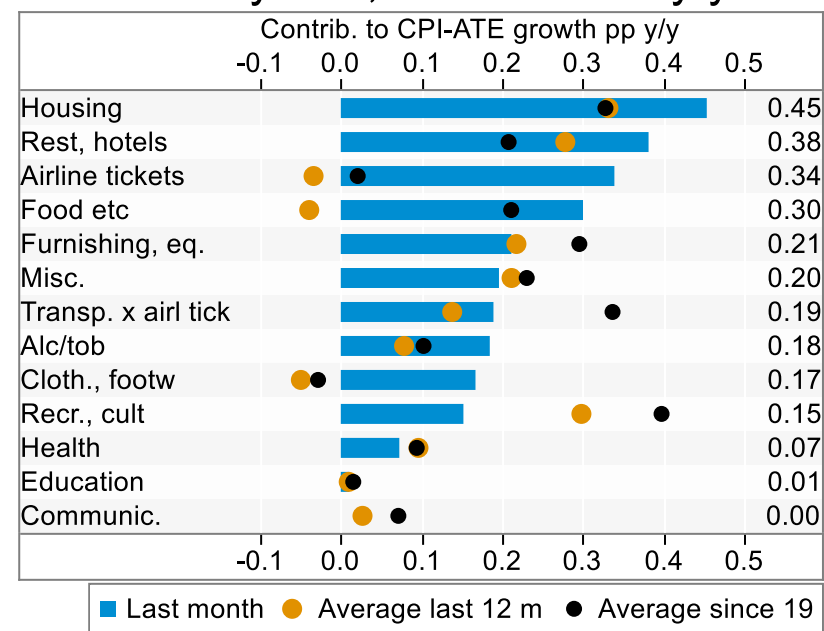
Housing, restaurants/hotels, airfare tickets & food have contributed the most y/y

Norway CPI, core y/y



SB1 Markets/Macrobond

Norway CPI, core contrib. y/y

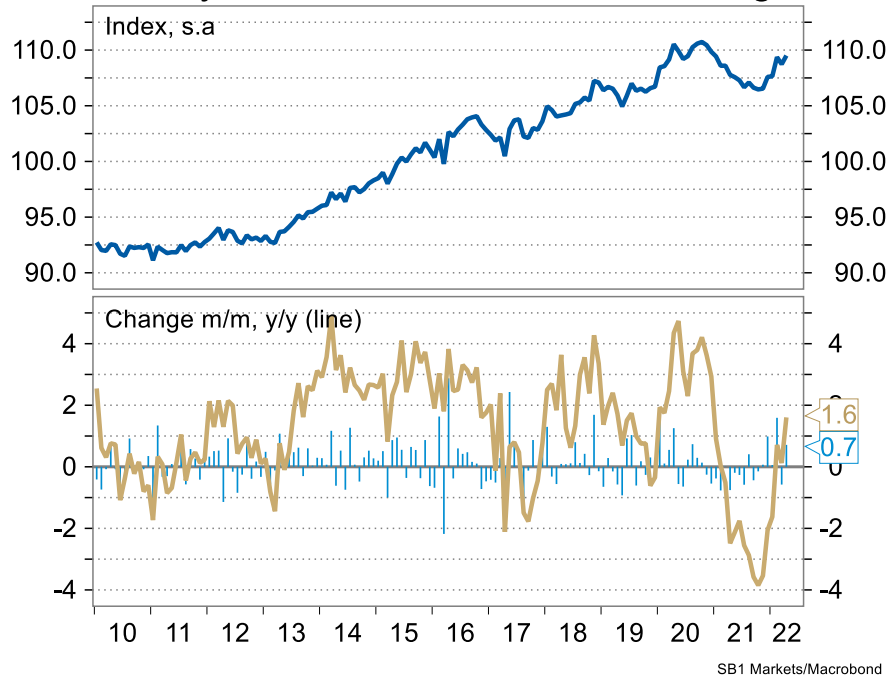


SB1 Markets/Macrobond

Food prices up 0.7% in April, but still 1% below the peak price level in late '20

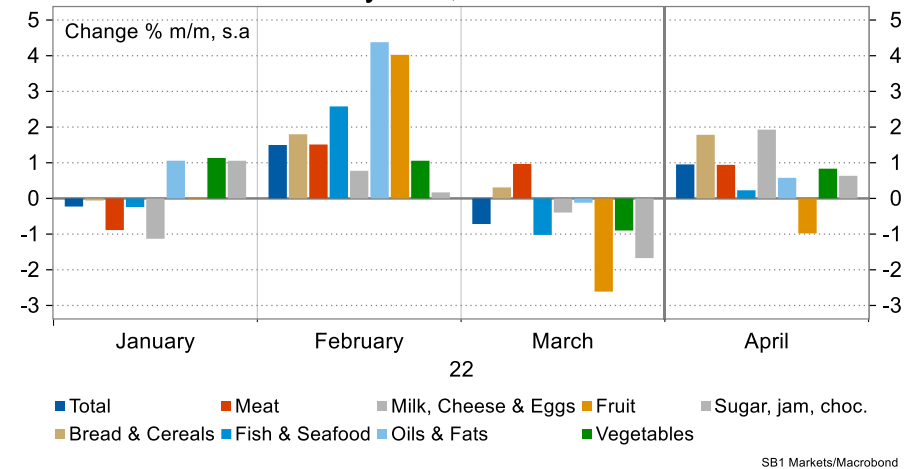
... while people 'feel' that food prices are much higher than ever before

Norway CPI, Food & non-alc beverages

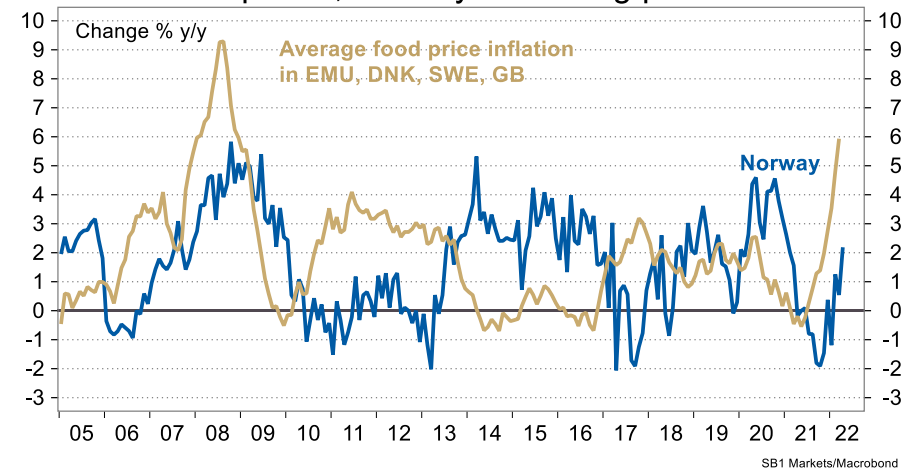


- **The bi-annual negotiation** between the large producers and retail sales chains resulted in higher price increases than normally in February but prices have since stabilised
- **Norwegian food prices** fell by almost 4% until last November from the autumn in 2020. Since November, prices are up 3%. Thus prices are still 1% below the Q4-2020 level. In the meantime, wages are up some 5%. The wage adjusted food bill is down 6%! Prices are up 1.6% y/y (2.1% ex taxes)
- **Food price inflation is accelerating abroad, but Norwegian CPI food prices** are not correlated with food prices among our European neighbours. The NOK exchange rate explains quite a lot

Norway CPI, Food details

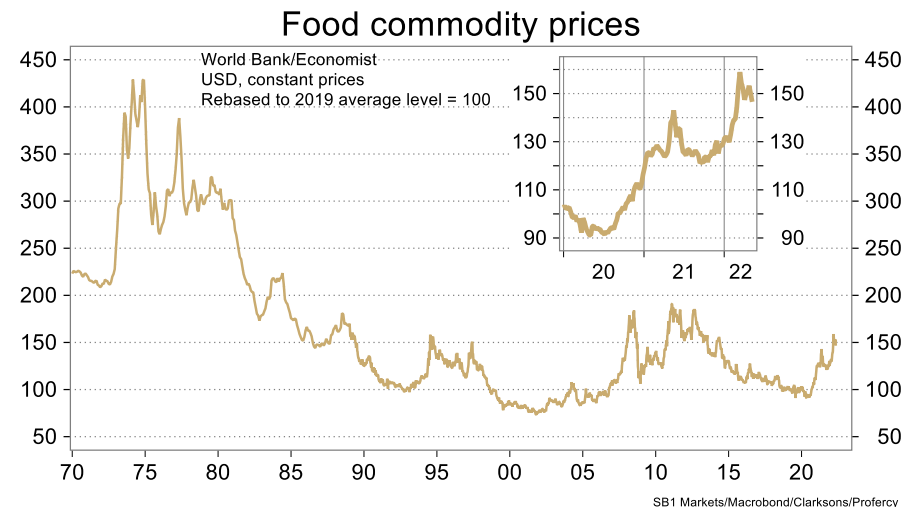
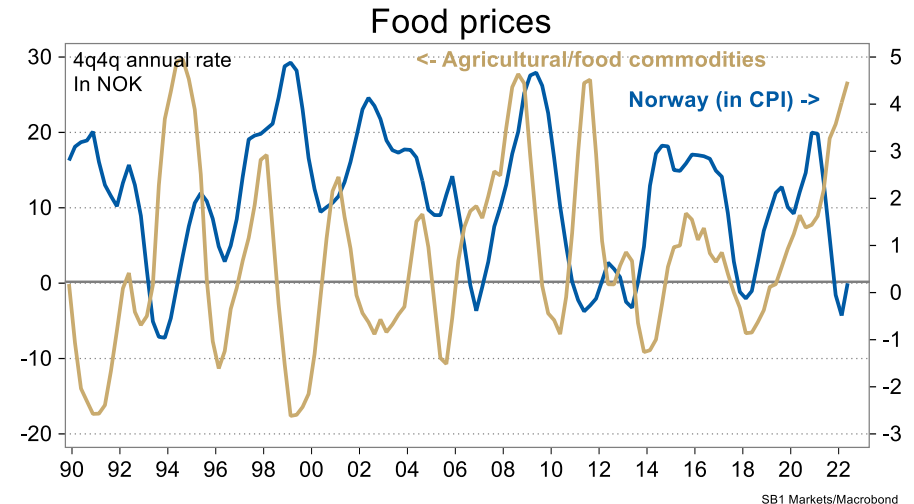
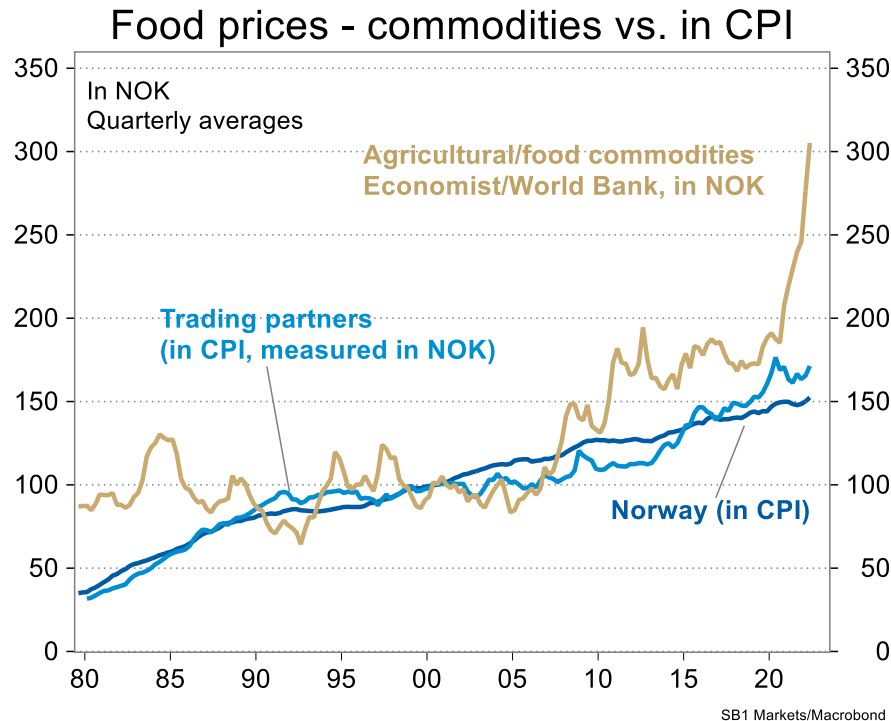


Food prices, Norway vs trading partners



Food commodity prices: Limited correlation to trading partners' food prices

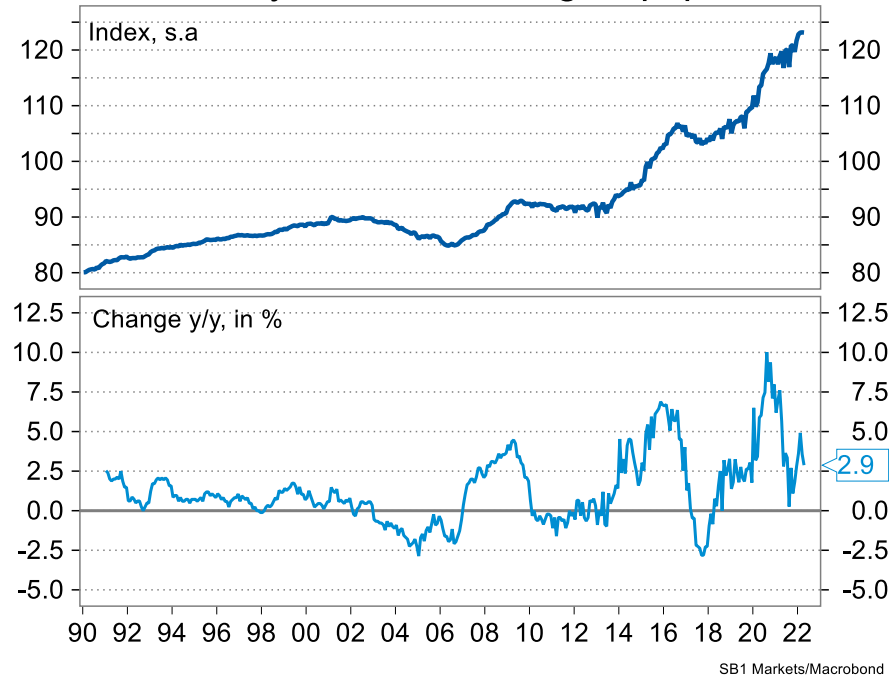
... And no stable correlation at all to Norwegian food prices (in the CPI)



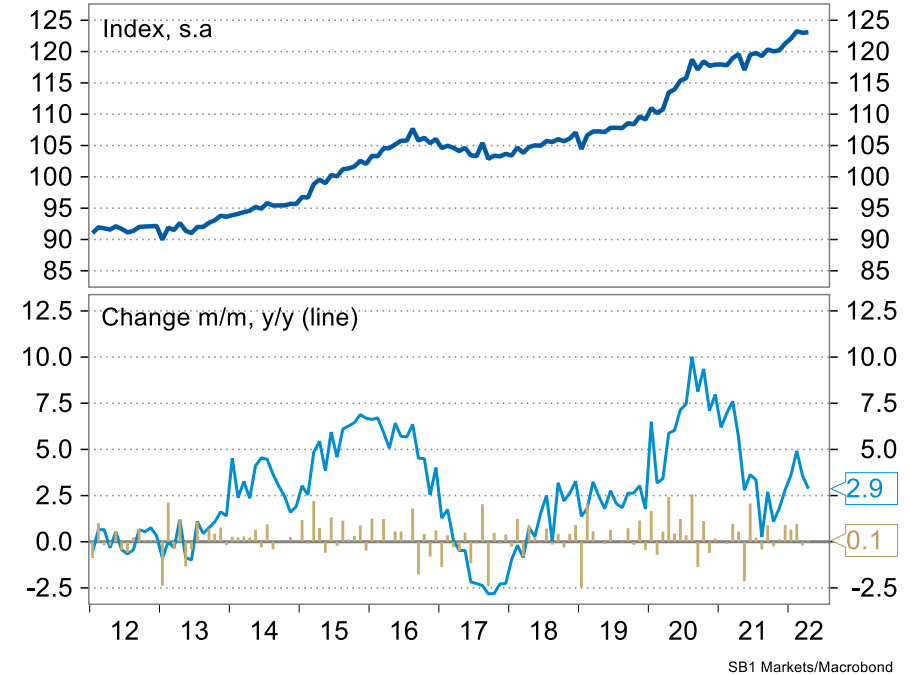
- Try to find a close, and stable correlation on the chart above to the right. There are some co-movements over short periods but no consistency at all
- Agricultural/food commodity prices are sharply up from mid 2020, and by more than 20% since early 2021 but the increase is still not worse than we have seen many times before. In real terms, prices are far from record high. Price shot up after the Russian invasion in Ukraine, but they have reversed half of this last step upwards recent 4 weeks

Furnishing prices have flattened, annual inflation slows

Norway CPI Furnishing, equipm.



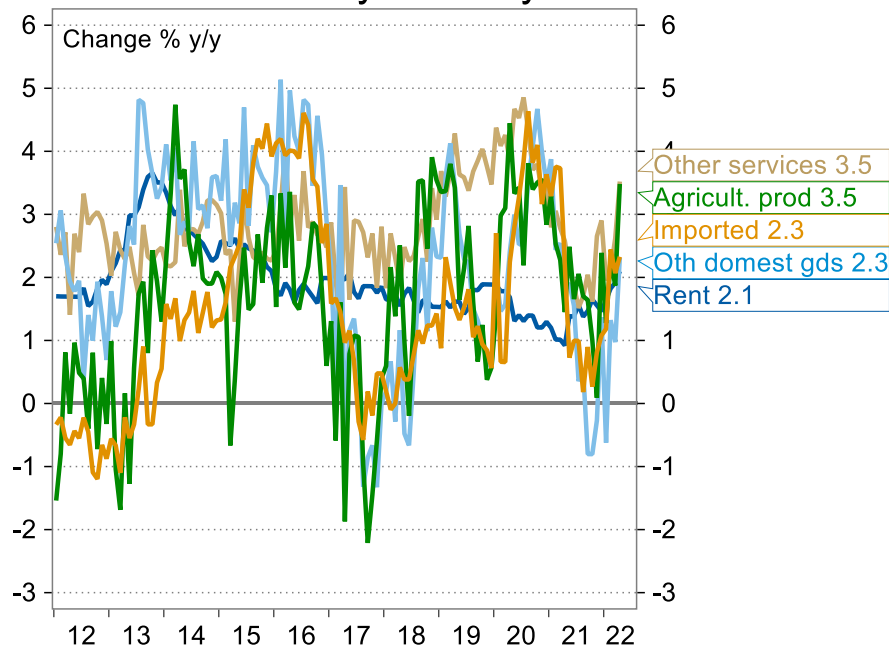
Norway CPI Furnishing, equipm.



Domestic services up in the lead, both y/y and contribution to annual growth

Imported goods are up 2.5% (not that much?), contributes by 0.8 pp to the 2.6% core

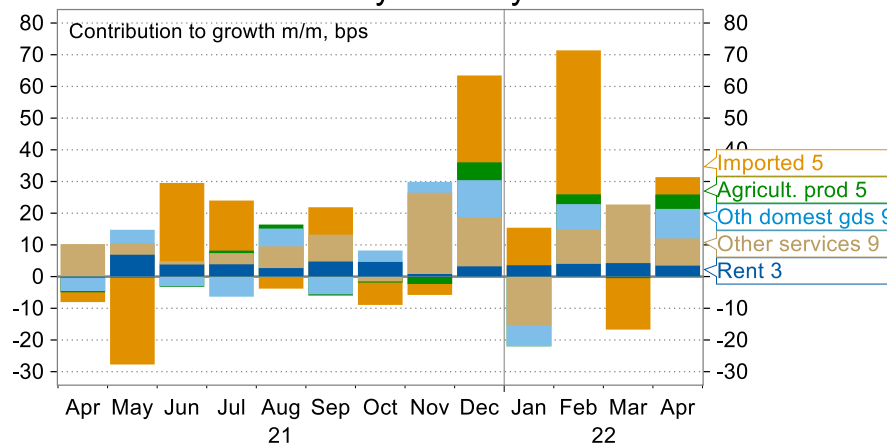
Norway CPI - by sector



SB1 Markets/Macrobond

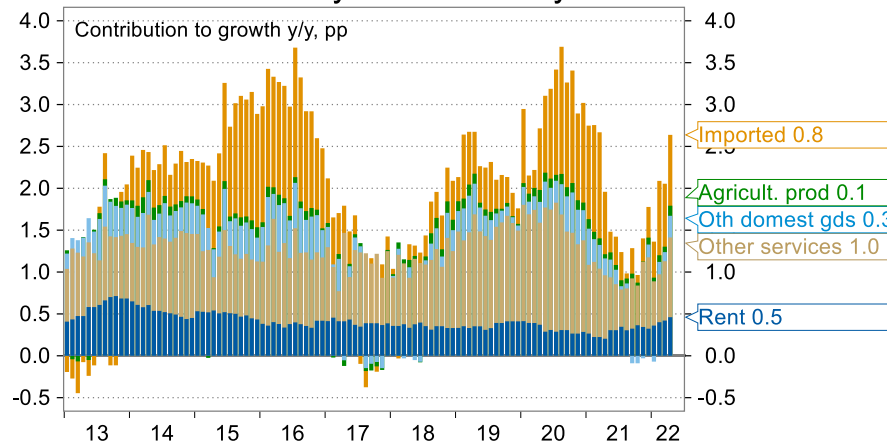
- **Domestic services inflation ex rents** slowed sharply during the corona crisis, and is now climbing faster, with a substantial contribution from airfare tickets (0.34 pp out of 1%) and hotels & restaurants (0.38 pp)
- **Rent inflation** has accelerated to 2.1% from 1% in early 2021 and is not slightly above the pre-pandemic norm
- **Other goods** than agricultural & imported products are up 1.0% y/y, and contributed by less than 0.1 pp in Feb – not disturbingly high rates

Norway CPI - by sector



SB1 Markets/Macrobond

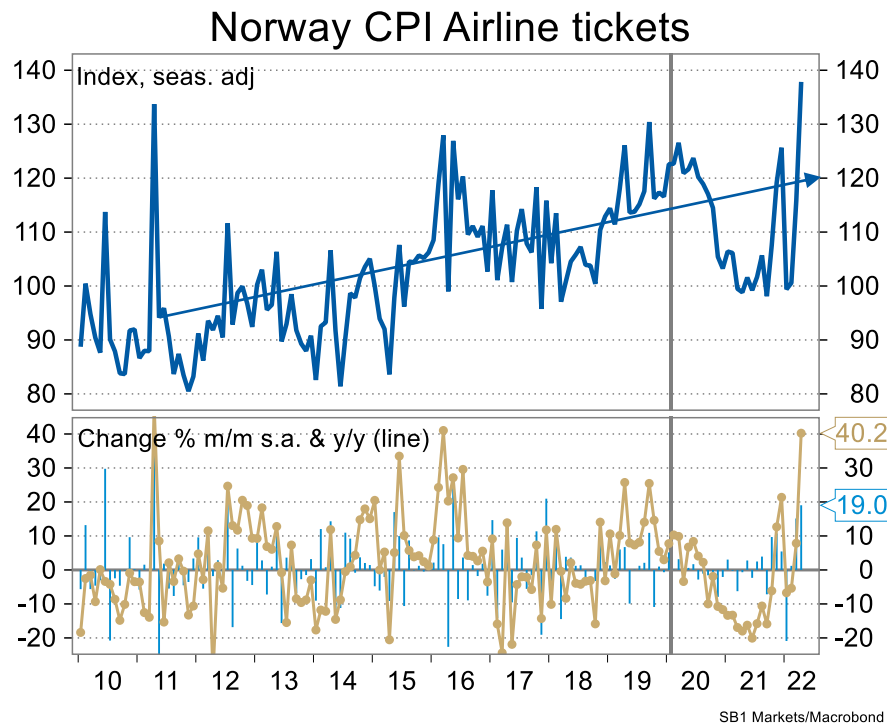
Norway Core CPI - by sector



SB1 Markets/Macrobond

Airfare ticket prices: Now, it is too much! (At least if fuel prices were 'normal')

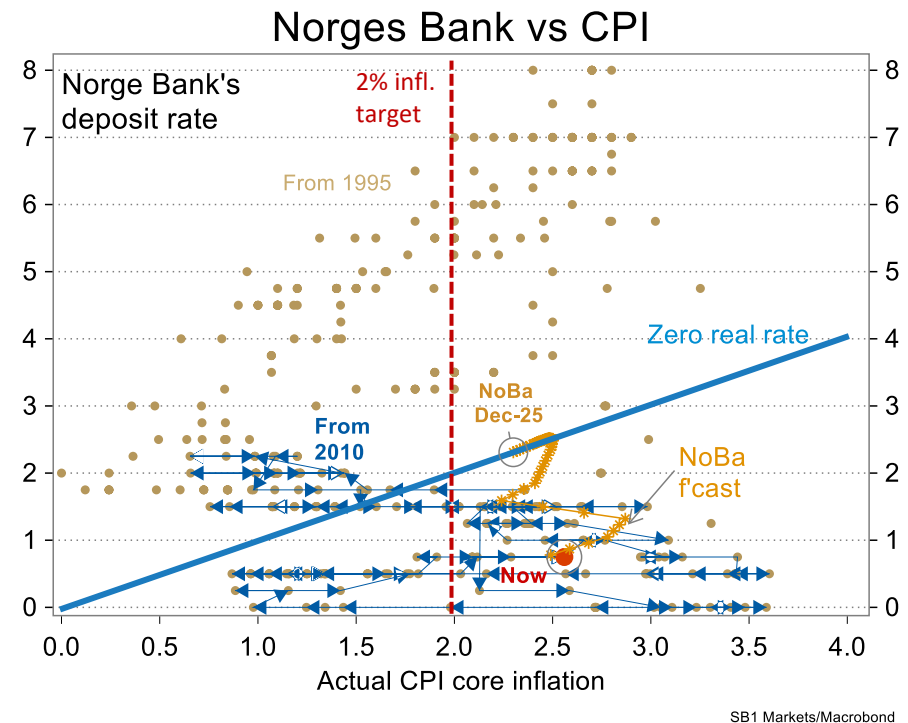
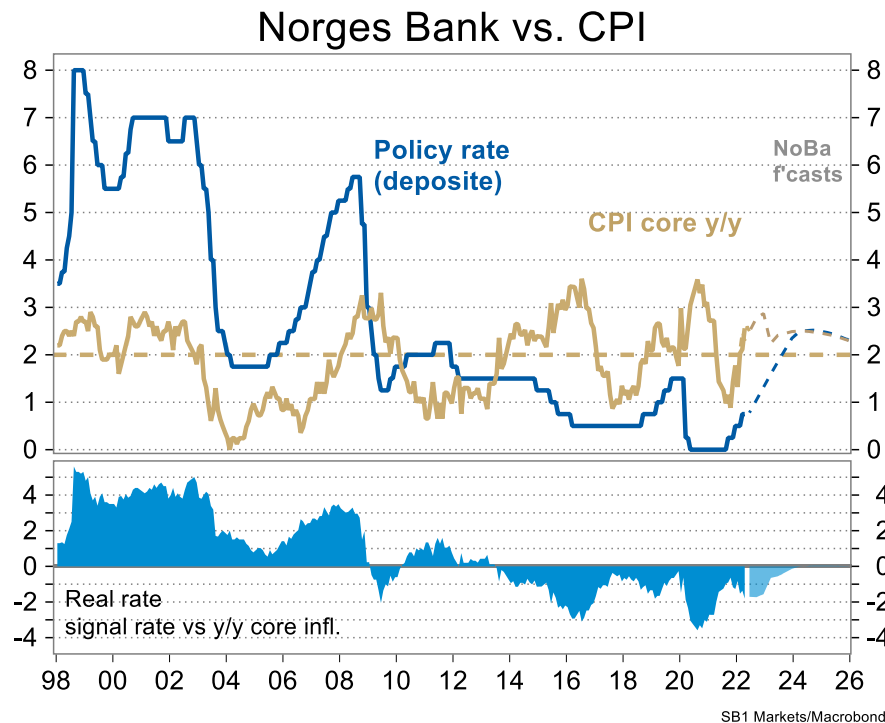
Higher jet fuel prices contribute to the lift in ticket prices – but higher demand the main culprit



- **Airfare ticket prices** rose 19% m/m in April (after a shaky seasonal adjustment procedure, the unadjusted figure is up almost 40% m/m!). The April Easter contributed to the hike in prices, so did the sharp increase in demand (traffic was up 25% m/m in April, domestic was just 4% below the 2019 level) and higher fuel cost (said the airline executives)
- **Prices** are 15% above the pre-corona trend path – which could at least partly be explained by the increase in the fuel cost

Norges Bank expects inflation to remain above target in the coming years

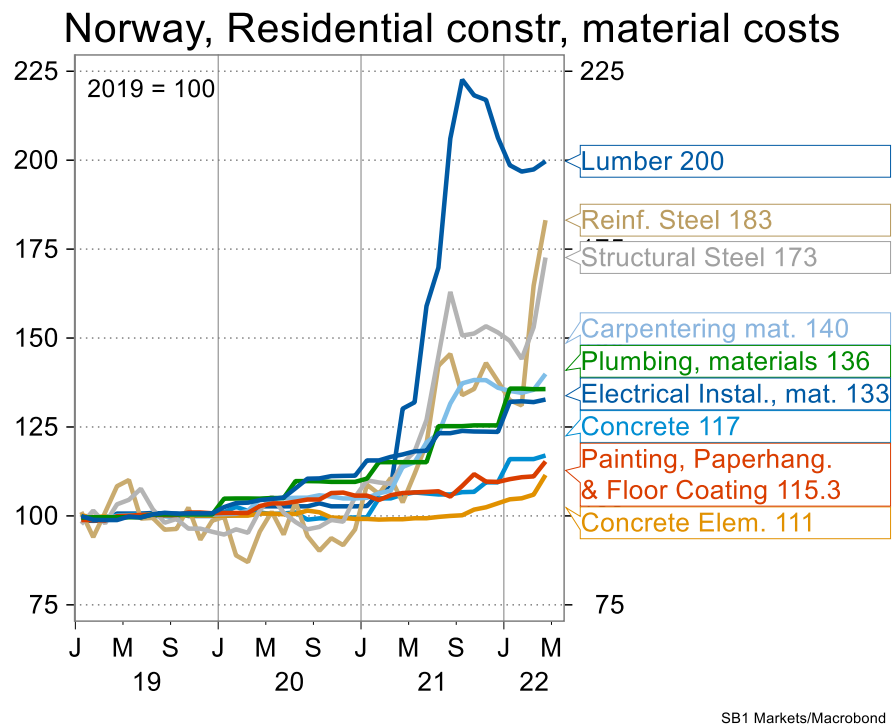
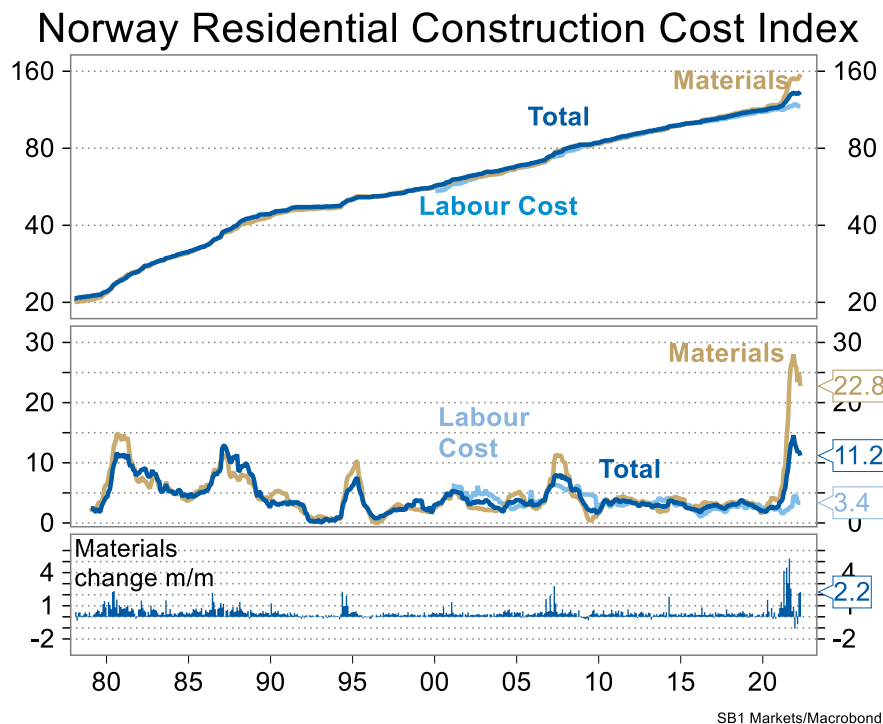
And the real policy rate to remain negative for 2 more years



- ... even after an up to 80 bps lift in the expected policy rate path at the March meeting
- Norges Bank has not been an inflation nutter, at least not since 2010. There has been no correlation between actual inflation and the policy rate
- Now, the Bank assume it will hike the signal rate just gradually, even if inflation will remain above the target, and above the signal rate

Building costs: More materials prices up 2% m/m, 23% y/y

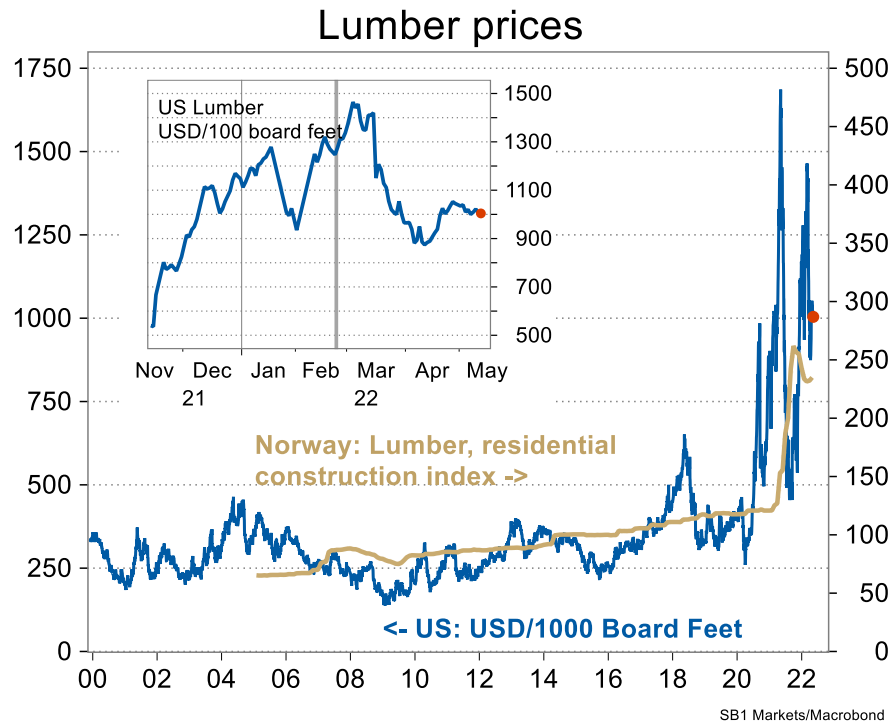
Steel prices surged in March and rose further in April. Cement on the move too. Lumber slightly up



- **Material prices** (houses and apartments) added 2.2% in April, and prices are up 22.8% y/y
 - » Lumber prices rose marginally following a 10% decline since last autumn. Prices are up 100% from the 2019 level. Steel is up 70% – 80%
 - » Other material prices are trending up, from 11% (concrete) to plumbing and carpentering material 36% – 40%
- **Labour costs** were up to 3.4% y/y in Q1, down from 4.5% in Q4 (which was the highest growth rate since 2009)
- Including labour costs, the **total building** cost index is up by 11.2%, down from the ATH at 14.6% at the peak last Oct

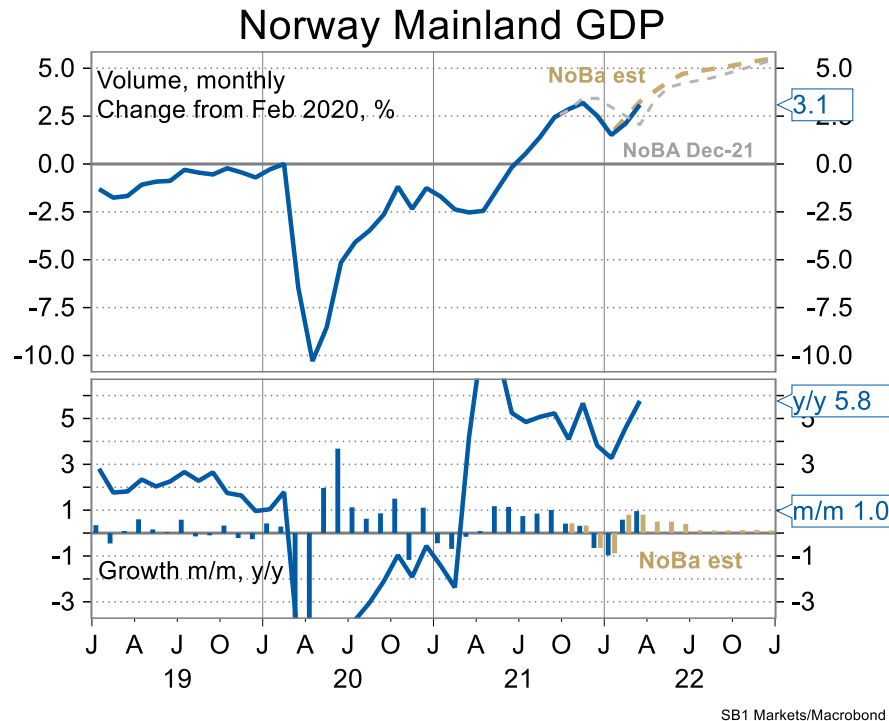
US lumber prices (2"x 4") sharply down in March, then flattened

... at a level that is 2.5 – 3 times higher than before the pandemic



Mainl. GDP up 1% in March, more than expected but just back to the Nov. level

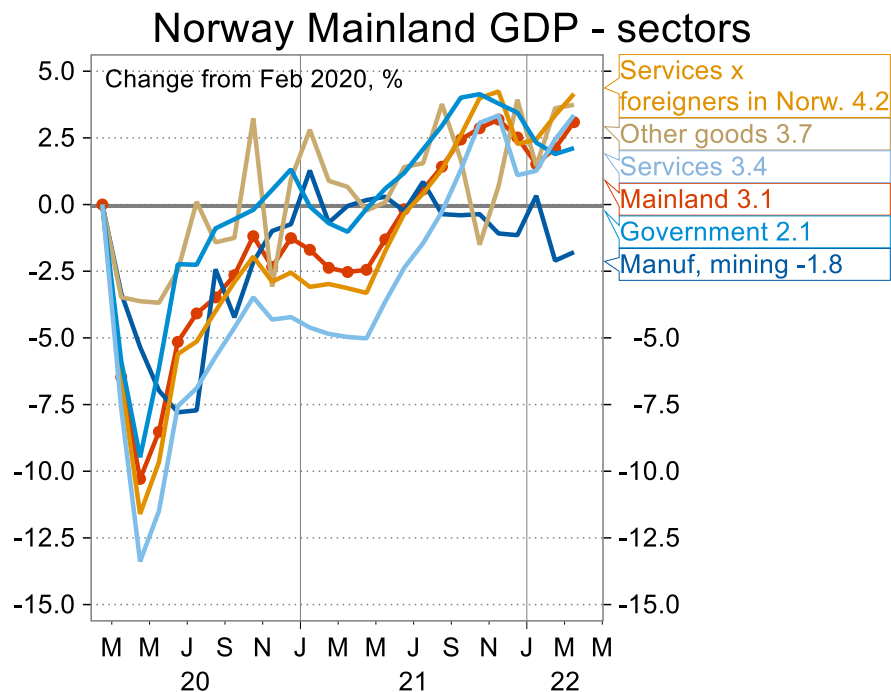
Very likely, GDP will recover further in April and in Q2, the latter probably >1.5%



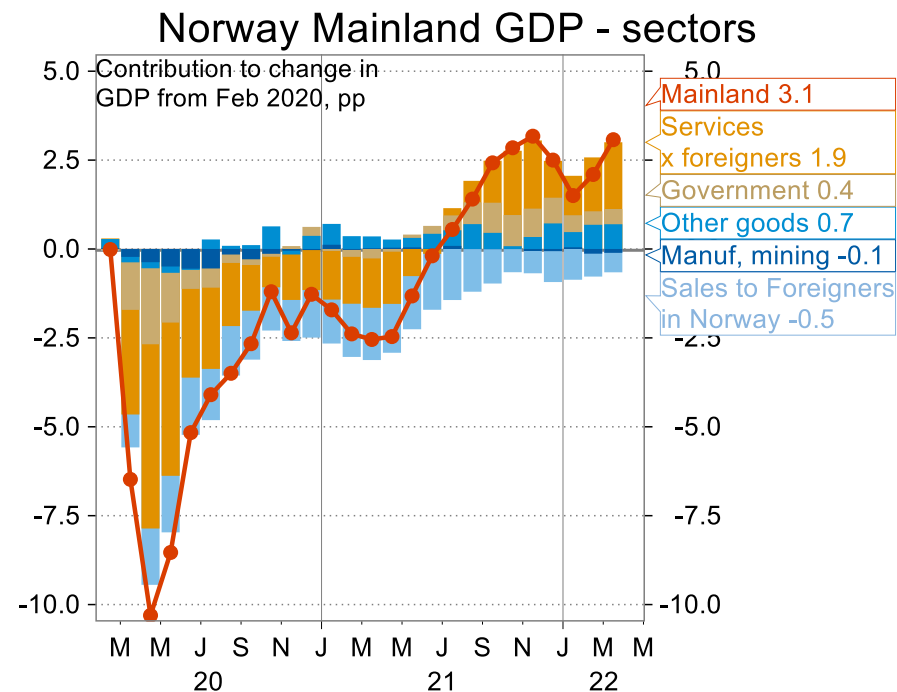
- The **Q1 GDP** fell 0.6%, more on that [here](#). We first discuss the March outcome
- **Mainland GDP** fell in both December and January due to Covid restrictions and changes in behaviour but recovered the setback in February in March. Activity is in line with the November
 - » **Production:** All main sectors contributed to growth in production in March, services the most
 - » **Demand:** All main components contributed on the demand side; Private consumption the most
- **Mainland GDP** is up 3.1% vs the Feb-20 level, which is well below a normal growth path over these two year (4 – 4.5%), indicating an output gap well below the level 2 years ago
 - » However, unemployment is well below the pre-pandemic level, the employment rate (among Norwegian citizens) is far above, and businesses are reporting unusual lack of labour
 - » Businesses are also reporting a much higher capacity utilisation than before the pandemic
 - » Thus, Norges Bank is very likely right when it assumes that the output gap is substantially higher now, than before the pandemic

Production: Services gained traction in March, up 3.5% vs. Feb-20

Manufacturing is the weakest sector, down 1.8% vs the pre-corona level



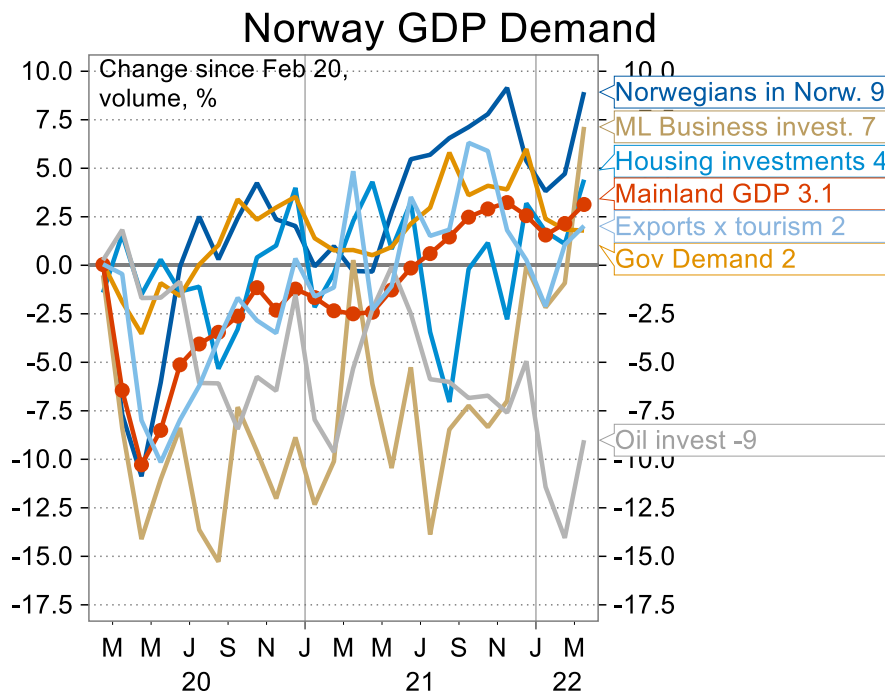
SB1 Markets/Macrobond



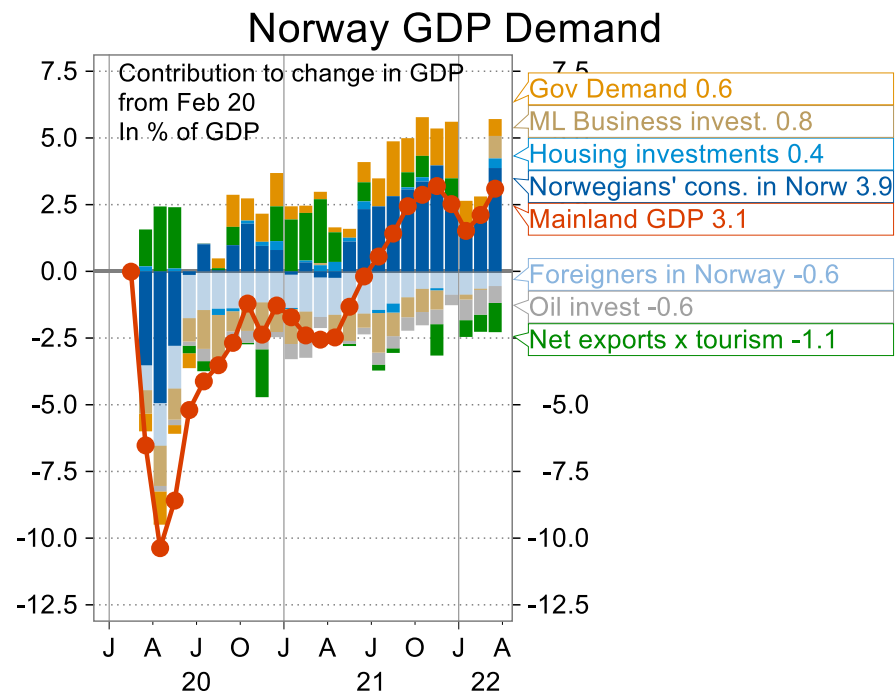
SB1 Markets/Macrobond

Demand: Consumption & investments, both on- and offshore up

Oil investments are still down 9% vs Feb-20, Mainl. businesses are up 7%. Norwegians consump. 9%



SB1 Markets/Macrobond

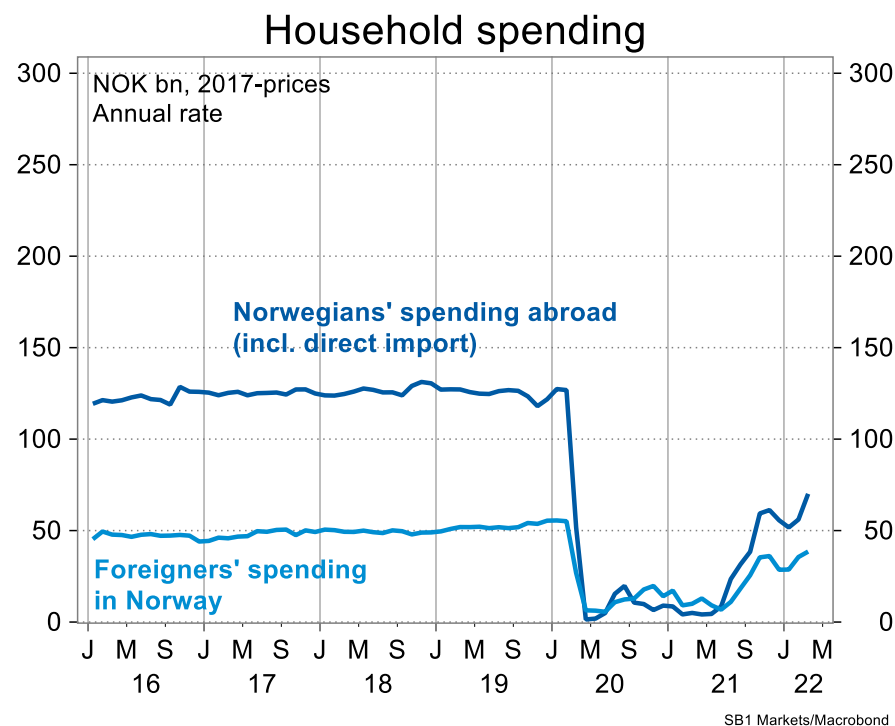
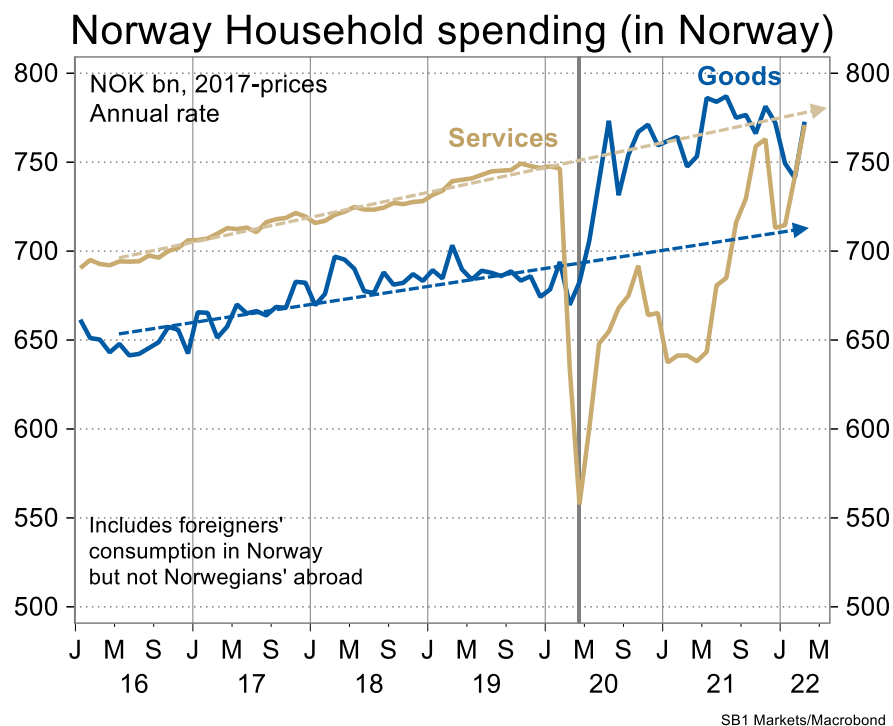


SB1 Markets/Macrobond

- That is, Norwegians' consumption in Norway, consumption abroad is still down almost 50%, and total consumption is up 'just' 4% (which is not than bad over two years)

Consumption up in March, and services are back at 'normal' level

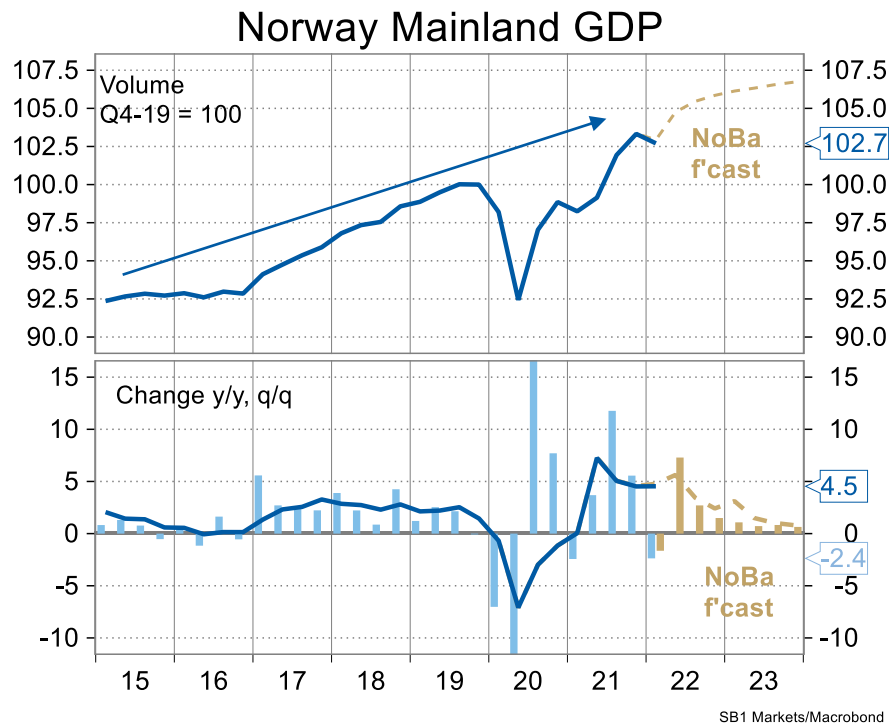
Spending on goods is still above a normal level – as spending abroad is still way below normal



- Foreigners have not yet fully returned to Norway but most of the gap is now closed

Q1 GDP: Down 0.6% (-2.4% annualised), up 2.7% from before the pandemic

However, the economy grew rapidly in February and March, and March is 0.4% above the Q1 avg

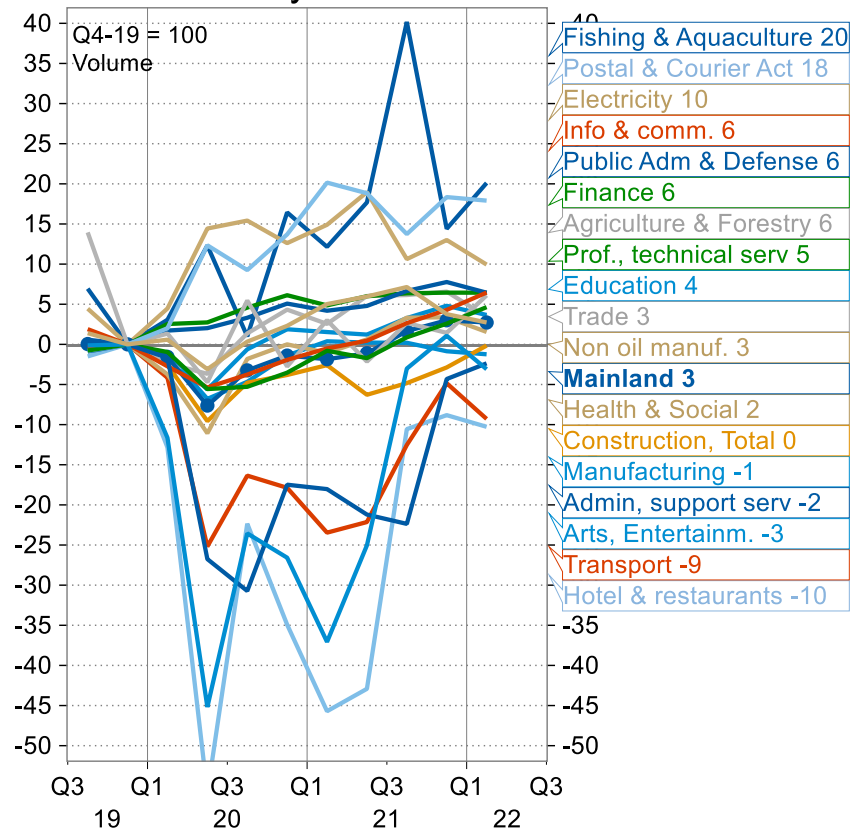


- Mainland GDP**

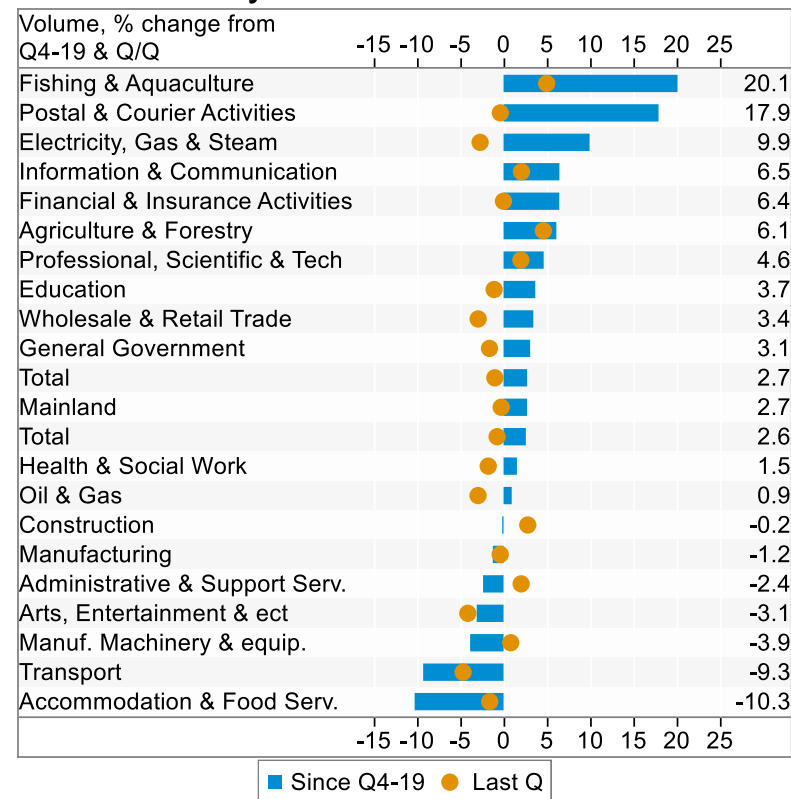
- » Norges Bank expected a 0.4% growth in Q1

Q1 Production: most sectors reported decline in Q1 (but all were strong in March)

Norway Value Added Sectors



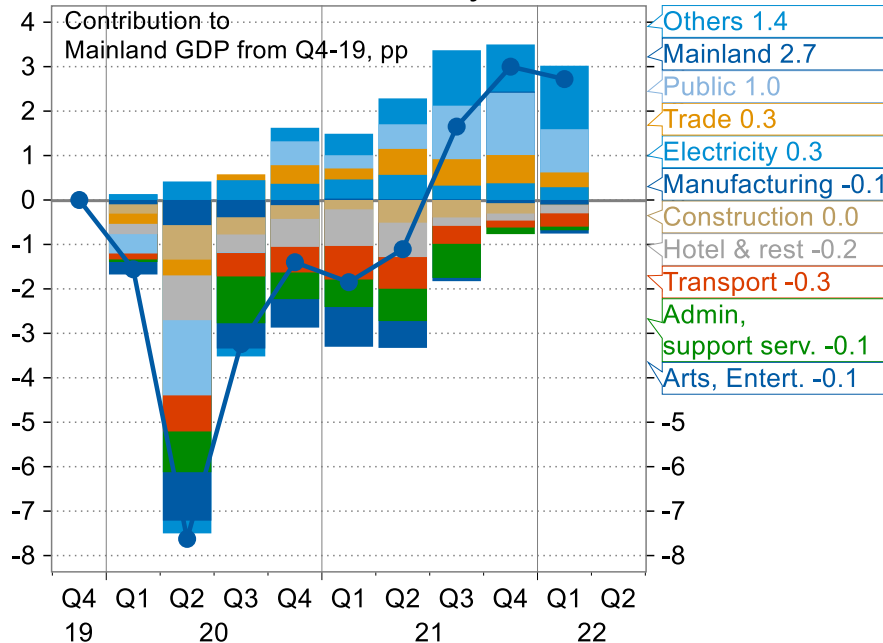
Norway Value Added - sectors



Construction and many services reported growth in Q1, manufacturing declined

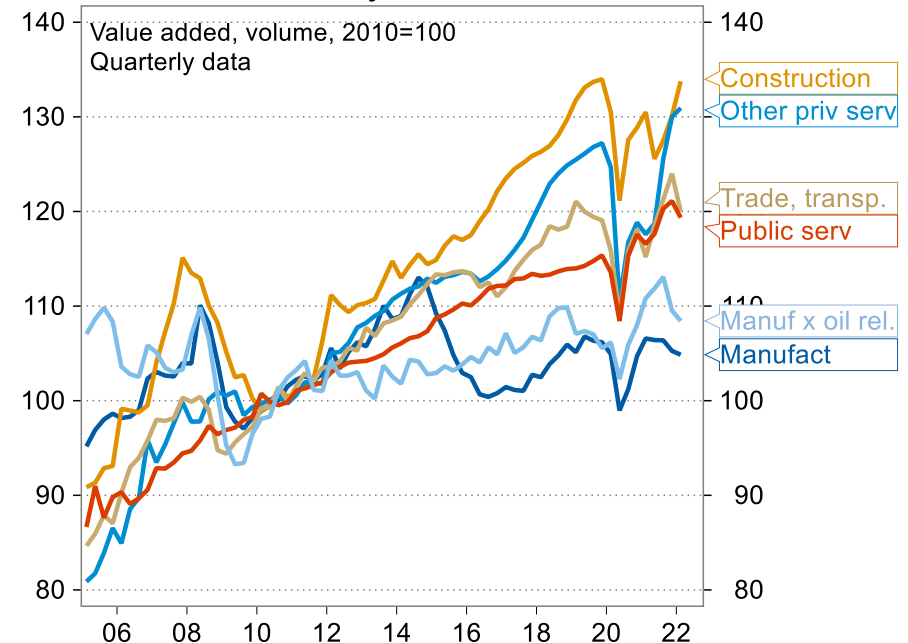
Construction is on the downside too

Mainland Norway Value Added



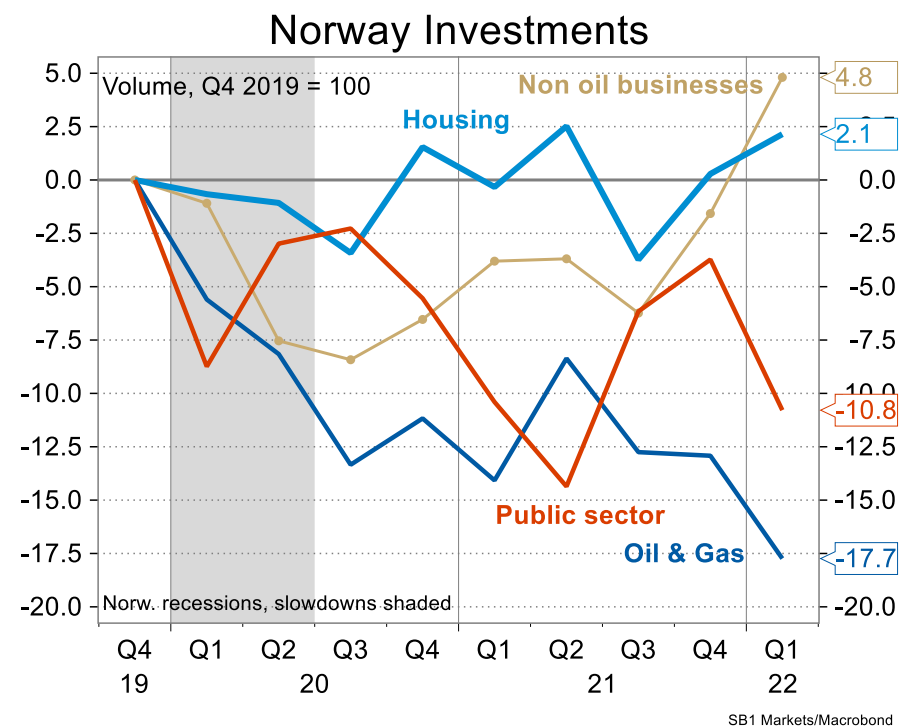
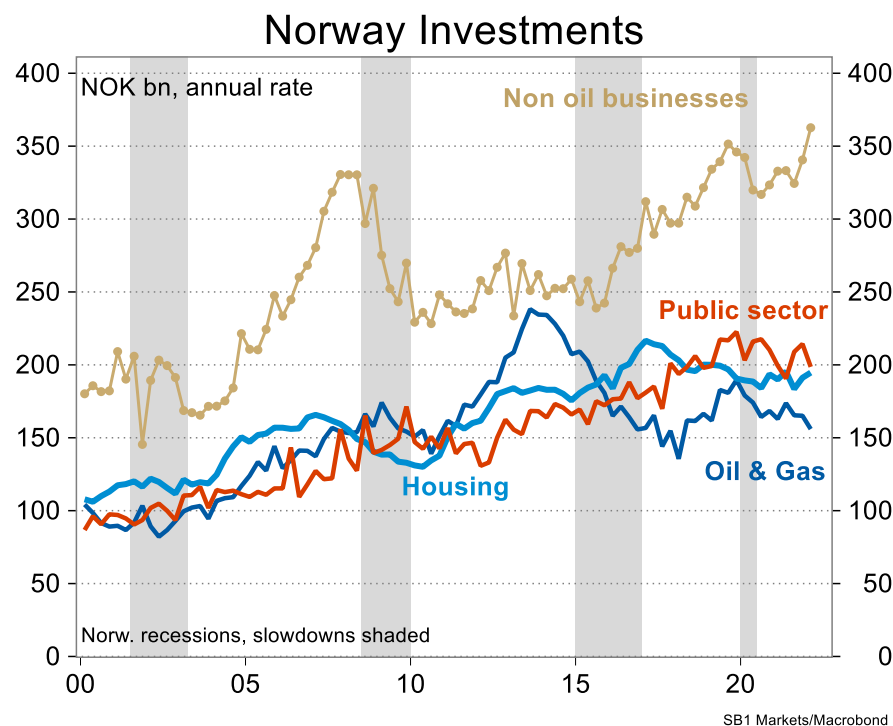
SB1 Markets/Macrobond

Norway Mainland GDP



SB1 Markets/Macrobond

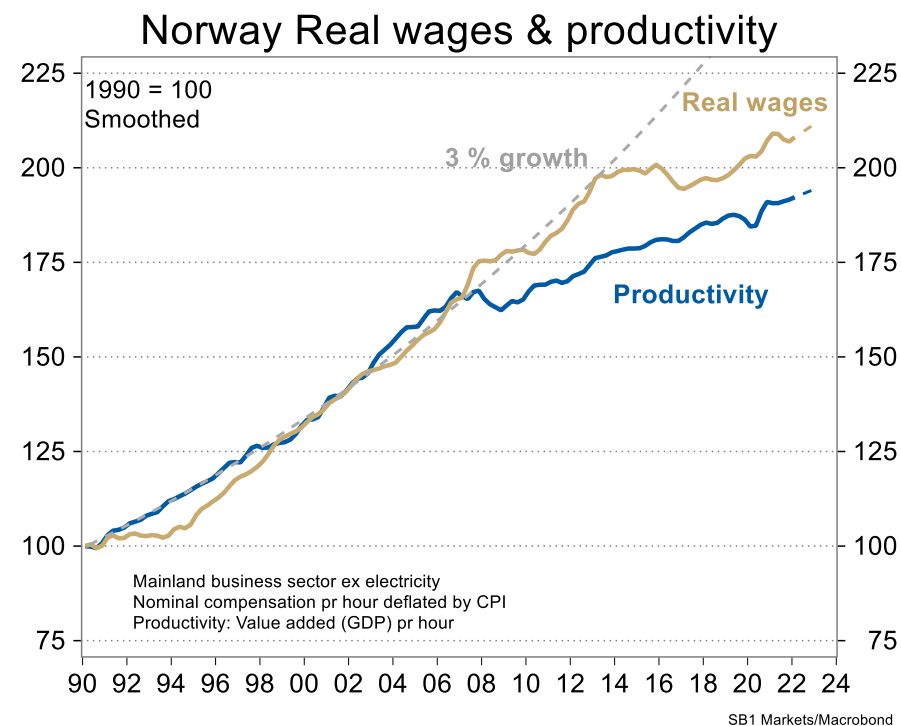
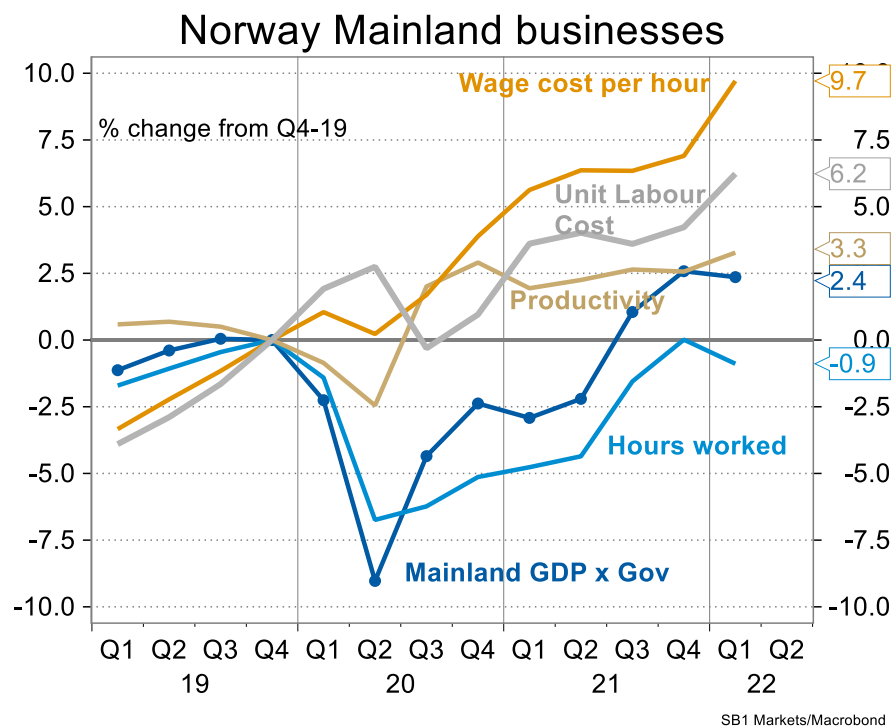
Mainland business investments are surging, oil and gas still on the way down



- Both Mainland business, housing, and oil sector investments were heading down before the corona virus hit as signaled by investment plans/surveys (manufacturing & oil)
- Mainland business investments have been on the way up since Q4-20 and is now 4.8% above the Q4-19 level (and even stronger in March alone)
- Housing has been rather stable through the pandemic
- Oil investments have been steadily declining, and were down 18% vs. Q4-19 in Q1
- Public investments has been trending down – and fell in Q1

Unit labour cost inflation at a 2.7% pace since Q4-19

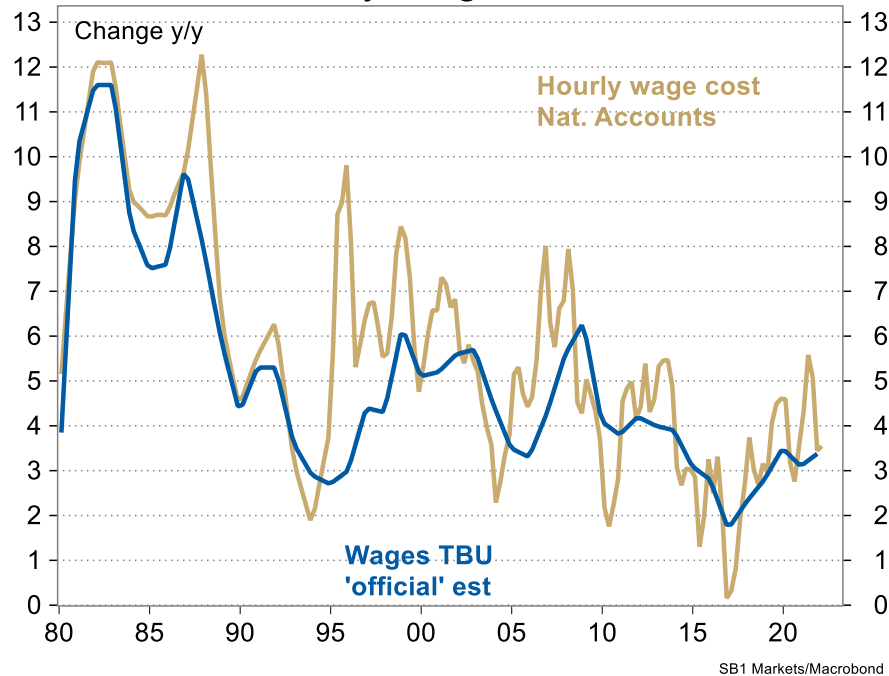
Wages are up a 4.3% pace, productivity 1.5%. Not assuring vs the 2% inflation target



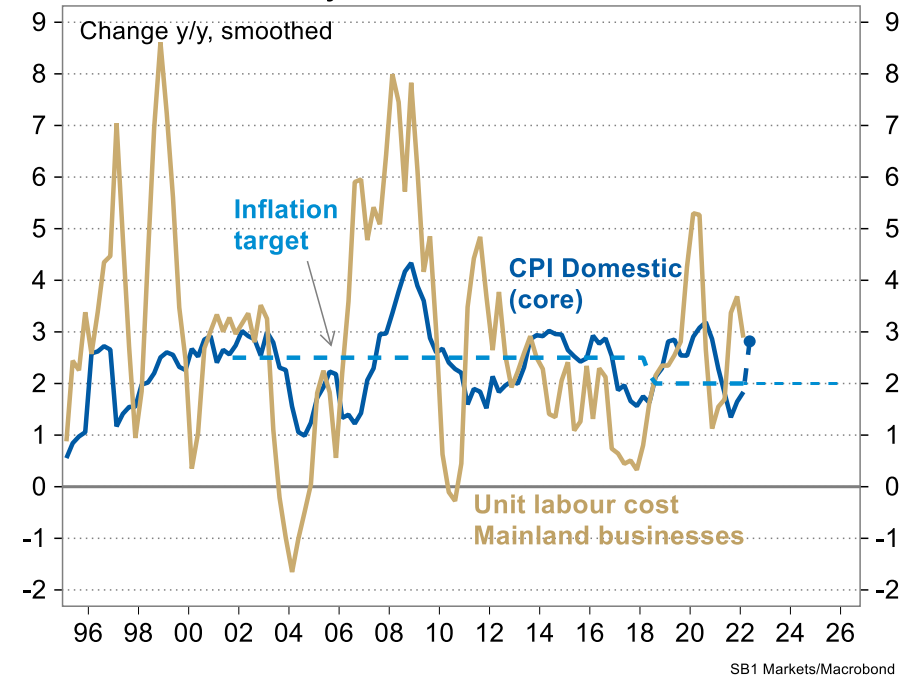
- Wage cost pr hour rose in sharply in Q1 but quarterly data are rather volatile
- **Productivity** has almost flattened since Q4-20
- **Unit labour cost** also rose sharply in Q1, and they are climbing at a faster pace than normal
- **Real wages** fell in Q3-Q1 due to higher electricity prices

Cost inflation more or less in line with domestic core CPI inflation

Norway Wage inflation



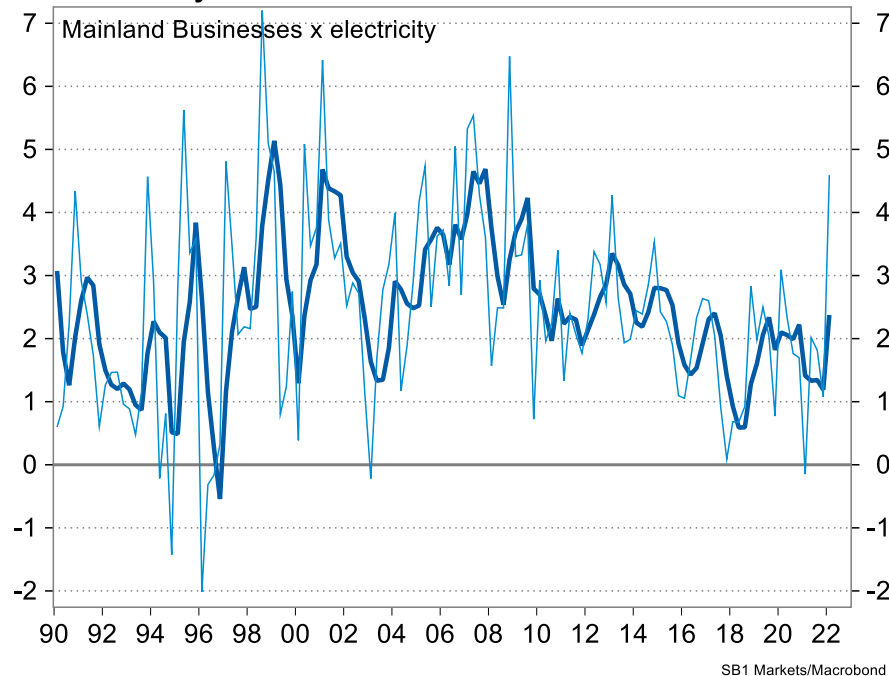
Norway CPI vs labour costs



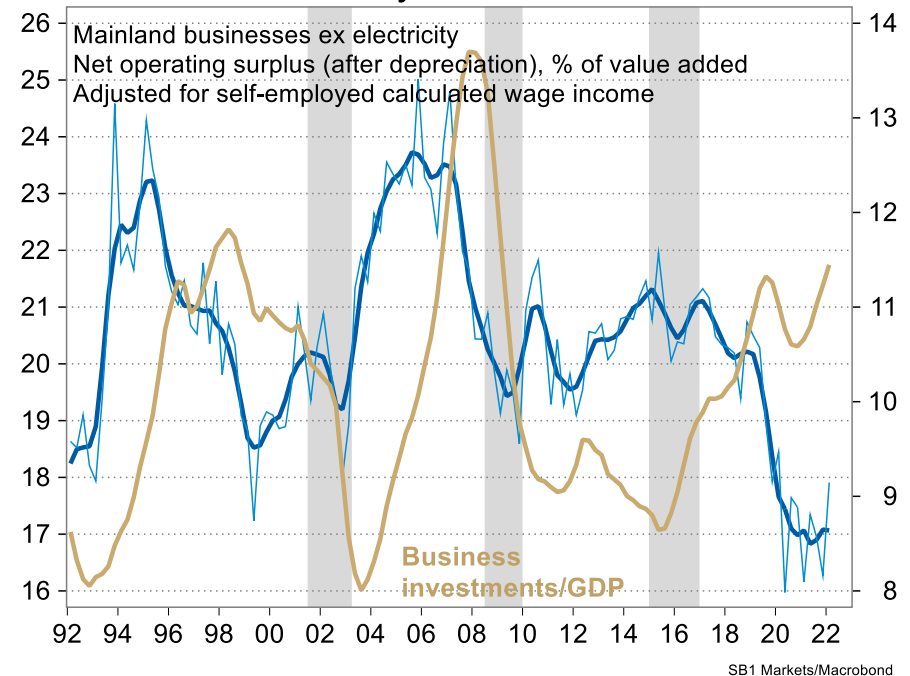
The profit share was under pressure, before corona – and still is

Operating margins have stabilised at a rather low level. Investments are exposed?

Norway Mainland Business GDP deflator



Norway Profit share

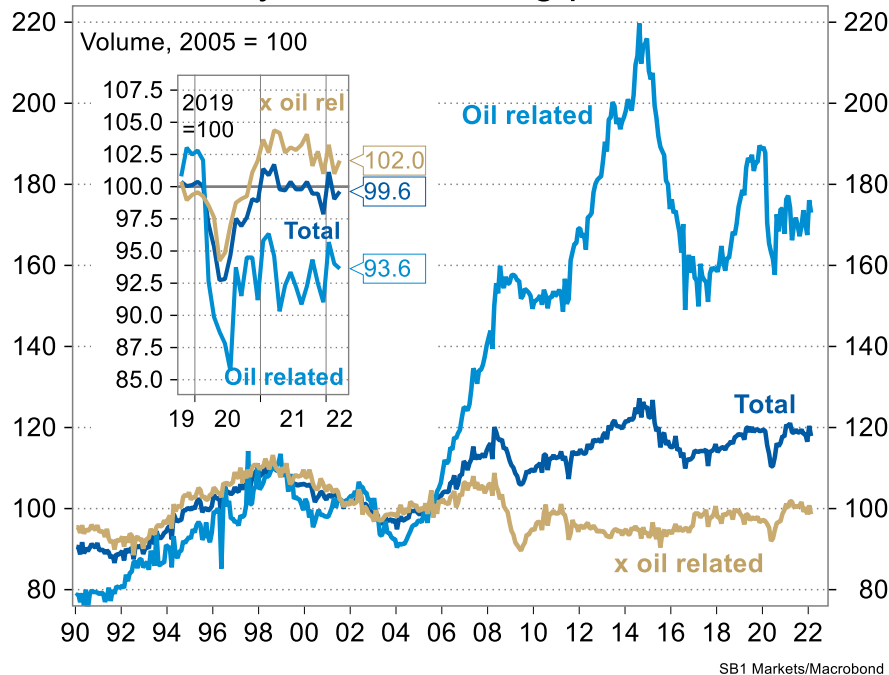


- The **Mainland business GDP price deflator** (ex the volatile electricity sector) is volatile and rose sharply in Q1, mostly due to manufacturing (and fisheries), The underlying trend is probably above 2%
- **Unit labour cost** (wage growth – productivity growth) is higher, at close to 3%, and the gross margin is still slowly deteriorating (if not Q1, where prices shot up)
- The **Mainland business (ex electricity) gross margin** level is low – which signals some risk vs the above average investment ration

Manufacturing production up in March, still trending flattish (at best)

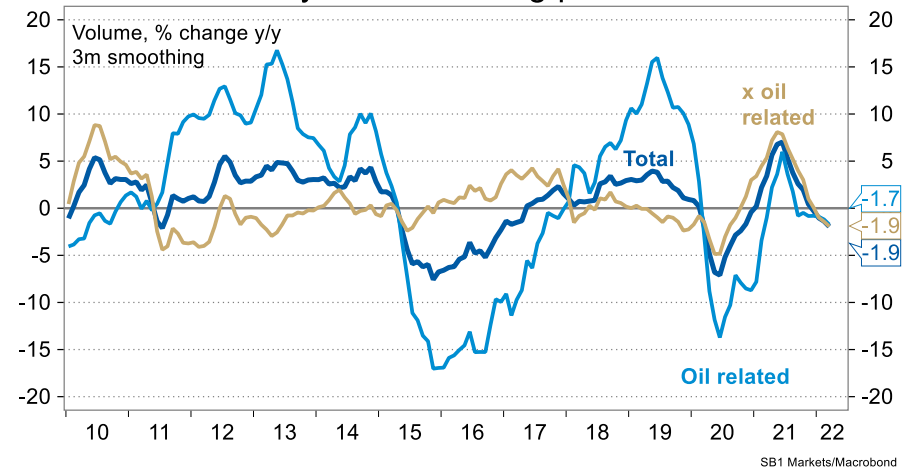
Production rose by 0.6%, we expected 1% after the 2.1% decline in February

Norway Manufacturing production

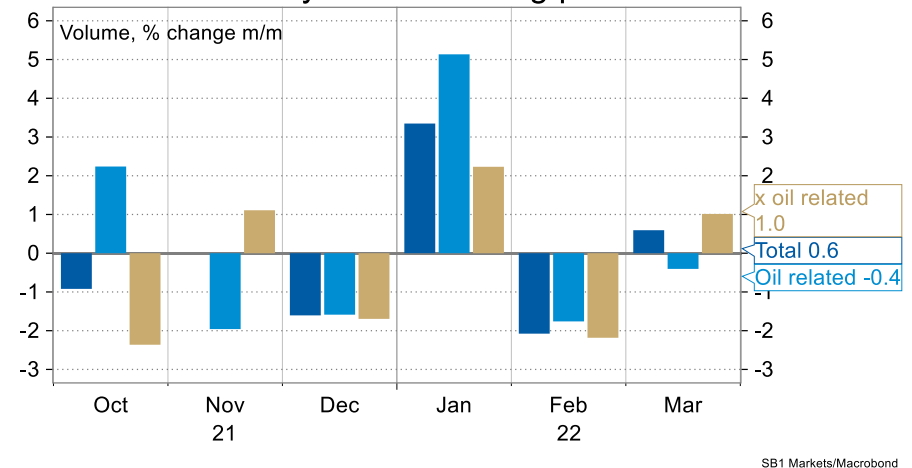


- Oil related manufacturing production fell 0.4% but is trending UP
- Other sectors gained 1% but are heading DOWN
- Still, production x oil related sectors is 1% above 2019 level, while oil related is down 7%!
- Manufacturing surveys are signalling strong growth in activity, but actual production is lower than in March-21

Norway Manufacturing production

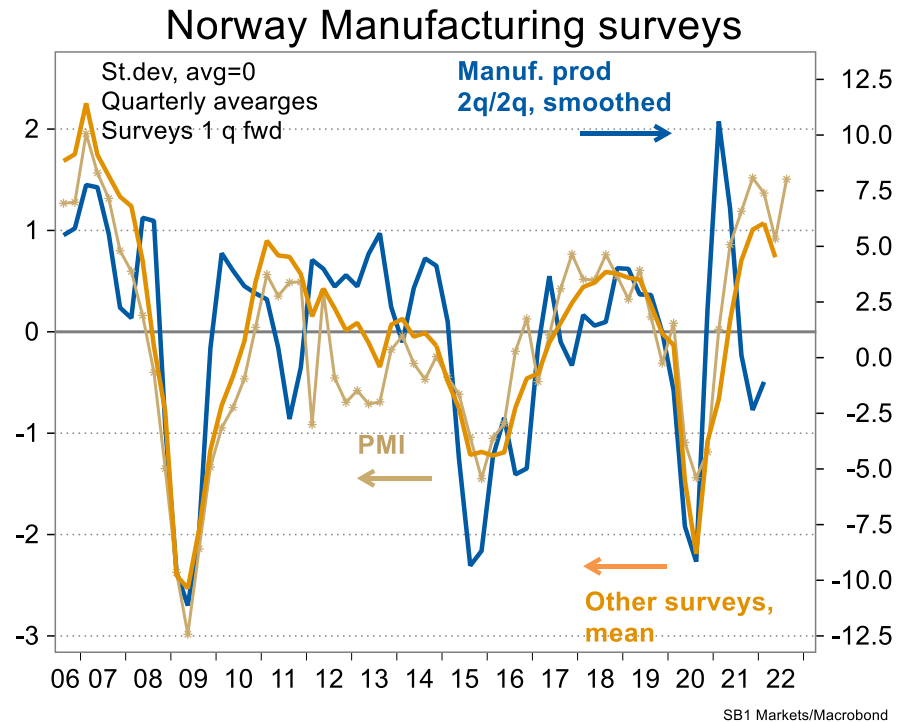


Norway Manufacturing production



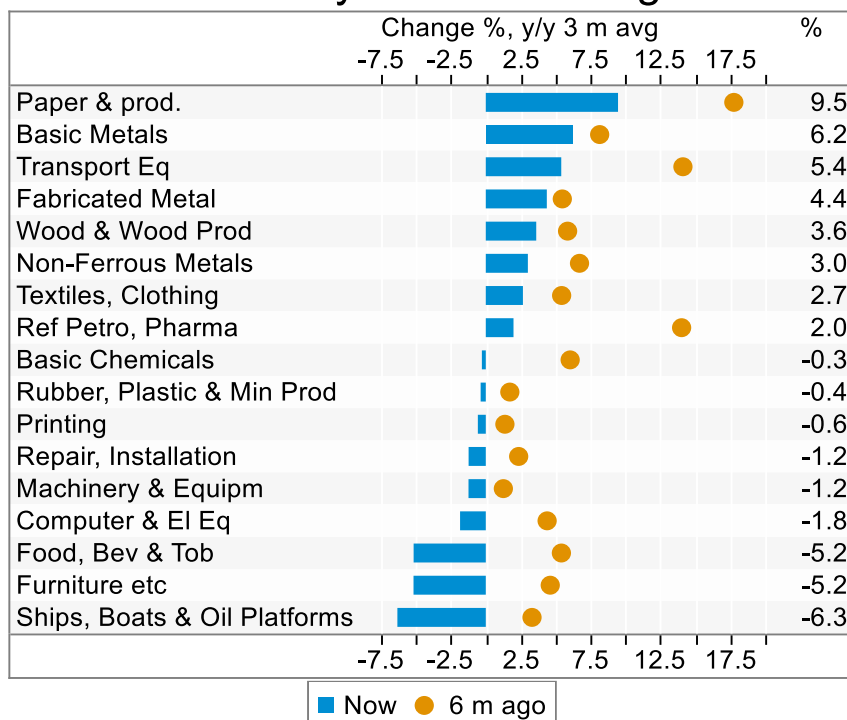
Surveys are signalling growth (like elsewhere)

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



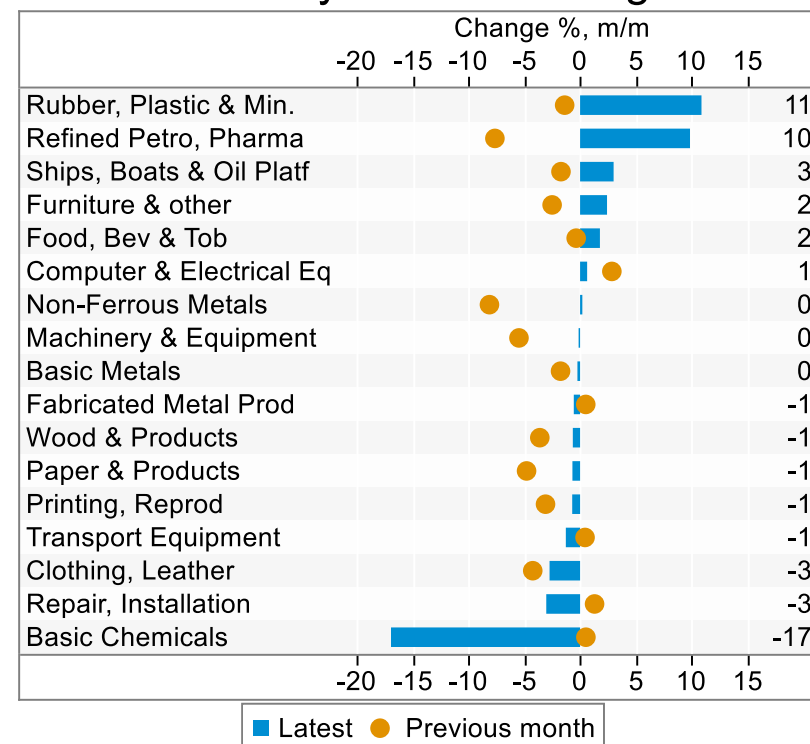
Rather mixed between sectors: Electronics, food, and even more ships down y/y

Norway Manufacturing



SB1 Markets/Macrobond

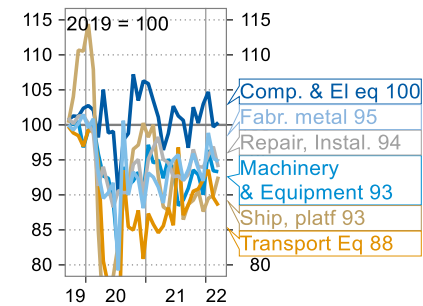
Norway Manufacturing



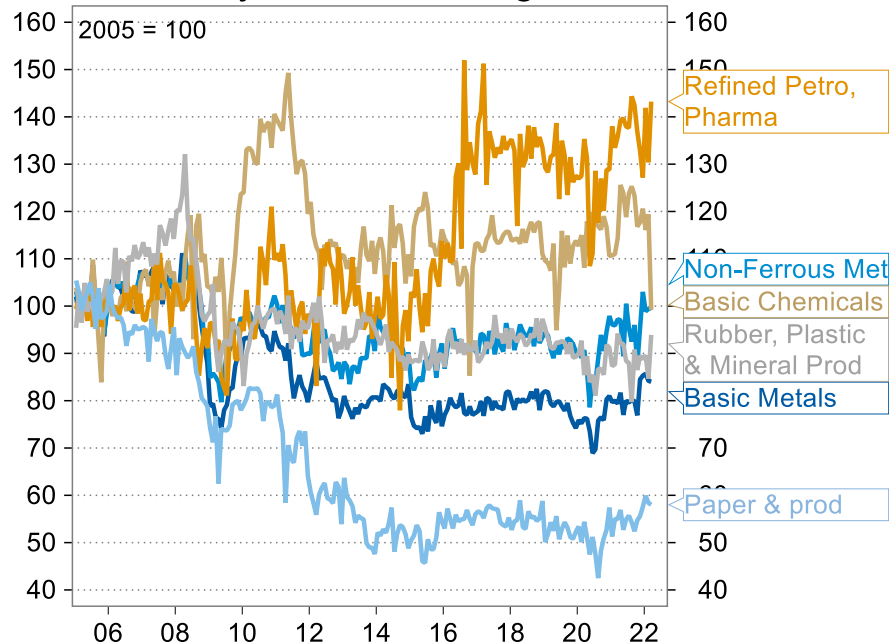
SB1 Markets/Macrobond

Engineering on the way up, barring ships & platforms

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

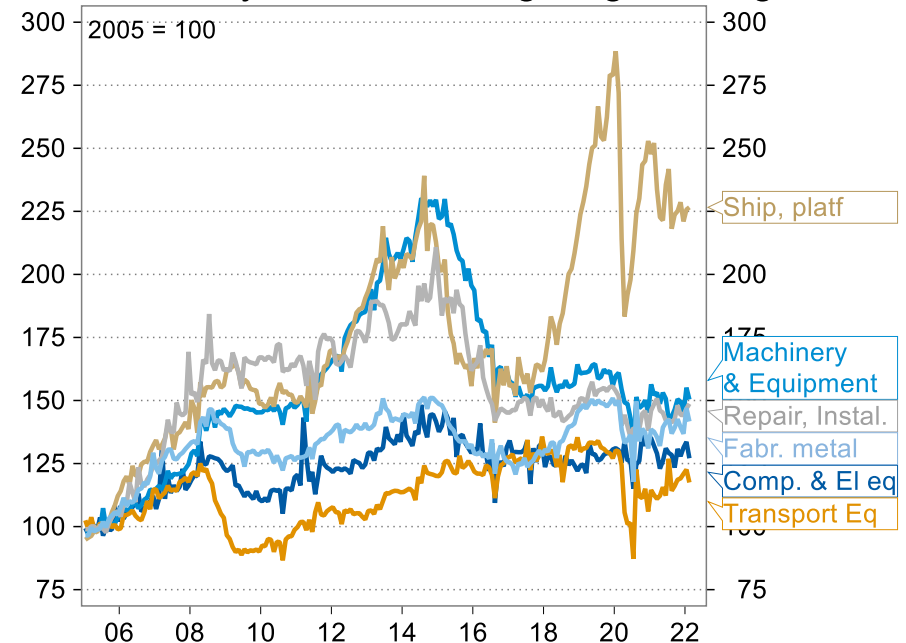


Norway Manufacturing commodities



SB1 Markets/Macrobond

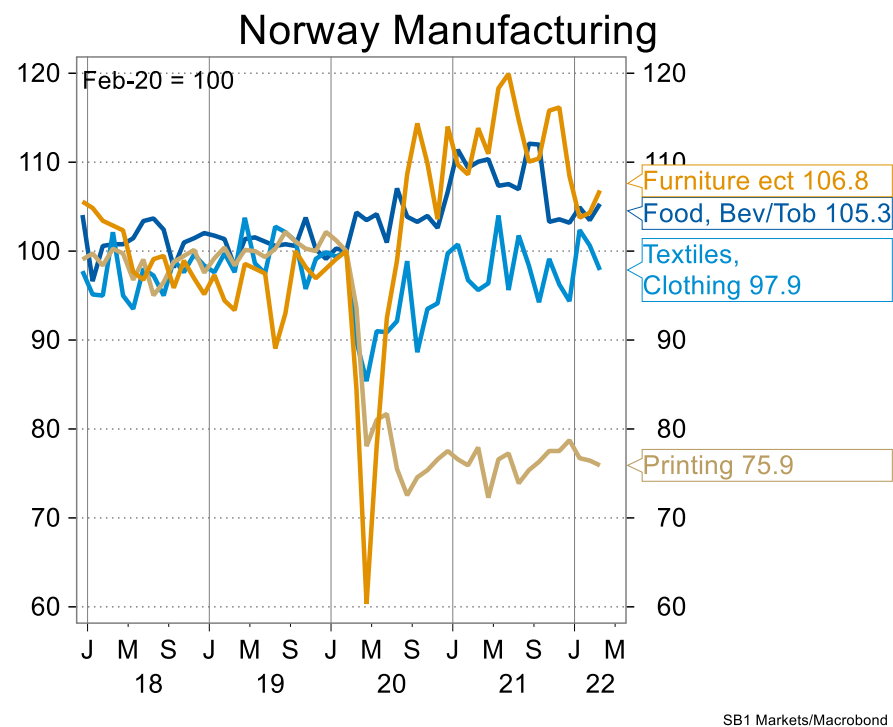
Norway Manufacturing Engineering+



SB1 Markets/Macrobond

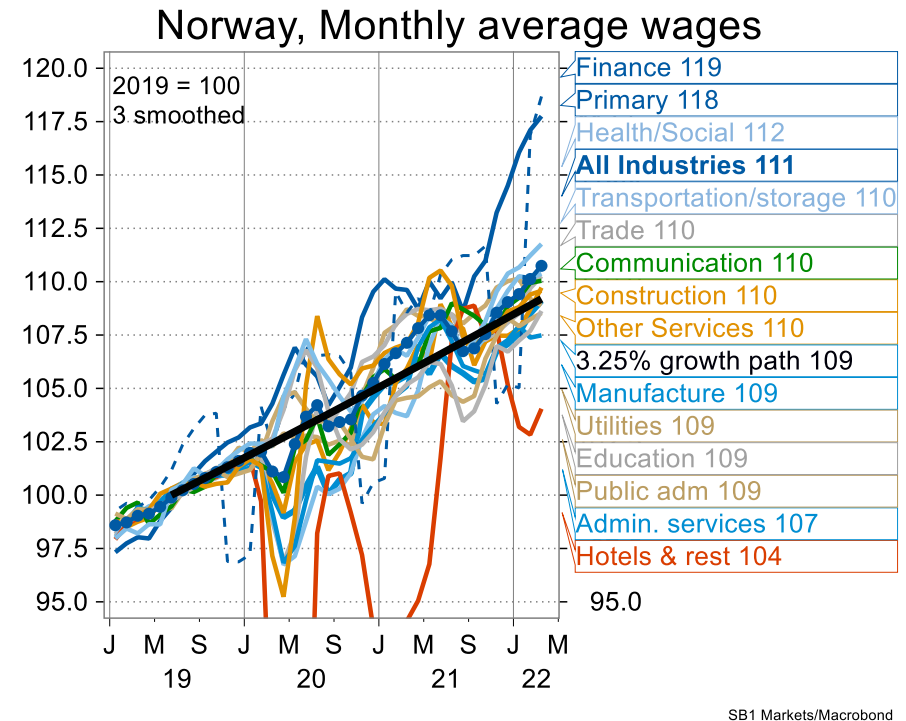
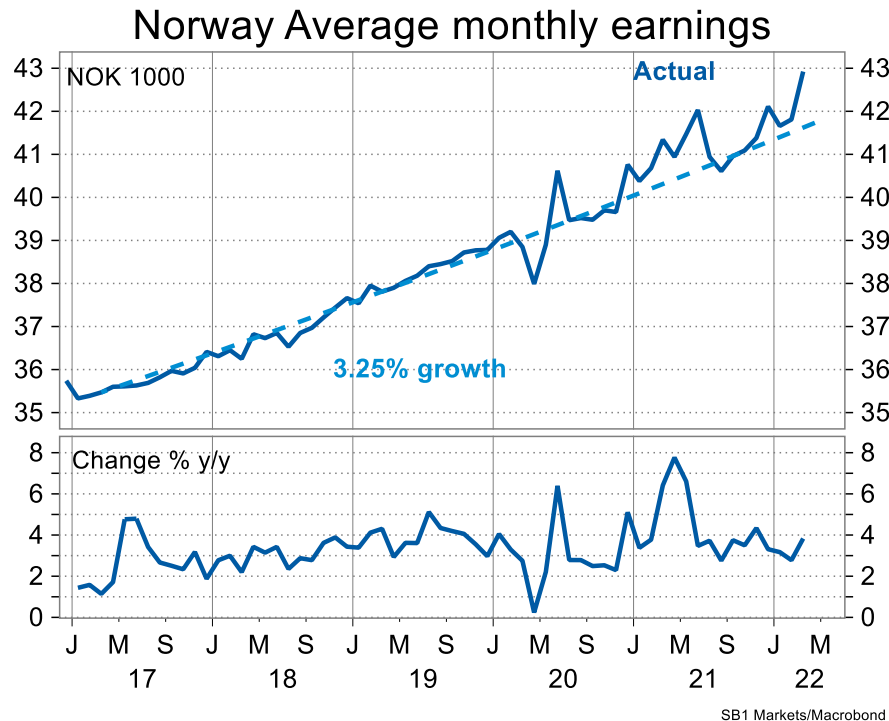
- **Production of ships & platforms** has flattened – other engineering sectors are on the way up
- **Commodities** have been on the way up, but some branches have reported lower production recent months – and production of basic chemicals fell sharply in March

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



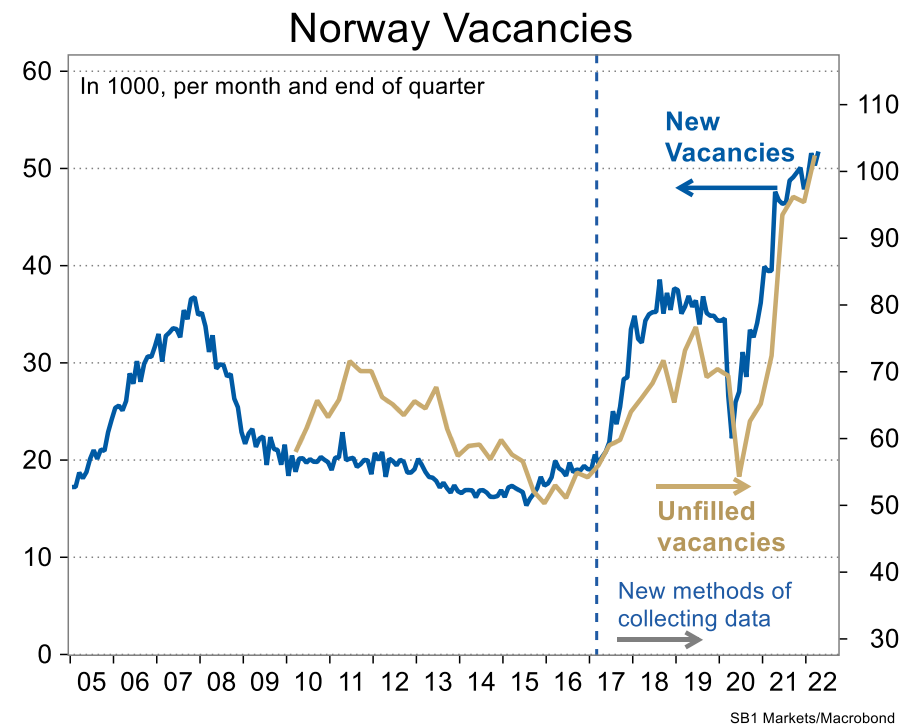
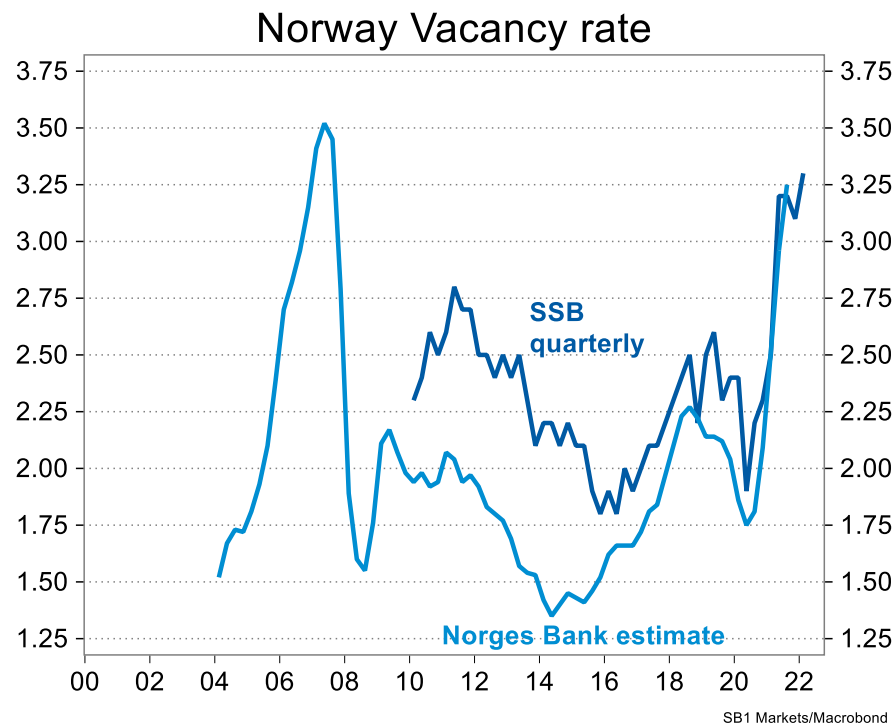
Wages up in March – still ‘just’ 3.8% y/y

Average wages have been volatile through the pandemic – and monthly data rather useless



- Monthly average cash earnings are rather volatile, also depending on hours worked, bonuses
 - » Last year the monthly stats reported a 4.4% growth rate – while the average wage inflation was 3.5%, according to SSB
 - » Wages rose sharply in March, probably an outlier. The annual growth rate is still below 4%
- However, earnings have been quite consistently above the 3.25% growth path from the start of the pandemic. The return of low-paid service sector workers took the average down last summer – before the average wage rate shot up again. That could signal an acceleration in wage inflation

The vacancy rate up in Q1, to 3.3% from 3.1%

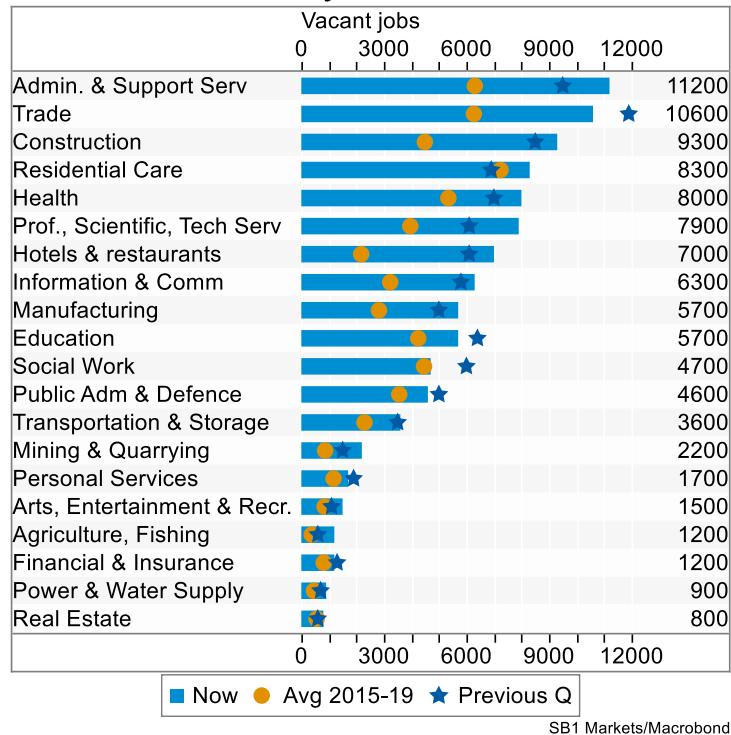


- Lack of access to foreign workers may explain a part of the 30' increase in unfilled vacancies from before the pandemic the 100+ level. The no. foreign workers on short-term stay was still down some 15' vs. the pre-pandemic level in Q1

More vacant positions than normal, in all sectors

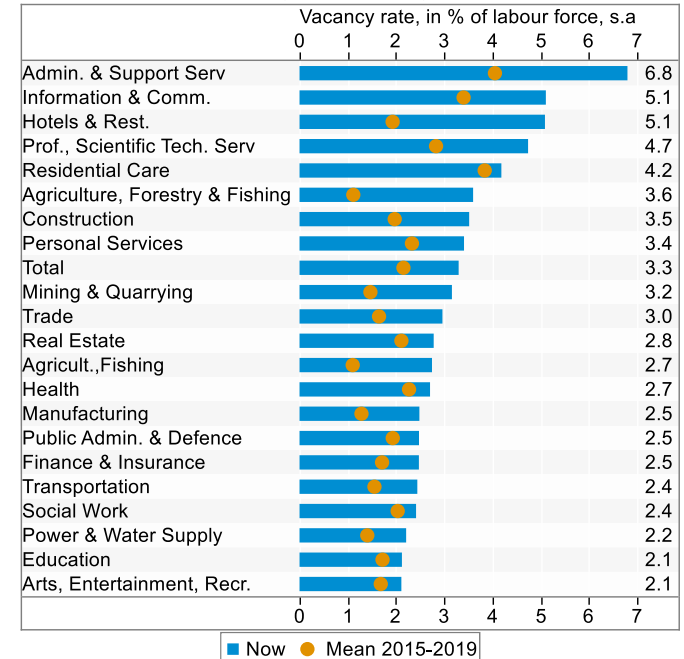
Most other sectors report more

Norway Vacancies

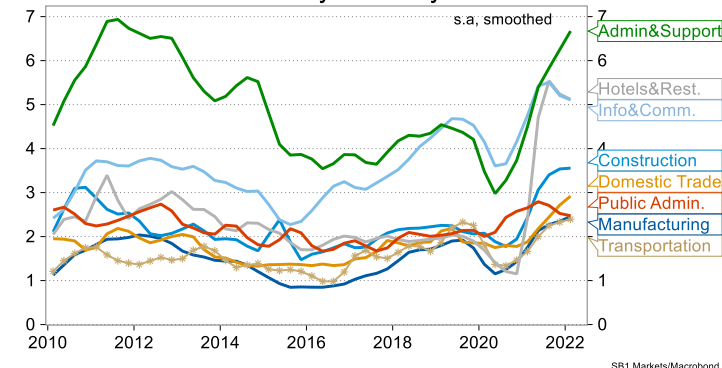


- The highest **number of vacancies** are found in admin. & supportive services, and in trade, followed by construction
- The **vacancy rate** is the highest for admin. & supportive services and info/communication. Hotels and restaurants thereafter

Norway Vacancy Rate

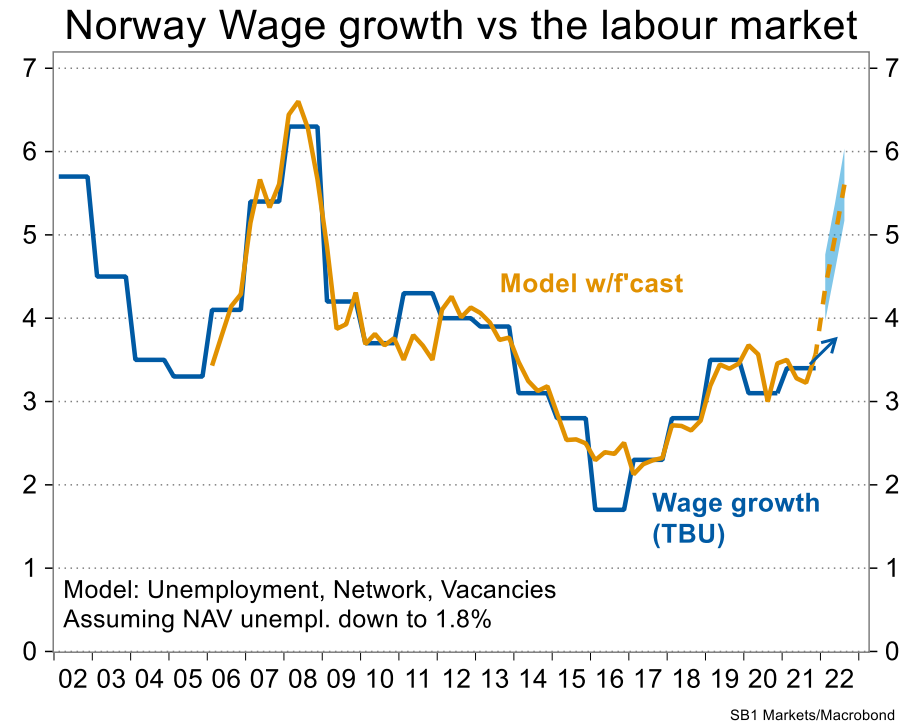
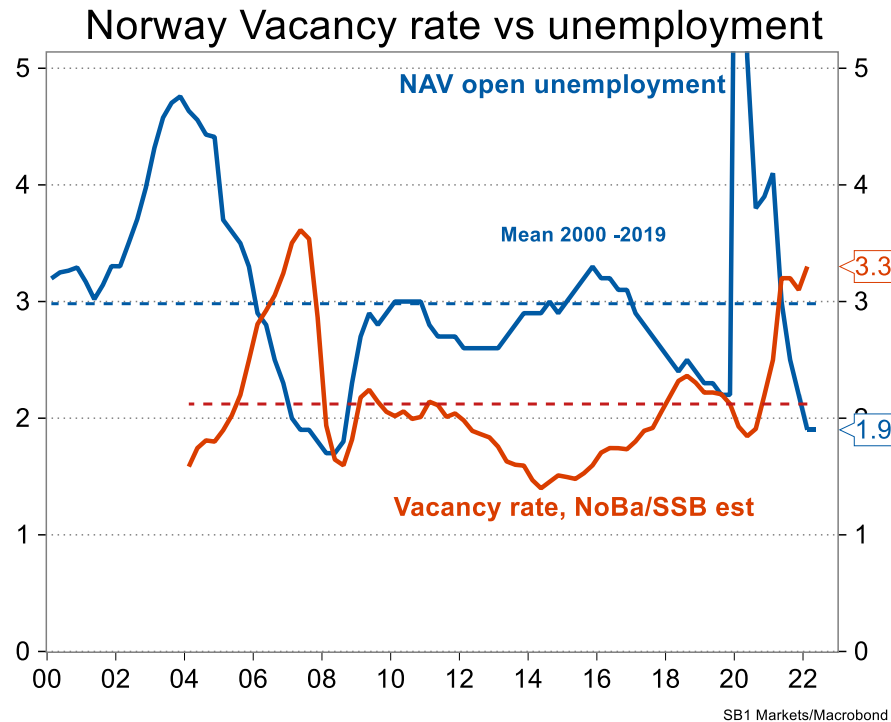


Norway Vacancy Rate



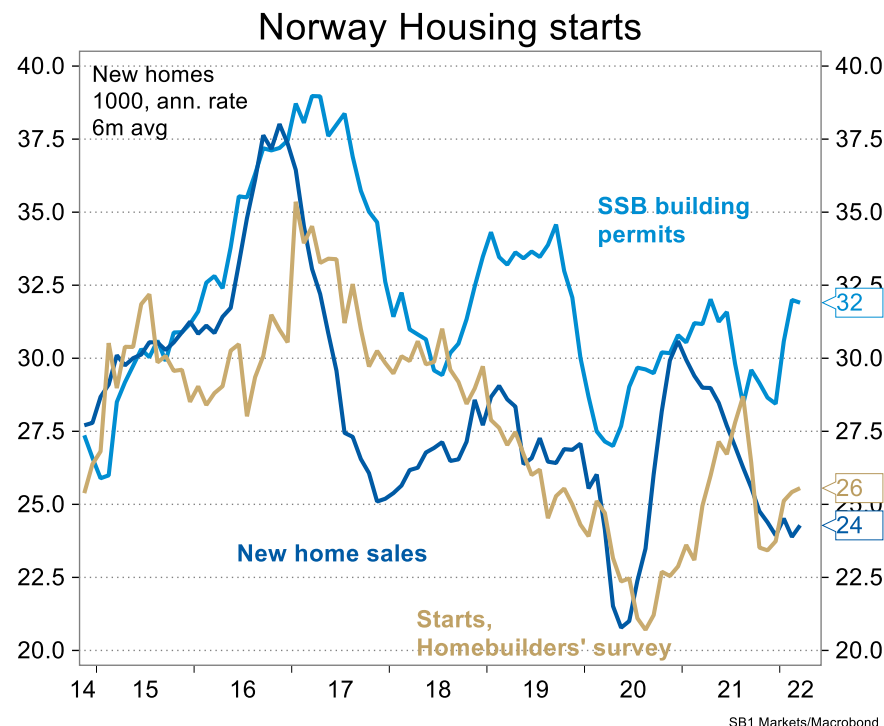
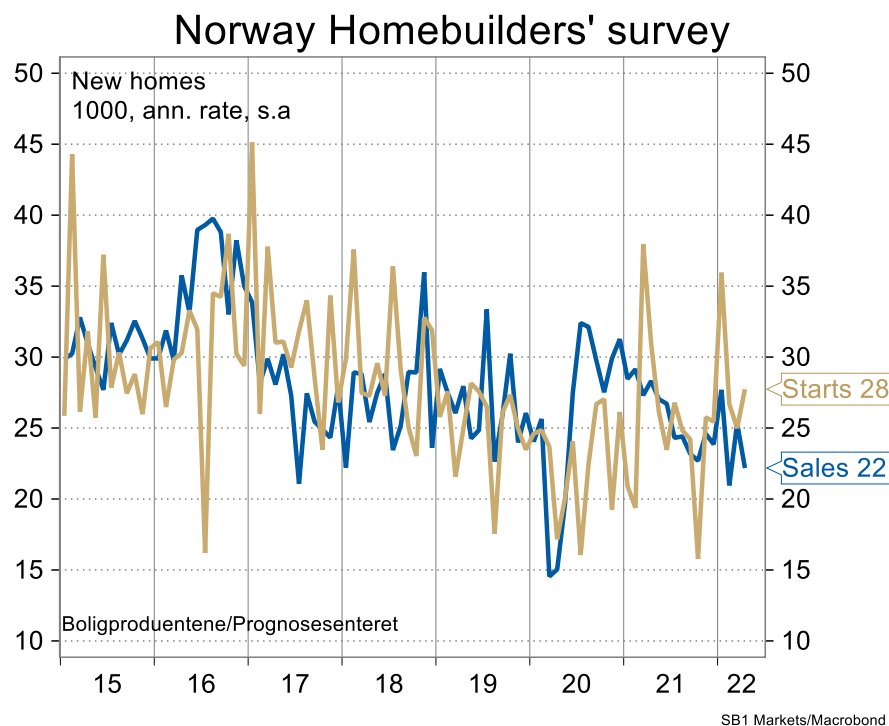
Normally, a tighter labour market implies higher wage inflation

Even in the 'organised' Norwegian labour market



New home sales down in April, starts up

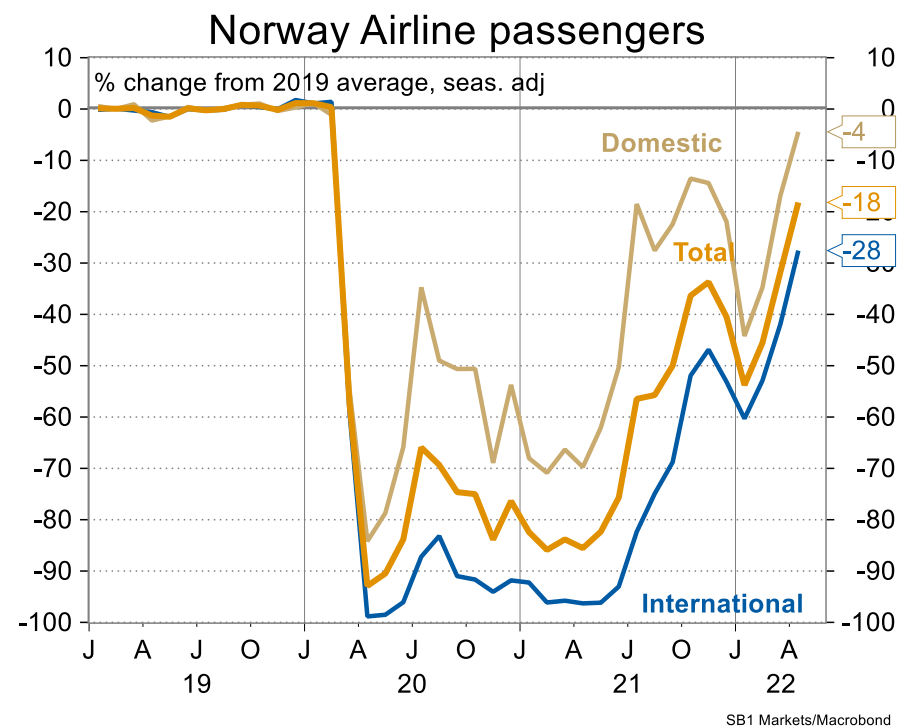
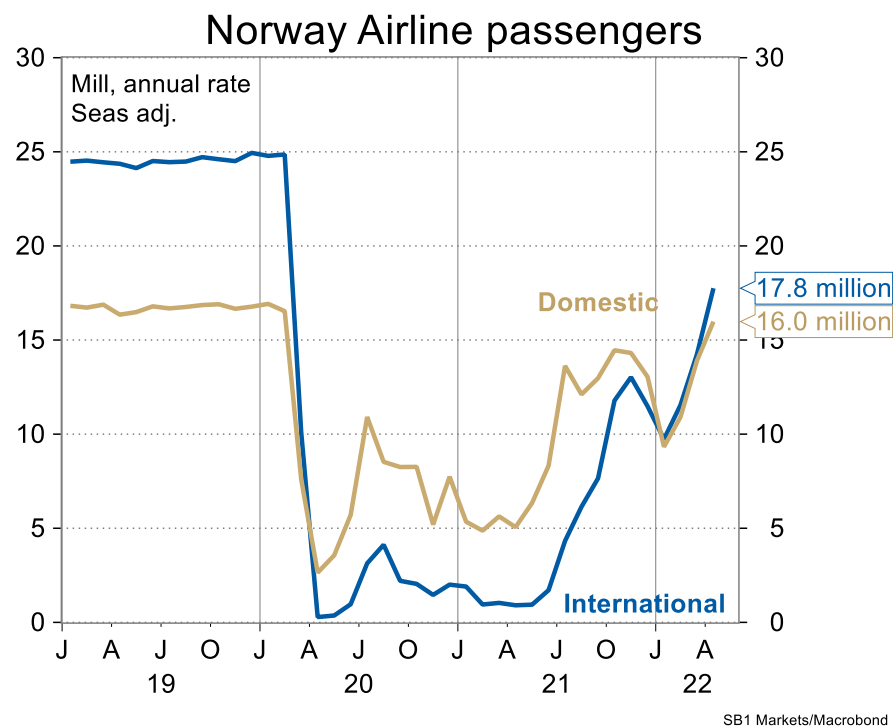
... according to the homebuilders. SSB reports far higher building permits (until March)



- Boligprodusentene (Home builders) 'always' report that building activity is declining and that it is too low. Now, April sales were rather weak but higher than in February, at an annual rate at 22'. Starts rose to 28'
- Recent months sales have flattened and starts have increased. Starts are at the same level as in 2019, sales are somewhat below
- SSB report a decent increase in housing starts recent months, and the level is above 30', annualised

Total airline traffic up 25% m/m in April, domestic traffic almost back to normal

Number of domestic passengers down -4% vs. 2019, international traffic is still down 28%



- We expect a further growth in May, the most in international traffic

Highlights

The world around us

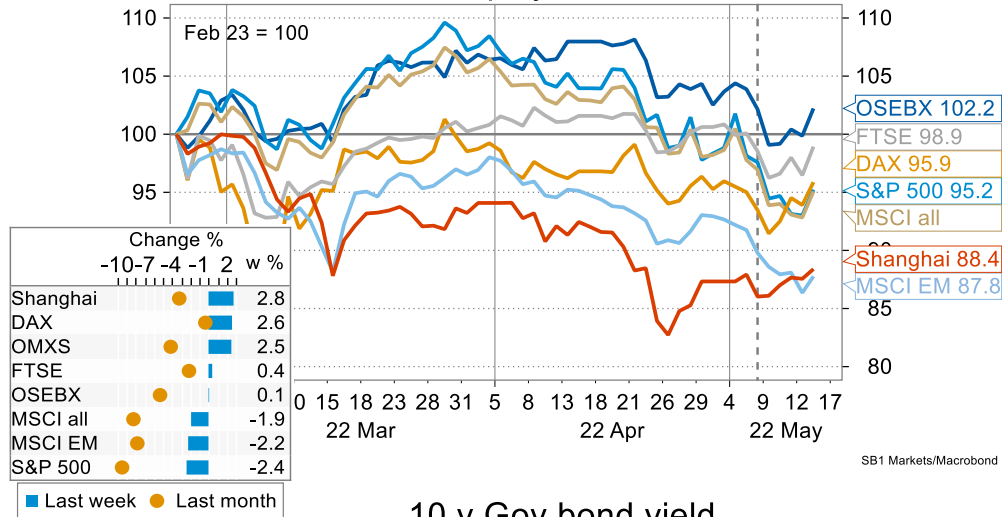
The Norwegian economy

Market charts & comments

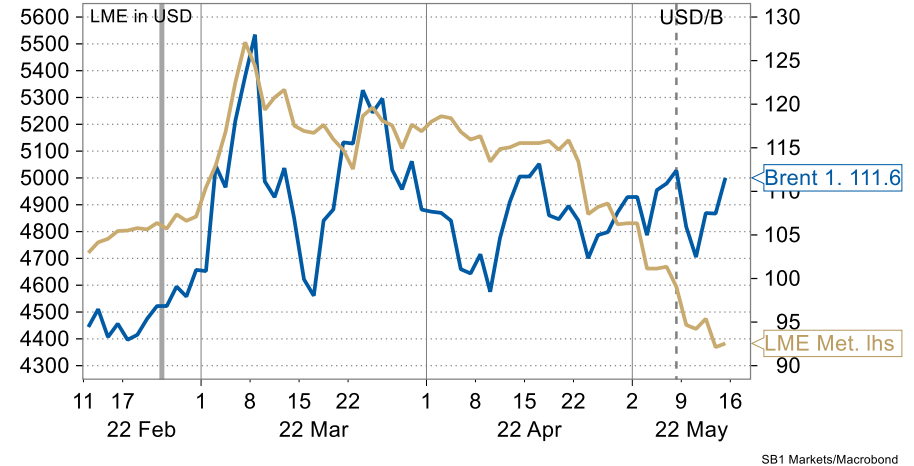
Mixed stock markets, the S&P500 further down. Oil recovered, metals not

Still uncertainty vs Russian oil/gas. Metals down on lower growth expect. Bond yields down on lower inflat. exp

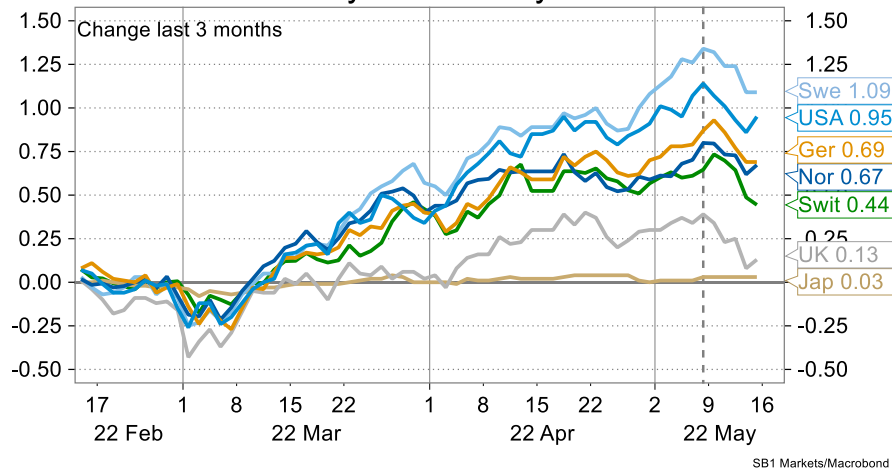
Equity Indices



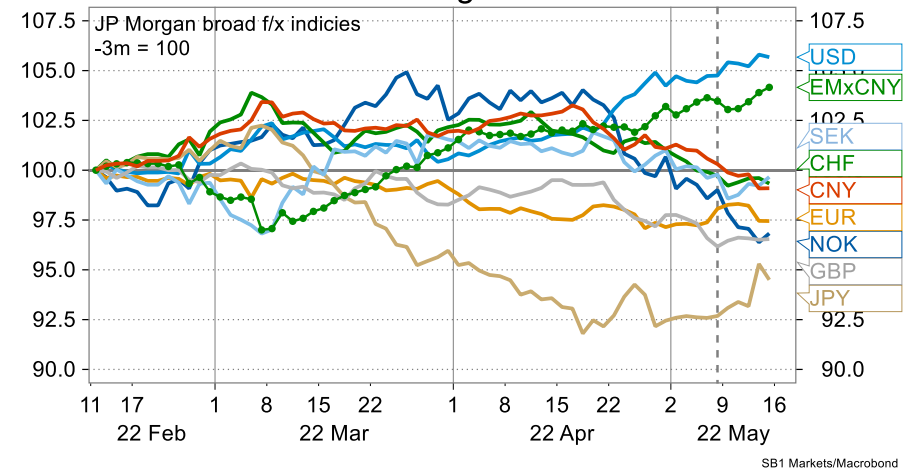
Oil vs. metals



10 y Gov bond yield



Exchange rates

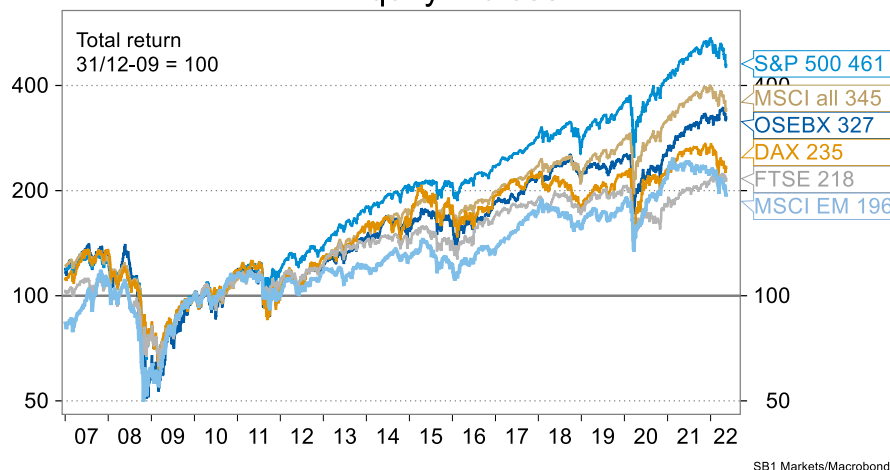


USD still the f/x winner. The CNY is sliding down, as is the EUR
Has the JPY bottomed? The NOK has fallen too much?

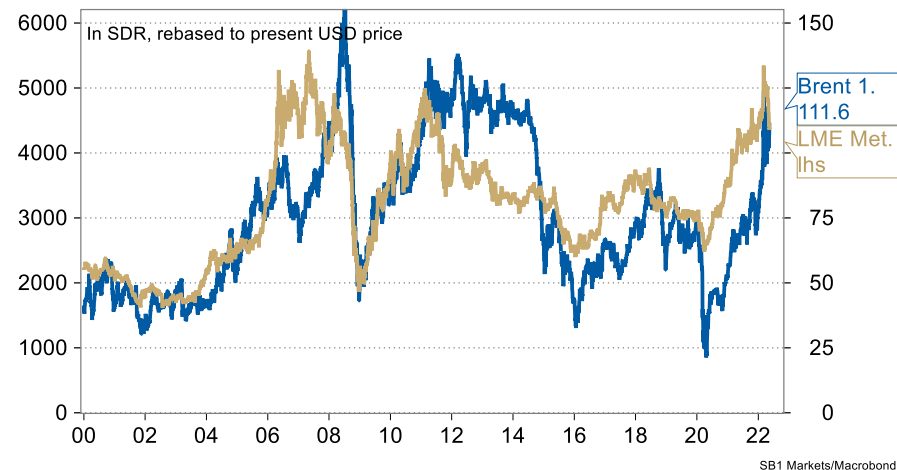
The big picture: Stock markets down (-oil rich OSEBX, FTSE), bond yields up

Commodities have taken a big step upwards, until early March. USD the f/x winner

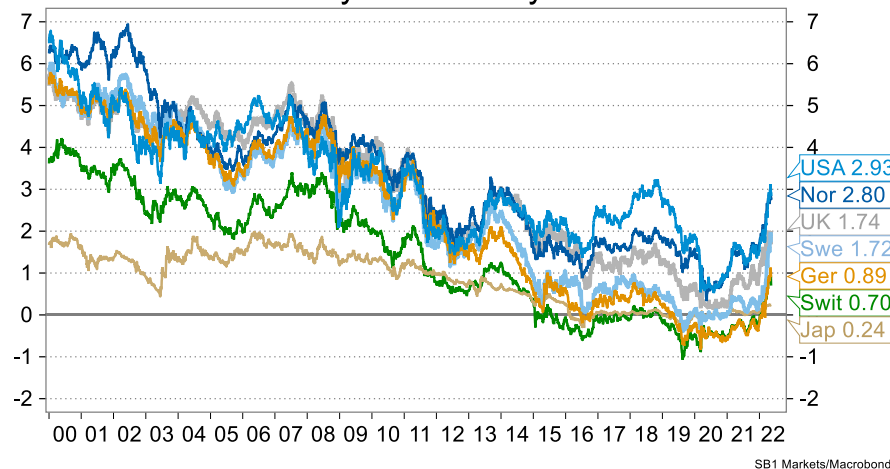
Equity Indices



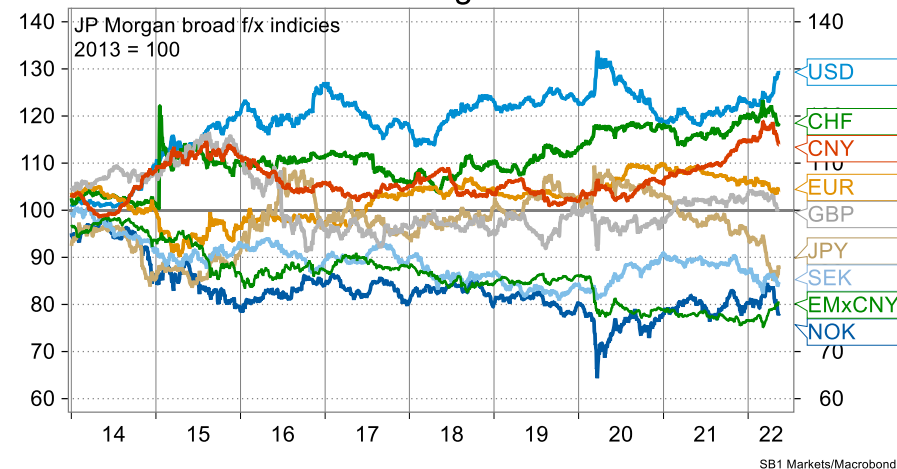
Oil vs. metals



10 y Gov bond yields

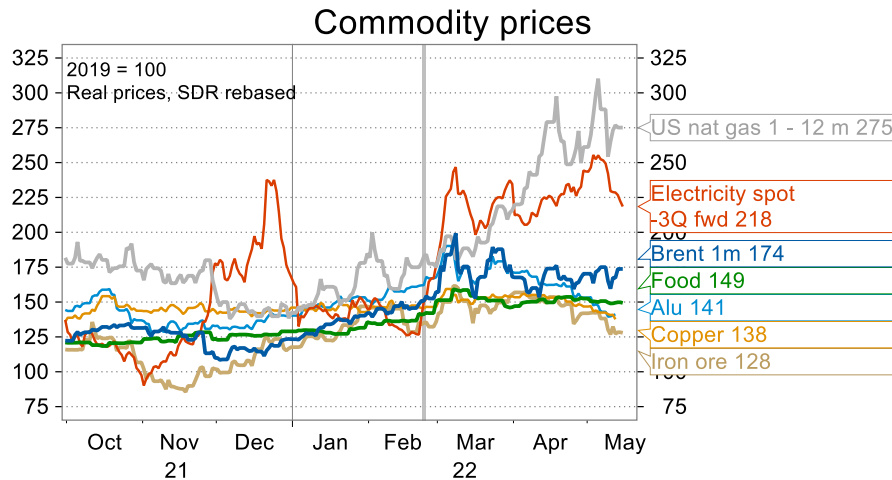


Exchange rates

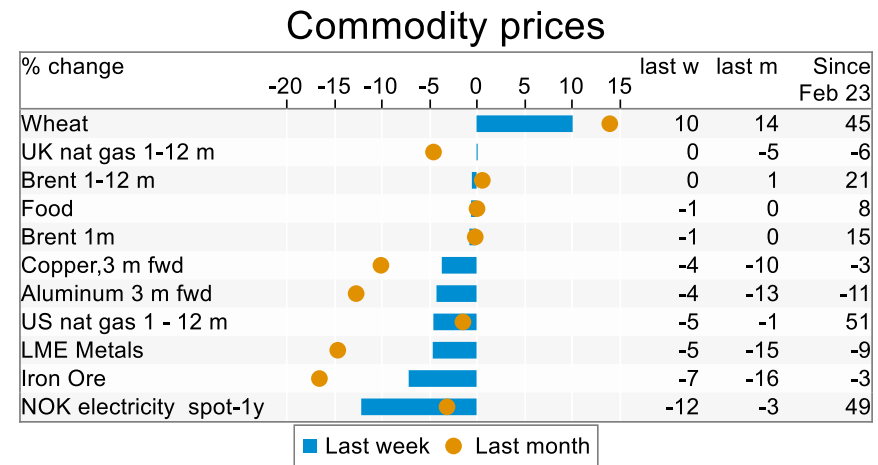


Just the wheat price up last week, other commodity prices fell

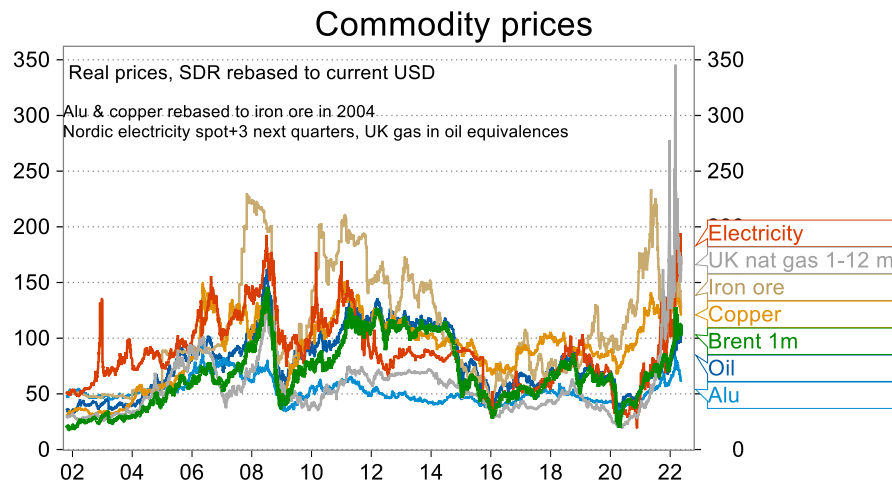
Total food prices marginally down last week too. Prices are up 50% since 2019, 8% from the war started



SB1 Markets/Macrobond



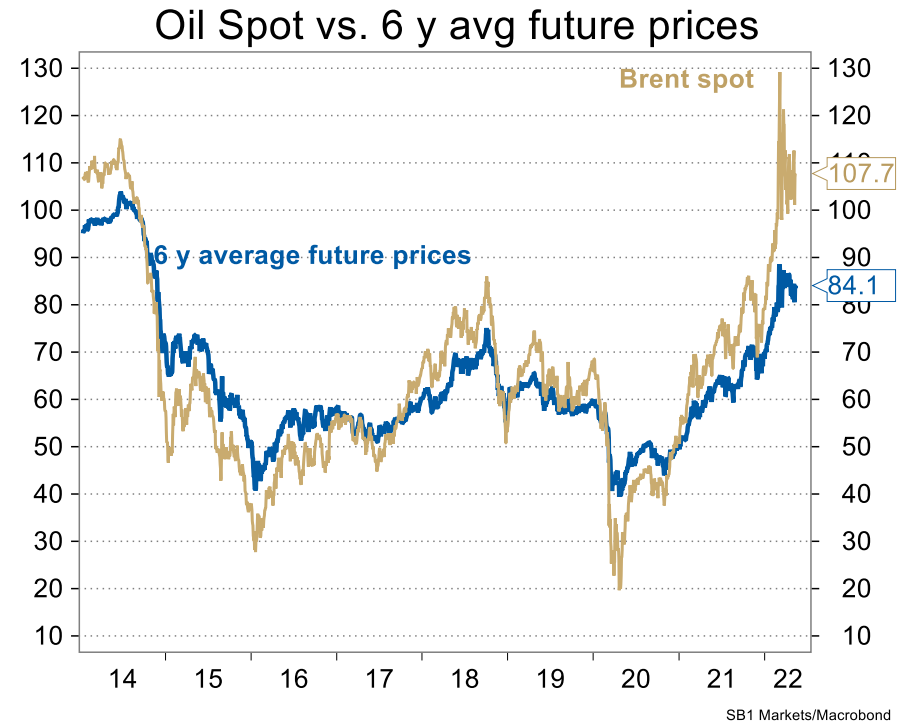
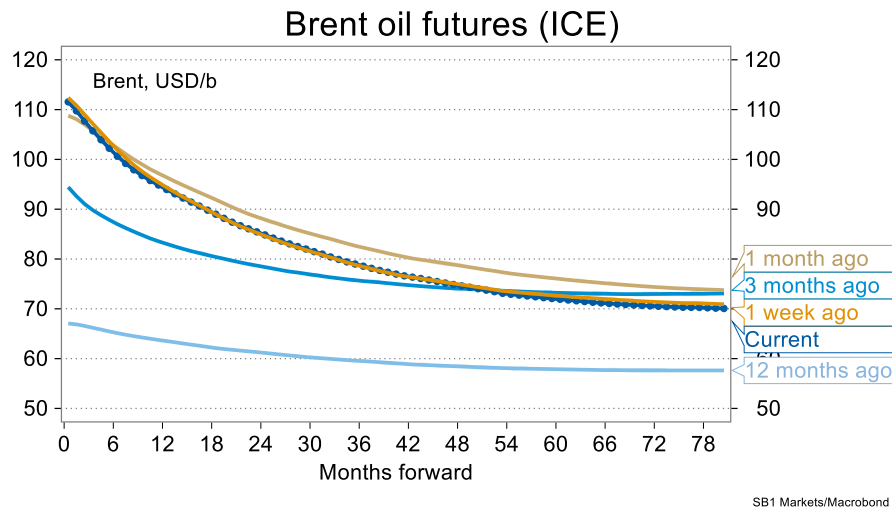
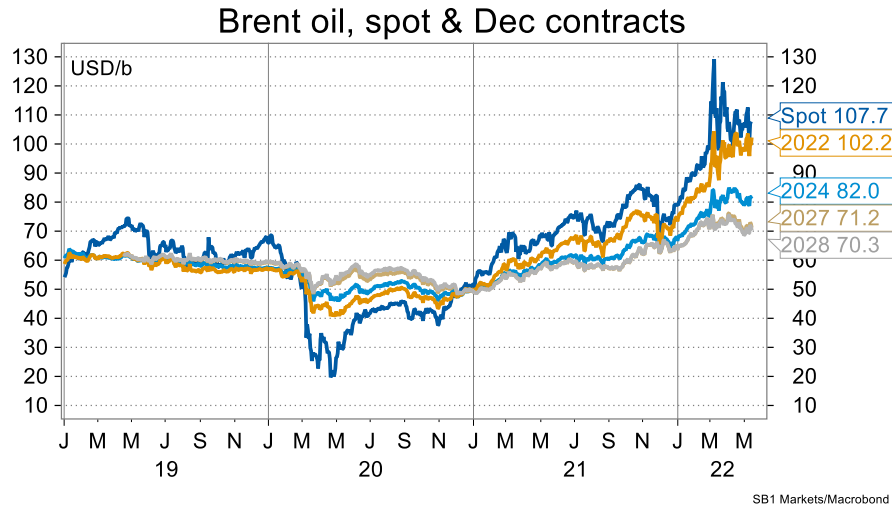
SB1 Markets/Macrobond



SB1 Markets/Macrobond

- The Economists food commodity index is still 8% above the pre-war level but is sliding gradually down
- UK natural gas prices are 6% down since before the invasion
- US natural gas prices are up 51% - some LNG 'leakage' to Europe?
- Norwegian electricity prices are up 49% (but fell sharply last week)
- The oil price was close to unch but recovered at Thursday/Friday

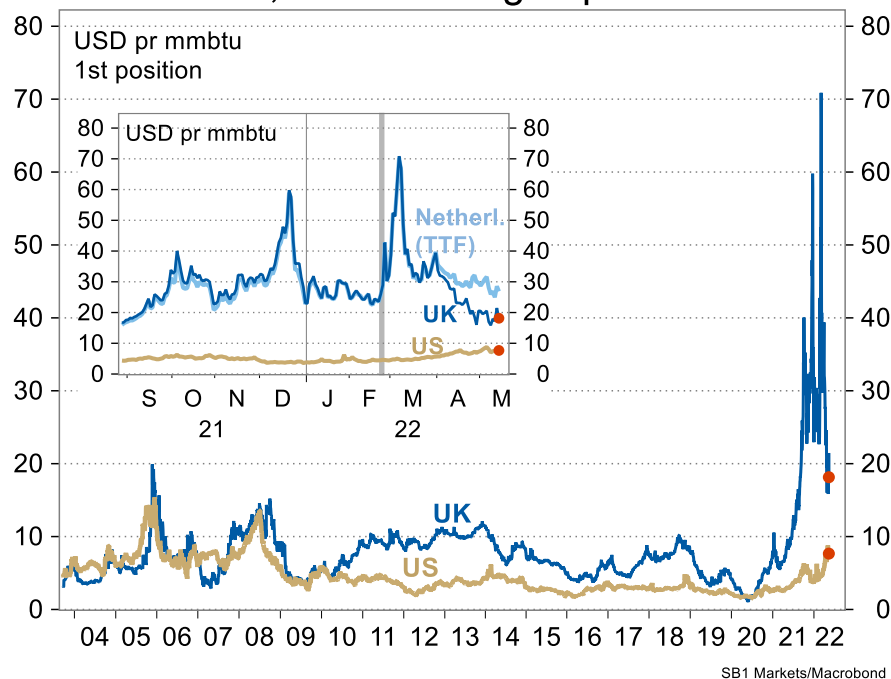
The oil price curve stable last week



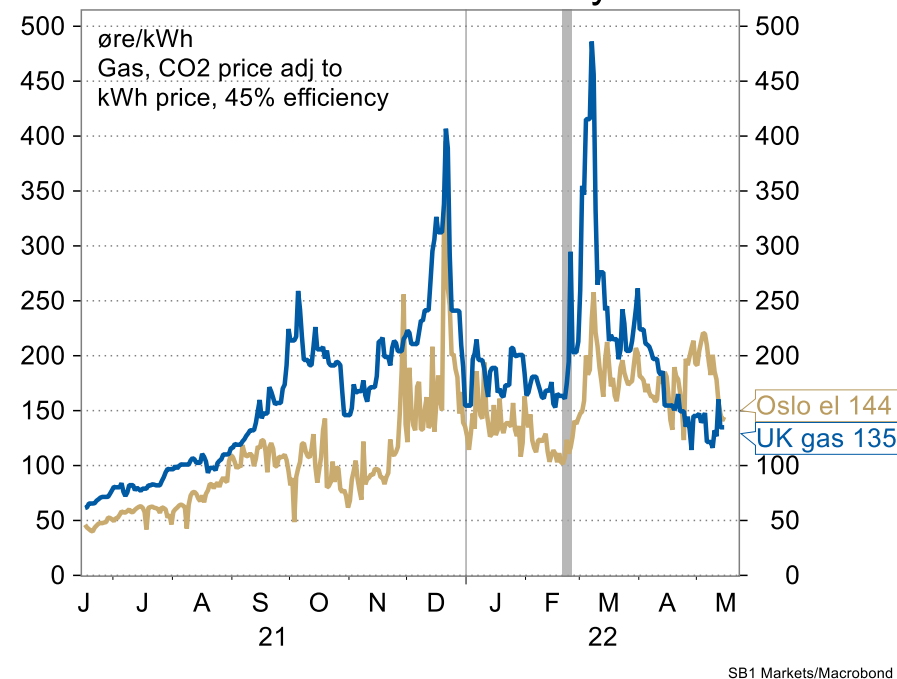
Wide gaps between natural gas prices: UK between US and continental Europe

British prices have fallen more than continental prices, US prices are trending upwards

UK, US natural gas prices



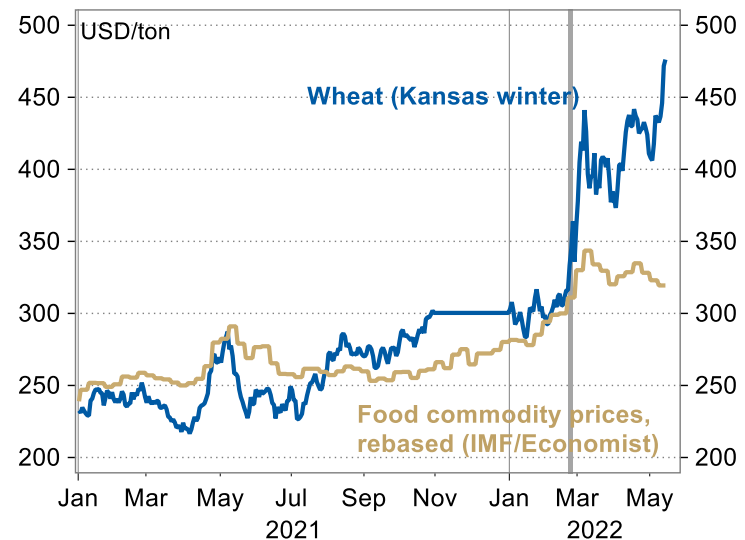
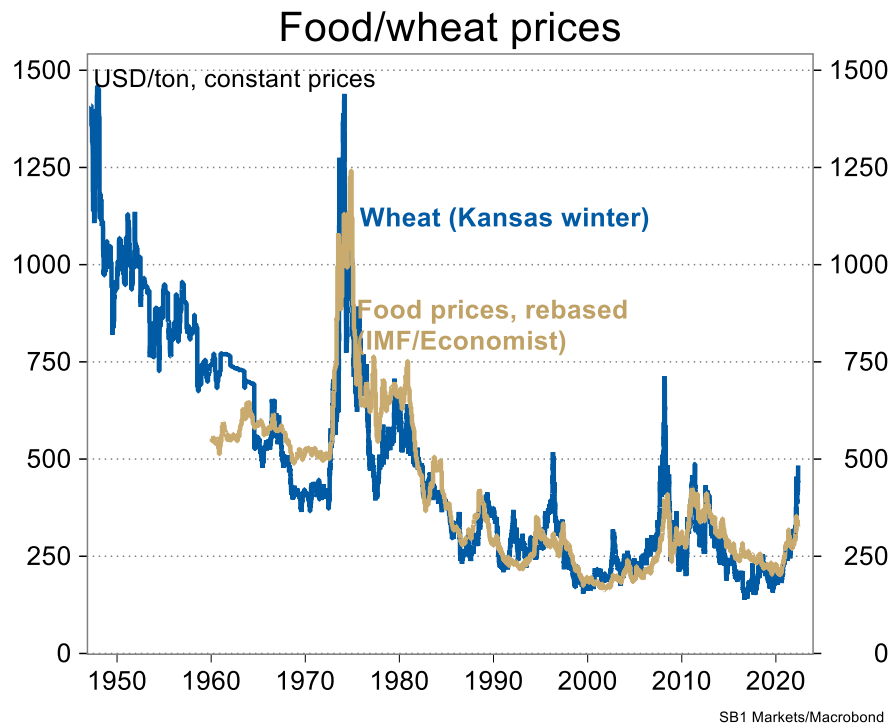
Gas & electricity



- Lack of capacity for receiving LNG at the Continent and lack of capacity in pipelines between UK and the Continent explain the unusual differential between TTF (Netherlands) and NBP (UK) prices
- US prices up due to more export to Europe. The cost exporting US gas to Europe may be some USD 5 – 6/mmbtu, almost twice the current price differential (in the short end for the gas price curve)

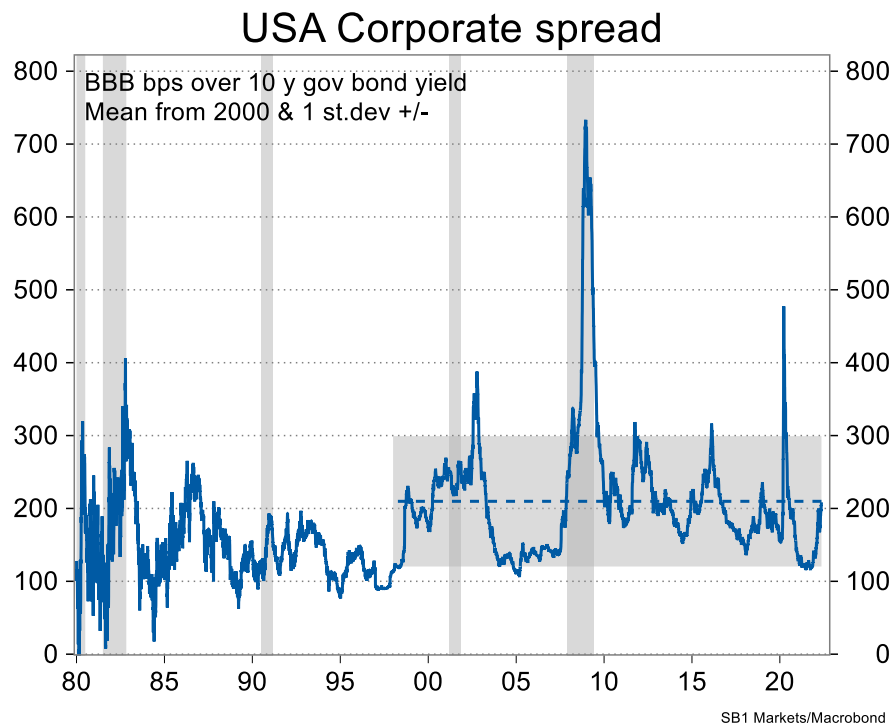
Wheat prices up, but food commodities in average further down

No end of the war in sight: how much wheat, sunflower + fertilisers will get out of Russia/Ukraine?

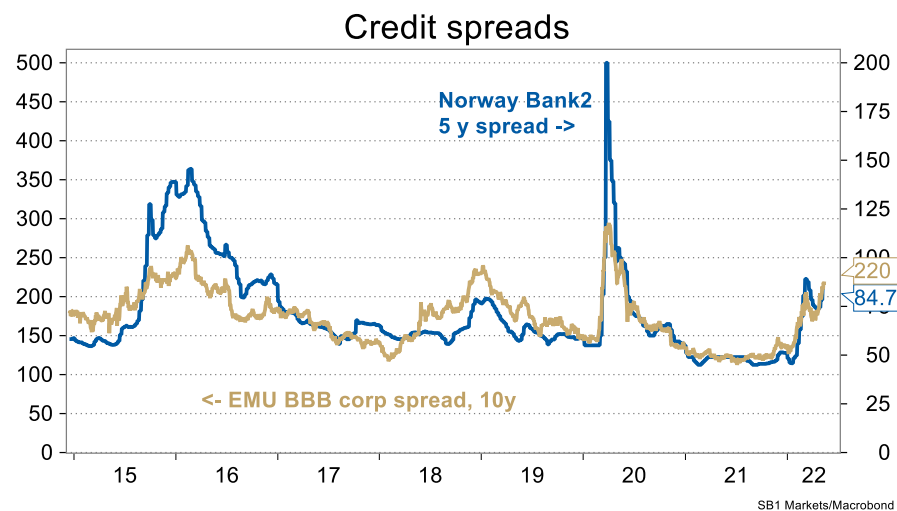


Credit spreads up to a 25 y average, from 1 st.dev below avg in November!

The US corporate BBB spread widened to 208 bps from 120 last autumn

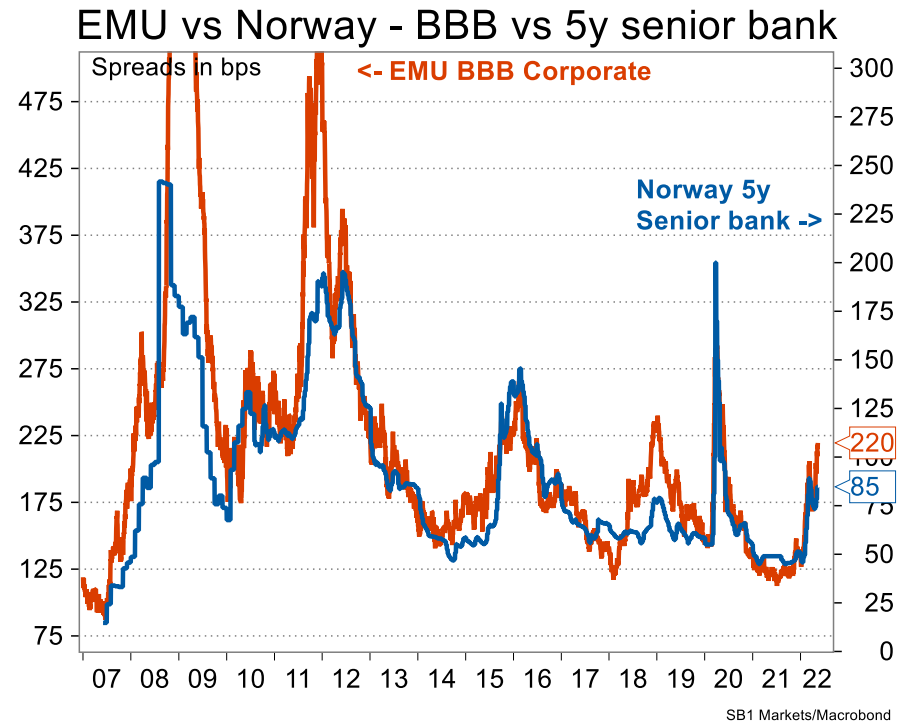
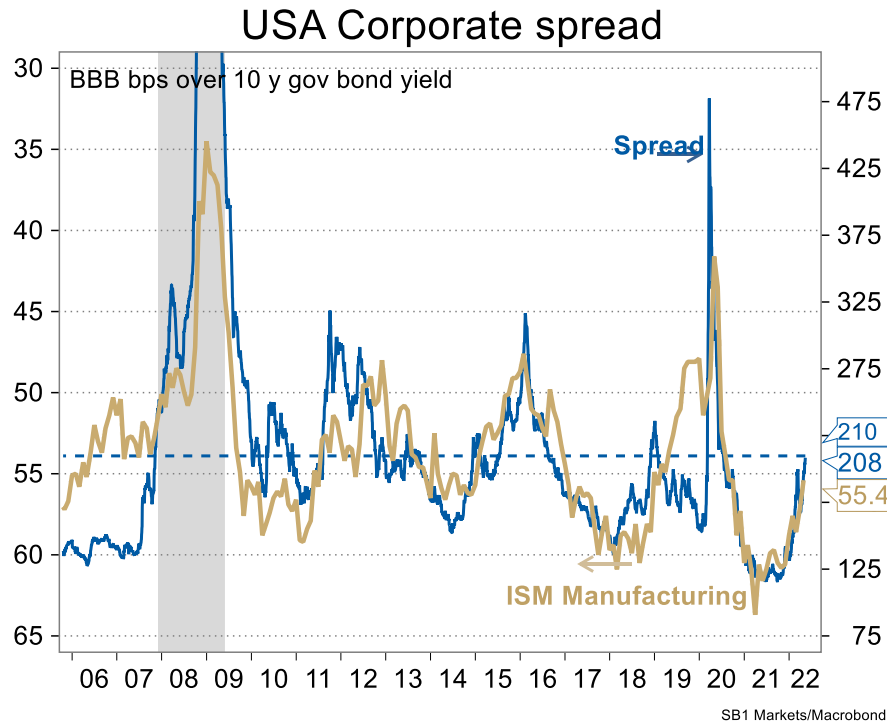


- European and Norwegian spreads are following suit, as they usually do



Why are credit spreads widening? Could it be the slowing economy?

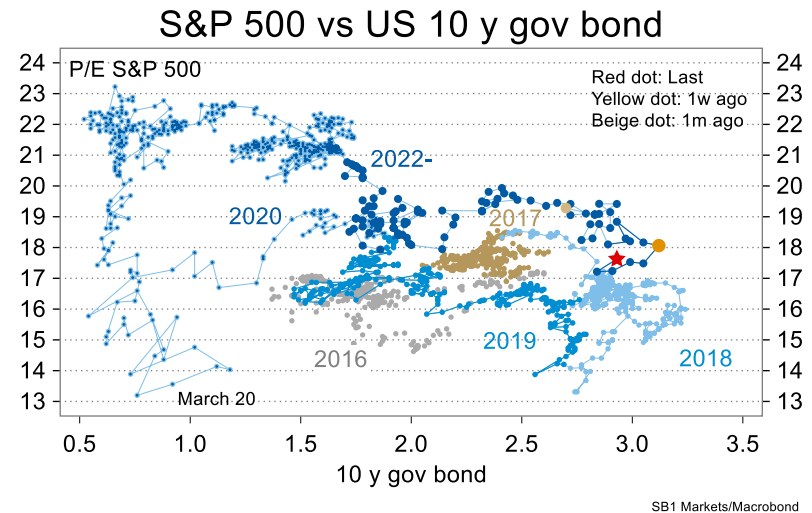
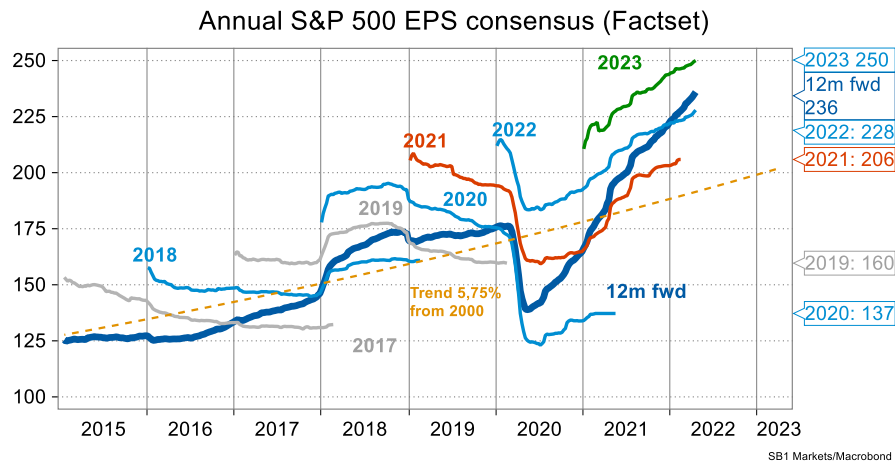
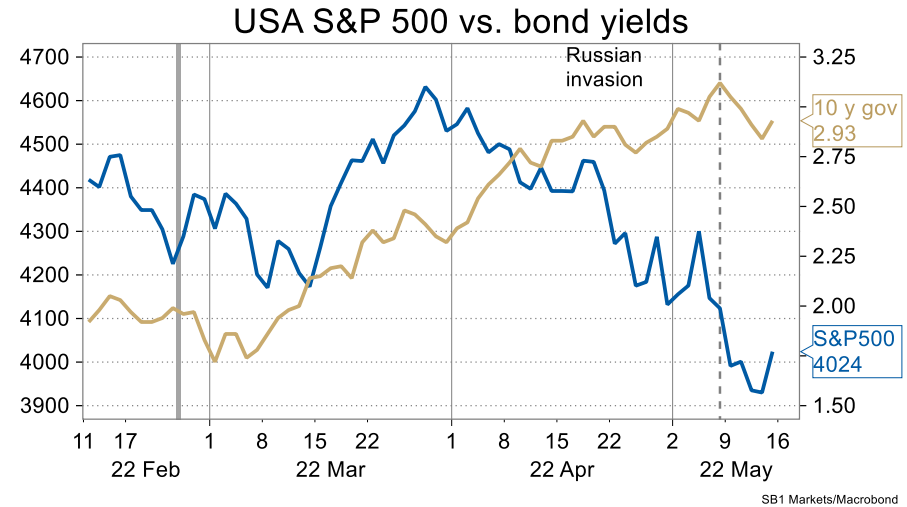
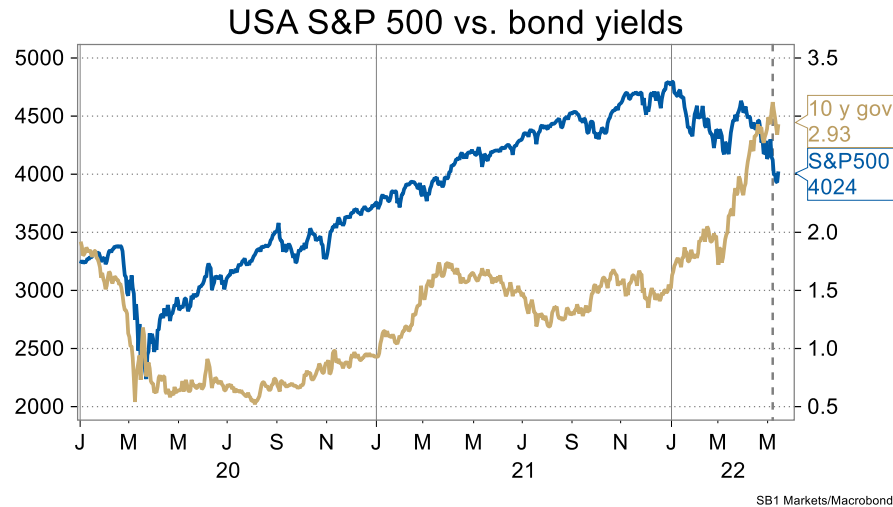
What do you think is the most likely: An ISM at 50 or 60 in 6 months time?



- The answer is not irrelevant for your views on the outlook for spreads, we think

The 10 y gov bond down 19 bps to 2.93%. The S&P500 down 2.4%

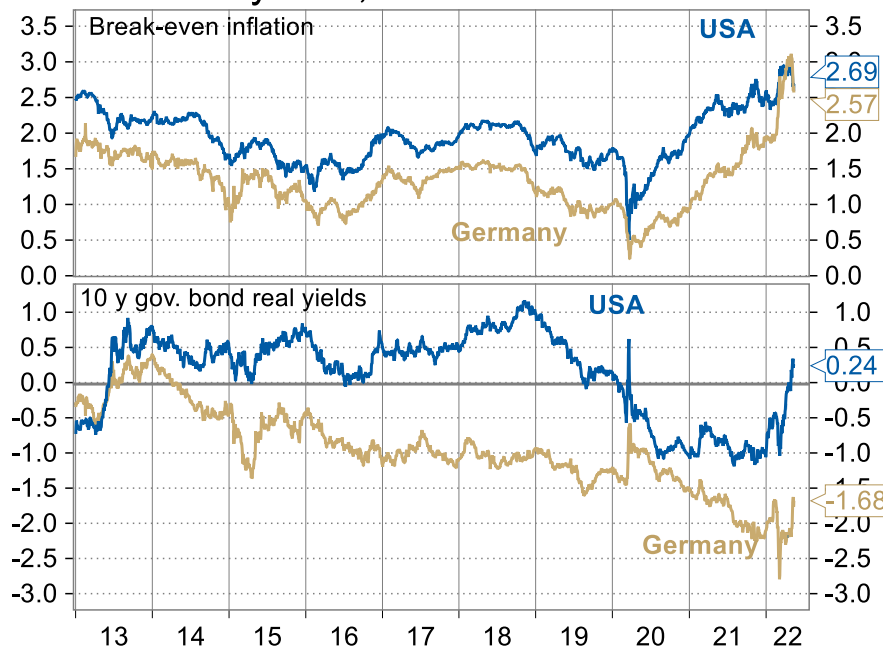
The next shoe to drop: Growth in expected earnings will soon fall sharply



Inflation expectations are falling rapidly, the most in Germany (10 y -38 bps)

Real rates unch at 'high' level in the US, up 20 bps in the EMU, and finally higher than before the war

Real yields, break-even inflation

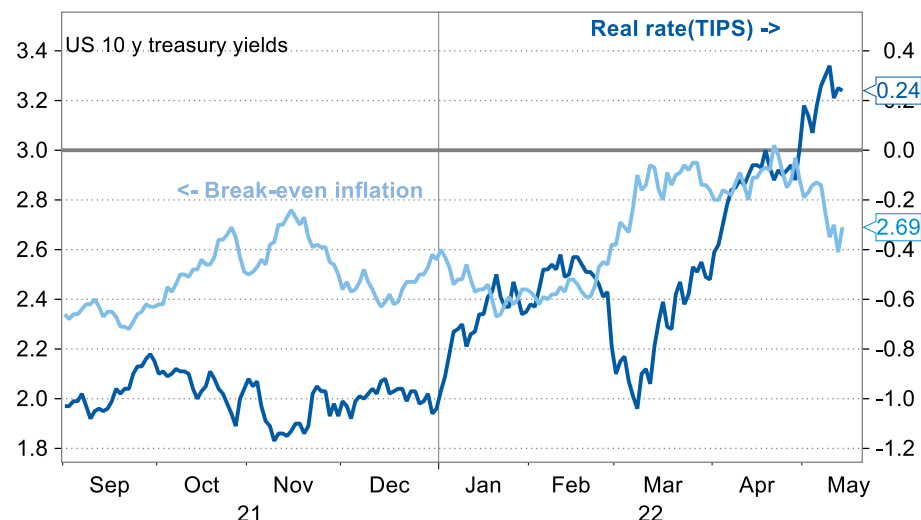


SB1 Markets/Macrobond

US & Germany 10 y Gov bond yield

	Yield	Change 1w	Change 1m	Since Feb 18	Min since April-20
USA nominal treasury	2.93	-0.19	0.23	1.01	0.52
.. break-even inflation	2.69	-0.17	-0.11	0.28	1.06
.. TIPS real rate	0.24	-0.02	0.34	0.73	-1.19
Germany nominal bund	0.89	-0.18	0.06	0.67	-0.65
.. break-even inflation	2.57	-0.38	-0.46	0.59	0.40
.. real rate	-1.68	0.20	0.52	0.08	-2.80

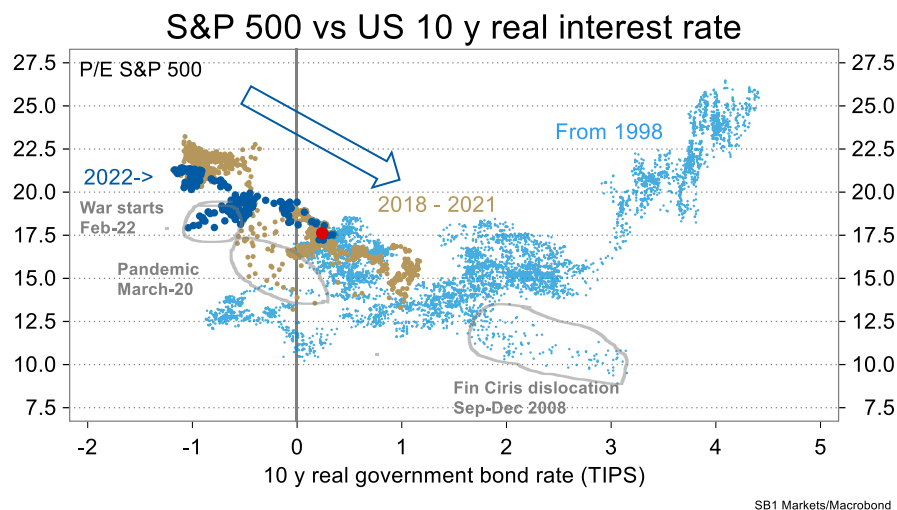
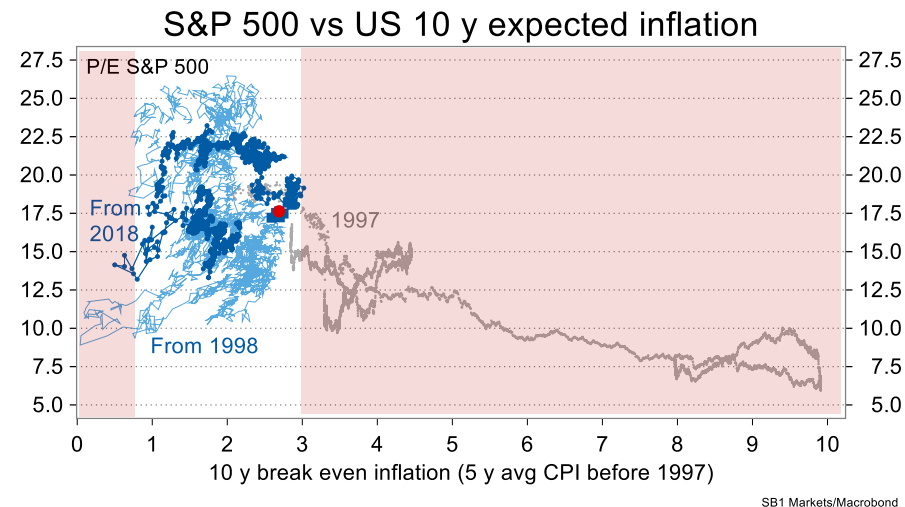
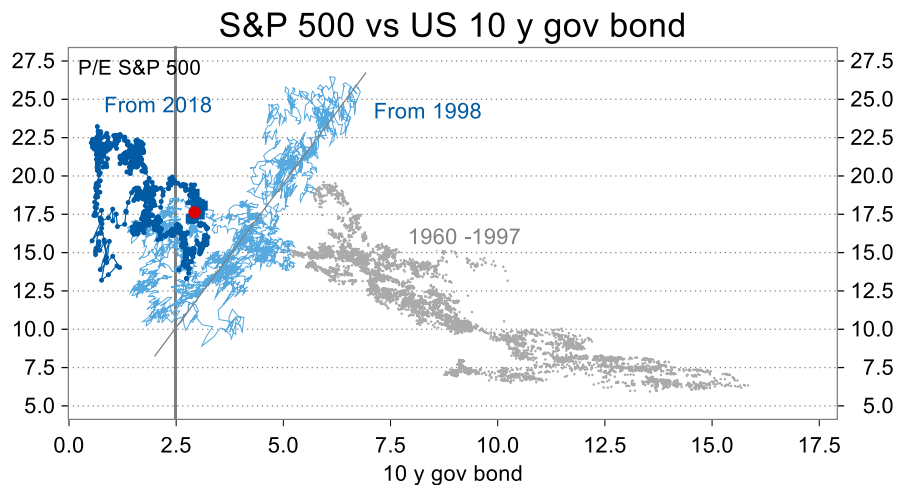
SB1 Markets/Macrobond



- **The US nominal 10 y bond yield** fell back to below 3% as inflation expectations fell 17 bps. That's a sound movement – and the break-even level is still too high (Fed will not let inflation run away, raw material prices will come back to earth)
- **Real rates in the US** remains well above zero - but at 0.24% we still think the levels is too low
- **Real rates in Germany** rose sharply last week too but are still at -1.68%. Break-even inflation fell 38 bps last week, also a very comforting change – the ECB will not let inflation take hold over time either

Bonds vs. equities: What's next? Central banks are now fighting inflation!

... And they will probably succeed. But at a price: Higher real rates + 'some' earnings surprises



• Expected inflation

» *If its not too low or too high: No problem*

- 'Real' expected earnings are unaffected, higher inflation implies stronger growth in earnings, and vice versa

» *If its too low or too high: A problem*

- Something is rotten: Deflation or far too high inflation. The economy is not stable. Risk are increasing, earnings are exposed.
- » Now: Infl. expectations at close to 3% - on the border to become a problem?

• Expected long term real interest rates

» *Low real rates normally not good news, high rates were OK*

- Real rates were low when the economy was weak, the outlook uncertain
- High real rates when the economy was booming, with high P/Es

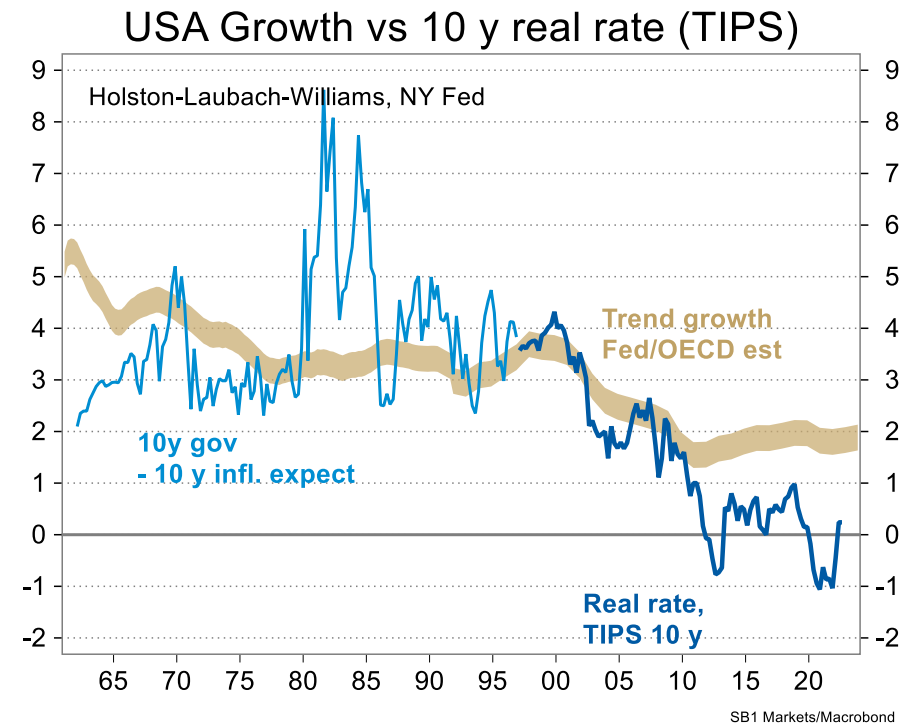
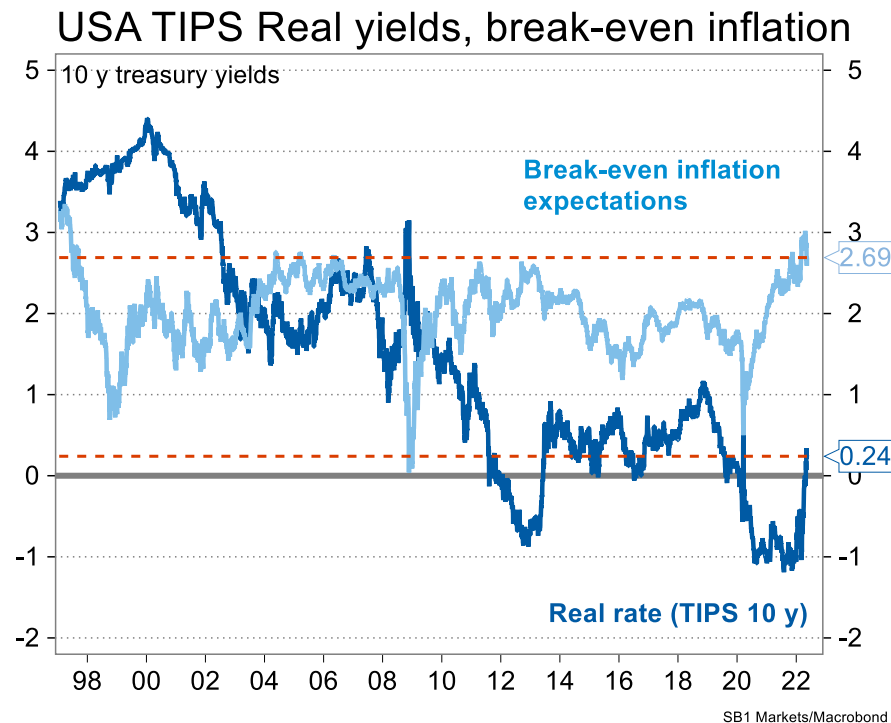
» **2018-21:** real rates have been low even if the economic outlook has been OK

- Central banks wanted to lift growth, inflation was anyway not a problem – we entered the 'Goldilocks' corner'

» **Now:** Central banks engaged in a HUGE policy shift, to contain inflation. The risk: A further increase in REAL rates, at the same time as growth expectations slows!

Mind the gap: It's rapidly closing!

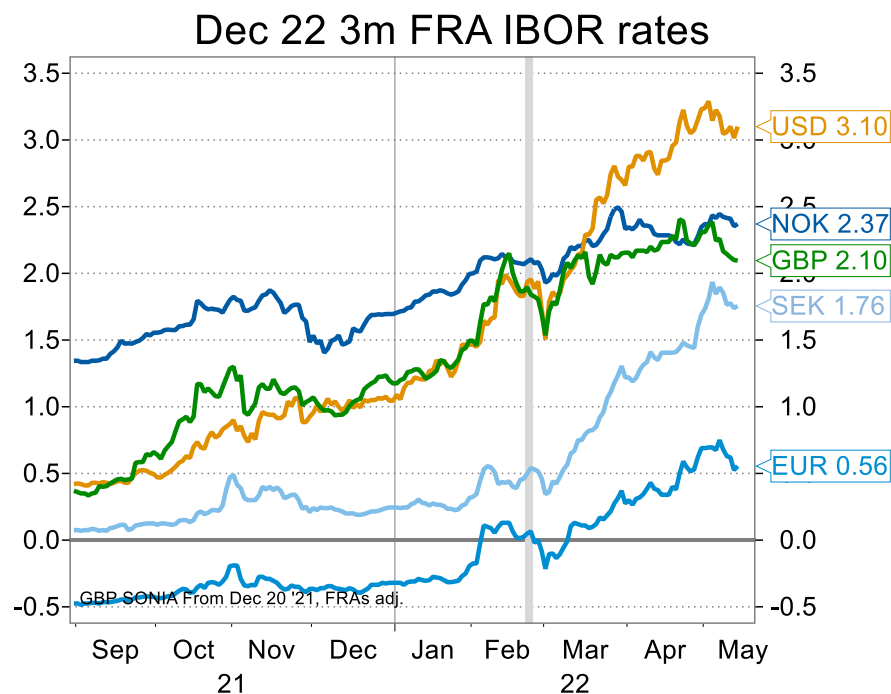
Real rates are rapidly on the way up from levels that were far to low if the growth outlook was OK



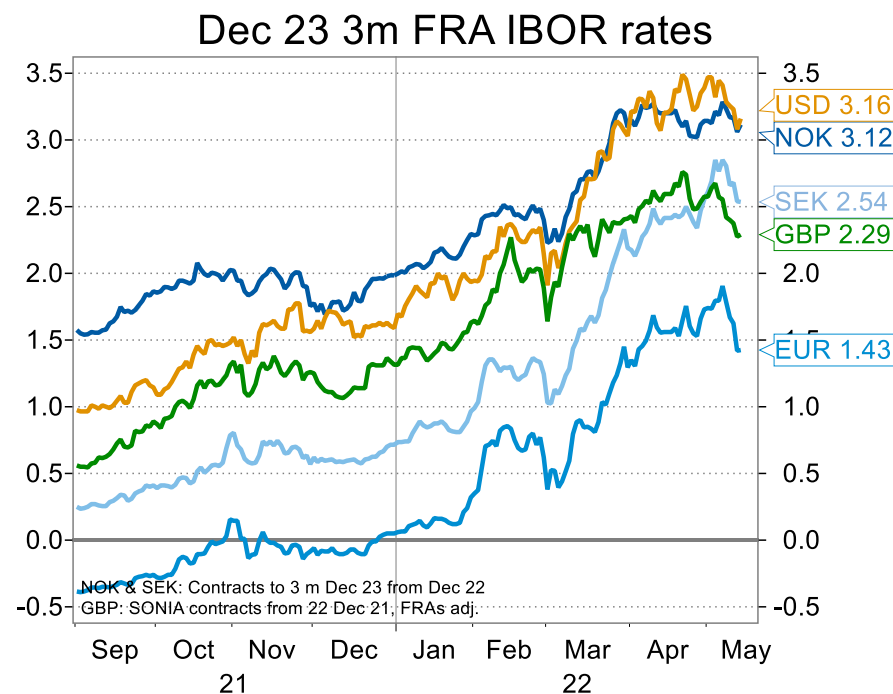
- There is now reason to believe that the current surge in real rates is due to an equivalent increase in growth expectations. It is of course the opposite: At least the short to medium-term outlook is now weakening as central banks finally enters the fights against inflation by at least bring growth down to below trend growth
 - » Profit margins are VERY exposed
 - » Demand for labour will slow too, and unemployment will increase – in order to get wage inflation down
- The USD 10 trl question: Are all risk markets really discounting this scenario?

Finally, a pause: FRA rates down last week, EUR Dec-23 down almost 50 bps!!

NOK FRAs kept up better than others. For no good reason?



SB1 Markets/Macrobond

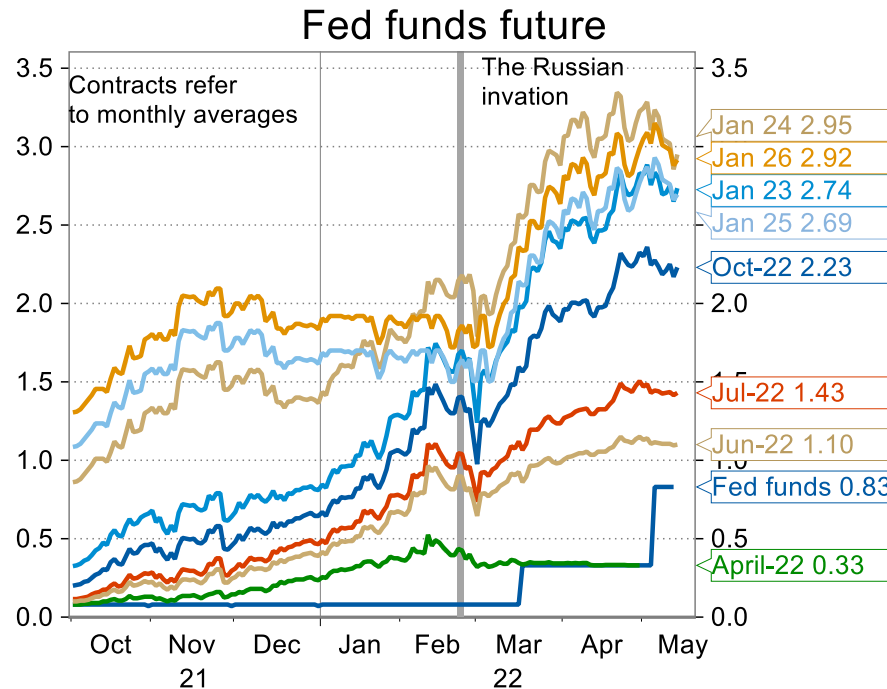


SB1 Markets/Macrobond

- Are lower growth expectations creeping into interest rate markets? Probably somewhat too early?

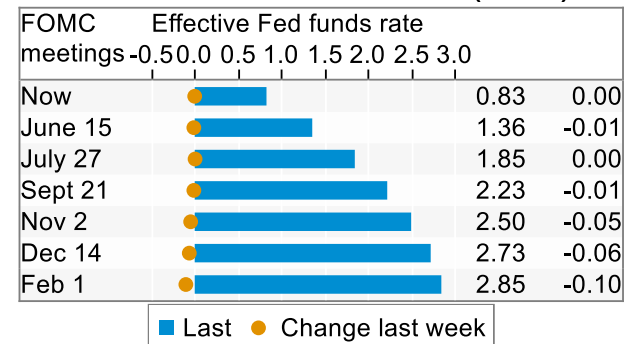
Small changes in the very short end of the Fed funds curve

But expectations are yielding from late 2022

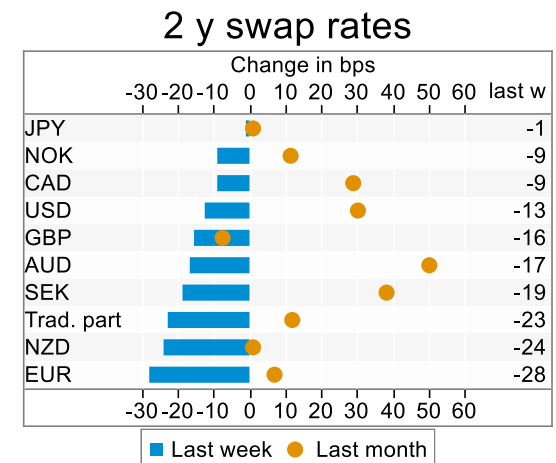
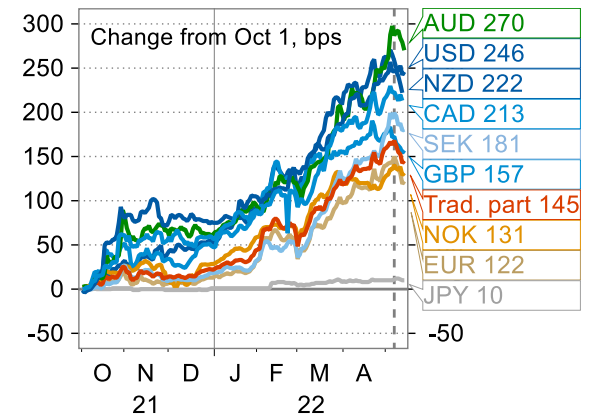
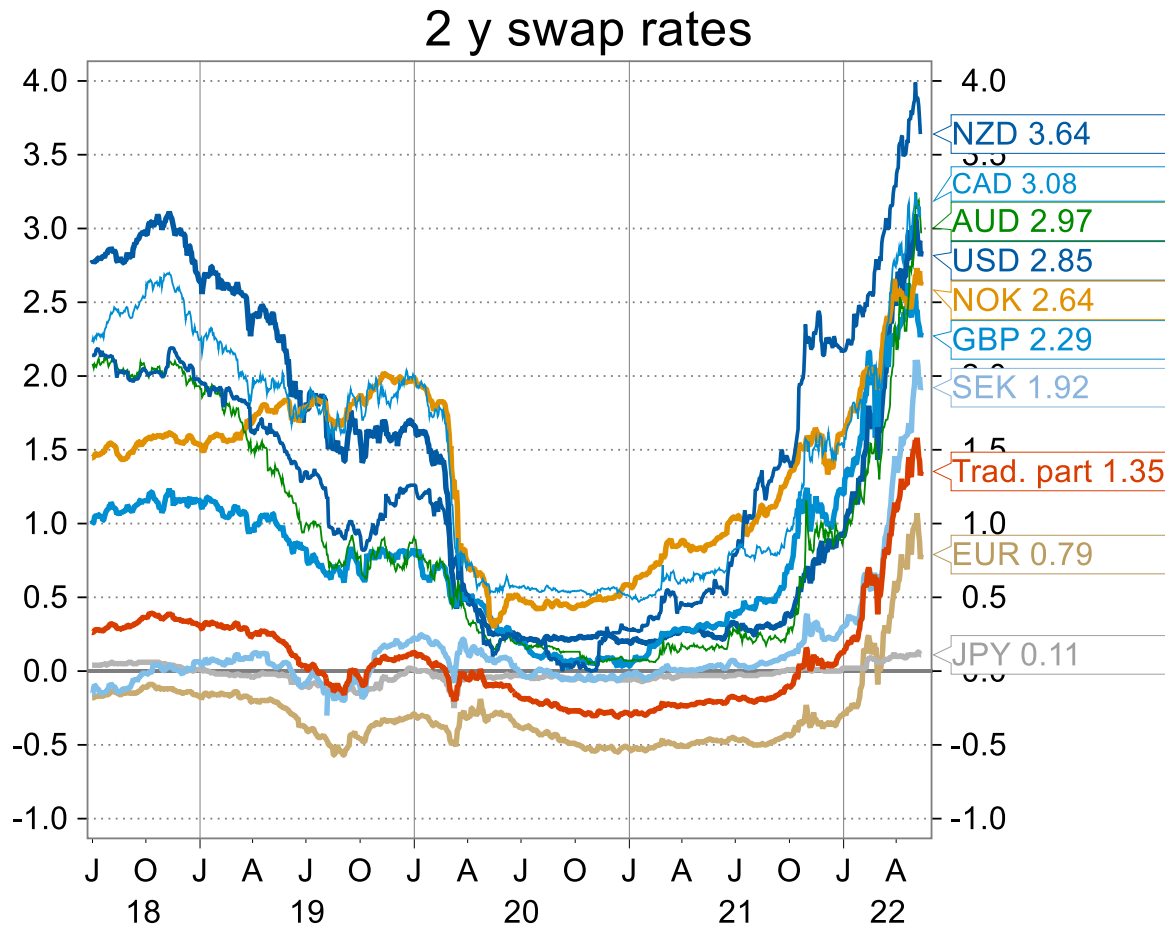


SB1 Markets/Macrobond

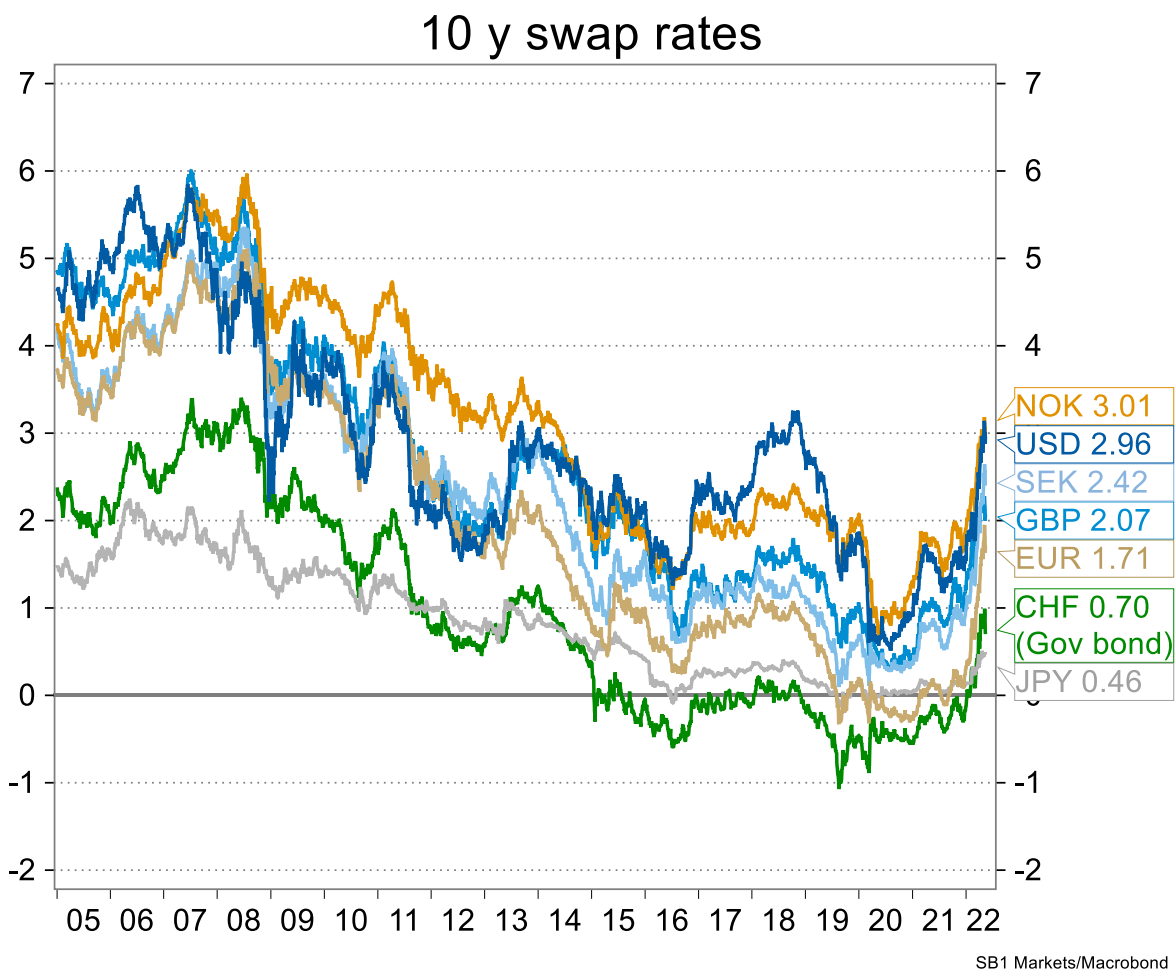
USA Fed funds rate (OIS)



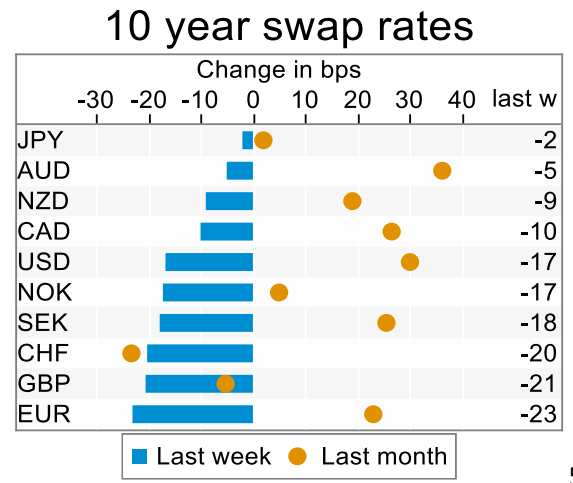
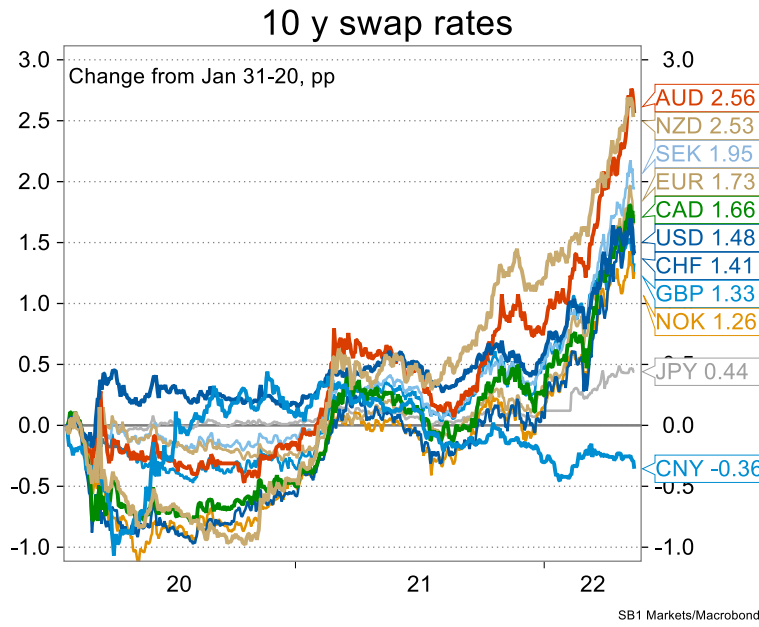
The short end of the curve down everywhere – but almost all up last month



The long end down everywhere, the most in the EUR – still up 23 bps last month



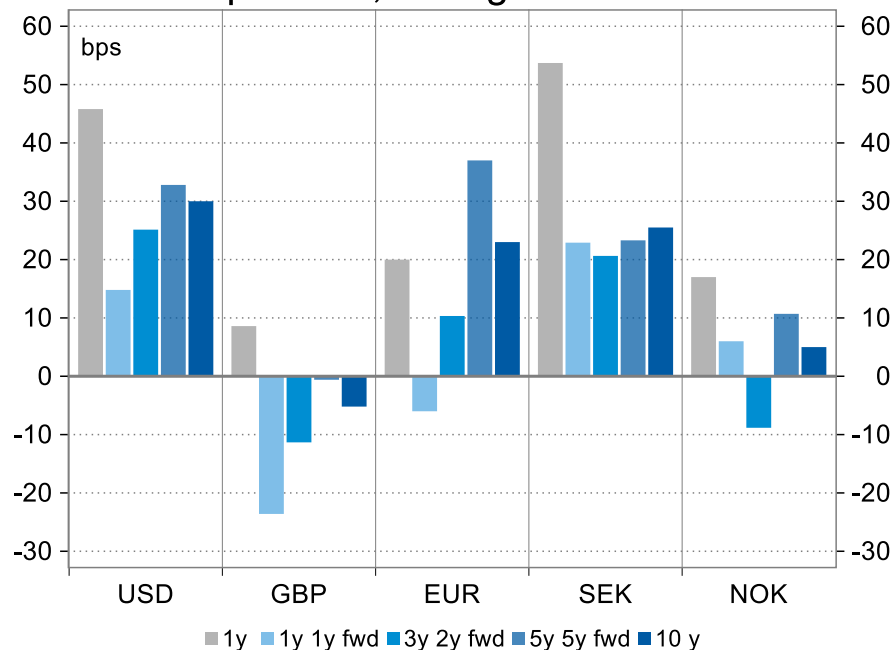
CHF: 10 y government bond yield



All segments of all curves down last week, less in Norway than in rest of Europe

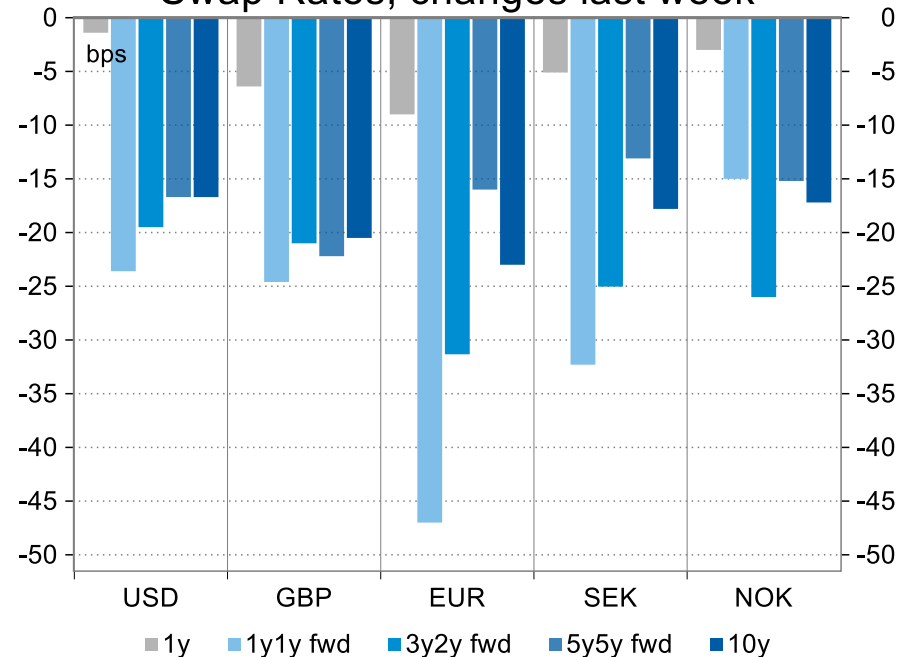
Still, most rates are up m/m

Swap Rates, changes last month



SB1 Markets/Macrobond

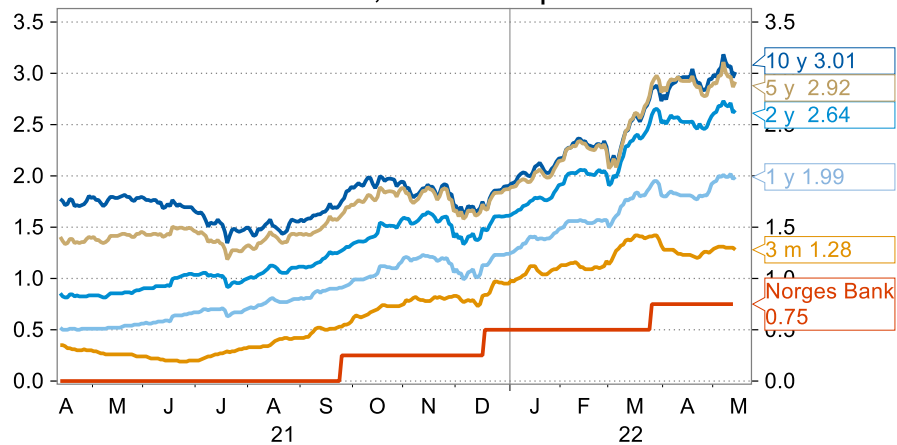
Swap Rates, changes last week



SB1 Markets/Macrobond

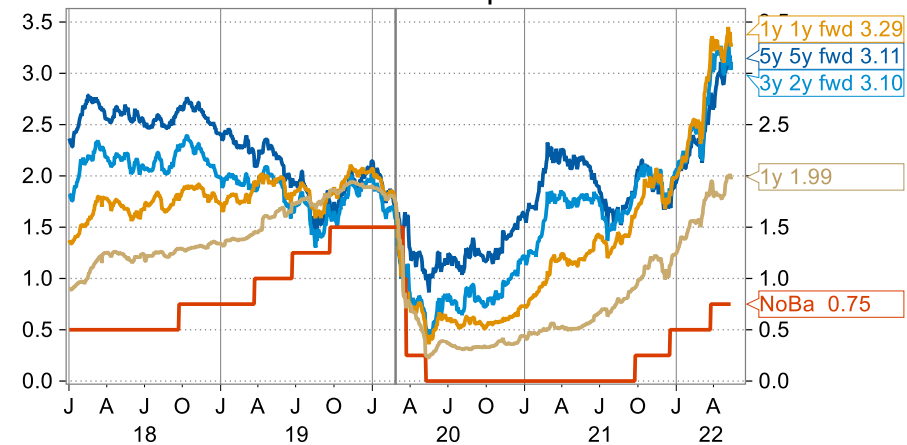
Rates down all over the curve but not by much in the very short end

NIBOR, NOK swap rates



SB1 Markets/Macrobond

NOK Swap rates



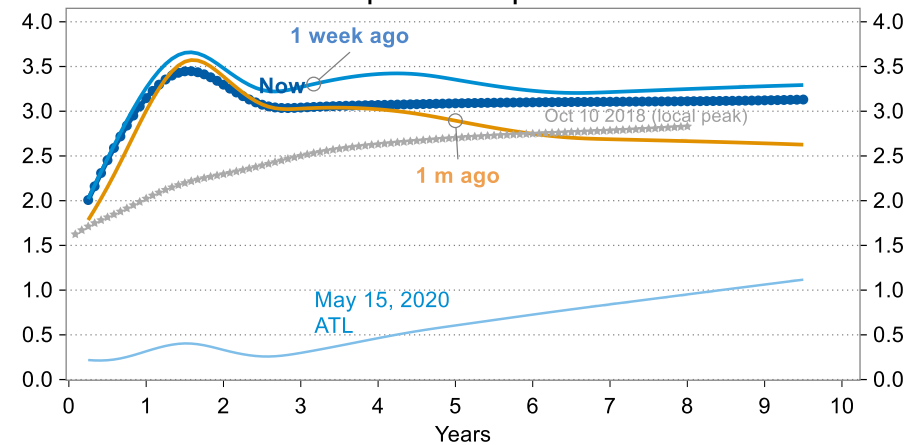
SB1 Markets/Macrobond

Norway - yield spread, 10y - 2y swap



SB1 Markets/Macrobond

NOK Implied swap forwards

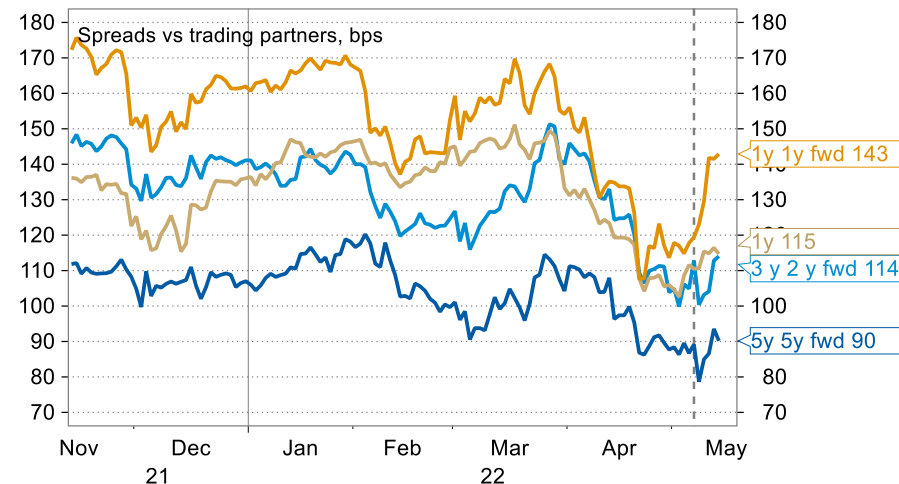
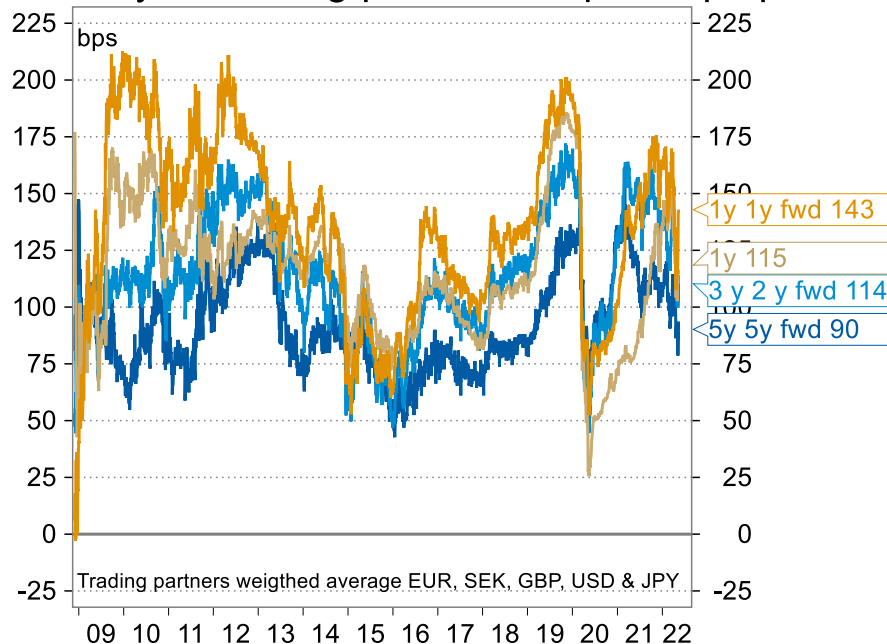


SB1 Markets/Macrobond

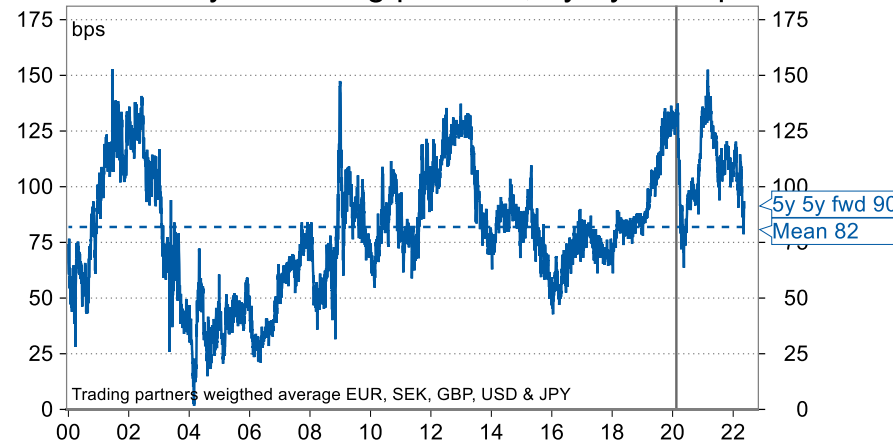
Spreads widened substantially, we doubt for long

Spreads vs. trading partners at very close to average levels after the lift last week, all over the curve

Norway vs trading partners, impl swap spreads



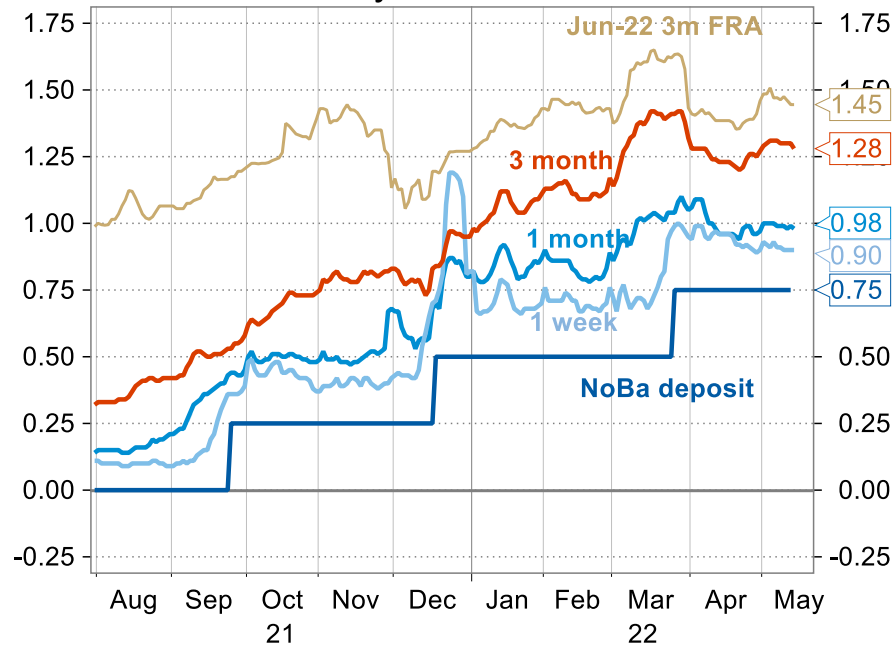
Norway vs trading partners, 5y 5y fwd spread



The 3m NIBOR down 4 bps to 1.28%, the NIBOR spread up 5 bps to 39 bps

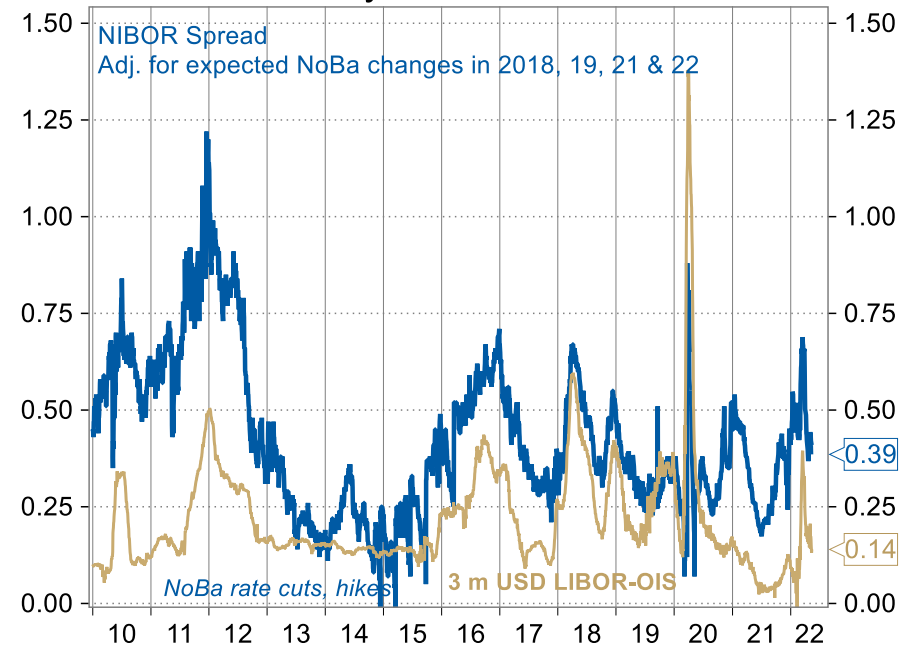
The USD LIBOR-OIS spread down 3 bps to 14

Norway, NIBOR rates



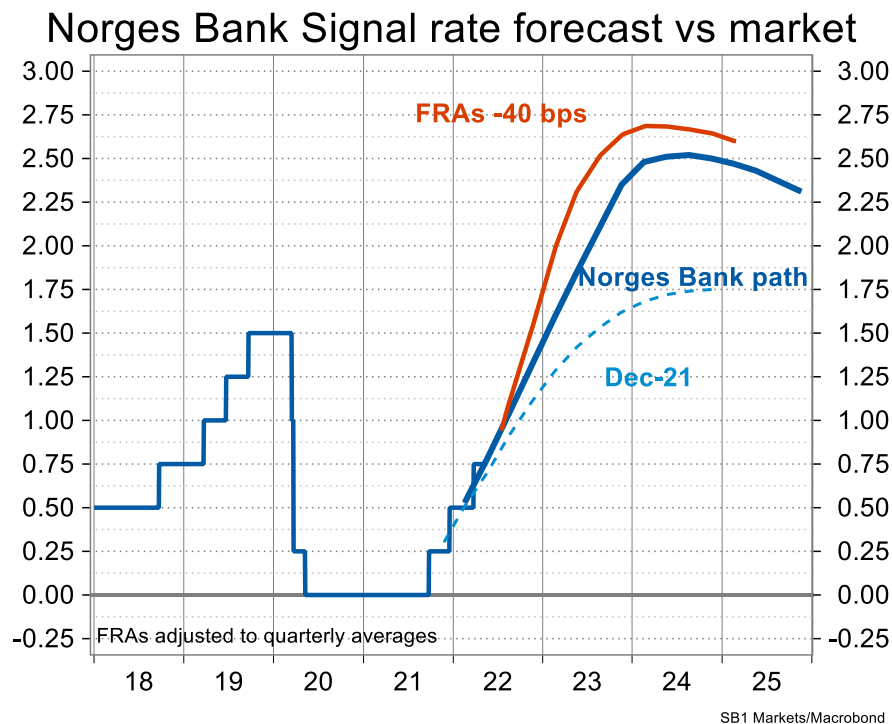
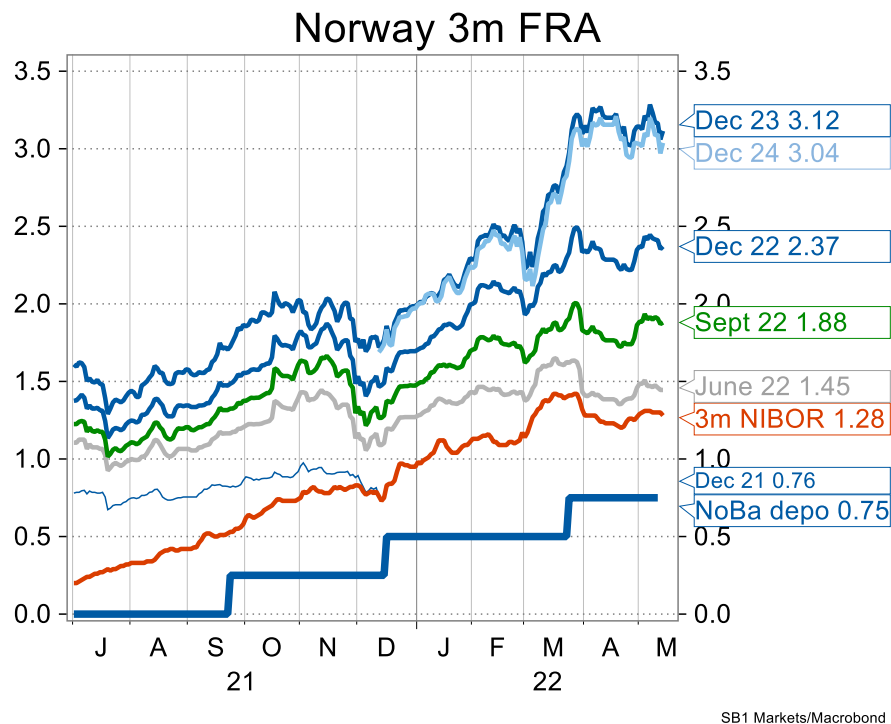
SB1 Markets/Macrobond

Money market friction



SB1 Markets/Macrobond

FRAs up, alongside the 3 m NIBOR. A higher NIBOR spread at least partly to blame



- The **June 3 m FRA** declined 2 bps to 1.45% last week, and the Sep contract lost 6 bps to 1.88% (and Dec -7 bps to 2.37%)
 - » If NoBa hikes by 25 bps to 1% at June the 23 meeting (and no hike in August), the average deposit rate in the duration of the June 3 m FRA contract will be 0.98%
 - A 100% probability for a 25 bp hike if the assumed Q3 NIBOR spread is 47 bps. We doubt the spread is assumed to be that high. A 50 bps cannot be ruled out
 - However, as the Sept 3 m FRA at 1.88 is 43 bps above the June contract, a 25 bps hike in both August and September is also an alternative
- The FRA market now discounts a 1.75% (30%) or a 2.00% (70%) signal rate in Q4 (assuming a general 40 bps NIBOR spread + a 5 bps Q4 liquidity premium)

NOK lost another 2.2% last week, without that many good excuses. EUR weak too

The CNY is rapidly losing ground – and the USD is surging. The JPY recovered some of the big losses

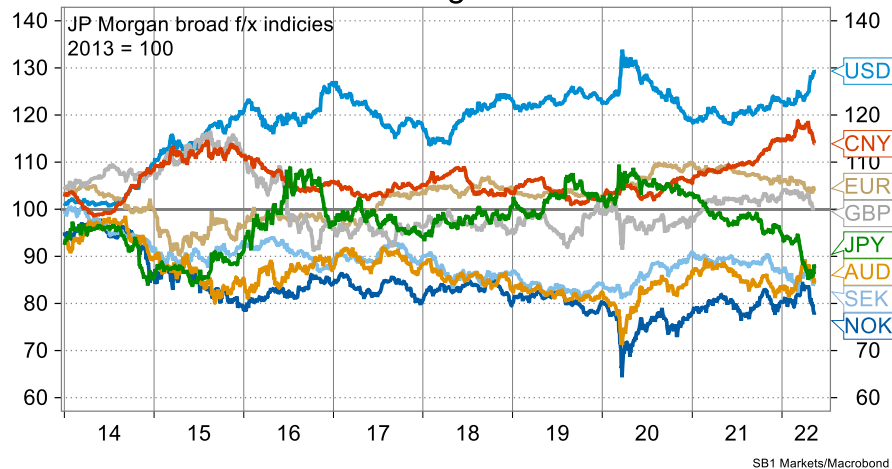
EURUSD



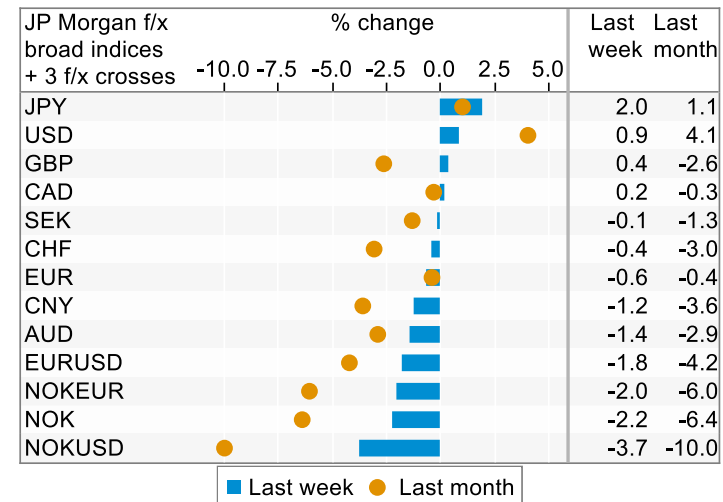
NOK vs EUR & USD



Exchange rates

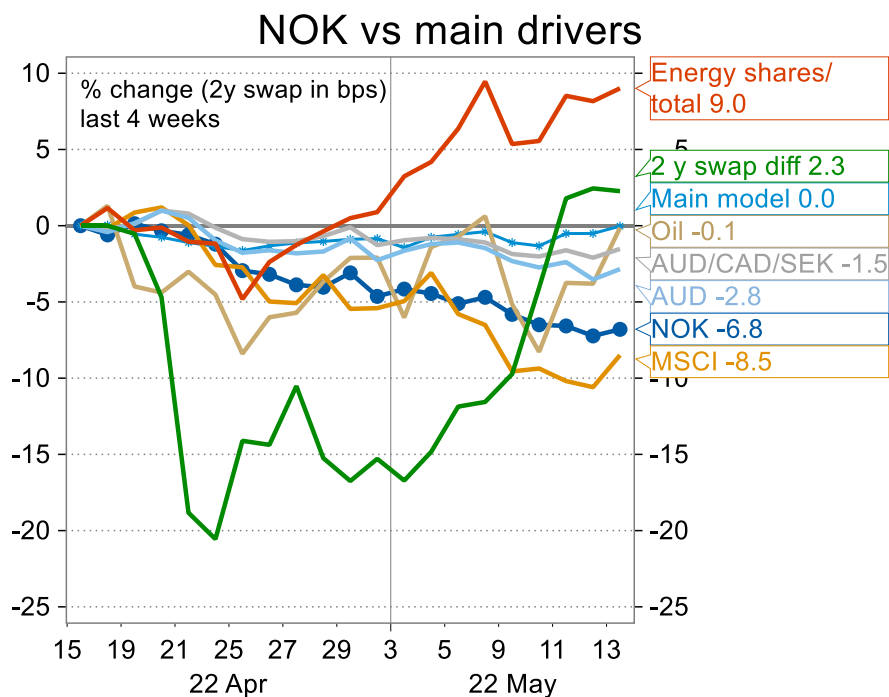


F/x markets

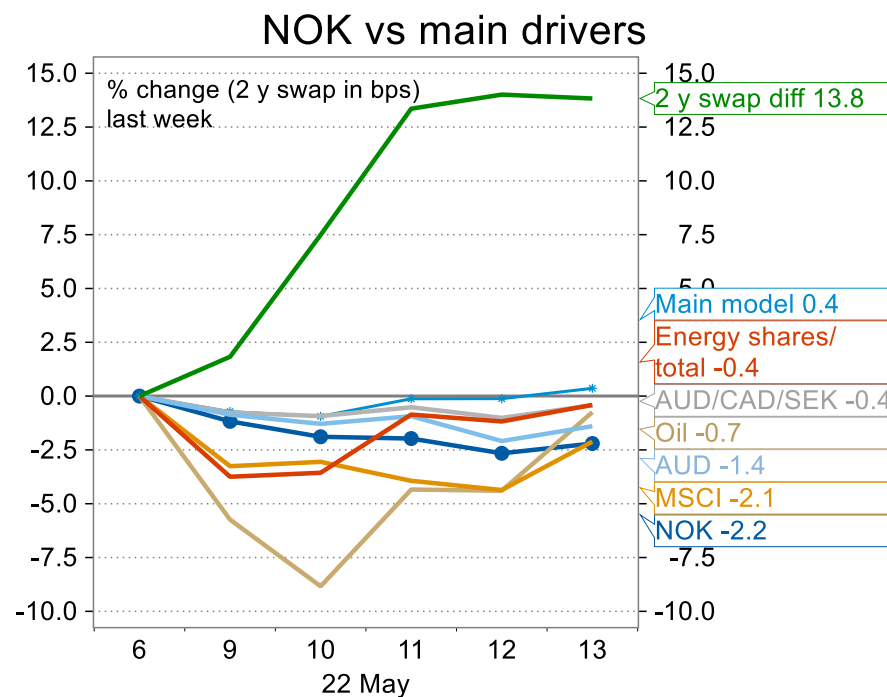


What's up (or rather down) with the NOK?

NOK further 2.2% down last week. Some normal factors fell to, but 'too less'. And our model said +0.4%



SB1 Markets/Macrobond



SB1 Markets/Macrobond

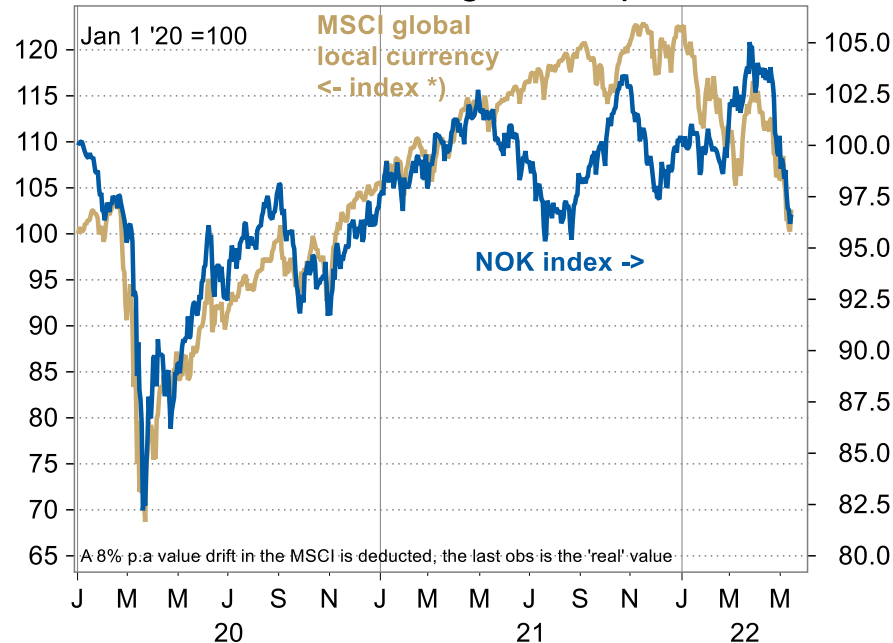
The status vs. the normal drivers – NOK the only loser

- **The NOK -2.2% - and the NOK 6.5% below our main model estimate (from -4.5%)**
- The NOK is 9% weaker than our AUD/CAD/SEK-model, our 'super-cycle peers', predicts (from 6%)
- NOK is 4 % stronger than a model which includes global energy companies equity prices (vs the global stock market) (from 1)

The NOK has fallen alongside the global stock market recently

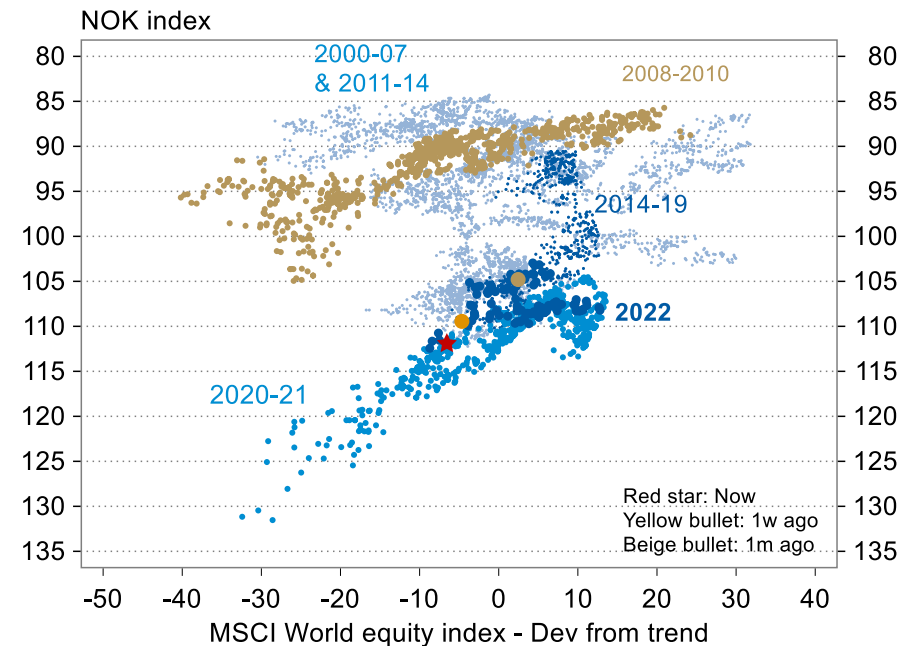
... but there is not stable correlation over time, and when it is, the oil price is normally the real driver

NOK Index vs. global equities



SB1 Markets/Macrobond

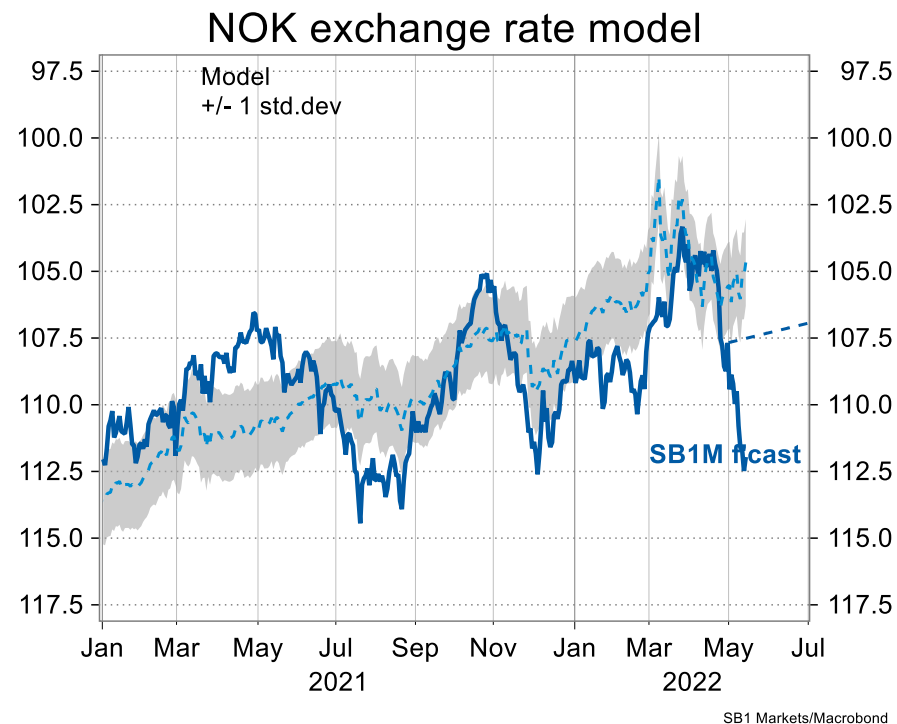
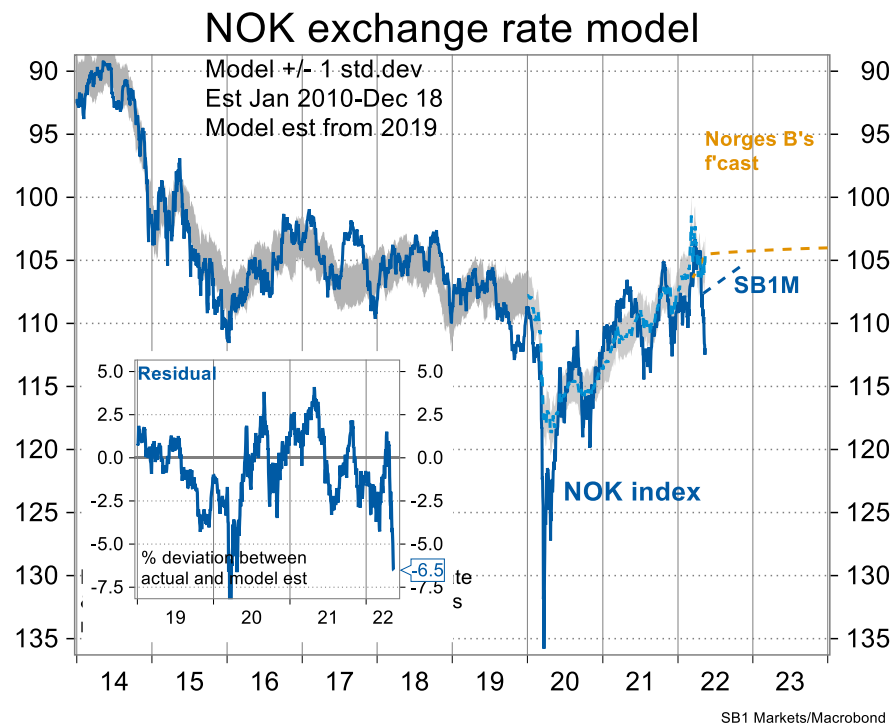
NOK vs. MSCI world index



SB1 Markets/Macrobond

The NOK suddenly down 6.5% vs our standard model estimate!

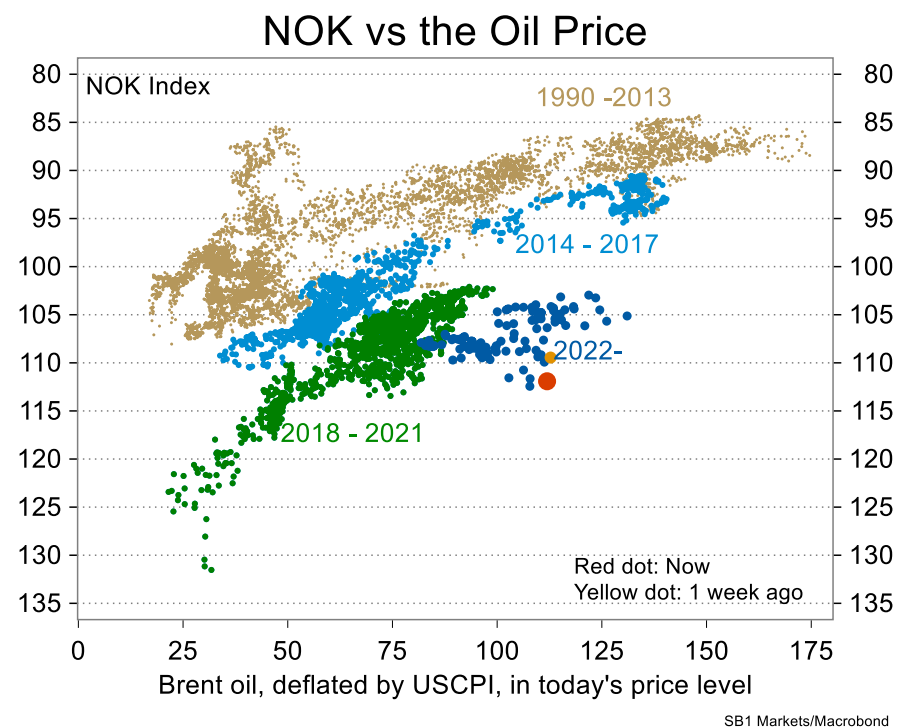
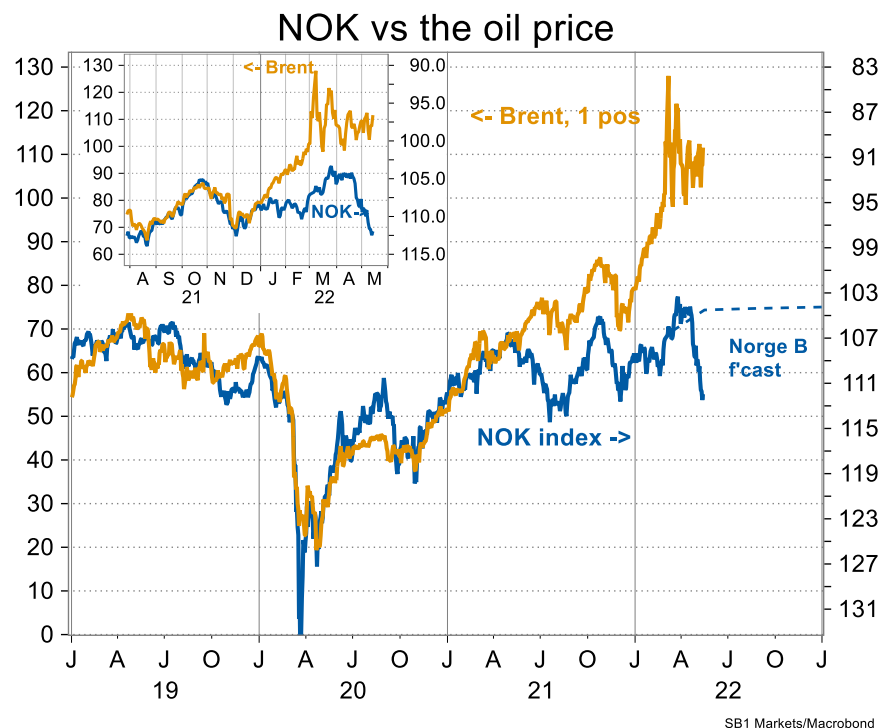
Rather unusual...



- The decline started April 25

NOK down. Oil not.

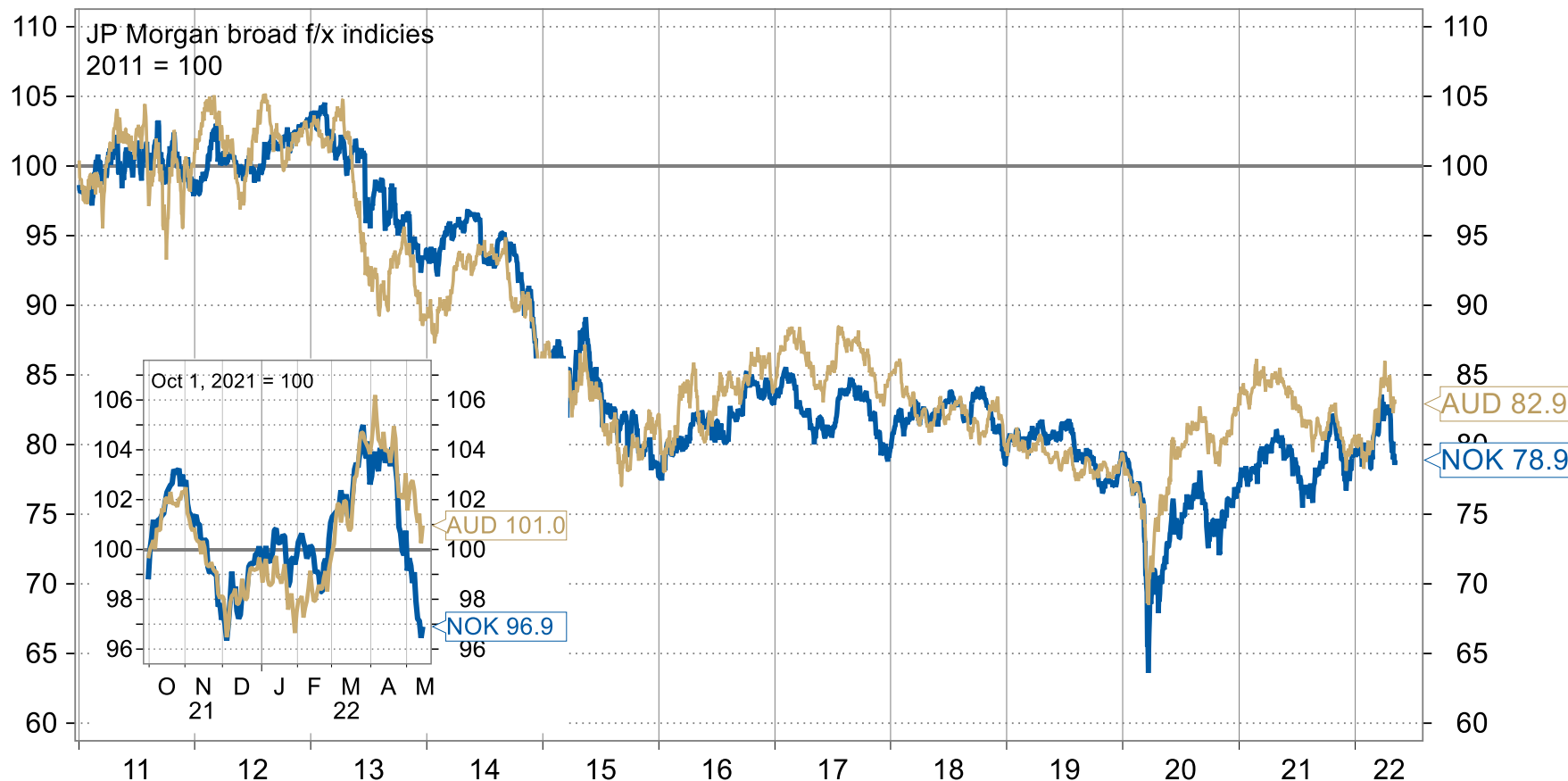
Oil & NOK have not been closely correlated so far in 2022



The NOK suddenly lost 3.5 4.5% vs. the AUD

None for the two usual suspects explain it: Oil price or the LME. Other factors have not been relevant

AUD vs NOK f/x

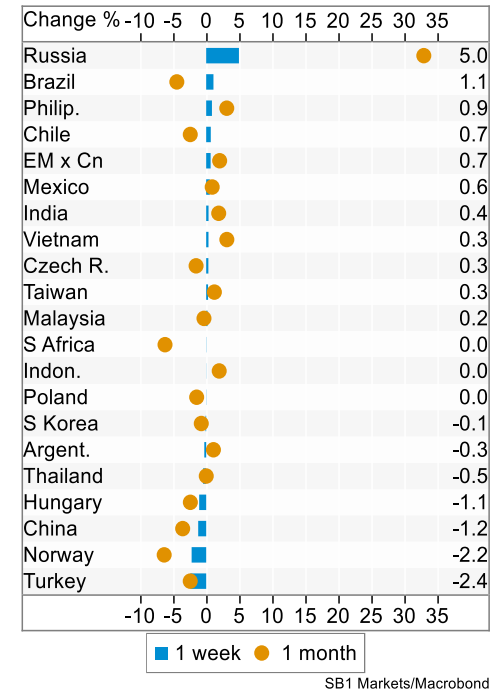
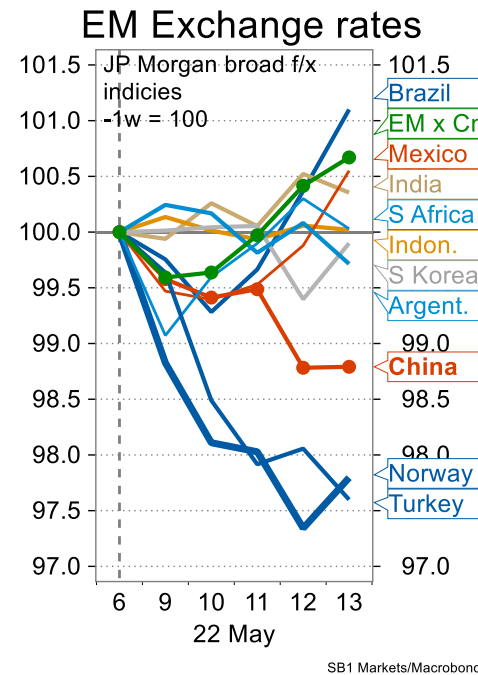
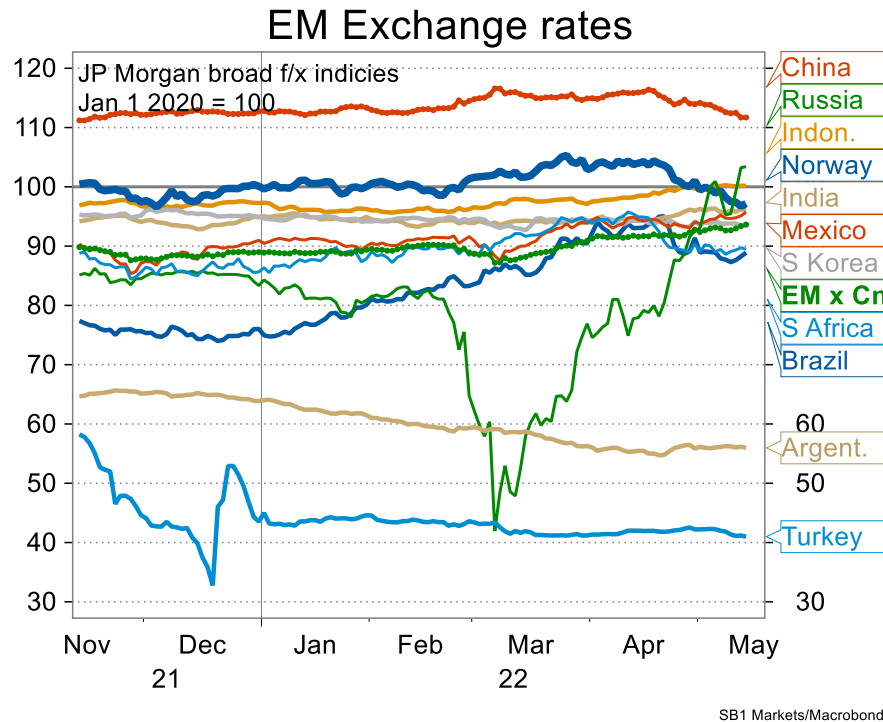


SB1 Markets/Macrobond

Usually, interest rate differentials have not been important at for the NOK/AUD relative strength/weakness. NOK has usually strengthened vs. the AUD in times of turbulence at the stock market (VIX, S&P vs. long term trend)

The CNY is still sliding down, less confidence in the Covid policy?

Other EM currencies more up than down last week, the Russian RUB up 5%, up 25% from Feb 23!



- The recovery has been spectacular – but is most likely mostly explained by strict capital controls, preventing both Russians and foreigners to sell their RUB assets or holdings. Imports are curbed by sanctions but exports are still running high, supported by high energy prices. Still, even if the exchange rate may be artificially kept up by regulations, a stronger RUB will lower inflation, which shot up in March, when the RUB collapsed

DISCLAIMER

SpareBank 1 Markets AS ("SB1 Markets")

This report originates from SB1 Markets' research department. SB1 Markets is a limited liability company subject to the supervision of The Financial Supervisory Authority of Norway (Finanstilsynet). SB1 Markets complies with the standards issued by the Norwegian Securities Dealers Association (VPPF) and the Norwegian Society of Financial Analysts. This message, and any attachment, contains confidential information and is intended only for the use of the individual it is addressed to, and not for publication or redistribution.

No investment recommendation

Any views and opinions relating to securities mentioned in this report should be interpreted as general market commentary, and not as investment recommendations within the meaning of Regulation (EU) No 596/2014 on market abuse (market abuse regulation) and associated rules, as implemented in the relevant jurisdictions.

No personal recommendation

The information contained in this publication is general and should not be construed as a personal recommendation within the meaning of the Norwegian Securities Trading Act, section 2-3 (4). It does not provide individually tailored investment advice regarding a particular financial situation, investment experience, risk profile or preferences of the persons who may receive this report. For tailored investment advice regarding stocks mentioned in this publication, please consult our brokerage desk or your individual investment advisor.

Research for the purposes of unbundling

This report is deemed to constitute a minor non-monetary benefit for the purposes of the inducement rules under MiFID II. The report is publicly available on our website (no log-in required).

Conflicts of interest

The authors of this report do not (alone or jointly with related persons) own securities issued by the companies mentioned in this report. SB1 Markets, affiliates and staff may perform services for, solicit business from, hold long or short positions in, or otherwise be interested in the investments (including derivatives) in any stock mentioned in this publication. To mitigate possible conflicts of interest and counter the abuse of confidential information and insider knowledge, SB1 Markets has set up effective information barriers between divisions in possession of material, non-public information and other divisions of the firm. Our research team is well versed in the handling of confidential information and unpublished research material, contact with other divisions, and restrictions on personal account dealing. The views expressed in this report accurately reflect the analyst's personal views about the companies and the securities that are subject of the report, and no part of the research analyst's compensation is related to the specific recommendations or views expressed in this report. Please refer to our webpage for an overview of all investment banking assignments carried out in the last 12 months: www.sb1markets.no. Note that assignments subject to confidentiality are excluded.

Accuracy of sources

All opinions and statements in this publication are, regardless of source, given in good faith, and may only be valid as of the stated date of this publication and may be subject to change without notice. SB1 Markets has taken all reasonable steps to ensure that the information contained in this report is true and not misleading. Notwithstanding such efforts, we make no guarantee as to its accuracy or completeness.

Risk information

Return on investments is inherently exposed to risks. The value of an investment position may both rise and fall during the investment period. If the return on investments is positive at one time, there is no guarantee that it will remain such in future. In certain cases, losses may exceed the sum of the original investment.

Limitation of liability

Any use of information contained in this report is at your own individual risk. SB1 Markets assumes no liability for any losses caused by relaying on the information contained in this report, including investment decision taken on the basis of this report.

Limitation on distribution

This publication is not intended for, and must not be distributed to, individuals or entities in jurisdictions where such distribution is unlawful.