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Macro Weekly

Week 39

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

Last week, I

- **The War/European Energy/Commodities**
  - » **Russia** mobilises, will very likely soon declare the occupied parts of Ukraine as Russian territory, and Putin once more threatens to use all measures, including nuclear weapons, if Russia is attacked (including the newly conquered areas). As we commented last week, it was not necessarily good news that Putin and Russia were losing on all fronts, militarily and politically
  - » **Commodity prices** mostly fell last week, including oil, metals, and food. European gas prices stabilised, following the decline the previous week
- **Preliminary PMIs**
  - » **The global PMI** very likely climbed back to above the 50-line in September, as the **US service sector PMI** gained 5.5 p. The index stayed below 50, as did the the **US composite PMI** (49.3) but the outcome was far better than expected (as we assumed). The **European PMIs** fell further but the aggregate is still not that weak, the composite came in at 48.2, but weaker than expected (as we also assumed). Still, that's signalling a decline in the GDP (as the US PMI but here other surveys are less downbeat), and German services and manufacturing orders tell us something is underway. Mixed price signals but the trend is down. Other US surveys signal that the ISM may keep up in September
- **USA**
  - » **The Fed's FOMC** hiked the funds rate by 75 bps, for the 3rd time in row. The rate has now been hiked by 300 bps in 6 months, the largest 6 m tightening since 1982, of which 275 bps over the past 3 months! The bank also signalled an additional 125 bps in hikes before year-end. The interest rate path was lifted by up to 100 bps. The path changes the past quarters have all been larger than ever before. The peak signalled at 4.6% in late 2023, while the marked expect the bank to start cutting next year
    - ▪ The bank revised 2022 growth sharply down, to 0.2% from 1.7% (!), and growth in the coming years was trimmed too. In total, a 2.2% downward revision (22-25). The unemployment was revised up by just 0.3 pp to 4.4% in 2023, implying a substantial cut in productivity growth (as the Riksbank and Norges Bank assumed)
    - ▪ The increase in unemployment is small compared to the aggregated deviation from the inflation target between now and end of 2023
    - ▪ Of course, inflation forecasts were also revised up, by 0.2 – 0.4 pp. Inflation will come down to below 3% next year but will stay above 2% until last 2025. Most likely domestic costs explain the continued high inflation, wage inflation will remain too high vs the modest growth in productivity.
    - ▪ The bank is rather flexible, it accepts high inflation by not pushing unemployment faster and further up. Still, for those who still think the Fed is going to pivot even if inflation is expected to slow substantially, the message from chair Powell was clear: "We will keep at it until the job is done" and "it will be enough"
  - » The **stock market** did not appreciate the hawkish and clear spoken Powell. **Bond yields** rose sharply too, pushed up by another lift **in real rates**, to 1.32% (10 y US TIPS)
  - » **Housing starts** rose unexpectedly, due to a surge in apartments starts but **building permits** fell and the **homebuilders** report a harsh slowdown in activity, at 50% drop in starts from the local peak (down 15%). **Existing home sales** flattened but is trending rapidly down. **Prices** fell sharply for the 3rd month in a row, even if the inventory is small (but on the way up)
  - » The **leading index** fell 0.3% in Aug, 0.2 pp more than expected. The 6 m average is has fallen to -0.45%, a clear recessionary warning sign. 8 of the past 8 recessions were prewarned/reported by such a signal, and no false positive, ever. The **Atlanta Fed nowcaster** estimate 0.3% growt in Q3
- **Japan**
  - » For the first time in 24 years, **Bank of Japan intervened in the f/x market** in order to strengthen the very weak JPY. The yen appreciated, but not by much

Last week, II

- **Sweden**
  - » **The Riksbank** hiked the policy rate by 100 bps, up to 1.75%, which is the largest hike since the bank crisis in the 90s. The bank stated that inflation is far too high and signalled further rate hikes in November and February. The bank's inflation f'cast was revised further up, and GDP growth was revised down and the bank is now forecasting a 0.5% contraction (aka a recession) in '23. The challenge: Wage inflation is assumed to be far above a very slow productivity growth, lifting Unit Labour Costs by far more than 2% the coming years - the high inflation is also domestically 'produced'
  - » House prices fell further in August, but not apartment prices. Perhaps the September hike will change buyers mind?
- **EMU**
  - » **Consumer confidence** fell sharply in August, to another ATL
- **UK**
  - » On Friday, the **Truss Government** announced huge tax cuts and more energy subsides, in total equalling 1.4% of GDP, in order to stimulate growth. The day before, Bank of England hiked the signal rate by 50 bps to 2.25% in order to push the UK economy into a recession to get wage and price inflation down. Even though a substantial fiscal expansion was expected, the market did not appreciate the budget package. The pound tanked, and interest rates shot up, all over the curve. The 10y swap rose more in one day than ever vs the German/US average, and 1y 1y fwd swap rate rose almost 120 bps last week. The market responded as if UK was an unstable ungovernable EM banana republic. Perhaps not completely without reason? God save the King!
  - » **Bank of England** expects peak inflation to be lower than their f'cast from the Aug MPR due to the proposed gas/electricity subsidies, but the underlying inflation problem for the BoE could become worse, as household demand will be kept up better. In their statement from this meeting, the Q3 GDP f'cast was revised down to -0.3% (from +0.4%), probably influenced by the Queen's death and funeral. A full assessment of the economic outlook will be presented at the Nov meeting – where the next hike is signaled, and expected
- **Norway**
  - » **Norges Bank** lifted the signal rate by 50 bps to 2.25% and kept the **interest rate path** peak unch. at 3.1%. The bank signal additional 25 bp rate hikes in November, December, and March up to 3.0% (and possibly a last hike in June). The interest rate path was far below implied expectations in the FRA-market (but in line with our forecast). Fra rates fell in the short end but remains too high. The bank revised inflation forecasts up and expect prices to climb far above the inflation target until 2025. **Productivity growth** is once more revised sharply down, and the bank assumes a mild contraction in **Mainland GDP** in 2023 (-0.3%, a mild recession). In total, GDP is revised down by 2.5 pp (2022 – 2025), with just a marginal revision of the unemployment rate (up 0.3 pp to 2.4%, from 1.6% now). The expected increase in unemployment is small vs. the deviation from the inflation target – a very flexible central bank! **House prices** are assumed to decline more than the Bank's June f'cast (4%), and **Oslo commercial office prices** are expected to decline by 15%, a modest estimate. We suspect there is some upside potential for productivity, and downside risk for unemployment and inflation – and house prices vs. the bank's forecasts
  - » **Growth in no. of employees** (register based) is slowing, while the **LFS** (AKU) report a decline in total employment. Both the **participation and the employment rates** fell, the former the most and the **unemployment** rate fell by 0.1 p to 3.1%
  - » **Corporate credit** rose more than ever in one month in August – and lifted overall credit growth. However, **households** seem the have become cautious, growth is slowing, very likely due to the increase in interest rates

The Calendar: China PMIs, USA home sales/prices, EMU CPI, EMU & NOR unemployment

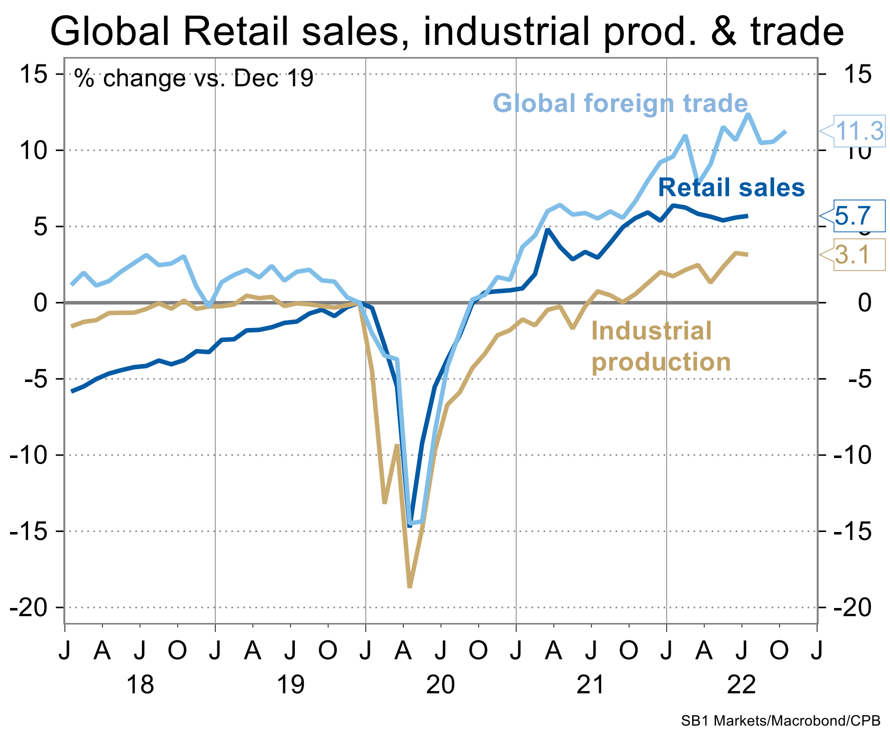
Time	Count.	Indicator	Period	Forecast	Prior
Monday September 26					
10:00	GE	IFO Expectations	Sep	79	80.3
11:00	EA	OECD Economic Outlook, Interim			
14:30	US	National Activity Index	Aug		0.27
Tuesday September 27					
10:00	EC	Private credit & M3	Aug		
14:30	US	Durable Goods Orders	Aug P	-0.1%	-0.1%
14:30	US	Durables Ex Transportation	Aug P	0.2%	0.2%
15:00	**US**	**Case/Shiller house prices MoM**	**Jul**	**0.2%**	**0.4%**
16:00	US	Conf. Board Consumer	Sep	104.3	103.2
16:00	US	New Home Sales	Aug	500k	511k
Wednesday September 28					
08:00	**NO**	**Retail Sales W/Auto Fuel MoM**	**Aug**	**-0.5%(-**	**-2.1%**
08:00	SW	Retail Sales MoM	Aug		-0.6%
09:00	SW	Economic Tendency Survey	Sep		97.5
09:00	SW	Consumer Confidence	Sep	53	56.3
14:30	US	Advance Goods Trade Balance	Aug	-$89.1b	-$89.1b
16:00	US	Pending Home Sales MoM	Aug	-0.8%	-1.0%
Thursday September 29					
11:00	EA	Economic Confidence	Sep	95.0	97.6
14:00	**GE**	**CPI YoY**	**Sep P**		**7.9%**
14:30	US	Initial Jobless Claims	Sep-24	220k	213k
14:30	US	GDP QoQ, final + revisions	2Q T	-0.6%	-0.6%
Friday September 30					
01:50	JN	Retail Sales MoM	Aug	0.2%	0.8%
01:50	JN	Industrial Production MoM	Aug P	-0.2%	0.8%
03:30	**CN**	**Manufacturing PMI**	**Sep**	**49.4**	**49.4**
03:30	**CN**	**Services PMI**	**Sep**	**52.6**	**52.6**
03:45	**CN**	**Caixin Manufacturing PMI**	**Sep**		**49.5**
08:00	GE	Retail Sales MoM	Aug		1.9%
08:00	NO	Hotel guest nights	Aug		
10:00	**NO**	**Unemployment Rate, NAV**	**Sep**	**1.5%(1.5)**	**1.6%**
11:00	EA	Unemployment Rate	Aug	6.6%	6.6%
11:00	EA	CPI Estimate YoY	Sep	9.7%	9.1%
11:00	**EA**	**CPI Core YoY**	**Sep P**	**4.7%**	**4.3%**
14:30	US	Personal Income	Aug	0.3%	0.2%
14:30	US	Personal Spending	Aug	0.2%	0.1%
14:30	**US**	**PCE Core Deflator YoY**	**Aug**	**4.7%**	**4.6%**
16:00	US	U. of Mich. Sentiment, final	Sep F	59.5	59.5
Monday October 3					
01:50	JN	Tankan Large Mfg Index	3Q	11	9
02:30	JN	Jibun Bank Japan PMI Mfg	Sep F		

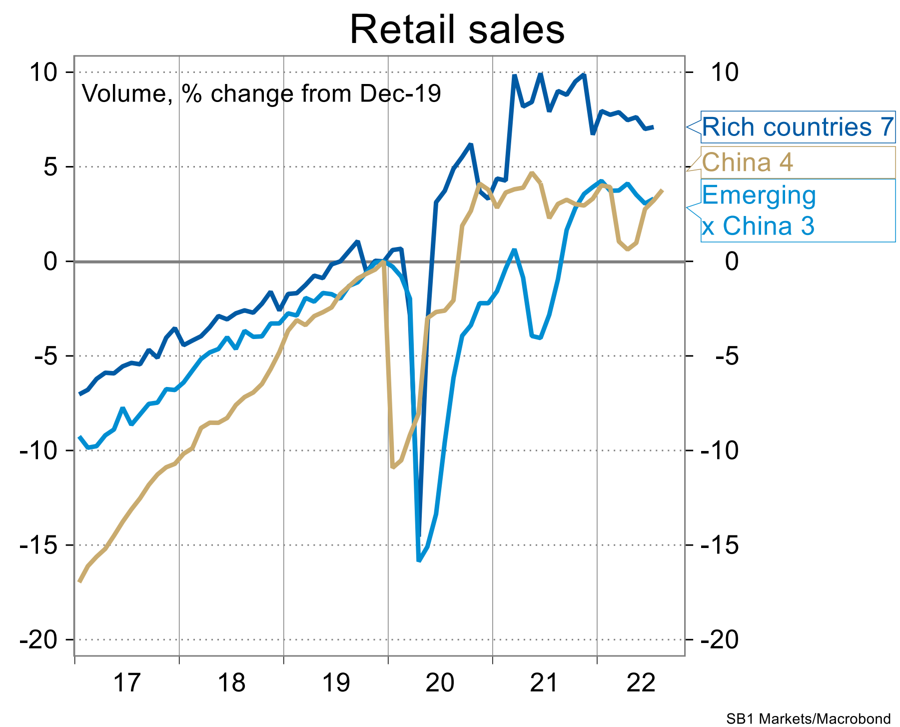
- **China**
  - **The 'official' PMIs** as well as **Caixin's manufacturing PMI** are hoovering around the 50-line, and signal growth slightly below normal, OK in services and somewhat slower than normal in the manufacturing sector. No big changes in expected in September
- **USA**
  - **New home sales** are expected down in August, but not that much. Still, the trend is straight down. We expect even lagging **house price surveys** (Case/Shiller) to come close to the zero line. The realtors have reported an 0.9% house price decline per month the previous 3 months
  - **Consumption** has almost flattened, even if services are still inching upwards. In August, core retail sales fell, in volume terms. Still a small lift is expected in total consumption. **Income** growth has slowed, including wage income partly due to lower transfers/higher taxes. The **PCE price deflator** is expected up 0.1% (total) and 0.5% (core), close the monthly changes in the CPI. **Consumer confidence** has strengthened recently, and inflation expectations have fallen, probably influenced by the decline in gasoline prices
  - **Durable goods orders** have kept up well, even if manufacturing surveys have been reporting a steep setback since June (although at a slower pace in September)
- **Sweden**
  - **Retail sales** have been on the way down since last summer, and is now back to the pre-pandemic trend, and will probably remain weak the coming months/quarters. **Consumer confidence** has fallen to rock bottom levels, real incomes are falling, rates are rapidly on the way up, house prices are falling and the economy is weakening. Don't think we need much more. Business confidence is fading rapidly but still signals GDP growth
- **EMU**
  - **CPI inflation** is expected further up in September, both due to higher food and energy prices, and even core inflation is expected sharply up to 4.7%. We repeat that labour cost inflation remains reasonable in check, even after adjusting for slow underlying growth in productivity
  - **Unemployment** fell to 6.6% in July, to the lowest level since 1981 – and it is expected to remain there in August. Still, the monthly decline in numbers of unemployed is clearly slowing and it will probably soon turn up as the economy goes into reverse
- **Norway**
  - **Retail sales** was far weaker than expected in July, and we assume sales slowed further. Sales volumes are now back to the very modest pre-pandemic trend. If not for high inflation and loss of buying power and rapidly increasing interest rates, the downside risk would have been limited. Now parts of retail sales are still exposed the coming months/quarters
  - **NAV unemployment** is still declining but a gradually slower pace. We expect just a marginal reduction in September, and an unchanged seasonally adjusted rate, at 1.6%, close to the lowest level since 1980. Demand for labour is still very strong, witnessing the labour shortages reported in NoBa's Regional Network. The inflow of new vacancies has peaked but is still unusually brisk

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

Retail sales are still soft, manufacturing production recovered in May/June/July

Global trade may have flattened. Both manuf. prod. & global trade exposed to lower retail sales

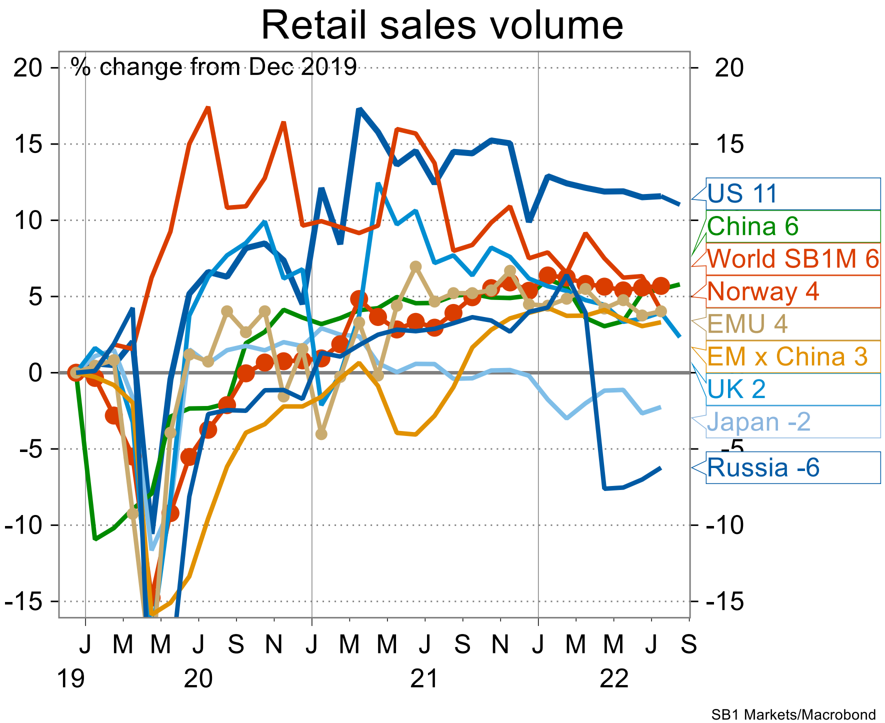


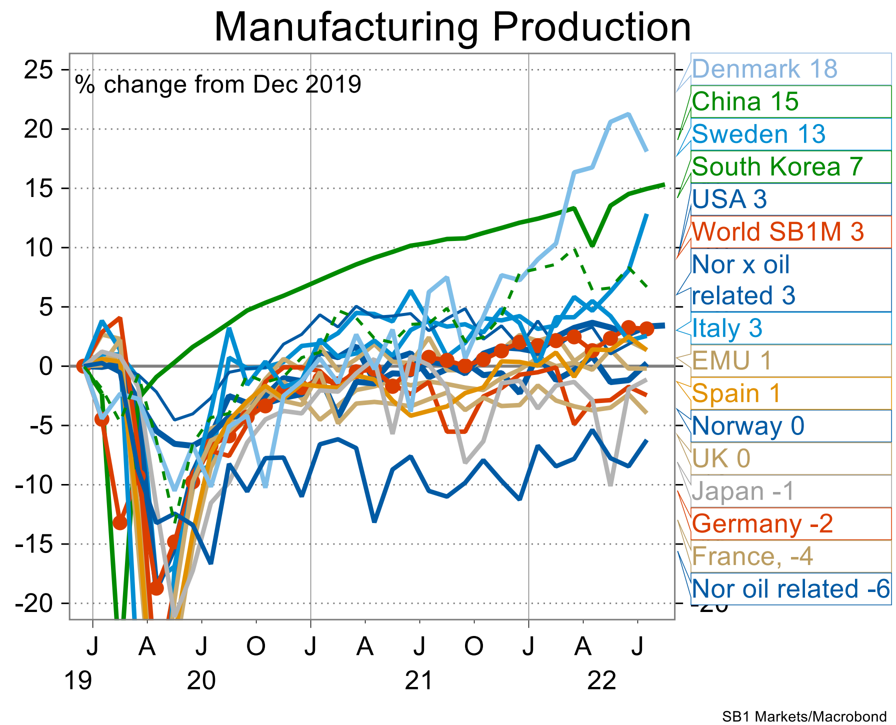


Global trade: The last months are estimates from the Kiel Institute, they are also making a prognoses for the next month based on shipping activity etc.

A broad slowdown of retail sales

Is manufacturing exposed? Surveys, like the August PMIs send a warning sign too





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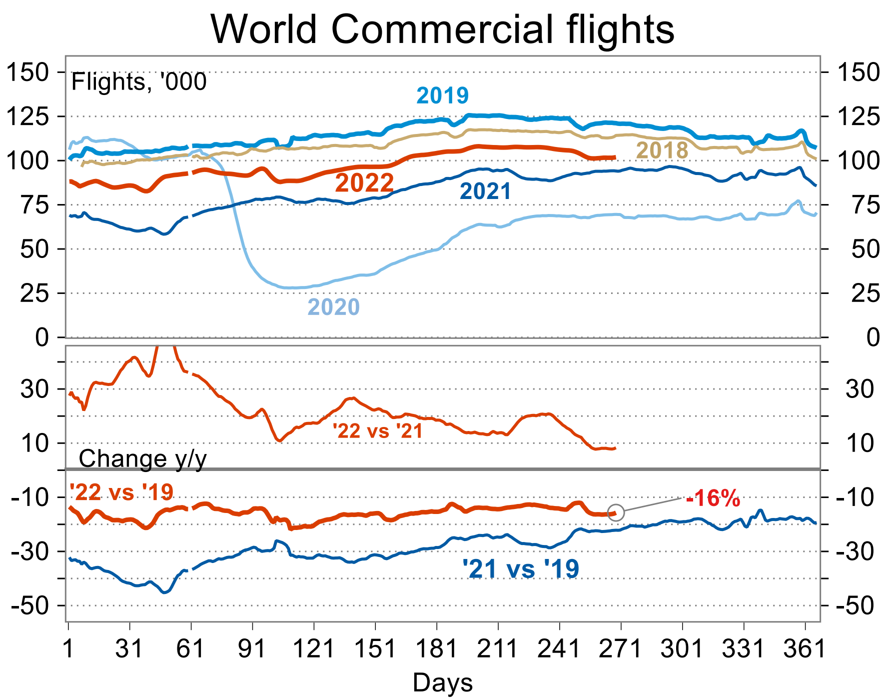
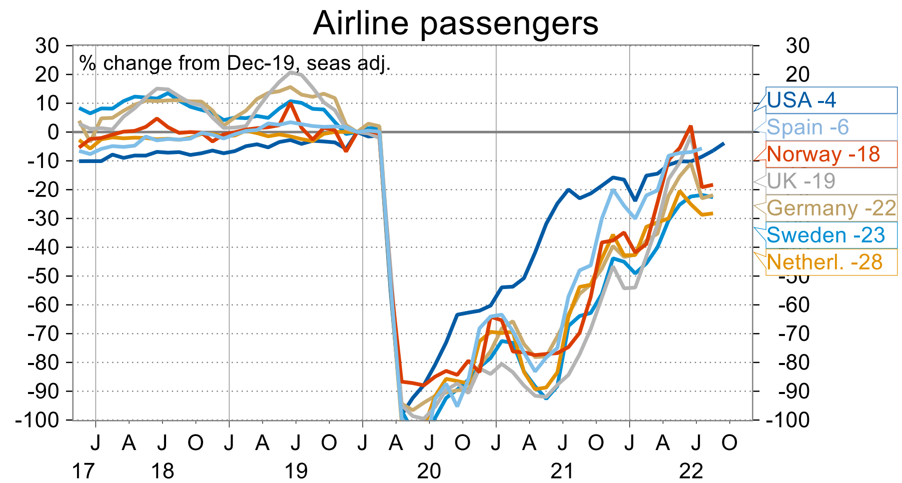
Global airline traffic down last week too, is approaching the 2021 level…

Traffic is down 16% vs. the 2019 level, the largest decline since late June



Flightradar24 SB1 Markets/Macrobond



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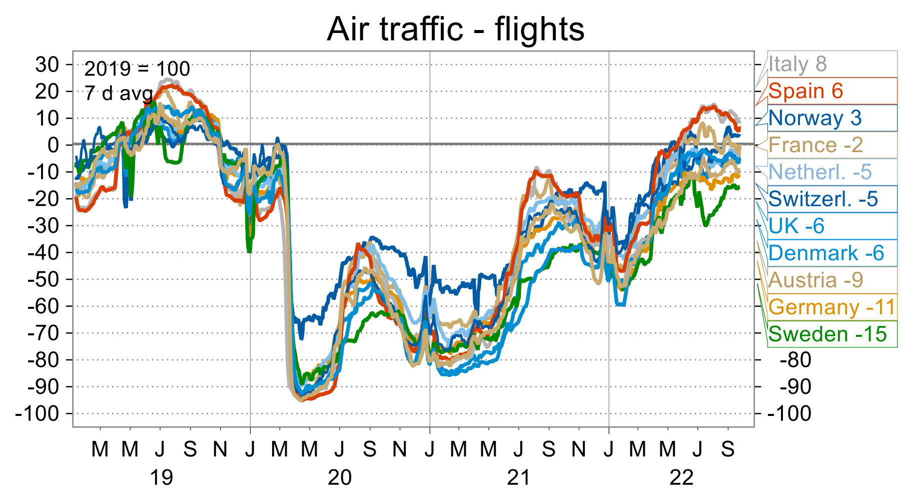
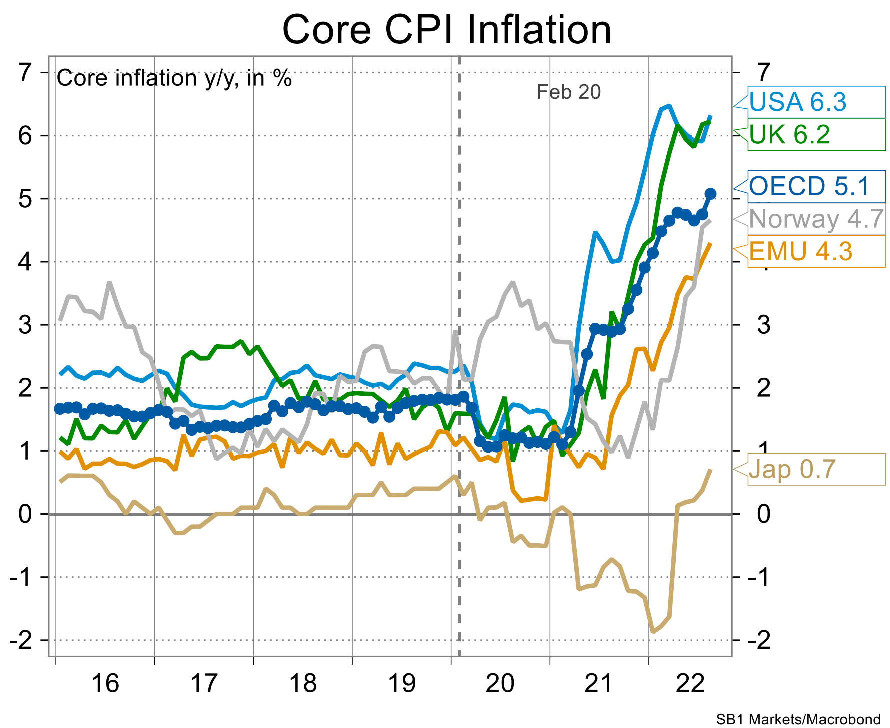


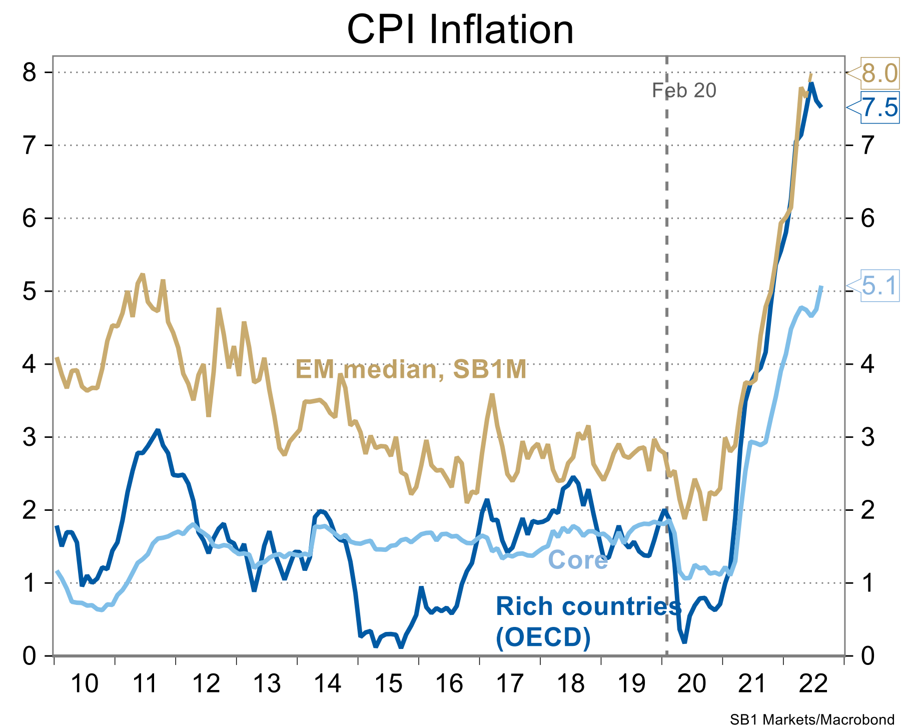
SB1 Markets/Macrobond

Global trade: The last months are estimates from Kiel Institute

Peak inflation? Data are not that obvious anymore

The going rate is 8% headline inflation, and 5% core inflation





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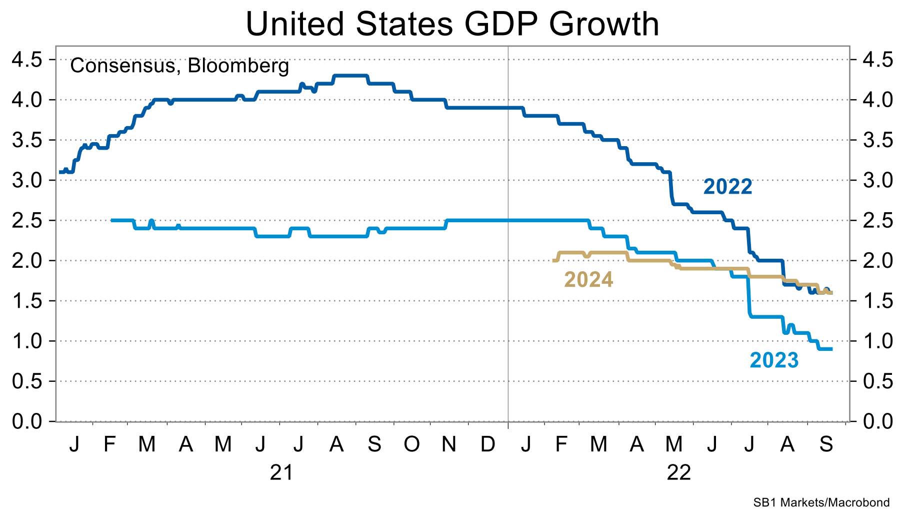
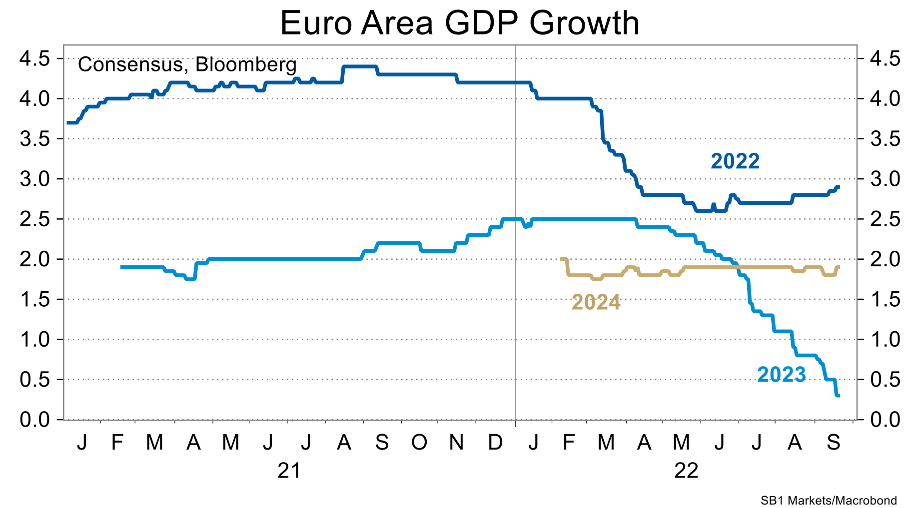
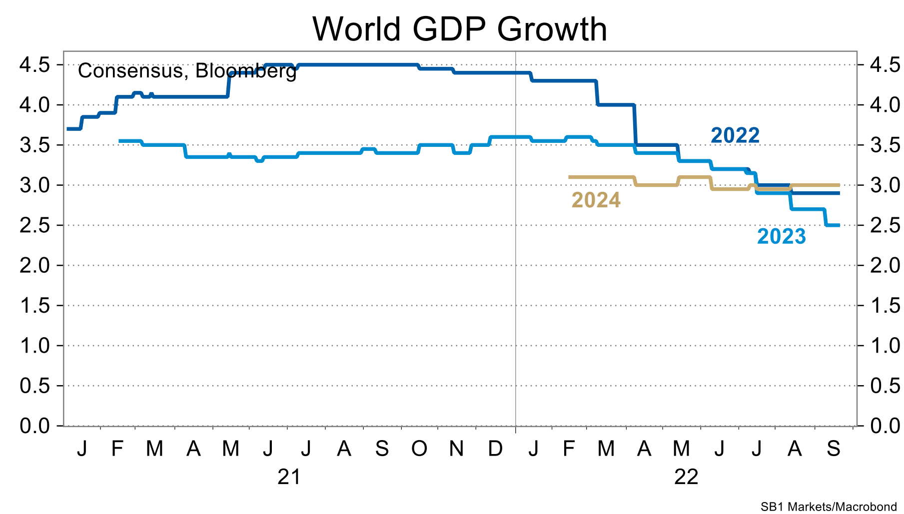
GDP growth expectations: 2023 forecasts are sliding down, an fast in the EMU

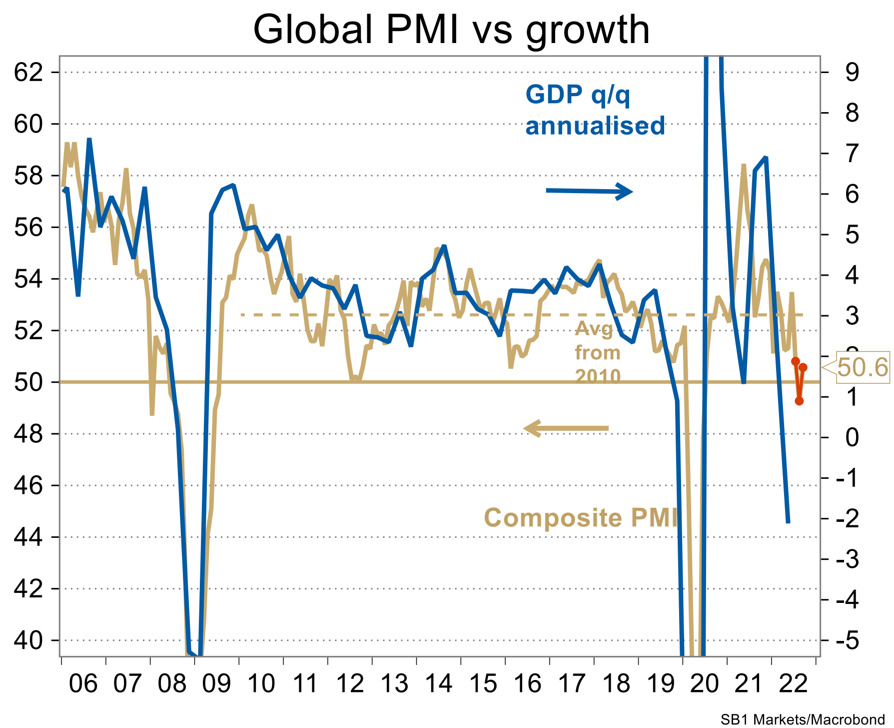


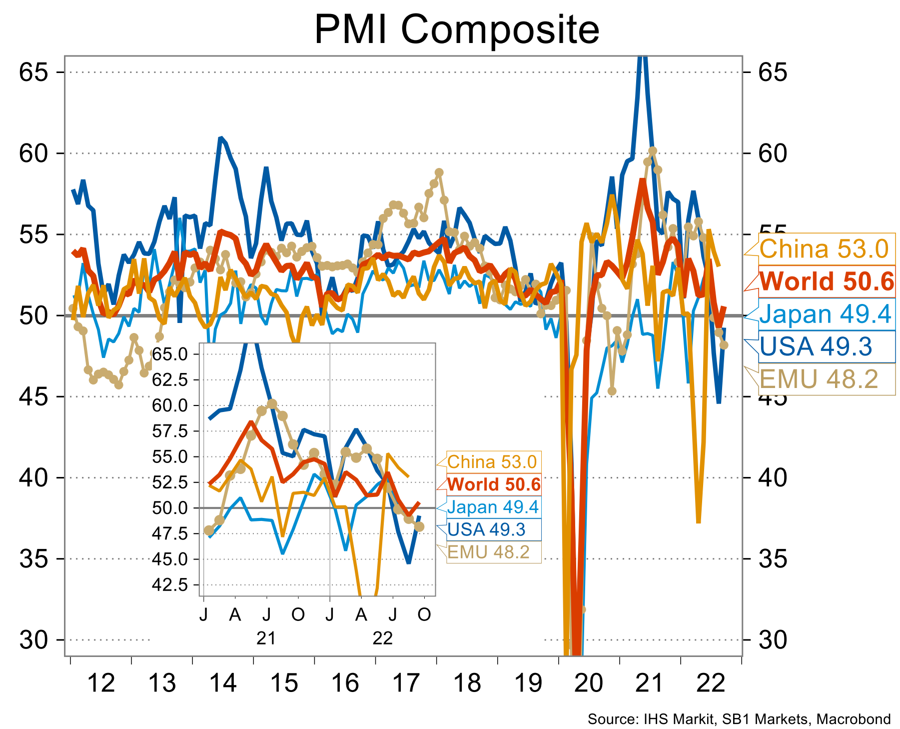




The world composite PMI probably recovered most of the August loss

US services made the day in September (following the August collapse). EMU continued downwards



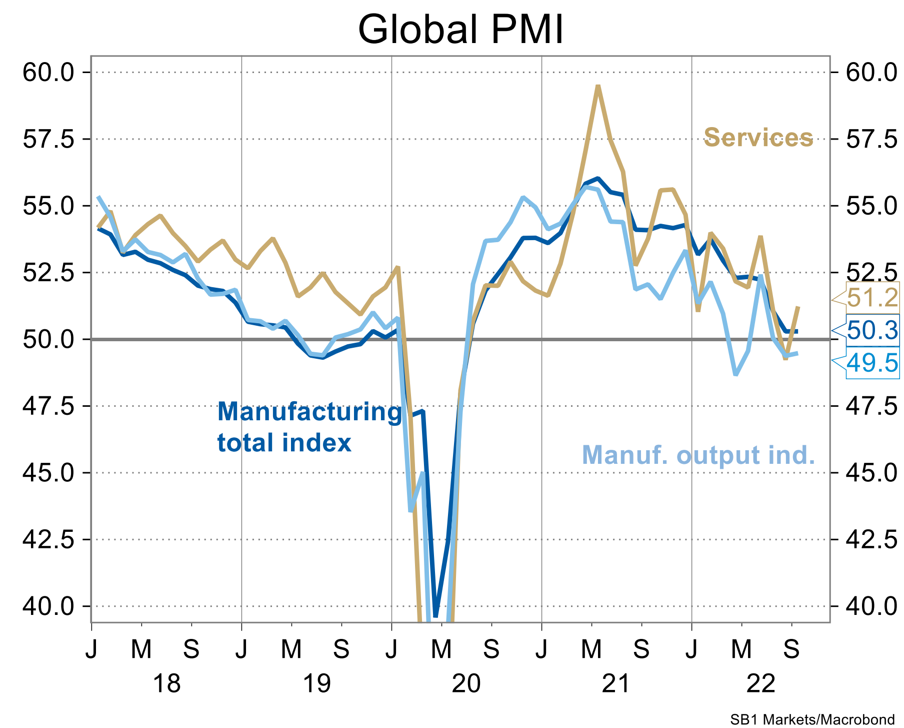


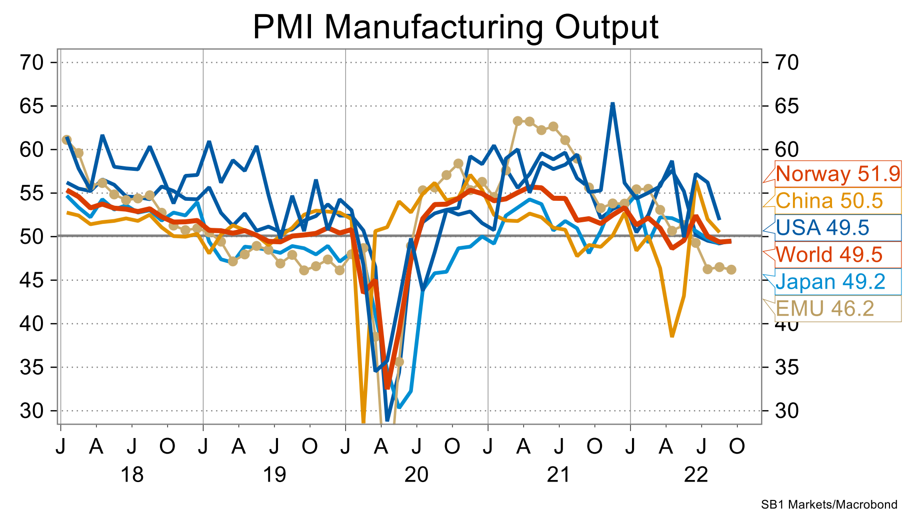
- The composite PMI very likely recovered in September the US PMI rose sharply due to reversal of the decline in the service sector in August. We expect +1.3 p to 50.6 – still a level that signals global growth well below trend
- The US composite still remains below the 50-line, and signal no growth in the US economy
- In the EMU, the PMIs continued downwards, now the most in services, in Germany. However, the manufacturing sector reports a contraction with a sharp contraction in new orders
- China has not yet reported its September figures, and the global estimate is thus still uncertain

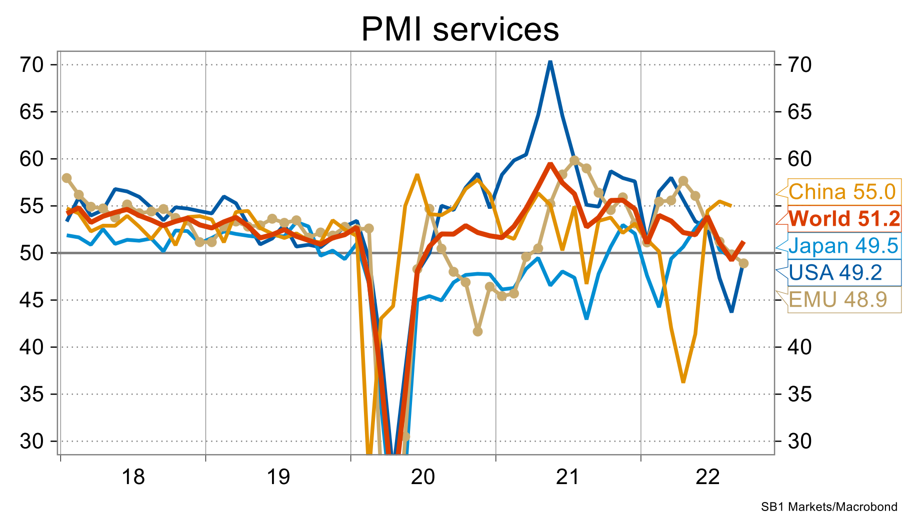
Our estimates are based on the preliminary PMIs from US, EMU, Japan UK, Australia. The estimates are uncertain, but usually by less than 0.5 p if the Chinse PMI does not change too much

Services in the US now report just a marginal contraction, way better than in Aug

Services in the EMU slowed further, and the global manufacturing sector PMI is close to the 50-line

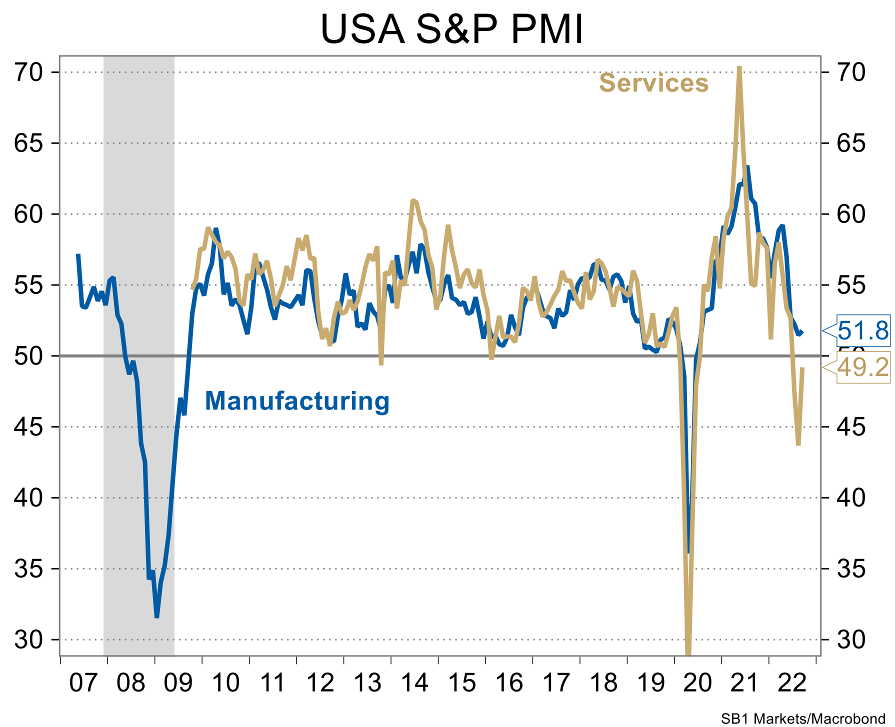


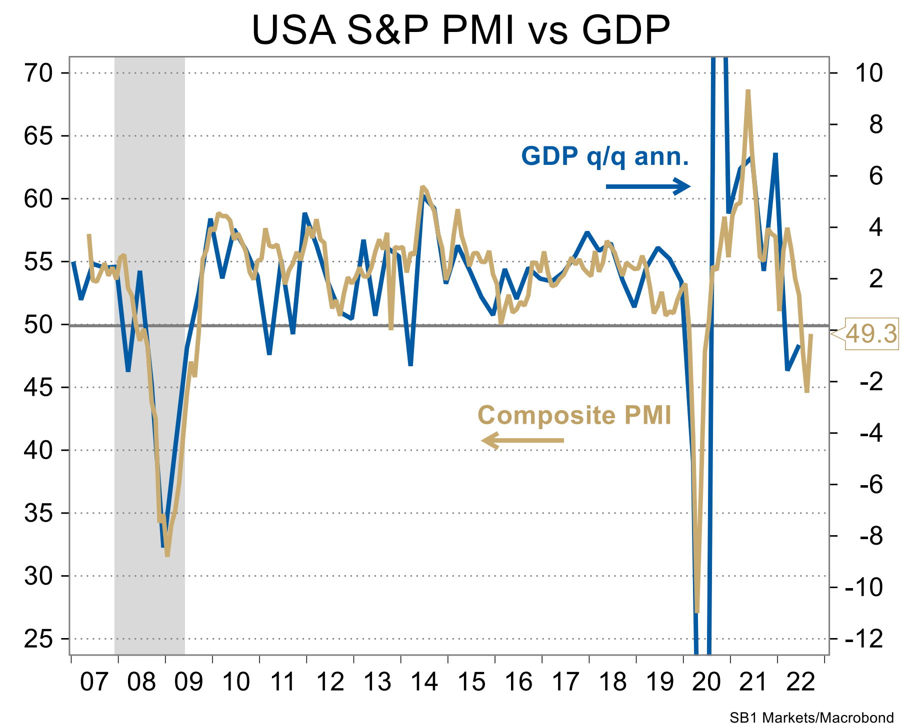




The service sector PMI recovered in Sept, still below the 50-line

The manufacturing PMI stabilised, at well above 50. The composite PMI at 49.3 signal zero growth

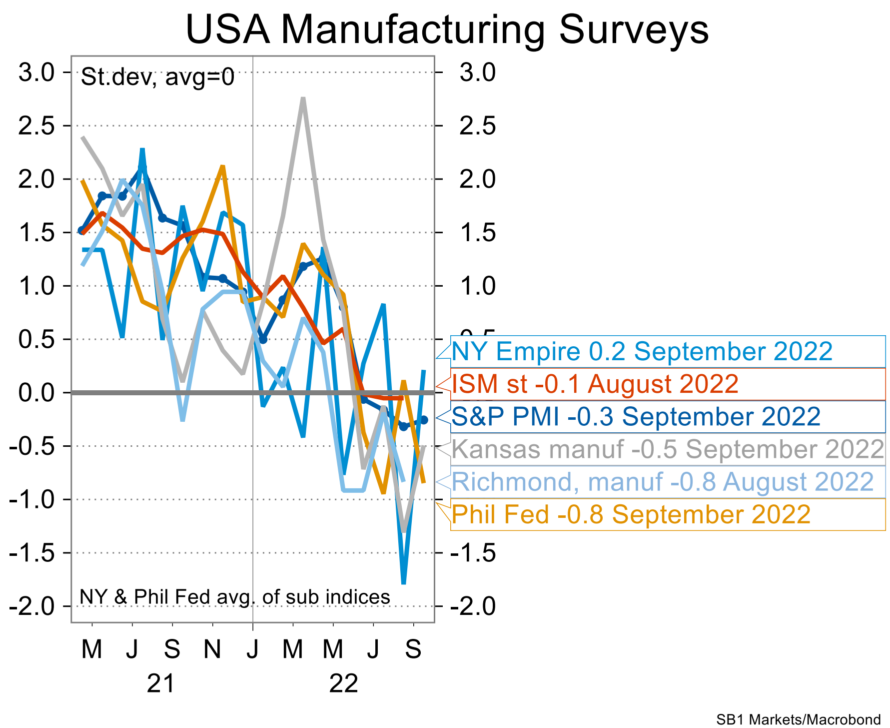


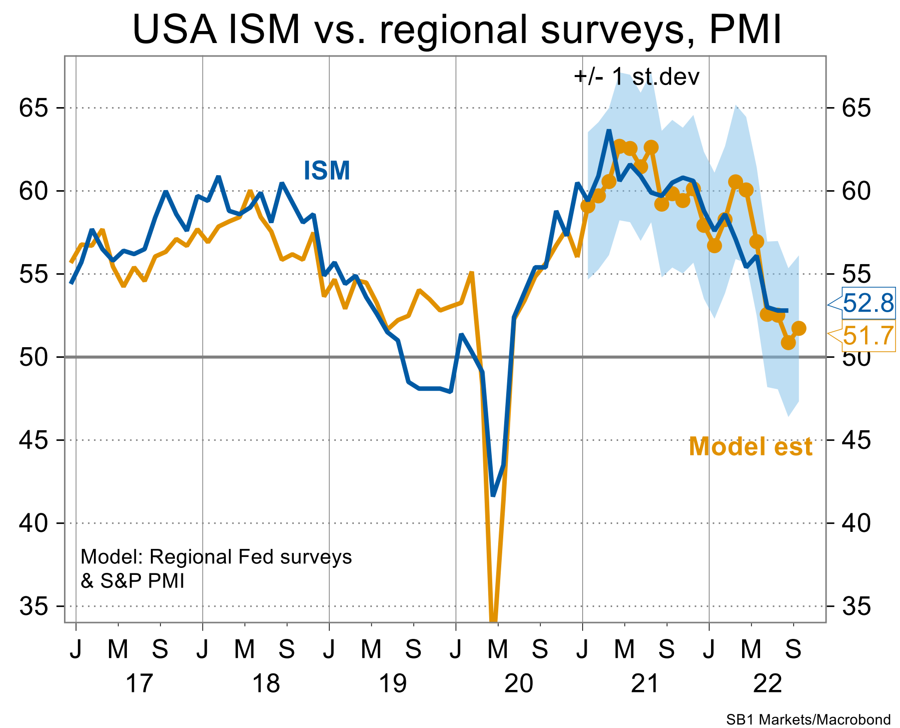


- **The composite PMI** was the weakest globally in August, due to a very weak print for the service sector – and the level was suspiciously low vs other US service sector surveys. In September, the services PMI recovered by 5.5 p to 49.2, and the composite by 4.7 p to 49.3, well above expectations at 46.1. Still, the level is low and does not signal any growth in GDP
- **The new orders index** rose to above the 50-line, following 3 months marginally below
- **The price indices** fell further but are still reporting faster price increases than normal
- **The S&P (Markit) PMI** was probably 'too weak' in August, and the level in September seem to be more in line with other surveys

Some hope for the ISM? 3 of 4 regional Fed surveys + the PMI up in September

However, the model estimate for the Sept level is still below the ISM Aug outcome

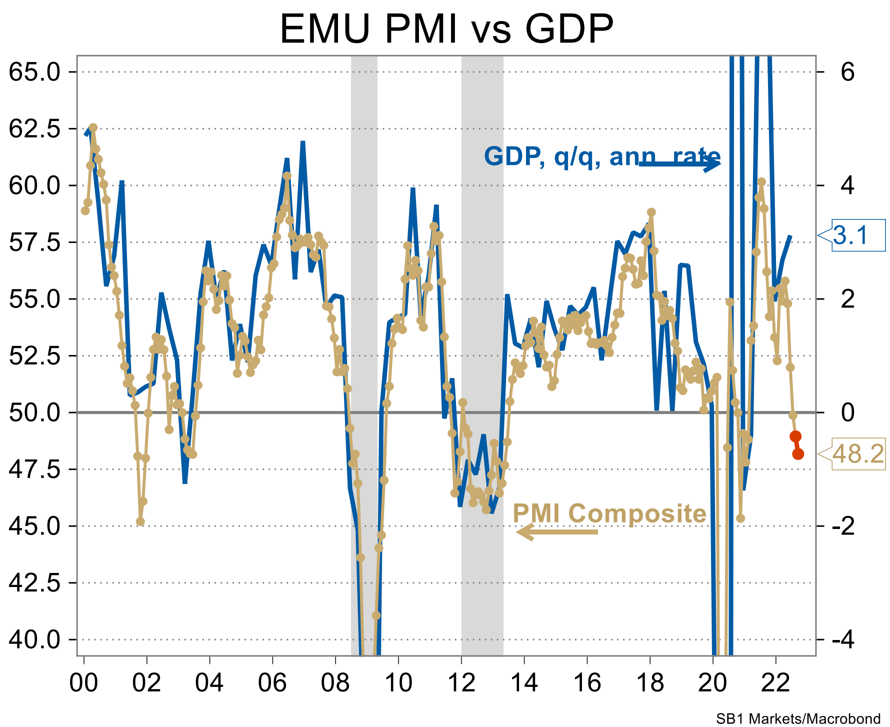


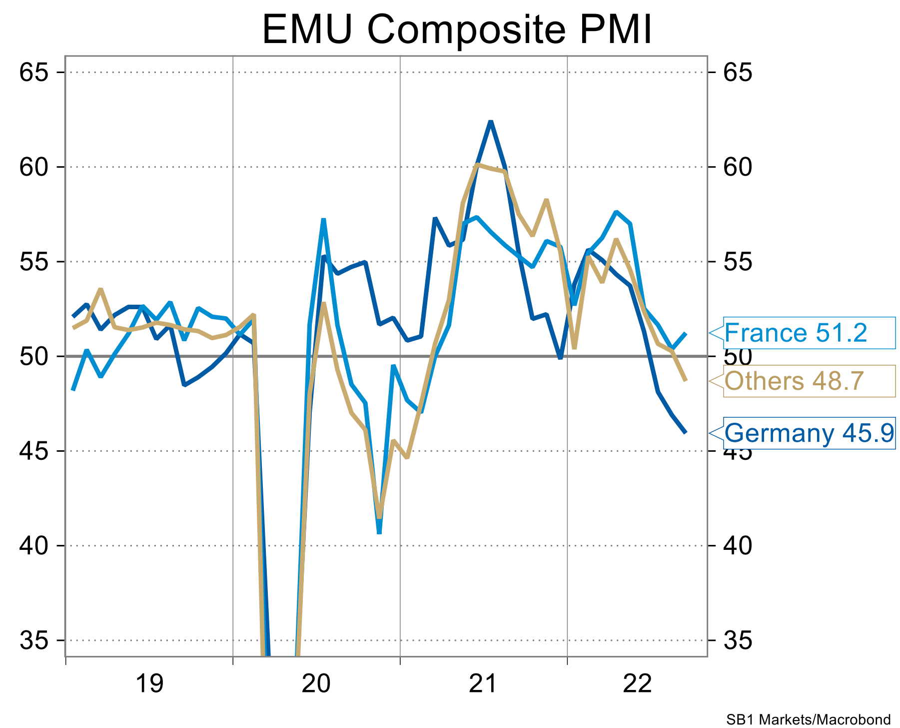


- Big picture: Growth is slowing sharply but manufacturing indices do not signal that the economy has entered a recession (even if order indices are really worrisome)

Eurozone PMI continues to slide, due to very weak German PMI data

The PMIs in EMU x France & Germany are also in contractionary territory





- **The composite PMI** declined 0.7 p in Sept, to 48.2, in line with expectations – signalling a contraction in GDP. High inflation/energy prices and higher interest rates are dampening demand, according to S&P
- **Services** fell 0.9 p to 48.9, suggesting that the sector is contracting
- **Manufacturing** also slowed further; the PMI fell 1.1 p to 48.5, 0.2 p below consensus. The output index decreased 0.3 p to 46.2, <u>and the new order index declined by 2 p to 41.3, a level only reached twice before, during the pandemic and the financial crisis!</u>
- **The delivery times** and price indices both rose and remain higher than normal. However, as new orders and production are both is declining, supply chains problems and pricing power will very likely be further reduced the coming months
- If the PMIs and other surveys continues down at the current pace, <u>the pressure on (and within) the ECB to hike rates rapidly will no doubt fade</u>, even if inflation is high and unemployment is low. Wage inflation has not yet exploded, and the underlying cost pressure is not like in the US

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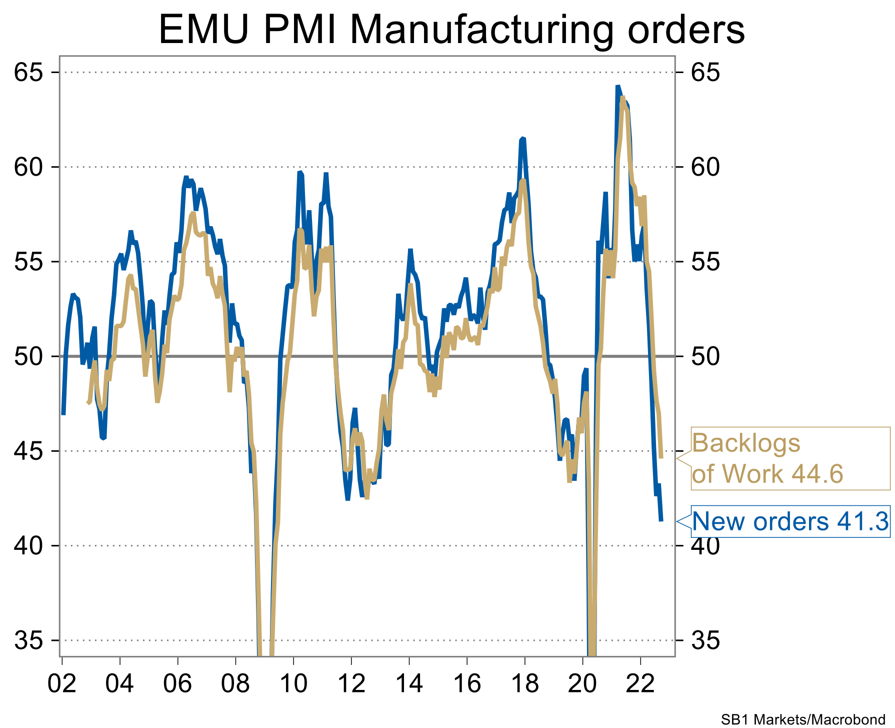
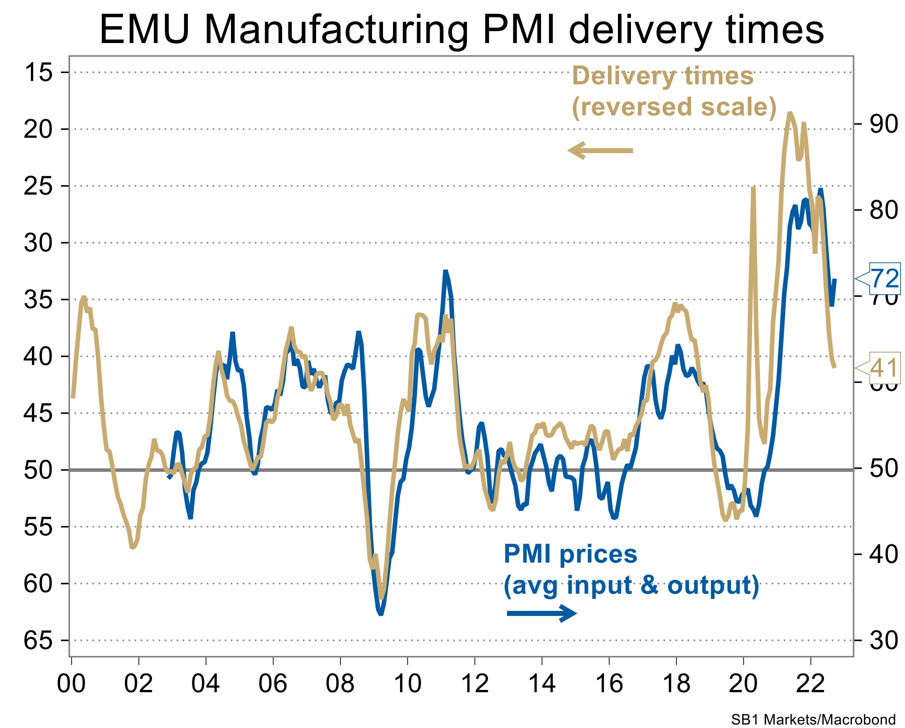
New orders index has only been lower twice; during the GFC and the pandemic

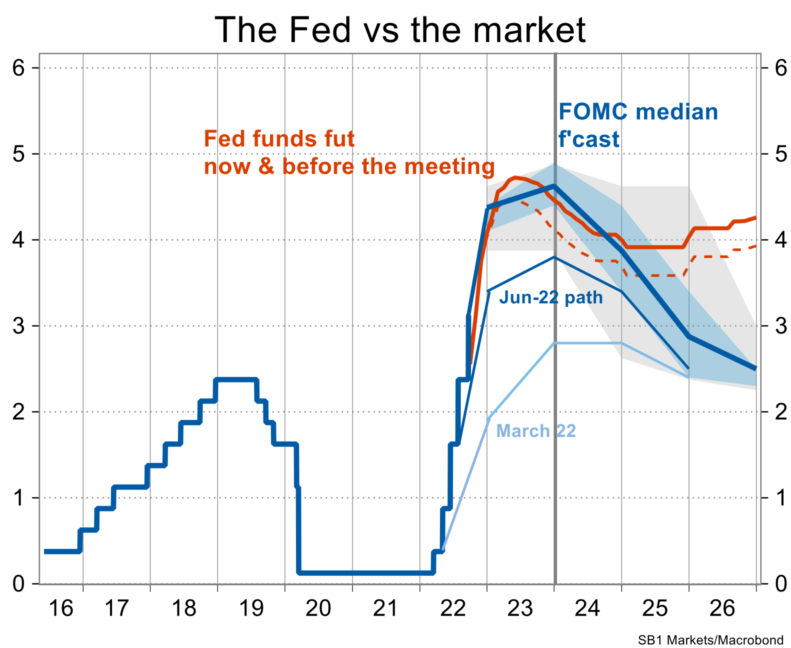
The order backlog fell further. Delivery times are declining, but prices are increasing faster in Sept





Another ‘triple’ hike, and much more to come. No cut next year. Says the Fed, now

Powell confirmed his hawkish stance – no easing before the Fed is sure the war on inflation is won

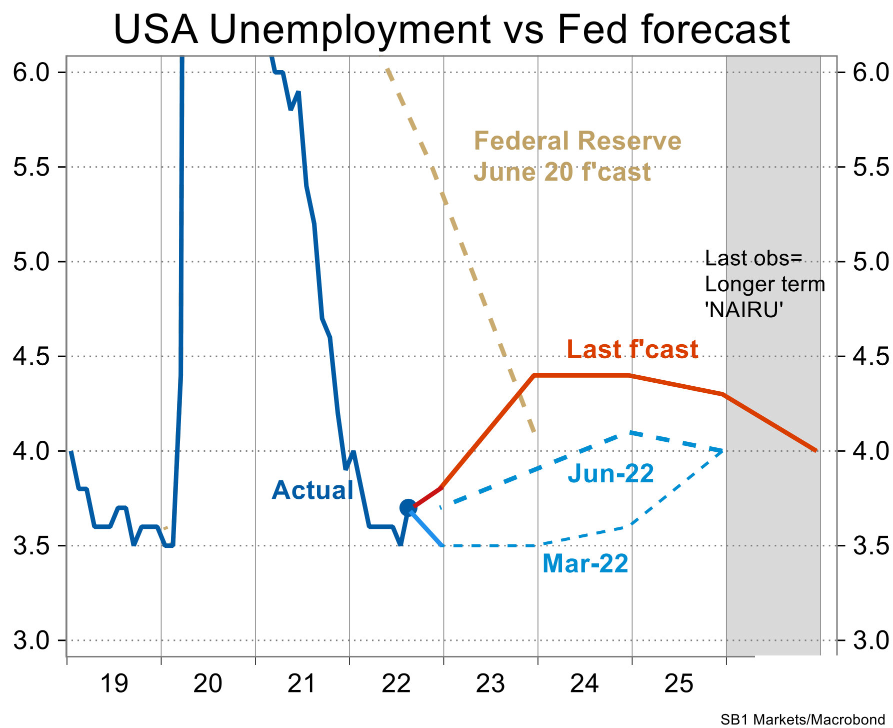


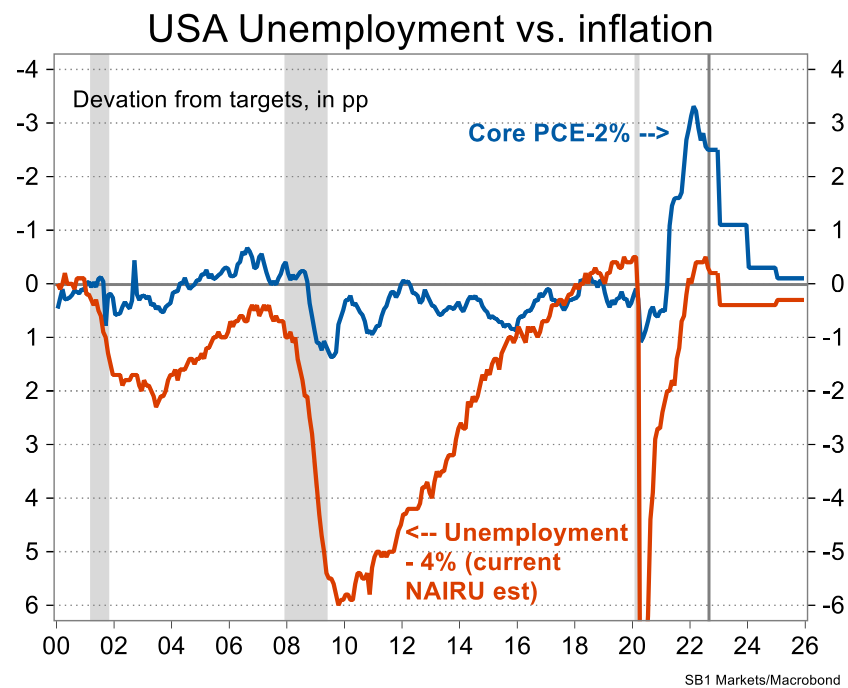
- **Market reactions**: A steep lift in the short end of the curve – and in the long end – but some 25 bps
- The USD rose sharply as well – but probably for other reasons, rate expectations rose more in Europe

- As widely FOMC hiked the **Fed funds rate by 75 bps to 3.00% – 3.25%**
- **The interest rate path**, the ‘dot plot’, was lifted by up to 100 bps, to 4.4% by the end of the year. That is up 125 bps from today’s level, to be delivered at the next two meetings, in November and in December (like 75 + 50 bps). The peak (at least measured by the end of the year) is at 4.6% in Q4 2023, up 75 bps vs. the June ‘dot plot’. The market is discounting a 4.5% peak in Q2, and then a cut in H2 next year. The FOMC has no such plans now. The long term ‘neutral’ Fed funds rate is still assumed to be 2.5%, well below the market curve
  - » There is of course no reason to put too much emphasis on FOMC’s plan for the signal rate. At least so far during this tightening cycle, the changes in the quarterly forecasts have been larger than ever before. The bank may of course finally be right, but the history is still not on their side
- **Inflation** was once more revised upwards but not by more than 0.2 – 0.4 pp: The Q4-22 headline PCE forecast was nudged up 0.2 pp to 5.4%, somewhat down from the 6.3% annual growth in July. The core PCE was revised up 0.2 pp to 4.5%, close to the current 4.6% rate. Inflation, will slow substantially next year, to 2.8 – 3.2% but both the total and the core is expected to stay above 2% until late 2025
- The FOMC members revised their **growth forecasts** significantly downwards, especially for 2022 (to 0.2% from 1.7%, Q4 y/y) but by 0.5 pp to 1.2% in 2023, and by 0.2 pp to 1.7% in ’24. (NY Fed’s model projections are far weaker, a decline in GDP in both 2022 and 2023 is forecasted – that is a long recession, check here)
- Even if GDP was revised down by in total 2.2% (level in 2024), **unemployment** in 2024 was just revised up by 0.3%. Thus, a much **slower growth in productivity/potential** GDP is assumed. Both the Riksbank and Norges Bank made similar assessments last week
- The FOMC finally acknowledged that the unemployment rate must be pushed above the estimated long-term equilibrium rate at 4% to bring inflation gradually down to target, it suggests 3 years. That’s a rather flexible approach, we think an ‘inflation nutter’ CB would not have spent 3 years to reach the inflation target
- **Powell** seemed just as determined to win the war on inflation as he was at Jackson Hole a month ago. “We will keep at it until the job is done” and “it will be enough”. We think the bank underestimates the costs (unemployment will climb more) but we think Powell & Co will stay on course

Finally, the FOMC acknowledged that unemployment will have to climb > NAIRU

The long term NAIRU *) rate is still assumed to be 4%. Unemployment will climb to 4.4% next year



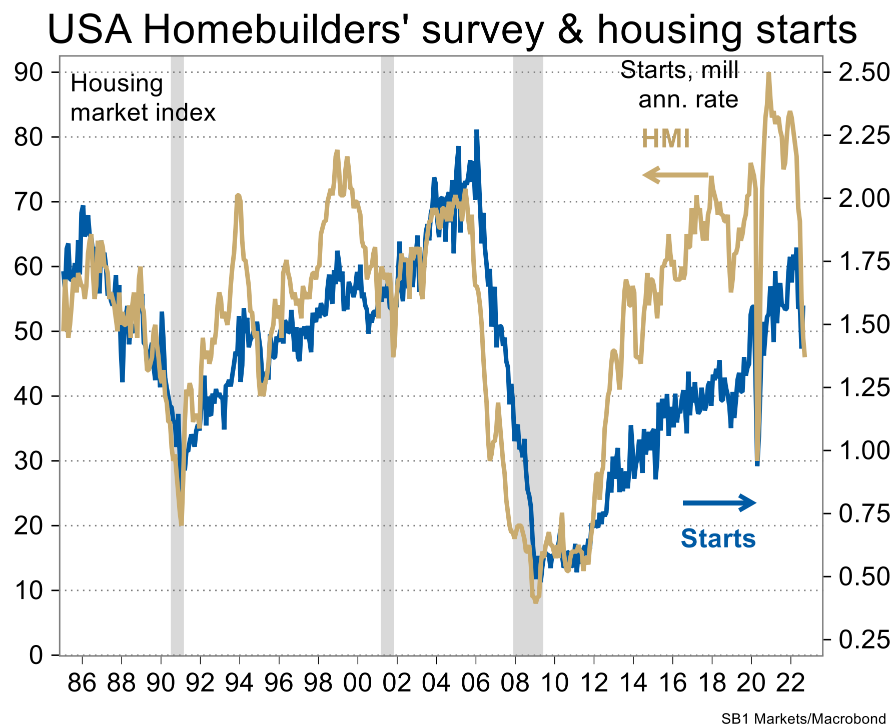


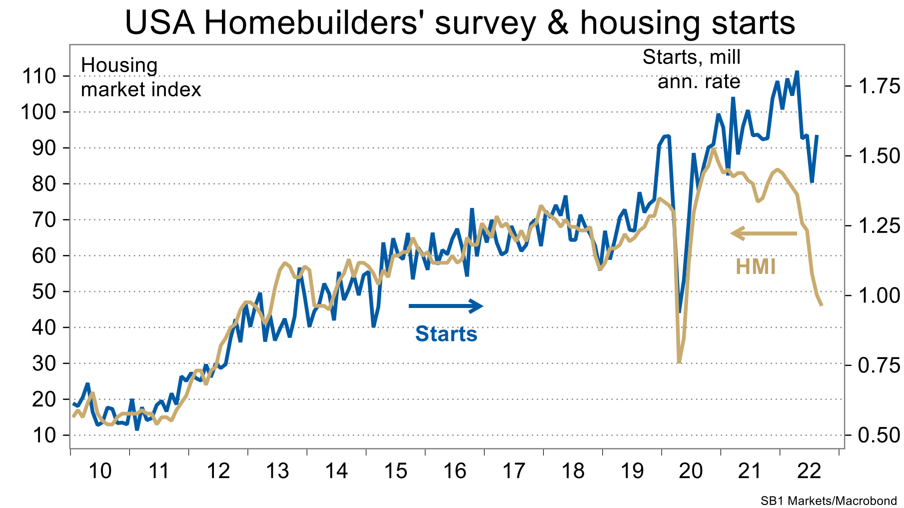
- The **unemployment rate** is assumed to increase just marginally this year, to 3.8% in Q4, from the 3.7% level in August
- The unemployment gap that is assumed in 2023 – 2025 is not large, vs. levels seen before
- The current FOMC forecast seems much more likely than the June (or March) forecasts – but we are pretty sure the risk is on the upside

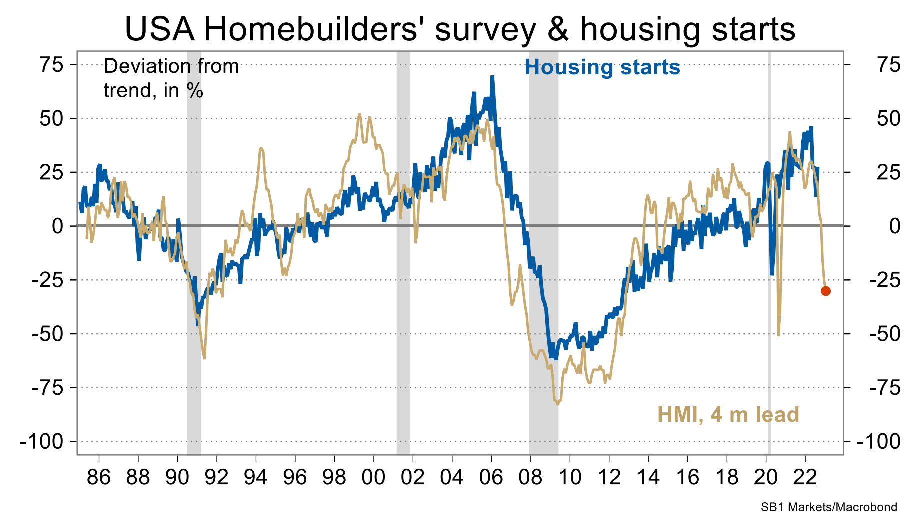
*) NAIRU: The Non-Accelerating Inflation Rate of Unemployment – an unemployment rate that balances wage and price inflation. It varies hugely between countries, it is not stable in each country, and it can best case be quantified only 'after the fact'. Still it may be a useful analytical concept.

Homebuilders' index further down in September, signals a housebuilding crash

The HMI down 3 p to 46. A further 35% drop in starts, in total 50%?



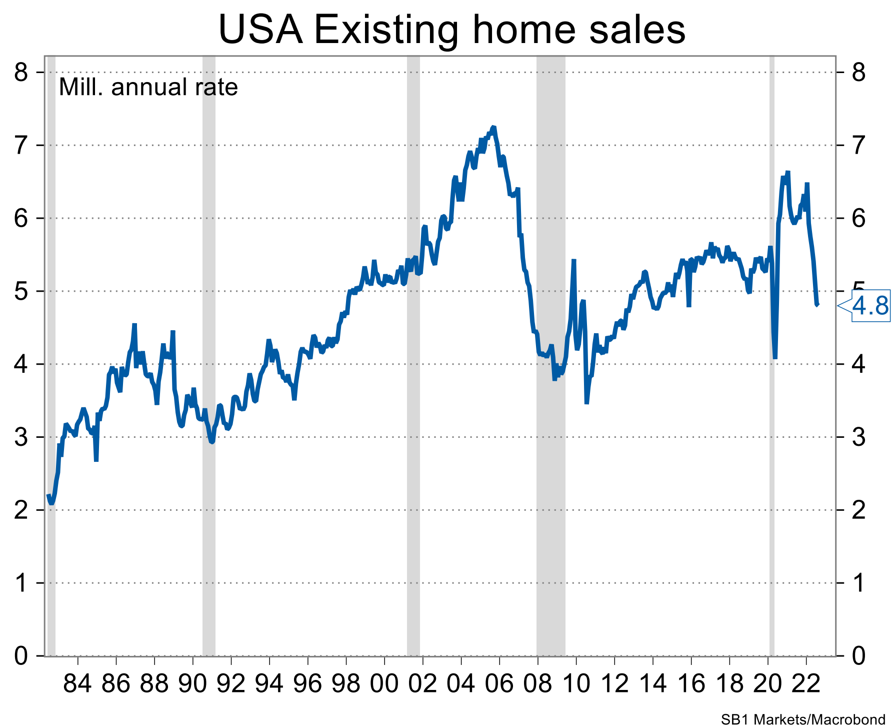


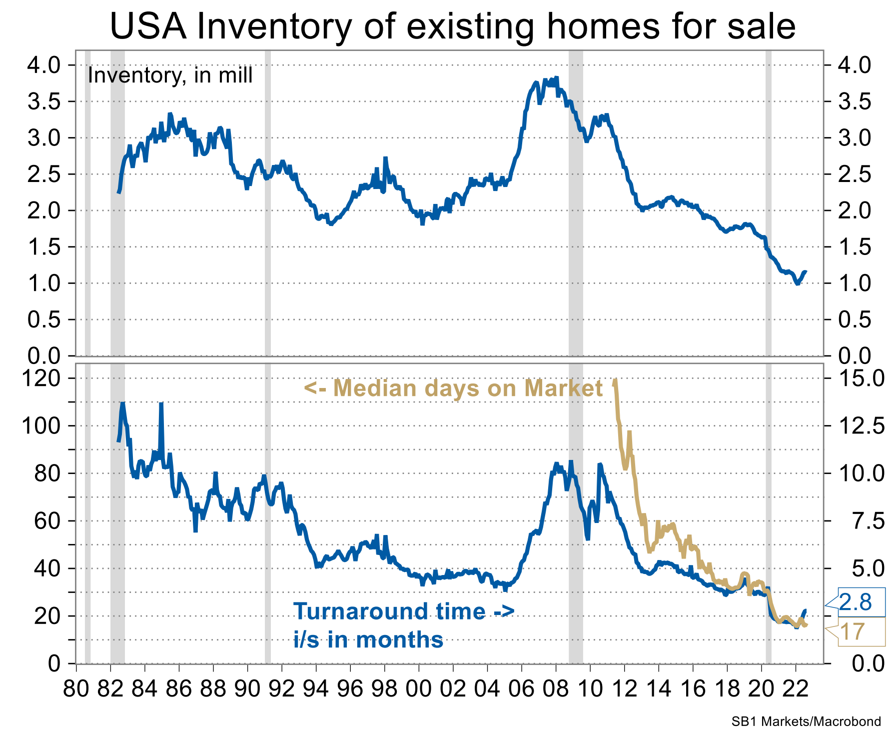


- **The Homebuilders' Housing Market Index (HMI)** declined 3 p to 46 in Sept, expected down 1 p! The decline of 21 p over the past 3 months is the largest ever, barring the 45 p Apr-20 drop (which was followed by a 55 p lift in May and June. (That trick will not be repeated now!) The 3rd largest 3 m decline was the 13 p drop when the big housing bubble burst, in 2006
  - » Affordability is still the challenge, due to higher mortgage rates, and soaring new home prices (at least until now), check here
- The decline in the index recent months signal more than a 1/3 decline in housing starts following the 20% drop so far - in sum a 50% setback, which we have never seen except for before or during deep recessions

Existing home sales almost unch. in August – but higher rates do have an impact

Sales are down 26% from Jan. The inventory is low but increasing. Prices are falling rapidly

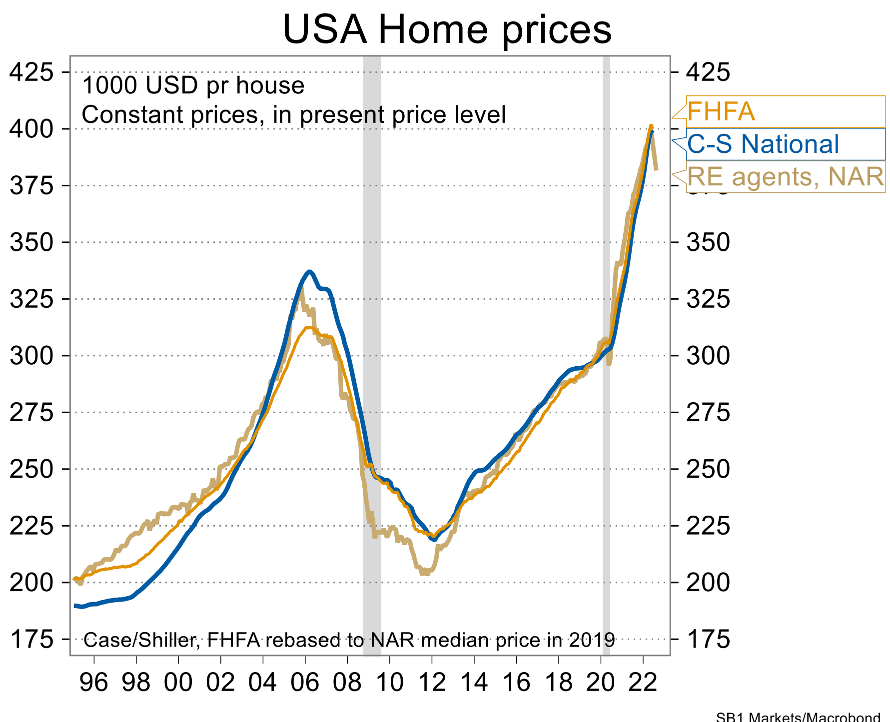




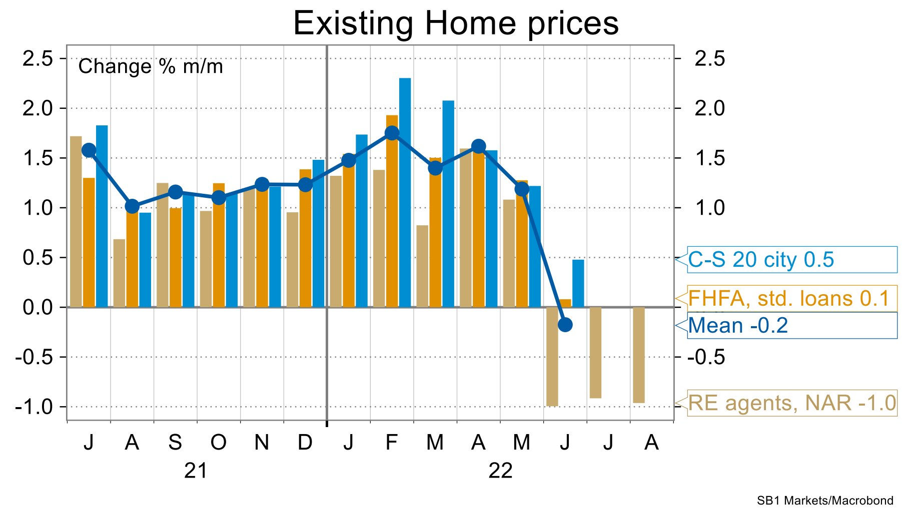
- Sales of **existing homes** fell to 4.80 mill in August (annualised rate), from 4.82 mill in July, expected down to 4.70 mill. Sales have fallen by 26% from local peak in January. Sales are down 10% vs. the pre-pandemic level. **Pending sales** stats signal a further decline in actual transactions
- **The inventory of unsold homes** fell by 1% in Aug, after having increased slightly over the previous 5 months – from at ATL in February
  - The inventory equals 2.8 months of sales (down from 2.9 last month, and 1.8 in January). During the 2005 boom, the i/s ratio was 4 months, in bad times it has been as high as 10 months
  - A signal of a still hot market: The median time on the market for those homes actually sold is just 16 days, and close to ATL. Before the pandemic the time on market was at 30 days (and 120 days in 2011!)
- **Prices** fell 1% m/m, following a 0.9% decline in July, previously reported to -0.6%. *Check more next page*
- **Mortgage rates** have increased further and remain far higher than over the previous years – and together with the high price level (up 40% since before the pandemic) have crushed affordability – and the impact is now very visible. We are witnessing a housing market recession

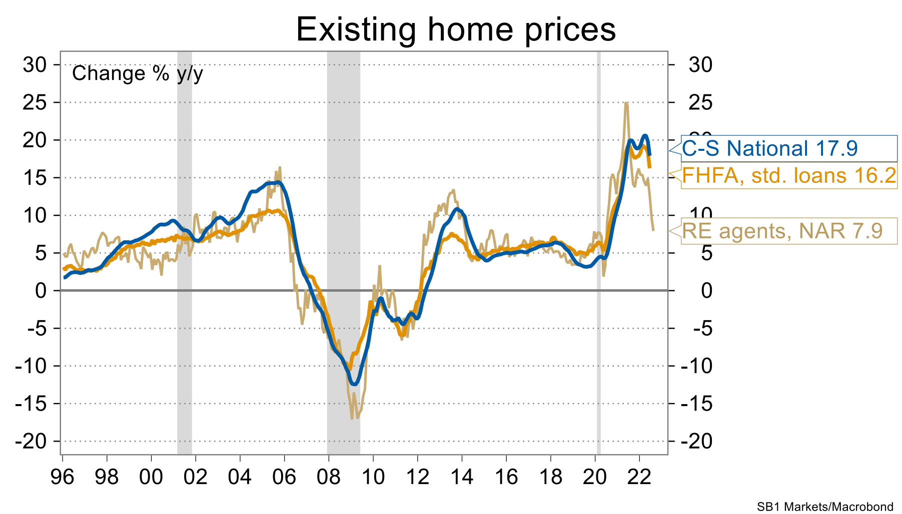
House prices are falling for the 3rd month, at -12% pace!

Prices turned south in June. Prices are still up 7.9% y/y – but the negative sign is coming closer



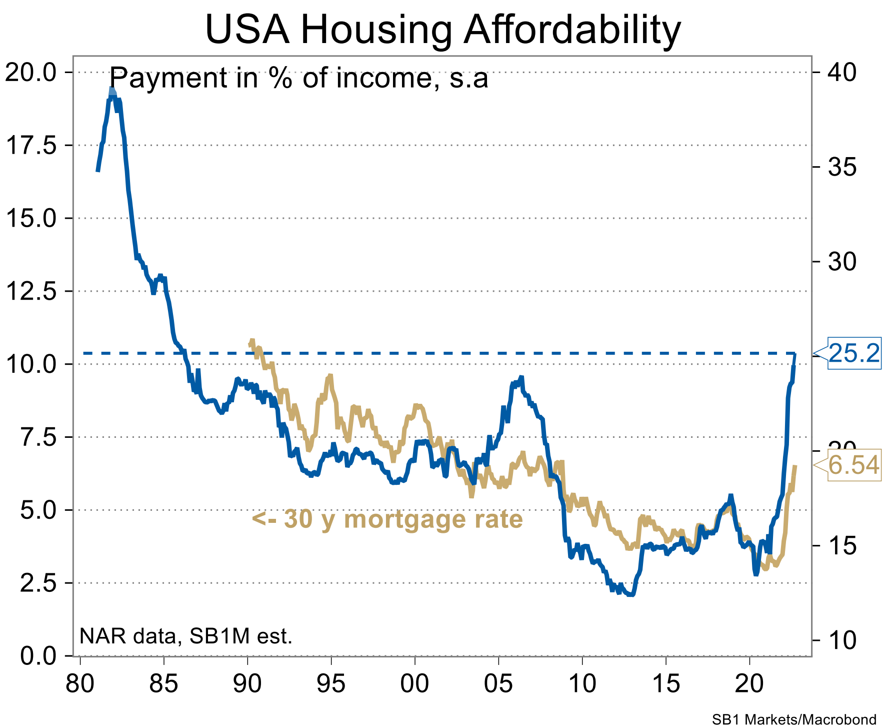
- **Prices** fell 1% in Aug, following a 0.9% decline in July (revised down from -0.6%). The seasonal adjustment of these data is not perfect, so some caution on our m/m data. Aug prices are mostly based on transactions agreed upon in July. The annual rate fell 1.7 pp to 7.9% (from a 1.2 pp downward revised rate in July)
- Other indices still are up 16% - 18% y/y. Prices are normally lagging sales by almost 1 year, and the recent decline in sales very likely signals a turnaround in prices too, we think the impact now is coming sooner due the rapid deterioration of affordability
- Home prices are up 40% from before the pandemic, and are way above the 2006 level, even in constant prices (up some 15%)

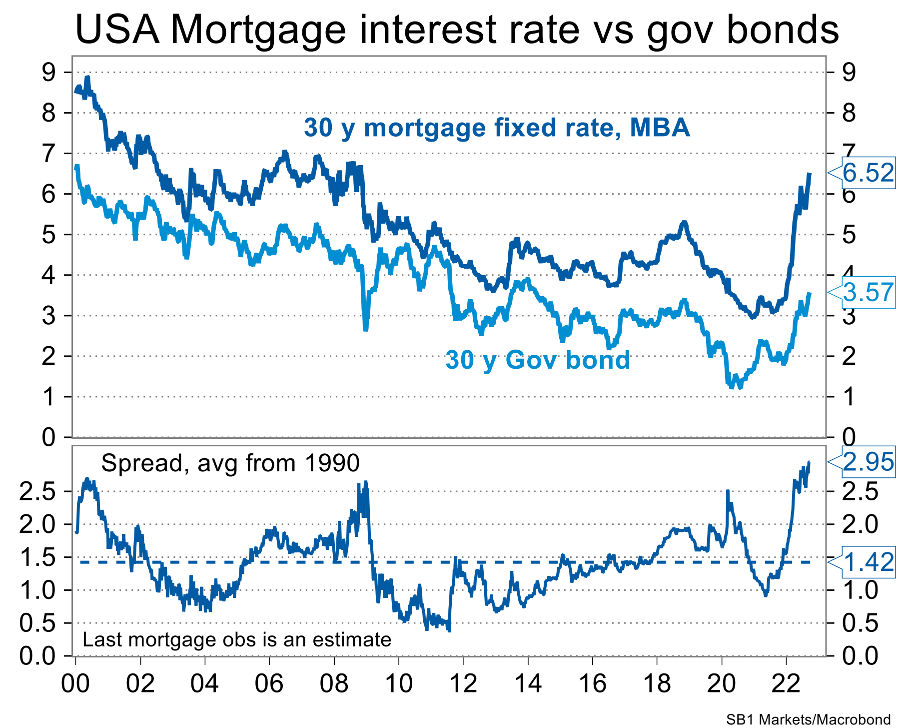




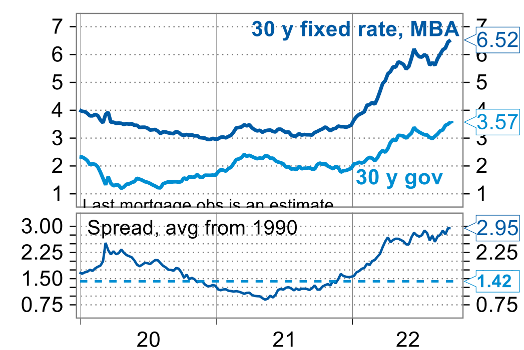
The least affordable housing market since 1986

Prices are up 40% since before the pandemic, the mortgage rate is up 63%. In sum 128%...



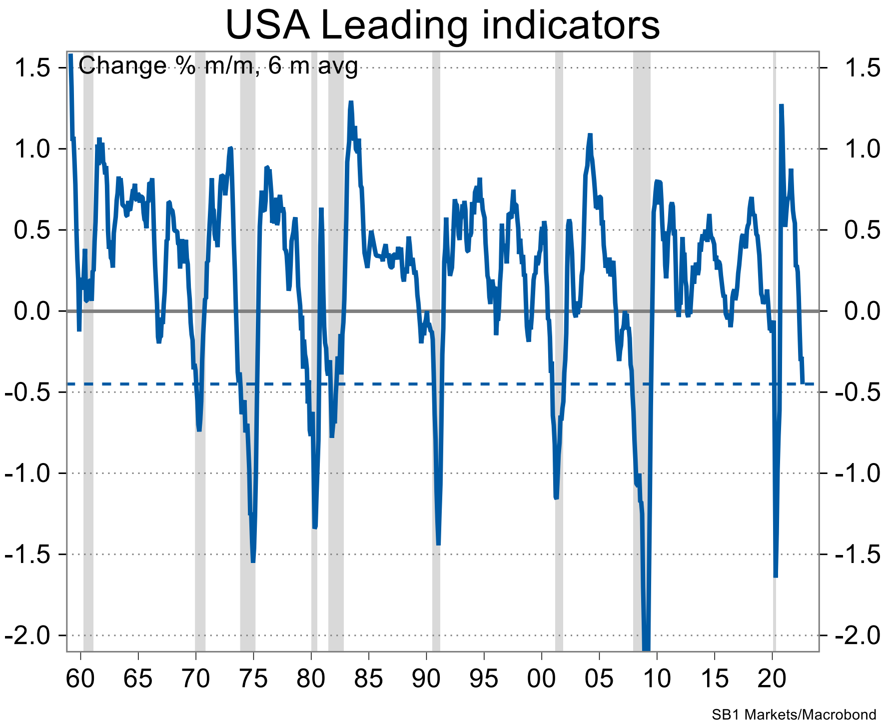


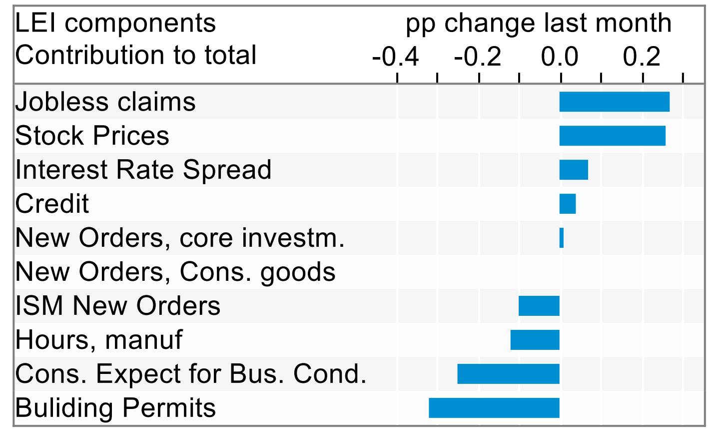
- **The 30 y fixed mortgage rate** has climbed to 6. 52% (effective rate) from 3.0% last summer, from 3.5% at the start of 2022. Before the pandemic, the rate was 4.0%
- The **Federal Reserve** concluded its mortgage backed bonds buying campaign in March - and is now reducing its holdings. No doubt, this shift explains much of the surge in the mortgage spread, to 2.95 pp, way above the average at 1.42 pp. <u>This spread is far too high, from a long term, credit risk perspective</u>

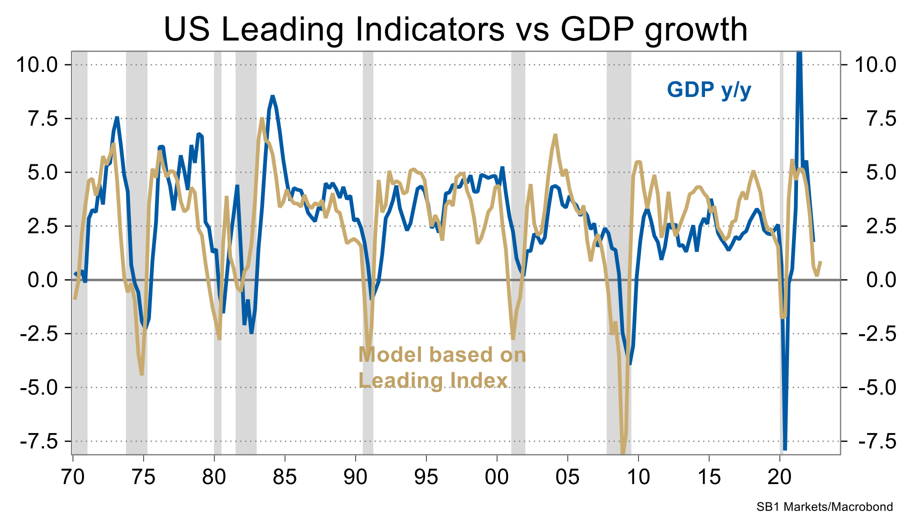


The Leading Economic Indicators suggest US is in or close to a recession

A 6-month avg of -0.45% level detected 8 of the 8 past recessions. And there were no false warnings!



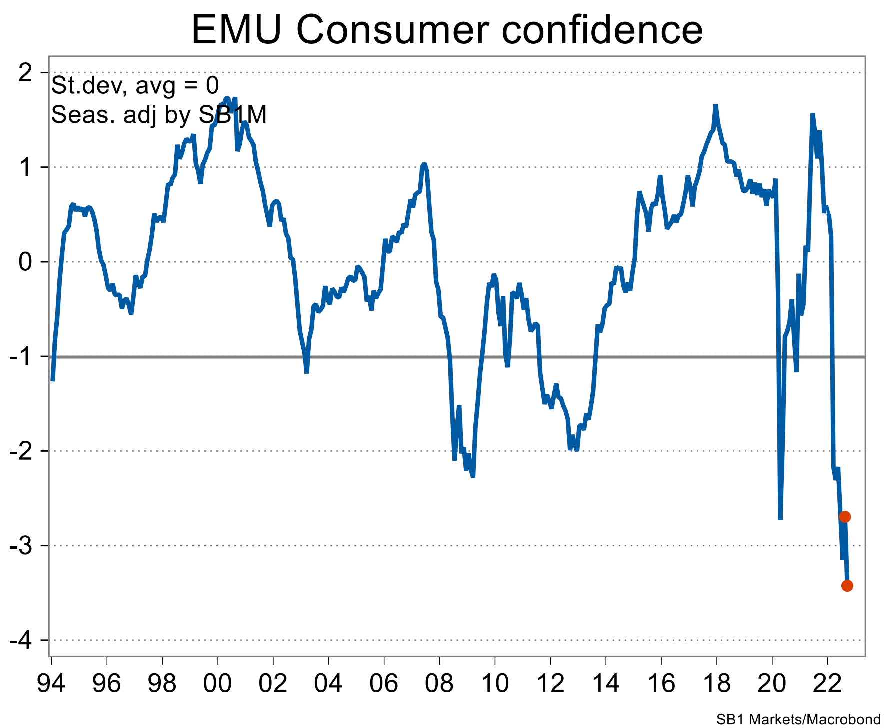


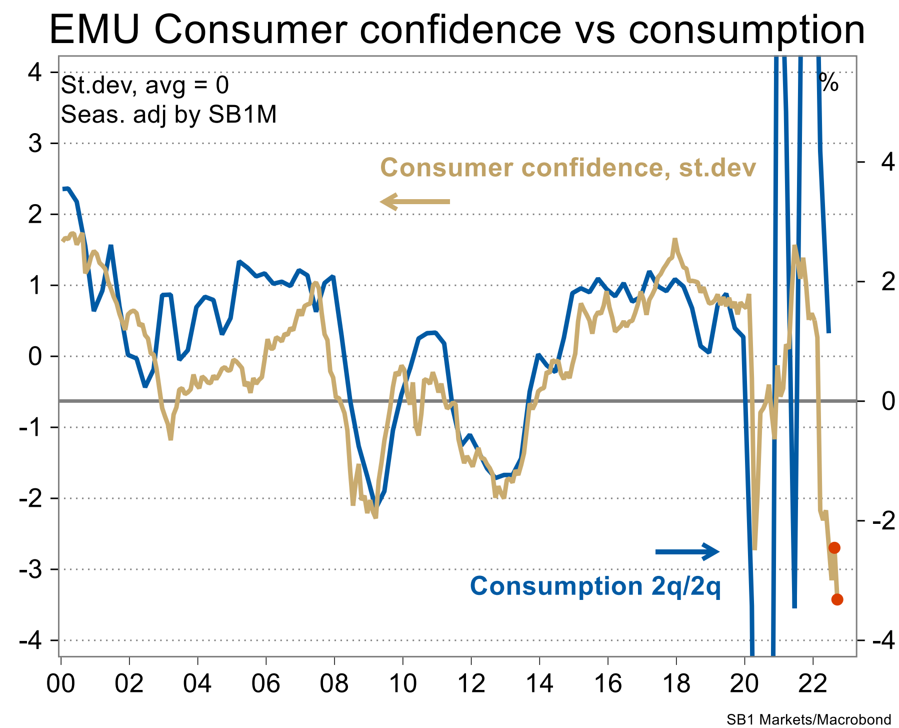


- The LEI fell 0.3% in Aug, 0.2 pp more than expected, following the 0.5% drop in July
- The 6 m average is has fallen to -0.45%. The LEI has fallen to this level 8 times since 1965
  - » On these 8 occasions the US economy was very close to entering or had entered a recession
  - » Thus, the LEI 6 m avg at -0.45 ‘detected’ all 8 recessions since 1965; no false positives, and no false negatives, at least since 1970. In 1960, US entered a recession without any clear warning sign from the LEI

High inflation and the energy crisis send EMU consumer confidence to new ATL

Consumer confidence at 3.4 st.dev below average in September!

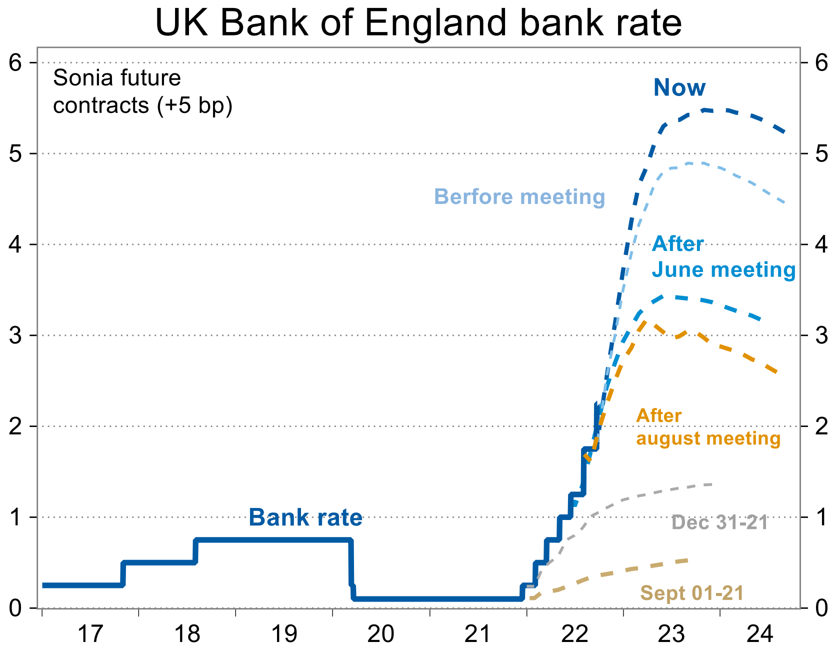




- **The confidence index** fell 3.8 p to -28.8 in Sept, according to the preliminary estimate, expected down to 25.8. The level in Sept is -3.4 st.dev below avg. – ATL by far
- **Inflation** fuelled by super high energy prices and fear of lack of supplies are probably to blame. **Interest rates** are now being hiked – and the rest of the yield curve has taken big leaps upwards – and sentiment is plummeting
- Usually, consumer confidence is tightly correlated to growth in household demand. If that's the case now as well...

Bank of England: Peak inflation expected to be lower than f'cast in Aug MPR

… but a peak of 11% is… well, far above target. The Bank hiked by 50 bps to 2.25%, as expected

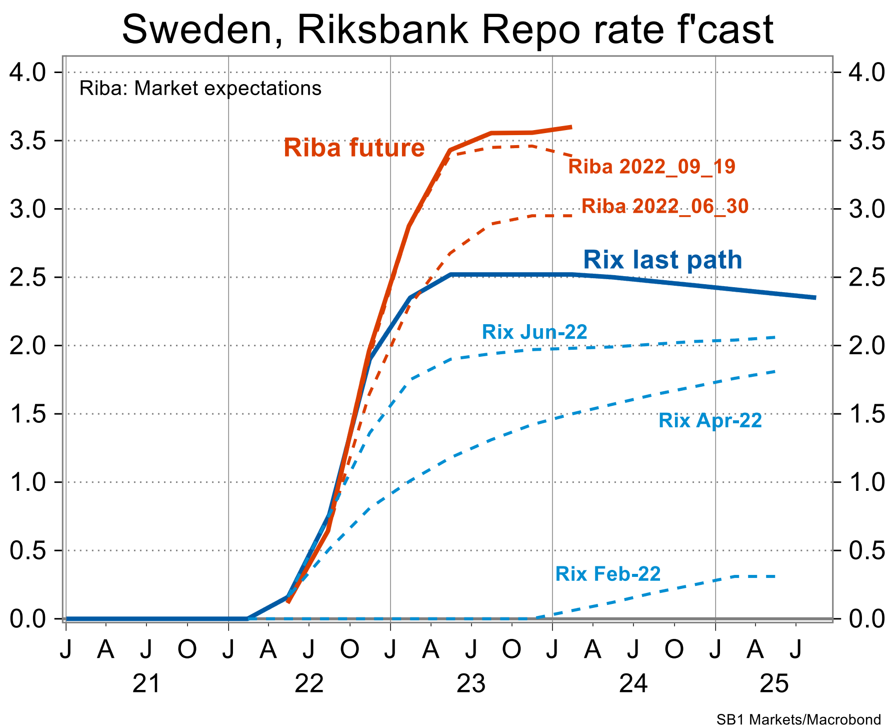


SB1 Markets/Macrobond

- **The policy rate** was lifted by 50 bps to 2.25%, as widely expected
  - » 5 of 9 members voted for a 50 bps hike, while 3 members preferred a 75 bp hike!
  - » The Bank voted to reduce the holding of gov bonds by GBP 80 bn/month from September
  - » The energy price guarantee programme is expected to lower inflation in the near term, more specifically the peak is now expected at 11% vs an expectation of 13% in August. However the bank expects it to <u>increase</u> inflationary pressures in the medium term (due to a smaller decline in disposable income, and more domestic demand)
  - » In Q3, GDP is expected to contract by 0.1% as opposed to 0.4% growth in the August MPR (the Queen's fault?)
  - » No full projections update: The bank will make a full assessment in the next MPR
- The **short end of the UK curve** rose significantly last week (and after the meeting) up to almost 5.5% - and the 1y 1y fwd swap rate shot up almost 120 bps, but not just due to the BoE comments, **rather is was the new prime minister and her government's** huge tax cuts to support growth together with a spending package (mainly electricity subsidies) that rattled the markets – <u>and Friday the 10y swap rate rose more than ever before vs. the average EUR/USD 10 y rate!</u>
  - » The tax cuts include cancelling a planned rise in corporation tax (keeping the current rate of 19%); reducing the tax rate on incomes above GBP 150,000 to 40% from 45%; reversing the rise in national insurance contributions (paid by the well off), scrapping a cap on bank bonuses (City is celebrating); reducing the stamp duty on home purchases; and reducing the basic income tax rate. The finance minister said the energy subsides would amount to GBP 60 bn for the next 6 months, the tax cuts would cost another 45 bn over the next 4 years.
  - » The total package may equal 1.4% of GDP (but a budget oversight office has been side lined). <u>There is probably more to come – all in an economy that already is struggling with an inflation at 10%, and where the CB hikes the policy rate to lower domestic demand!</u>
- The **GBP** fell 2.4% last week on the tax package new – and GBPUSD fell to the lowest level since 1985 (before the Plaza accord) at 1.0847 but trade weighted it is not yet for the history books: Just the weakest pund since just June 2020, at is was far weaker after Jun-20 the Brexit poll

The Riksbank lifted the signal rate by 100 bps – largest hike since the 90s

The bank has just 4 rate setting meetings per year, and had to compensate with 100 bps in one go



- **The Riksbank** surprised with a 100 bps hike (market/economists expected 75 bps) as the inflation is far too high, as they stated. The policy rate is anyway not high, so further reasons for the Riksbank to front load its rate hikes, are of course the low starting level and the increasing interest rate differential, as other central banks aggressively raise rates
- **Inflation** was revised further up; **GDP growth** down and the bank is now forecasting a recession in '23.; the **unemployment rate** was revised only slightly upwards, as productivity growth in 2023 is assumed 1 pp lower than what the bank expected in June (and expected to fall by 0.7%, but 2022 was revised upwards)
- The **QE program** was not altered at this meeting, but will expire at the end of the year
- Riba futures inched upwards, as most places last week

Riksbank f'cast, annual percentage change

	2022	2023	2024
CPI	8.6 (7.6)	8.5 (7.1)	2.2 (2.7)
CPIF	7.8 (6.9)	5.1 (4.2)	1.6 (2.0)
GDP	2.7 (1.8)	-0.7 (0.7)	1.1 (1.3)
Unemployment	7.5 (7.5)	7.9 (7.7)	8.2 (7.9)
Unit labour cost	3.4 (3.8)	4.2 (2.9)	2.1 (1.9)

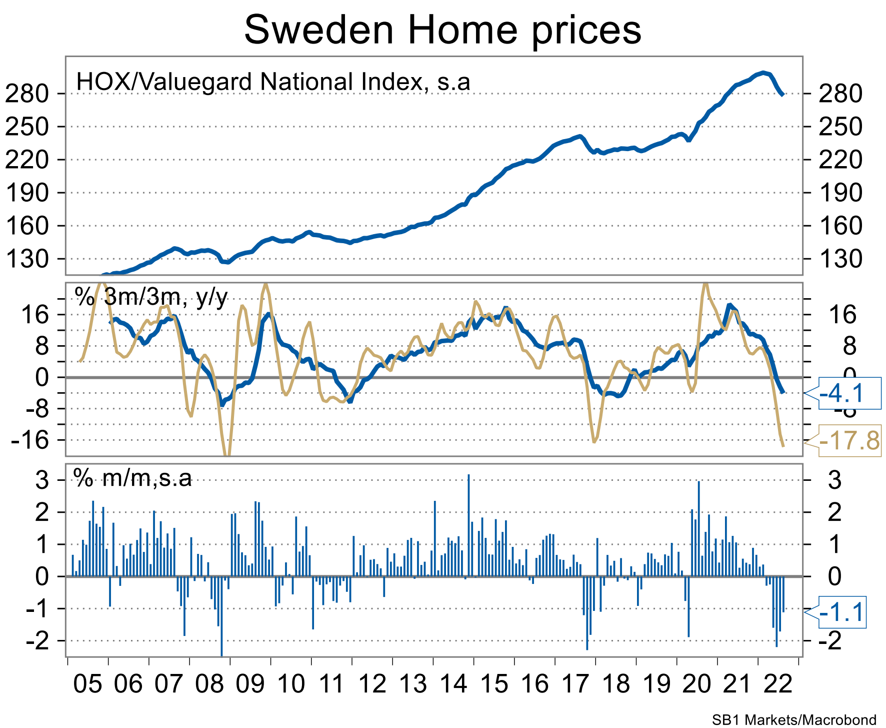
Riksbank rate path

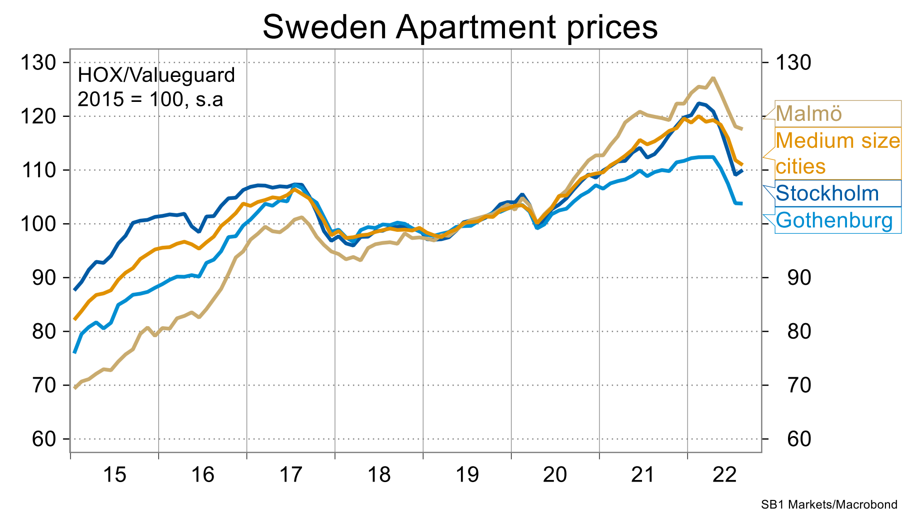
	2022Q2	2022Q3	2022Q4	2023Q3	2024Q3	2025Q3
Policy rate	0.16 (0.16)	0.82 (0.76)	1.90 (1.36)	2.53 (1.94)	2.47 (2.01)	2.35

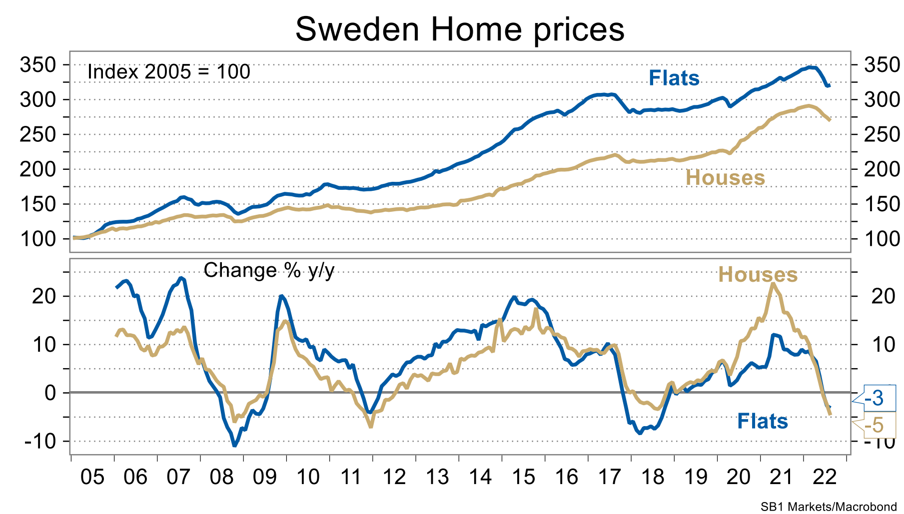
SpareBank 1 MARKETS

Swedish house prices further down in Aug, but apartment prices rose!

Prices fell 1.1% in Aug, the 6th decline in row, in sum 7%. Single-home prices behind the Aug decline







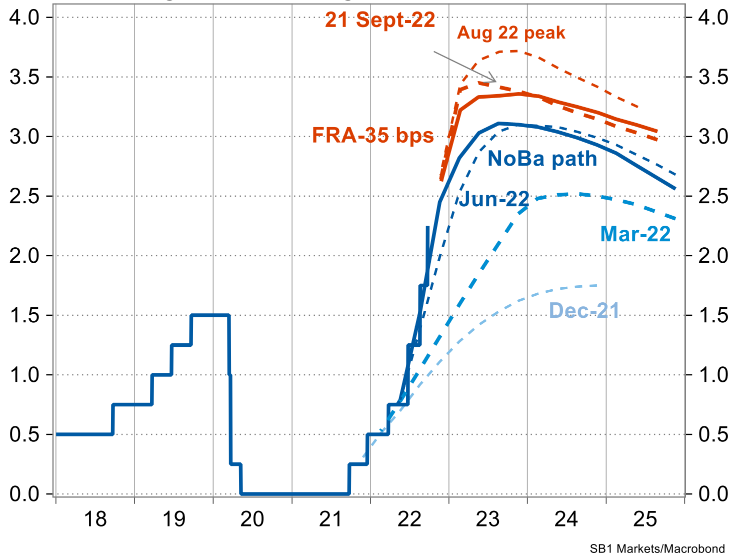
- **Prices are down** 5.9% from the peak in February. In Stockholm, apartment prices are down 10% from the peak
  - In Aug, apartment prices in Stockholm rose by 1.2% (seas. adj), while single-home prices fell by 1.7%
- **The annual rate** declined to -4.1% from 6.2% in April
  - The underlying price growth (3m/3m) is now -18%!
- The **Riksbank's** abrupt change of tack in late April has no doubt hit the housing market hard

SpareBank 1 MARKETS

Norges Bank raised by 50 bps to 2.25%, as expected but did not lift the rate path

The economy is slowing faster than the Bank assumed in June, expects GDP down 0.3% in '23

Norges Bank signal rate vs market



Interest rate paths

	NoBA Path 2-22	**SB1 NoBA Path 3-22**	**Change**	Fair FRA *) @IMM, NB	FRA** pre-meet	FRA** now	FRA-** NoBa
Q3 22	1.39	**1.53**	0.14	2.66			
Q4 22	1.99	**2.45**	0.46	3.11	3.72	**3.60**	0.48
Q1 23	2.53	**2.82**	0.29	3.35	3.81	**3.71**	0.36
Q2 23	2.87	**3.03**	0.16	3.45	3.77	**3.69**	0.24
Q3 23	3.04	**3.11**	0.07	3.45	3.73	**3.66**	0.20
Q4 23	3.10	**3.10**	0.00	3.43	3.68	**3.61**	0.18
Q1 24	3.09	**3.08**	-0.01	3.40	3.62	**3.55**	0.15
Q2 24	3.08	**3.04**	-0.04	3.35	3.56	**3.50**	0.15
Q3 24	3.04	**2.99**	-0.05	3.29	3.50	**3.44**	0.15
Q4 24	2.99	**2.93**	-0.06	3.22	3.44	**3.38**	0.15
Q1 25	2.93	**2.86**	-0.07	3.13	3.39	**3.33**	0.20
Q2 25	2.85	**2.76**	-0.09	3.03	3.34	**3.28**	0.25
Q3 25	2.77	**2.66**	-0.11	2.58	3.28	**3.22**	
Q4 25	2.68	**2.56**	-0.12				

**) Assuming the NIBOR spread at 35 bps*

**) Q4 FRAs adjusted for liquidity prem

- **The policy rate** was raised by 50 bps to 2.25%, as expected by both us and the market
- **The peak of the rate path** remained unchanged at 3.1%, close to our expectation but below market expectations
  - » 2022: up 25 bps in Nov and another 25 bps i Dec (the market expects 50+50)
  - » 2023: One or two 25 bp hikes, March (and possibly) June
  - » 2024: Policy rate will be cut again, and towards 2.5% in 2025
- **Economic projections**
  - » NoBa lifted its **inflation expectations** significantly, by as much as 1.5 pp to 4.8% for the core in 2023 (more than we assumed), and expects inflation to remain above target for the entire projection period
  - » The bank now expects a contraction in **GDP**, by 0.3% in 2023, mainly due to lower household demand and investments. GDP is in sum revised down by 2.5% ('22-'25). At the same time, the **productivity** level is revised down by 1.7%! Thus, the increase in unemployment is expected to rise just by 0.3 pp more than assumed in June, to 2.3% in 2025.
  - » **Wage inflation** was revised up by 0.1 pp for '23 and '24 to 4.6% and 4.5% resp. Cost inflation will be somewhat too high, due the decline in productivity
  - » **The bank is flexible**, inflation is allowed to stay above target the coming 3 years, while the unemployment rate is just slightly up from the present level
  - » **House prices** are now expected to fall by 2.4% in 2023 (down from -1%), implying a decline by 4% from now until next summer and then rise again as the prospects of a reversal in rates will increase demand. **Oslo Office prices** are expected -15%
- **Market reaction**
  - » The FRAs have come down quite a bit recent weeks and fell further in the short end post NoBa's policy meeting. Still, the FRAs are still too high
  - » The NOK was slightly down immediately after the decision but strengthened later in the day. The policy rate is not important for the NOK anyway…
- **The countercyclical capital buffer was kept unchanged at 2.5%**

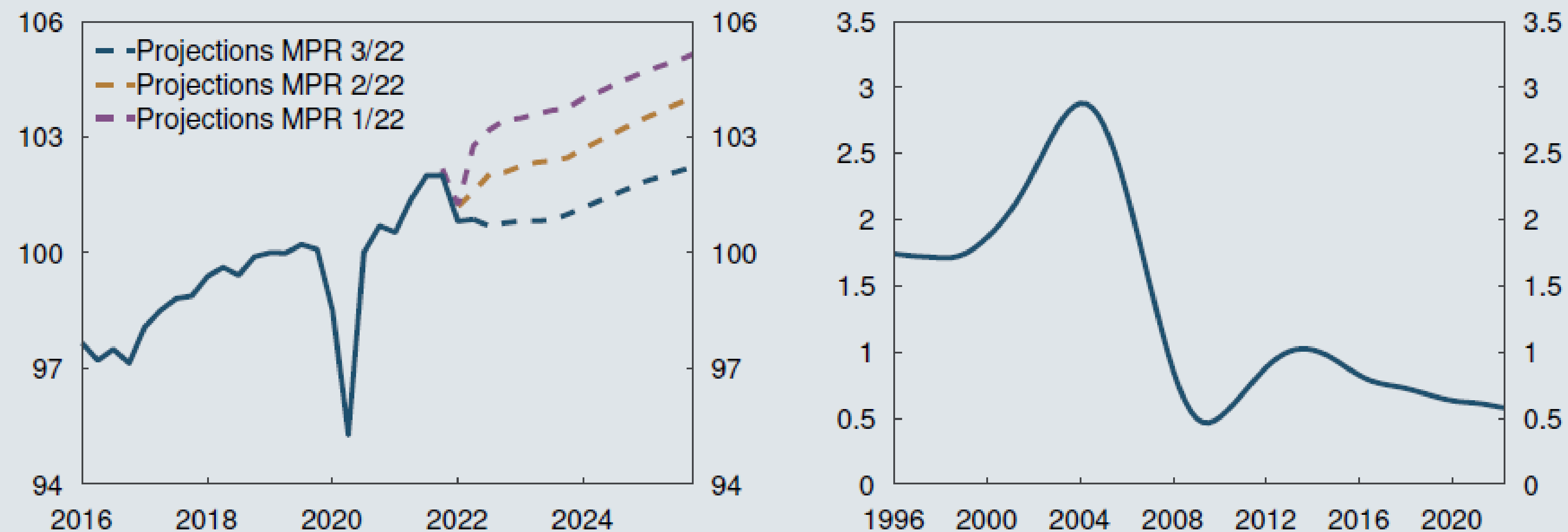
SpareBank 1 MARKETS

A new challenge: Low productivity 'forever'

For the 2nd MPR report in a row, the bank lowered the productivity estimate substantially

Productivity. Index 2019 Q1 = 100

Statistical trend productivity growth. Percent



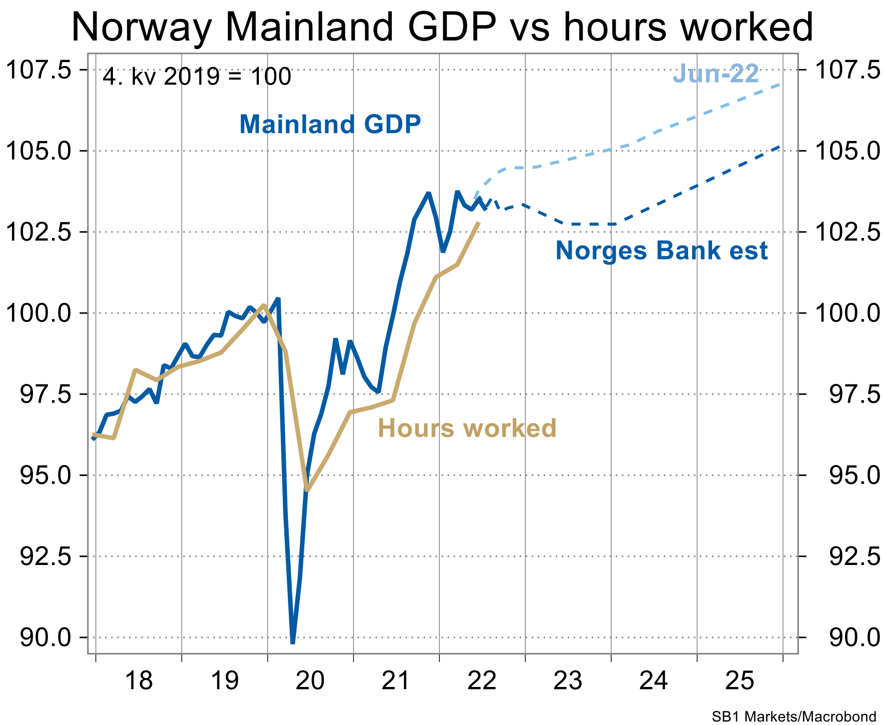
Sources: Statistics Norway and Norges Bank

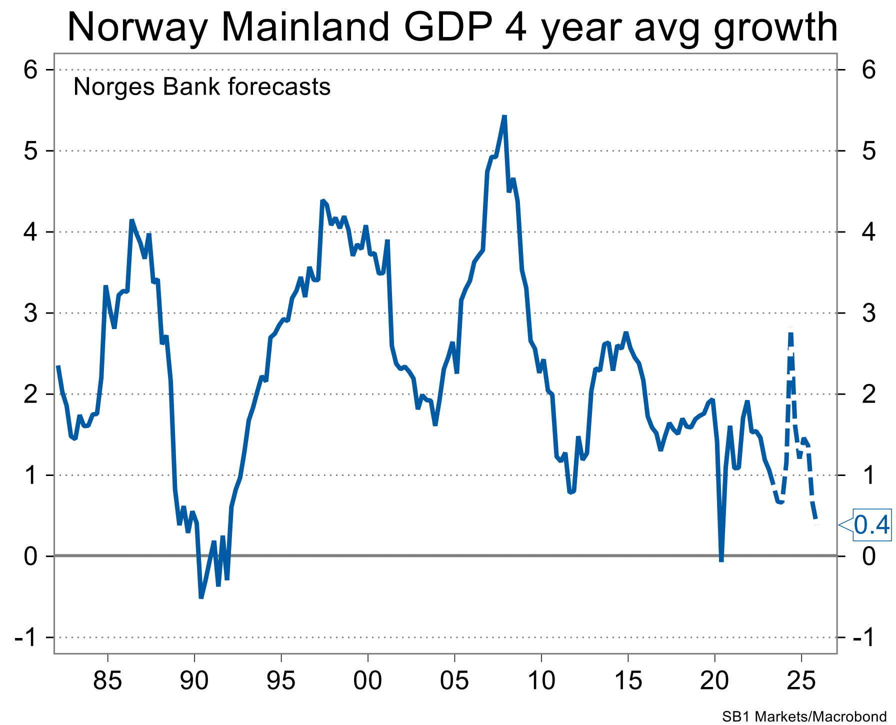
- From March to September, the productivity level late 2025 is revised down by an incredible 2.8% - <u>lowering the growth potential in this period by 0.7 pp per year</u>! (From June, the downward revision was 1.7%)
- At the same time, Unit Labour Cost inflation will increase by the same 0.7 pp per year for a given growth in wages. Thus, <u>wage inflation must be lowered by 0.7 pp</u> in order to yield the same UCL growth as before – which over time is pretty close to domestic CPI inflation. Norges Bank has not lowered its wage inflation estimates – and higher domestic unit labour cost inflation is an import reason for the lift in the inflation forecast
- Where is the risk vs. the productivity path? Probably at the upside – but in the US, the Fed came to the same conclusion

SpareBank 1 MARKETS

Expected GDP (total) growth till end of 2005: 1,8%

Without any substantial increase in the unemployment rate: The productivity shock to blame!



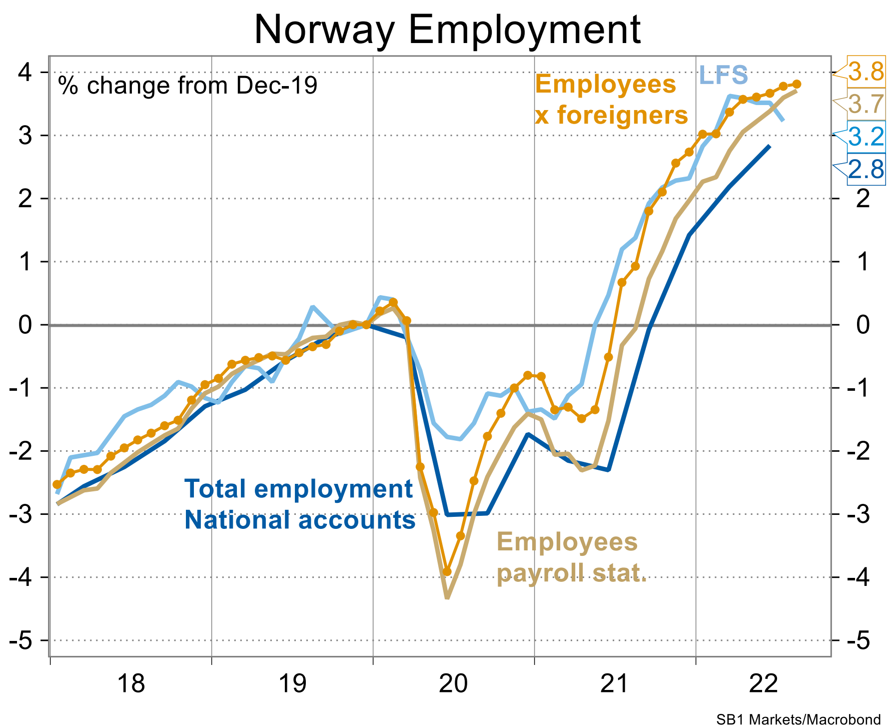


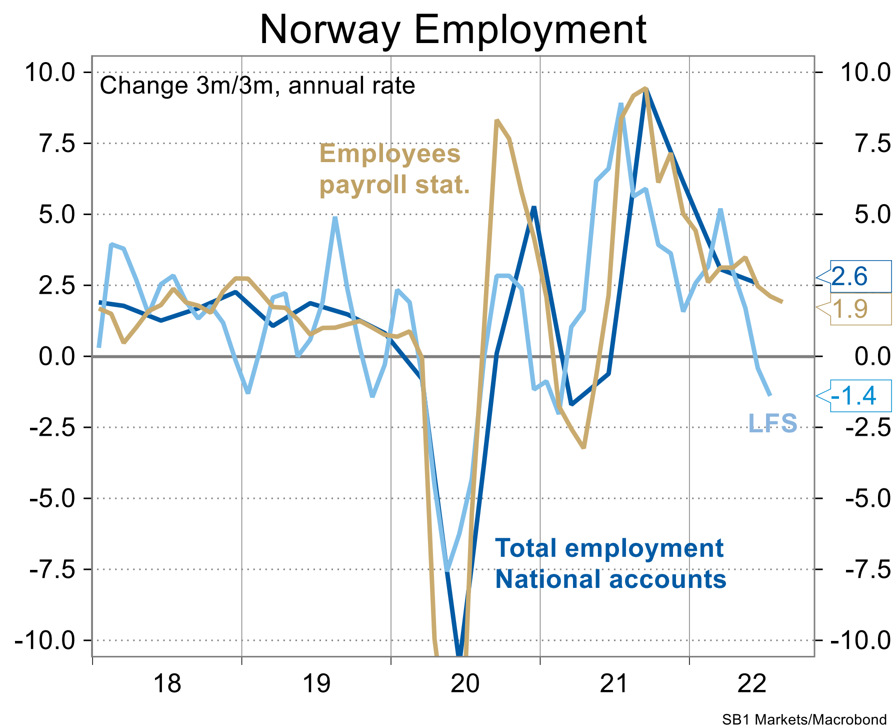
- During the Banking crisis GDP fell even measured over 4 years – and it did briefly during the start of the pandemic
- Now there is (hopefully) no banking crisis, and no new pandemic – still very anaemic growth the coming years
- An argument for hiking rates more now to curb inflation that is also driven up by higher Unit Labour Costs, but then keep the interest rates lower over time, as the growth potential is lowered

SpareBank 1 MARKETS

Employment growth is calming down, and LFS employment has flattened

The no. of employees rose by 0.1% in August. LFS unemployment fell 0.3% in July

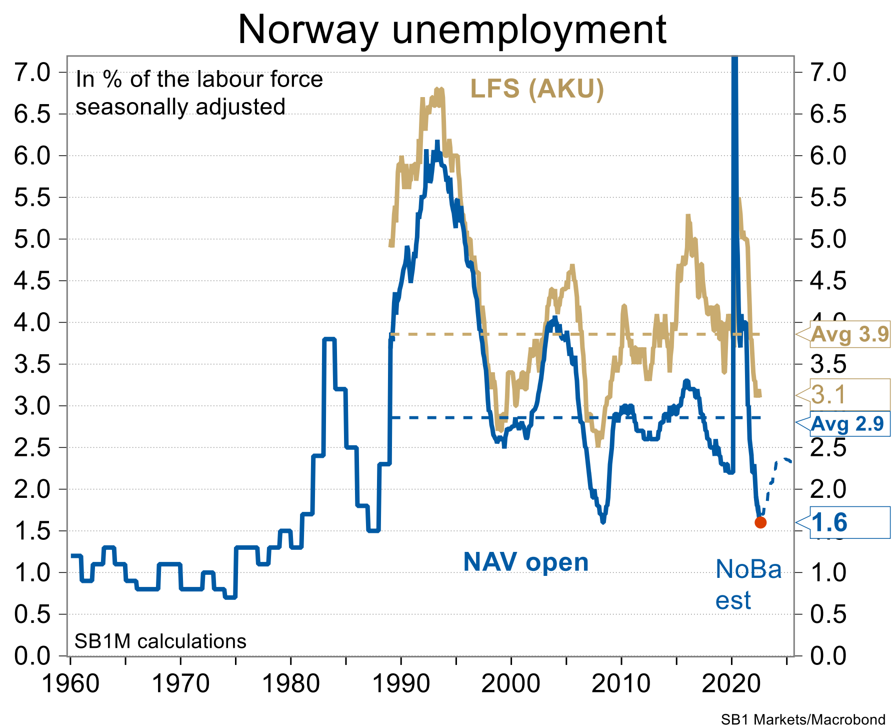


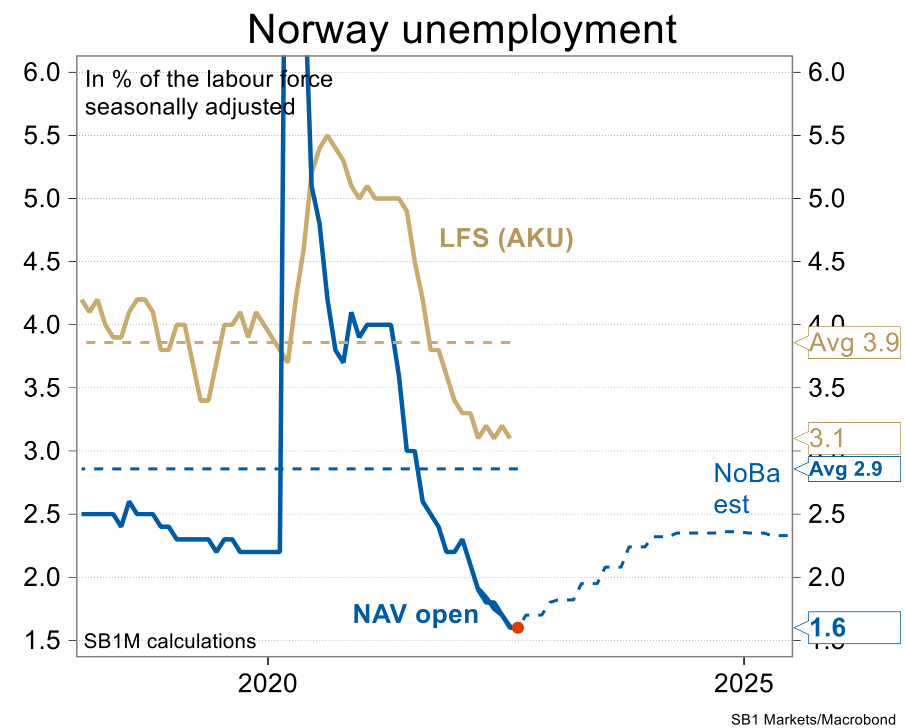


- **The LFS** ('AKU' survey) employment data (both employees and self-employed, with permanent residency in Norway) fell by 0.3% in July (avg May – July vs the previous 3 months), and is down 0.4% vs the ATH in March
  - » LFS employment is up 3.2% from before the pandemic
- The **register based employee stats ('A-ordningen)**, report 0.1% growth in the no. of employees in August, somewhat slower than over the previous months, after an upward revision. The level is up 3.7% since Q4-19. Excluding foreigners on short term stay, the no. of employees is up 3.9% (our est.)
  - » The growth in total no. of employees is higher than for Norwegian residents (Norwegian or foreign boards) as foreign workers on temporary stay are returning
- **National accounts** reported a 2.8% lift in employment to Q2-22 from Q4-19 (and a 0.6% increase q/q in Q2)

LFS unemployment down 0.1 pp to 3.1%, a low but far from record low level

… but well below an average level

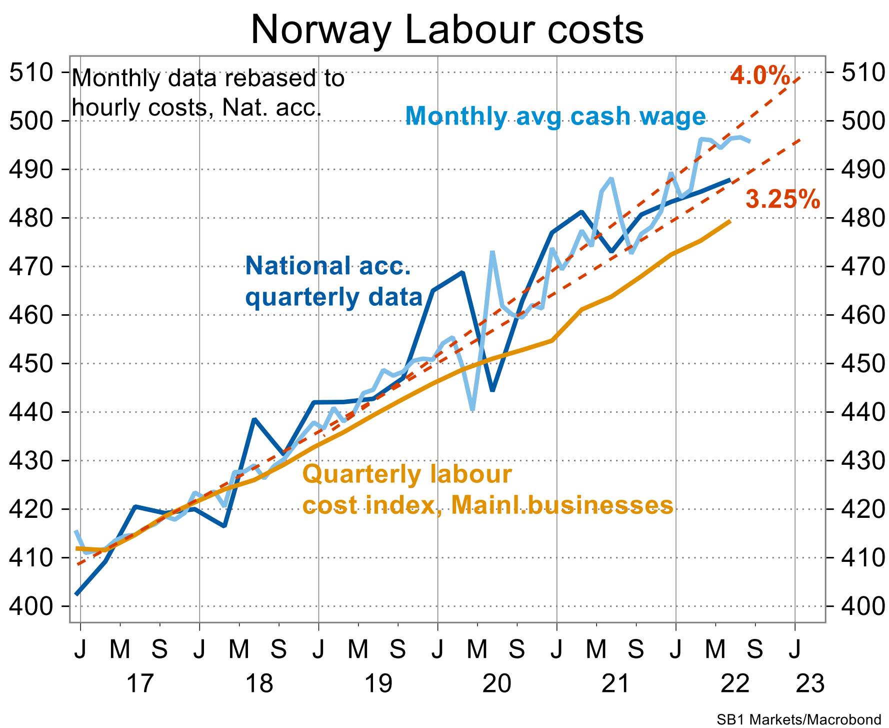


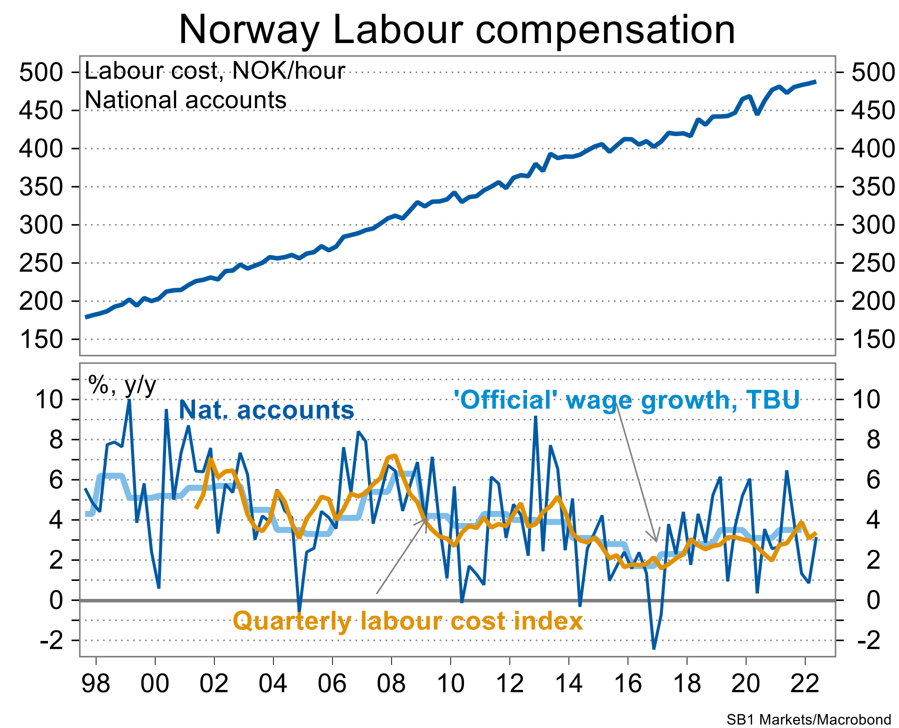


- **The LFS (AKU) unemployment rate** fell 0.1 pp to 3.1 in June, we expected unch
- **The 'full time' open NAV unemployment**, which includes furloughed workers, was at 1.6% of the labour force in August
- Norges Bank revised its NAV unemployment forecasts up

Wage data are volatile and not not always consistent

Taken together: No signs of any acceleration in wage inflation, at least not by much. However…

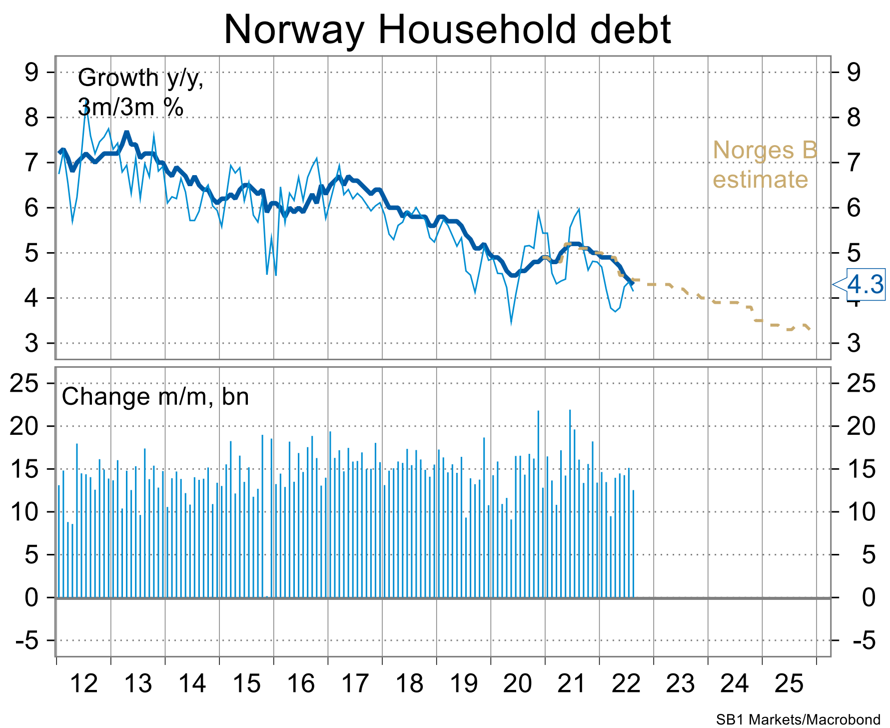


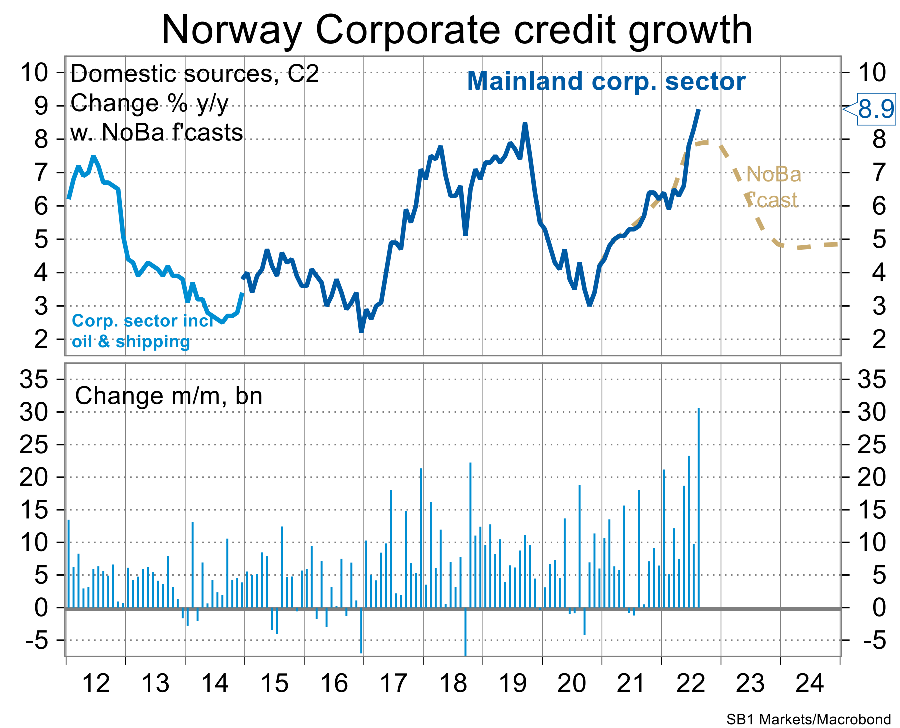


- As productivity growth has slowed substantially (and fell in H1) Unit Labour Costs are growth at a somewhat faster pace than before – and even a moderate wage growth, will lead to more than 2% inflation over time

Demand for household credit is falling in line with rising interest rates

…while growth in credit to the corporate sector is higher than since before the Financial Crisis

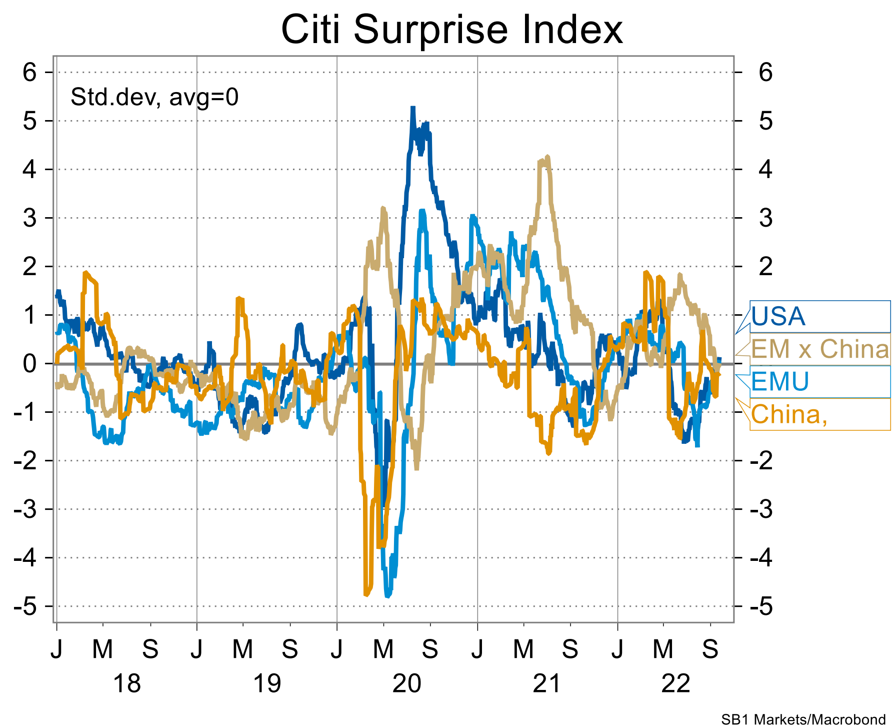


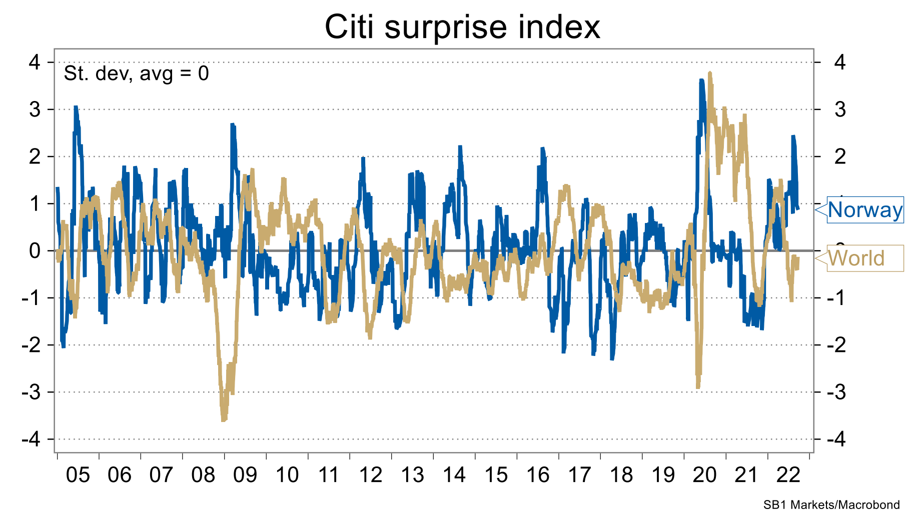


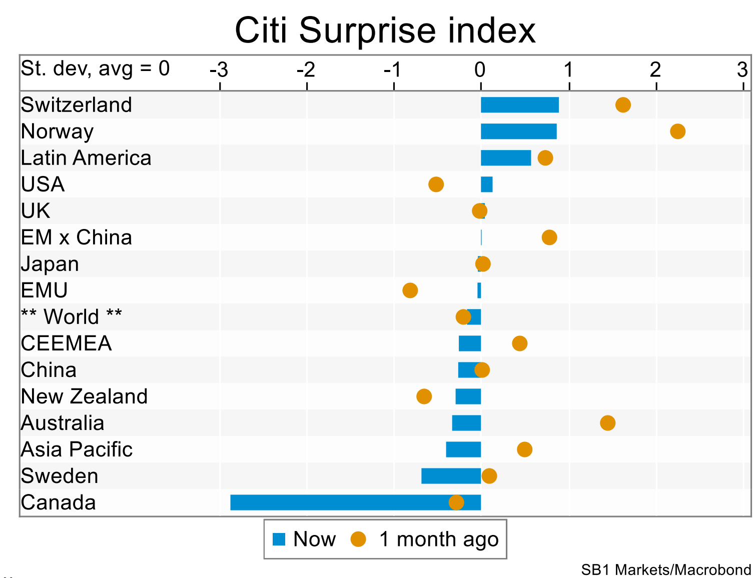
- **Household credit** growth slowed in Aug, and the y/y rate is now at 4.3%, and NoBa expects it to fall to 4% by the end of 2023 as a result of higher rates and falling house prices
- Monthly growth in **corporate domestic credit** is volatile. May and June were surprisingly strong, while the growth in July was close to long-term average, and August was record strong. The annual growth rate has accelerated substantially, and mainland businesses' debt is up 8.9% y/y up from 8.3% in July, way above NoBa's f'cast. The y/y rate is of course a reflection of the very low demand for credit one year ago, but the increase of close to 31 bn from July to August is nevertheless the highest on record (at least in NOK bn, data back to 1988)

Data still slightly on the downside but most countries/regions close to neutral

US turned up in positive territory last week (but the stock market was not impressed…)





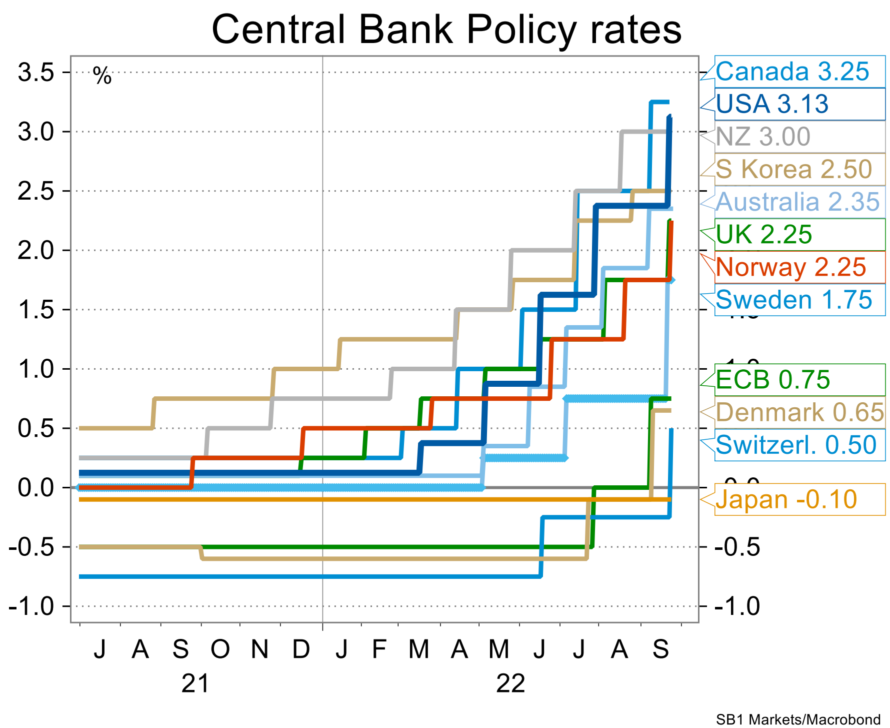


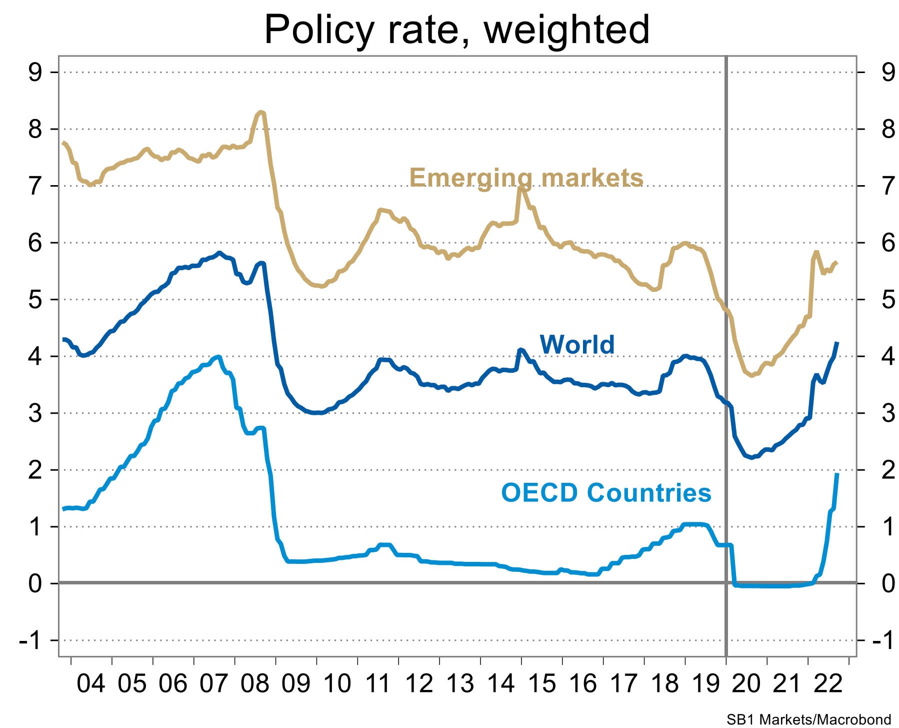
- **Norway** no. 2 on the list, even if data have not been that strong

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

What a central bank week! Huge hikes 'everywhere' in the rich part of the world

Sweden, US, Switzerland, UK, Norway and even some Emerging markets lifted their signal rates

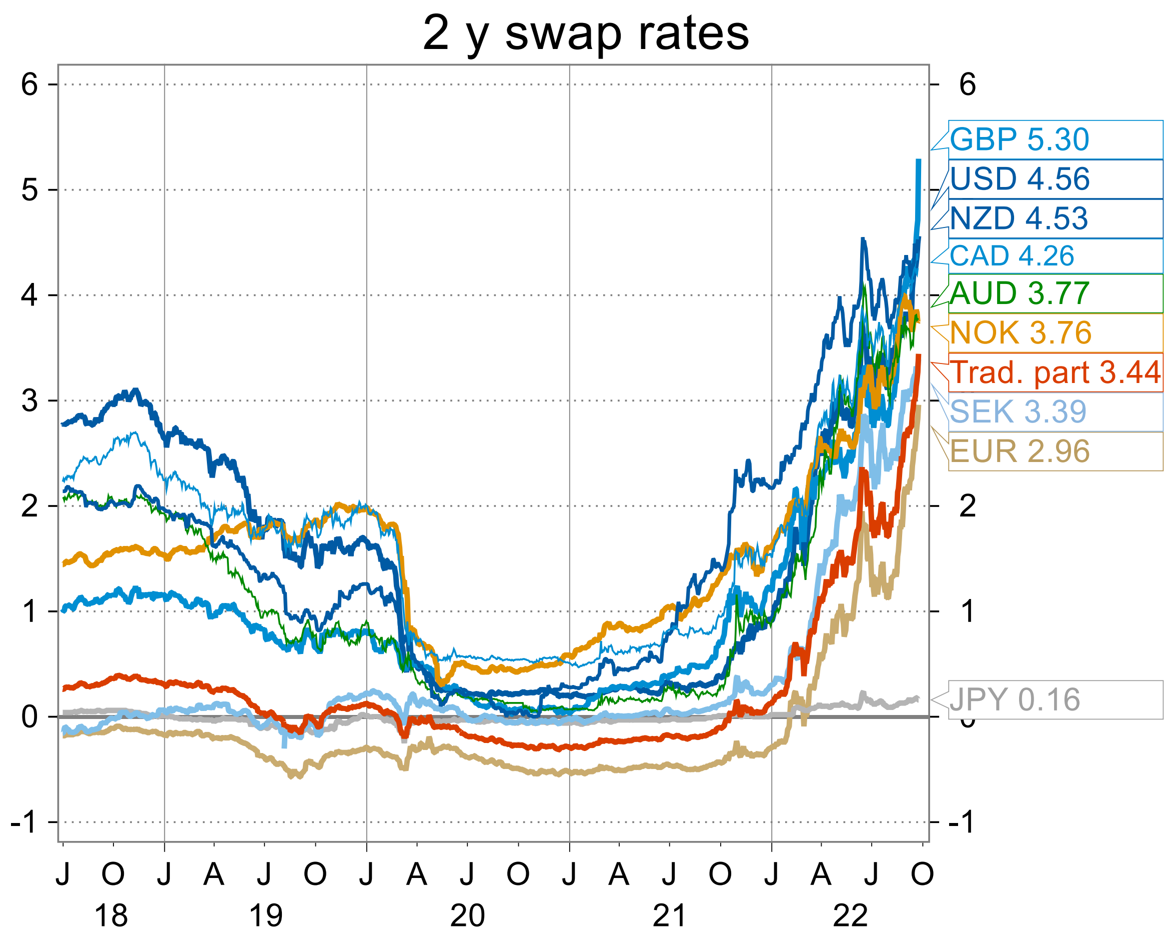


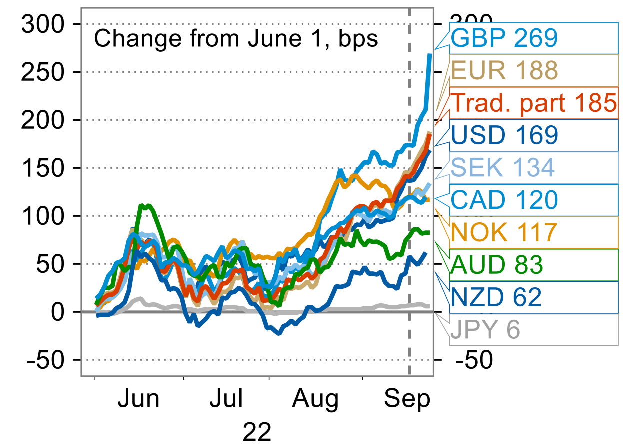


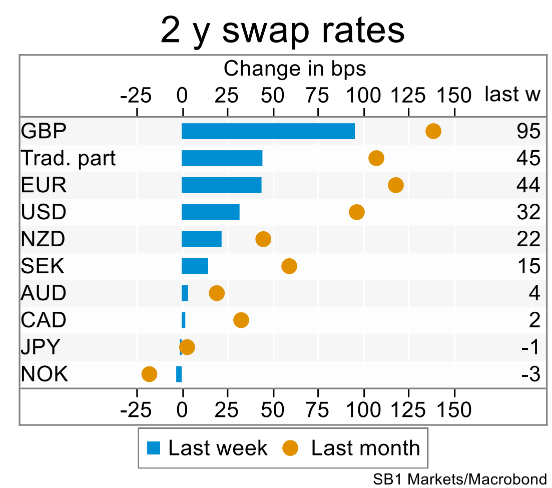
- Central banks are hiking rates even if the expect growth to slow (US) or the economy to contract (Sweden, UK, Norway) because inflation is way above target (including all measures of underlying inflation, partly also costs) and is expected to remain above target for several years
- The EM average policy rate has come down due to the Russian cuts – but the average is on the way up again
- In addition to rate hikes, most central banks have ended their QE buying programs. Some banks will start reducing their holdings, moving into the QT zone. US ramped up its QT program (doubled the pace) from the beginning of September

NOK 2 y swaps down, all others up. GBP +95, EUR +44, US +32!

NOK rates have fallen past 4 weeks, foreign rates have climbed. AN UNPRECEDENTED SPREAD DECL!

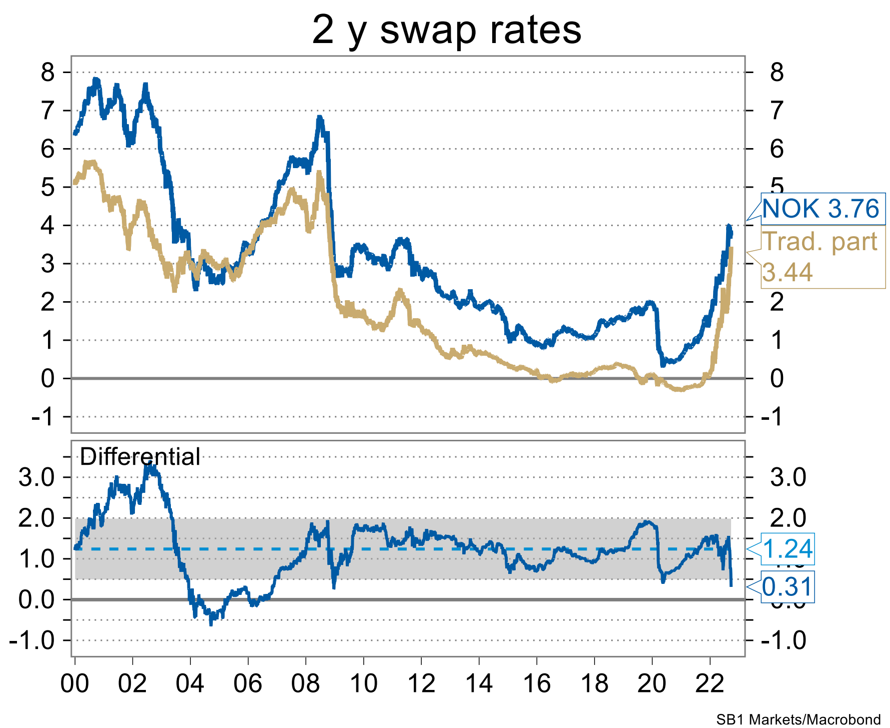


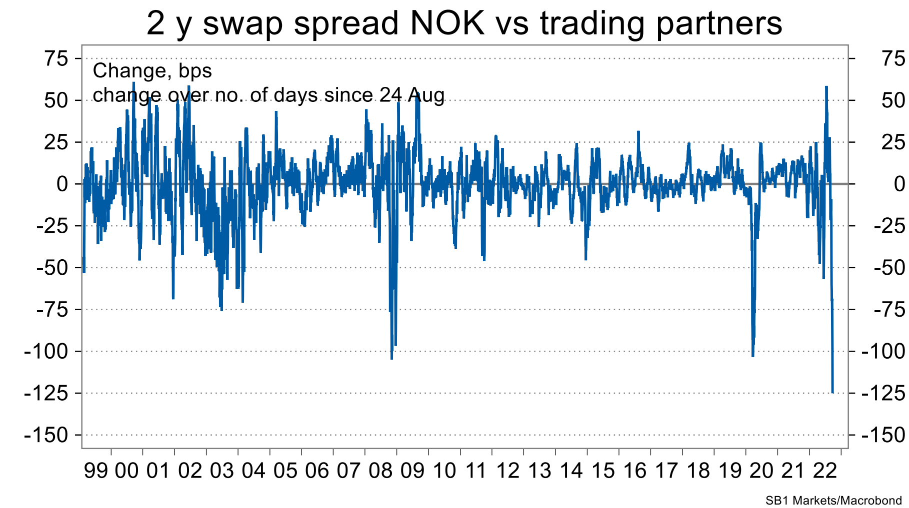


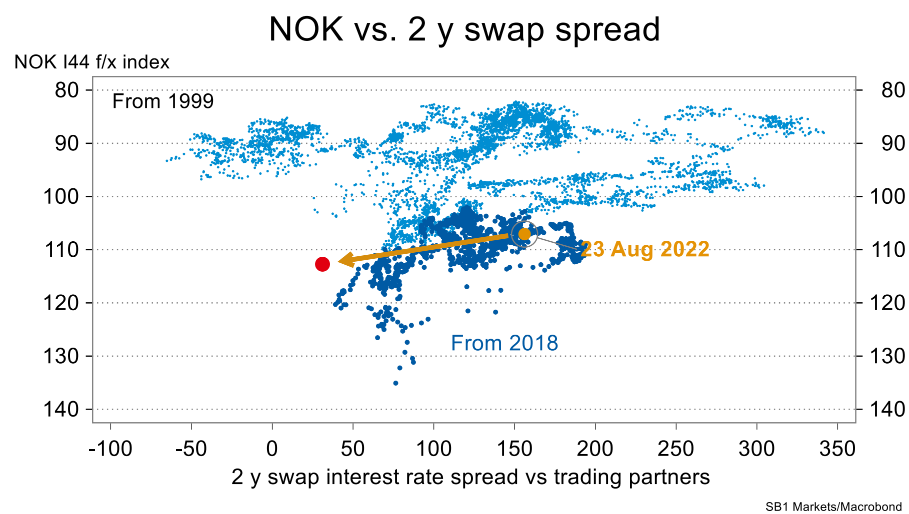


The 2 y swap spread has fallen by ~~80~~ 125 bps since Aug 23, to just 31 bps

The largest decline ever over 4 weeks, to the lowest level since some few days in 2008



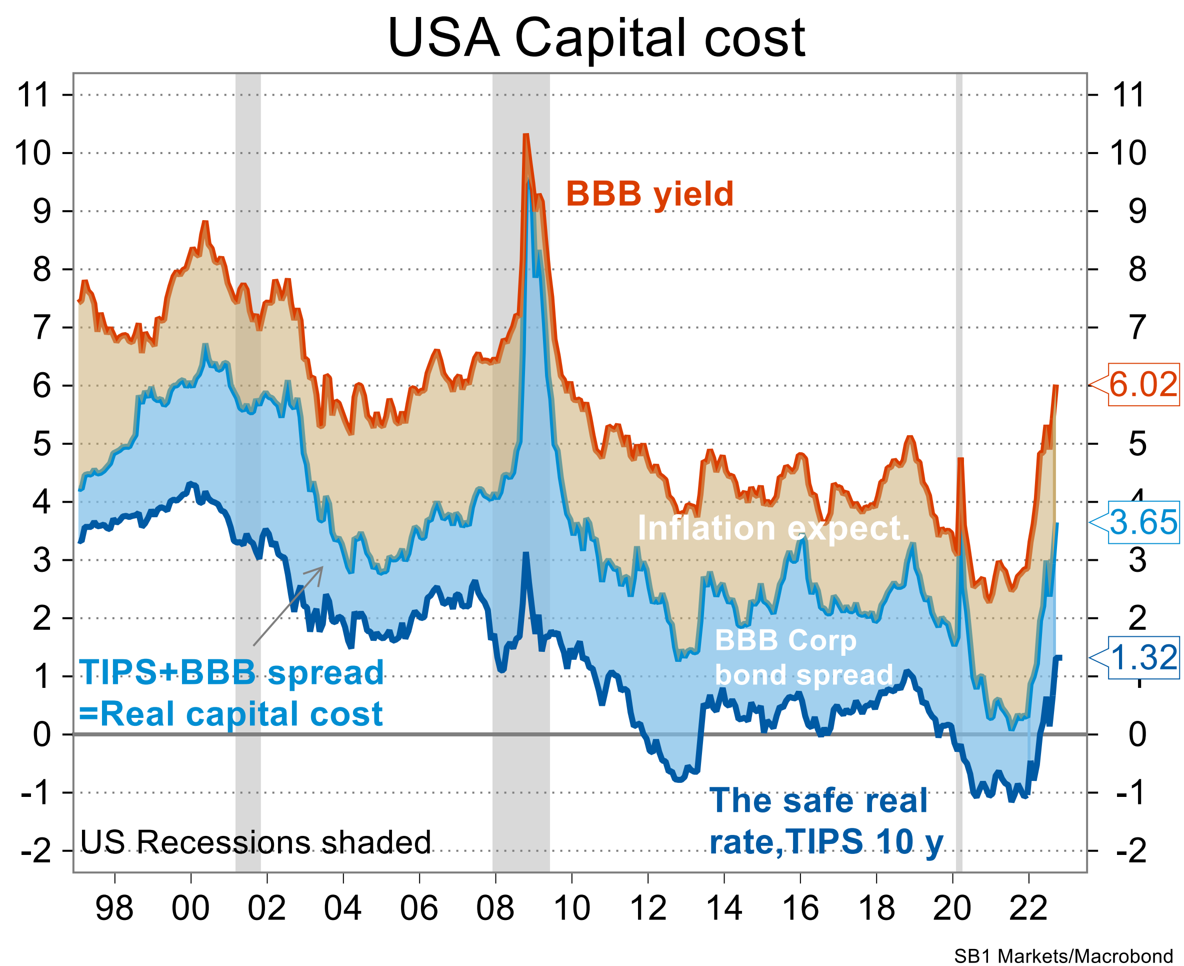




- Rates abroad have surged further, while Norwegian rates have fallen. NOK rates are still higher than among our trading partners, by just 31 bps
- The NOK has fallen, but not by much (confirming the weak correlation between NOK and the interest rate differential) – and the oil and gas prices have fallen too

The cost of capital is not like it was some few months ago

The basis for all valuation metrics has changed dramatically. And all calculations of return on capital

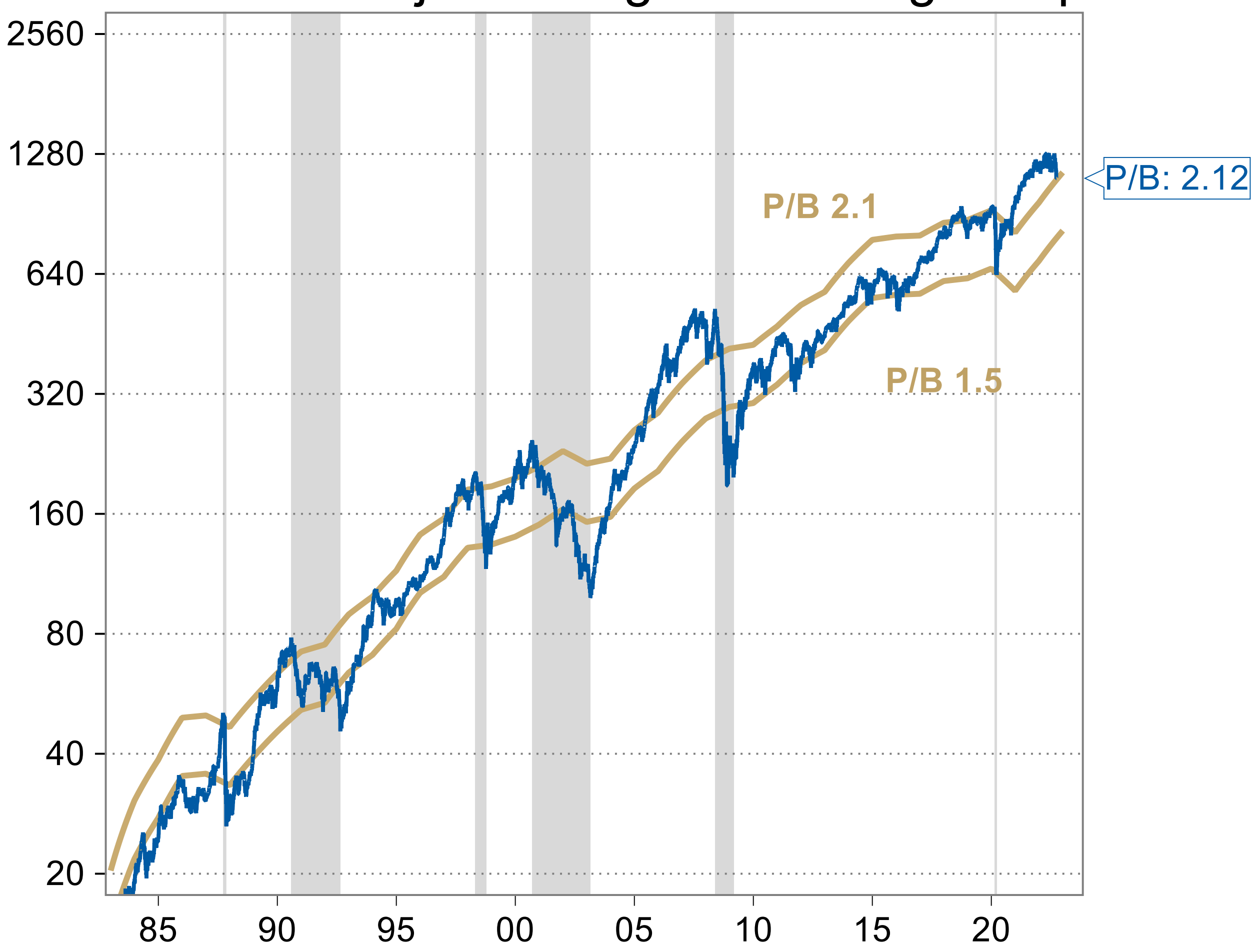


- The total real borrowing cost has increased to 365+ bps from zero by the end of last year:
  - » The TIPS real rate is up from -100 to + 130 bps
  - » The BBB corporate investment grade spread is up from 120 bps to 233

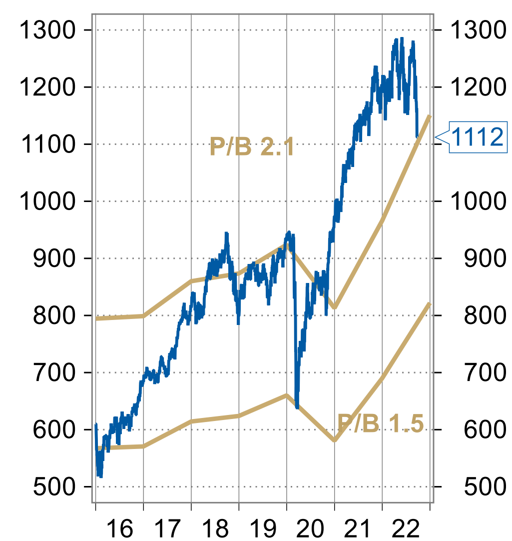
Finally, OSEBX almost hit the upper band of the 1.5/2.1 Price/Book corridor

Thus, it is just 29% down the lower (1.5) band, at 800! A <u>very</u> safe bottom at 500 (P/B=1)

Oslo Børs - aksjeverdi og verdi av egenkapitalen



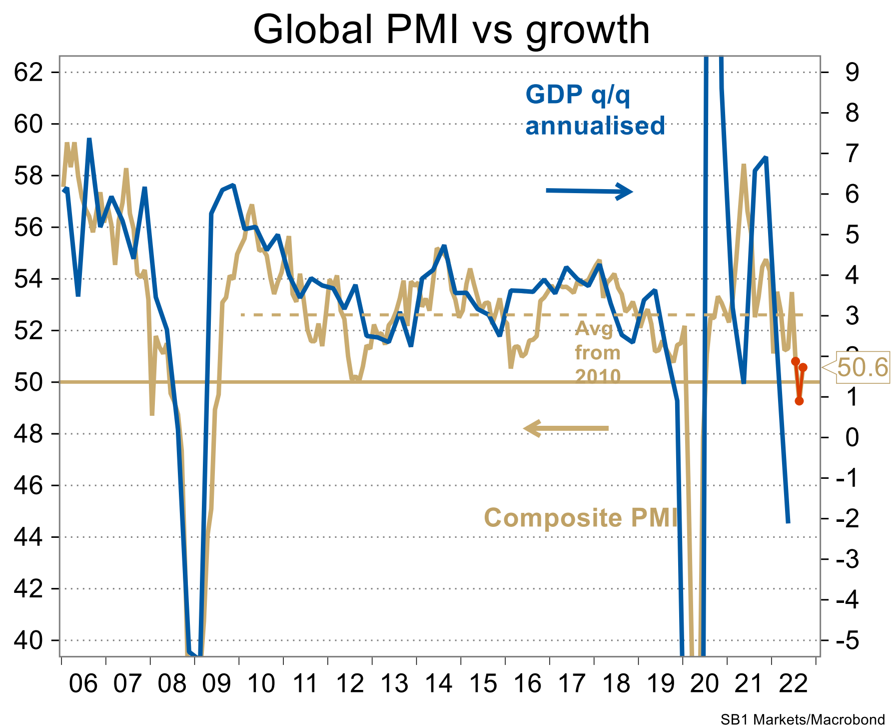
Source: Oslo Børs, Vital, Bloomberg, SB1 Markets, Macrobond.

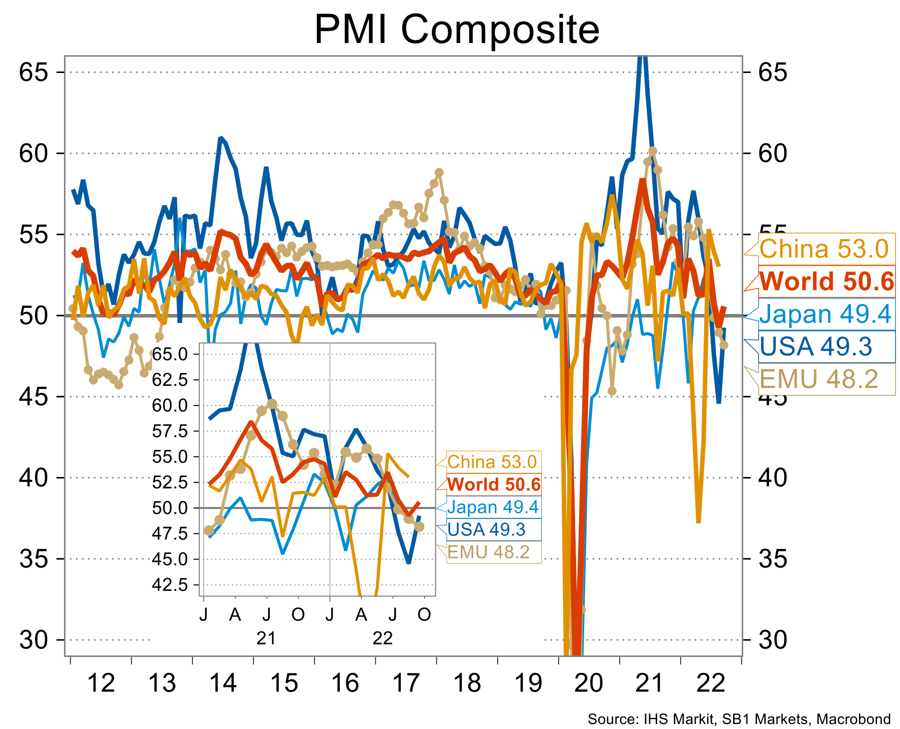


Source: Oslo Børs, Vital, Bloomberg, SB1 Markets, Macrobond.

The world composite PMI probably recovered most of the August loss

US services made the day in September (following the August collapse). EMU continued downwards



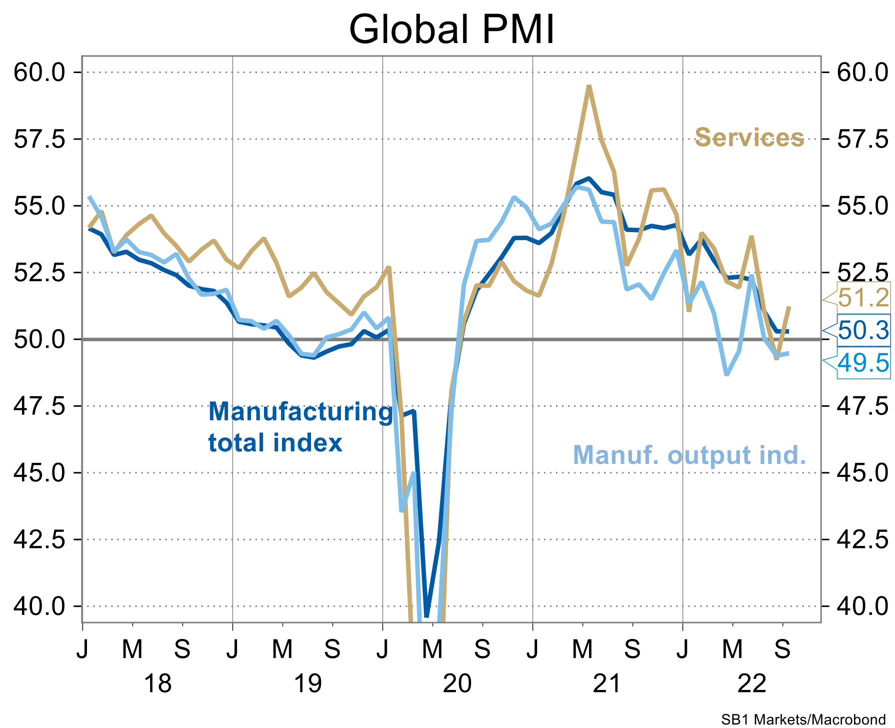


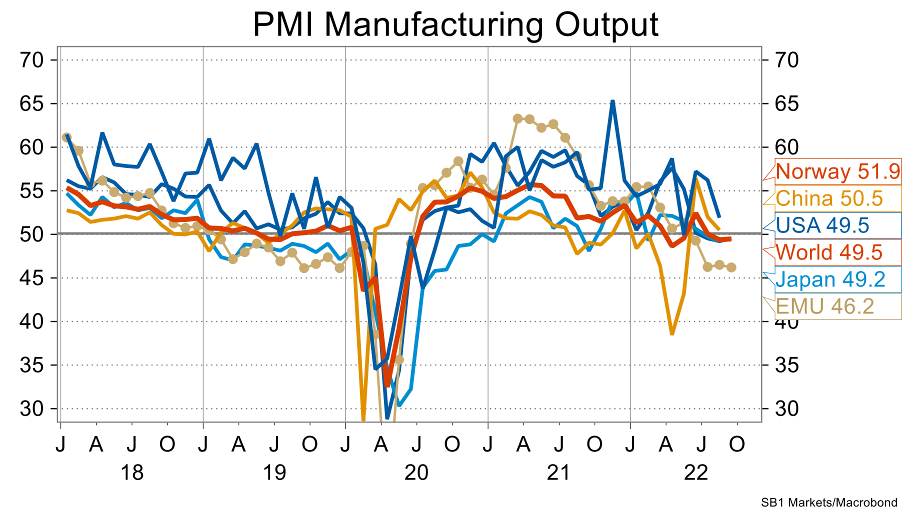
- The composite PMI very likely recovered in September the US PMI rose sharply due to reversal of the decline in the service sector in August. We expect +1.3 p to 50.6 – still a level that signals global growth well below trend
- The US composite still remains below the 50-line, and signal no growth in the US economy
- In the EMU, the PMIs continued downwards, now the most in services, in Germany. However, the manufacturing sector reports a contraction with a sharp contraction in new orders
- China has not yet reported its September figures, and the global estimate is thus still uncertain

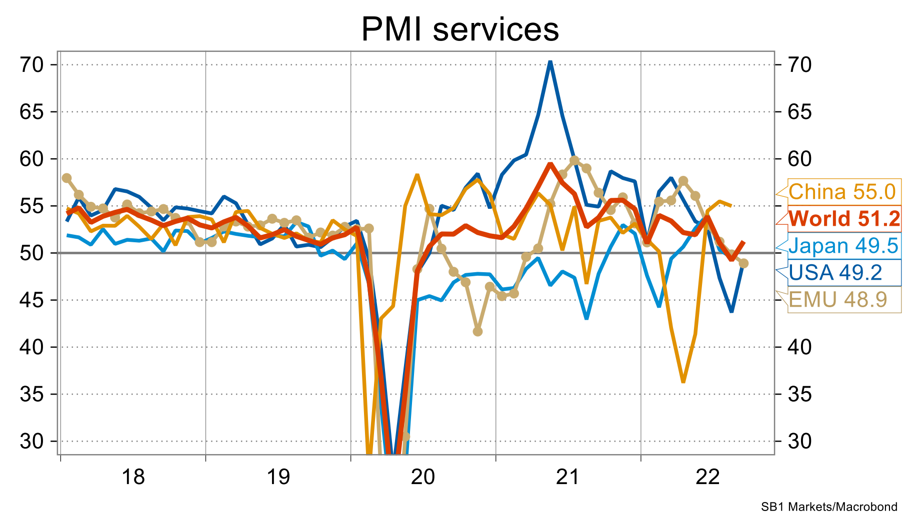
Our estimates are based on the preliminary PMIs from US, EMU, Japan UK, Australia. The estimates are uncertain, but usually by less than 0.5 p if the Chinse PMI does not change too much

Services in the US now report just a marginal contraction, way better than in Aug

Services in the EMU slowed further, and the global manufacturing sector PMI is close to the 50-line

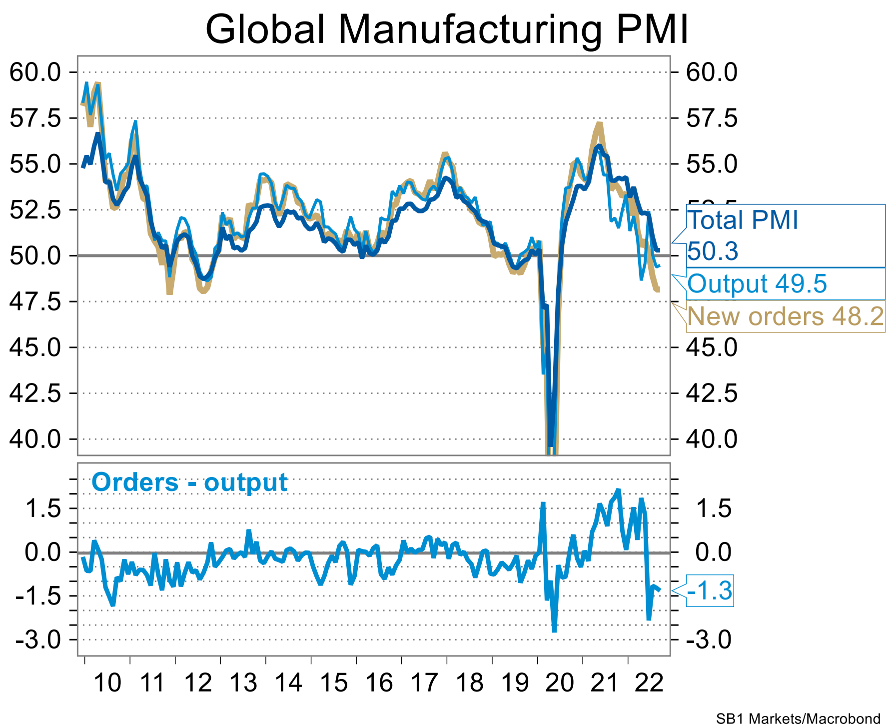


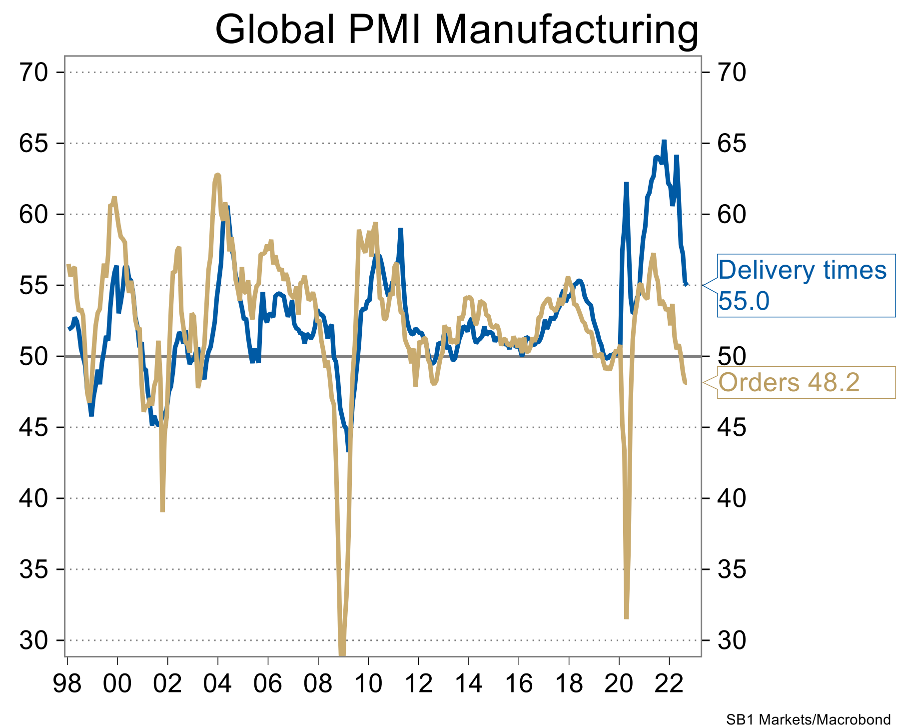




Growth in manufacturing orders and output below par

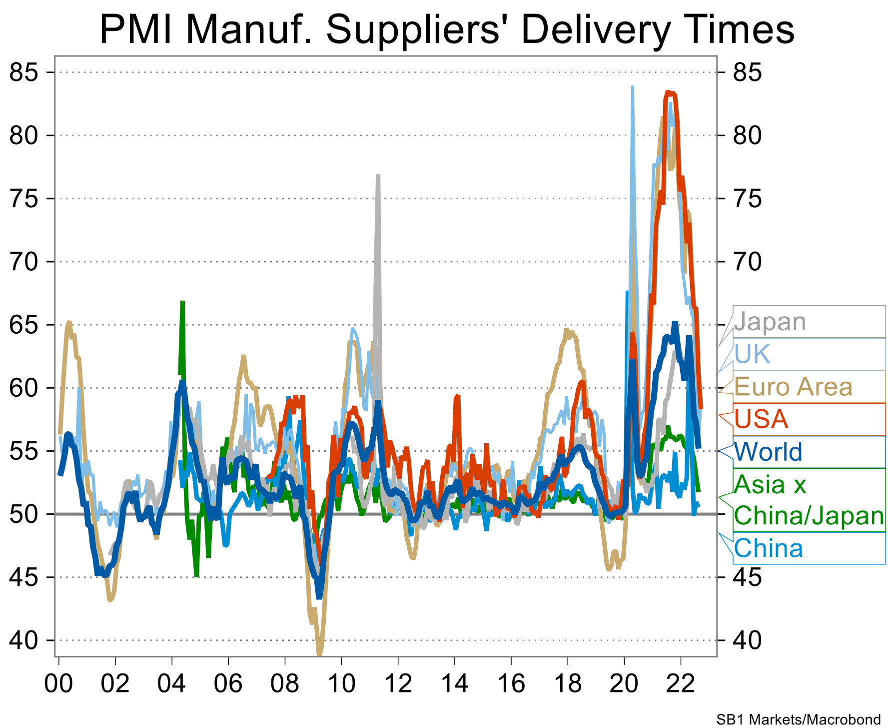
The delivery times index probably close to unch in September, well down from the peak

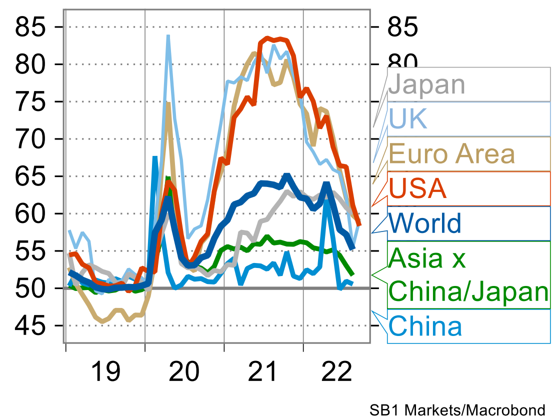




Delivery times index may have stabilised in September

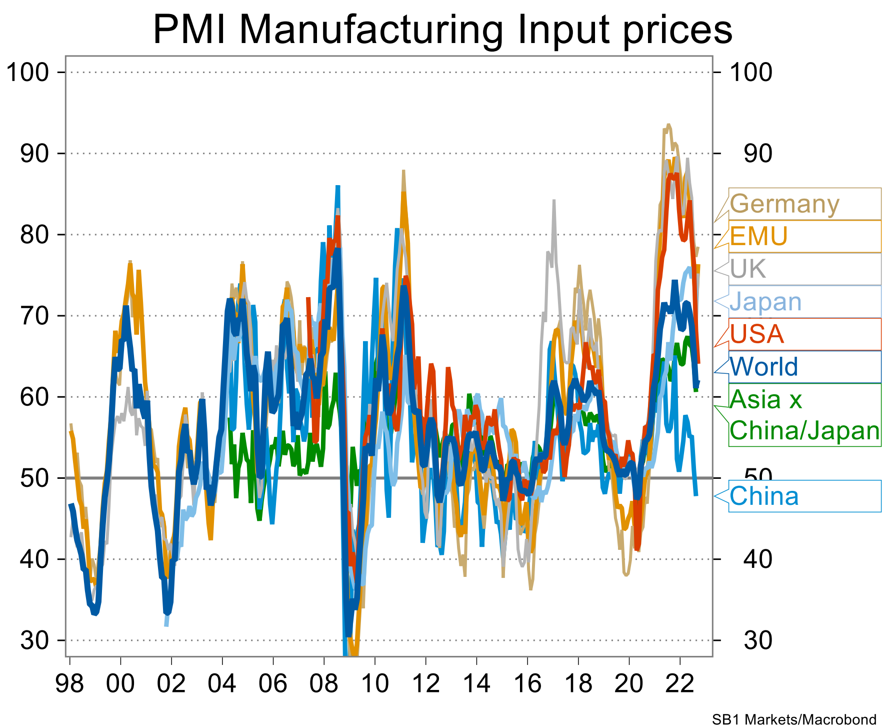
Delivery times are still on the higher end historically in both the US and the EMU

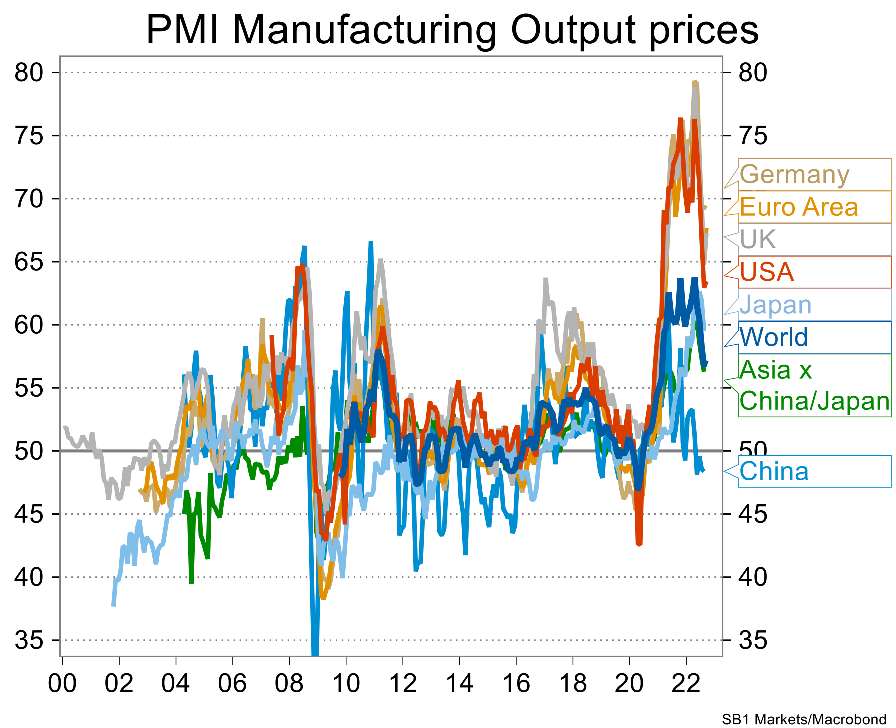




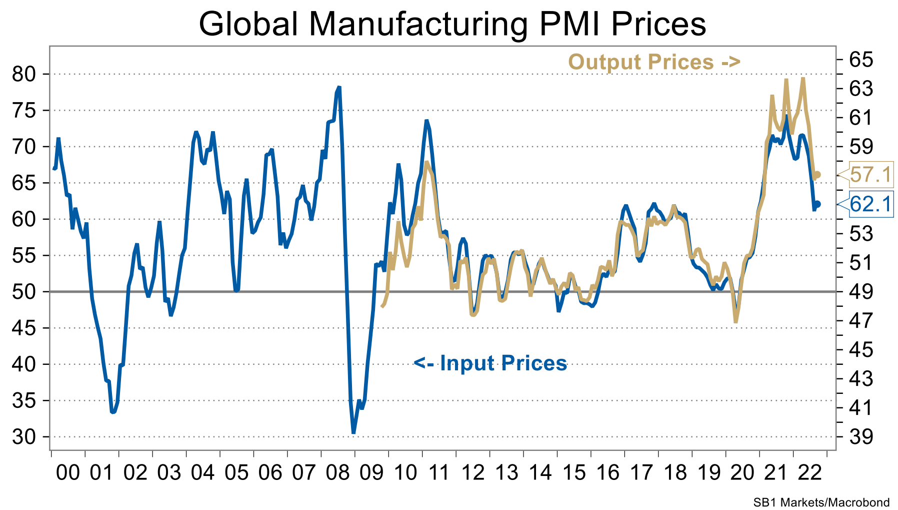
- **The global delivery times** PMI sub-index (changes in delivery times vs the previous month) has been inching down since the peak last October. The decline is broad among the Western rich countries
- **The interpretation of this index is uncertain** – are companies really reporting changes in delivery times – which they are asked to do?
  - » This index as been above 50 most of the time (the past 20+ years), formally implying a continuous increase in delivery times. However, delivery times have surely not increased almost all the time – they have rather fallen! Companies may be reporting the level of delivery times. If so, delivery times are now contracting – while the index formally reports than delivery times are increasing at a marginally slower pace

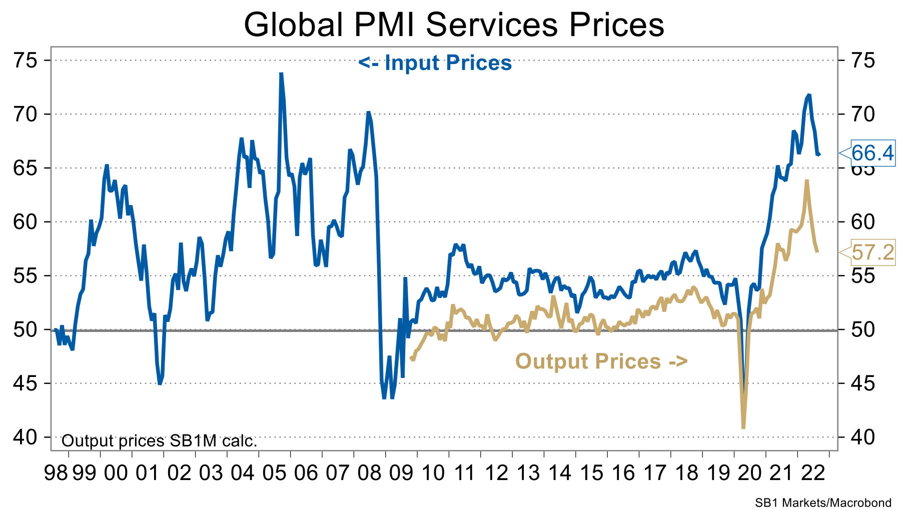
Manufacturing price inflation is heading downwards but remains elevated

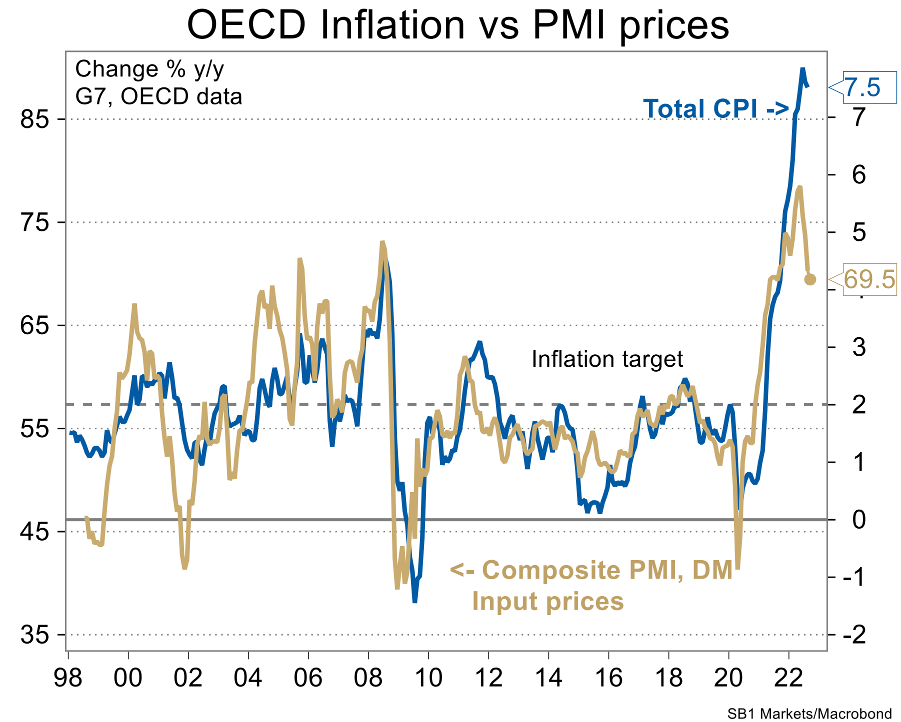




Price indices flattened in September – and the levels are not reassuringly low







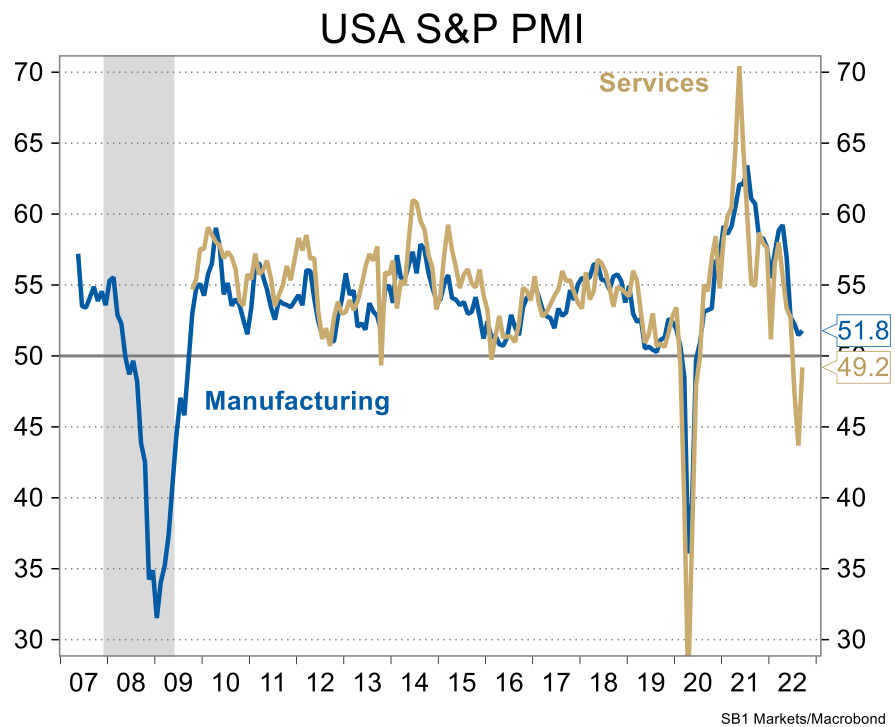
- These PMIs signal a substantial price pressure the coming months
- We are still much more concerned about wage inflation than the actual price inflation due to factors that are most likely transitory, like hikes in raw material prices, freight cost or short lived margins expansion when demand is surprisingly strong

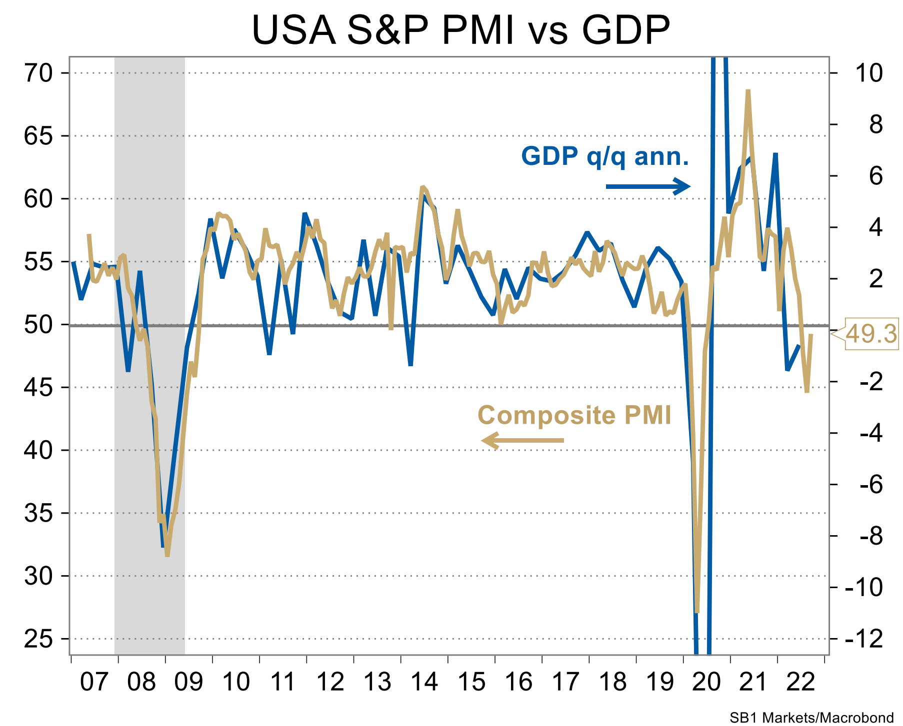
Last obs. based on preliminary PMIs from EMU, Japan, UK, and the US

SpareBank 1 MARKETS

The service sector PMI recovered in Sept, still below the 50-line

The manufacturing PMI stabilised, at well above 50. The composite PMI at 49.3 signal zero growth

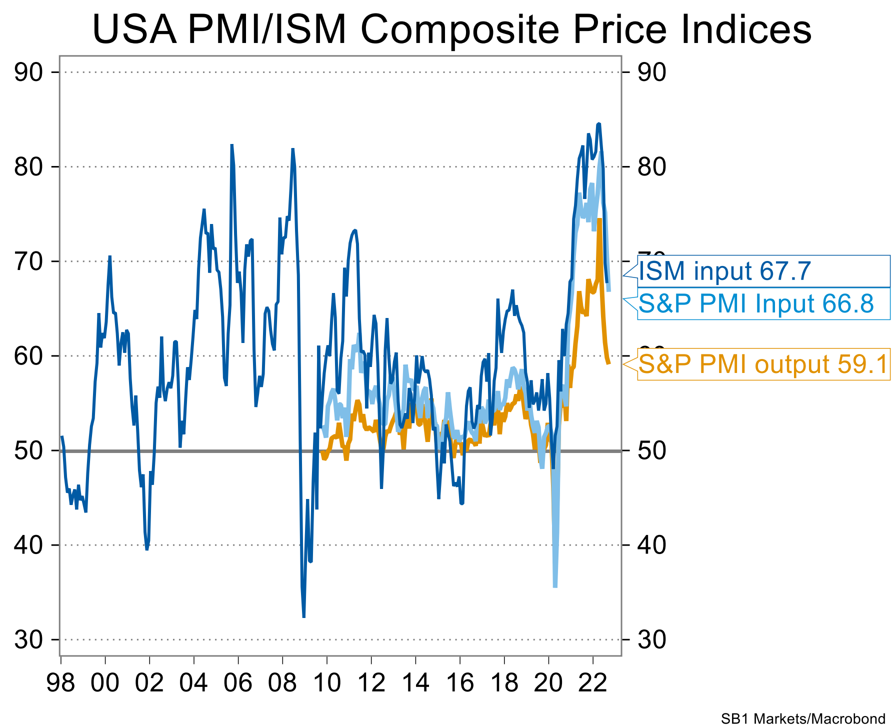


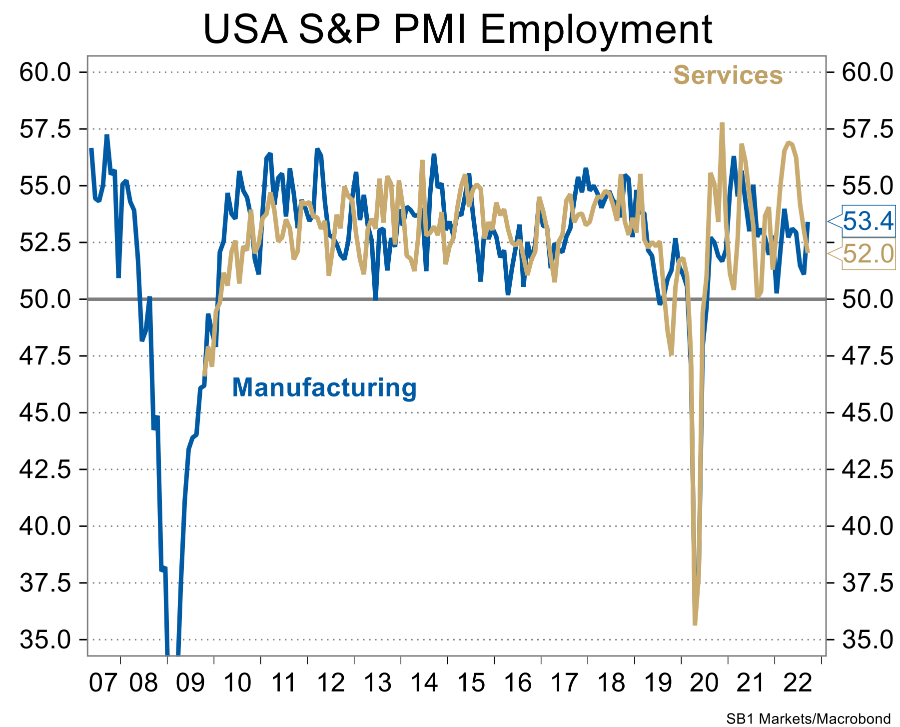


- **The composite PMI** was the weakest globally in August, due to a very weak print for the service sector – and the level was suspiciously low vs other US service sector surveys. In September, the services PMI recovered by 5.5 p to 49.2, and the composite by 4.7 p to 49.3, well above expectations at 46.1. Still, the level is low and does not signal any growth in GDP
- **The new orders index** rose to above the 50-line, following 3 months marginally below
- **The price indices** fell further but are still reporting faster price increases than normal
- **The S&P (Markit) PMI** was probably 'too weak' in August, and the level in September seem to be more in line with other surveys

Peak price inflation? Companies are reporting slower price increases in Sept

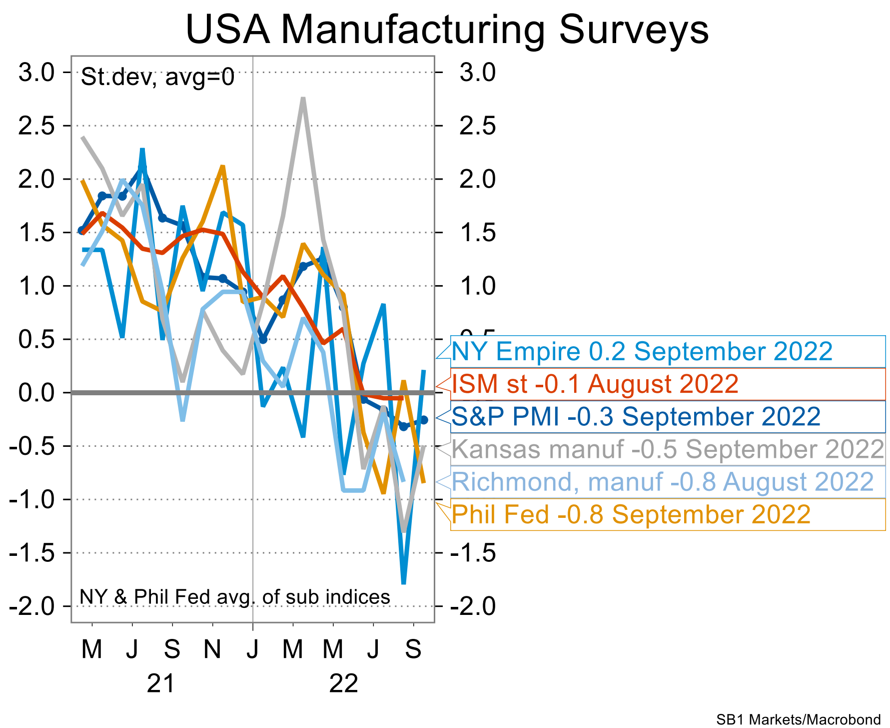
But still much faster than normal. Are manufacturers employing more workers again? They say so!

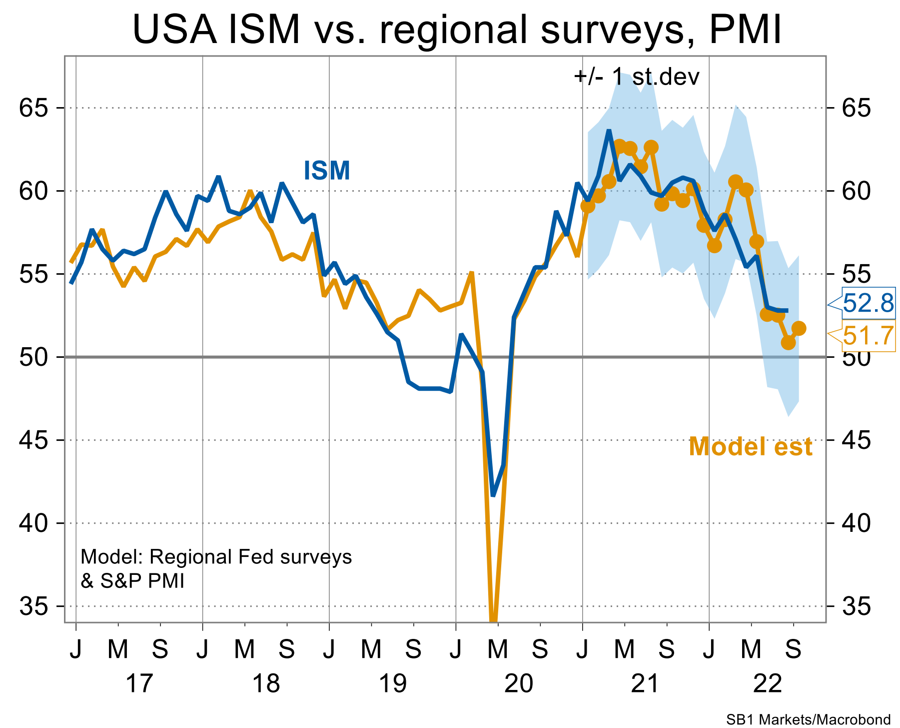




Some hope for the ISM? 3 of 4 regional Fed surveys + the PMI up in September

However, the model estimate for the Sept level is still below the ISM Aug outcome



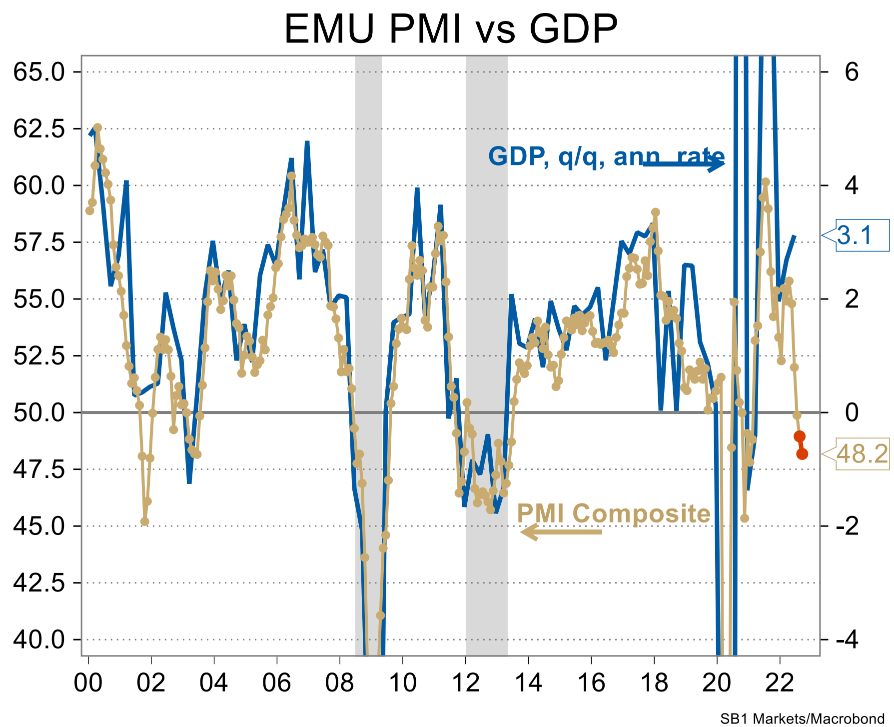


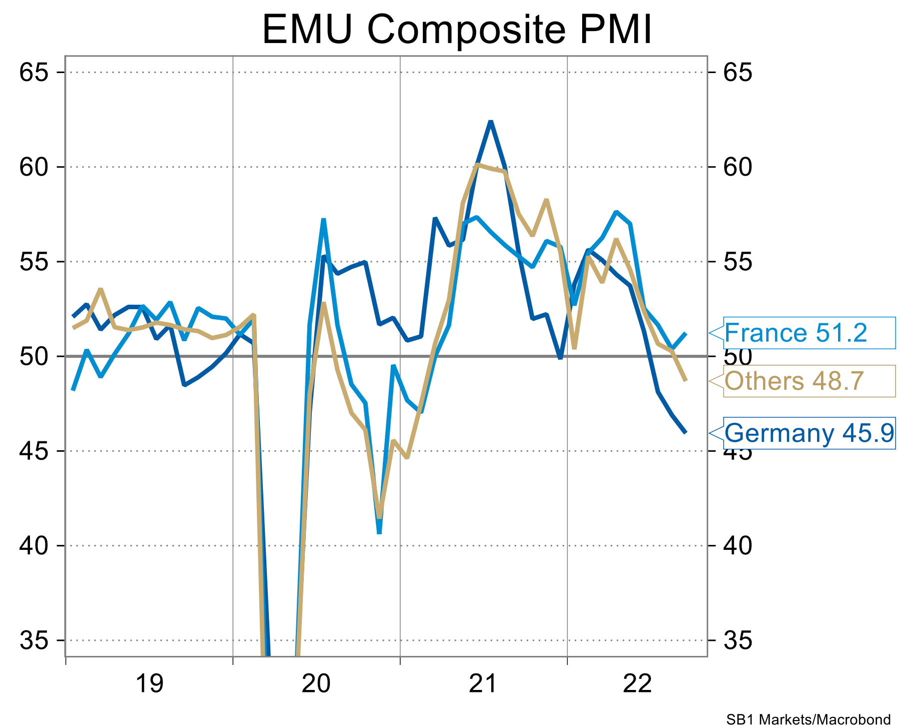
- Big picture: Growth is slowing sharply but manufacturing indices do not signal that the economy has entered a recession (even if order indices are really worrisome)

SpareBank 1 MARKETS

Eurozone PMI continues to slide, due to very weak German PMI data

The PMIs in EMU x France & Germany are also in contractionary territory

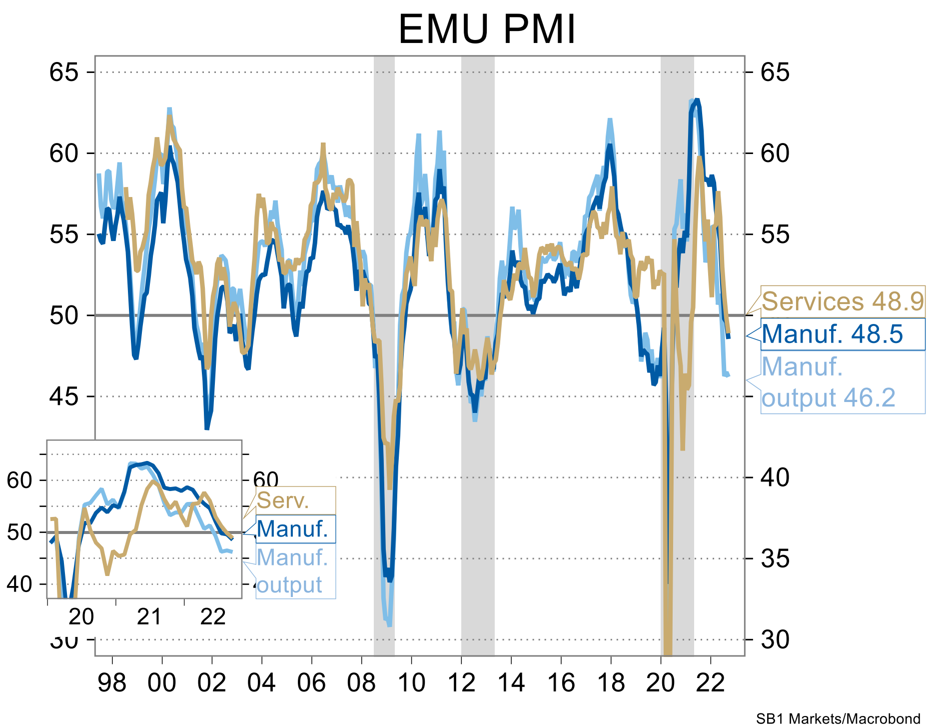


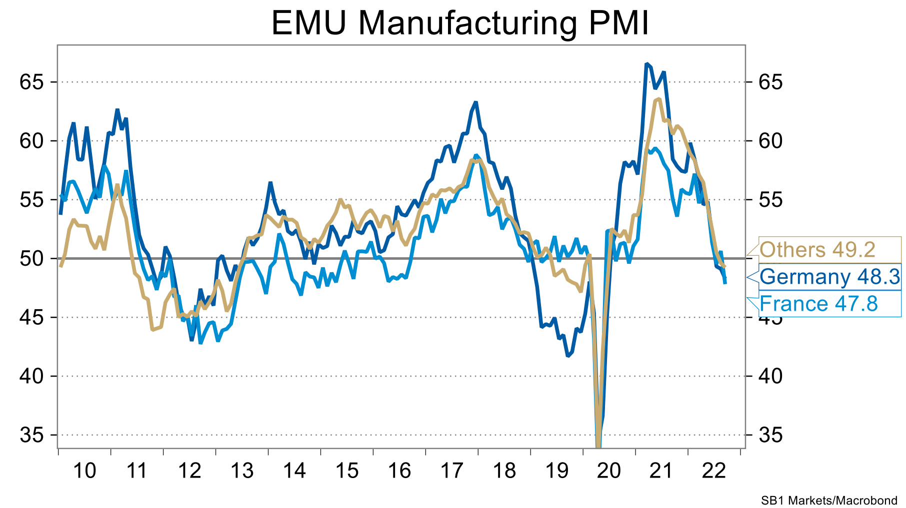


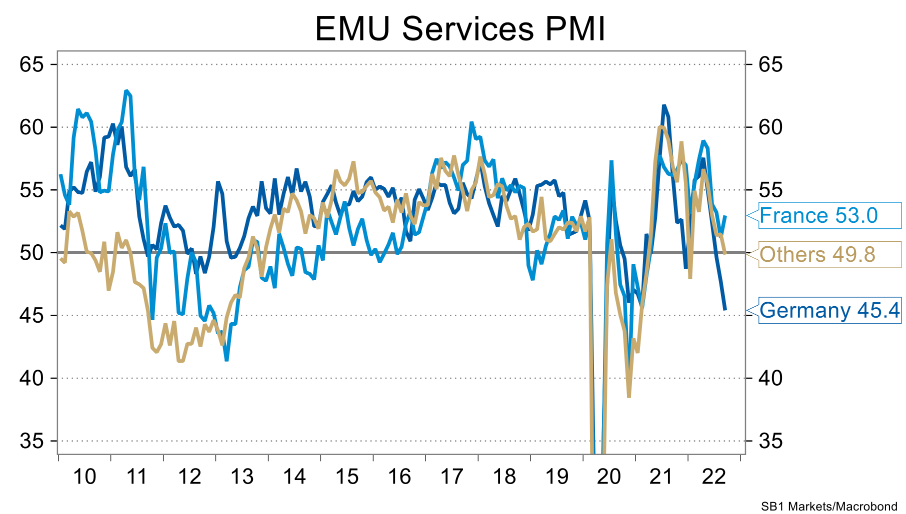
- **The composite PMI** declined 0.7 p in Sept, to 48.2, in line with expectations – signalling a contraction in GDP. High inflation/energy prices and higher interest rates are dampening demand, according to S&P
- **Services** fell 0.9 p to 48.9, suggesting that the sector is contracting
- **Manufacturing** also slowed further; the PMI fell 1.1 p to 48.5, 0.2 p below consensus. The output index decreased 0.3 p to 46.2, and the new order index declined by 2 p to 41.3, a level only reached twice before, during the pandemic and the financial crisis!
- **The delivery times** and price indices both rose and remain higher than normal. However, as new orders and production are both is declining, supply chains problems and pricing power will very likely be further reduced the coming months
- If the PMIs and other surveys continues down at the current pace, the pressure on (and within) the ECB to hike rates rapidly will no doubt fade, even if inflation is high and unemployment is low. Wage inflation has not yet exploded, and the underlying cost pressure is not like in the US

Manufacturing sector contacting for the third month

The output index decreased 0.3 p to 46.2: a sharp decline in production is reported



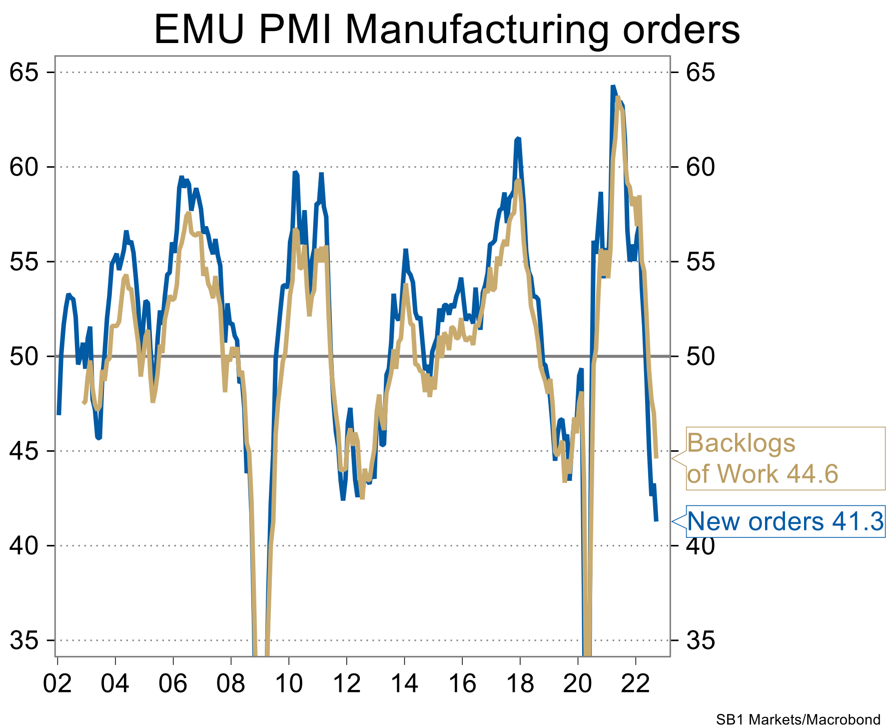


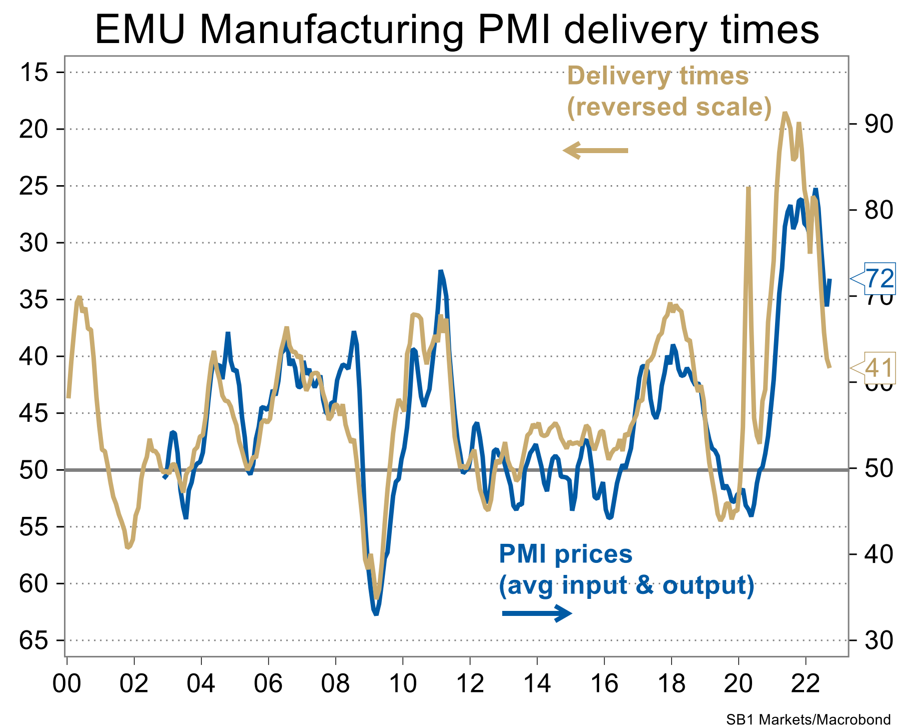


- German manuf. PMI decreased by 0.8 p to 48.3, and the French manuf. PMI fell by 2.8 p to 47.8
- The French services PMI surprised on the upside, increasing by 1.8 p to 53 – while German services report a harsh contraction, the PMI is at 45.4, following a nosedive the recent months
- The EMU service sector as a whole is likely contracting

New orders index has only been lower twice; during the GFC and the pandemic

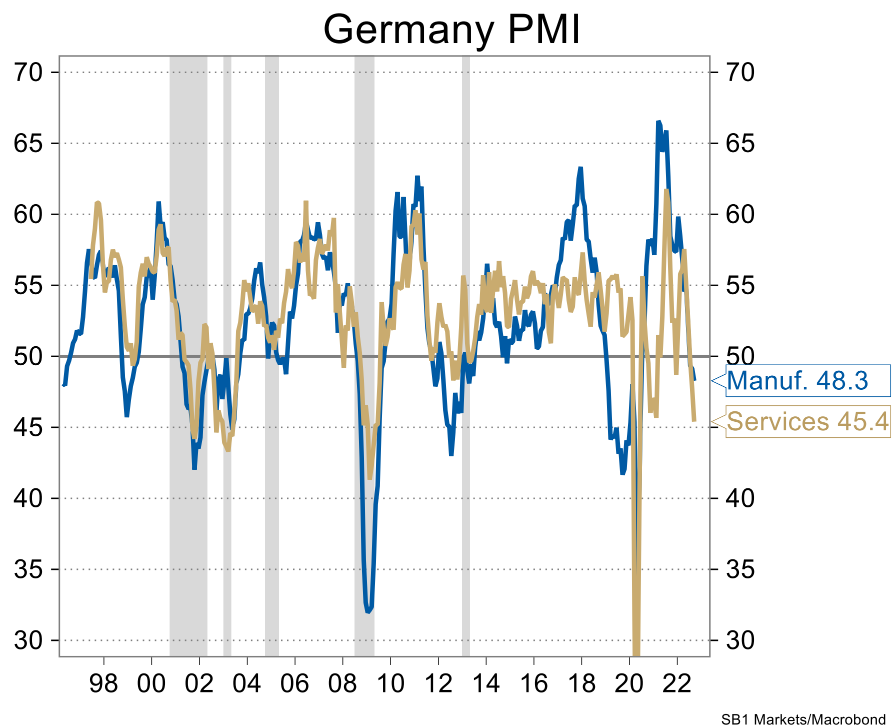
The order backlog fell further. Delivery times are declining, but prices are increasing faster in Sept

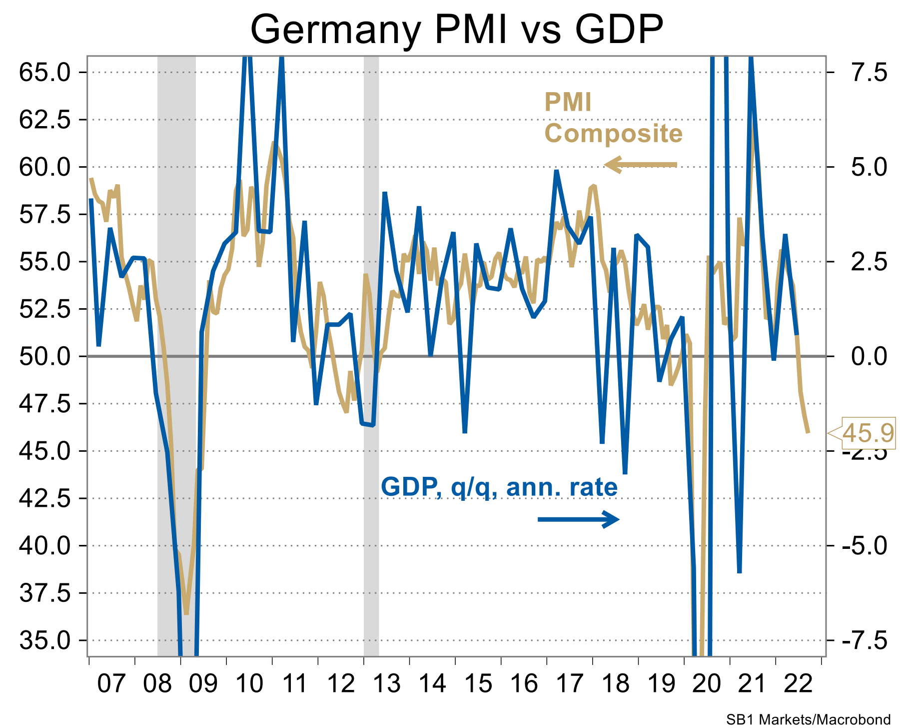




Germany: The composite PMI further into contractionary territory

Both the manufacturing sector and service are reporting lower activity

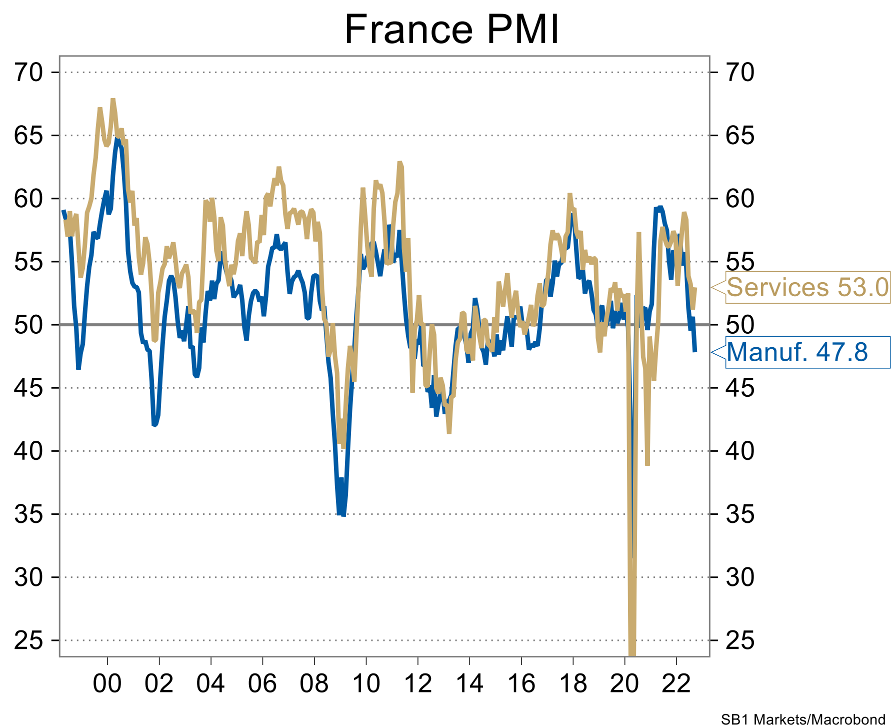


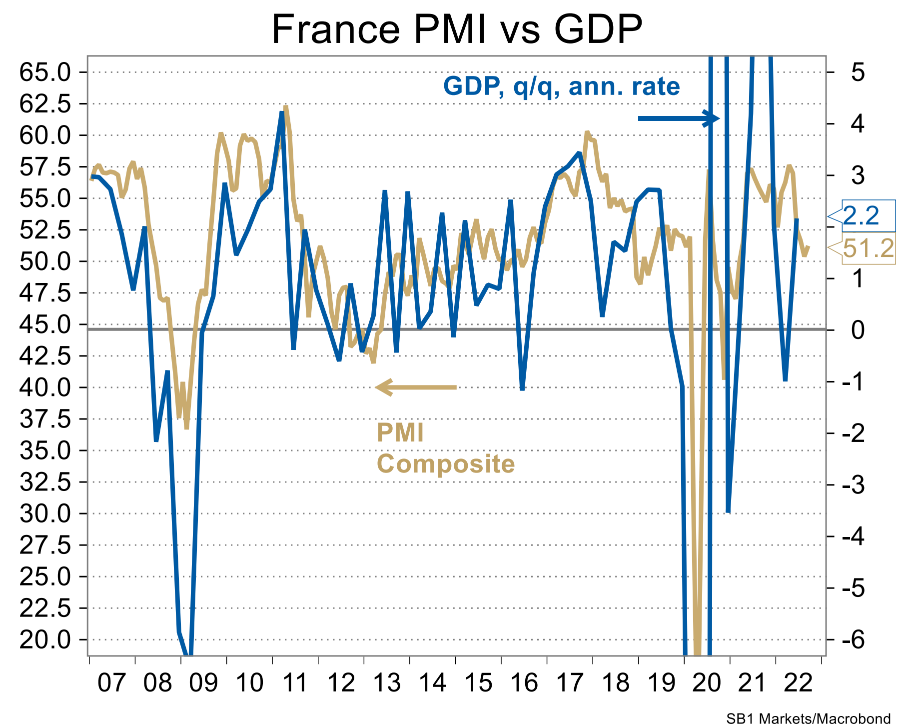


- The composite PMI fell 1 p to 45.9, which was 0.1 p below expectations, signalling a 2% contraction in GDP

France: Services keep growing – an lifts the total economy. The comp. PMI at 51.2

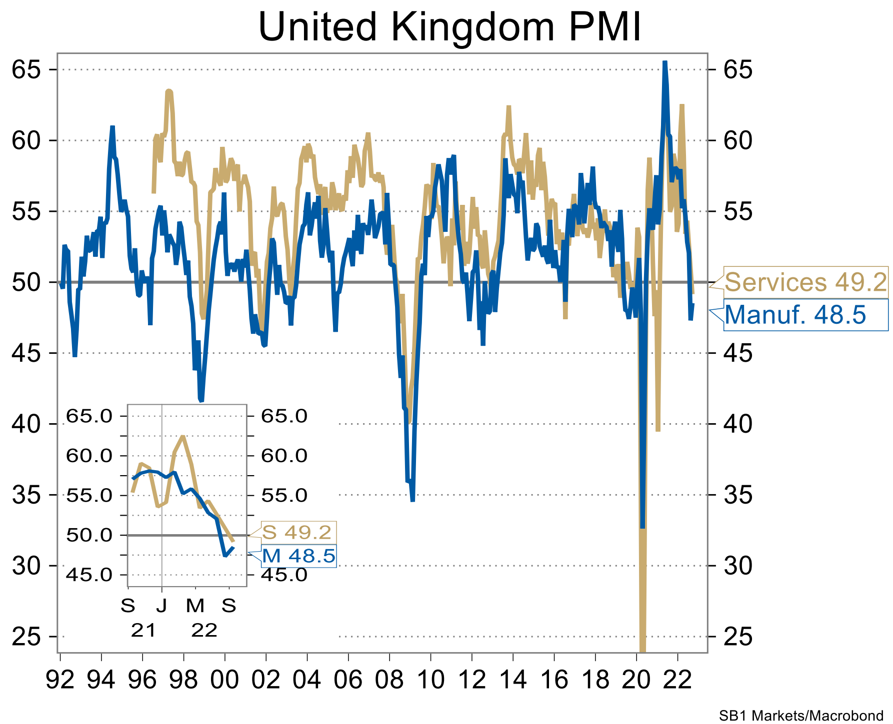
… while the manufacturing sector slows, the PMI fell to 47.8, 1 p below expectations

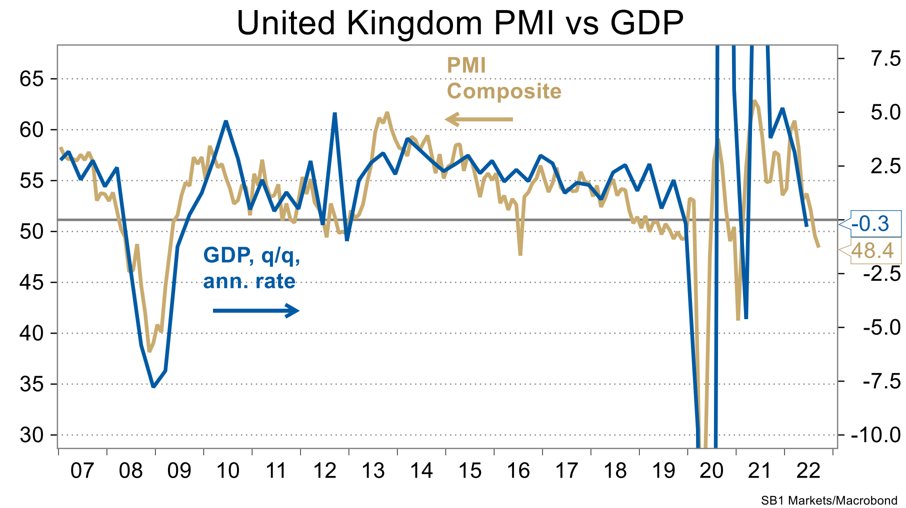


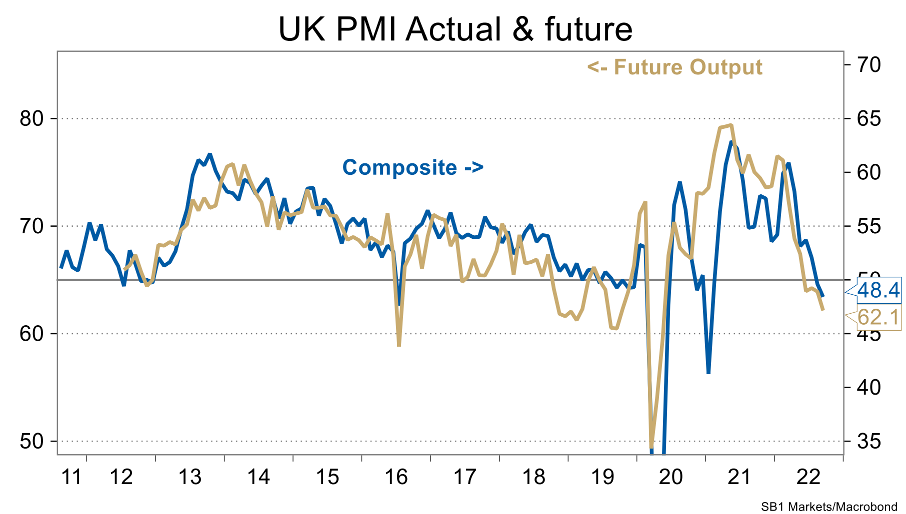


The UK economy is contracting, according to the PMI (and BoE)

The composite index further down – the UK economy is in stagnation



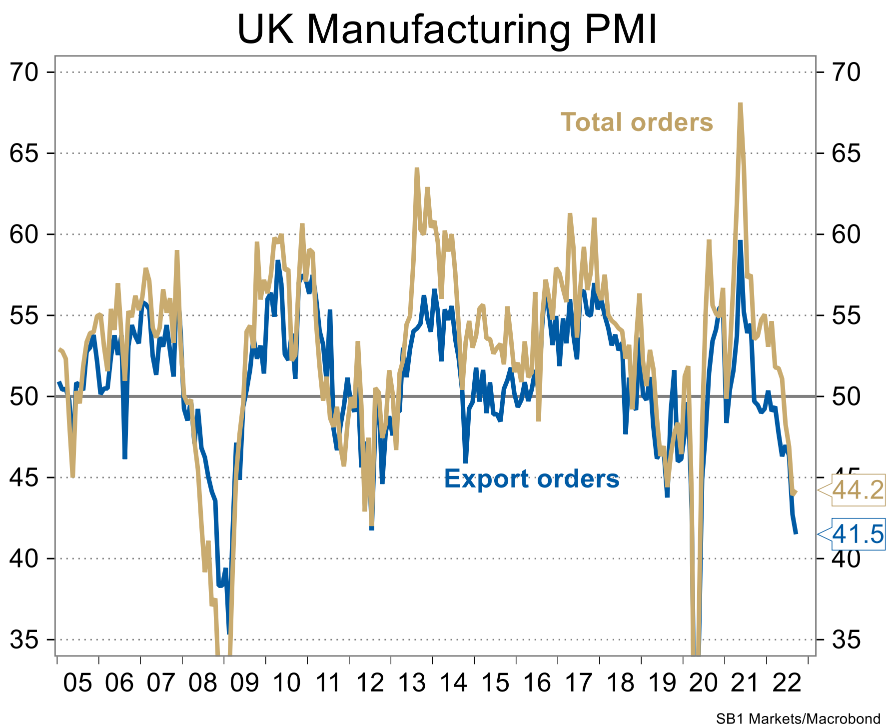


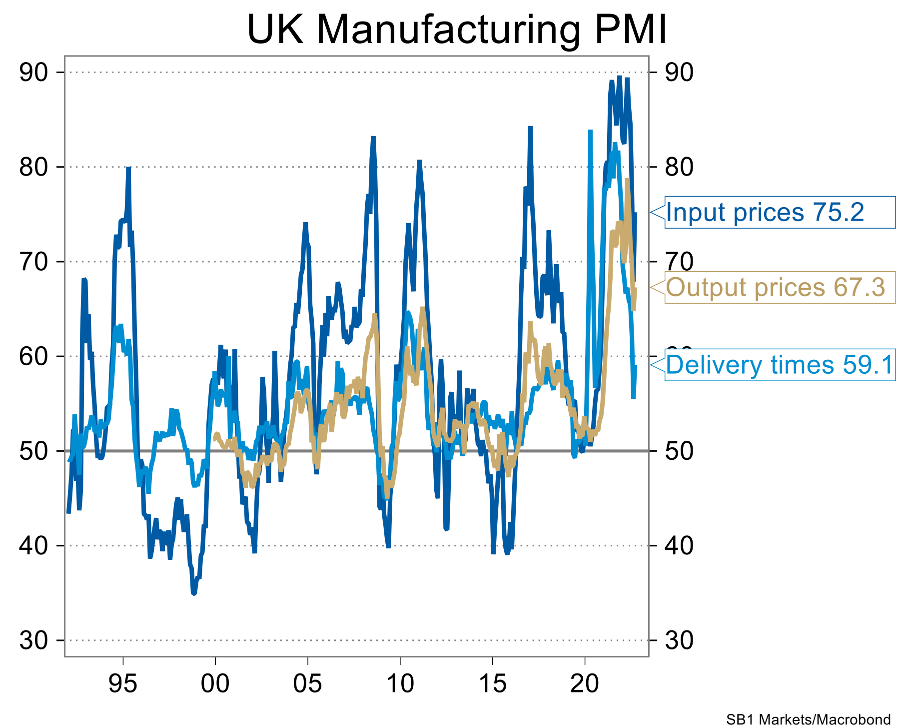


- The UK composite index fell 1.2 p to 48.4, expected at 49.0. The manufacturing PMI surprised on the upside, and was up 1.2 p to 48.5; 1 p above expectations, while services fell below the 50-line
- Growth is clearly coming to a halt, while the latest inflation print was at 9.9% (core at 6.2%), putting the BoE in a bit of a squeeze. A recession is unavoidable? That what's the BoE thinks too, as it continues to hike its bank rate

Orders are still falling rapidly, especially from abroad

The price indices rose again in Sept, and so did delivery times

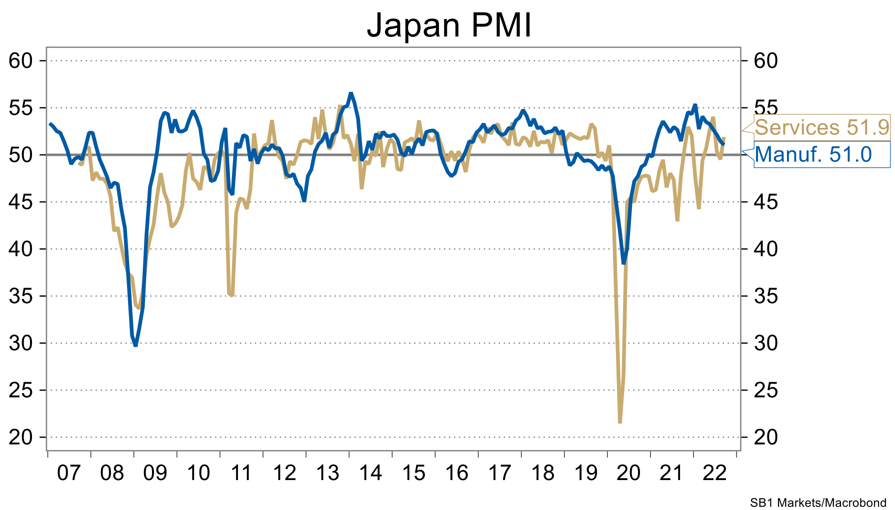


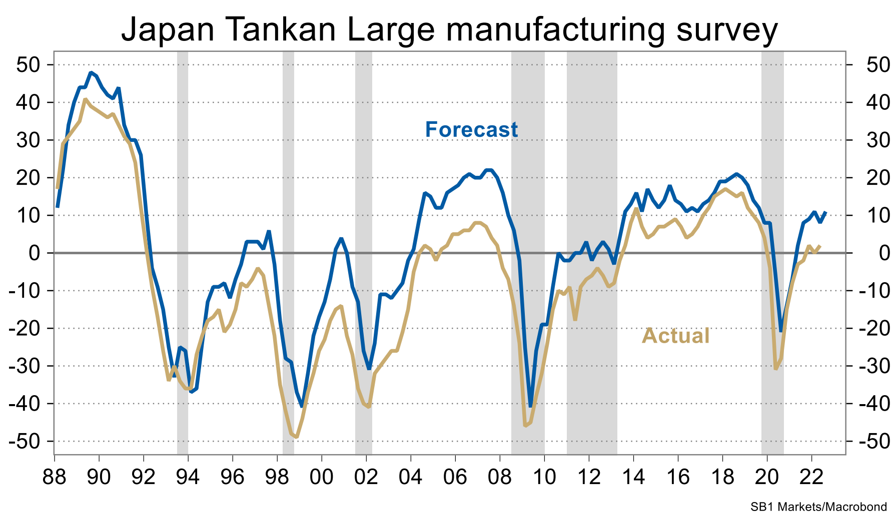


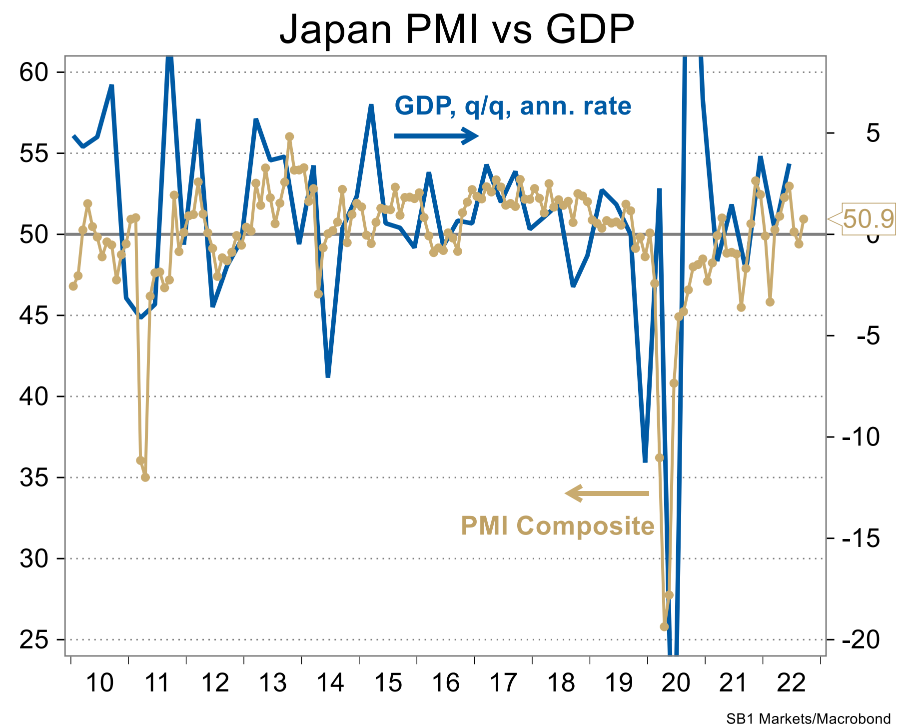
- However, delivery times have come well down from the peak

The service sector turned up again in Sept, manufacturing is slowing further

Both indices are at 51.0 – 51.9, and signals a marginal growth in GDP (which is the Japanese norm)

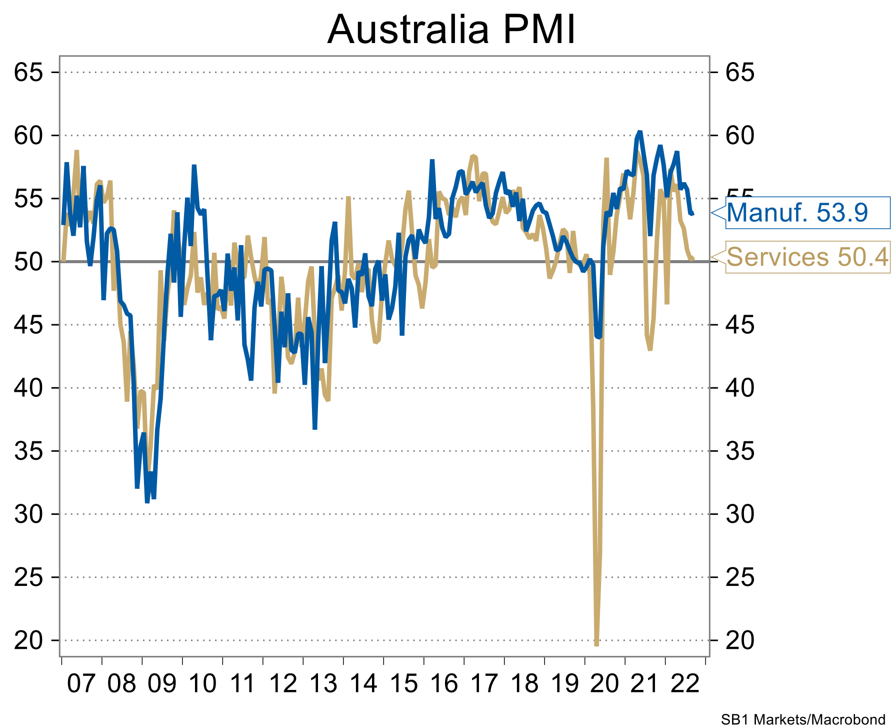


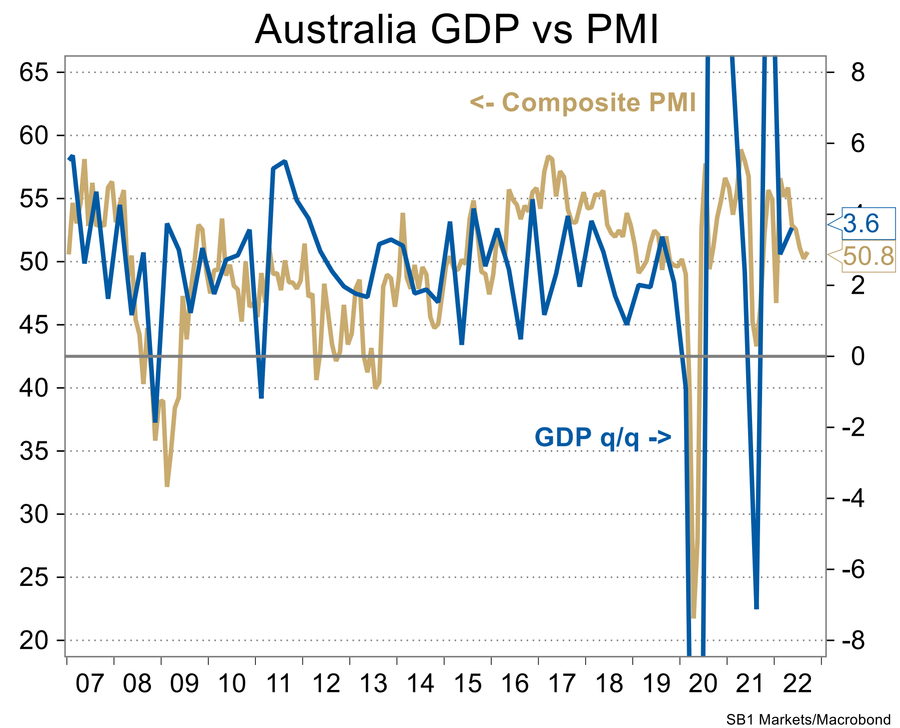




Growth in the service sector is muted; manufacturing sector is still going strong

The composite index rose 0.5p to 50.8, and in Australia this normally signals OK growth

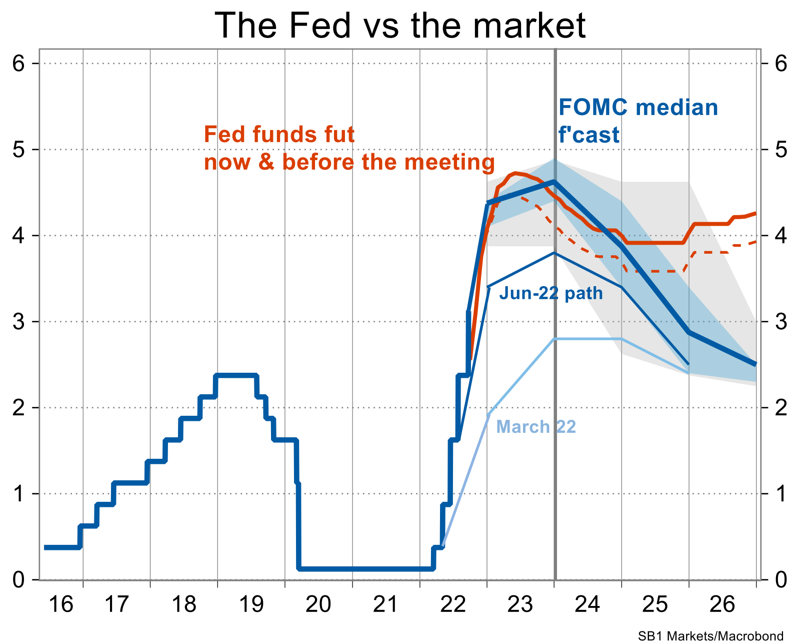




- Disclaimer: The correlation between the PMIs and actual GDP growth is not that impressive
- The manufacturing sector has not been hurt by the temporary lockdown setback in China

Another 'triple' hike, and <u>much</u> more to come. No cut next year. Says the Fed, now

Powell confirmed his hawkish stance – no easing before the Fed is sure the war on inflation is won



- **Market reactions**: A steep lift in the short end of the curve – and in the long end – but some 25 bps
- The USD rose sharply as well – but probably for other reasons, rate expectations rose more in Europe

- As widely FOMC hiked the **Fed funds rate by 75 bps to 3.00% – 3.25%**
- **The interest rate path**, the 'dot plot', was lifted by up to 100 bps, to 4.4% by the end of the year. That is up 125 bps from today's level, to be delivered at the next two meetings, in November and in December (like 75 + 50 bps). The peak (at least measured by the end of the year) is at 4.6% in Q4 2023, up 75 bps vs. the June 'dot plot'. The market is discounting a 4.5% peak in Q2, and then a cut in H2 next year. The FOMC has no such plans now. The long term 'neutral' Fed funds rate is still assumed to be 2.5%, well below the market curve
  - » There is of course no reason to put too much emphasis on FOMC's plan for the signal rate. At least so far during this tightening cycle, the changes in the quarterly forecasts have been larger than ever before. The bank may of course finally be right, but the history is still not on their side
- **Inflation** was once more revised upwards but not by more than 0.2 – 0.4 pp: The Q4-22 headline PCE forecast was nudged up 0.2 pp to 5.4%, somewhat down from the 6.3% annual growth in July. The core PCE was revised up 0.2 pp to 4.5%, close to the current 4.6% rate. Inflation, will slow substantially next year, to 2.8 – 3.2% but both the total and the core is expected to stay above 2% until late 2025
- The FOMC members revised their **growth forecasts** significantly downwards, especially for 2022 (to 0.2% from 1.7%, Q4 y/y) but by 0.5 pp to 1.2% in 2023, and by 0.2 pp to 1.7% in '24. (NY Fed's <u>model</u> projections are <u>far</u> weaker, a decline in GDP in both 2022 and 2023 is forecasted – that is a long recession, <u>check here</u>)
- Even if GDP was revised down by in total 2.2% (level in 2024), **unemployment** in 2024 was just revised up by 0.3%. Thus, a much **slower growth in productivity/potential** GDP is assumed. Both the Riksbank and Norges Bank made similar assessments last week
- The FOMC finally acknowledged that the unemployment rate must be <u>pushed above the estimated long-term equilibrium rate at 4% to bring inflation gradually down to target</u>, it suggests 3 years. That's a rather flexible approach, we think an 'inflation nutter' CB would not have spent 3 years to reach the inflation target
- **Powell** seemed just as determined to win the war on inflation as he was at Jackson Hole a month ago. "<u>We will keep at it until the job is done" and "it will be enough</u>". We think the bank underestimates the costs (unemployment will climb more) but we think Powell & Co will stay on course

Inflation revised up, growth substantially down, unemploym. just marginally up

The missing link – which also explains the high inflation forecasts: A decline in productivity

Percent

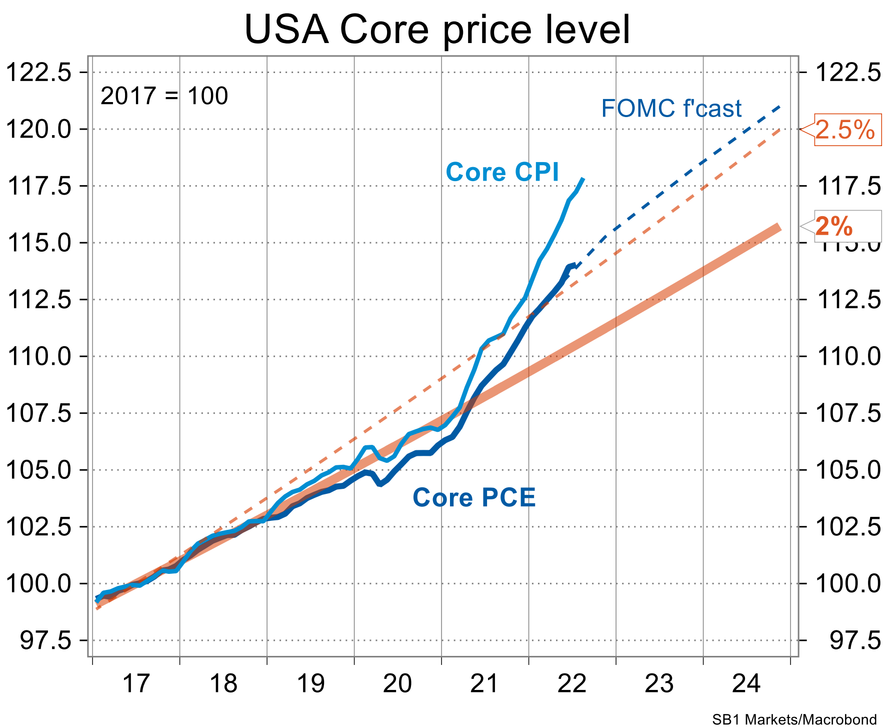
Variable	Median[1] 2022	2023	2024	2025	Longer run
Change in real GDP	0.2	1.2	1.7	1.8	1.8
June projection	1.7	1.7	1.9		1.8
Unemployment rate	3.8	4.4	4.4	4.3	4.0
June projection	3.7	3.9	4.1		4.0
PCE inflation	5.4	2.8	2.3	2.0	2.0
June projection	5.2	2.6	2.2		2.0
Core PCE inflation[4]	4.5	3.1	2.3	2.1	
June projection	4.3	2.7	2.3		
Memo: Projected appropriate policy path					
Federal funds rate	4.4	4.6	3.9	2.9	2.5
June projection	3.4	3.8	3.4		2.5

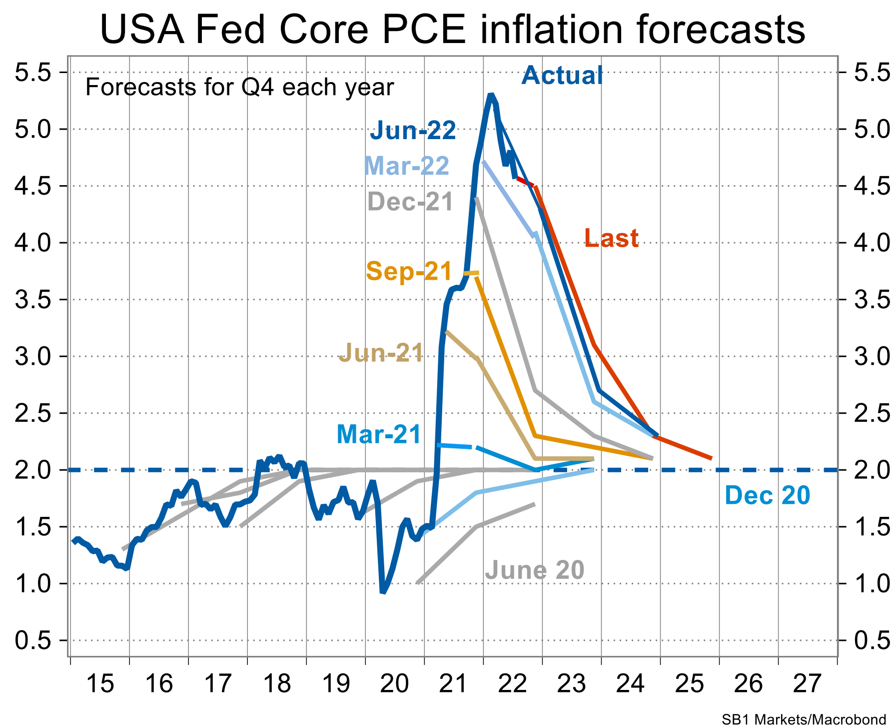
- Total GDP growth is revised down by 2.2% in the four years 22 – 25. Still no recession is signalled.

- The **'22 GDP f'cast** was revised down by 1.1 pp to 1.7% (it was 4% in December last year). **Unemployment** is revised upwards, by up to 0.5 pp. It will start slowly increasing in 2022, up to 3.7% from the present 3.6%
- **Total PCE inflation** was revised up sharply in 2022, but the core not by much. Still, even the core rate of PCE inflation will remain above 2% until 2024 (the last year of f'cast)
- **The median dot plot**, the individual FOMC members interest rate forecasts, was revised up by up to 150 bps, the largest revision ever (dot plots have been published since 2012), following the 120 bps lift in March and the 70 bps upward revision in December. (Dec and March were ATH lifts too). A total turnaround, of course
- **The long term neutral Fed funds rate** is assumed to be 2.5% (median, up 0.1 p), implying a (long term) 0.5% positive real rate. The neutral rate is assume to be reached in early 2023. The quantitative tightening (QT, QE in reverse) by selling bond, which started in early June, will add to the monetary policy tightening

SpareBank 1 MARKETS

The anchor is lifted? The price level in 2024 will be 4.6% higher than 'promised'

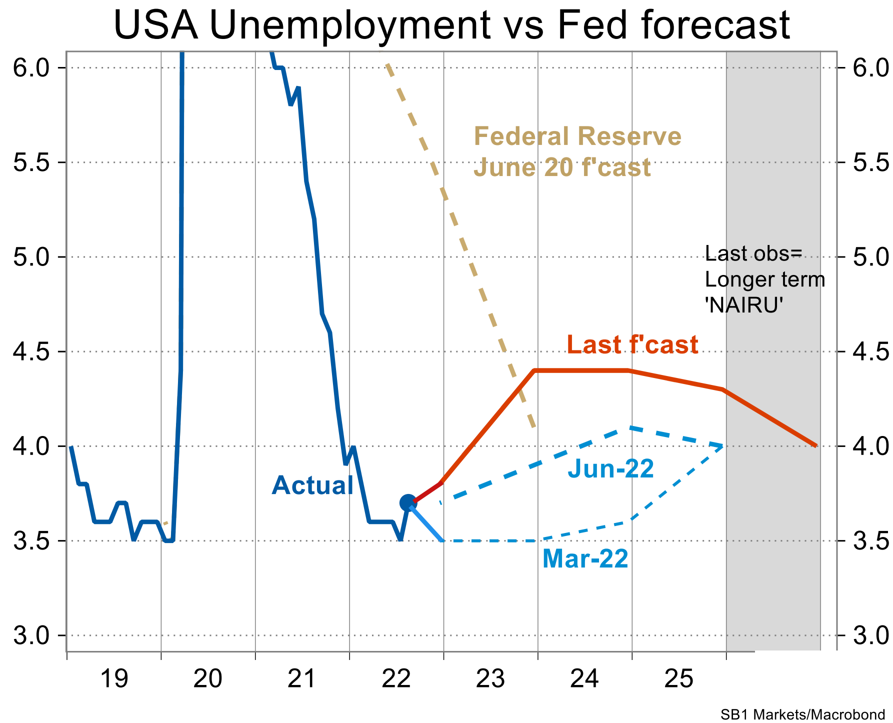


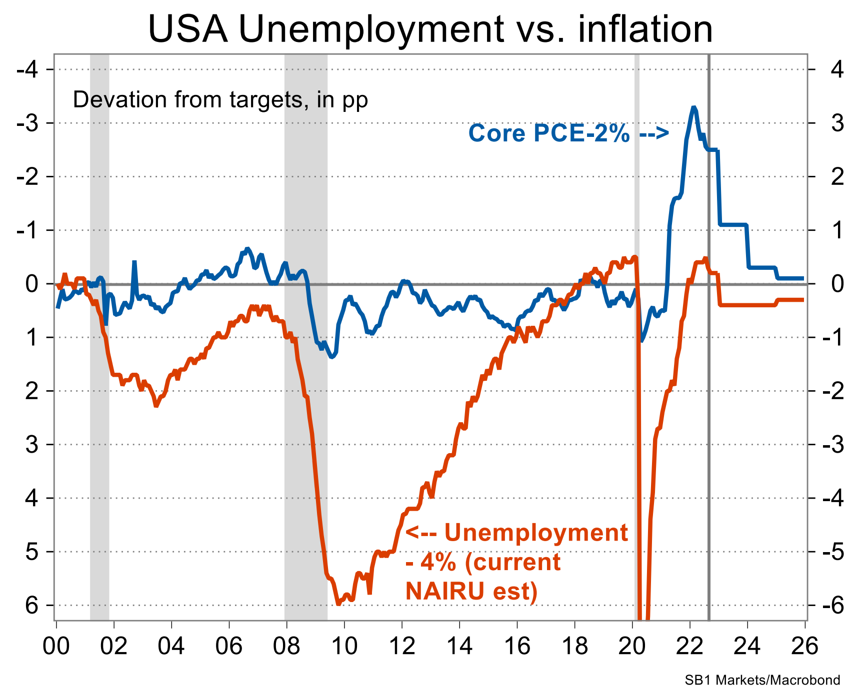


- In August 2020, the FOMC introduced its new **price level target**. The bank aims to reach an average rate of inflation of 2% over time – a future price level was promised
  - Thus, if inflation has been below 2%, annual inflation should be allowed to stay above 2% in order lift the price level up to the long term 2%-path (which Fed assumed was the case in 2020)
  - And vice versa, at least in principle…

Finally, the FOMC acknowledged that unemployment will have to climb > NAIRU

The long term NAIRU *) rate is still assumed to be 4%. Unemployment will climb to 4.4% next year





- The **unemployment rate** is assumed to increase just marginally this year, to 3.8% in Q4, from the 3.7% level in August
- The unemployment gap that is assumed in 2023 – 2025 is not large, vs. levels seen before
- The current FOMC forecast seems much more likely than the June (or March) forecasts – but we are pretty sure the risk is on the upside

*) NAIRU: The Non-Accelerating Inflation Rate of Unemployment – an unemployment rate that balances wage and price inflation. It varies hugely between countries, it is not stable in each country, and it can best case be quantified only 'after the fact'. Still it may be a useful analytical concept.

What does Fed's models say?

A recession, but not worse than the June forecast for 2022/23, but a far slower recovery in 2024/25

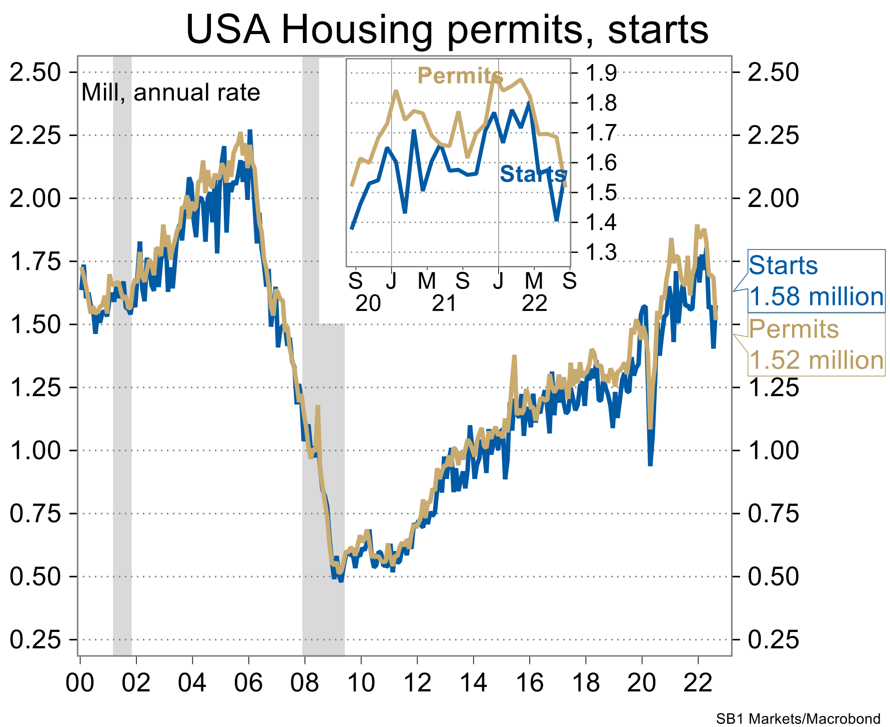
	2022		2023		2024		2025	
	Sep	Jun	Sep	Jun	Sep	Jun	Sep	Jun
GDP growth (Q4/Q4)	-0.7 (-2.3, 0.8)	-0.6 (-3.6, 2.3)	-0.4 (-5.2, 4.4)	-0.5 (-5.0, 4.0)	0.1 (-4.7, 4.9)	0.4 (-4.4, 5.3)	0.7 (-4.5, 5.9)	1.4 (-3.9, 6.5)
Core PCE inflation (Q4/Q4)	4.1 (3.8, 4.4)	3.8 (3.3, 4.4)	3.1 (2.3, 3.8)	2.5 (1.7, 3.4)	2.6 (1.7, 3.5)	2.1 (1.2, 3.1)	2.4 (1.4, 3.4)	2.0 (1.0, 3.0)
Real natural rate of interest (Q4)	1.4 (0.2, 2.6)	0.9 (-0.4, 2.1)	1.2 (-0.3, 2.6)	0.9 (-0.5, 2.4)	1.0 (-0.6, 2.6)	0.9 (-0.7, 2.4)	0.9 (-0.7, 2.6)	0.8 (-0.9, 2.5)

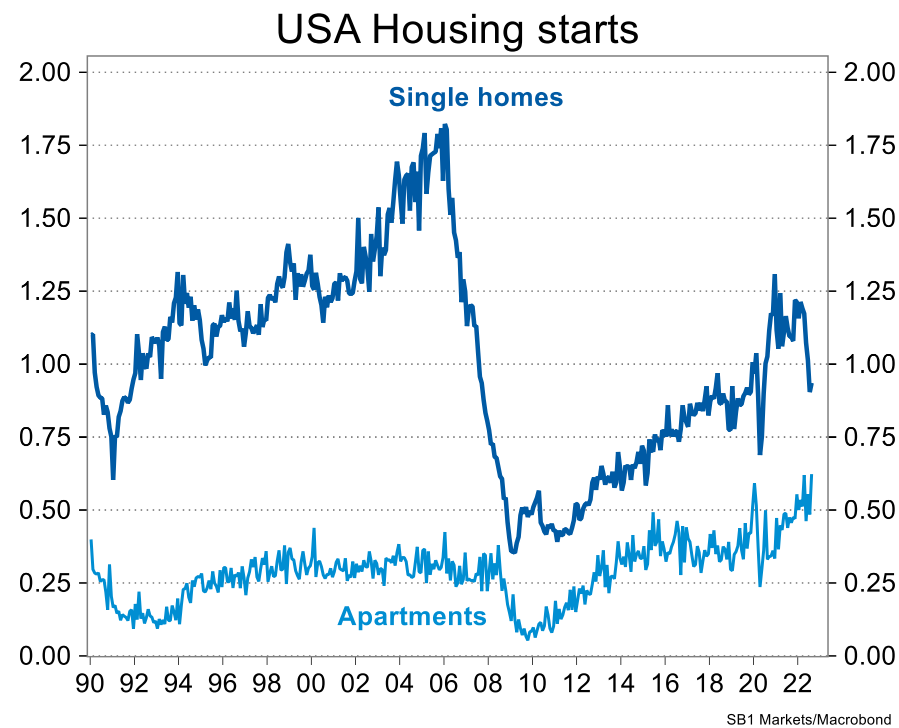
- **New York Fed's model-based** forecast implies a mild recession in 22/23 (GDP down by 1.1% from Q4-21 to Q4-24
  - » The recovery will be weak in 24/25, in sum up 0.8% over these two years
- If so, a small **decline in GDP** to 2025 from 2021 – and the longest period with a GDP 'drawdown (16 quarters, vs. 10 quarters during the Great Financial Crisis
  - » The FOMC members' median forecast is for 5% growth from 2021 to 2025. So they do not trust their own (or their economists' models) at all!
- The model's **core inflation forecasts** are revised up, by in average 0.5 pp the coming years
- The real natural rate of interest is revised up significantly for 22/23 but not by much for 24/25
- Well, models are models and we do not trust them too much. Still, 0.5% decline in GDP in 2023 seems more reasonable than the FOMC 1.2% growth forecast!

SpareBank 1 MARKETS

Housing starts ticked up, but are trending down. Permits have fallen for 5 months

Starts are down 13% from the local peak in April. Permits are down 18% since March

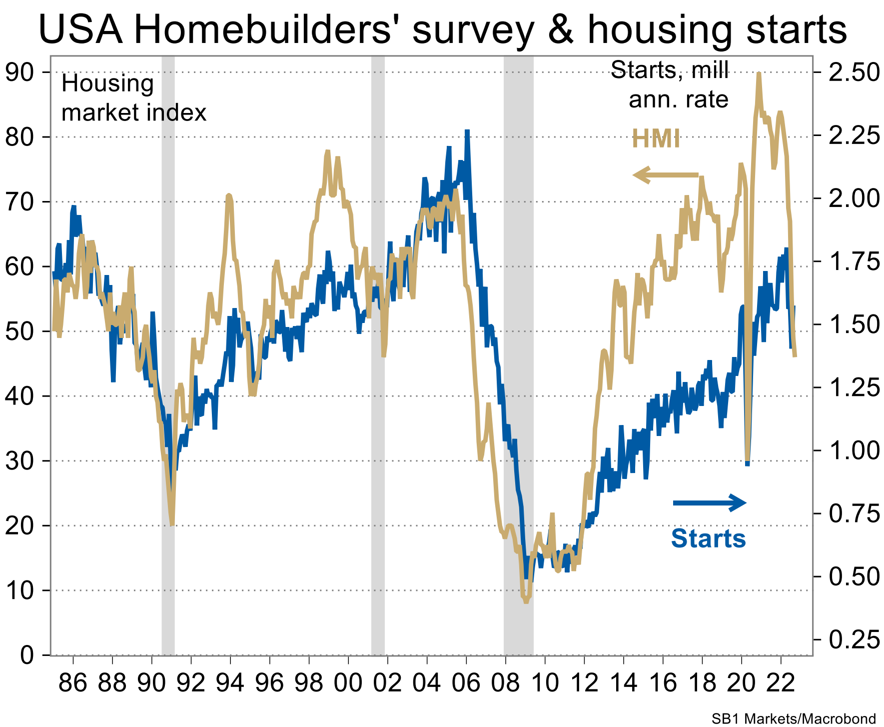


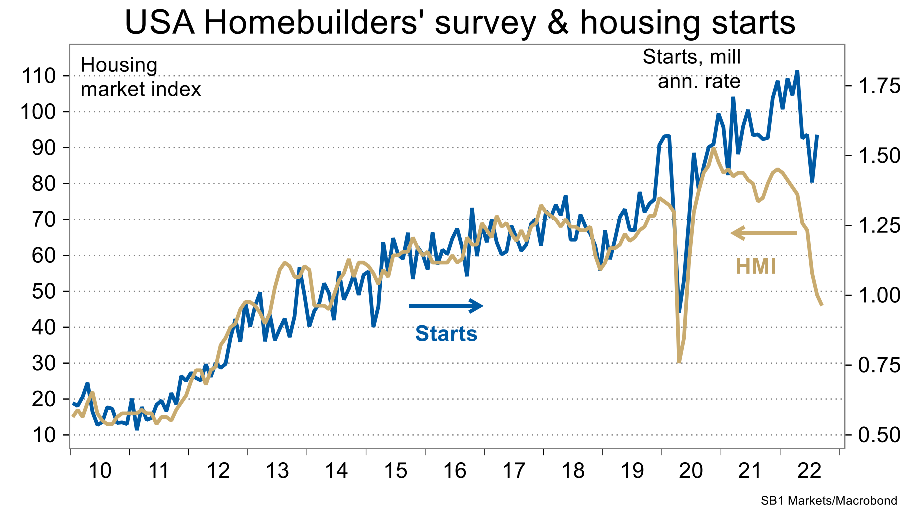


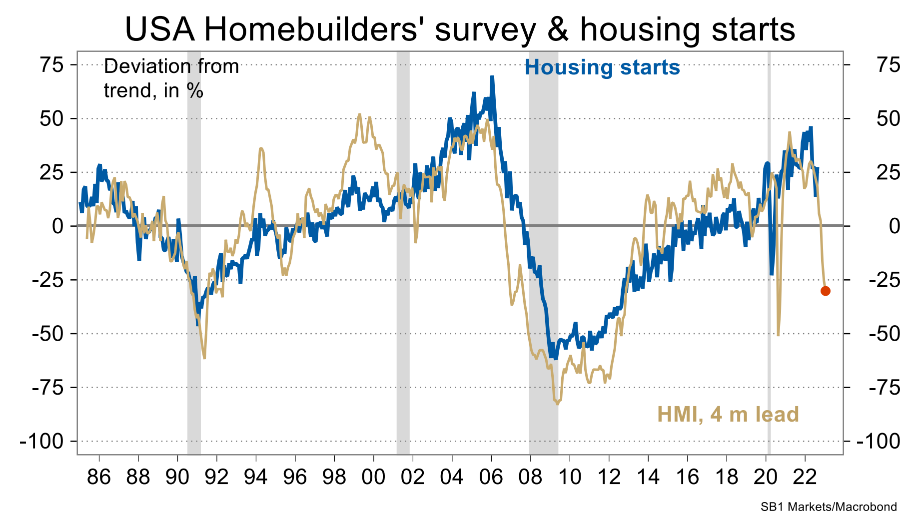
- **Housing starts** rose to 1.58 mill in Aug from 1.40 (revised from 1.45), expected 1.45 mil. **Building permits** declined to 1.52 mill, below expectations at 1.61 mill, from 1.69 mill in July. The decline in permits and the Homebuilders index (check next page) suggest a further decline in housing starts in the coming months. If Homebuilders are right (next page), US will very likely be in a recession soon
  - Starts of **single homes** rose just marginally and are down 23% from February. However, starts of **apartments** rose by 0.138 mill to 0.63 mill, the highest since 1986 – and the trend is straight up! Often, apartment starts lag single home starts by some 2 years, very likely due to much longer planning and sales processes. In due time…
  - Building **material cost inflation** has come to a sudden halt. **Lumber prices** are back to a normal level (or even below), steel prices have fallen substantially recent months too

Homebuilders’ index further down in September, signals a housebuilding crash

The HMI down 3 p to 46. A further 35% drop in starts, in total 50%?



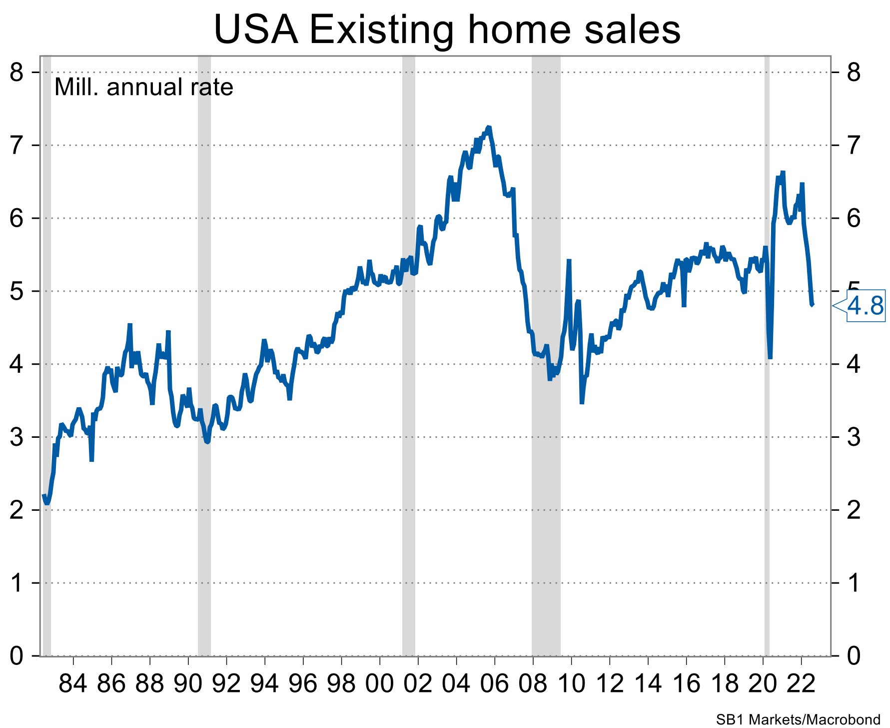


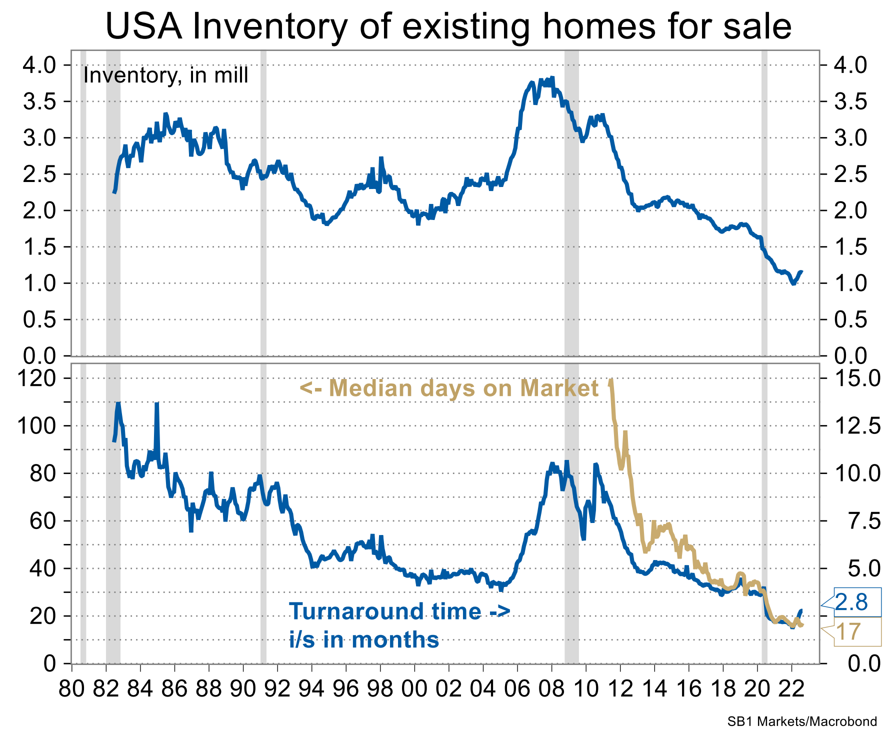


- **The Homebuilders’ Housing Market Index (HMI)** declined 3 p to 46 in Sept, expected down 1 p! The decline of 21 p over the past 3 months is the largest ever, barring the 45 p Apr-20 drop (which was followed by a 55 p lift in May and June. (That trick will not be repeated now!) The 3rd largest 3 m decline was the 13 p drop when the big housing bubble burst, in 2006
  - » Affordability is still the challenge, due to higher mortgage rates, and soaring new home prices (at least until now), check here
- The decline in the index recent months signal more than a 1/3 decline in housing starts following the 20% drop so far - in sum a 50% setback, which we have never seen except for before or during deep recessions

Existing home sales almost unch. in August – but higher rates do have an impact

Sales are down 26% from Jan. The inventory is low but increasing. Prices are falling rapidly

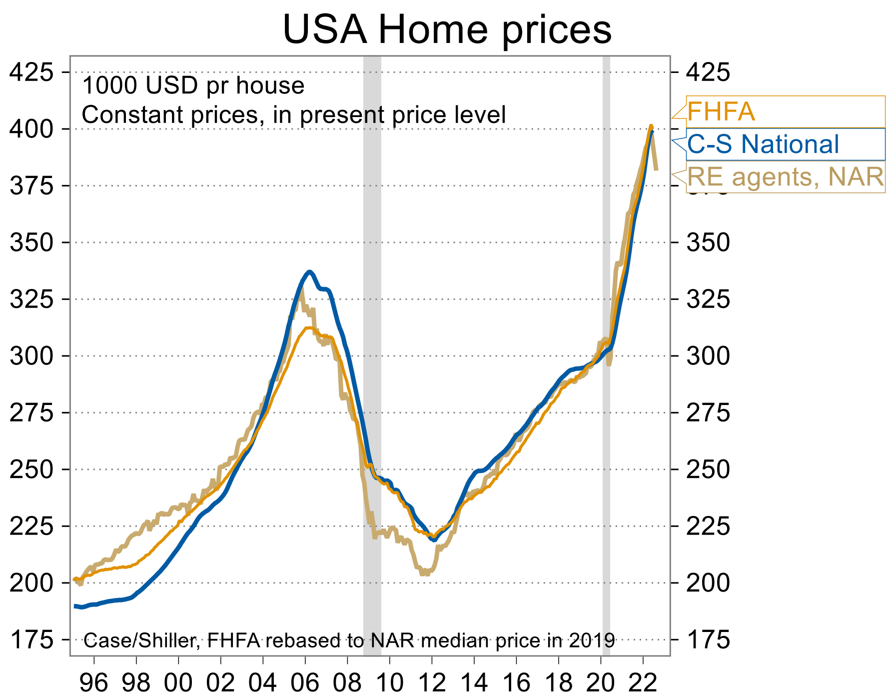


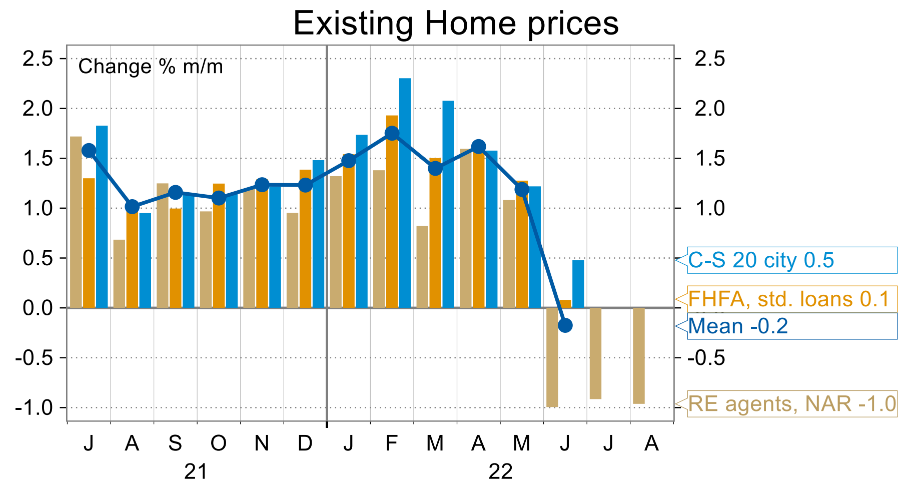


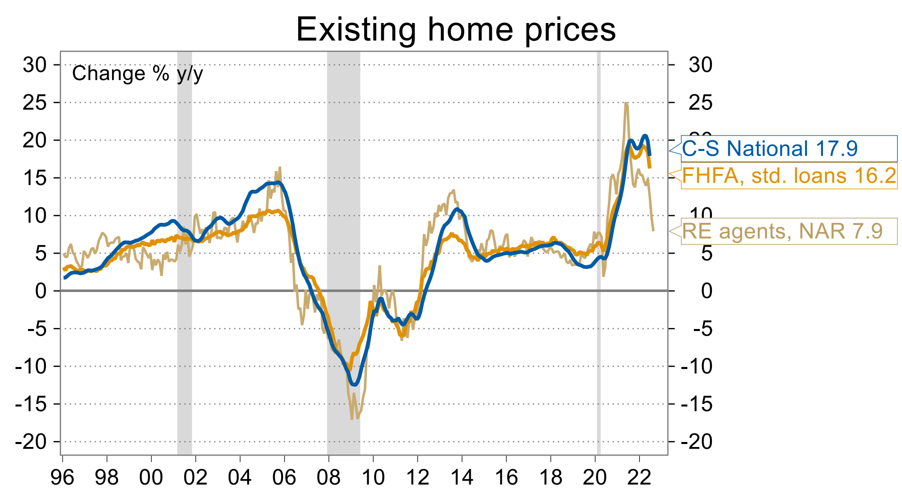
- Sales of **existing homes** fell to 4.80 mill in August (annualised rate), from 4.82 mill in July, expected down to 4.70 mill. Sales have fallen by 26% from local peak in January. Sales are down 10% vs. the pre-pandemic level. **Pending sales** stats signal a further decline in actual transactions
- **The inventory of unsold homes** fell by 1% in Aug, after having increased slightly over the previous 5 months – from at ATL in February
  - » The inventory equals 2.8 months of sales (down from 2.9 last month, and 1.8 in January). During the 2005 boom, the i/s ratio was 4 months, in bad times it has been as high as 10 months
  - » A signal of a still hot market: The median time on the market for those homes actually sold is just 16 days, and close to ATL. Before the pandemic the time on market was at 30 days (and 120 days in 2011!)
- **Prices** fell 1% m/m, following a 0.9% decline in July, previously reported to -0.6%. *Check more next page*
- **Mortgage rates** have increased further and remain far higher than over the previous years – and together with the high price level (up 40% since before the pandemic) have crushed affordability – and the impact is now very visible. We are witnessing a housing market recession

House prices are falling for the 3rd month, at -12% pace!

Prices turned south in June. Prices are still up 7.9% y/y – but the negative sign is coming closer







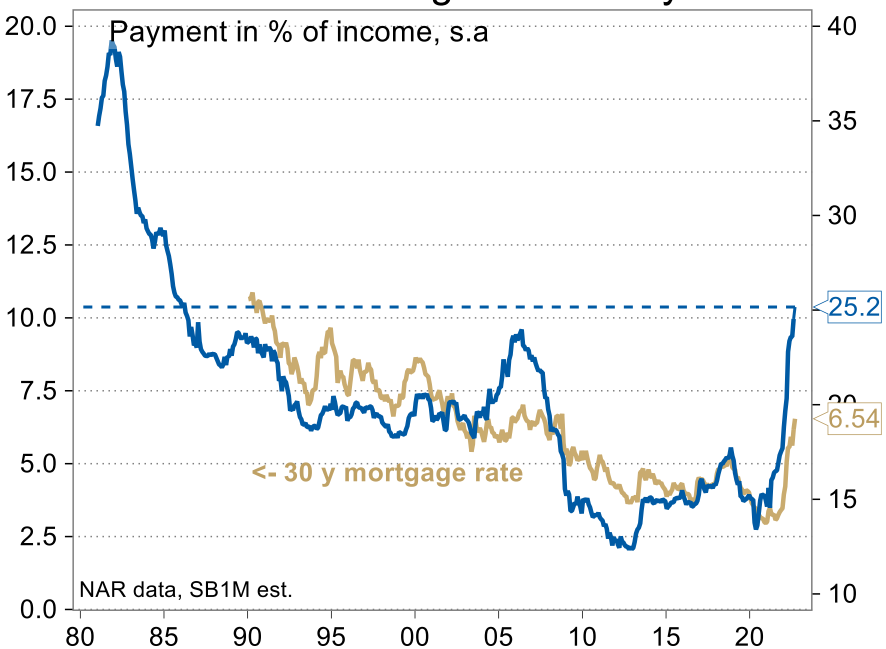
- **Prices** fell 1% in Aug, following a 0.9% decline in July (revised down from -0.6%). The seasonal adjustment of these data is not perfect, so some caution on our m/m data. Aug prices are mostly based on transactions agreed upon in July. The annual rate fell 1.7 pp to 7.9% (from a 1.2 pp downward revised rate in July)
- Other indices still are up 16% - 18% y/y. Prices are normally lagging sales by almost 1 year, and the recent decline in sales very likely signals a turnaround in prices too, we think the impact now is coming sooner due the rapid deterioration of affordability
- Home prices are up 40% from before the pandemic, and are way above the 2006 level, even in constant prices (up some 15%)

SpareBank 1 MARKETS

The least affordable housing market since 1986

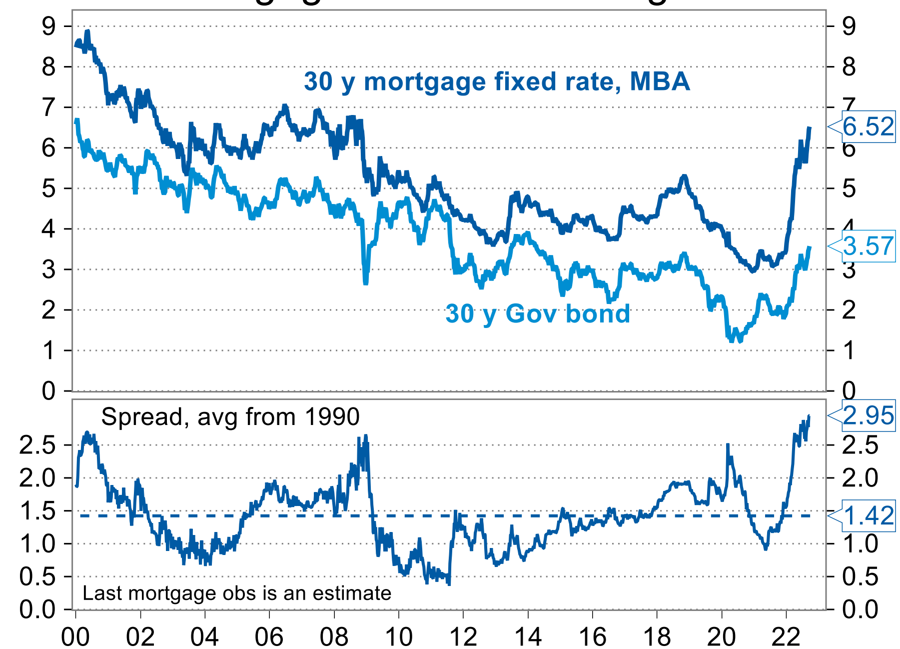
Prices are up 40% since before the pandemic, the mortgage rate is up 63%. In sum 128%...

USA Housing Affordability



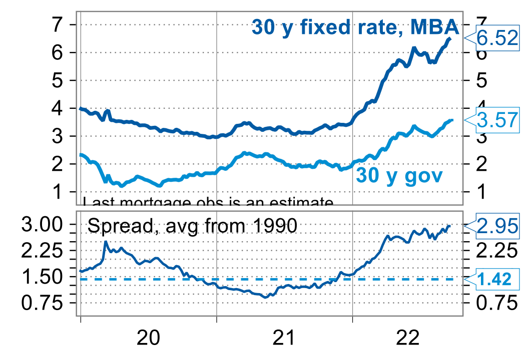
SB1 Markets/Macrobond

USA Mortgage interest rate vs gov bonds



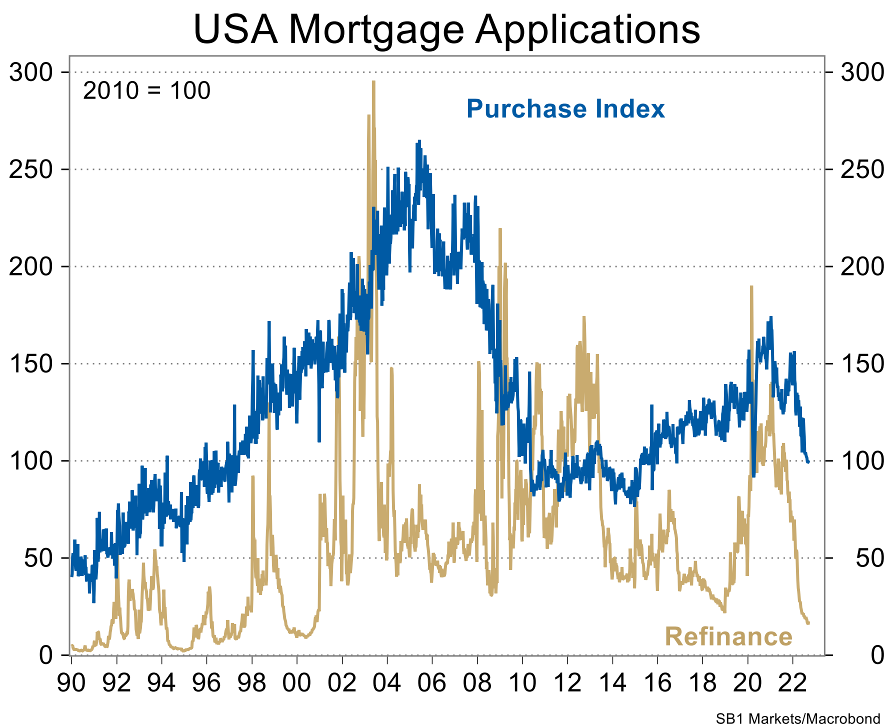
SB1 Markets/Macrobond

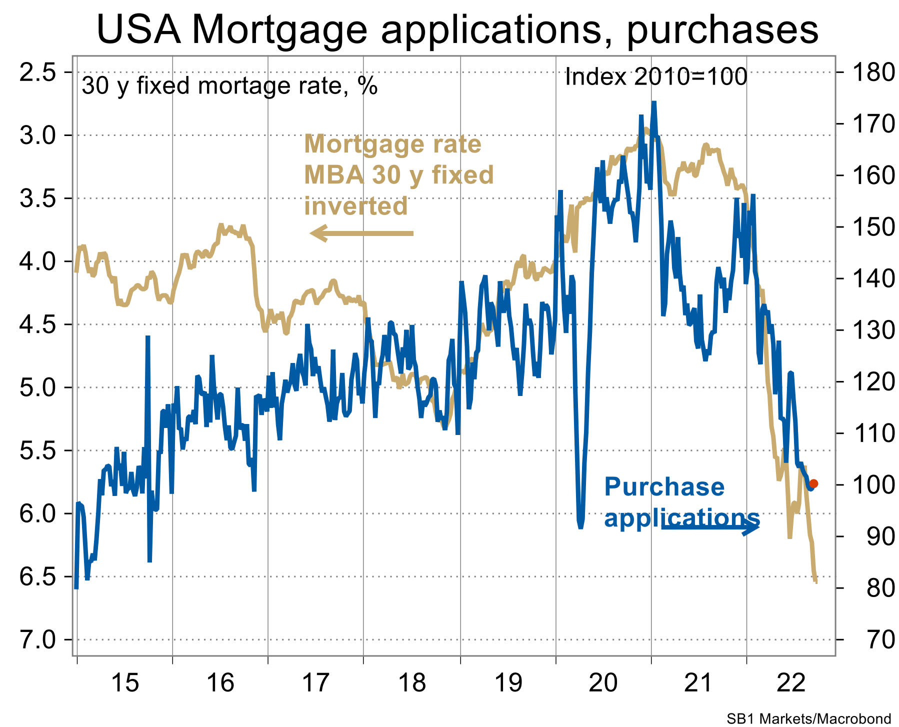
- **The 30 y fixed mortgage rate** has climbed to 6. 52% (effective rate) from 3.0% last summer, from 3.5% at the start of 2022. Before the pandemic, the rate was 4.0%
- The **Federal Reserve** concluded its mortgage backed bonds buying campaign in March - and is now reducing its holdings. No doubt, this shift explains much of the surge in the mortgage spread, to 2.95 pp, way above the average at 1.42 pp. <u>This spread is far too high, from a long term, credit risk perspective</u>



Mortgage applications are rapidly on the way down, for good reasons

Applications for new loans are down by 1/3 from the local peak in January, and are still falling

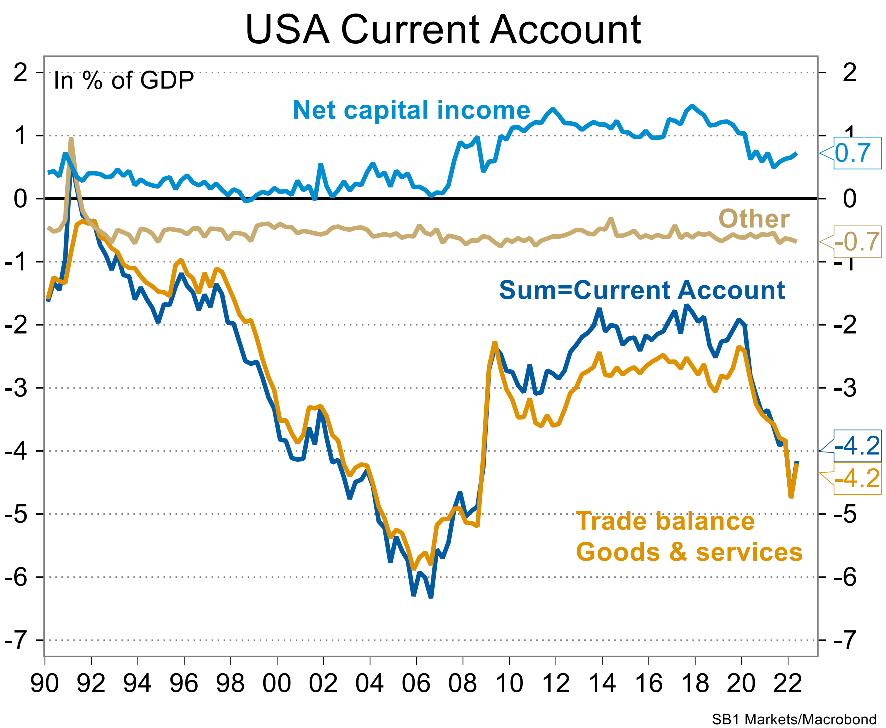


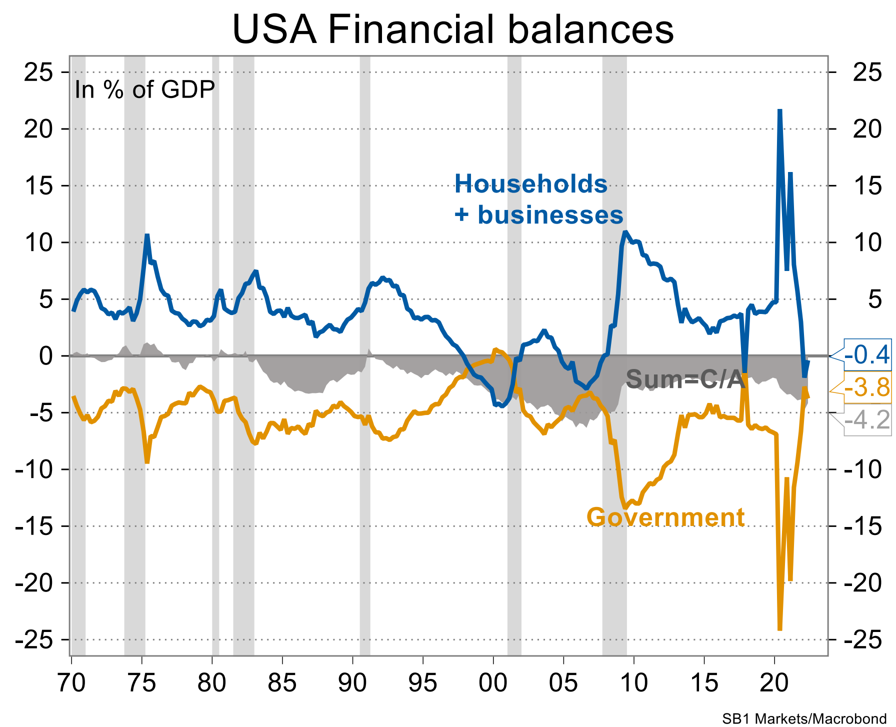


- Demand is not yet extremely low – and the level is 'just' 20% below the pre-pandemic level
- Recently, mortgage rates have fallen, alongside the decline in the 30-year treasury bond rate

The current account deficit narrowed to 4% in Q2

It is still wide, but nothing vs before the Fin Crisis (-6%). Both the private & public sector in red

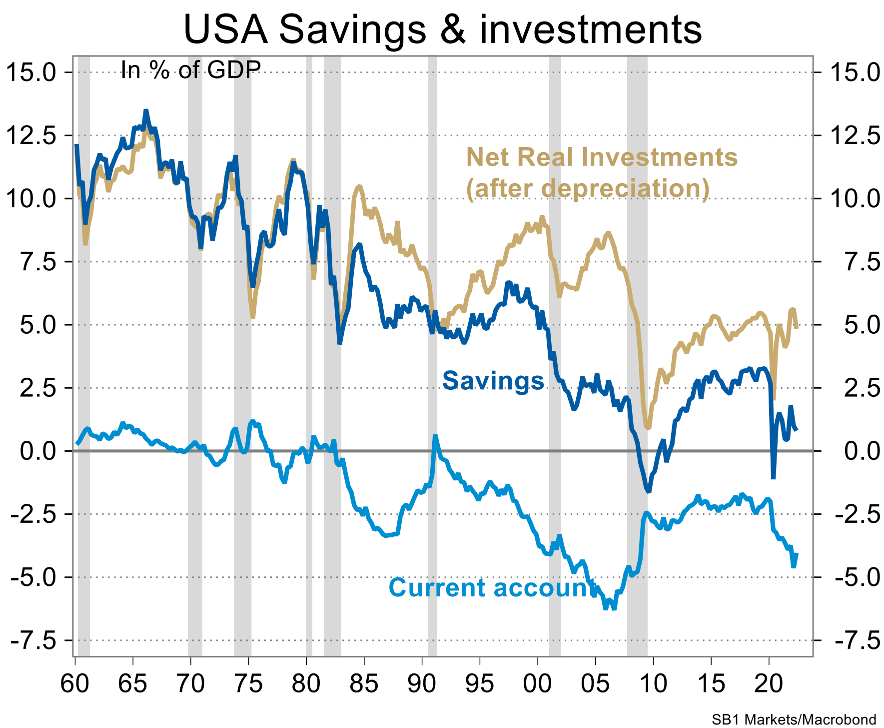


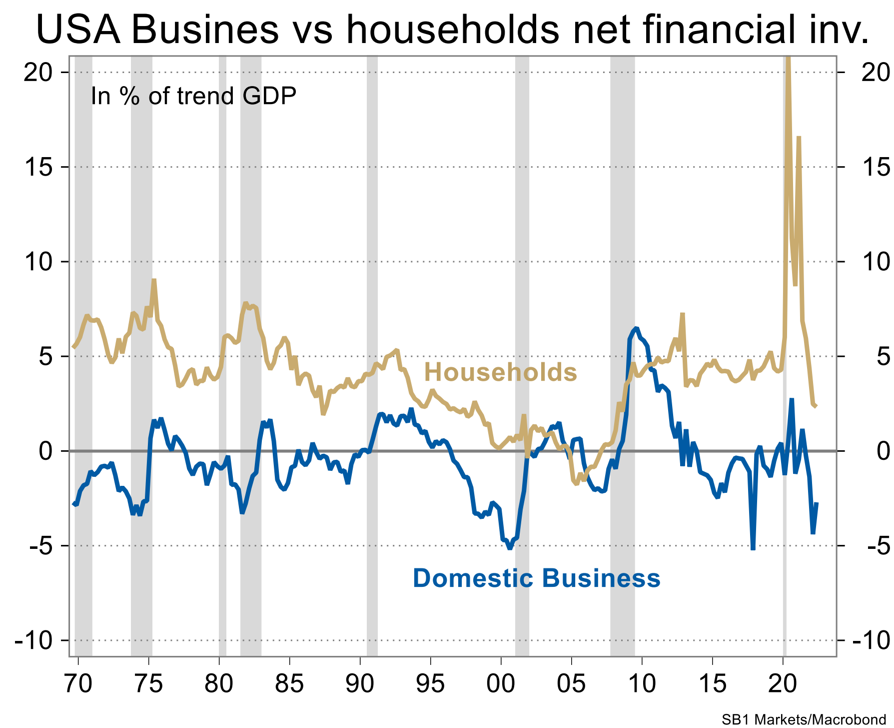


- The CA deficit fell to 4.2% of (trend) GDP on Q2 from 4.8% in the previous quarter. The move was driven by a similar cut in the trade deficit of goods and services
- In 2020, Corona measures emptied the government's coffers, while filling up the private sector's pockets as households & corporates were over-compensated by the government for losses in their market based revenues – and cut spending at the same time
- In Q2, the public sector deficit had come down to 3.8% of GDP, while the private sector (households & businesses) deficit was at 0.4%

The current account deficit = Savings - investments

The US is saving less than it invests, and invest. are not that high. And who's saving in the priv. sector?



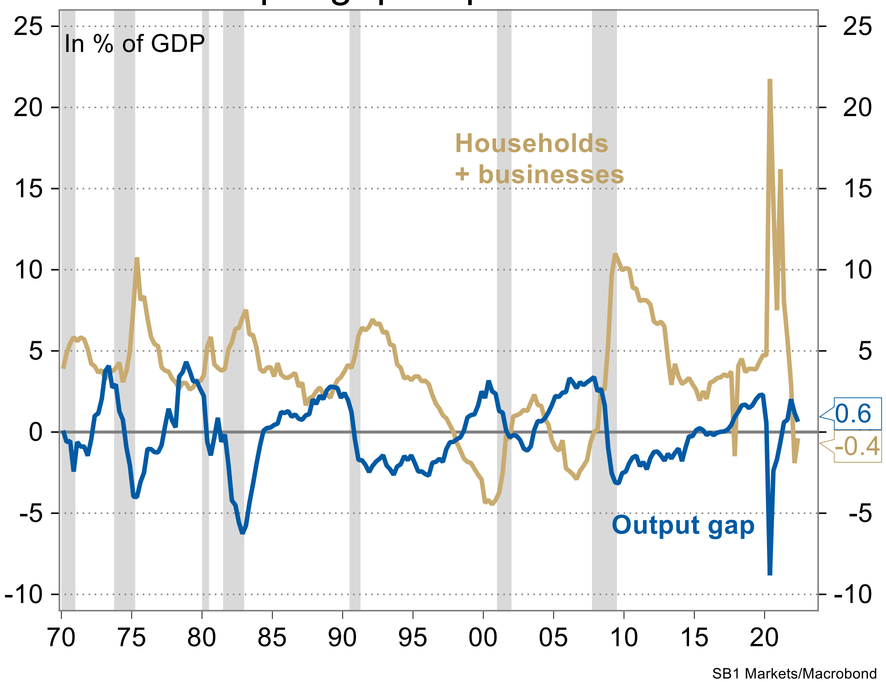


- However, net investments (after depreciation) are above the long-term declining trend in the investment/GDP ratio
- Who are saving in the private sector?
  - » Households are running a 2.5% of GDP cash surplus, as their investments in new homes are less than their savings. Lower housing investments should lift household savings
  - » Business have been running 3% of GDP cash deficit, clearly larger than normal. This deficit will reduced as soon as businesses start cutting their investments – and soon they very likely will

What goes up, must come down. And vice versa

Recessions are always caused by the private sector cutting spending, and saving more

USA Output gap vs private cash flow

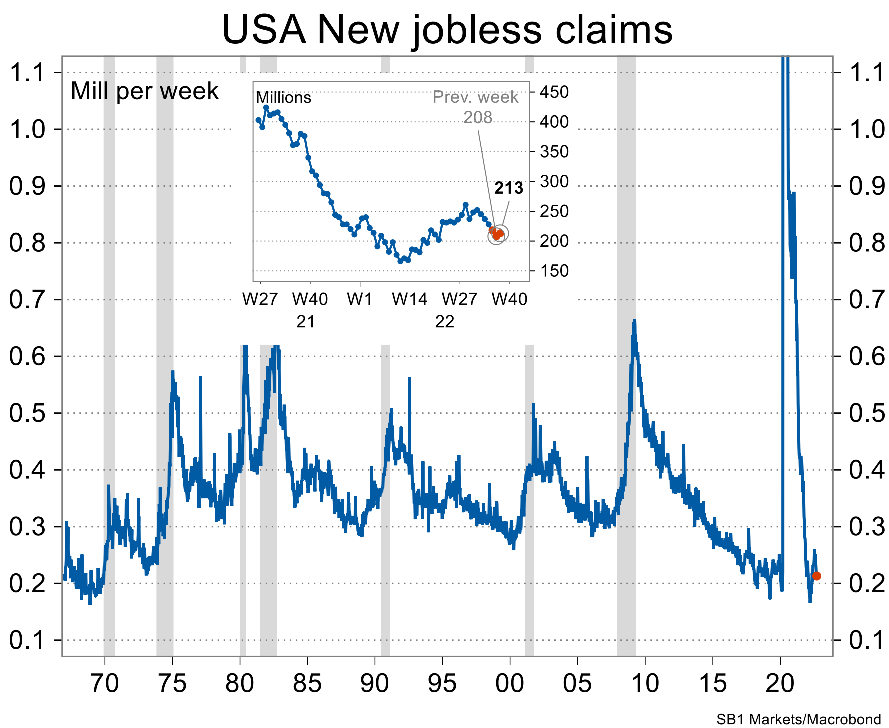


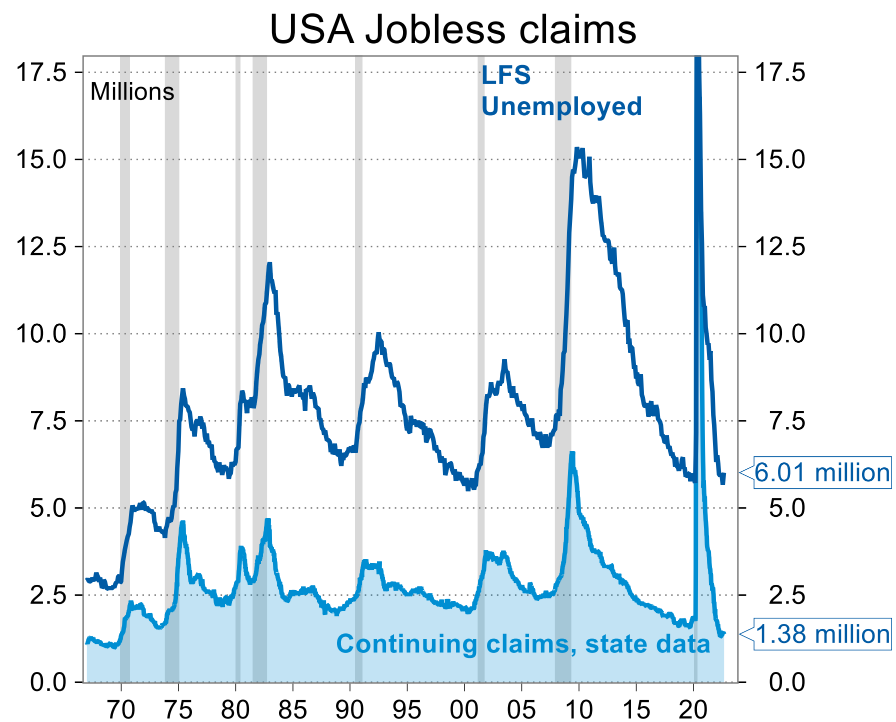
- Well, 'caused' in a directe sense – higher interest rates due to too high inflation, a recognition of too much borrowing, falling house prices or other factors may of course intitiate the increase in private sector savings – but it is private demand that contracts, not public sector demand (and public borrowing always increases)

SpareBank 1 MARKETS

The labour market is <u>extremely</u> tight, the Fed chair repeated last week

New jobless claims increased marginally from a downward revised number the previous week

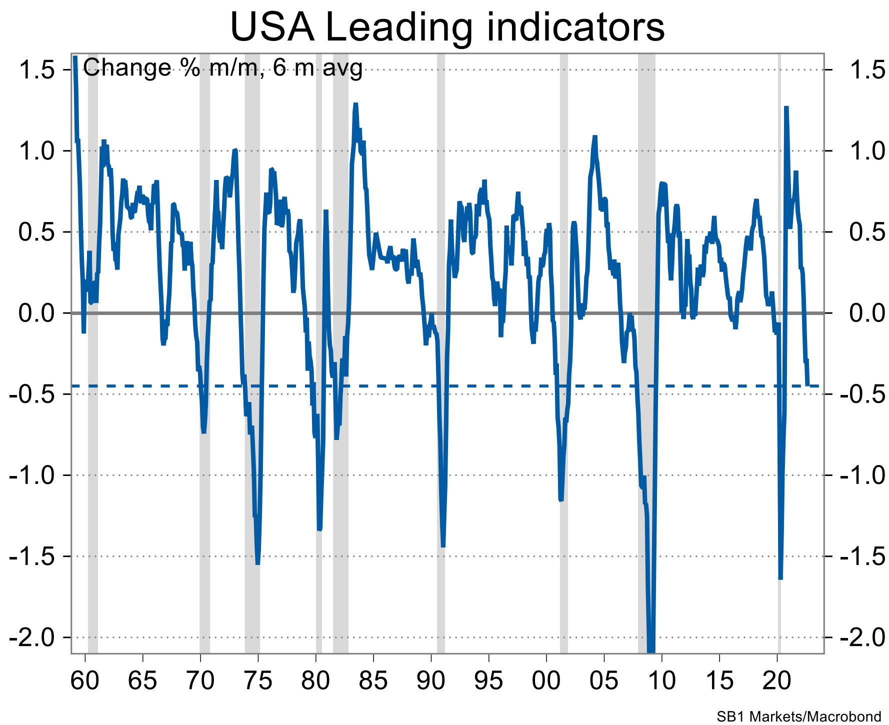


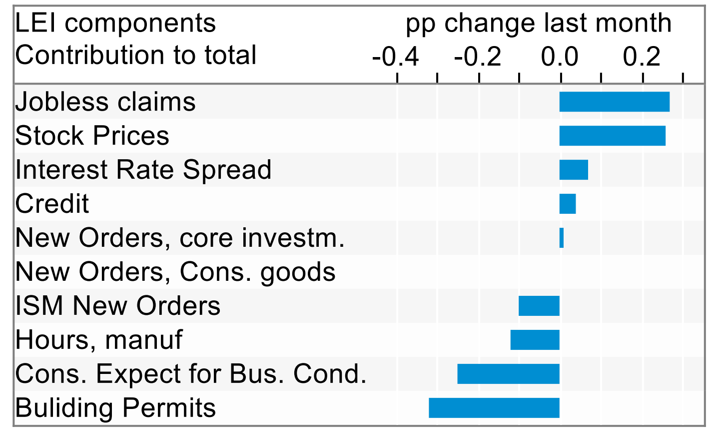


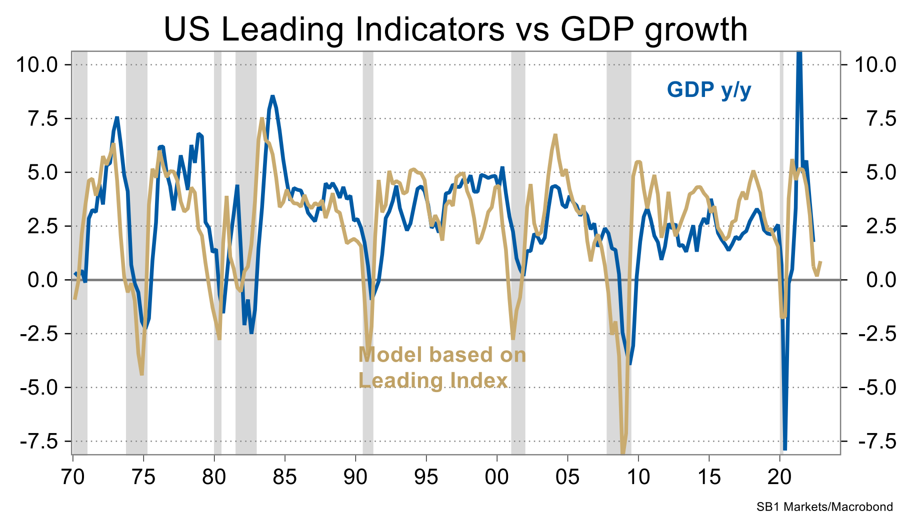
- **New jobless claims** rose by 5'' in week 37 to 213' (from a 5' downward revised level the prev. week!). <u>New claims have still fallen by 40' from 7 weeks ago, and the level is low</u>
- **Continuing claims** fell by 22' in week 36, which was 21' below expectations

The Leading Economic Indicators suggest US is in or close to a recession

A 6-month avg of -0.45% level detected 8 of the 8 past recessions. And there were no false warnings!



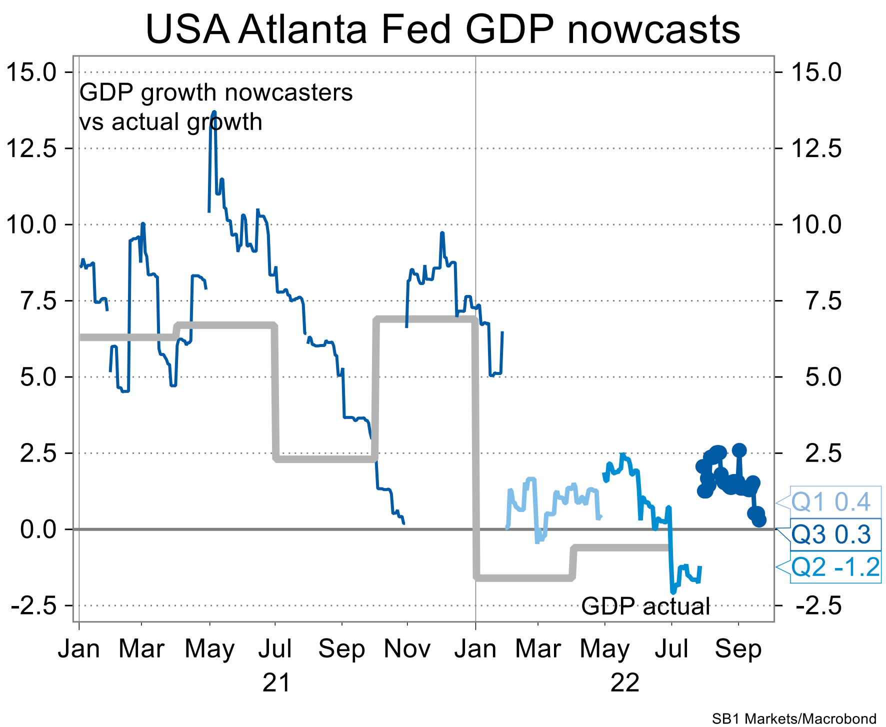


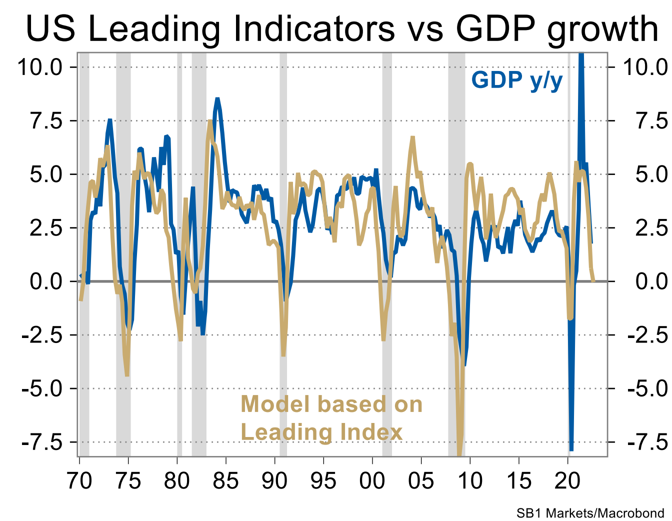


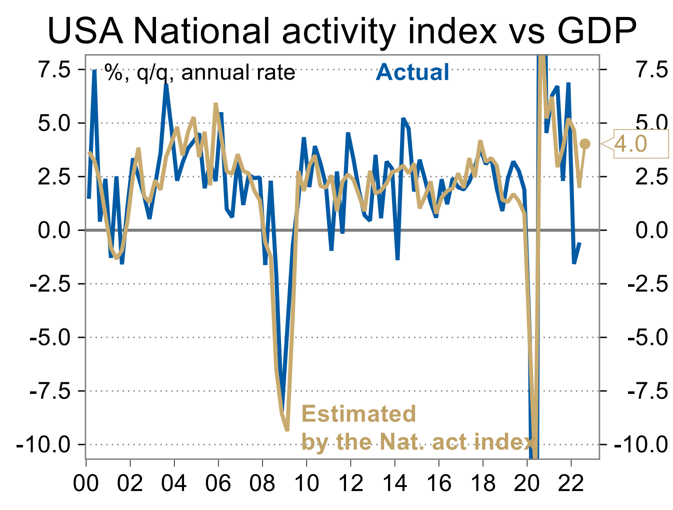
- The LEI fell 0.3% in Aug, 0.2 pp more than expected, following the 0.5% drop in July
- The 6 m average is has fallen to -0.45%. The LEI has fallen to this level 8 times since 1965
  - » On these 8 occasions the US economy was very close to entering or had entered a recession
  - » Thus, the LEI 6 m avg at -0.45 'detected' all 8 recessions since 1965; no false positives, and no false negatives, at least since 1970. In 1960, US entered a recession without any clear warning sign from the LEI

Atlanta Fed's nowcaster is approaching the zero line for Q3

Down from 2.6% a 3 weeks ago, not a positive sign of course





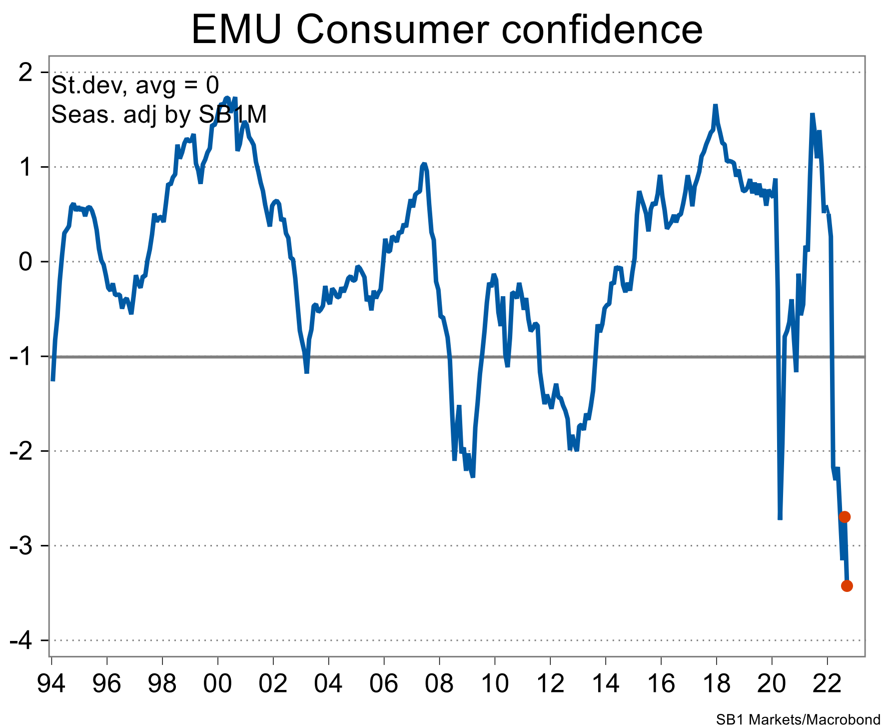


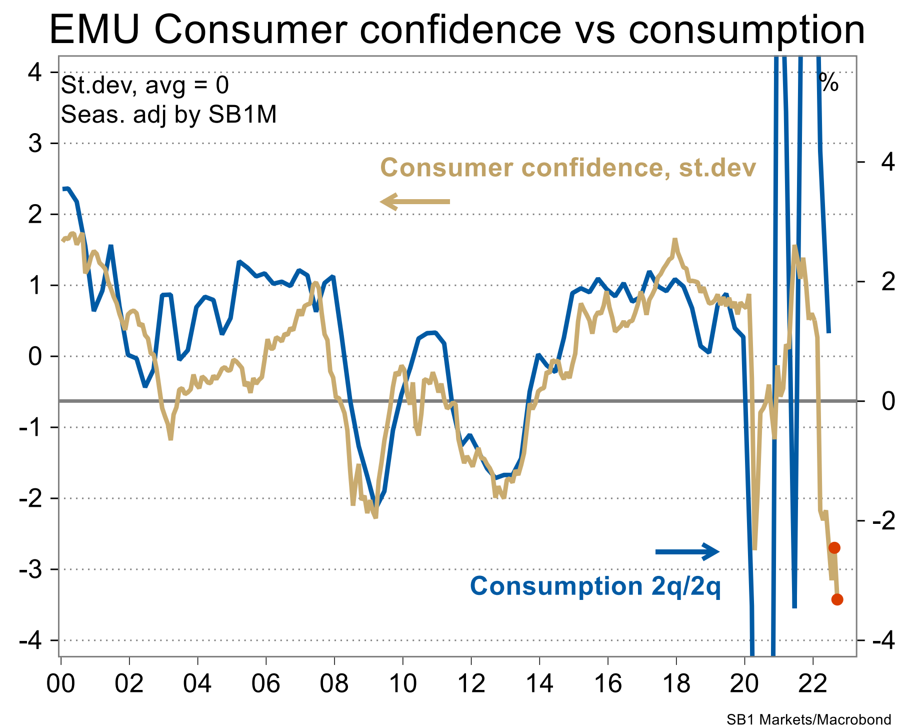
- National Activity index suggests 4% (the July pace). Leading indicators say zero!
- **Q2 GDP** fell 0.6%, revised up from -0.9%

SpareBank 1 MARKETS

High inflation and the energy crisis send EMU consumer confidence to new ATL

Consumer confidence at 3.4 st.dev below average in September!



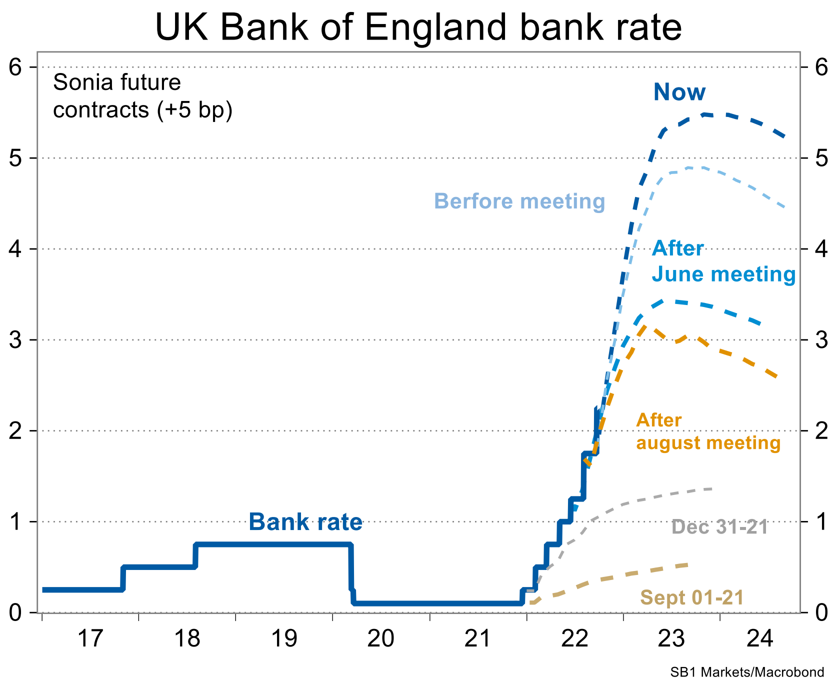


- **The confidence index** fell 3.8 p to -28.8 in Sept, according to the preliminary estimate, expected down to 25.8. The level in Sept is -3.4 st.dev below avg. – ATL by far
- **Inflation** fuelled by super high energy prices and fear of lack of supplies are probably to blame. **Interest rates** are now being hiked – and the rest of the yield curve has taken big leaps upwards – and sentiment is plummeting
- Usually, consumer confidence is tightly correlated to growth in household demand. If that's the case now as well...

SpareBank 1 MARKETS

Bank of England: Peak inflation expected to be lower than f'cast in Aug MPR

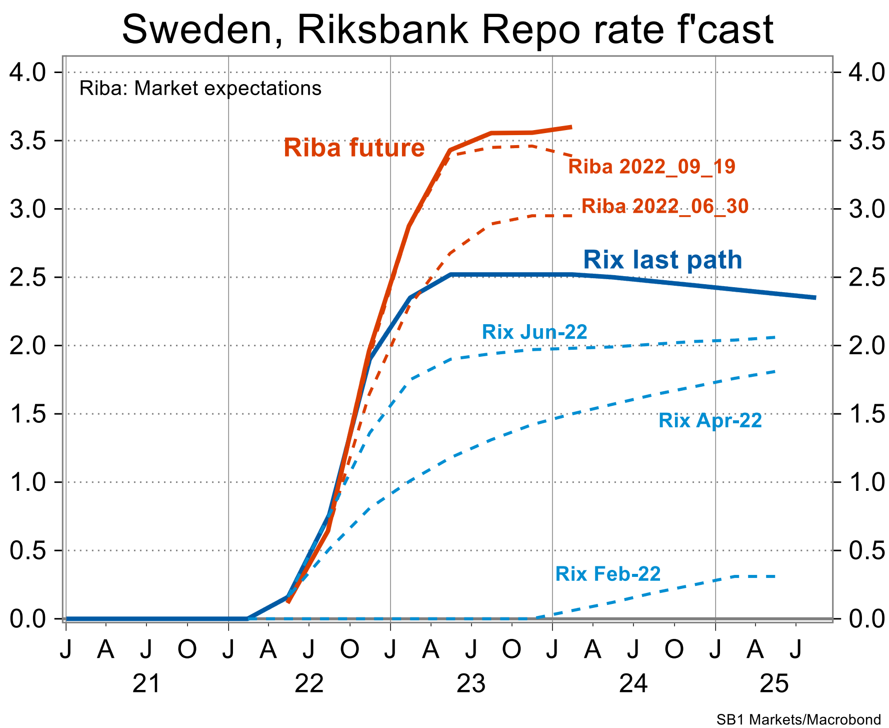
… but a peak of 11% is… well, far above target. The Bank hiked by 50 bps to 2.25%, as expected



- **The policy rate** was lifted by 50 bps to 2.25%, as widely expected
  - » 5 of 9 members voted for a 50 bps hike, while 3 members preferred a 75 bp hike!
  - » The Bank voted to reduce the holding of gov bonds by GBP 80 bn/month from September
  - » The energy price guarantee programme is expected to lower inflation in the near term, more specifically the peak is now expected at 11% vs an expectation of 13% in August. However the bank expects it to <u>increase</u> inflationary pressures in the medium term (due to a smaller decline in disposable income, and more domestic demand)
  - » In Q3, GDP is expected to contract by 0.1% as opposed to 0.4% growth in the August MPR (the Queen's fault?)
  - » No full projections update: The bank will make a full assessment in the next MPR
- The **short end of the UK curve** rose significantly last week (and after the meeting) up to almost 5.5% - and the 1y 1y fwd swap rate shot up almost 120 bps, but not just due to the BoE comments, **rather is was the new prime minister and her government's** huge tax cuts to support growth together with a spending package (mainly electricity subsidies) that rattled the markets – <u>and Friday the 10y swap rate rose more than ever before vs. the average EUR/USD 10 y rate!</u>
  - » The tax cuts include cancelling a planned rise in corporation tax (keeping the current rate of 19%); reducing the tax rate on incomes above GBP 150,000 to 40% from 45%; reversing the rise in national insurance contributions (paid by the well off), scrapping a cap on bank bonuses (City is celebrating); reducing the stamp duty on home purchases; and reducing the basic income tax rate. The finance minister said the energy subsides would amount to GBP 60 bn for the next 6 months, the tax cuts would cost another 45 bn over the next 4 years.
  - » The total package may equal 1.4% of GDP (but a budget oversight office has been side lined). <u>There is probably more to come – all in an economy that already is struggling with an inflation at 10%, and where the CB hikes the policy rate to lower domestic demand!</u>
- The **GBP** fell 2.4% last week on the tax package new – and GBPUSD fell to the lowest level since 1985 (before the Plaza accord) at 1.0847 but trade weighted it is not yet for the history books: Just the weakest pund since just June 2020, at is was far weaker after Jun-20 the Brexit poll

The Riksbank lifted the signal rate by 100 bps – largest hike since the 90s

The bank has just 4 rate setting meetings per year, and had to compensate with 100 bps in one go



- **The Riksbank** surprised with a 100 bps hike (market/economists expected 75 bps) as the inflation is far too high, as they stated. The policy rate is anyway not high, so further reasons for the Riksbank to front load its rate hikes, are of course the low starting level and the increasing interest rate differential, as other central banks aggressively raise rates
- **Inflation** was revised further up; **GDP growth** down and the bank is now forecasting a recession in '23.; the **unemployment rate** was revised only slightly upwards, as productivity growth in 2023 is assumed 1 pp lower than what the bank expected in June (and expected to fall by 0.7%, but 2022 was revised upwards)
- The **QE program** was not altered at this meeting, but will expire at the end of the year
- Riba futures inched upwards, as most places last week

Riksbank f'cast, annual percentage change

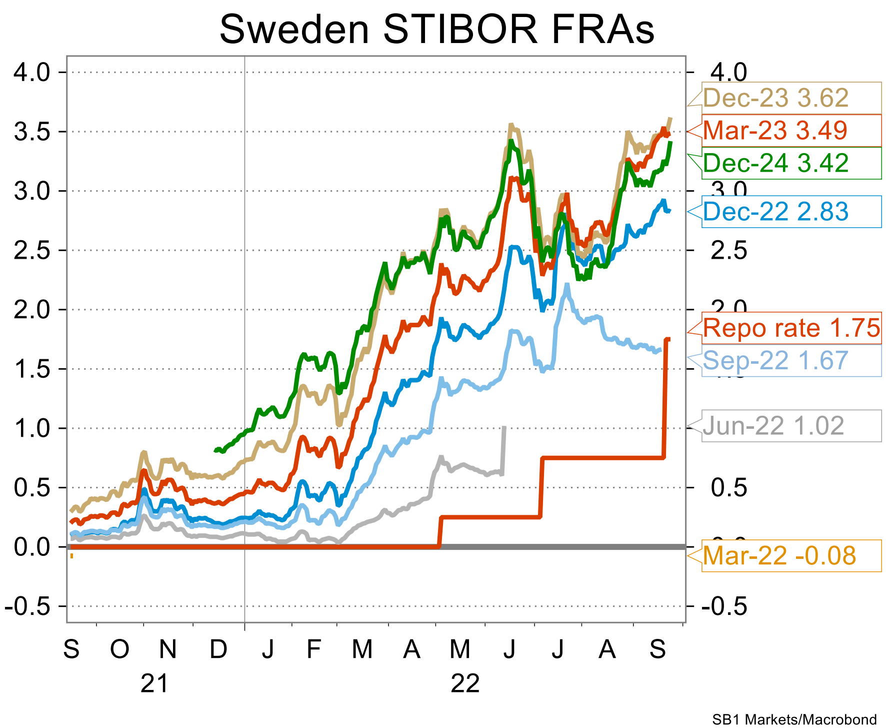
	2022	2023	2024
CPI	8.6 (7.6)	8.5 (7.1)	2.2 (2.7)
CPIF	7.8 (6.9)	5.1 (4.2)	1.6 (2.0)
GDP	2.7 (1.8)	-0.7 (0.7)	1.1 (1.3)
Unemployment	7.5 (7.5)	7.9 (7.7)	8.2 (7.9)
Unit labour cost	3.4 (3.8)	4.2 (2.9)	2.1 (1.9)

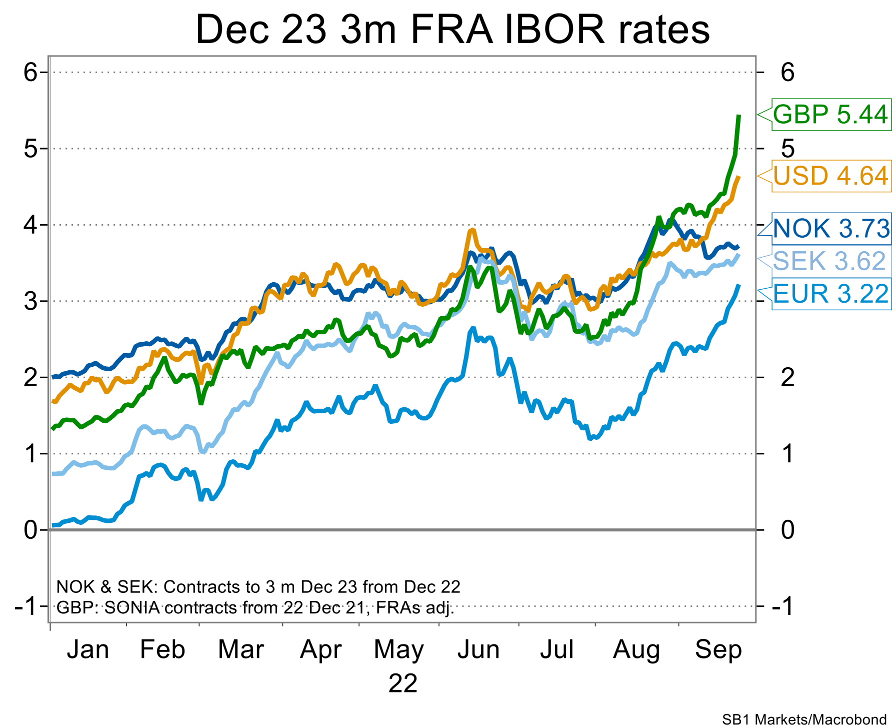
Riksbank rate path

	2022Q2	2022Q3	2022Q4	2023Q3	2024Q3	2025Q3
Policy rate	0.16 (0.16)	0.82 (0.76)	1.90 (1.36)	2.53 (1.94)	2.47 (2.01)	2.35

Rate expectations rose, at except for the very short end

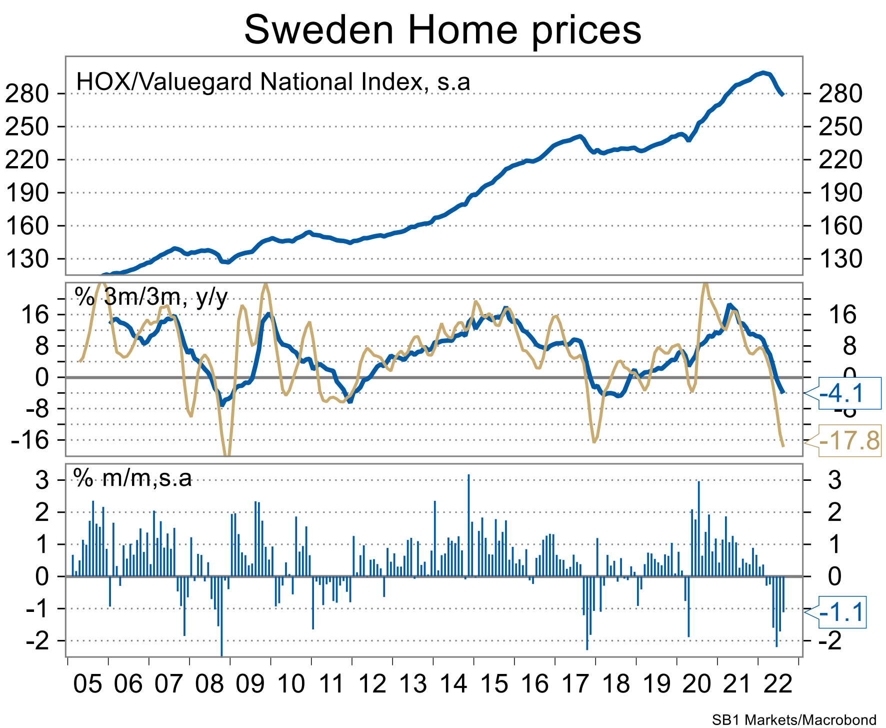
Just Norway swims against the tide these days

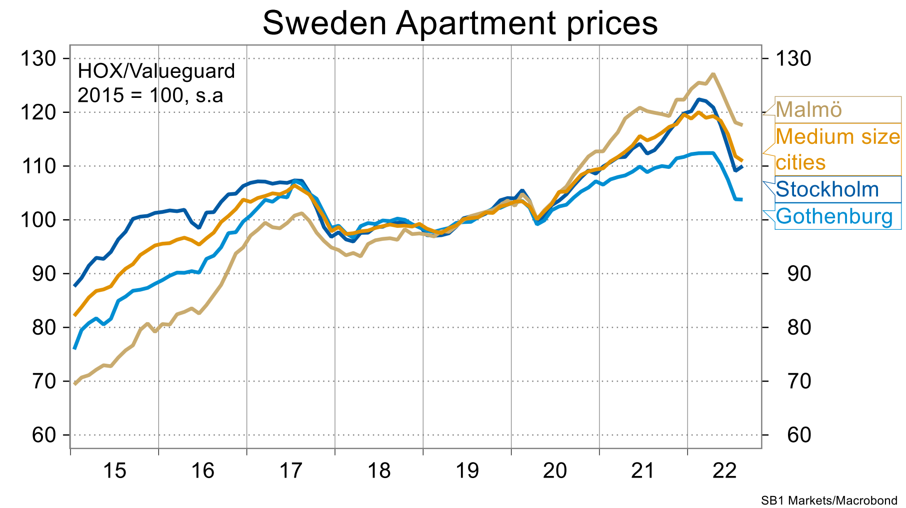


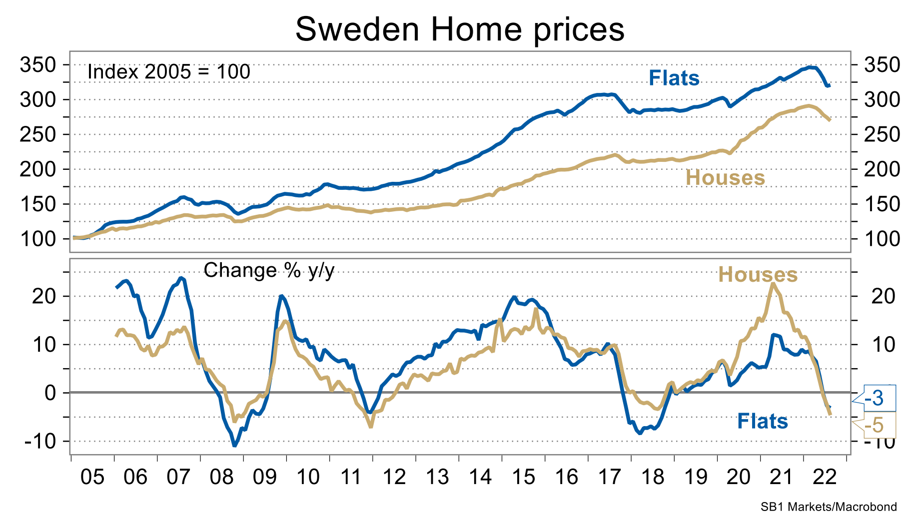


Swedish house prices further down in Aug, but apartment prices rose!

Prices fell 1.1% in Aug, the 6th decline in row, in sum 7%. Single-home prices behind the Aug decline





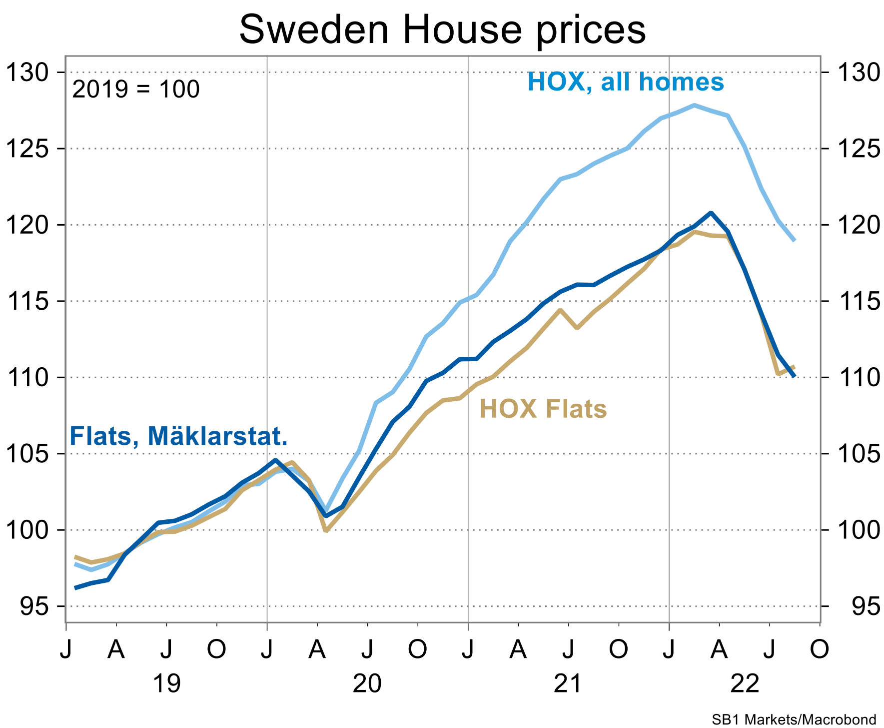


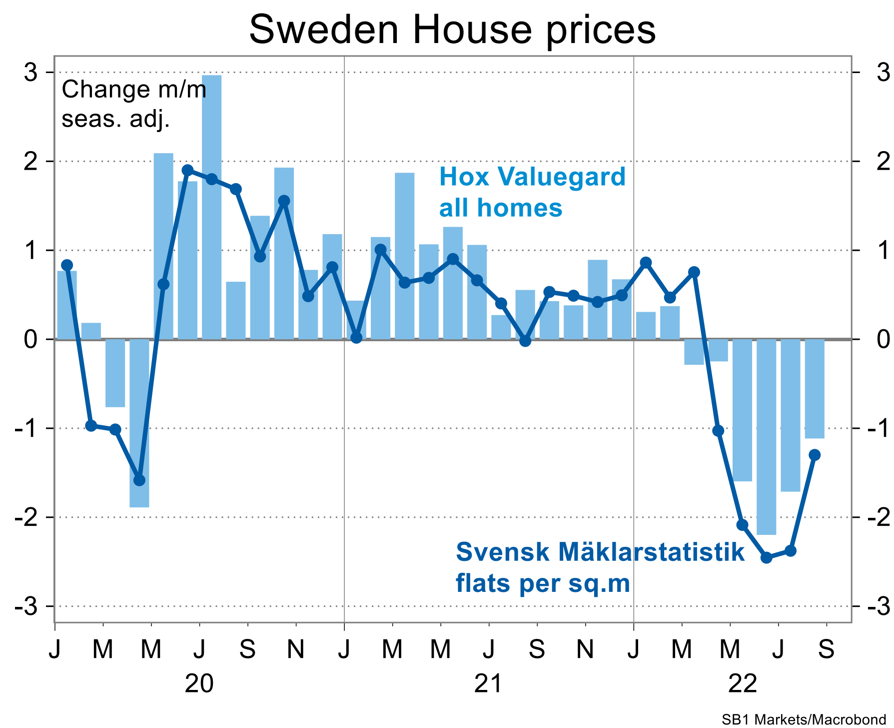
- **Prices are down** 5.9% from the peak in February. In Stockholm, apartment prices are down 10% from the peak
  - » In Aug, apartment prices in Stockholm rose by 1.2% (seas. adj), while single-home prices fell by 1.7%
- **The annual rate** declined to -4.1% from 6.2% in April
  - » The underlying price growth (3m/3m) is now <u>-18%!</u>
- The **Riksbank's** abrupt change of tack in late April has no doubt hit the housing market hard

SpareBank 1 MARKETS

A x-check with Svensk Mäklarstatistik

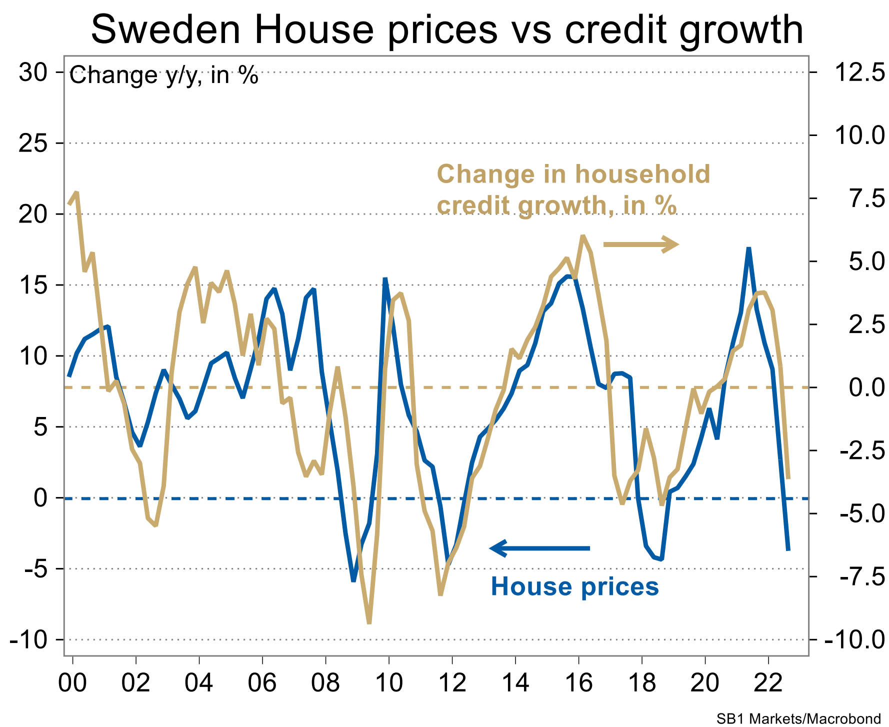
The realtors reported a 1.3% decline in flat apartment prices in August, and a 9.8% drop since March

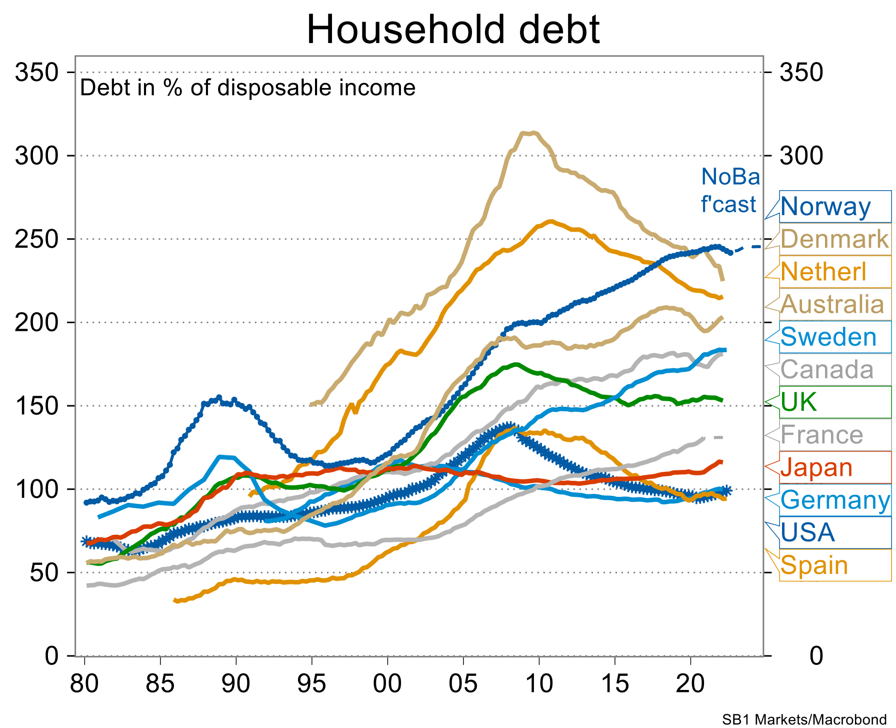




Credit growth is slowing too, as always when the housing market calms down

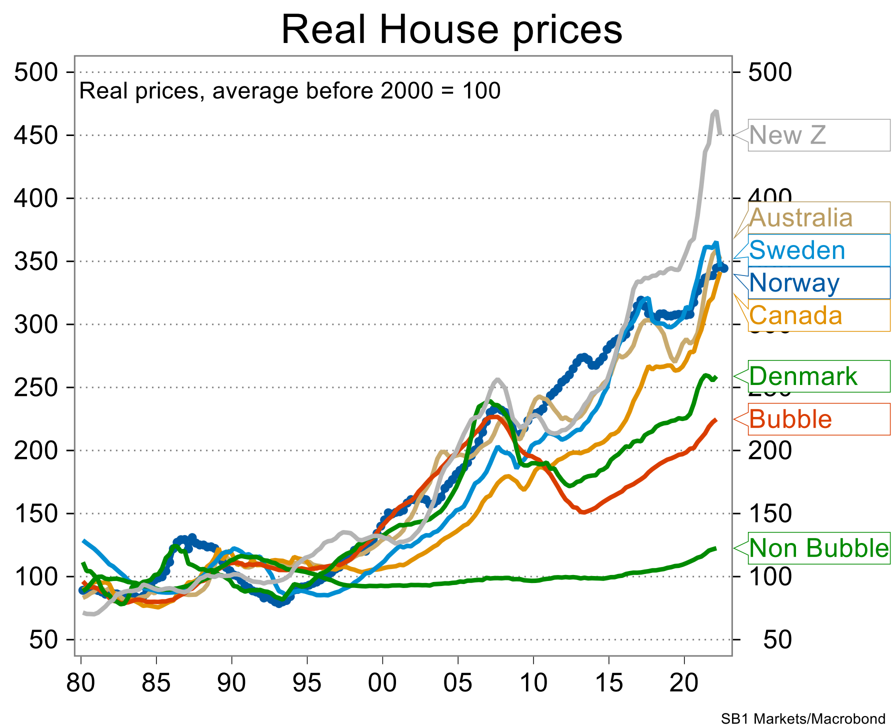
And more slowing is in the cards if house prices decline further

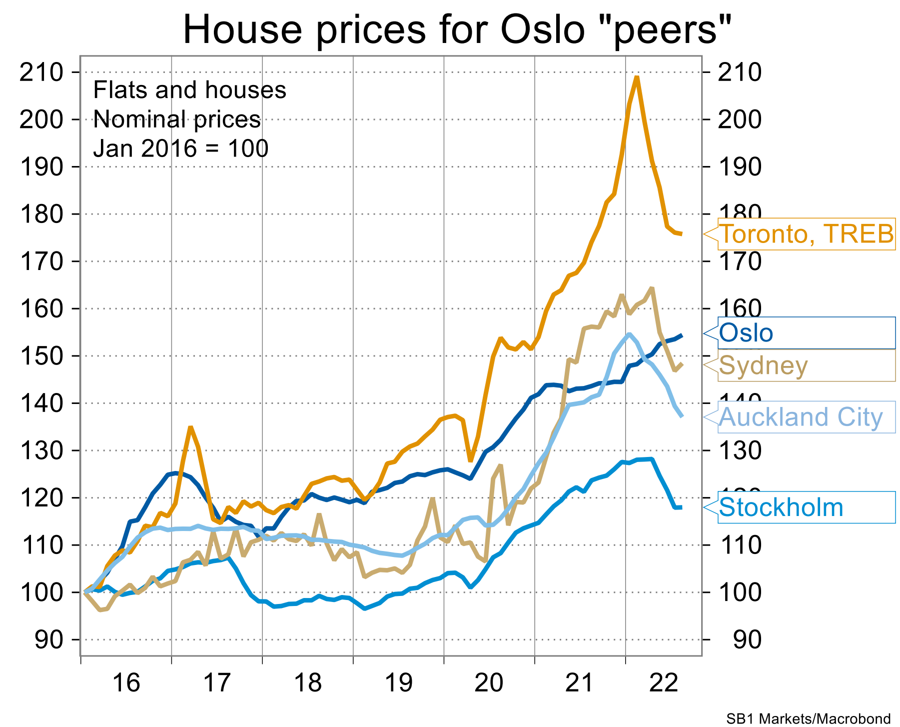




Prices are falling in the 'supercyclical' capitals, except for in Oslo

Prices have peaked in cities comparably to Oslo, where prices are still rising despite higher rates

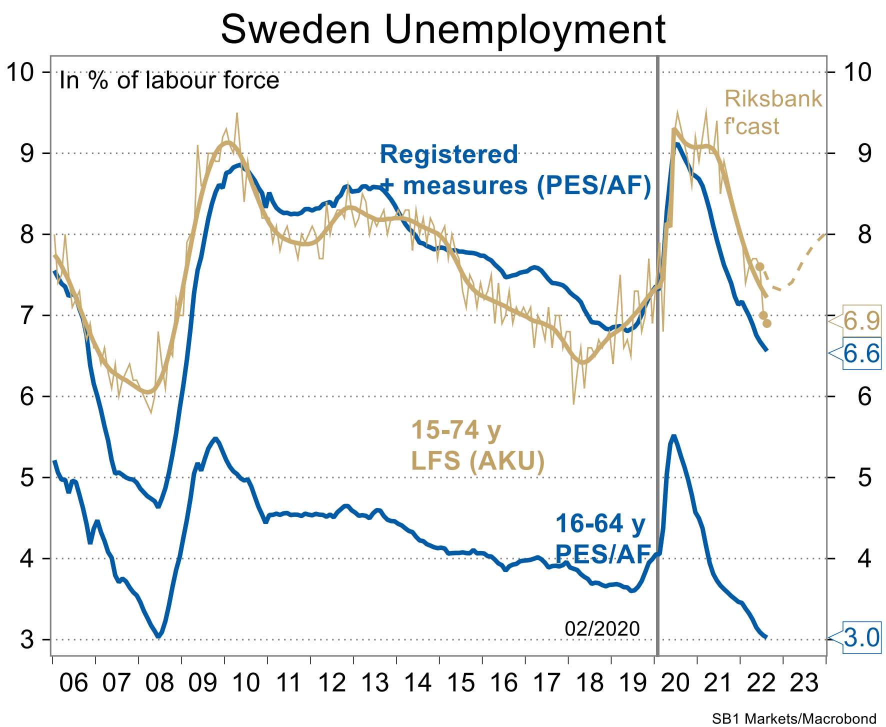


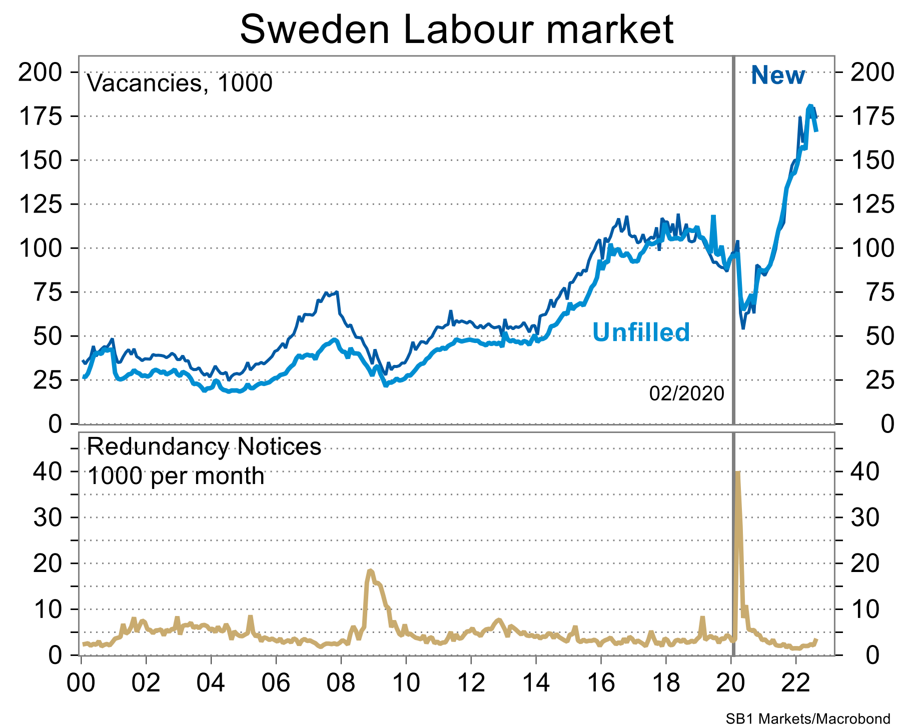


- Real house prices are at high levels in both Australia, Canada, Norway, and Sweden
- Now, the capital cities in these countries may signal a change is underway. Except for Oslo, of course, where prices can never decline… We believe Oslo will most likely soon follow suit

Unemployment marginally down in August – rate at 6.6%

Employment is surging, the employment rate is very high. Vacancies remain at extreme levels

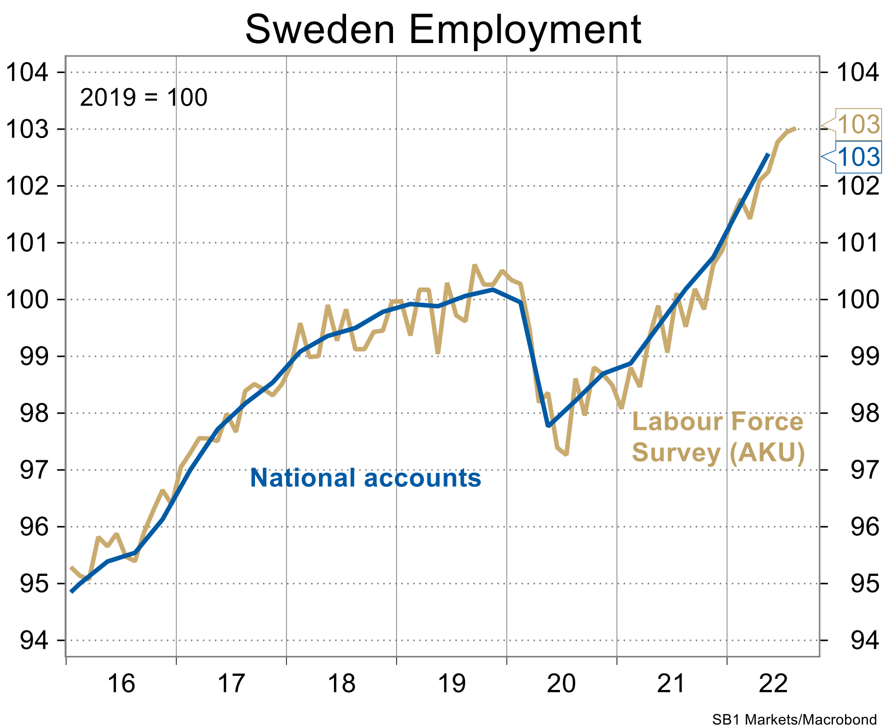


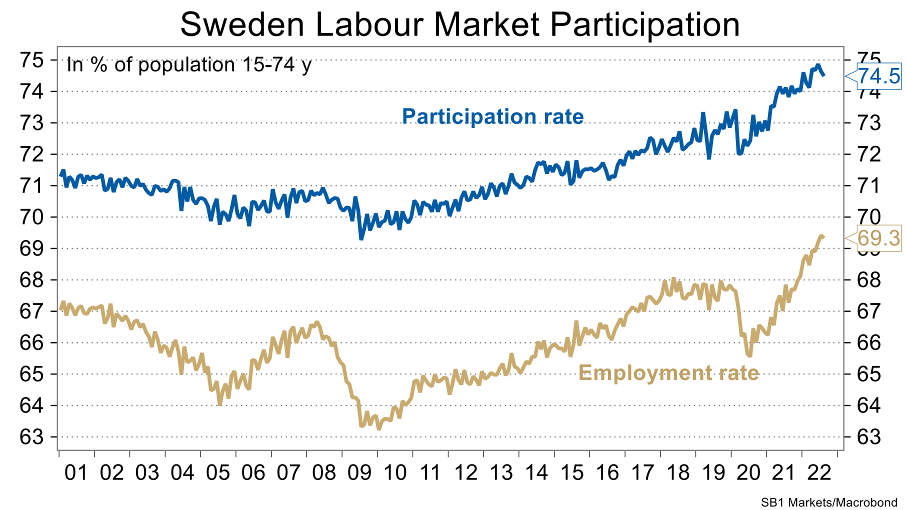


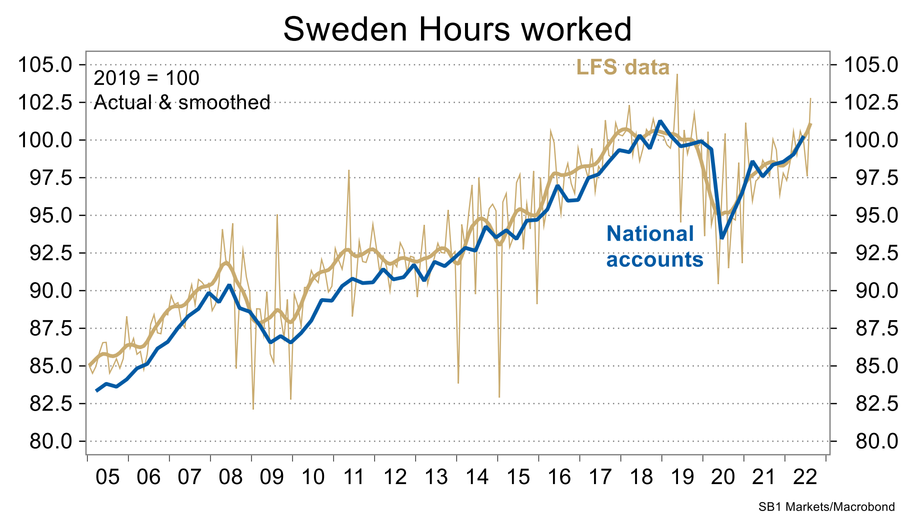
- The **'open' registered unemployment rate** at 3.0% is far below the pre-pandemic level – and very likely soon at the lowest levels since 1990, before the housing/banking crisis
  - » **Unemployment including labour market** measures has fallen to 6.6% - which is finally below the level just before the pandemic hit
- Both the number of new vacancies and the no. of unfilled vacancies fell in Aug, down from ATHs in July and June respectively. The level is still historically very high

Strong employment growth, and hours worked are finally back to pre-Covid level

The participation rate fell somewhat in August







Highlights

The world around us

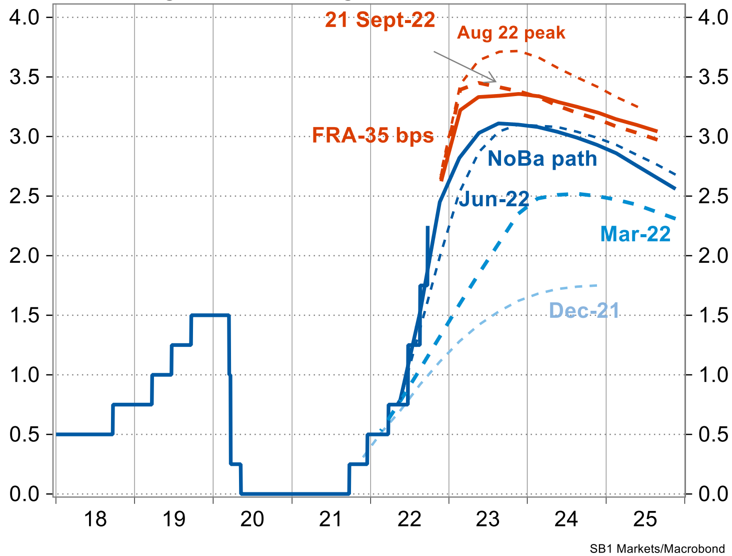
The Norwegian economy

Market charts & comments

Norges Bank raised by 50 bps to 2.25%, as expected but did not lift the rate path

The economy is slowing faster than the Bank assumed in June, expects GDP down 0.3% in '23

Norges Bank signal rate vs market



Interest rate paths

	NoBA Path 2-22	**SB1 NoBA Path 3-22**	**Change**	Fair FRA *) @IMM, NB	FRA** pre-meet	FRA** now	FRA-** NoBa
Q3 22	1.39	**1.53**	0.14	2.66			
Q4 22	1.99	**2.45**	0.46	3.11	3.72	**3.60**	0.48
Q1 23	2.53	**2.82**	0.29	3.35	3.81	**3.71**	0.36
Q2 23	2.87	**3.03**	0.16	3.45	3.77	**3.69**	0.24
Q3 23	3.04	**3.11**	0.07	3.45	3.73	**3.66**	0.20
Q4 23	3.10	**3.10**	0.00	3.43	3.68	**3.61**	0.18
Q1 24	3.09	**3.08**	-0.01	3.40	3.62	**3.55**	0.15
Q2 24	3.08	**3.04**	-0.04	3.35	3.56	**3.50**	0.15
Q3 24	3.04	**2.99**	-0.05	3.29	3.50	**3.44**	0.15
Q4 24	2.99	**2.93**	-0.06	3.22	3.44	**3.38**	0.15
Q1 25	2.93	**2.86**	-0.07	3.13	3.39	**3.33**	0.20
Q2 25	2.85	**2.76**	-0.09	3.03	3.34	**3.28**	0.25
Q3 25	2.77	**2.66**	-0.11	2.58	3.28	**3.22**	
Q4 25	2.68	**2.56**	-0.12				

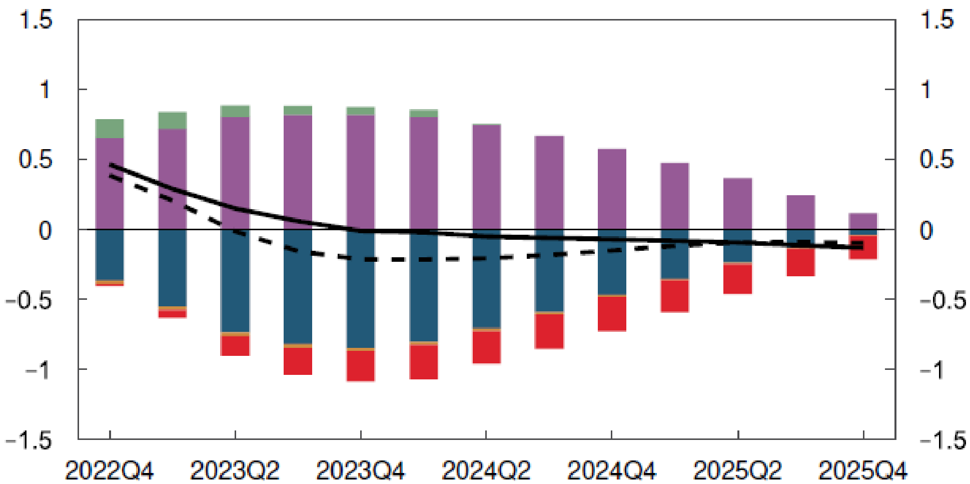
*) *Assuming the NIBOR spread at 35 bps*
**) Q4 FRAs adjusted for liquidity prem

- **The policy rate** was raised by 50 bps to 2.25%, as expected by both us and the market
- **The peak of the rate path** remained unchanged at 3.1%, close to our expectation but below market expectations
  - » 2022: up 25 bps in Nov and another 25 bps i Dec (the market expects 50+50)
  - » 2023: One or two 25 bp hikes, March (and possibly) June
  - » 2024: Policy rate will be cut again, and towards 2.5% in 2025
- **Economic projections**
  - » NoBa lifted its **inflation expectations** significantly, by as much as 1.5 pp to 4.8% for the core in 2023 (more than we assumed), and expects inflation to remain above target for the entire projection period
  - » The bank now expects a contraction in **GDP**, by 0.3% in 2023, mainly due to lower household demand and investments. GDP is in sum revised down by 2.5% ('22-'25). At the same time, the **productivity** level is revised down by 1.7%! Thus, the increase in unemployment is expected to rise just by 0.3 pp more than assumed in June, to 2.3% in 2025.
  - » **Wage inflation** was revised up by 0.1 pp for '23 and '24 to 4.6% and 4.5% resp. Cost inflation will be somewhat too high, due the decline in productivity
  - » **The bank is flexible**, inflation is allowed to stay above target the coming 3 years, while the unemployment rate is just slightly up from the present level
  - » **House prices** are now expected to fall by 2.4% in 2023 (down from -1%), implying a decline by 4% from now until next summer and then rise again as the prospects of a reversal in rates will increase demand. **Oslo Office prices** are expected -15%
- **Market reaction**
  - » The FRAs have come down quite a bit recent weeks and fell further in the short end post NoBa's policy meeting. Still, the FRAs are still too high
  - » The NOK was slightly down immediately after the decision but strengthened later in the day. The policy rate is not important for the NOK anyway…
- **The countercyclical capital buffer was kept unchanged at 2.5%**

Price and wage inflation contributed on the upside

…while weaker domestic demand contributed on the downside

Cumulative contributions. Percentage points



Source: Norges Bank

Domestic demand
Exchange rate
Prices and wages
Petroleum prices and investment
External factors
Change in policy rate path
Cumulative contribution

Upside contributions:

- Oil (and gas) prices and investments (as we assumed)
- Price and wage inflation (more than we assumed)

Downside contributions:

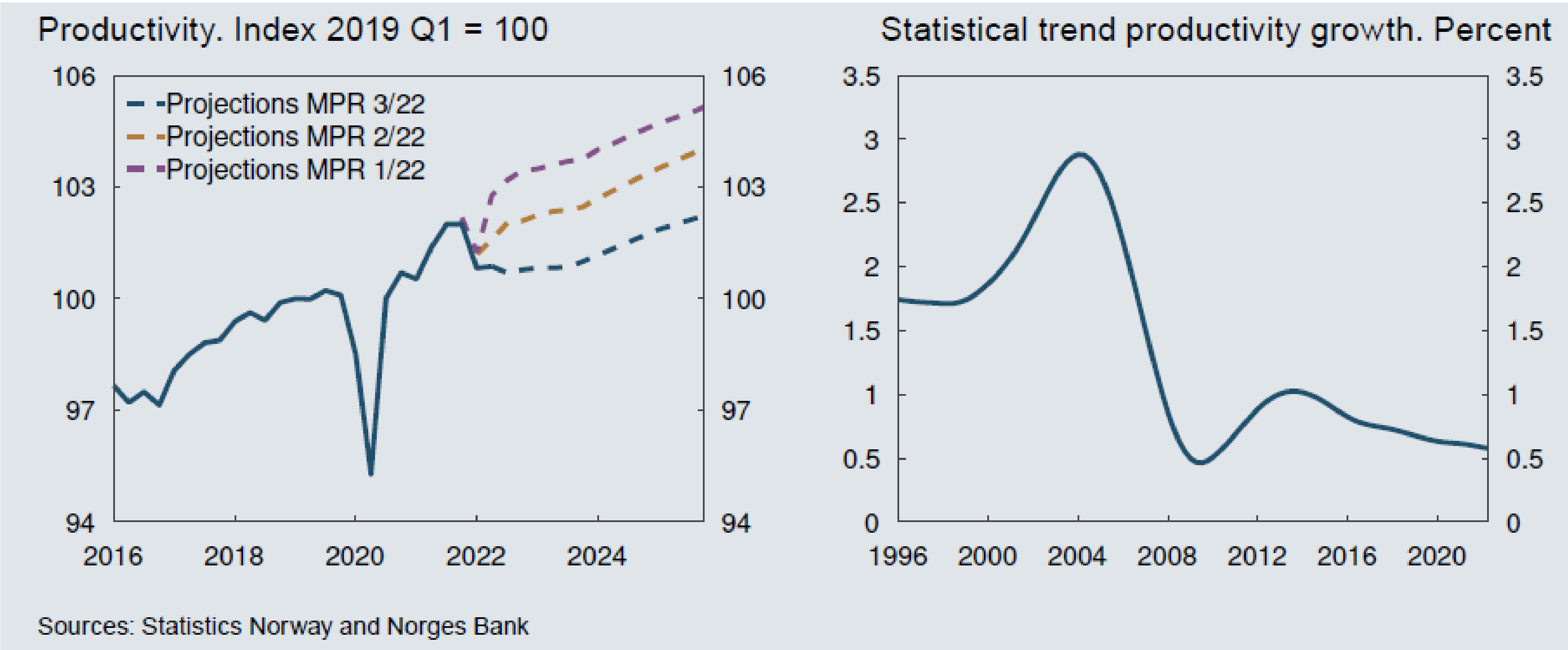
- Weaker domestic demand (as we assumed)
- Weaker growth abroad (as we assumed)
- NOK (just a marginal contribution)

Our pre-meeting forecast was pretty close to the outcome, but we expected the bank to lower the peak of the rate path to 3.0% from 3.1%

SpareBank 1 MARKETS

A new challenge: Low productivity 'forever'

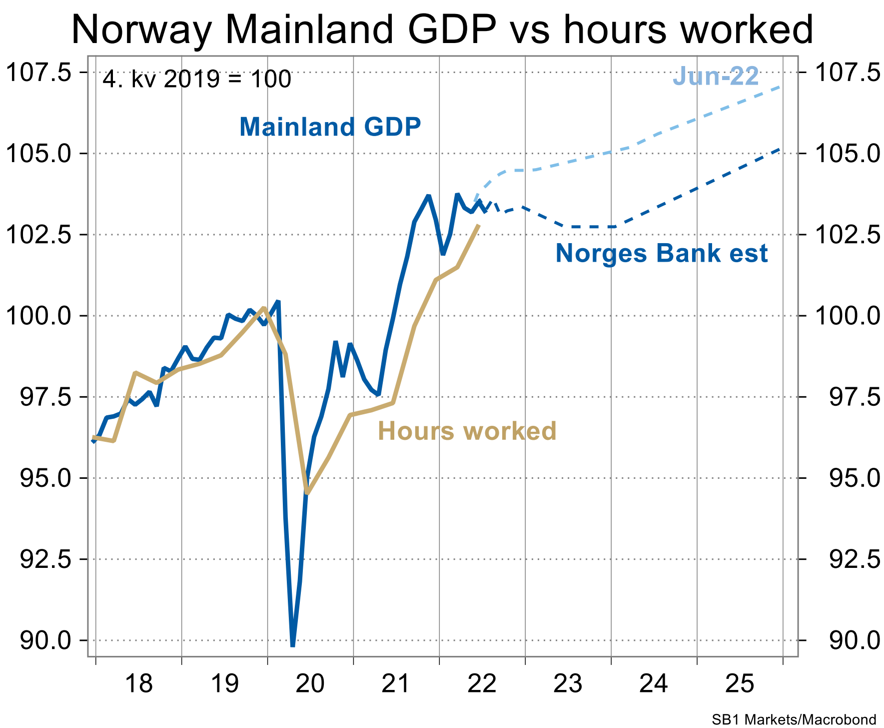
For the 2nd MPR report in a row, the bank lowered the productivity estimate substantially

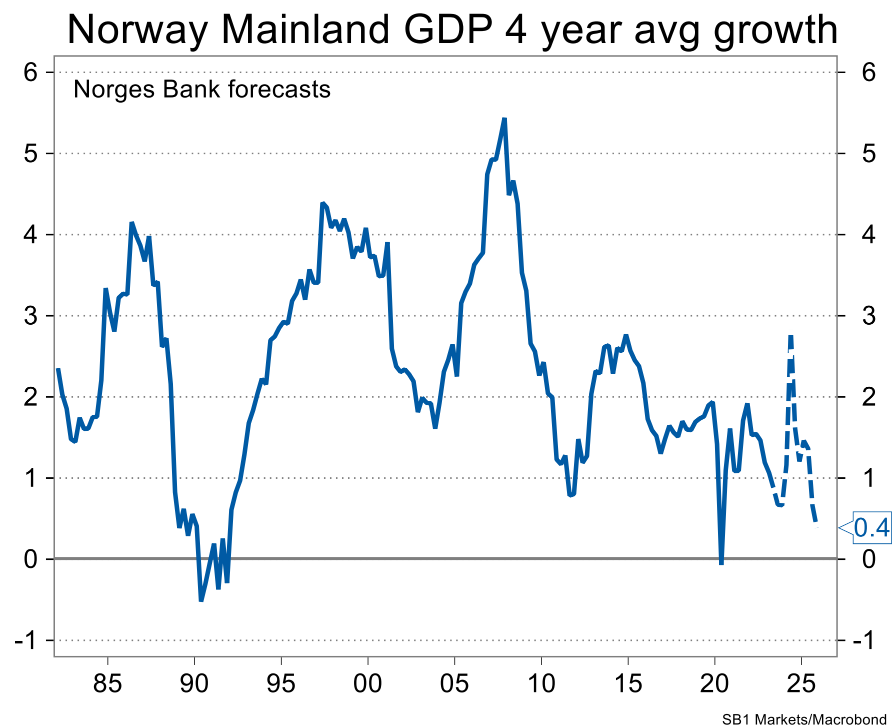


- From March to September, the productivity level late 2025 is revised down by an incredible 2.8% - lowering the growth potential in this period by 0.7 pp per year! (From June, the downward revision was 1.7%)
- At the same time, Unit Labour Cost inflation will increase by the same 0.7 pp per year for a given growth in wages. Thus, wage inflation must be lowered by 0.7 pp in order to yield the same UCL growth as before – which over time is pretty close to domestic CPI inflation. Norges Bank has not lowered its wage inflation estimates – and higher domestic unit labour cost inflation is an import reason for the lift in the inflation forecast
- Where is the risk vs. the productivity path? Probably at the upside – but in the US, the Fed came to the same conclusion

Expected GDP (total) growth till end of 2005: 1,8%

Without any substantial increase in the unemployment rate: The productivity shock to blame!



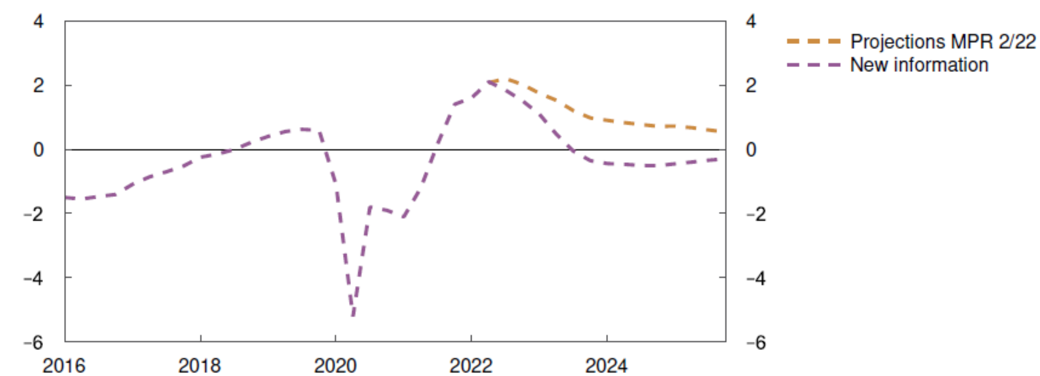


- During the Banking crisis GDP fell even measured over 4 years – and it did briefly during the start of the pandemic
- Now there is (hopefully) no banking crisis, and no new pandemic – still very anaemic growth the coming years
- An argument for hiking rates more now to curb inflation that is also driven up by higher Unit Labour Costs, but then keep the interest rates lower over time, as the growth potential is lowered

Capacity utilisation peaks now, will stay above par until Q3-23, the fall below

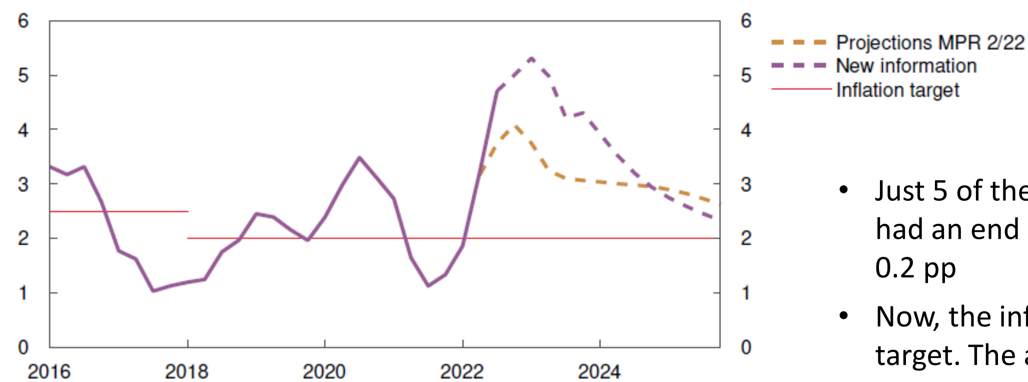
… inflation is assumed to stay FAR above target the whole forecast period (through '25)

Estimated output gap. Conditioned on new information concerning economic developments and the policy rate projection in MPR 2/22. Percent



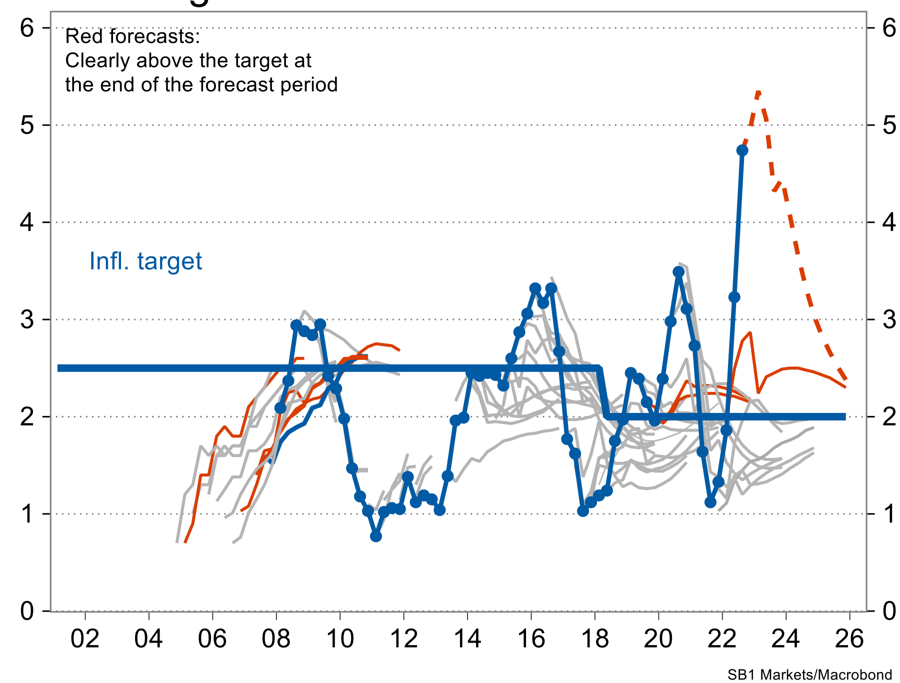
Source: Norges Bank

CPI-ATE. Projections conditioned on new information concerning economic developments and the policy rate projection in MPR 2/22. Four-quarter change. Percent



Sources: Statistics Norway and Norges Bank

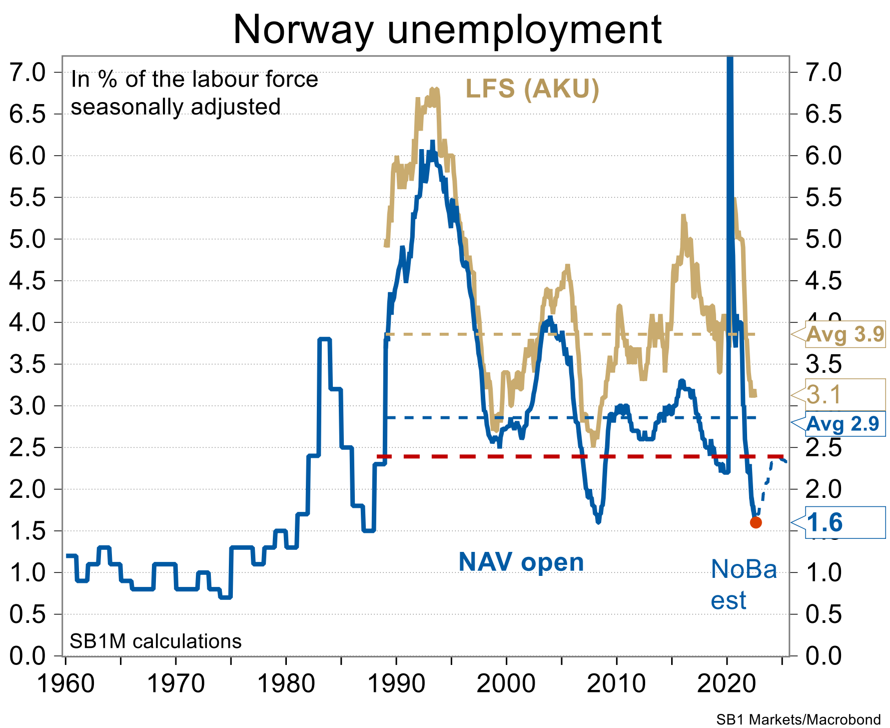
Norges Bank core inflation forecasts



- Just 5 of the more than 60 inflation forecasts NoBa has published since 2005 has had an end point above the inflation target at the time, and then by just 0.1 pp or 0.2 pp
- Now, the inflation forecast at the end of the forecast period is 0.4 pp above the target. The average miss is 1.8 pp (in sum 7.4 pp) – a substantial deviation
- Thus, the Bank will orchestrate a mild economic downturn in order to bring inflation down but accepts an unprecedented deviation from target the coming years
- **We think the risk is on the downside both for the output gap and inflation**

Yes, Norges Bank assumes higher unemployment but still a very low level

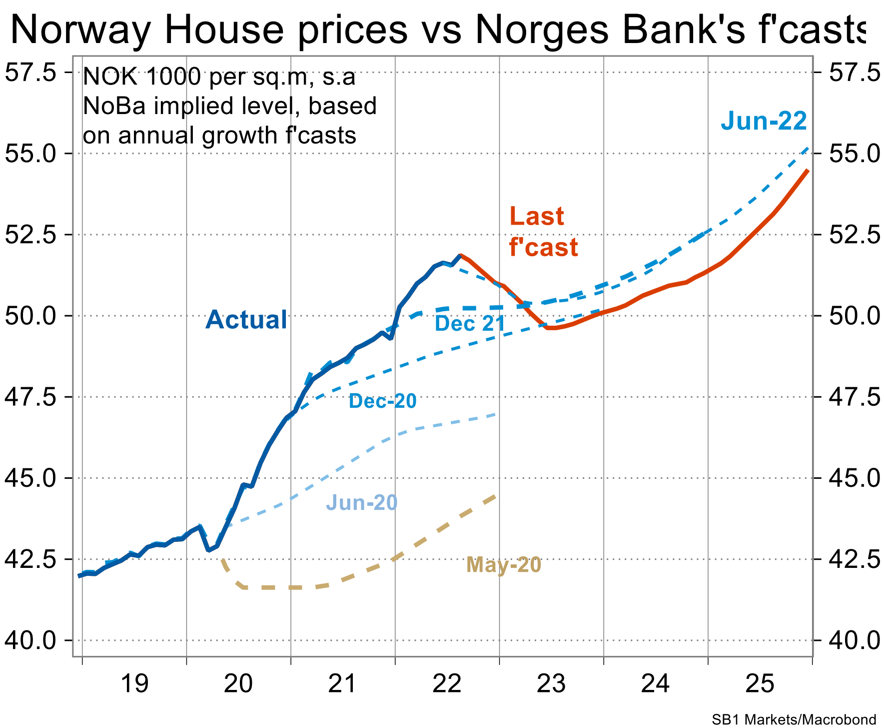
NoBa expect an increase in the unemployment rate peak at 2.4% in H2-2024, up from 1.6% now

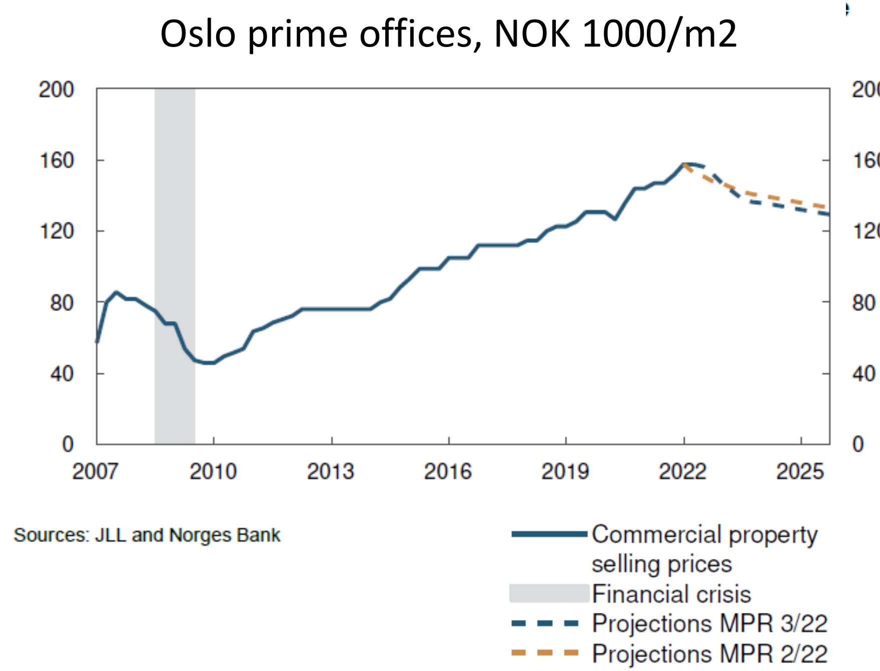


- The average **NAV unemployment** rate has been 2.9% since 1990, and below 2.4% (the red line at the chart) just in 14% of the months since 1990 (in 2007/8, 2019 and in 2022)
- Thus, it can not be fair to blame the bank for pushing the unemployment aggressively up in order to bring inflation down, especially given the huge gap vs. the inflation target
- Another question is if **Norges Bank's forecasts** will turn out to be correct. Unemployment may increase by more, and inflation may come faster down. If that's the case, we are pretty sure what the bank's response would be ☺

Norges Bank expects 4% lower house prices, and some 15% lower office prices

Higher interest rates, and higher yields

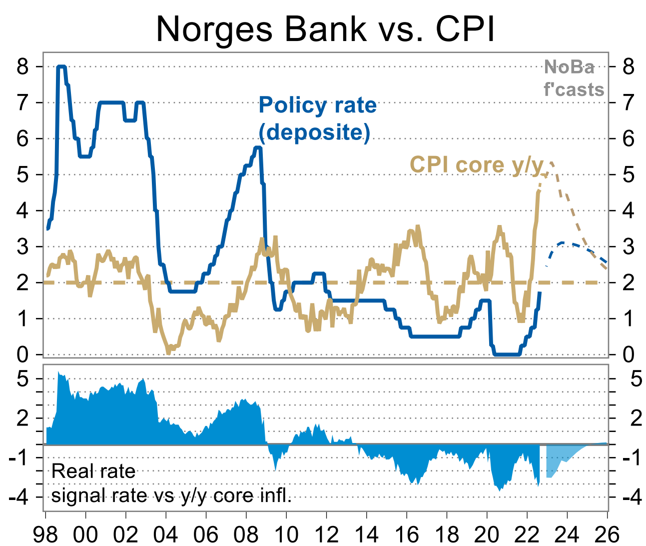


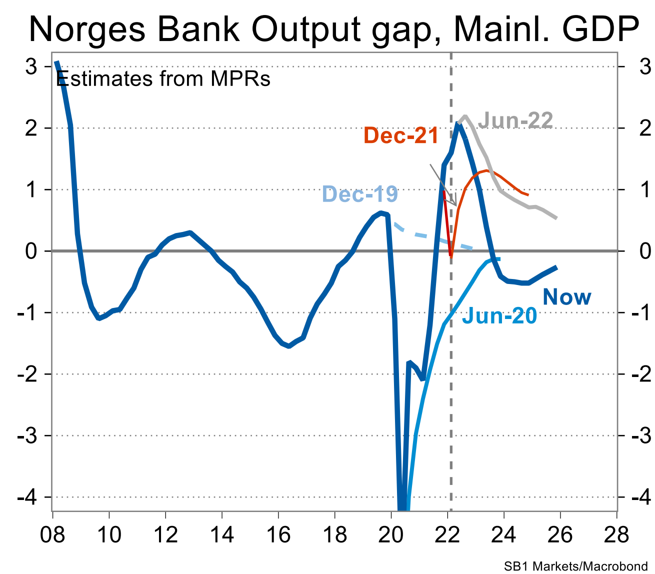


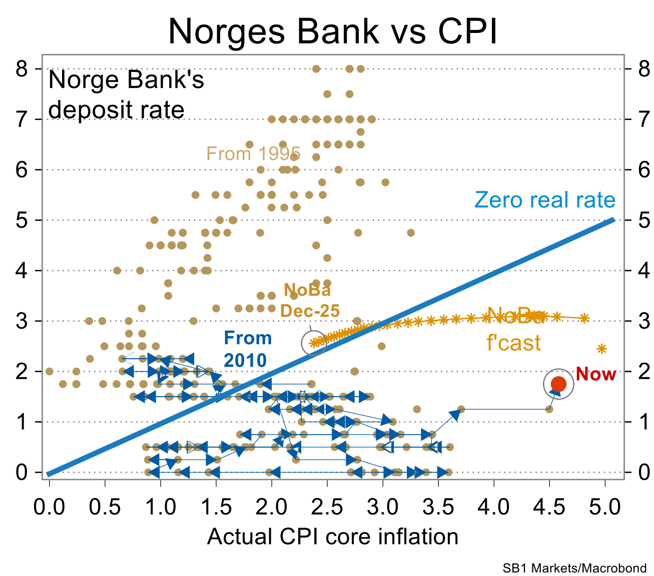
- NoBa revised its house price forecast 2% down (a through next summer, down 4%+ from the present level)
  - » Thereafter prices will turn up, and climb rapidly in 2025 when interest rates are cut, down to 2.5%
- NoBa forecast a 15% decline in prime office selling prices in Oslo over the coming 3 years. We think it will happen much faster – and that prices will decline more than by 15%

Inflation far above target, the output gap sharply revised down, to below zero

Lower growth abroad and in domestic demand will lower production more than capacity





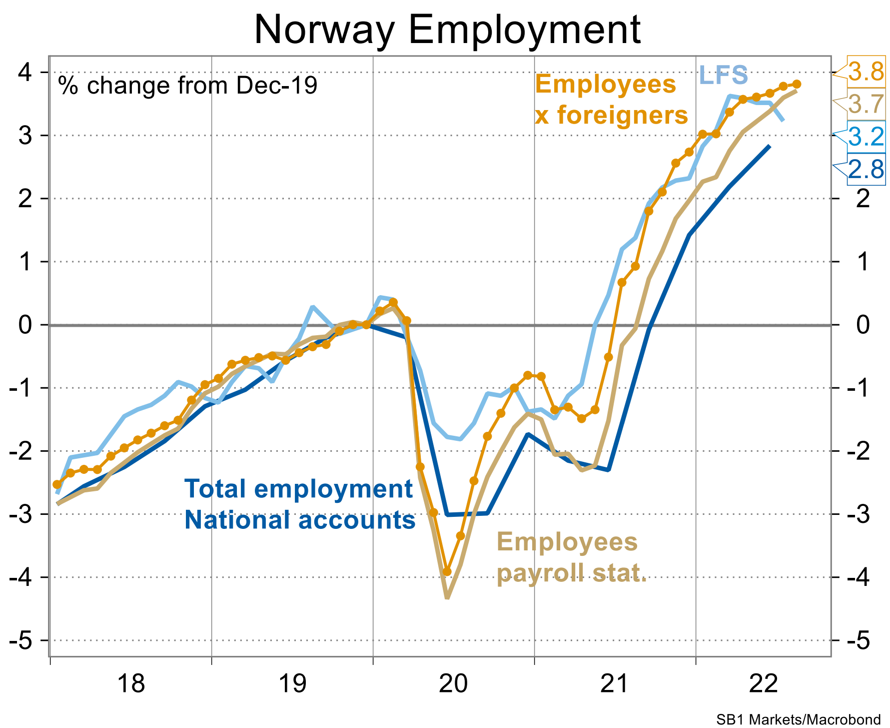


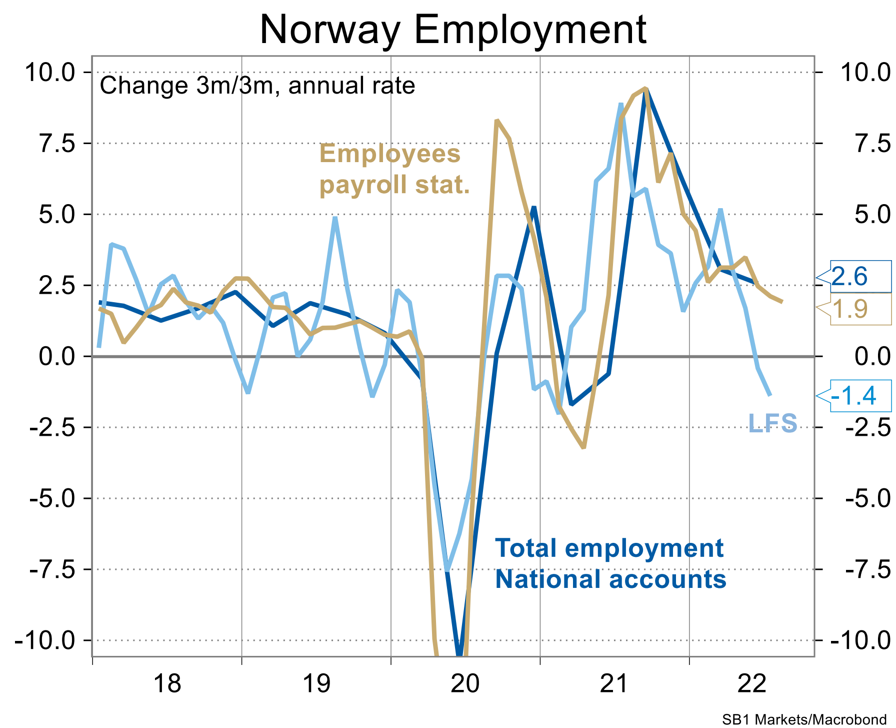
- The observed real interest rate will remain negative until 2025, Norges Bank assumes
- We think we will see a positive sign before that
- Anyway, longer term real interest rates are expected to stay at some +1%, according to our analysis of the swap curve, check here

SpareBank 1 MARKETS

Employment growth is calming down, and LFS employment has flattened

The no. of employees rose by 0.1% in August. LFS unemployment fell 0.3% in July



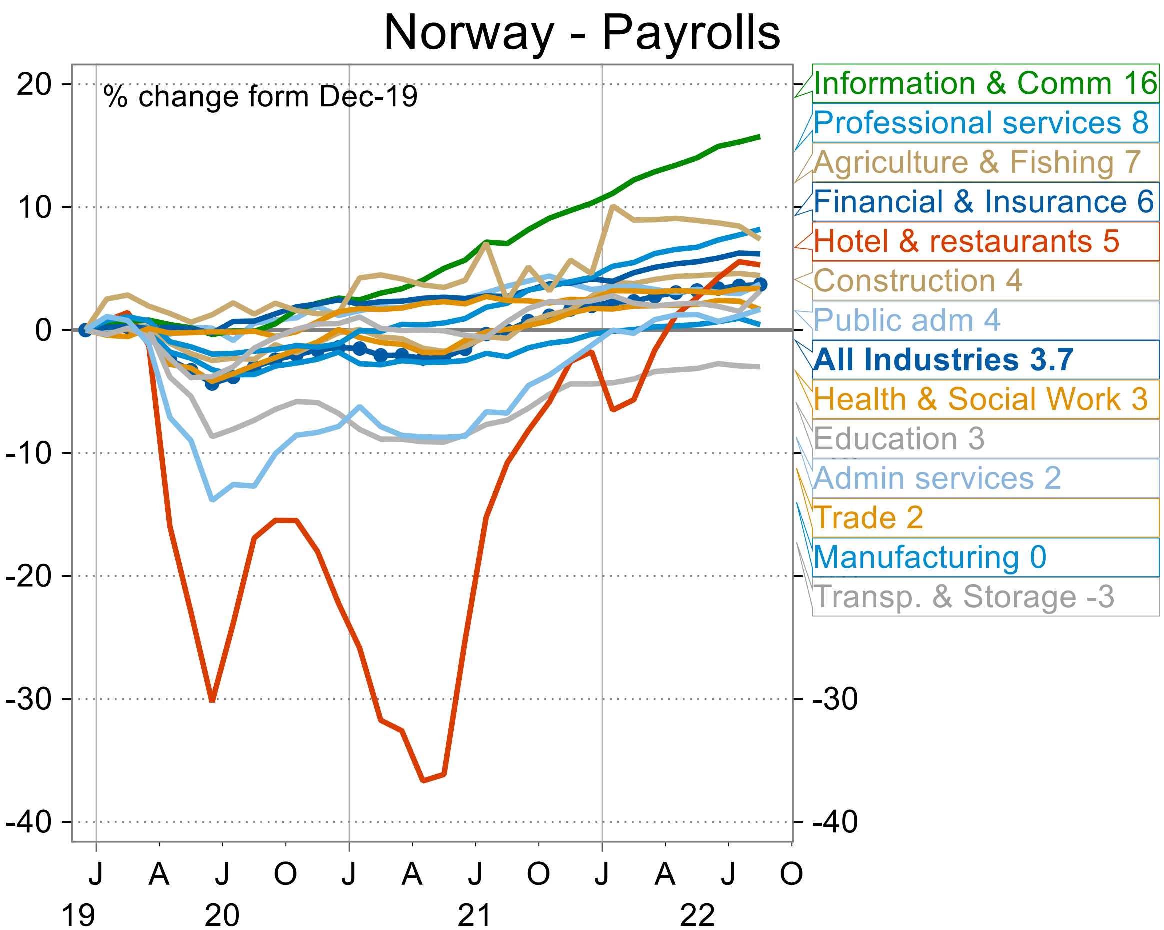


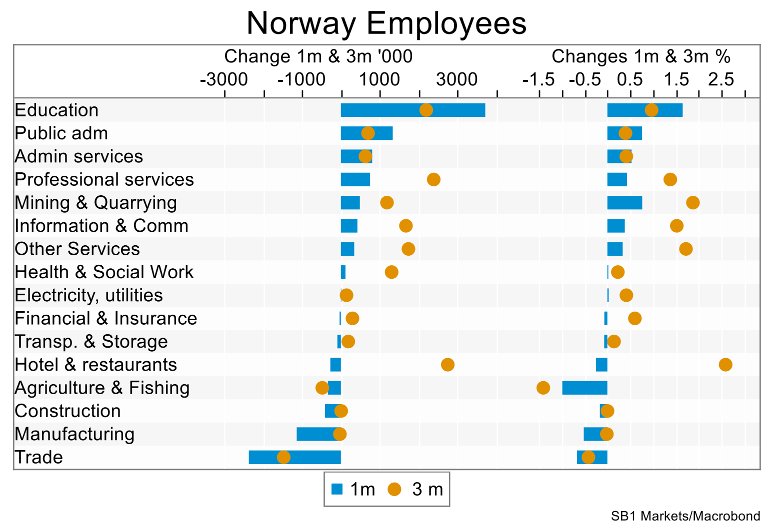
- **The LFS** ('AKU' survey) employment data (both employees and self-employed, with permanent residency in Norway) fell by 0.3% in July (avg May – July vs the previous 3 months), and is down 0.4% vs the ATH in March
  - » LFS employment is up 3.2% from before the pandemic
- The **register based employee stats ('A-ordningen)**, report 0.1% growth in the no. of employees in August, somewhat slower than over the previous months, after an upward revision. The level is up 3.7% since Q4-19. Excluding foreigners on short term stay, the no. of employees is up 3.9% (our est.)
  - » The growth in total no. of employees is higher than for Norwegian residents (Norwegian or foreign boards) as foreign workers on temporary stay are returning
- **National accounts** reported a 2.8% lift in employment to Q2-22 from Q4-19 (and a 0.6% increase q/q in Q2)

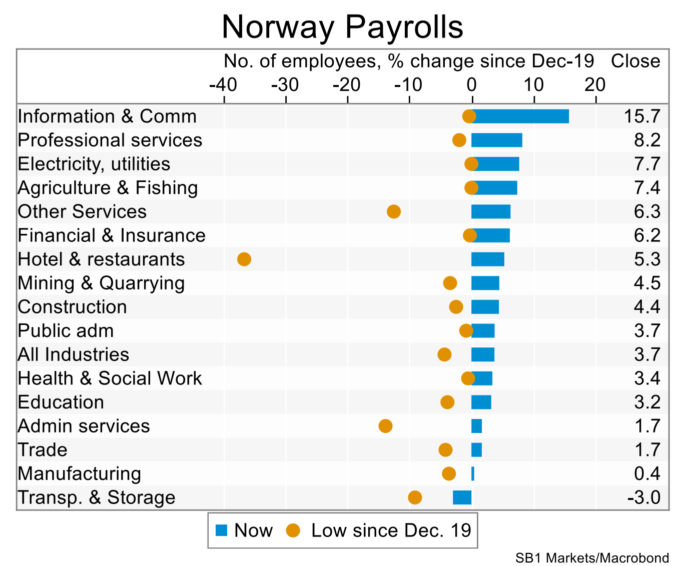
SpareBank 1 MARKETS

Now trade cuts the no. of employees, probably as sales are declining

Most other sectors report growth, hotels & restaurants the fastest

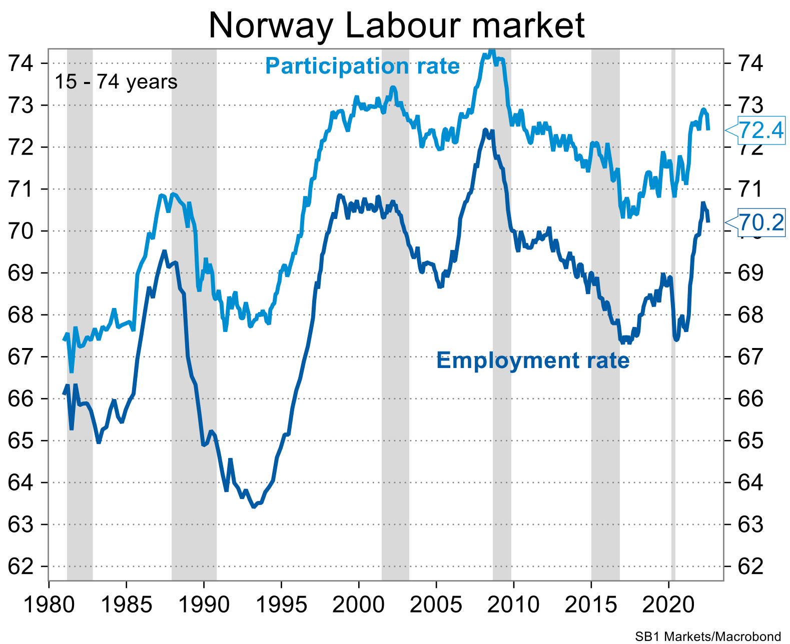


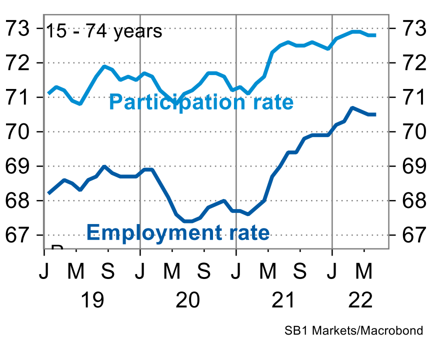


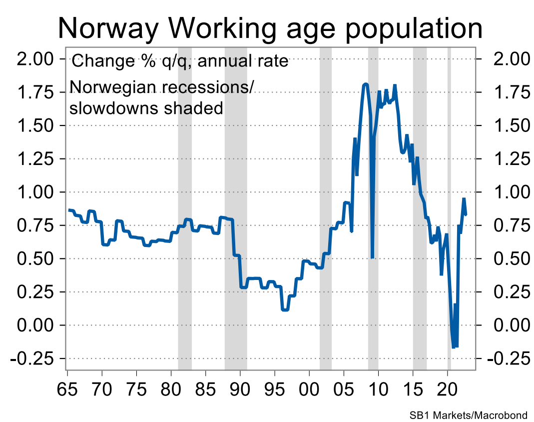


Both participation & employment rates have flattened

... and thus, unemployment too



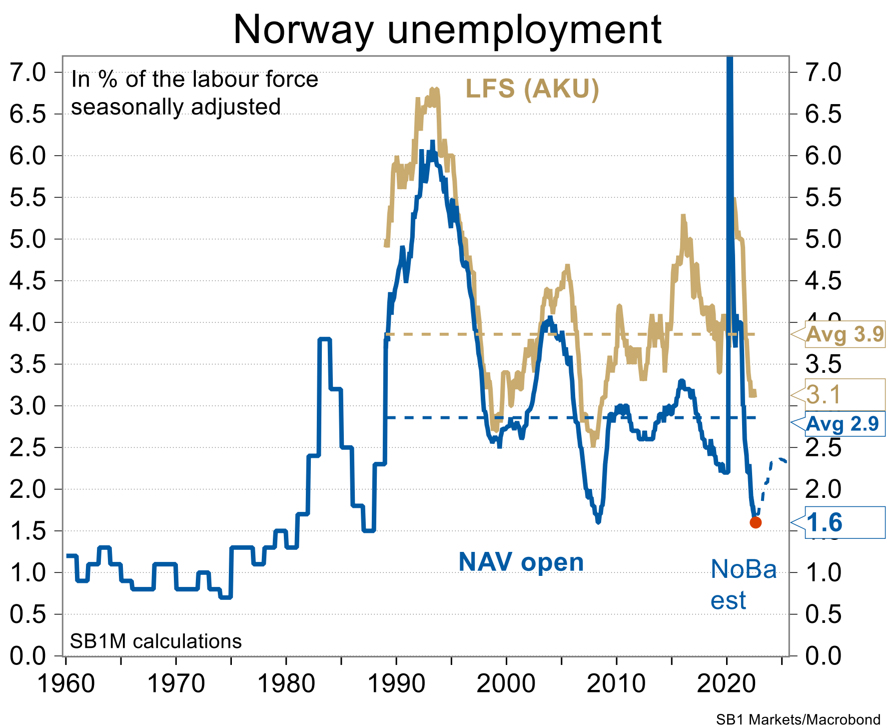


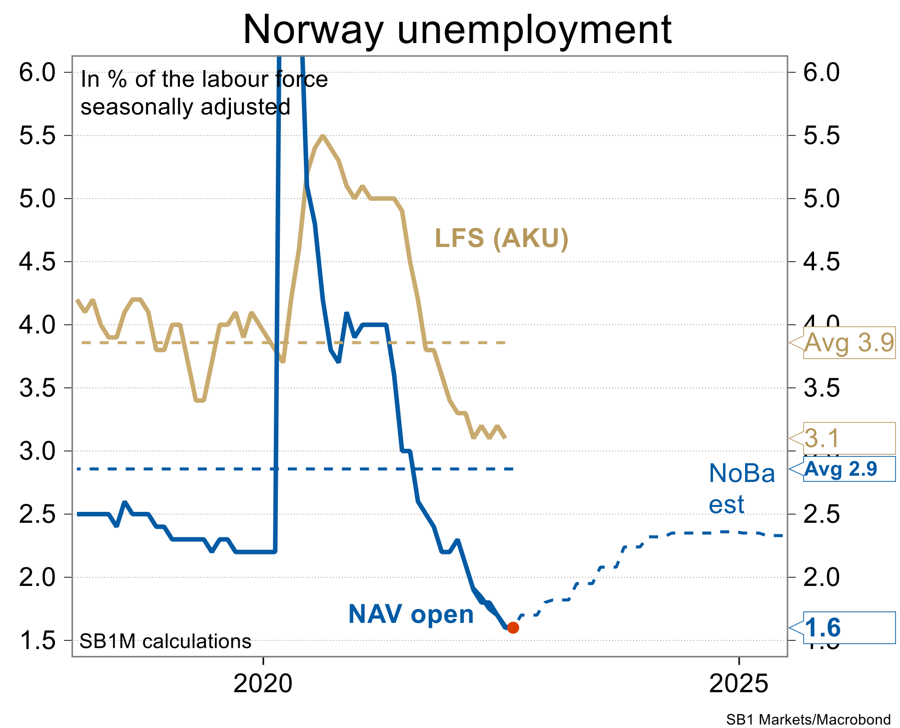


- **The employment rate** was fell 0.3 pp to 70.2% in July
  - » Ahead of the pandemic the rate was almost 69%, and it is up from the 67.4% through in early 2021 (and from the same level in 2017, after the 'oil crisis'). The employment rate is measured in % of the working age 15 - 74 y population
  - » The employment rate is the highest since 2009
- **The participation rate** fell 0.4 pp to 72.4% in July
  - » Until the substantial lift in January, participation had been flat since last summer. Are there still reserves out there? If so, why are they not turning up now, given the very high vacancy level, 'everywhere'?
- **Working age population** is up 0.8% over the last year, in fact a higher growth rate than just before the pandemic
  - » Labour immigration has accelerated, possible as a ketchup effect after low immigration during the pandemic. Given the tight labour markets in the rest of Europe, we doubt labour immigration will solve the labour deficit in Norway. However, Ukrainian refugees immigrated in Q2, and has contributed to the increase in total working age population

LFS unemployment down 0.1 pp to 3.1%, a low but far from record low level

… but well below an average level

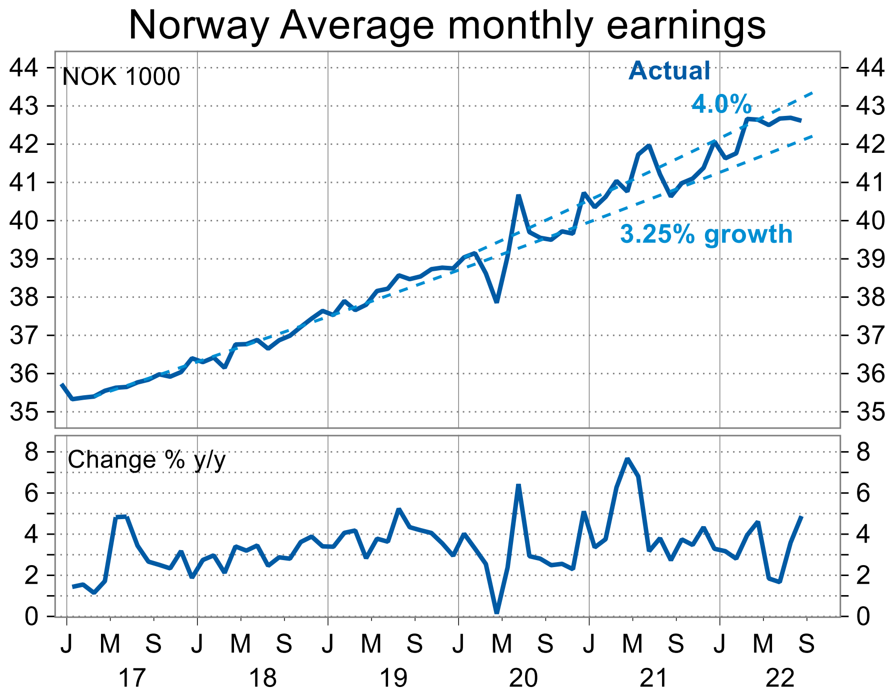


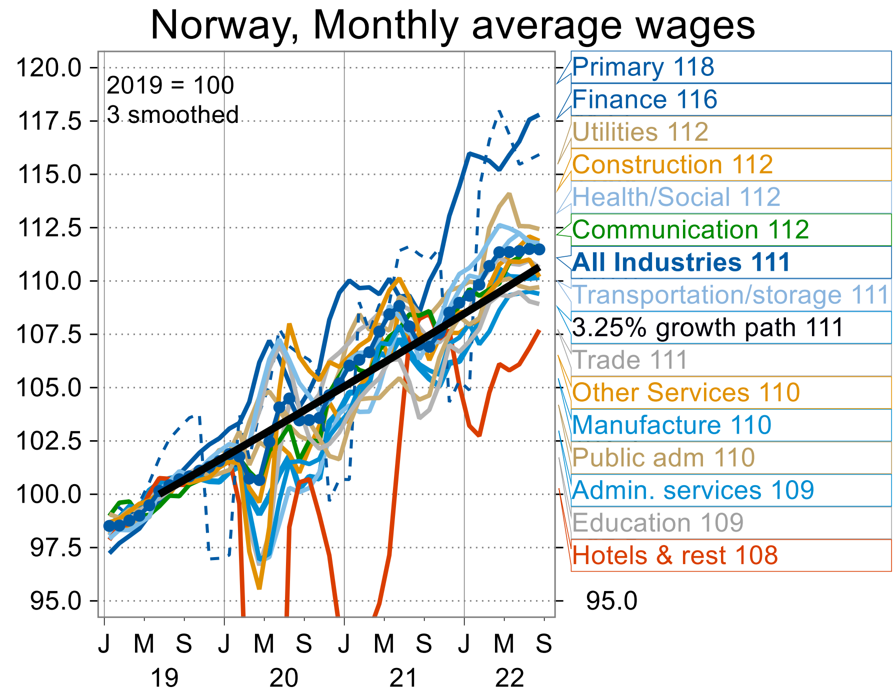


- **The LFS (AKU) unemployment rate** fell 0.1 pp to 3.1 in June, we expected unch
- **The 'full time' open NAV unemployment**, which includes furloughed workers, was at 1.6% of the labour force in August
- Norges Bank revised its NAV unemployment forecasts up

Wage inflation is not accelerating – and lower than we expected

Average monthly payments were revised down – and fell slight in August





- **Monthly average cash earnings** are rather volatile, also depending on hours worked, bonuses – and data are often substantially revised
  - » Last year the monthly stats reported a 4.4% growth rate – while the average wage inflation was 3.5%, according to SSB
  - » Changes in the mix of employees between and even within sectors will have an impact on these data
- However, earnings growth measured this way has not accelerated much from the 3.25% pre-pandemic growth path
- The quarterly labour cost index as well as National accounts also do not find many signs of higher wage inflation

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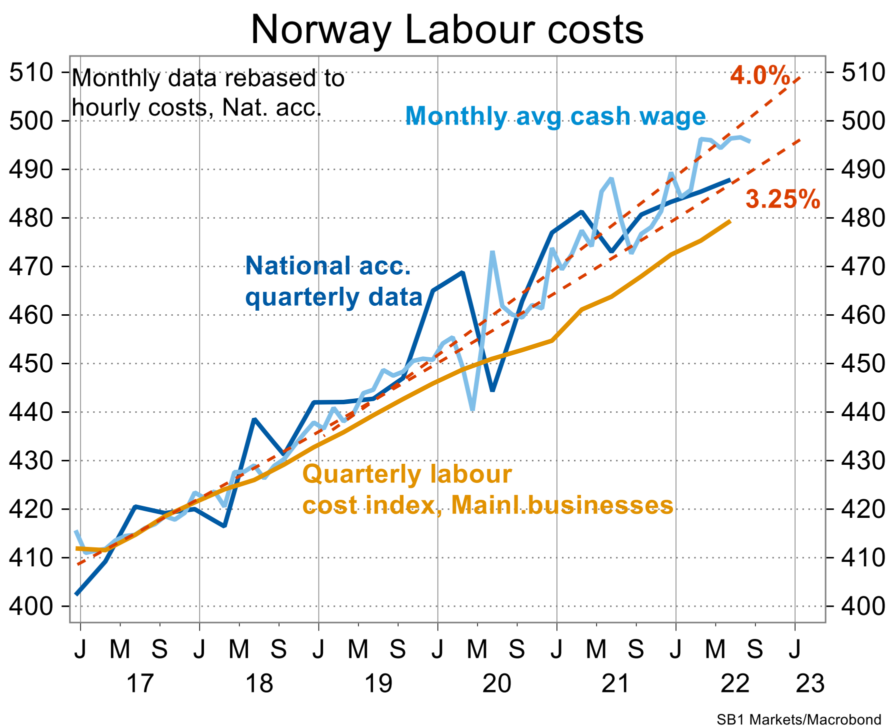
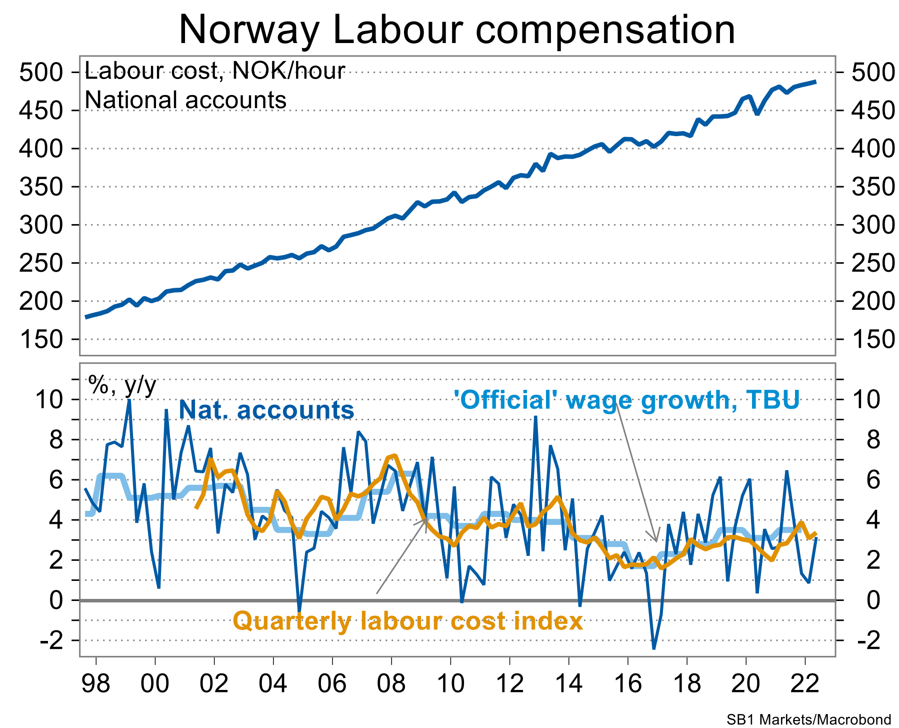
Wage data are volatile and not not always consistent

Taken together: No signs of any acceleration in wage inflation, at least not by much. However…



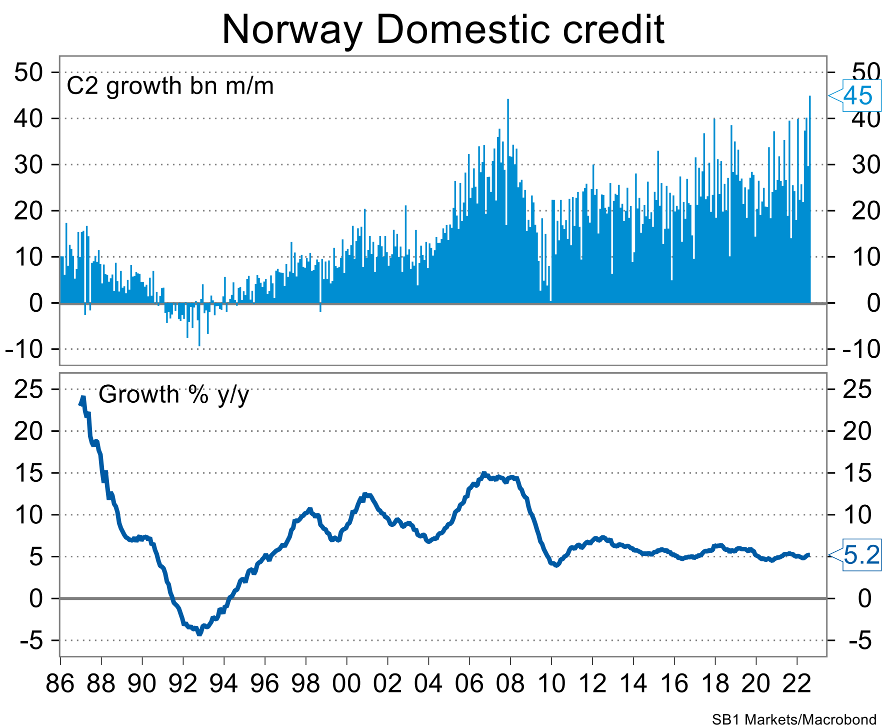


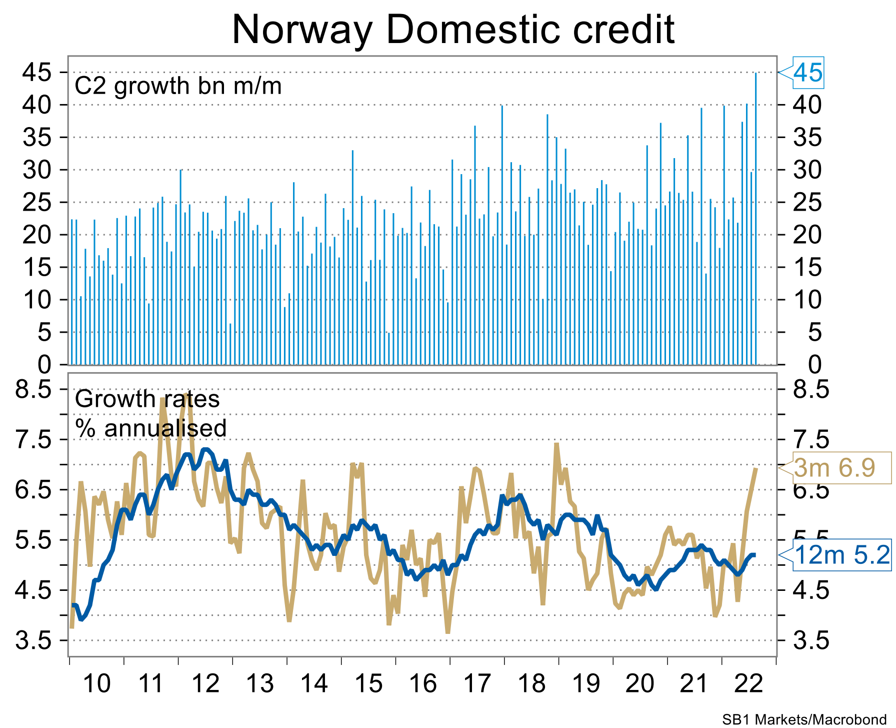
- As productivity growth has slowed substantially (and fell in H1) Unit Labour Costs are growth at a somewhat faster pace than before – and even a moderate wage growth, will lead to more than 2% inflation over time

SpareBank 1 MARKETS

Strong demand for credit from corporate sector, record high m/m in August

Growth in household debt is gradually slowing, and is now slightly under the NoBa estimate from June



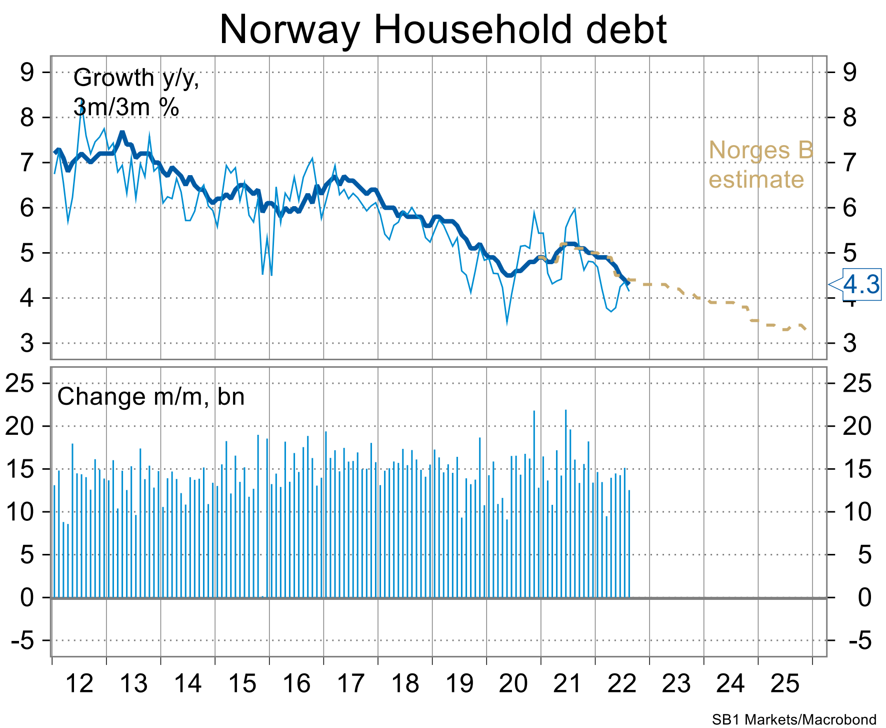


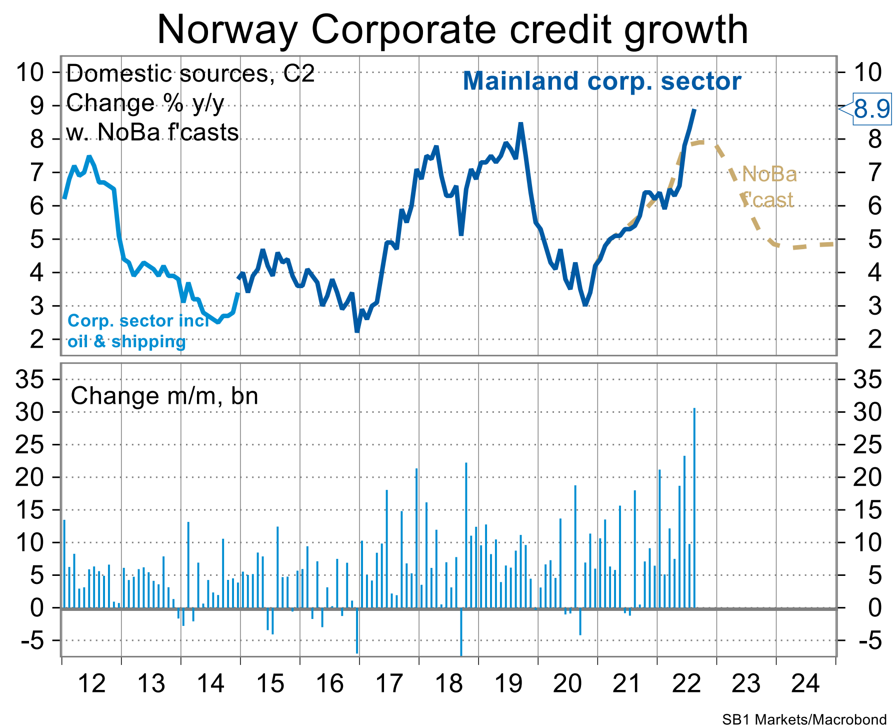
- **Total domestic debt** (C2) rose by NOK 45 bn in Aug, up from 29 bn in July, we expected 23 bn. The annual growth rate was unch. at 5.2%, we expected it to decline to 4.9%! The 3m/3m growth rate is at 6.9%. What happened?
- **Household credit** rose by NOK 12.5 bn in Aug, 2.5 bn less than we expected (and down 2.5 bn form July). The annual rate retreated 0.1 pp to 4.3%, we expected it to remain unch. We expect a further slowdown as higher interest rates are curbing demand for debt
- **Corporate C2 credit**, rose by NOK 30.6 bn, a staggering 26 bn more than we expected. The annual growth rate shot up to 8.9% from 8.3%. SSB reports that several businesses in different sectors contributed. We guess some debt has been moved into NOK from abroad
- **Local governments** added NOK 1.8 bn in Aug, 1.2 bn less than we expected. The annual growth rate fell 0.5 pp to 3.7%. Last summer the rate was 8%! Finally, local gov's are not increasing their debt/income ratio

SpareBank 1 MARKETS

Demand for household credit is falling in line with rising interest rates

…while growth in credit to the corporate sector is higher than since before the Financial Crisis



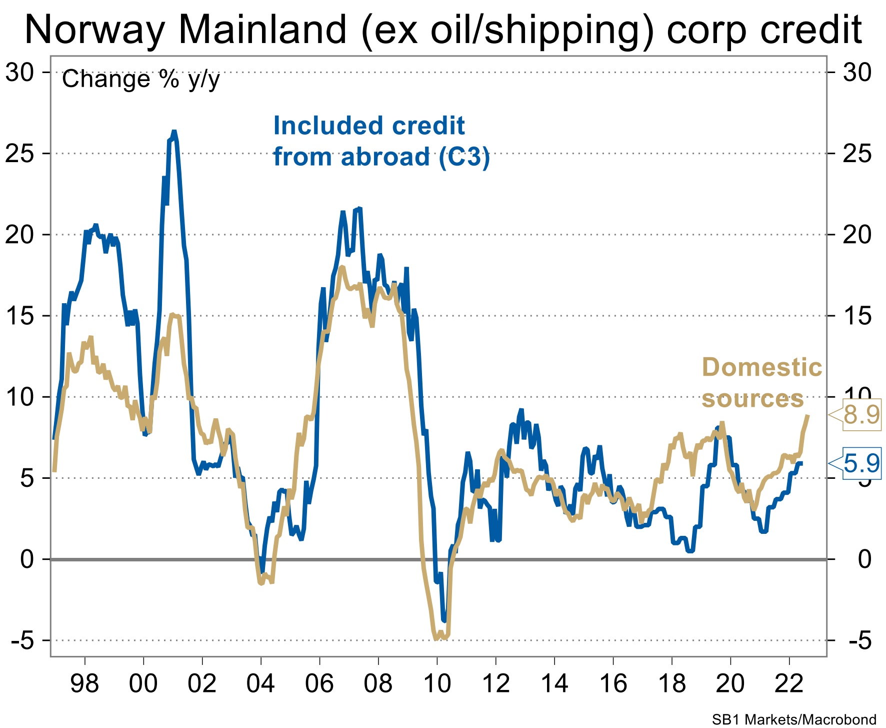


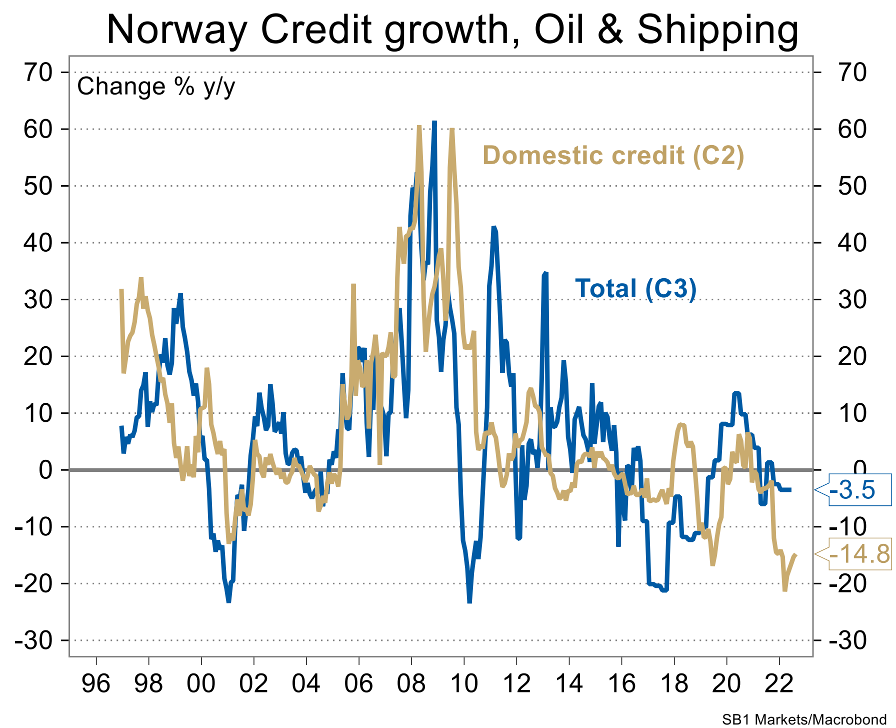
- **Household credit** growth slowed in Aug, and the y/y rate is now at 4.3%, and NoBa expects it to fall to 4% by the end of 2023 as a result of higher rates and falling house prices
- Monthly growth in **corporate domestic credit** is volatile. May and June were surprisingly strong, while the growth in July was close to long-term average, and August was record strong. The annual growth rate has accelerated substantially, and mainland businesses' debt is up 8.9% y/y up from 8.3% in July, way above NoBa's f'cast. The y/y rate is of course a reflection of the very low demand for credit one year ago, but the increase of close to 31 bn from July to August is nevertheless the highest on record (at least in NOK bn, data back to 1988)

SpareBank 1 MARKETS

Mainland corporates increased their total debt (including foreign credit) by 5.3%

… in Q2. Debt from domestic sources (in C2) was up 8.9% in August. Some transfer of foreign loans?

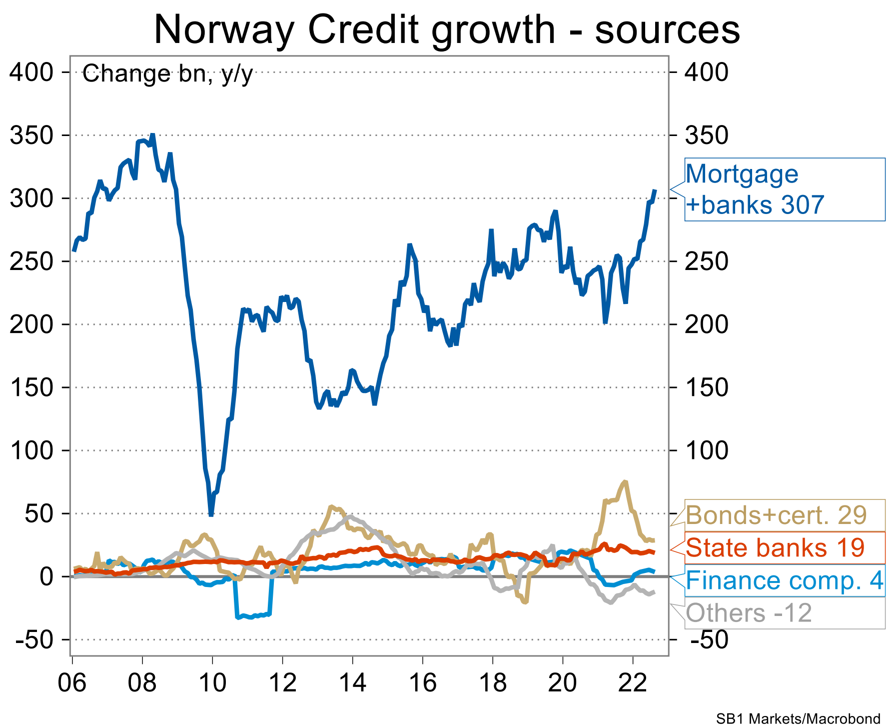


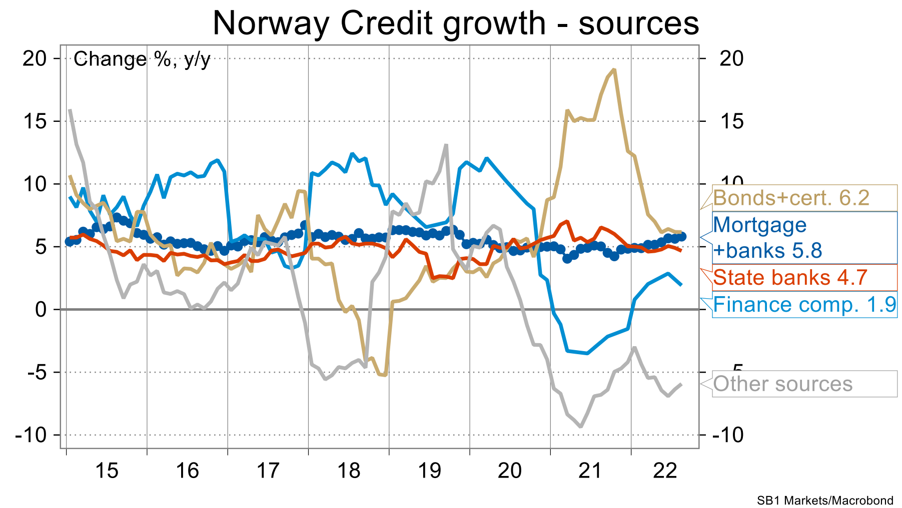


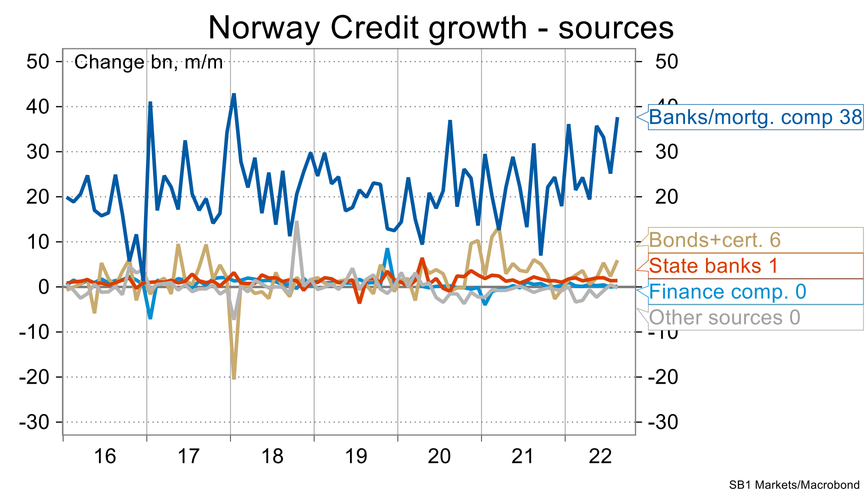
- **Oil and shipping** companies have been moving the opposite way, borrowing more abroad, paying down debt in Norway. The sum is down 3.5% (Q2), even if domestic debt is down 15% (via transactions)!

Banks are increasing their large market share further

Bond market borrowing has slowed substantially recently



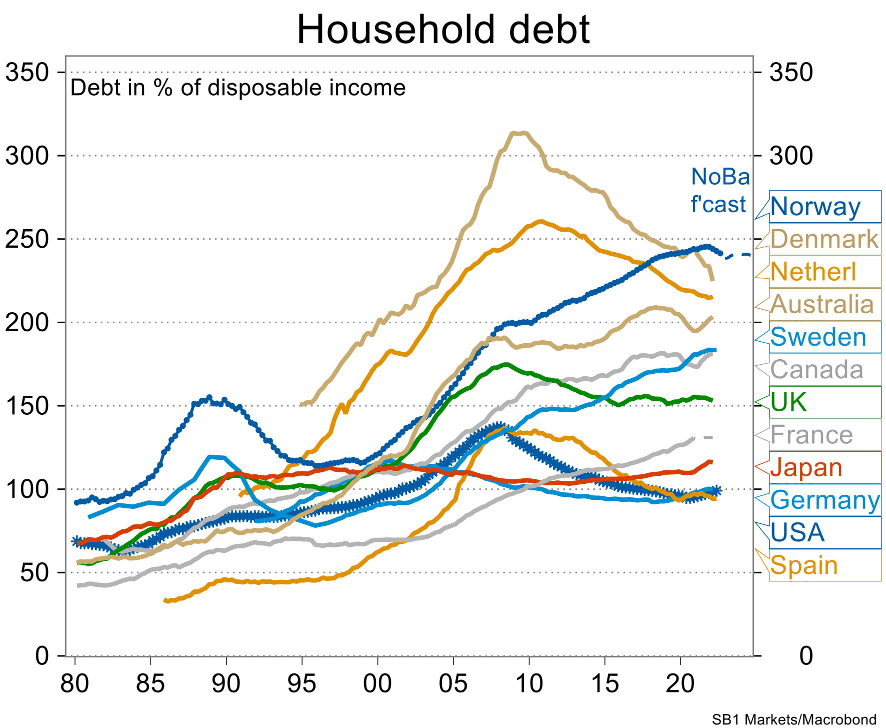


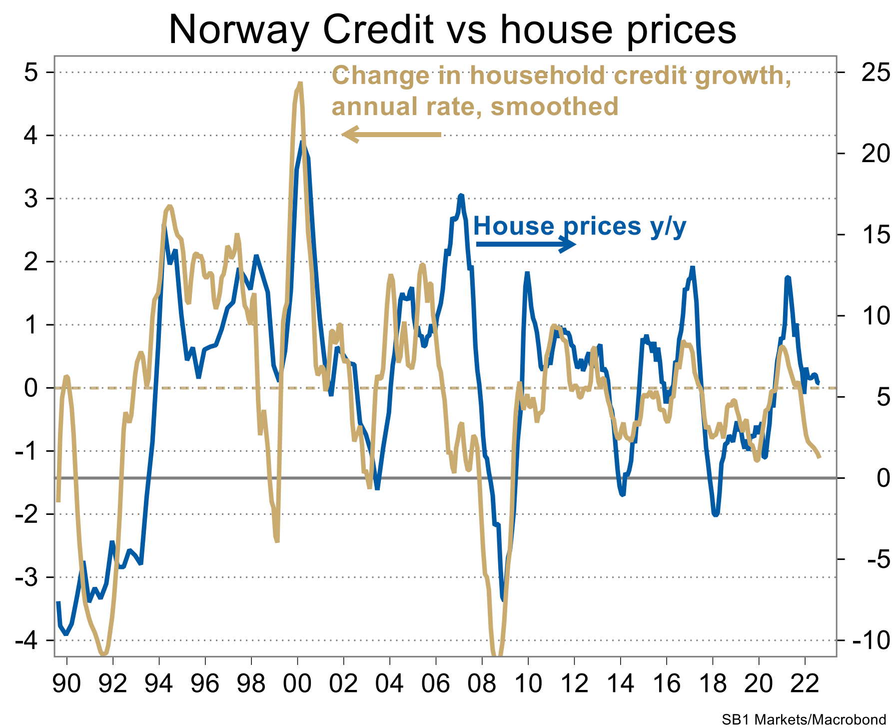


- Banks/mortgage companies are up NOK 307 bn (5.8%) y/y
- Net issuance of bonds (to non-financial sector) is up NOK 29 bn (6.2%) y/y – higher growth rates than normal but well down from the peak (75 bn, 19%)
- Finance companies are up a mere 1.9% y/y, while all 'others' have reduced their lending
  - » Both insurance/pension funds as well as Statens Lånekasse, Eksportkreditt are included in our residual 'others', but just the sum of SL & Eksportkreditt is down

The seasonally adjusted 'sum of the parts' credit supply do not exactly equal changes in the total C2 seasonally adjusted. Consumer banks are included in 'banks and mortgage companies'

Household debt/income: We are no. 1! But the debt/income ratio turns down

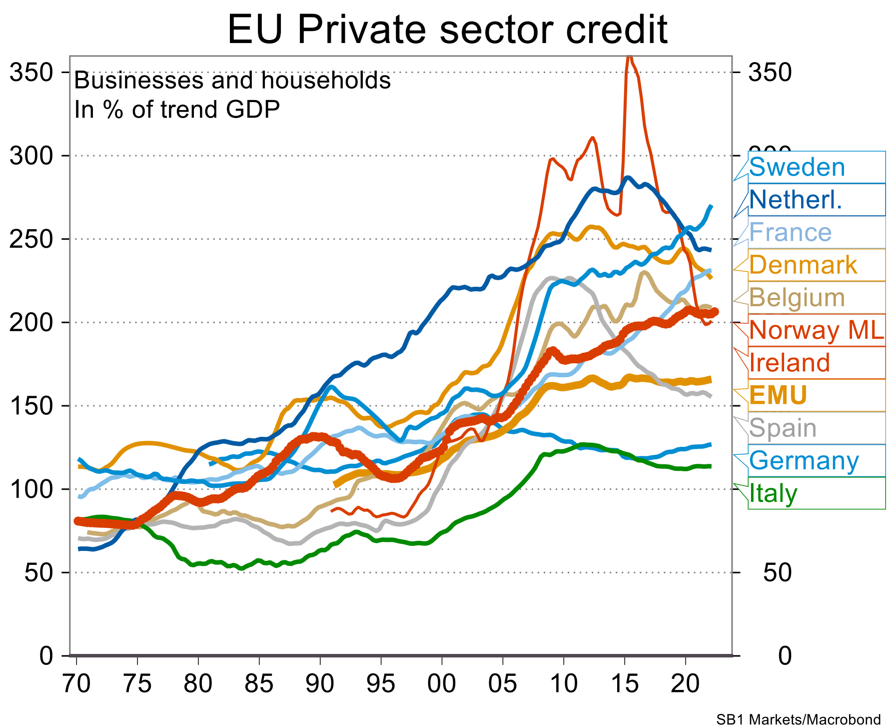


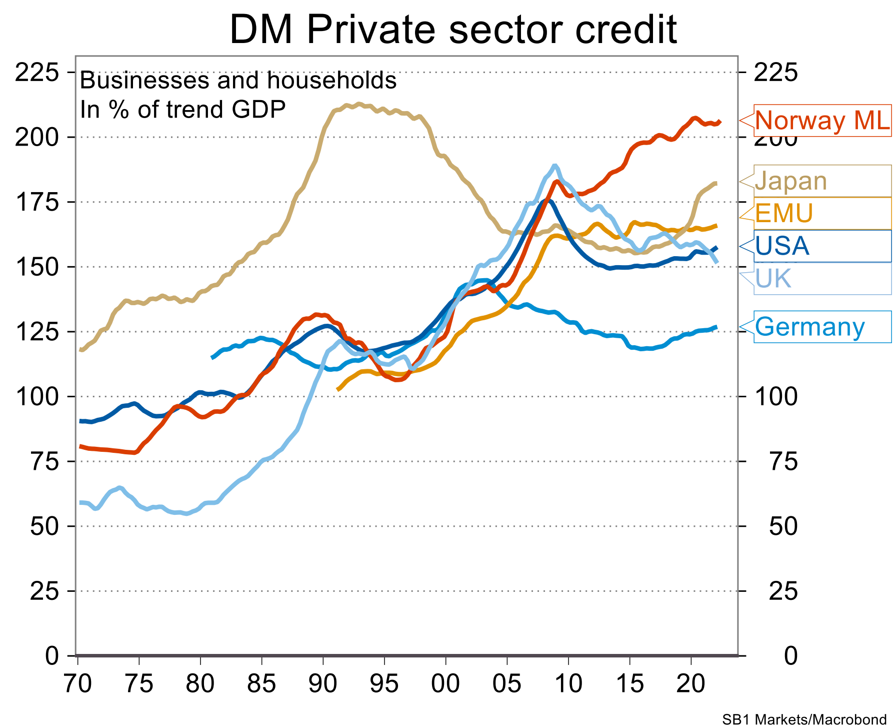


- **Norwegians households' debt has** steady been growing faster than income but not more since last year
- **Changes** in credit **growth** (the 2nd derivative) is usually correlated to economic growth, and asset markets – including growth (1st derivative) in house prices
  - » A slow retreat in the debt ratio will probably be healthy in the long run, and if it is gradual, it will not be too painful - even not for the housing market
  - » If credit growth slows less than 1 pp per year, that is – say from a 5% growth rate to 4% next year, and then down to 3% etc, house prices should just flatten

The private sector has mostly been deleveraging since the Financial crisis

... and credit growth has been moderate during the pandemic, at least most places





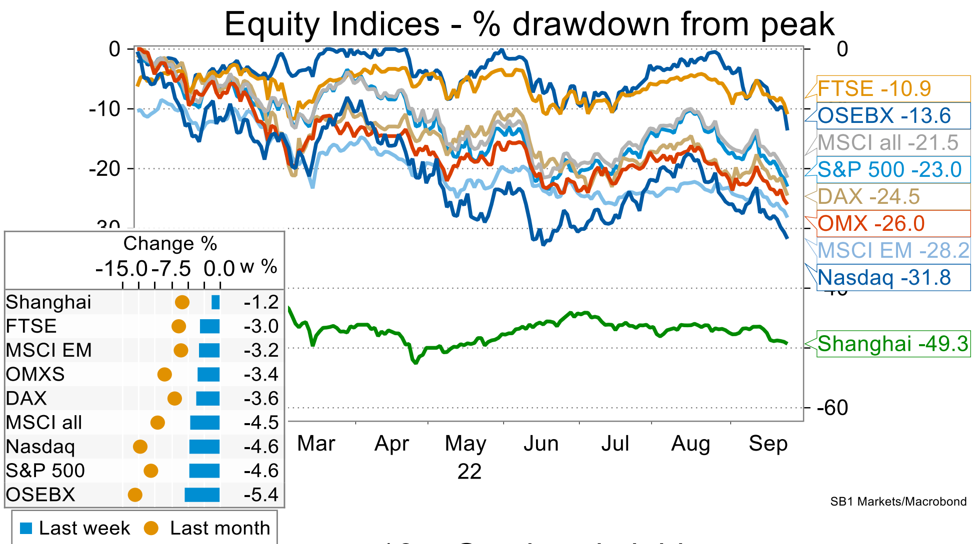
- But not everywhere: Not in Norway, Sweden (+Canada & Australia, of course). The French have been accumulating debt as well
- Rather interesting: Debt ratios in Germany and Japan have turned up recently – and the Americans are borrowing more again

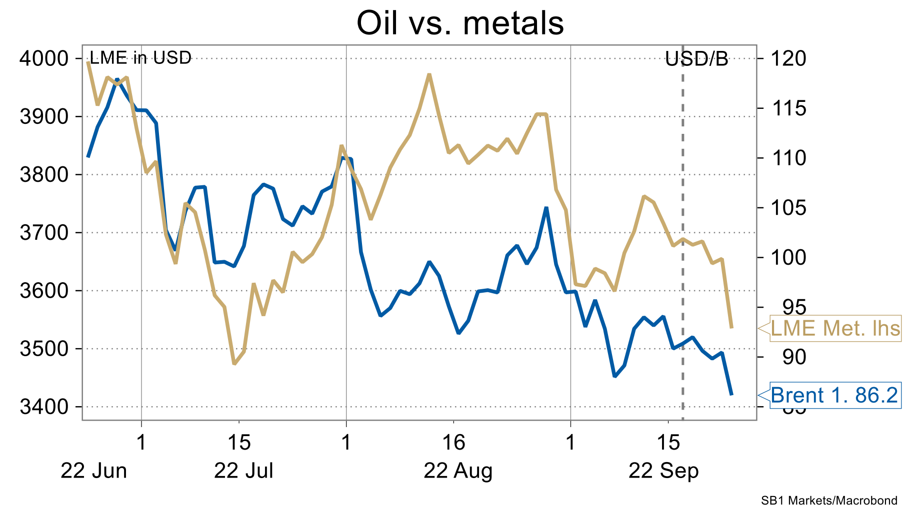
SpareBank 1 MARKETS

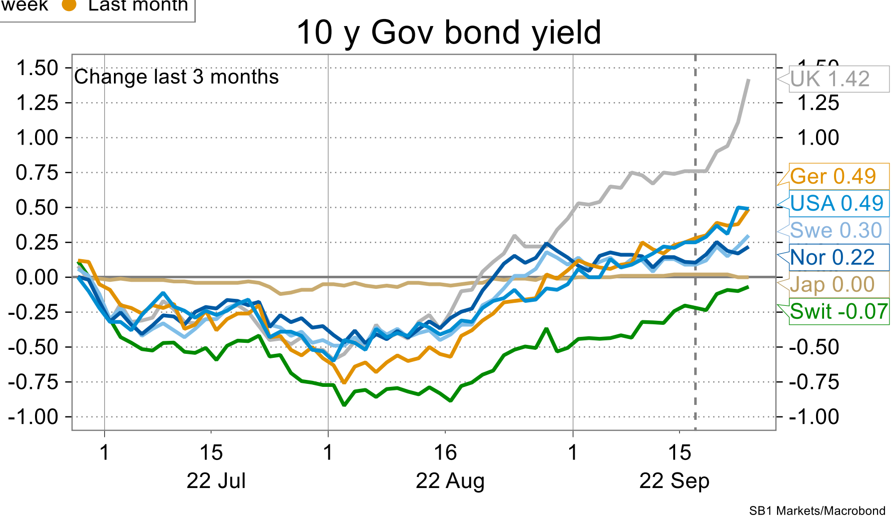
SpareBank 1 MARKETS

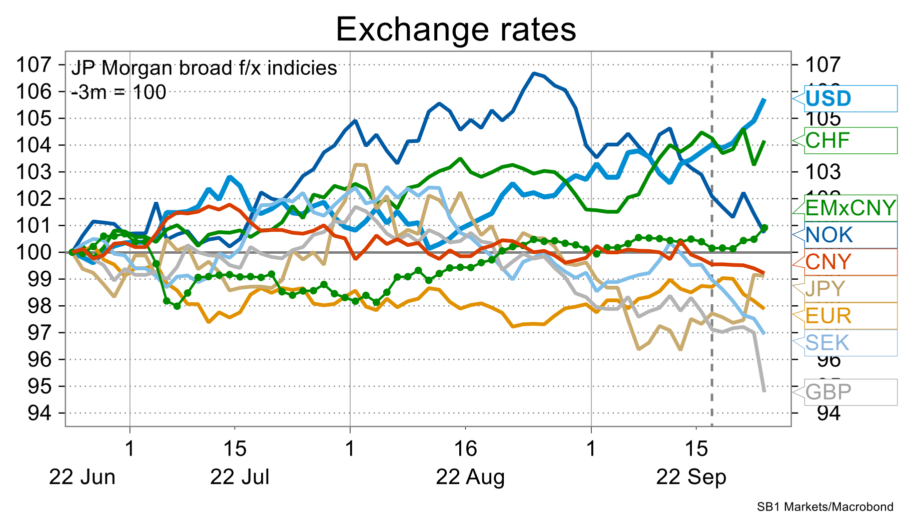
The central banks did it. Once more. And their job is not yet done, they say

The new British government did it too, and rates soared as the pound tanked. Oil, metals & NOK also down



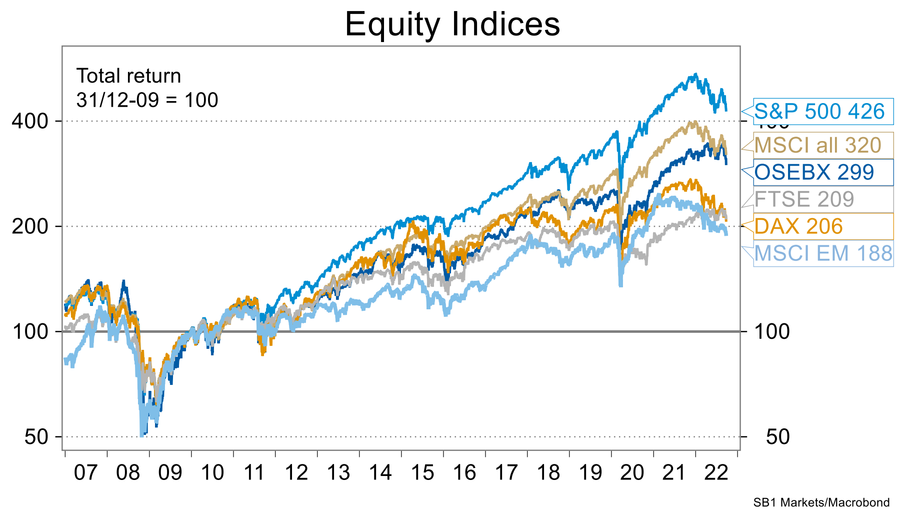


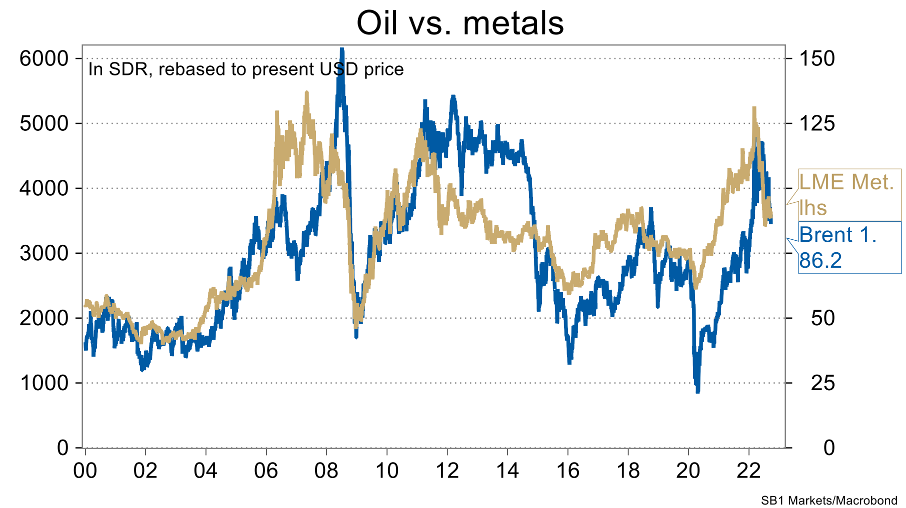


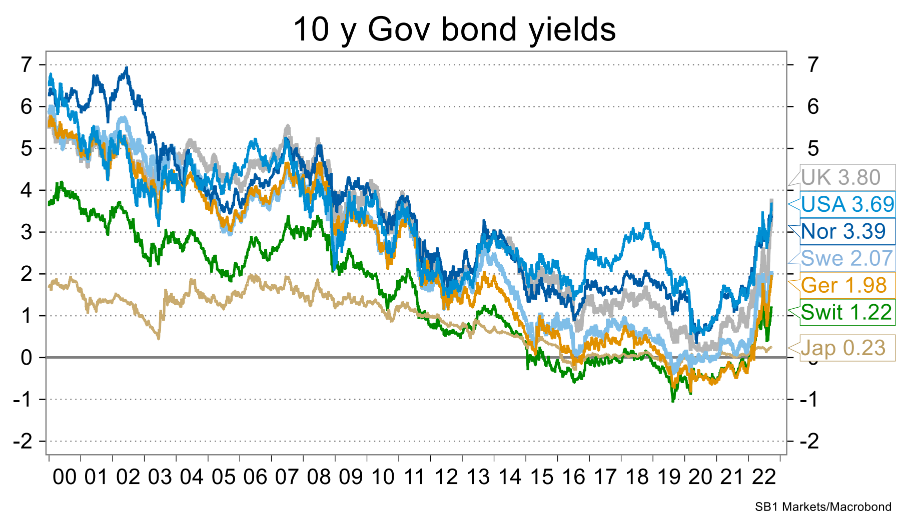


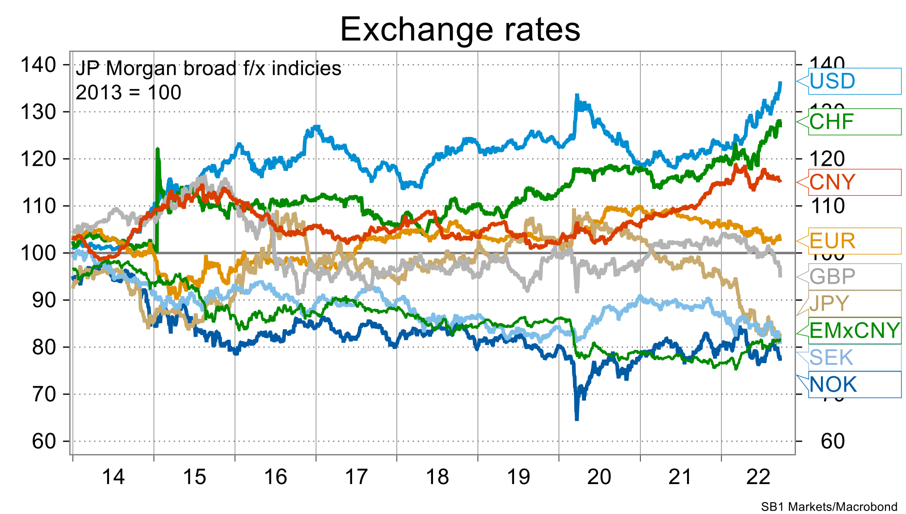
The big picture: Stock markets down, bond yields up

Commodities are on the way down again. The USD is very strong, most other DMs are slipping

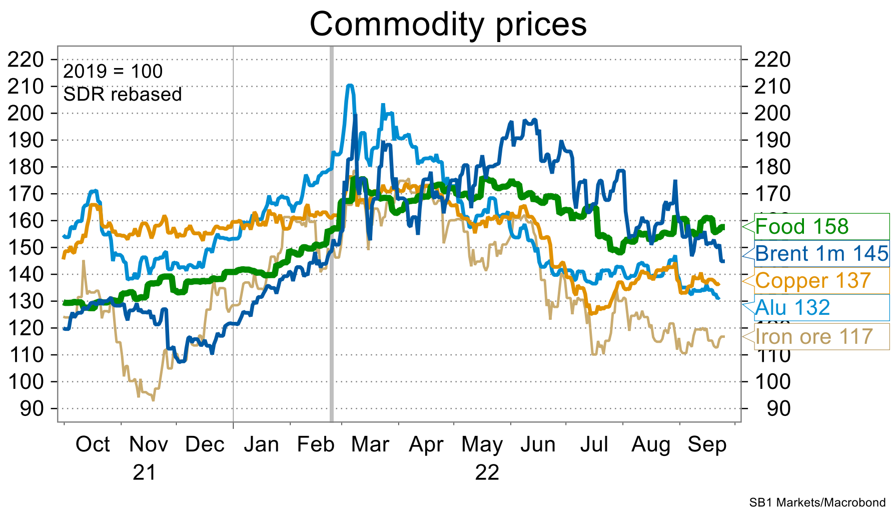


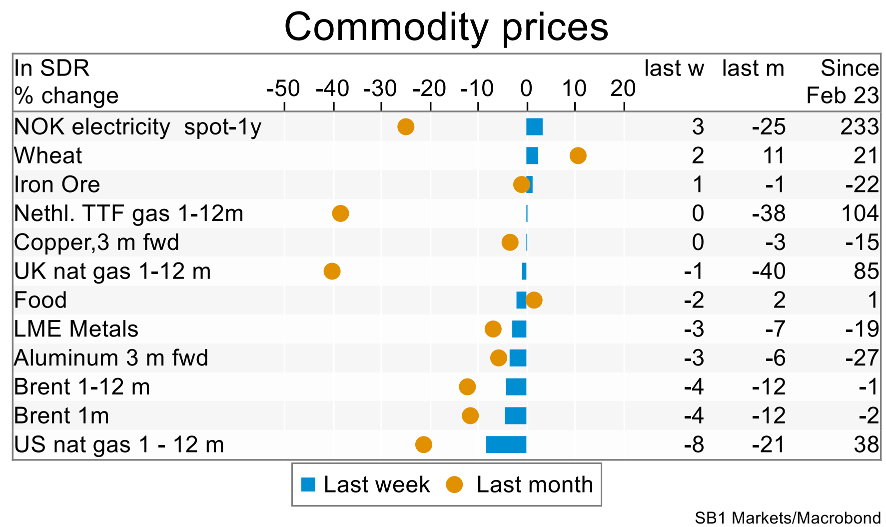


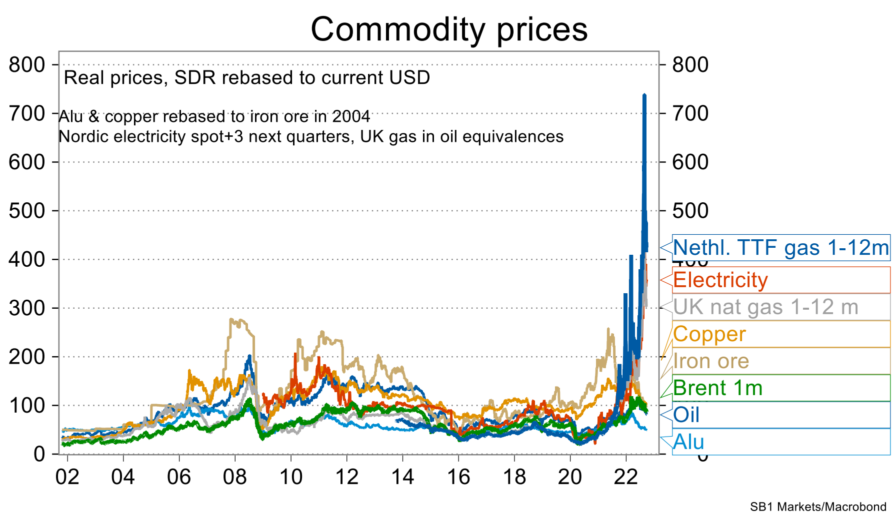




Most commodity prices fell but not the very high European gas/electricity prices







Last week

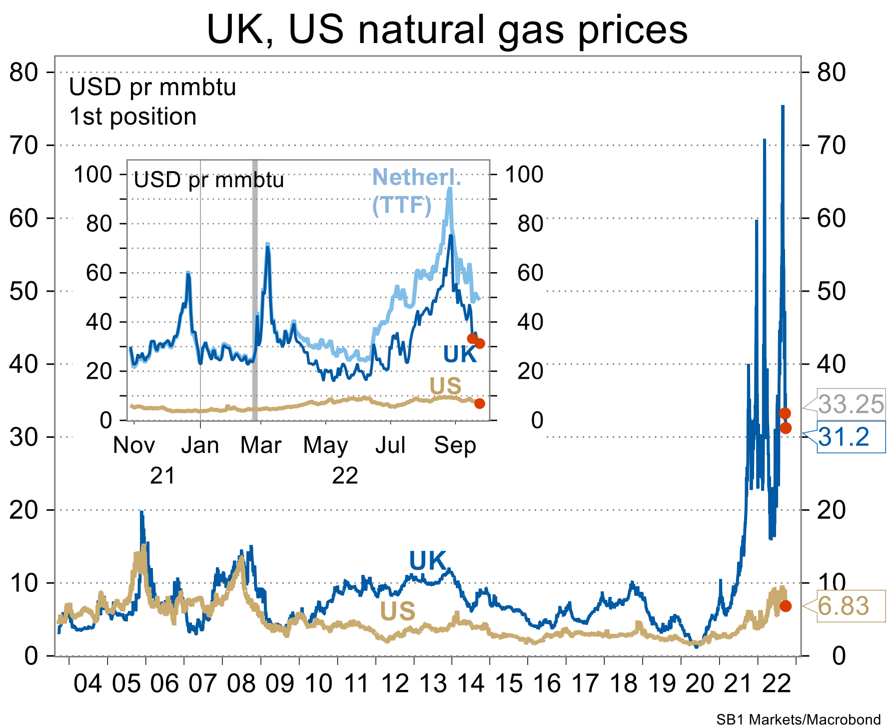
- **European natural gas** has more or less flattened following the steep decline late August/early September
- **Oil prices** fell sharply, and more than a stronger USD could explain
- The Economist's **food commodity inched down 2% last week** (in SDRs). The very short trend is still up – but prices are lower than just after the war started
- Most **metal prices** were more or less unchanged last week

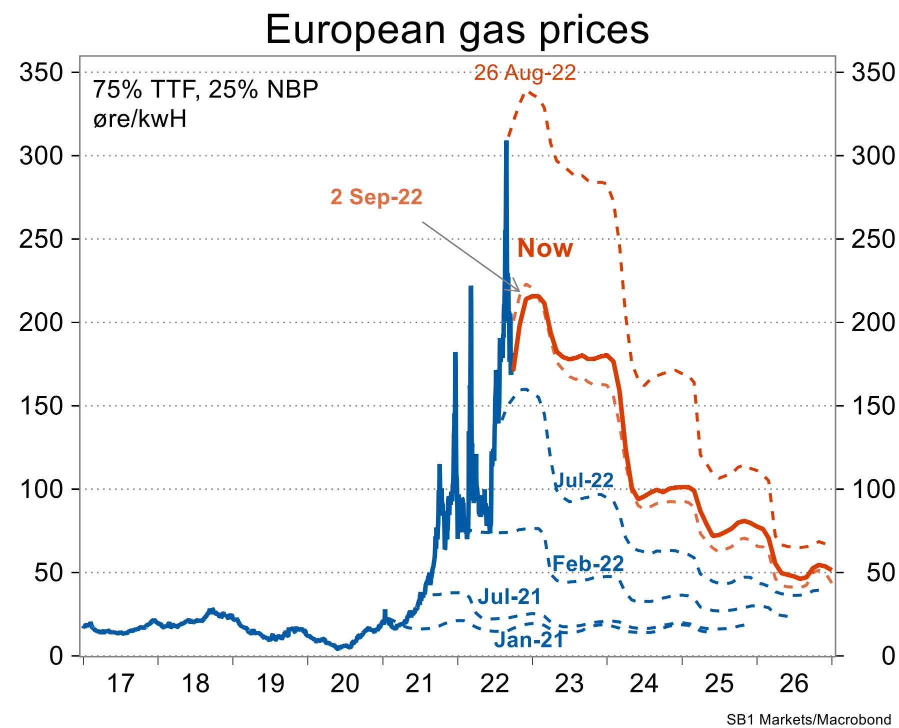
SDR: IMF's Special Drawing Rights – a 'global currency'

SpareBank 1 MARKETS

European gas/electricity prices have stabilised past two weeks

At levels way below the late August peak but still extremely high, of course





European gas: 75% Dutch TTF, 25% UK NBP, excl. CO2 cost. Red dots: Last and 1 week ago

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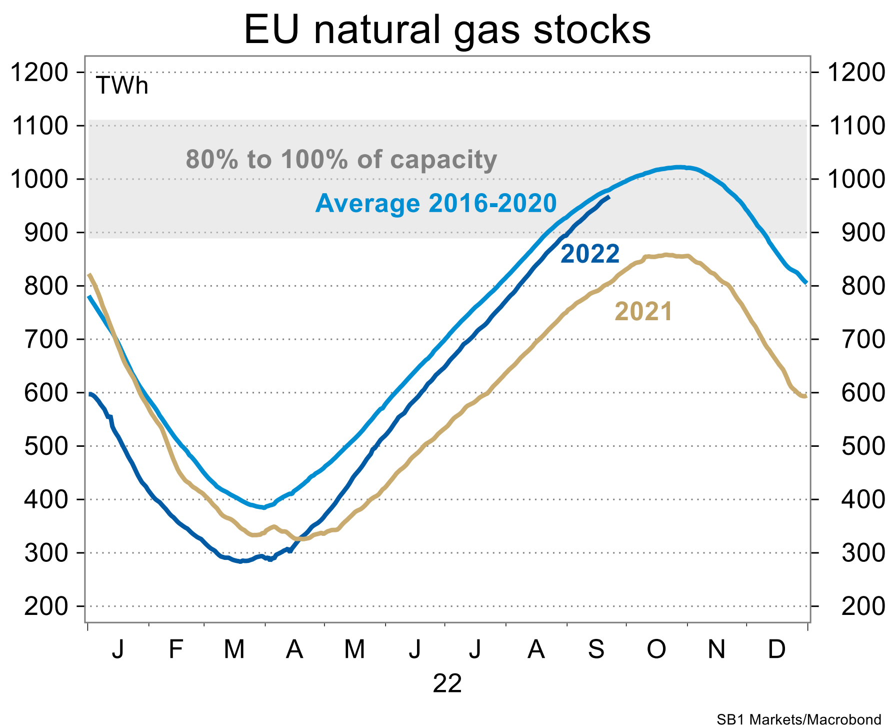
European gas stocks are filling up faster than normal

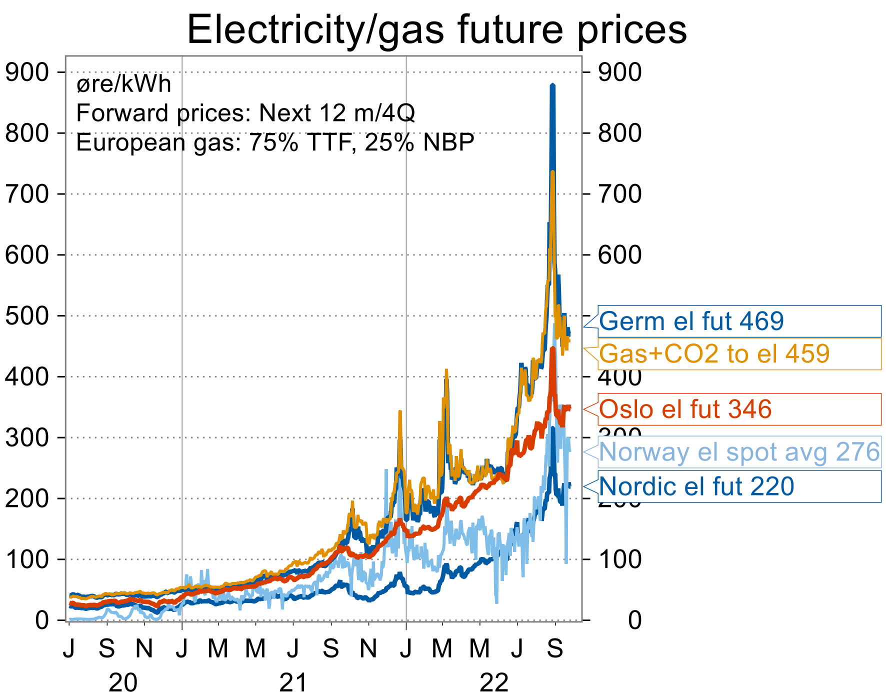
Thus, demand must have fallen more than supply, even after the full closure of Nord Stream 1



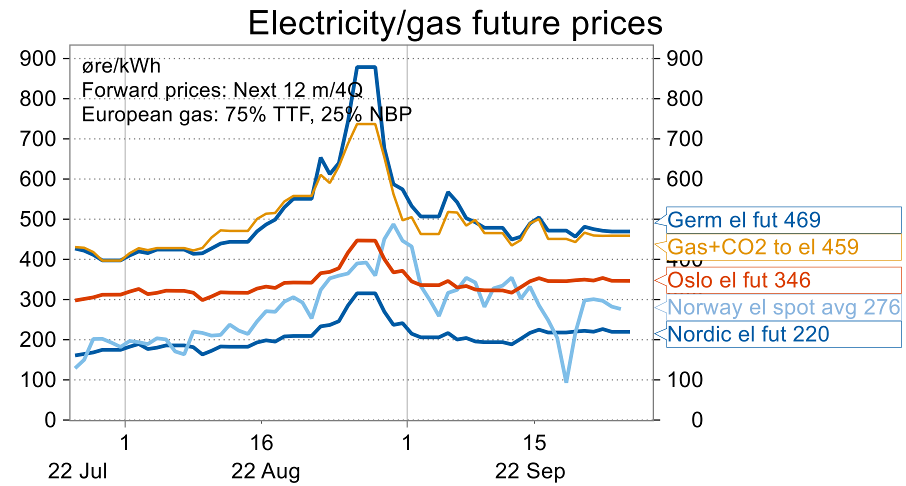
SpareBank 1 MARKETS

European gas & electricity prices stabilised last week

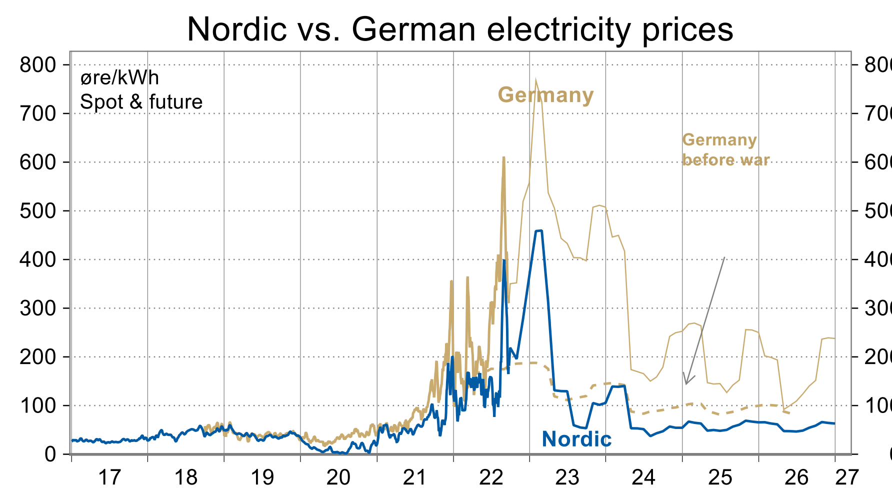
… but the price level remains extremely high



SB1 Markets/Macrobond



SB1 Markets/Macrobond



SB1 Markets/Macrobond

- The EU gas price cap is still a pie in the sky, but may of course be introduced, if so at the expense of Norway (but we are probably able to shoulder the cost…)

European gas: 75% Dutch TTF, 25% UK NBP, excl. CO2 cost

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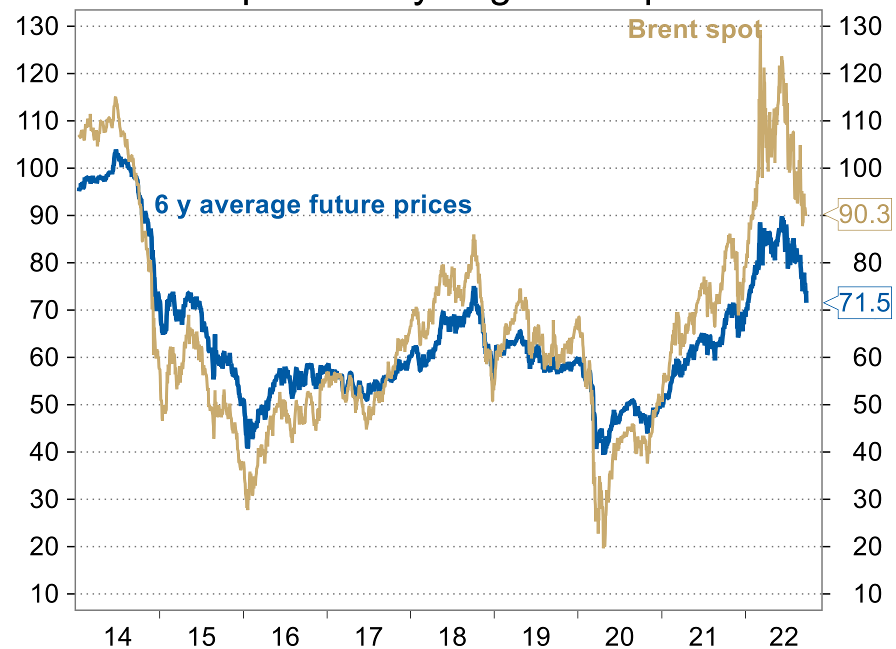
The oil price curve sharply down, long dated contracts as well

Prices are mostly below the levels before the war started

Brent oil, spot & Dec contracts

SB1 Markets/Macrobond

Oil Spot vs. 6 y avg future prices



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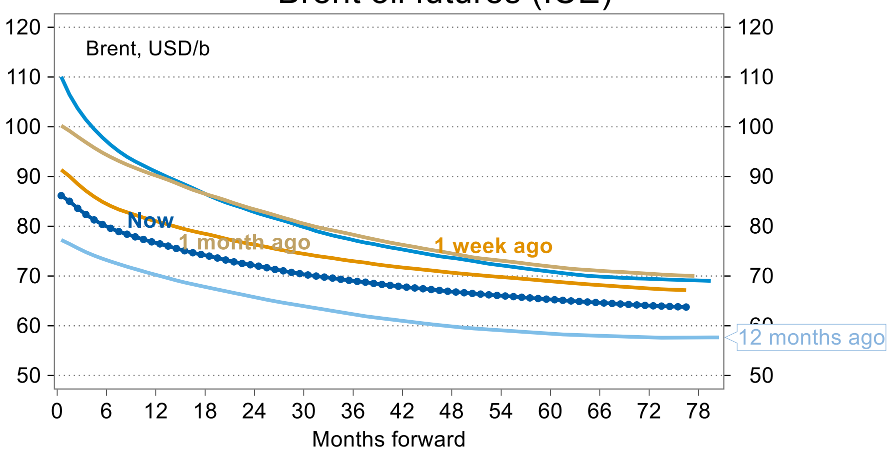
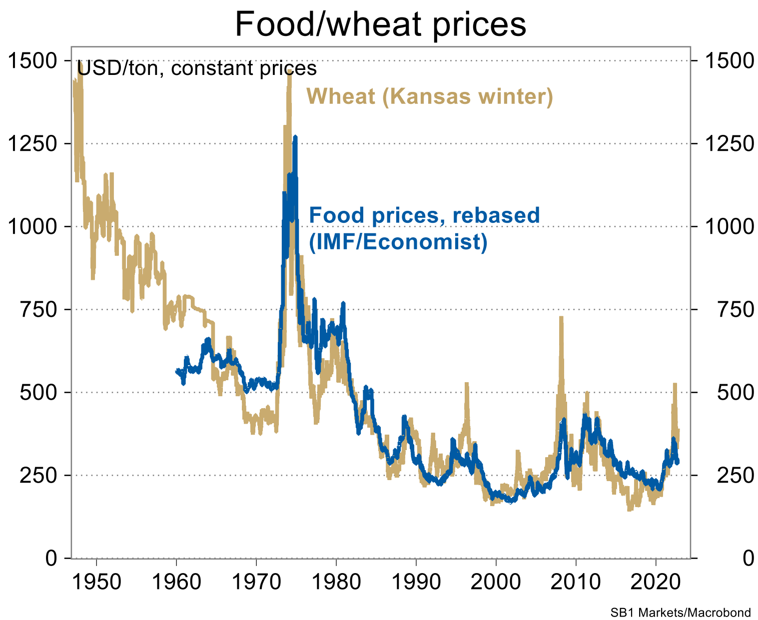
Brent oil futures (ICE)

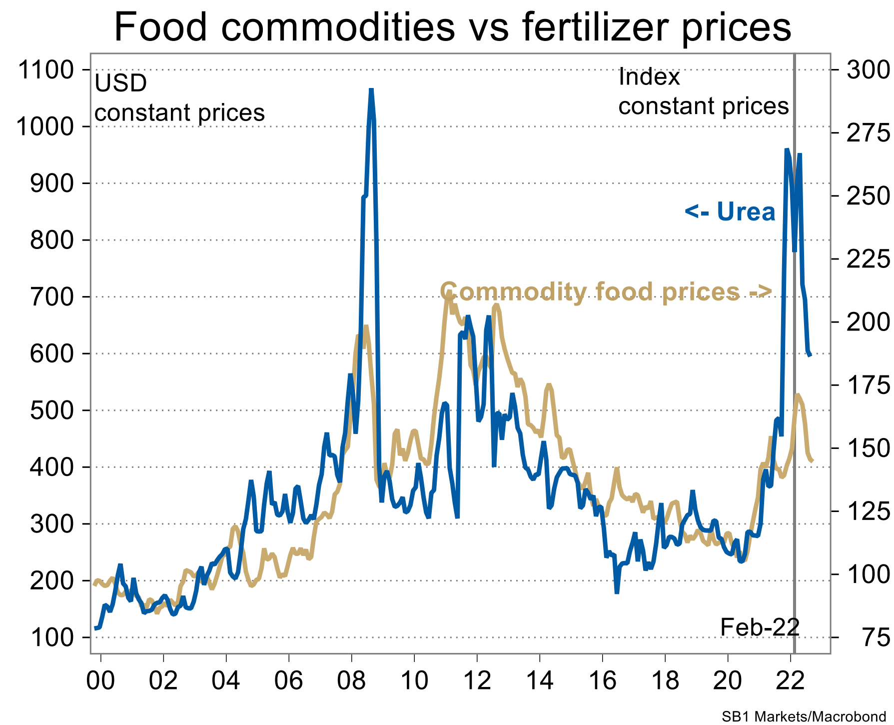


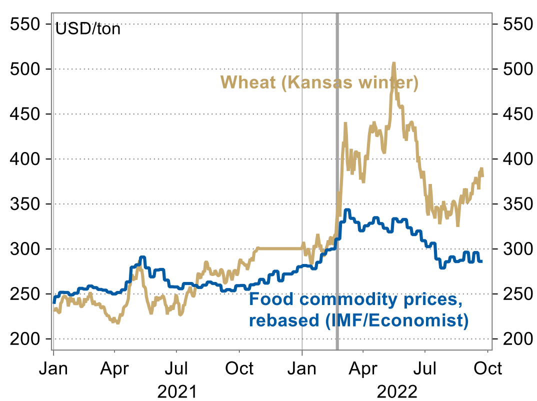
SB1 Markets/Macrobond

Food prices down last week, has flattened, measured in a strong USD

The real price level is not that high, *and close to the 10 y average. A global food crisis??*



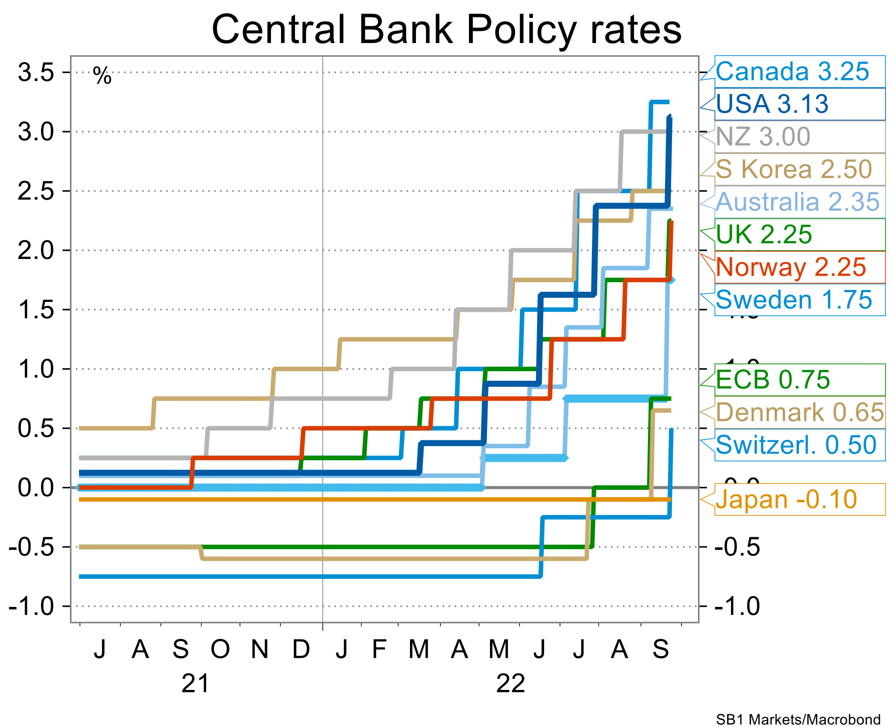


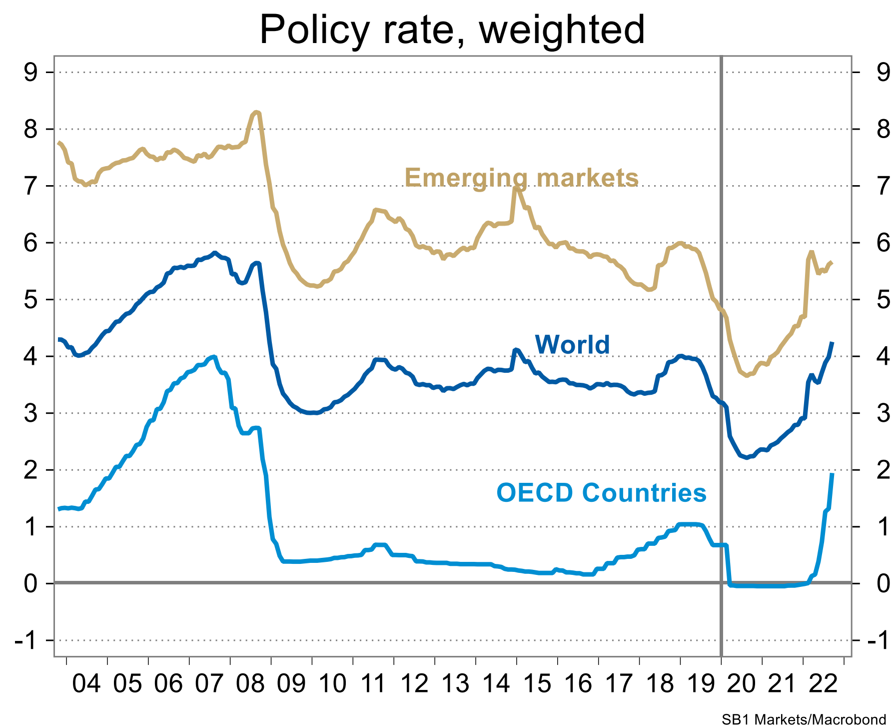


Urea prices are falling rapidly too (but are not low vs. food prices)

What a central bank week! Huge hikes ‘everywhere’ in the rich part of the world

Sweden, US, Switzerland, UK, Norway and even some Emerging markets lifted their signal rates

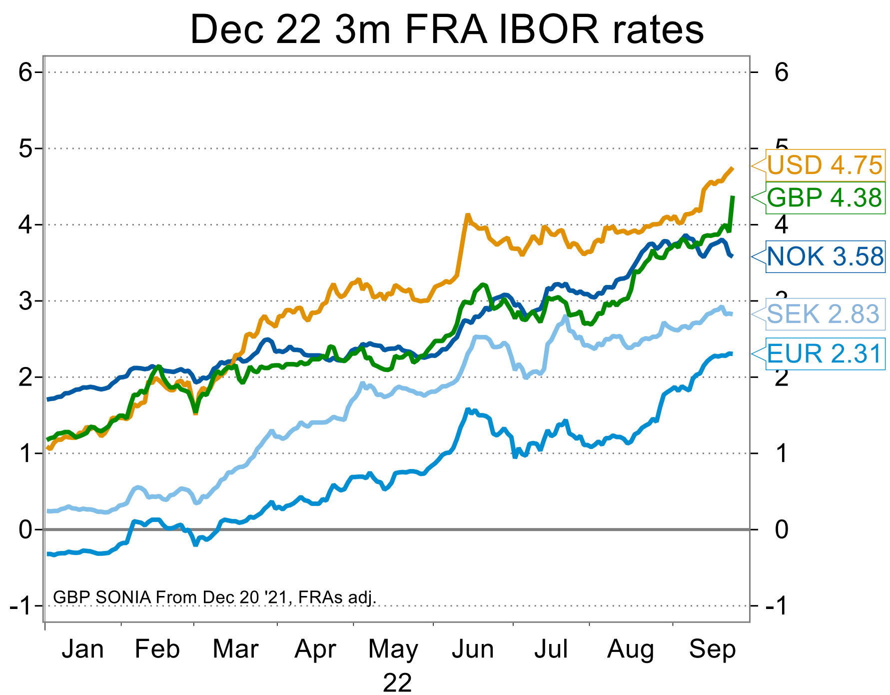


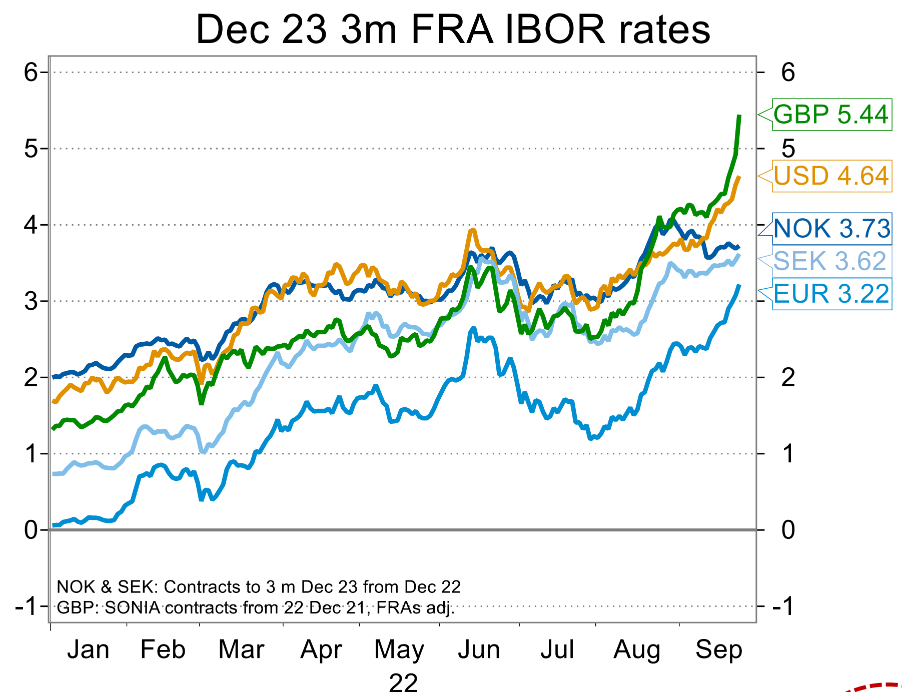


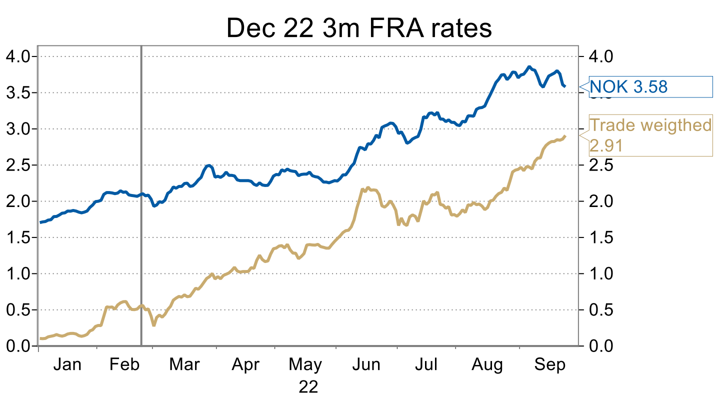
- Central banks are hiking rates even if the expect growth to slow (US) or the economy to contract (Sweden, UK, Norway) because inflation is way above target (including all measures of underlying inflation, partly also costs) and is expected to remain above target for several years
- The EM average policy rate has come down due to the Russian cuts – but the average is on the way up again
- In addition to rate hikes, most central banks have ended their QE buying programs. Some banks will start reducing their holdings, moving into the QT zone. US ramped up its QT program (doubled the pace) from the beginning of September

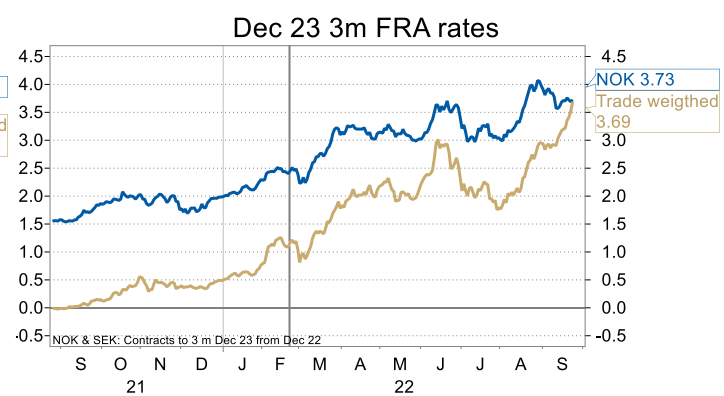
Central banks and the UK government did it!

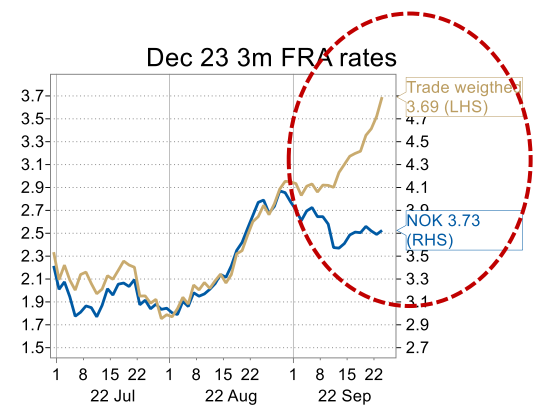
NOK rates have not followed rates abroad up in September – we've never seen anything like this before





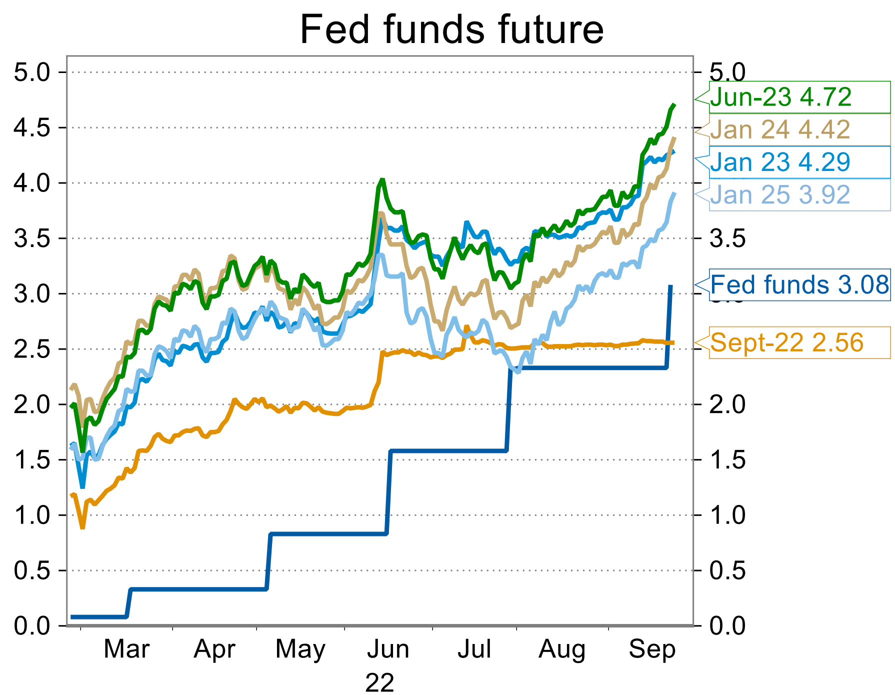






Federal Reserve says it will continue, even if the cost is substantial. 95% for 75 bps in Nov

… and then 'just' 50 bps in Dec. The peak is pushed out to May-23, from March – at 4.7%, up 37 bps



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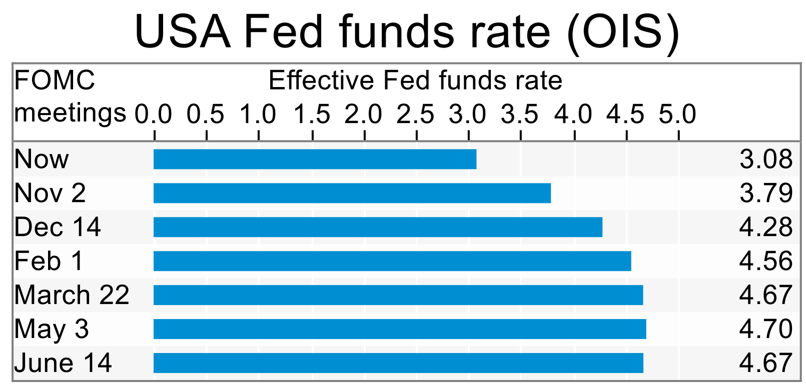
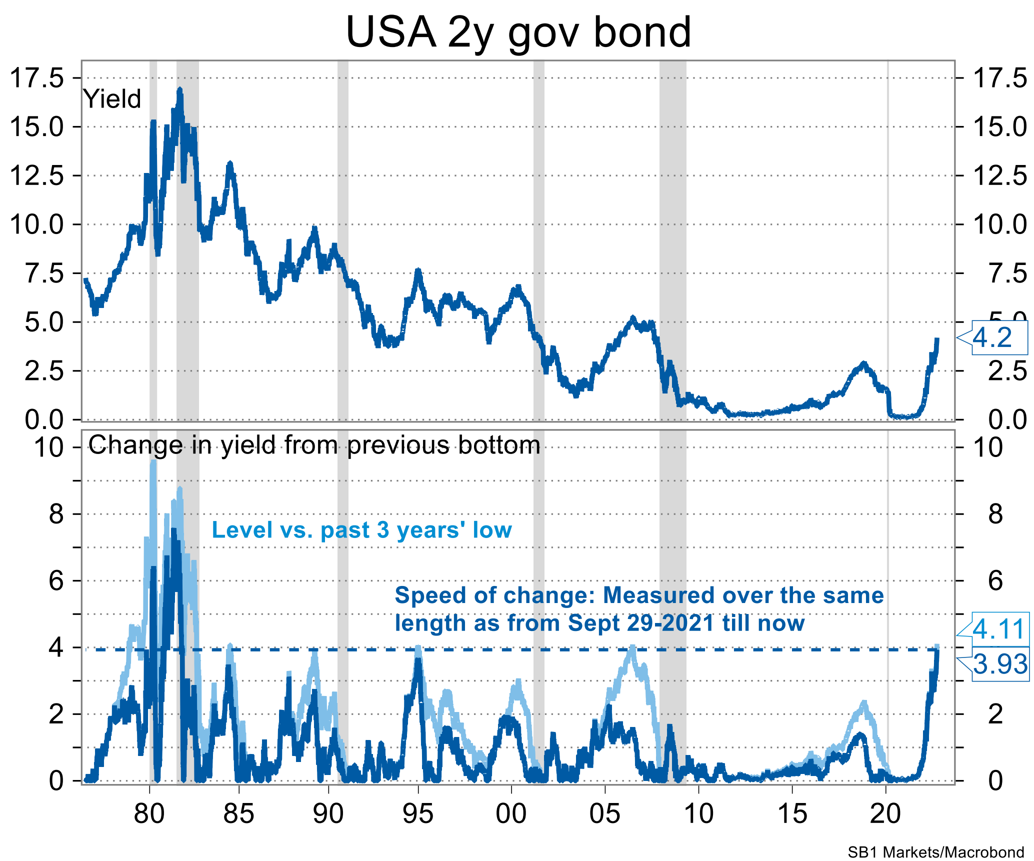
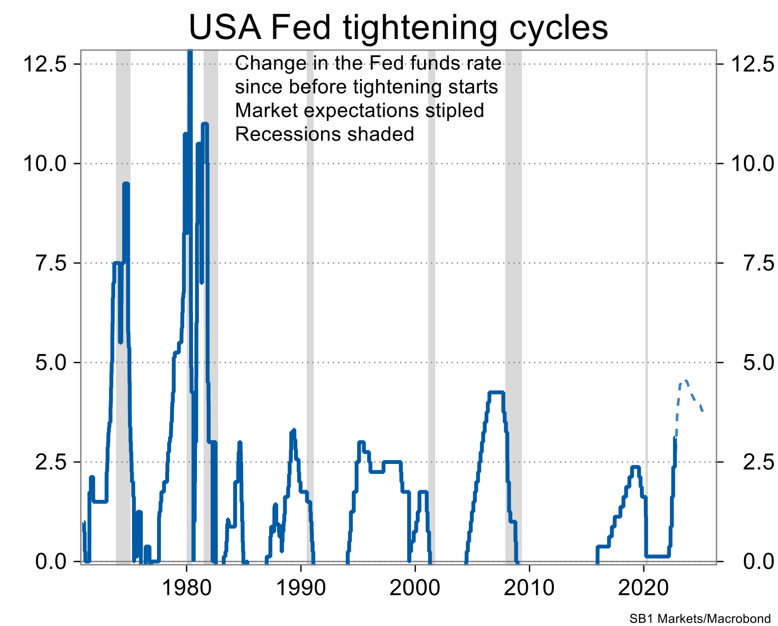


The steepest turnaround in actual and expected monetary policy since 1981

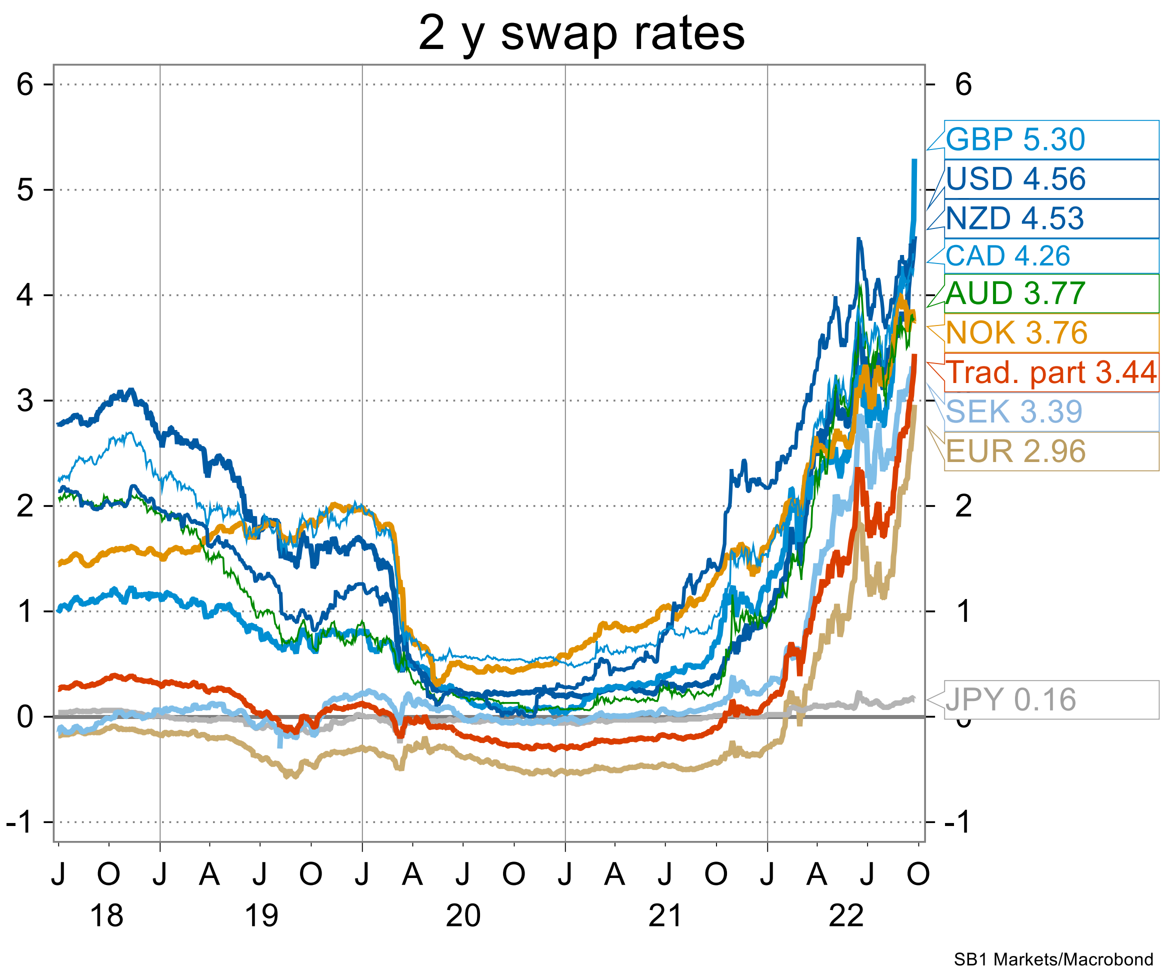
The 2 y gov bond rate is up by 3.93 pp since Sept 29 last year, the quickest lift since 1981

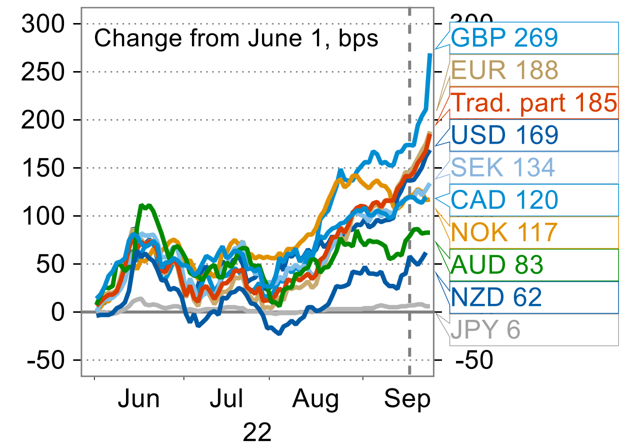


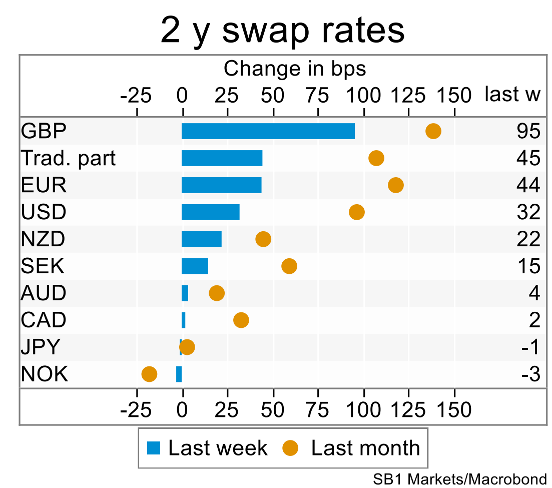


NOK 2 y swaps down, all others up. GBP +95, EUR +44, US +32!

NOK rates have fallen past 4 weeks, foreign rates have climbed. AN UNPRECEDENTED SPREAD DECL!



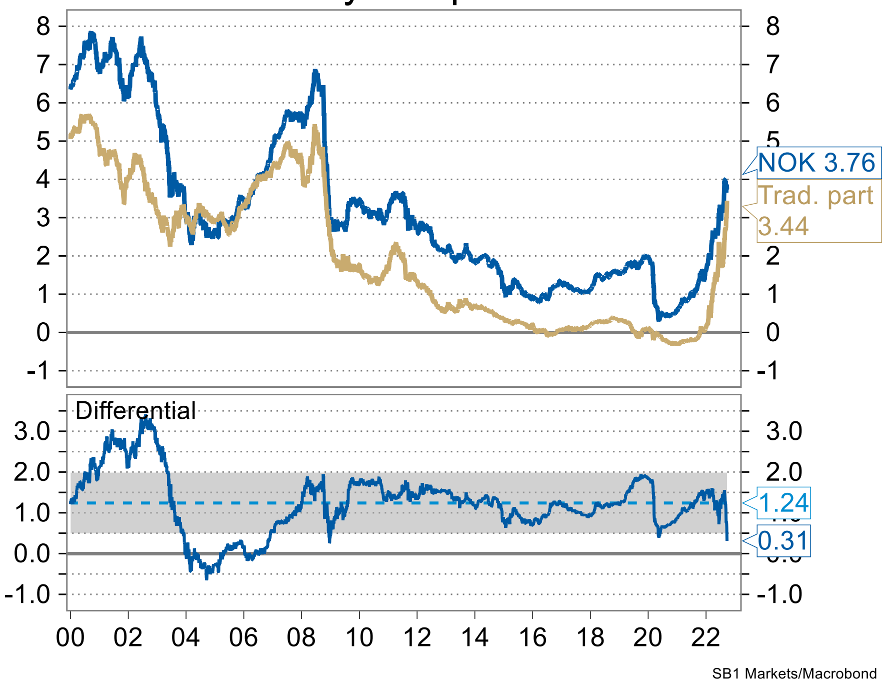




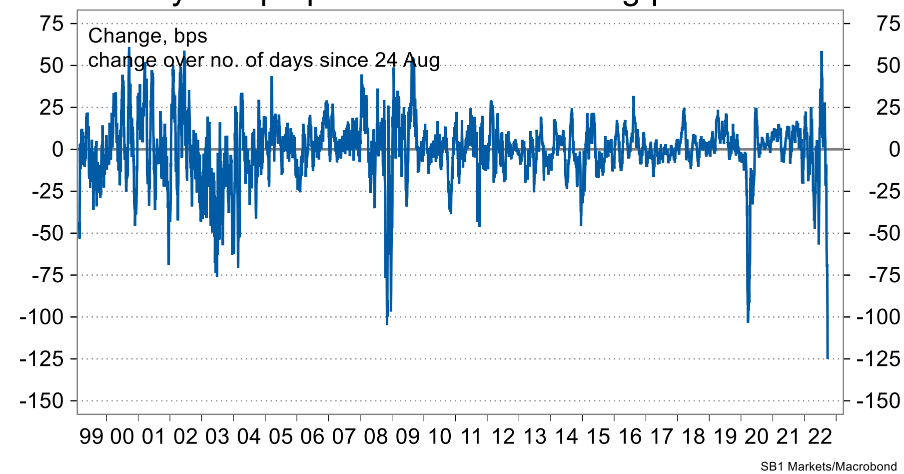
The 2 y swap spread has fallen by ~~80~~ 125 bps since Aug 23, to just 31 bps

The largest decline ever over 4 weeks, to the lowest level since some few days in 2008

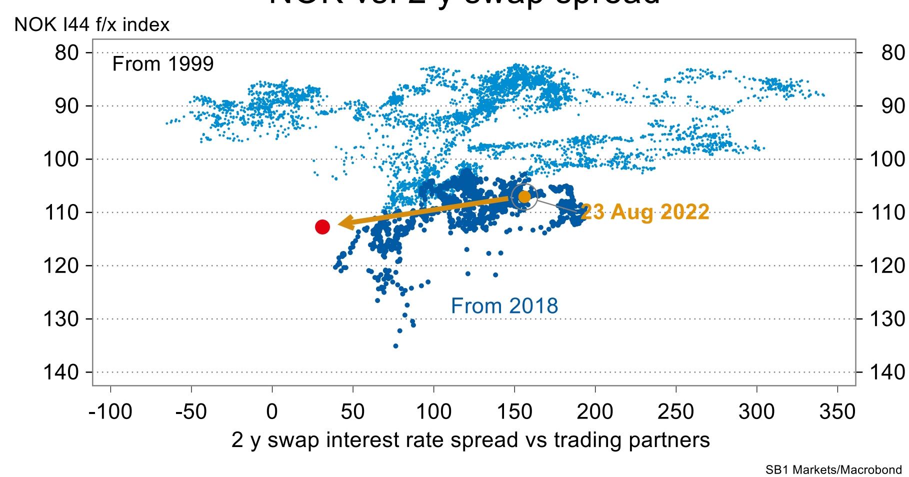
2 y swap rates



2 y swap spread NOK vs trading partners



NOK vs. 2 y swap spread



- Rates abroad have surged further, while Norwegian rates have fallen. NOK rates are still higher than among our trading partners, by just 31 bps
- The NOK has fallen, but not by much (confirming the weak correlation between NOK and the interest rate differential) – and the oil and gas prices have fallen too

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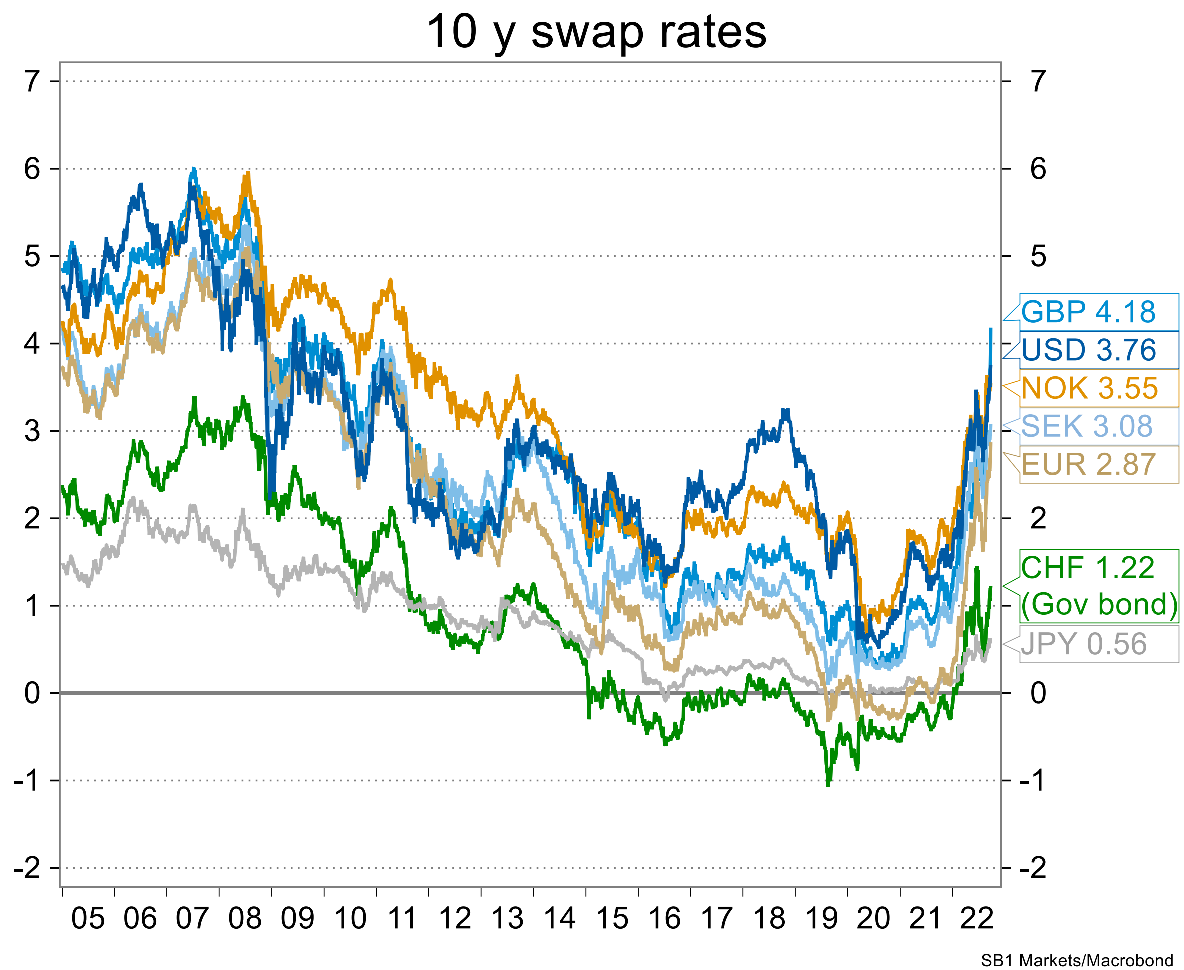
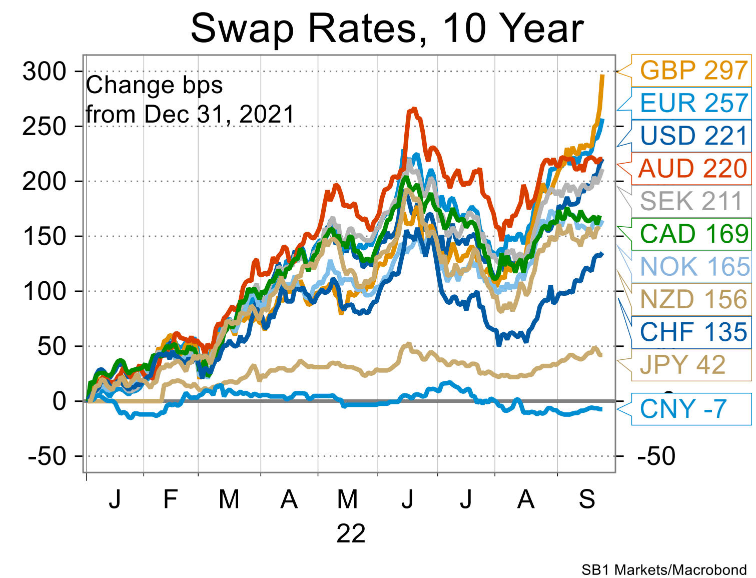
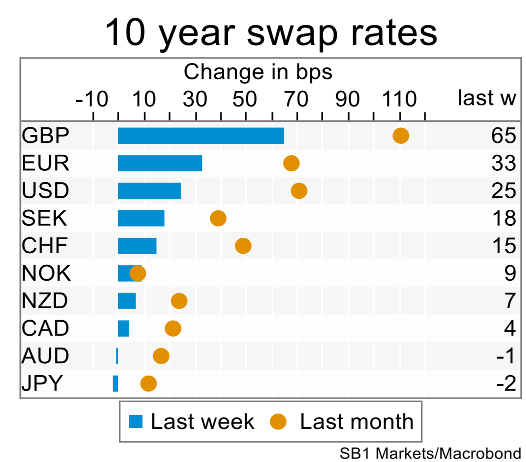
GBP 10 y swaps up 65 bps last week, 110 bps last month! EUR +33/68. NOK +9/8!



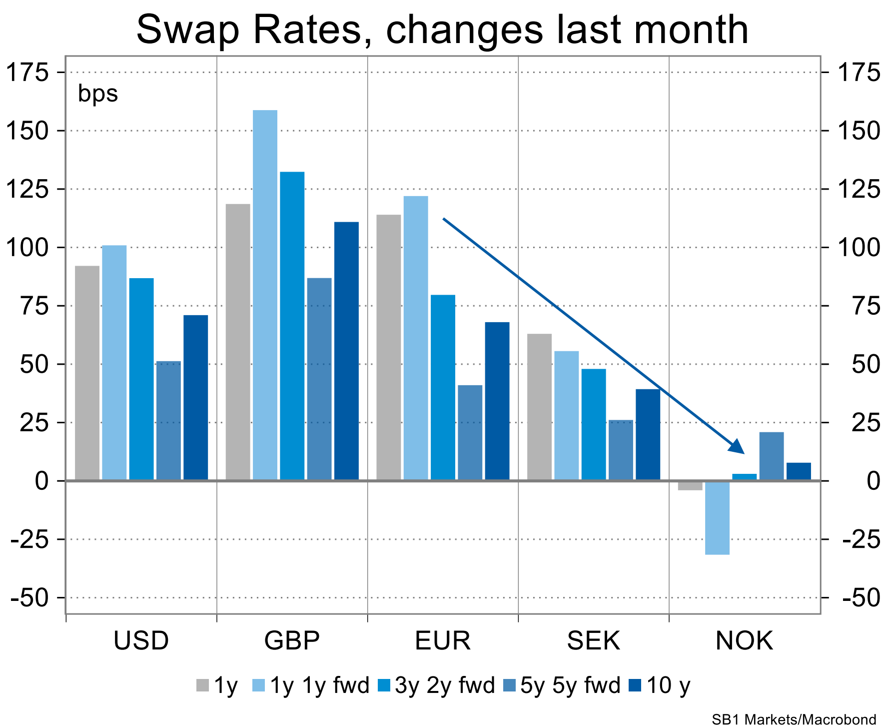


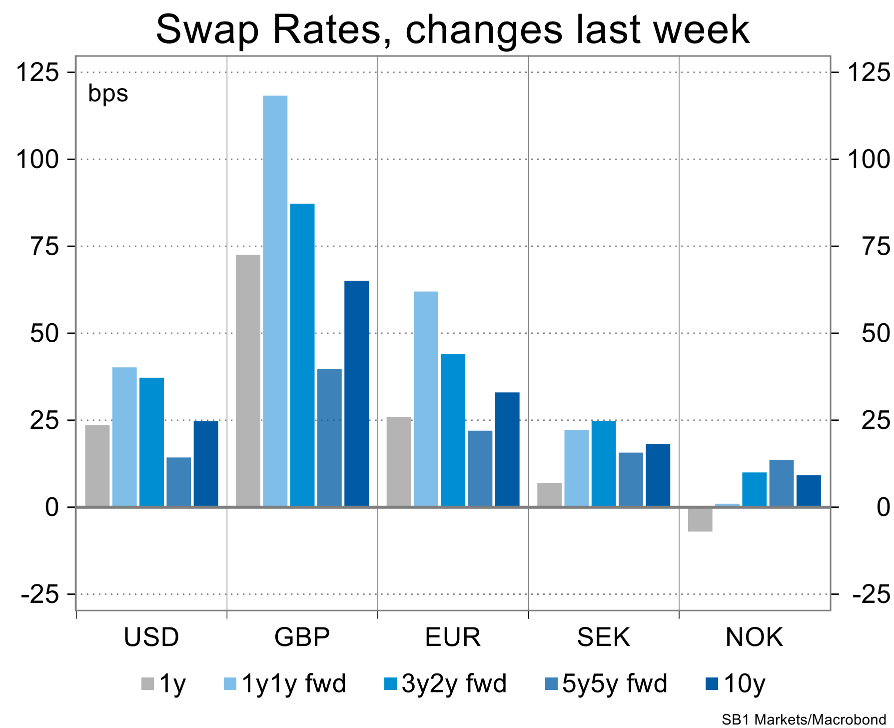


CHF: 10 y government bond yield

Look to the UK (if you want to create trouble for yourself)

Keep Calm and Carry On: NOK rates are unusually insulated from the surge in rates abroad

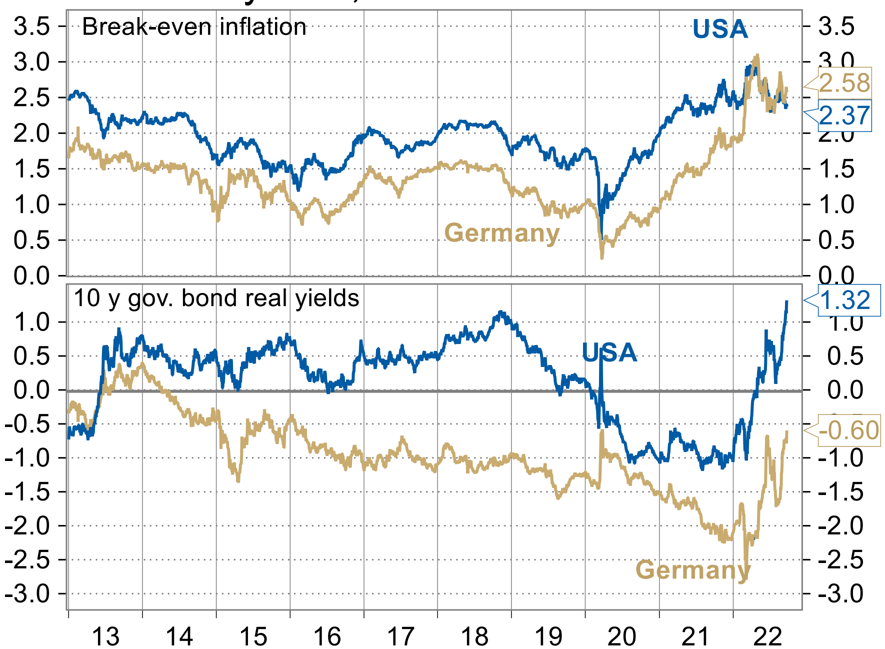




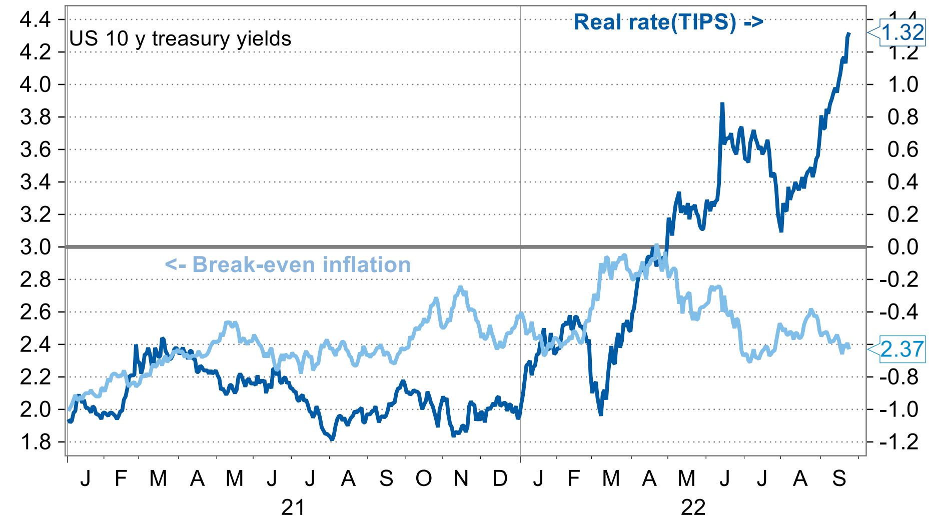
Real interest rates are soaring! The 10 y US TIPS up 25 bps to 1.32%, a 11 y high

The German real rate up 17 bps. Inflation expectations close to unhanged

Real yields, break-even inflation



SB1 Markets/Macrobond



US & Germany 10 y Gov bond yield

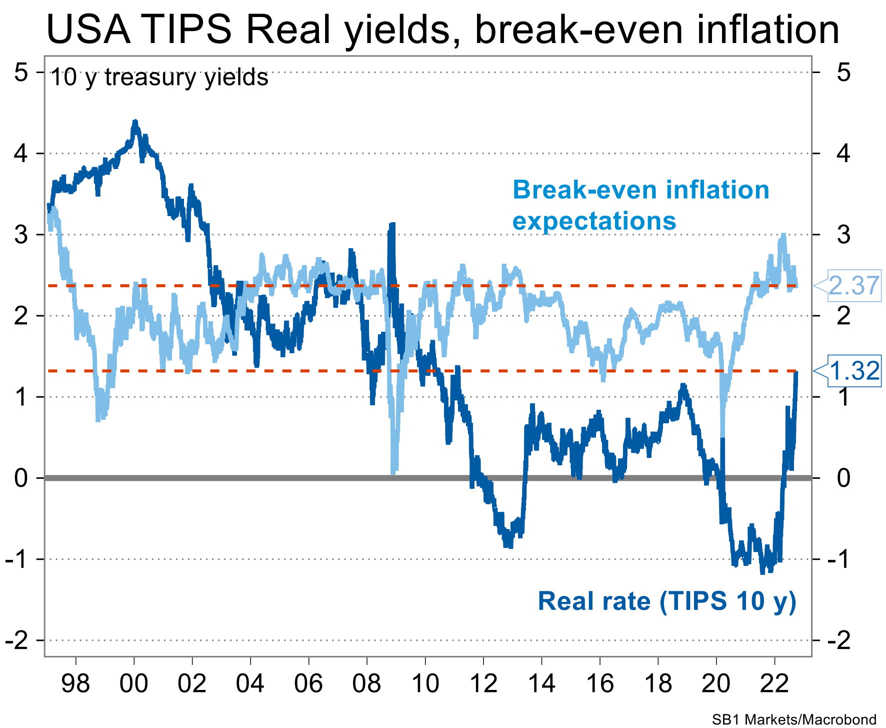
	Yield	Change 1w	Change 1m	Since Feb 18	Min since April-20
USA nominal treasury	3.69	0.24	0.64	1.77	0.52
.. break-even inflation	2.37	-0.01	-0.21	-0.04	1.06
.. TIPS real rate	1.32	0.25	0.85	1.81	-1.19
Germany nominal bund	1.98	0.21	0.67	1.76	-0.65
.. break-even inflation	2.58	0.04	-0.29	0.60	0.40
.. real rate	-0.60	0.17	0.96	1.17	-2.80

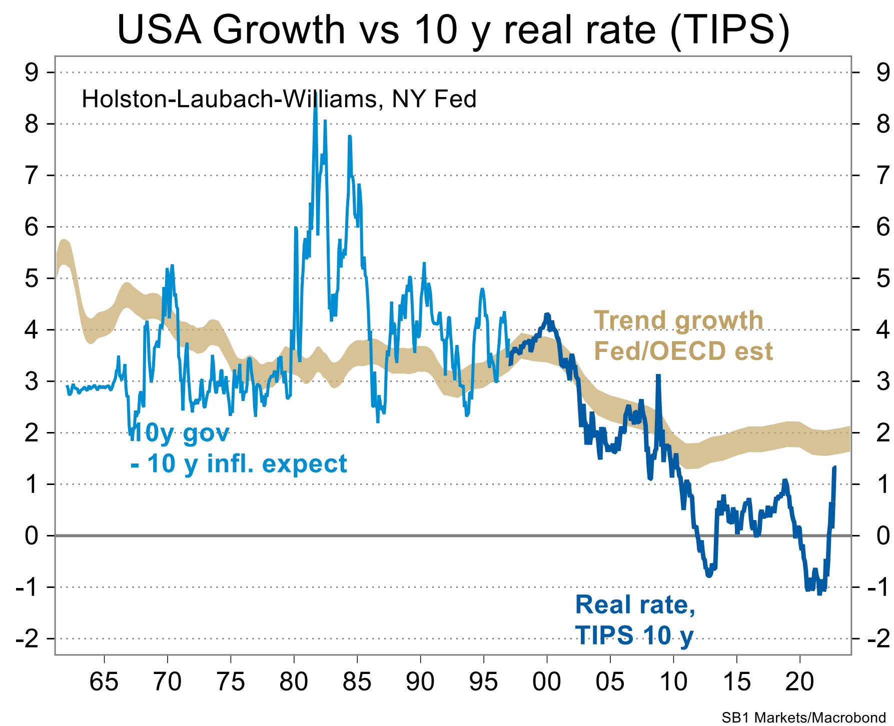
SB1 Markets/Macrobond

- **The 10 y German inflation expectation** at 2.53% is primarily driven by high expected inflation the first year (8%, measured via inflation swaps). Thereafter, inflation is rapidly expected to fall to 2% and below again. Real rates move the opposite direction – they are turning positive

Growth vs real rates: Mind the gap, it's closing, from both sides

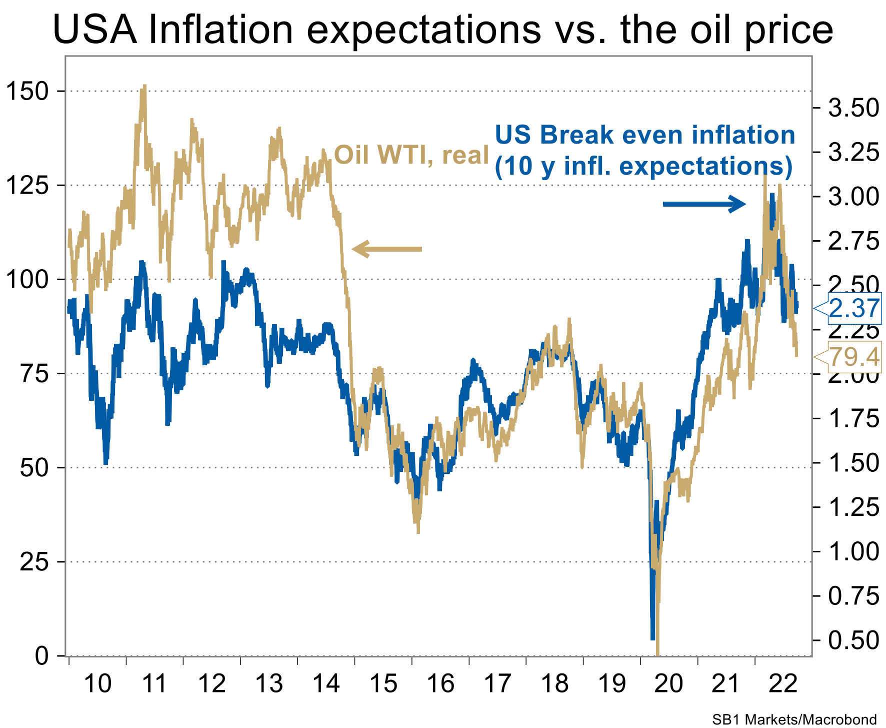
Real rates are up, while short/medium-term growth expectations are declining

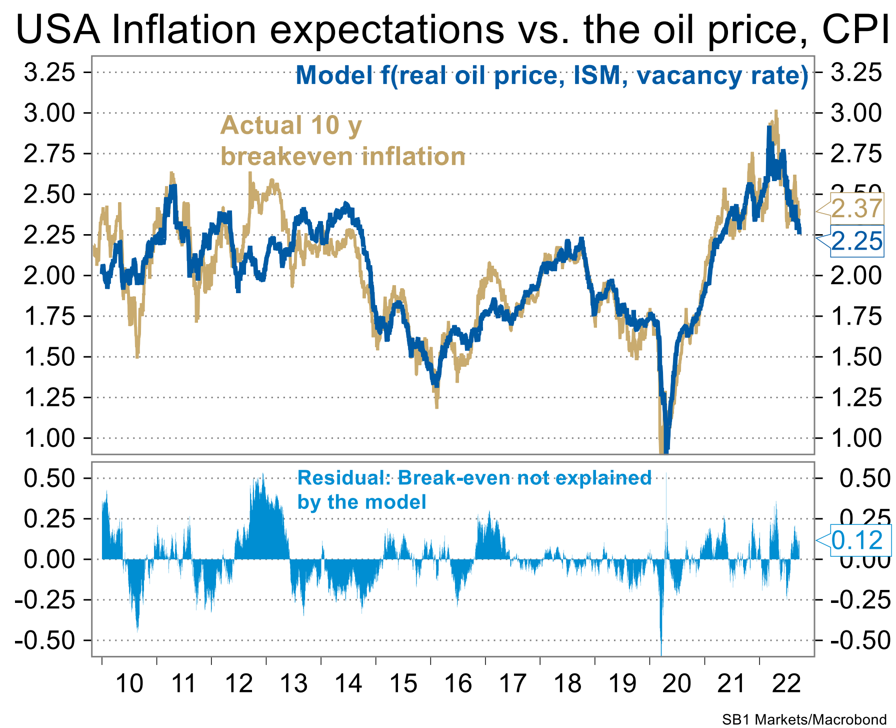


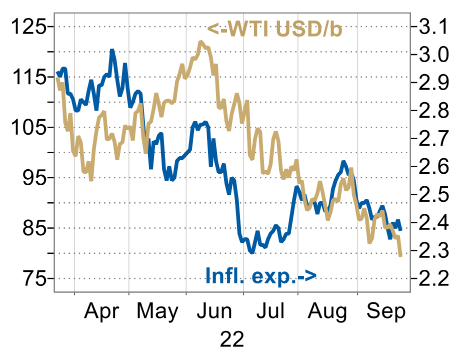


(Longer-term) Inflation expectations are trending down, as our model suggests

If the economy slows – and the oil price does not surge – inflation exp. should come further down

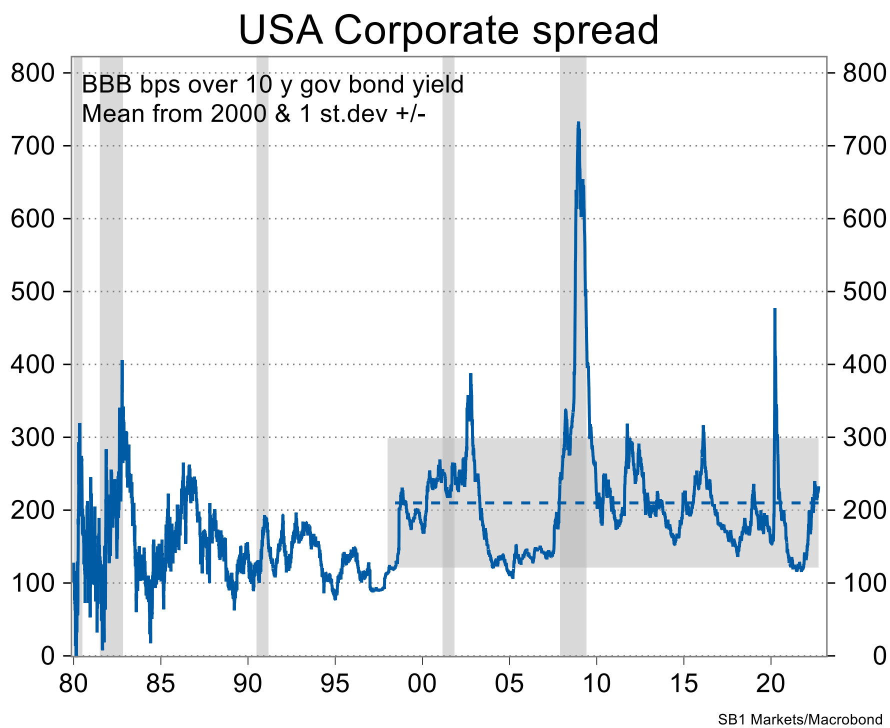


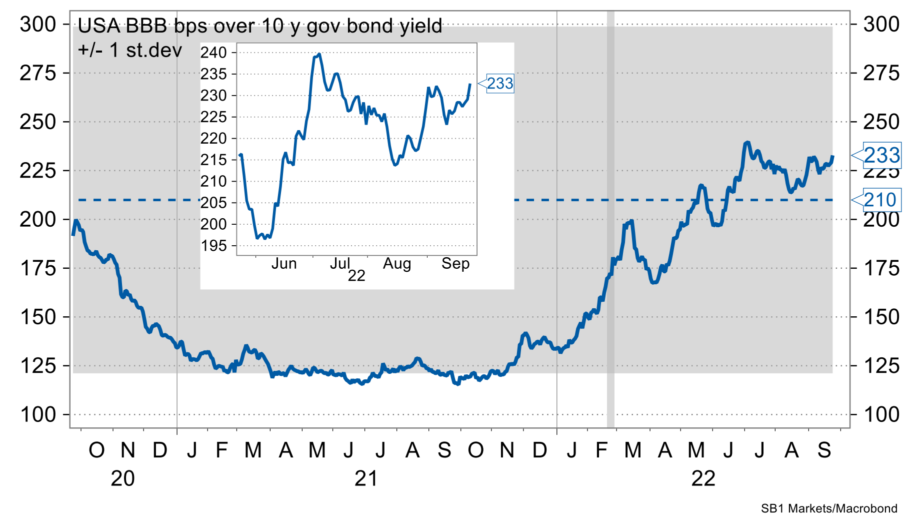




- A simple model including the spot oil price, the current ISM and the current vacancy rate pretty well explains the long-term breakeven inflation expectation in the bond yield curve
- What now? We are uncertain about the oil price, but rather confident that both the ISM, and the vacancy rate will decline. Impact vs the 10 y break-even expected inflation rate
  - -5 ISM points: -12 bps
  - -3 vacancy pts, (to 3.6% from 6.6%): -36 bps
  - - 10 USD/b: -10 bps

Risk on: Credit spreads up, alongside a weaker stock market



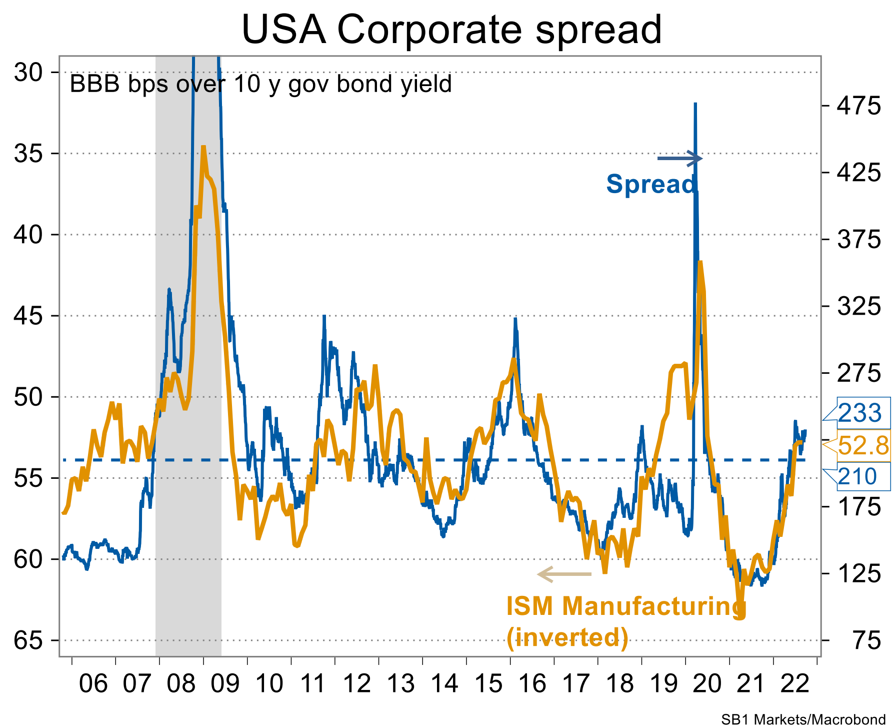


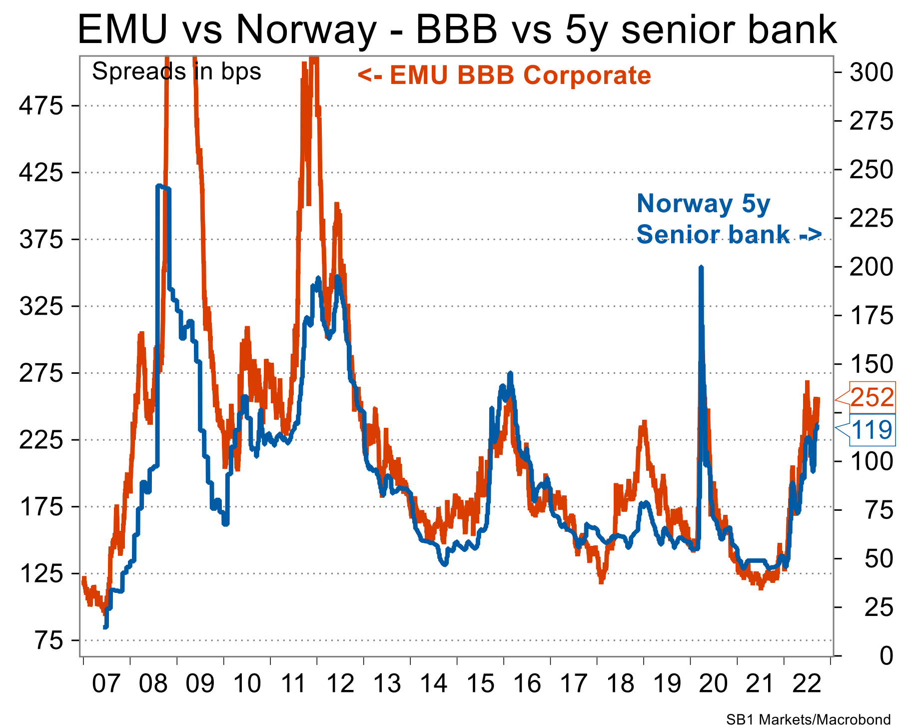
- The US BBB spread is up more than 100 bps from the bottom last autumn, almost a doubling
- In addition, real rates have increased by almost 200 bps since late last year
- Thus, the basis for all valuation metrics has changed dramatically, check the chart two pages forward!

SpareBank 1 MARKETS

Why have credit spreads widened in 2022? Could it be the slowing economy?

What do you think is more likely: An ISM at 45 or 60 in some few months time? We are quite sure…





- The answer is not irrelevant for your view on the outlook for spreads, we think
- And do you think Norwegian spreads will be influenced by changes in the global credit market?
- Last week: Norwegian credit spreads rose in sympathy with higher spreads abroad the previous week

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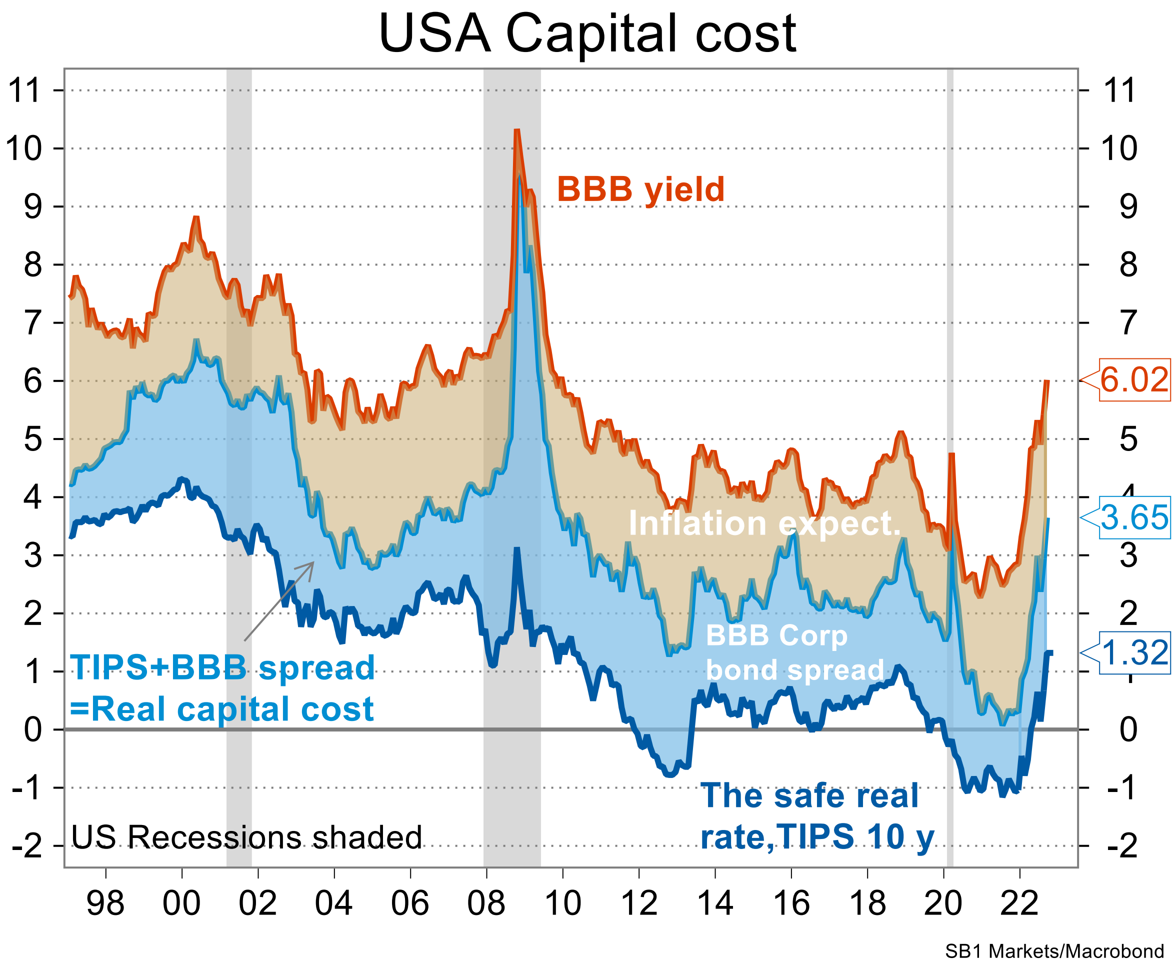
The cost of capital is not like it was some few months ago

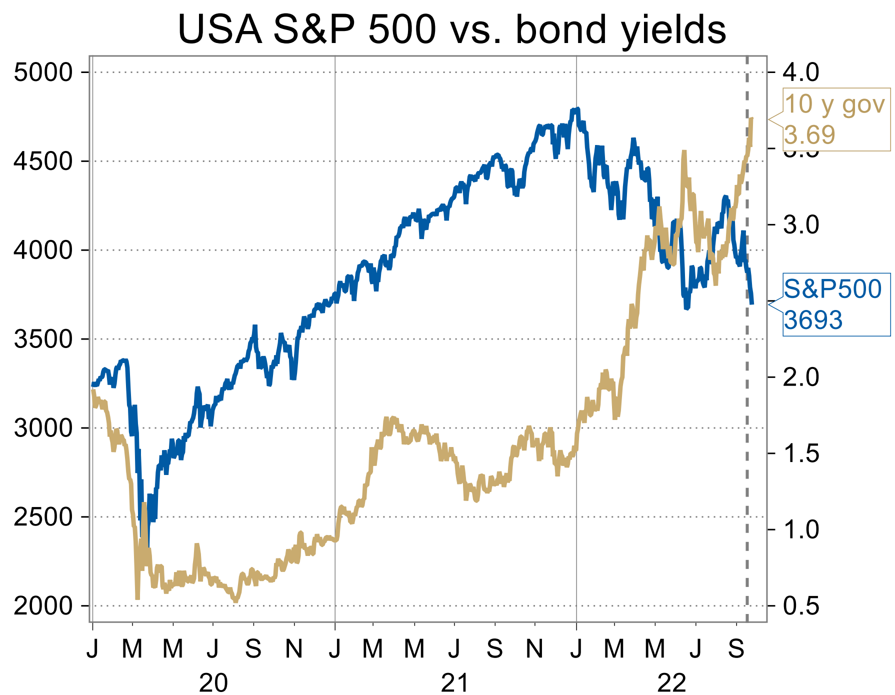
The basis for all valuation metrics has changed dramatically. And all calculations of return on capital

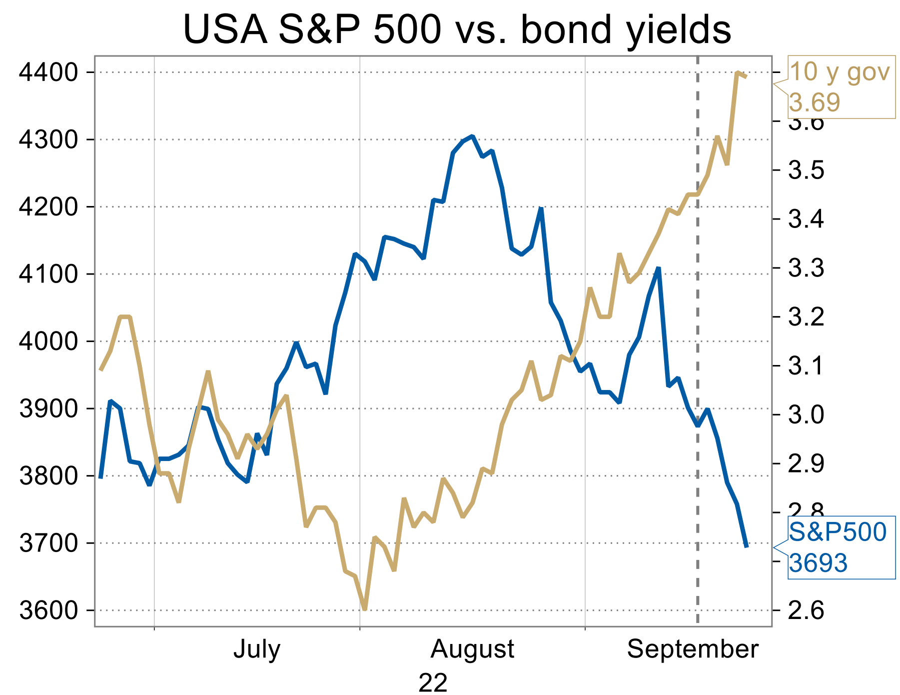


- The total real borrowing cost has increased to 365+ bps from zero by the end of last year:
  - » The TIPS real rate is up from -100 to + 130 bps
  - » The BBB corporate investment grade spread is up from 120 bps to 233

And last week it was the Fed

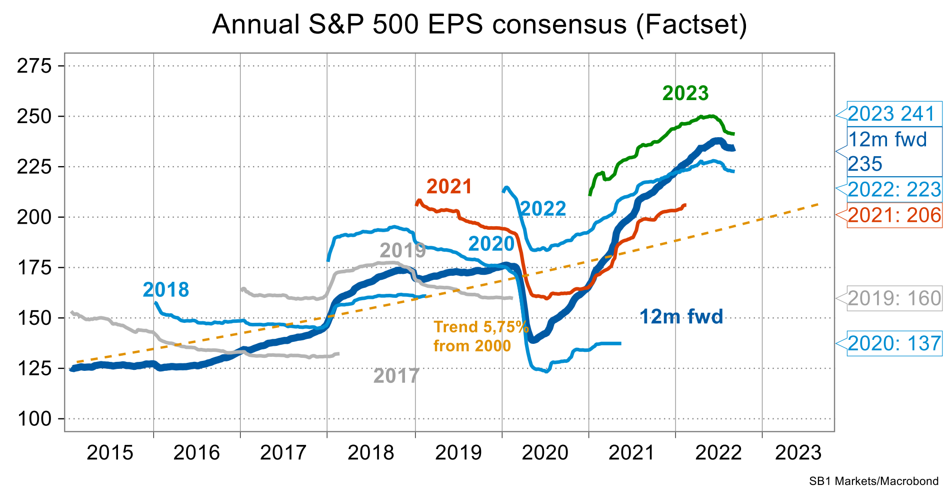
The S&P is approaching the June local through – 10 y treasury yield rose 24 bps to 3.69%

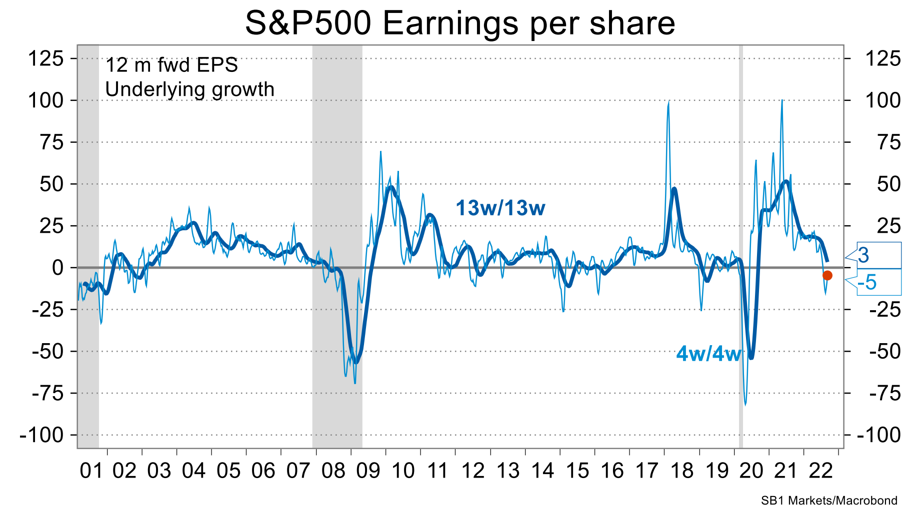


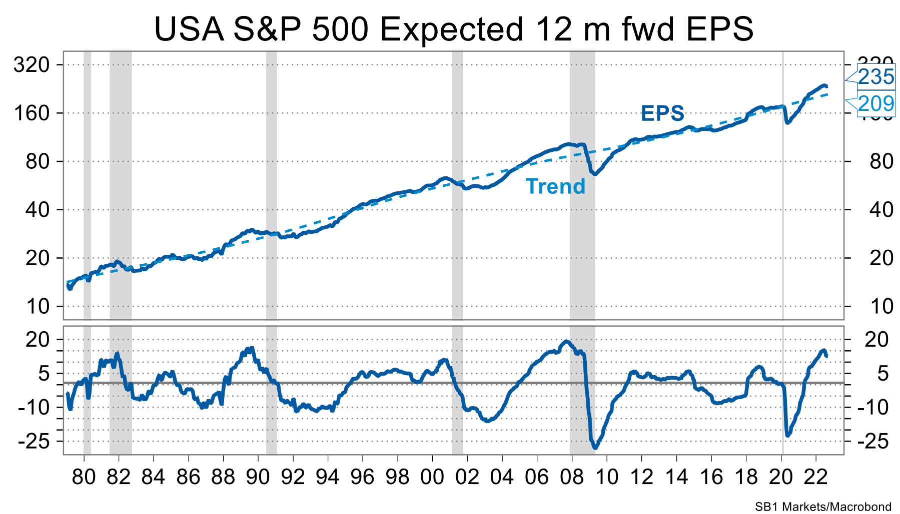


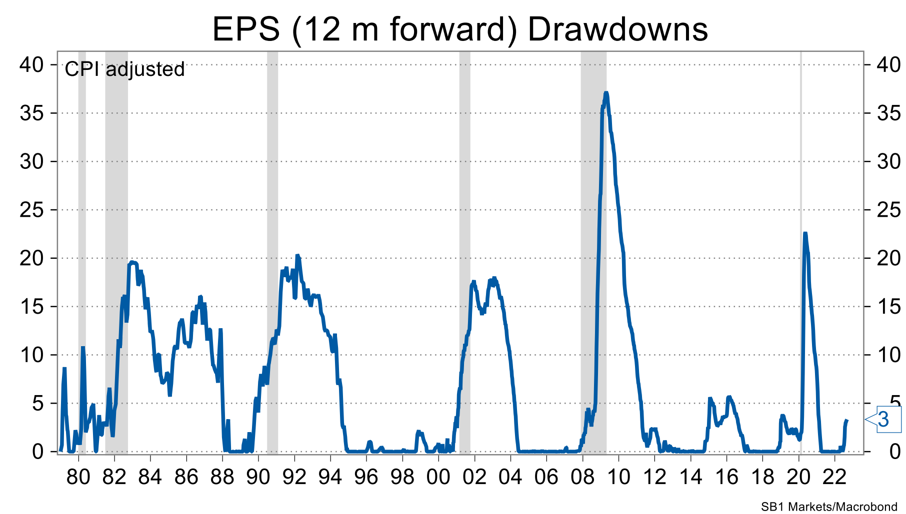
Earnings forecasts finally on the way down – but just slowly recent weeks

S&P 500 expected 12 m fws EPS was some 15% above trend and has just fallen some 3%





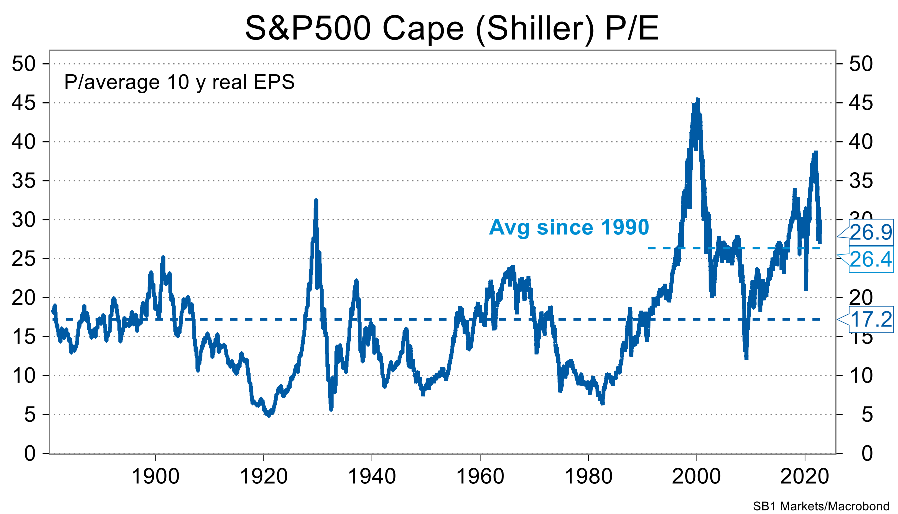


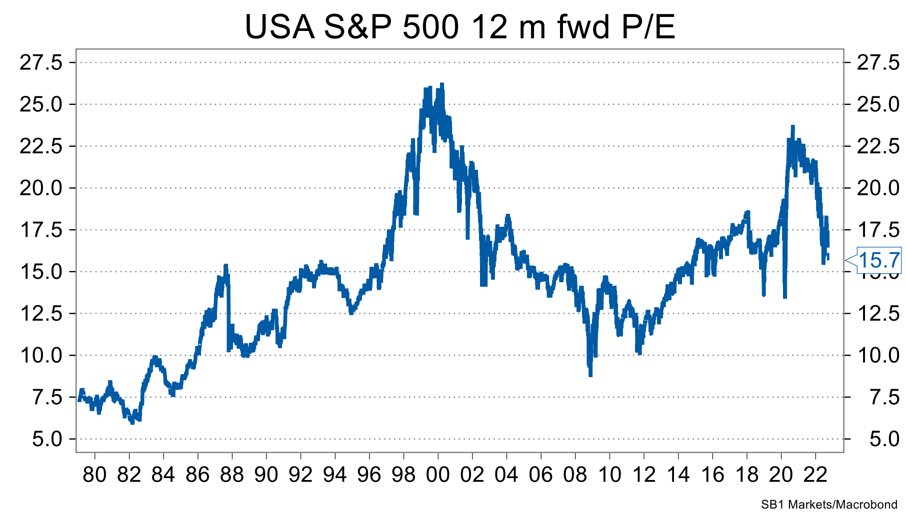


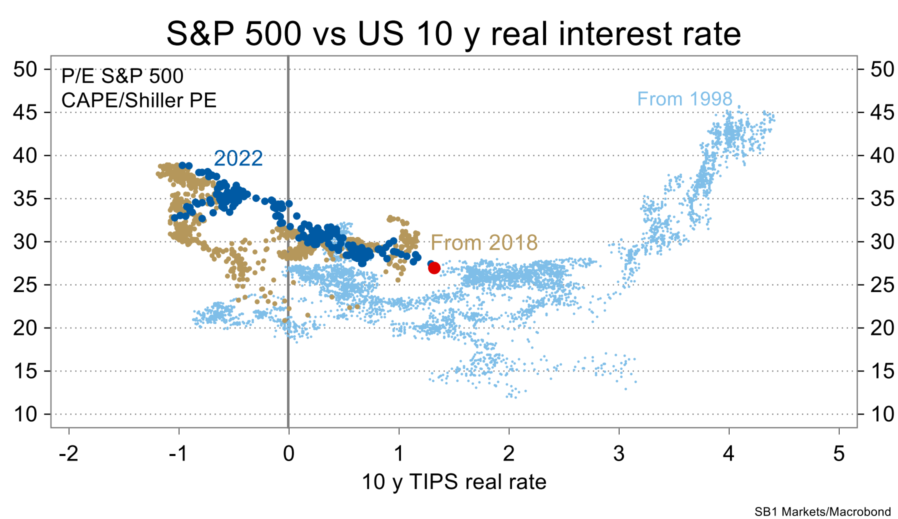
SpareBank 1 MARKETS

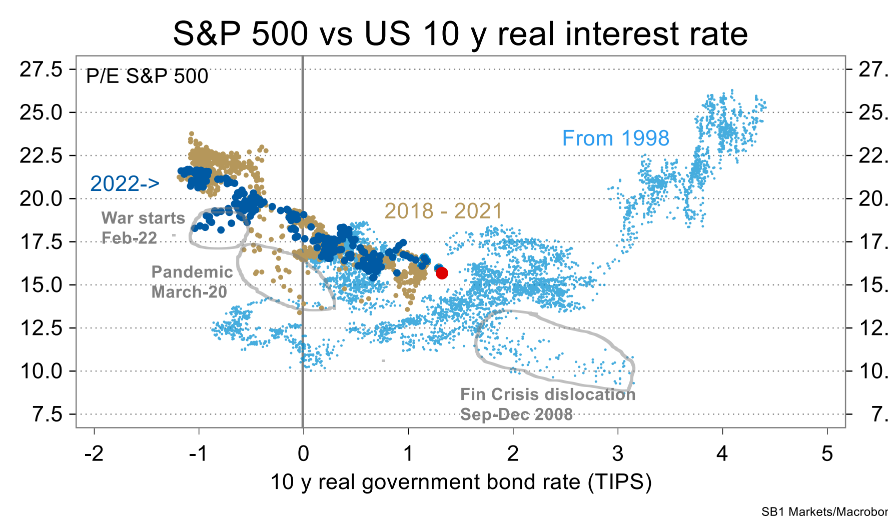
4 valuation charts

The TIPS real rate has been the main driver for the P/E since 2018. And it still probably is









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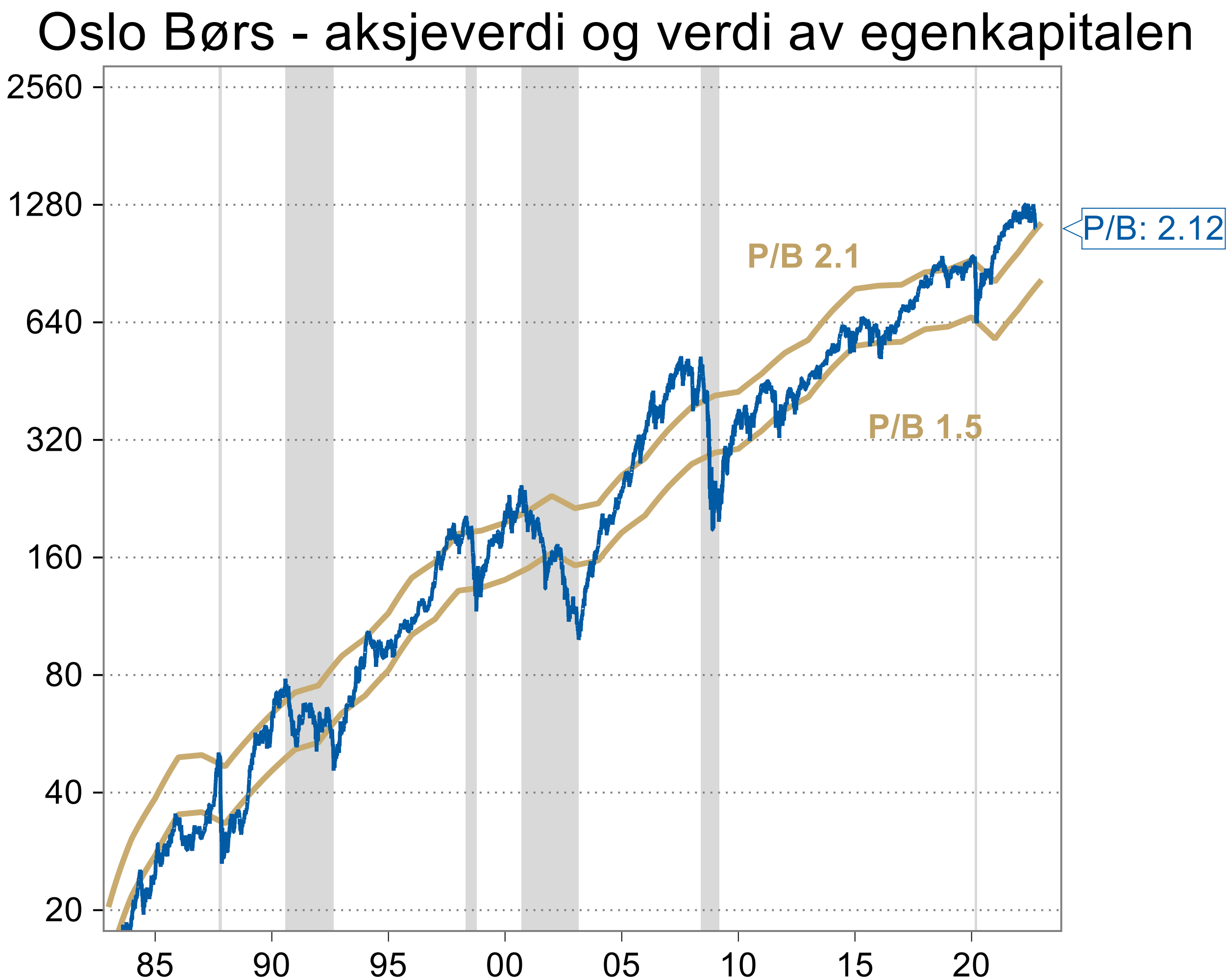
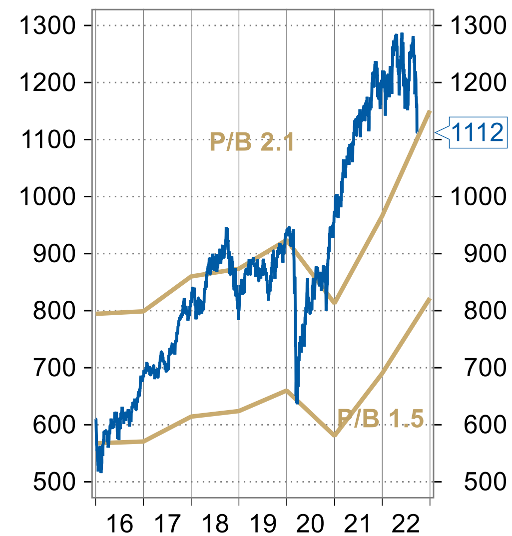
Finally, OSEBX almost hit the upper band of the 1.5/2.1 Price/Book corridor

Thus, it is just 29% down the lower (1.5) band, at 800! A <u>very</u> safe bottom at 500 (P/B=1)

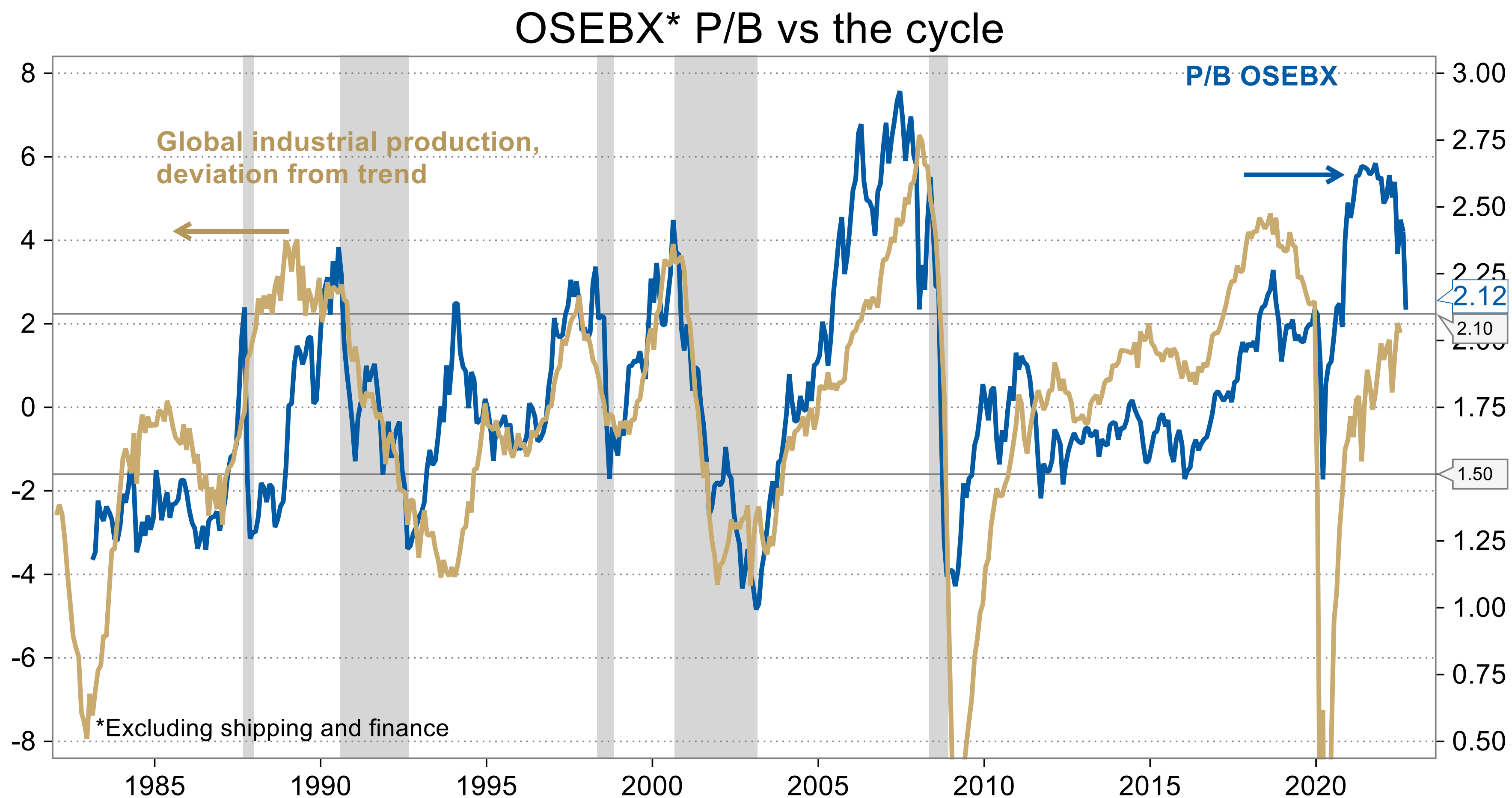


Source: Oslo Børs, Vital, Bloomberg, SB1 Markets, Macrobond.



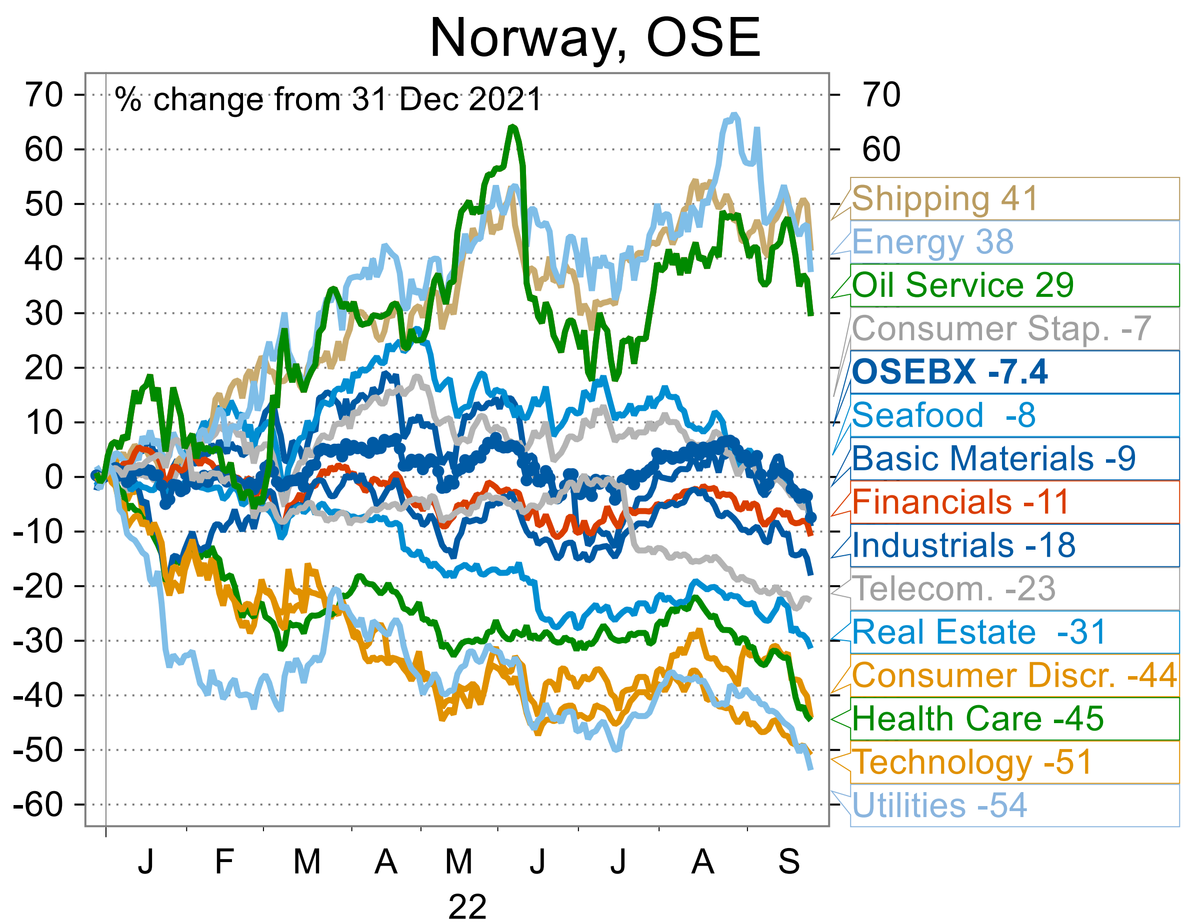
Source: Oslo Børs, Vital, Bloomberg, SB1 Markets, Macrobond.

The next shoe to drop: The global economic cycle



Source: Oslo Børs, Vital, Bloomberg, SB1 Markets, Macrobond.

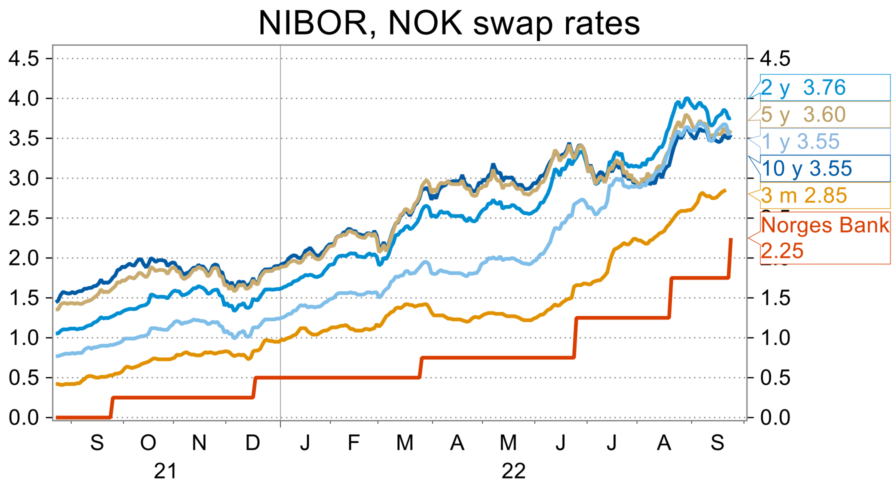
Energy & shipping is still up 30% – 40% in 2022, all other sectors are down

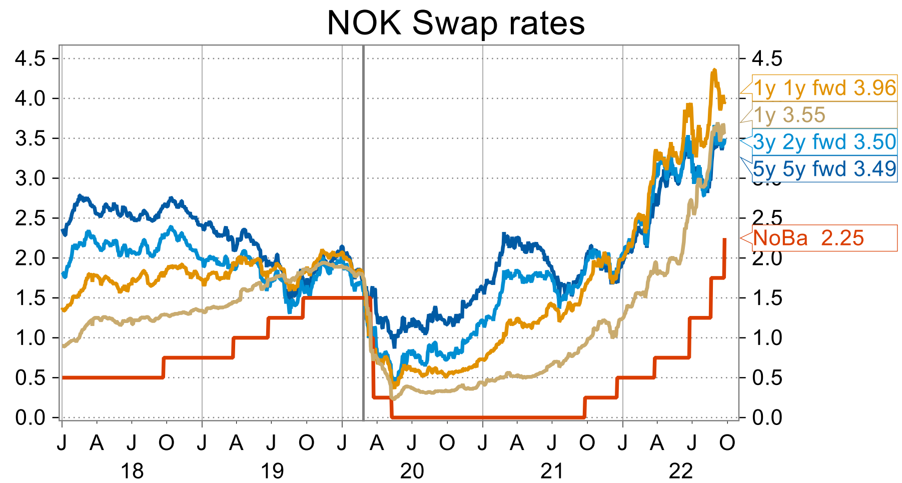


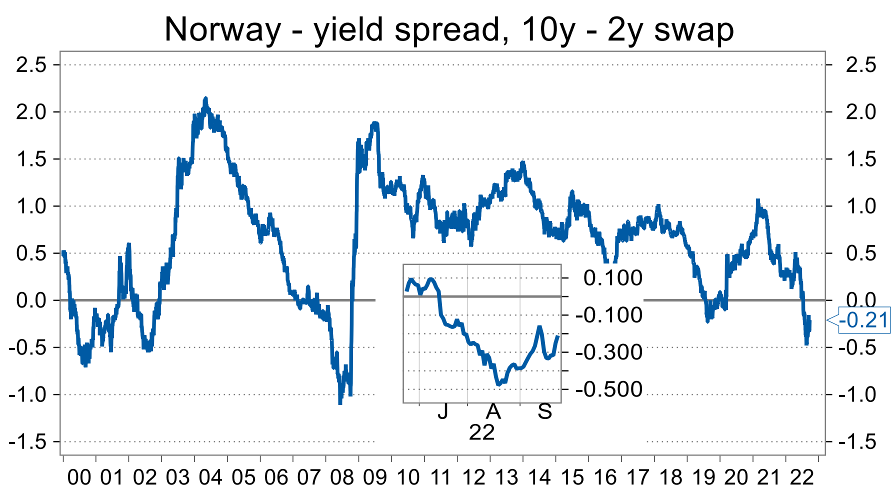
SB1 Markets/Macrobond

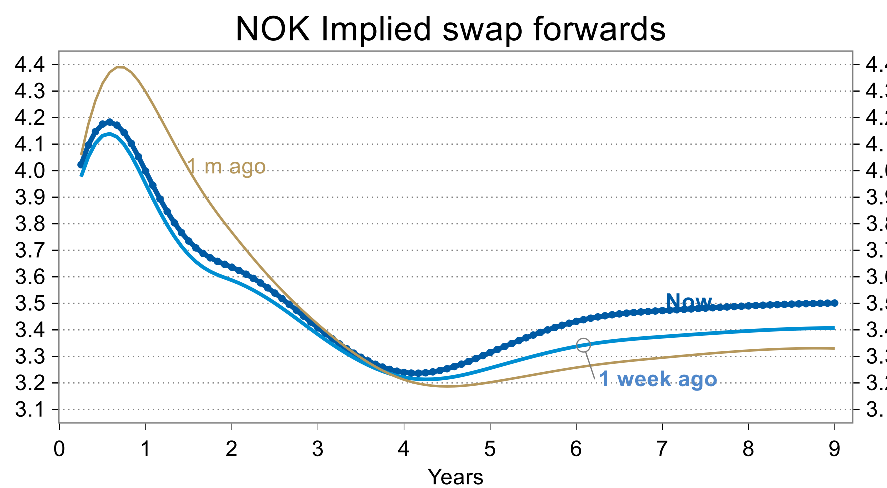
Norwegian swaps slightly up in the short end, and up in the long end

The 3 m NIBOR up to 2.85%



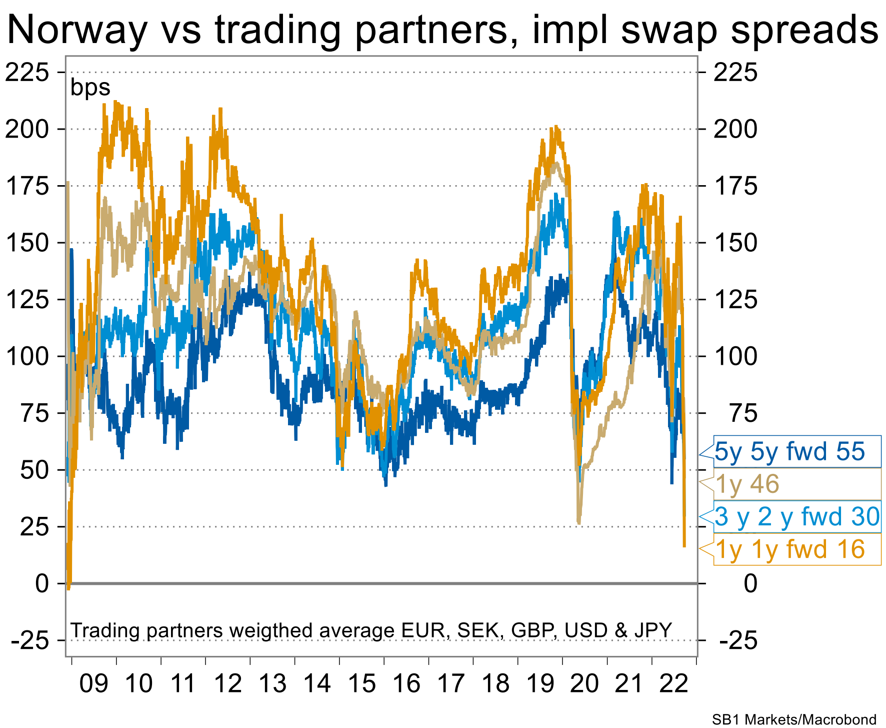


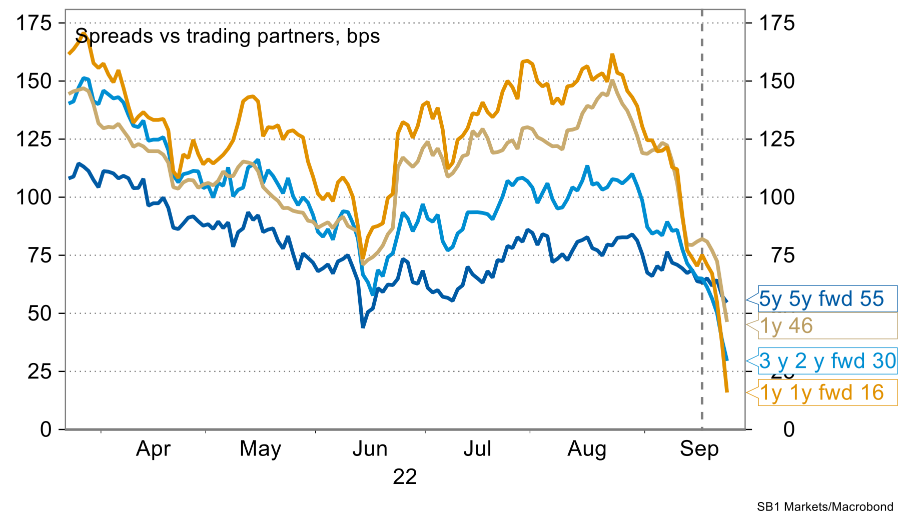


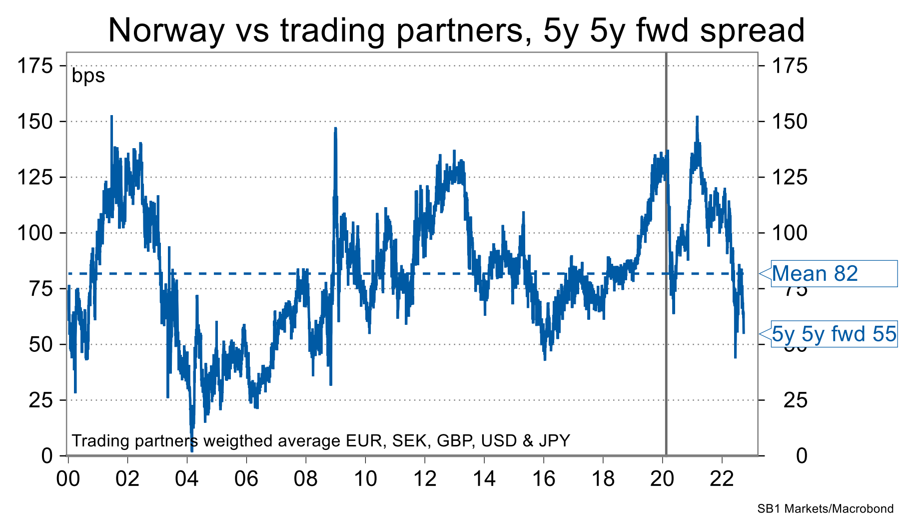


Spreads vs trading partners on the first part of the curve have collapsed!

Implied spreads have fallen to levels far below average all over the curve – for good reasons



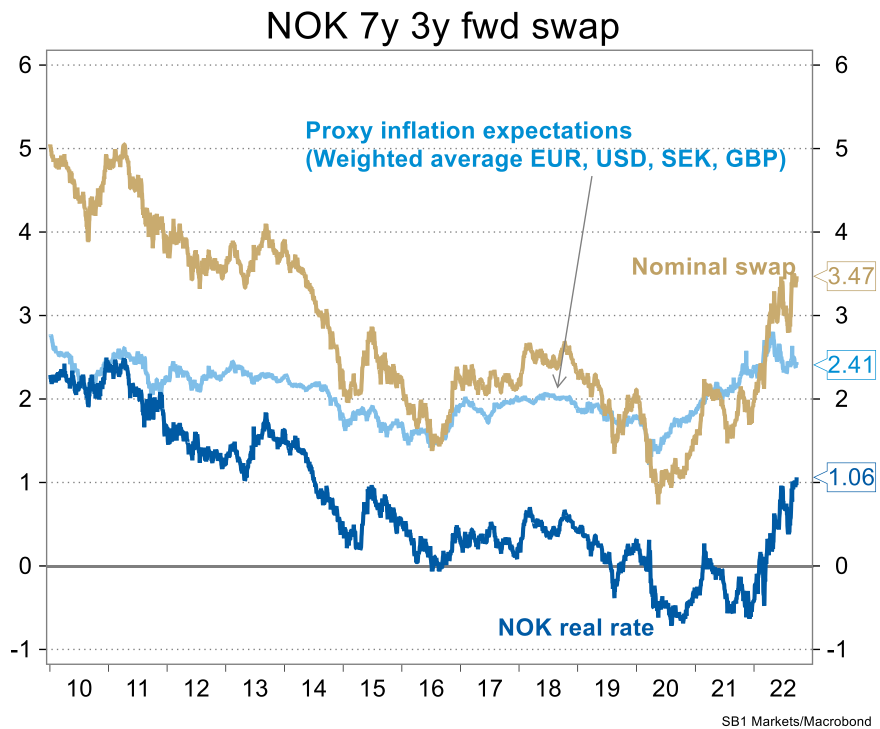


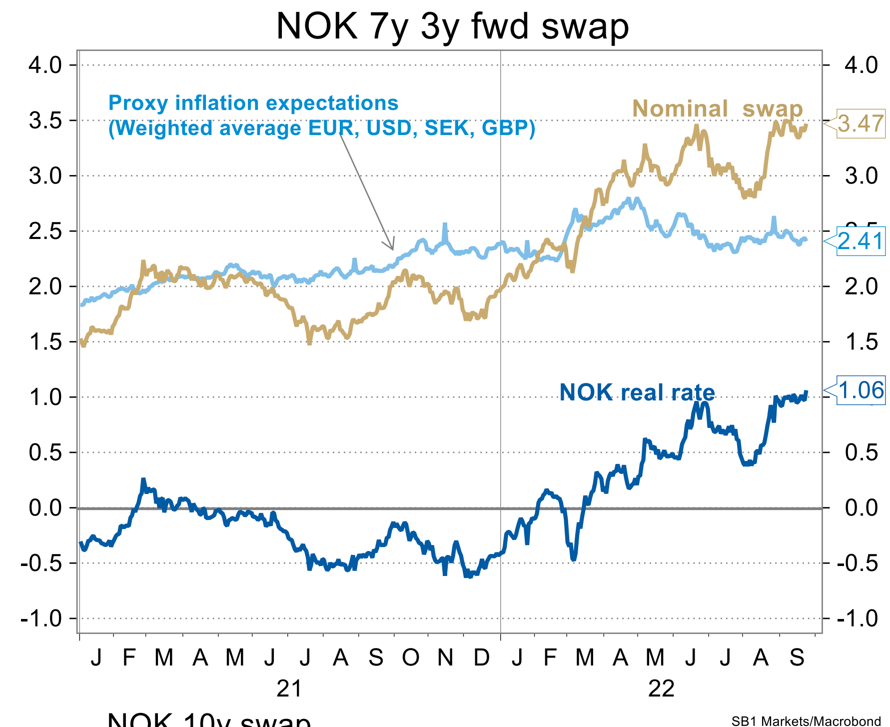


- NOK rates are still well above the average level among our trading partners – and we doubt Norway will need that much higher rates than other countries
  - » Inflation will not deviate much over time
  - » The real rate may of course deviate substantially, depending on structural differences, like growth potential, tax system
- However, the 'structural' low rates in the Euro Area (compared to the Anglo Saxon countries) may take the 'trading partner' average too far down
- **Now, there is still some downside potential in the short end, given the still rather aggressive NOK FRA-rate path (check next page)**

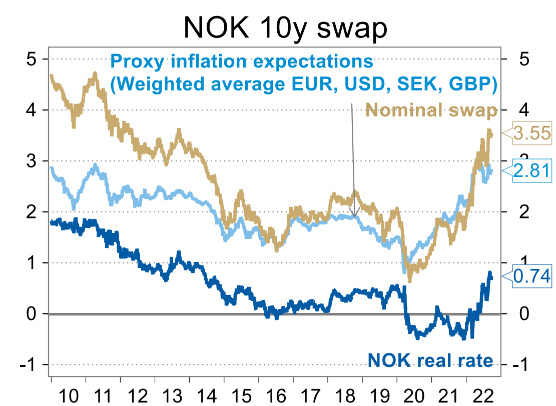
Norway: NOK real rates just marginally up – inflation expectations flat too

Real rates are trending up, inflation expectations are trending down





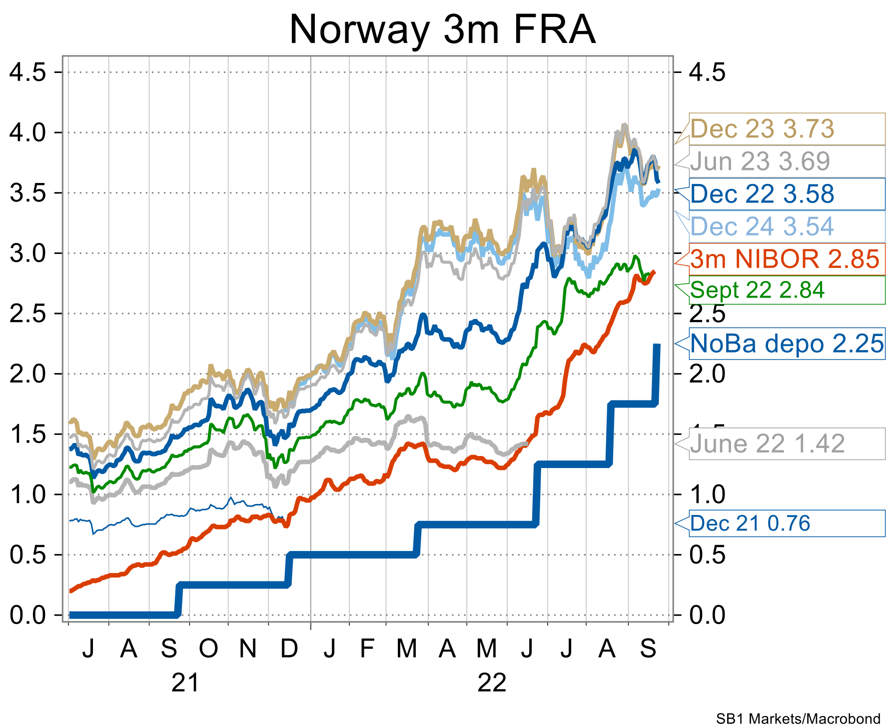
- The lift in nominal swap rates recent months is due to higher real rate expectations, not higher inflation expectations

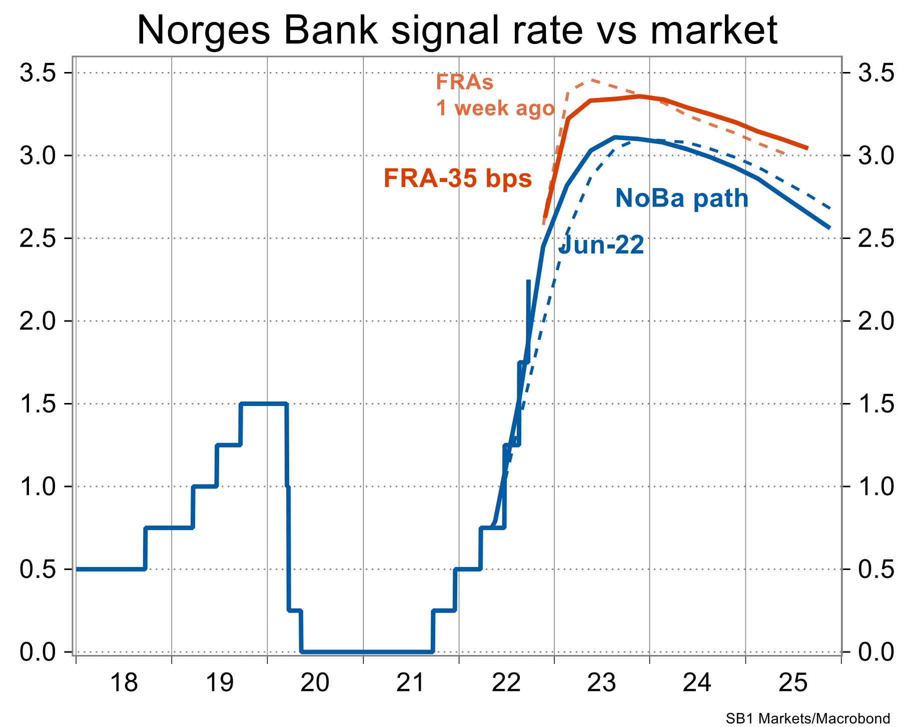


Memo: Our NOK inflation expectation proxy is a weighted average of EUR, SEK, GBP, and USD inflation swaps, cross-checked vs historical inflation differentials and inflation expectations from surveys

NoBa hiked 50 bps as expected, but the path was kept close to unchanged

… which we assumed, but the market was surprised and FRA rates fell. Still, FRAs are still far too high!

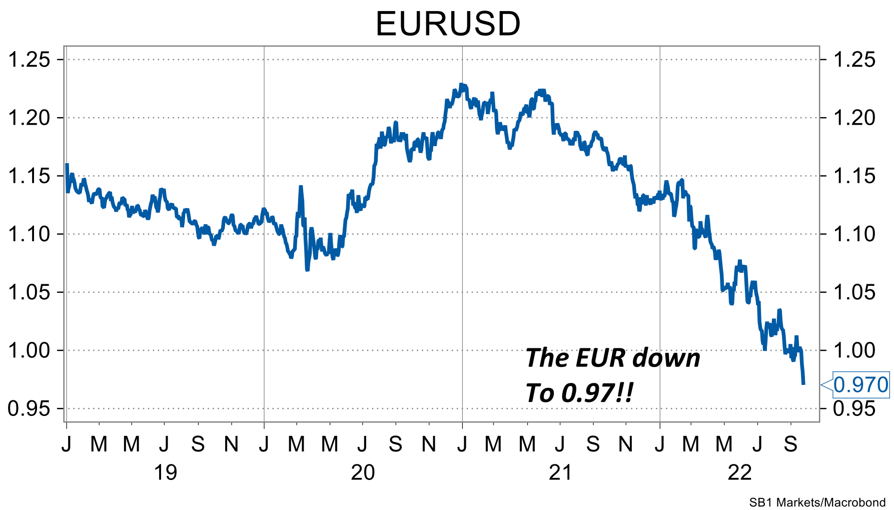


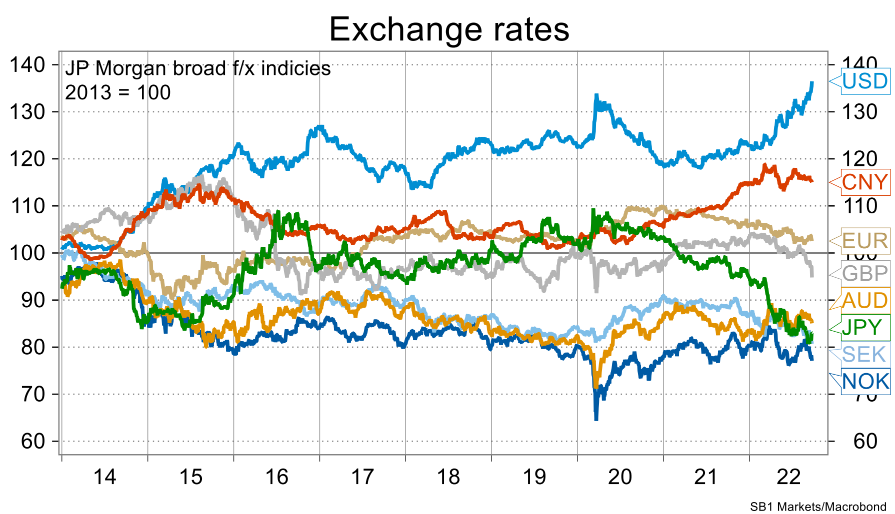


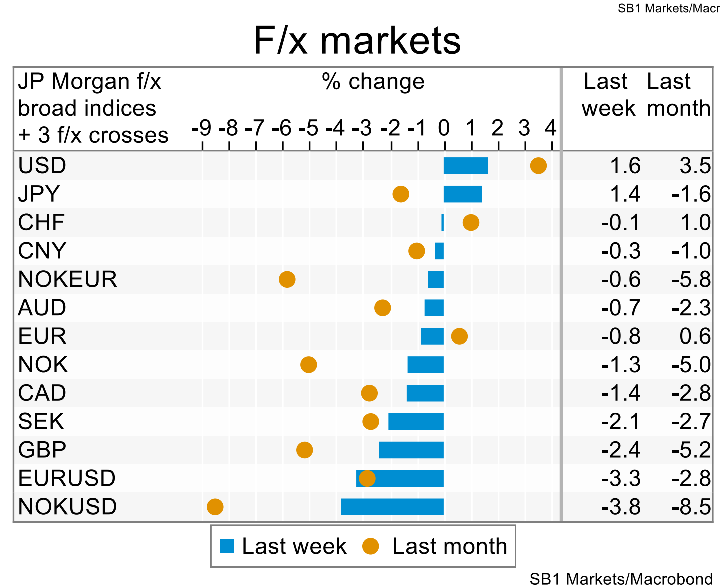
- **The 3 m NIBOR** added 6 bps to 2.85% last week
- **NoBa** signalled +25 bps in Nov and +25 bps in Dec. The **FRA markets** assumes close to 50 + 50, as the Dec FRA rose 7 bps. Thereafter the FRAs fell until Dec-23 – and rates rose after that, supported by the surge in rates abroad
- **Market expectations** are too aggressive. Given the average debt level, as well as the proportion of households within the 'fat tail to the right' (the proportion who have borrowed a lot vs. income), household demand will hurt too much, and house prices could fall faster and more than is needed to take the inflationary pressure out of the Norwegian economy. Real wages are under pressure as well, and there are few signs of higher wage inflation. Very likely, the GDP will decline. However, capacity utilisation and excess demand for labour are very high. Thus, a further, some further tightening is probably warranted

GBP down the drain as markets votes NO the huge tax cuts/fiscal stimulus

NOK also sharply down, as was the EUR. The JPY got a boost from highly unusual f/x interventions







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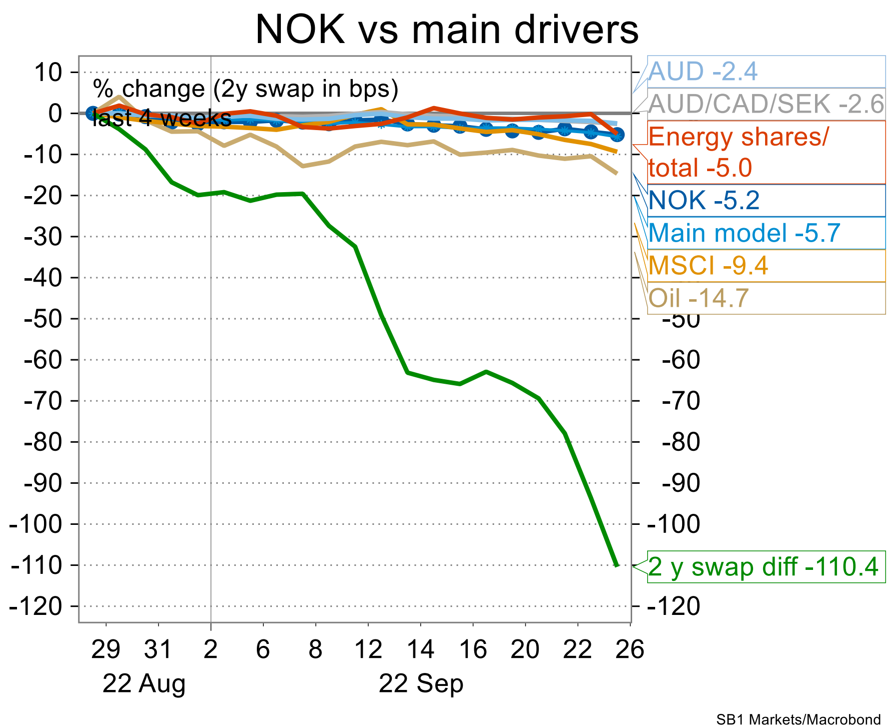
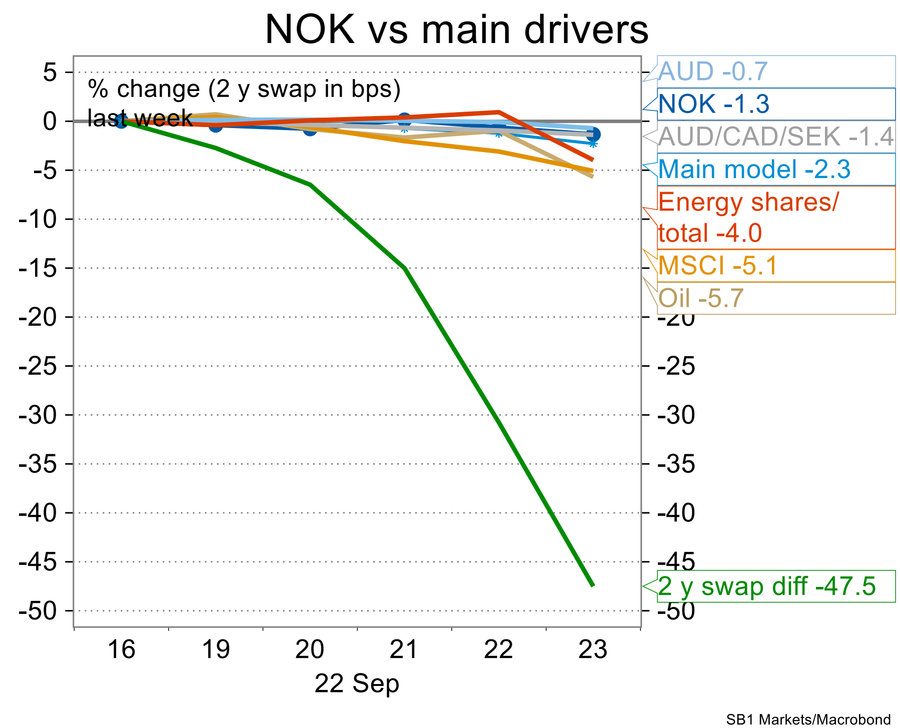
NOK down 1.3%, our model suggested -2.3%. The gap is just 0.5%

A huge decline in the 2 y swap rate differential last week – and recent weeks. A lower oil price too





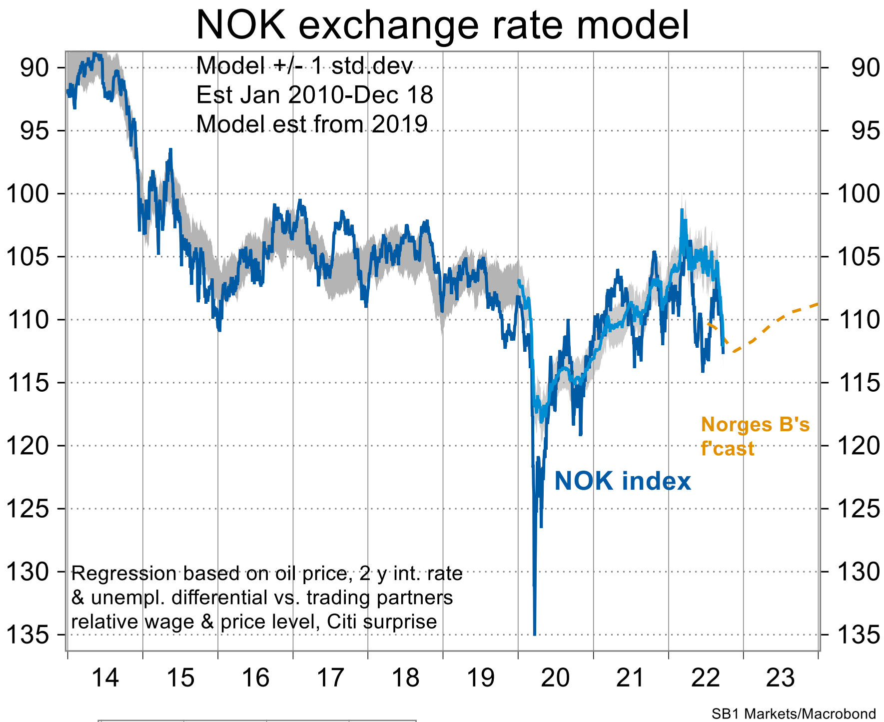
Gaps vs. out model estimates narrowed

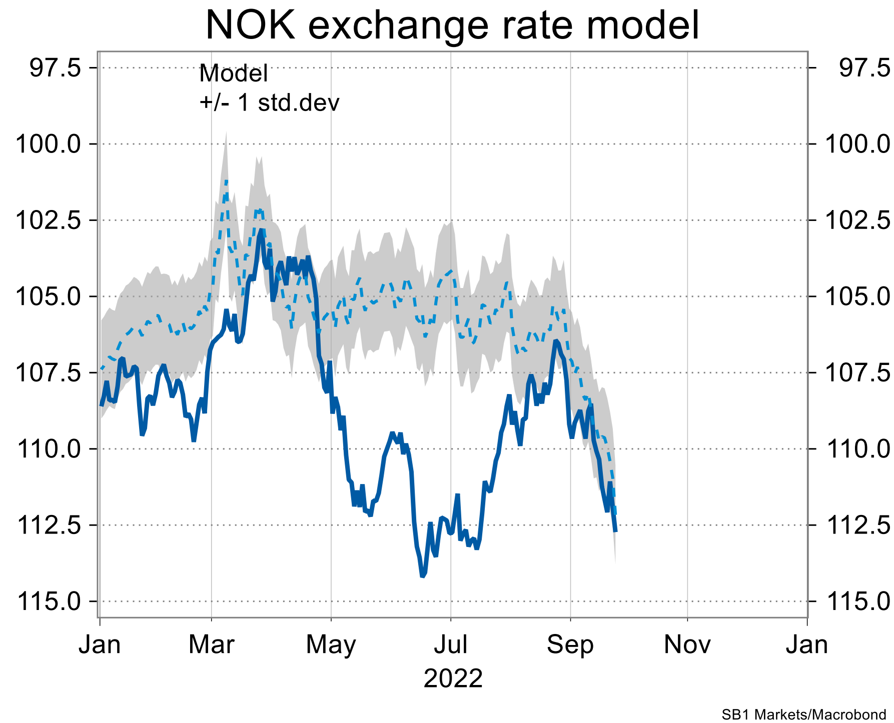
- ***NOK is 0.5% <u>below</u> our main model estimate (from –1.4%)***
- The NOK is 7% <u>weaker</u> than our AUD/CAD/SEK-model, our 'super-cycle peers', predicts, a substantial weakening (from -8%)
- NOK is in line vs an estimate from a model that includes global energy companies equity prices (vs the global stock market) (from 2% weaker)

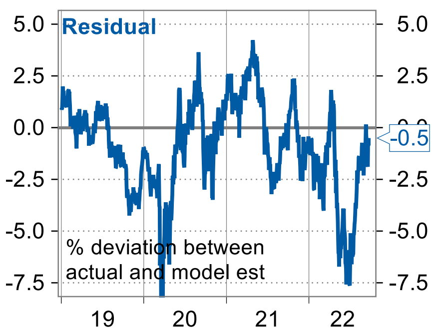
At this and the following pages we have swapped Norges Bank's I44 index for JP Morgan's broad NOK index and rebased it to the current index value for the I44. The I44 has an earlier closing time than the 'official' closing time for f/x crosses. There are no substantial difference between these two indices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

The NOK is close to our beloved model forecast

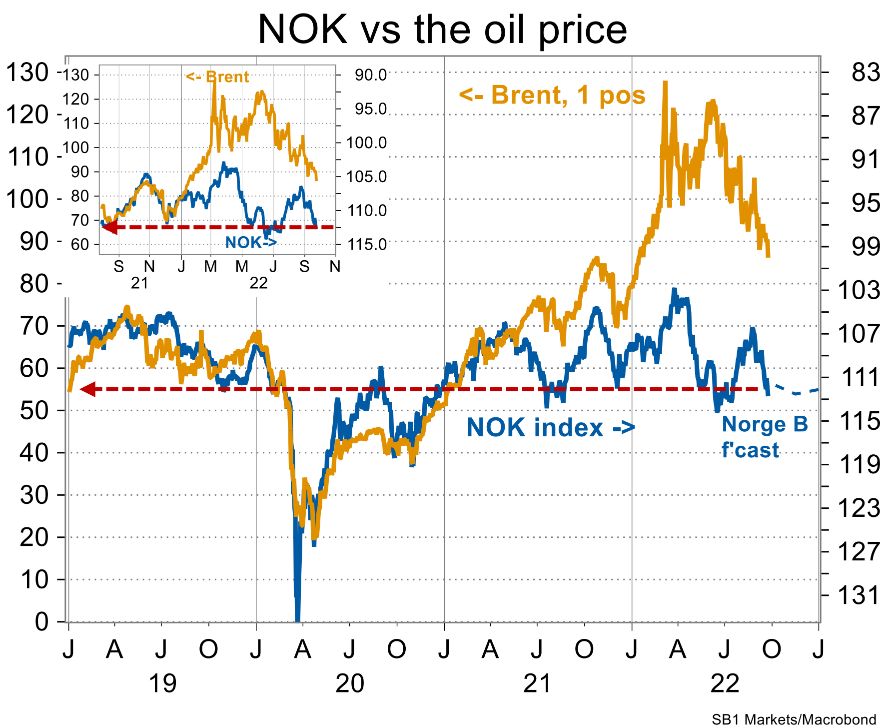
Both are heading down of course

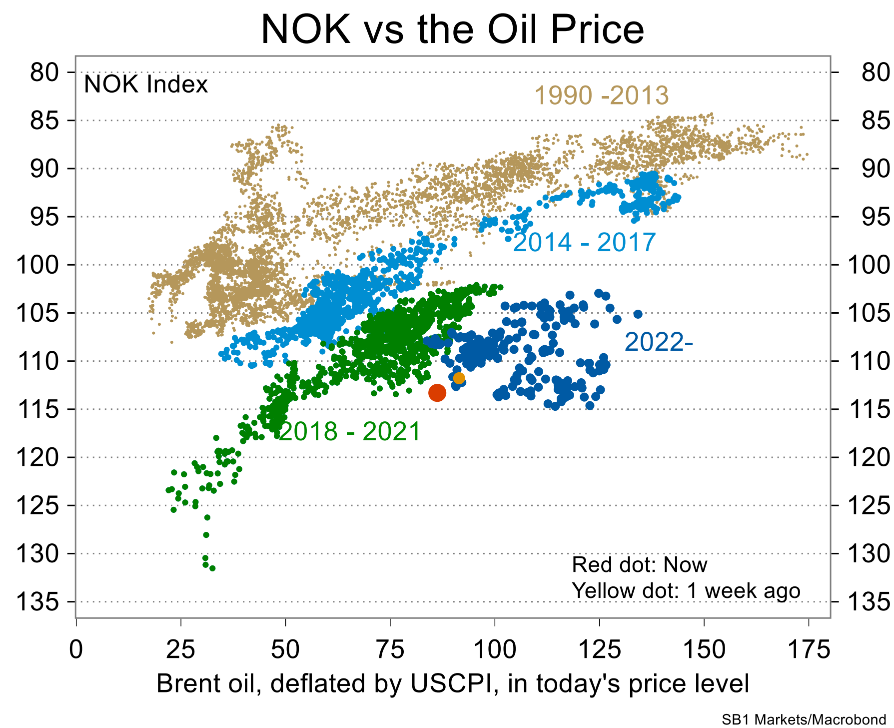






NOK is heading downwards in tandem with the oil price

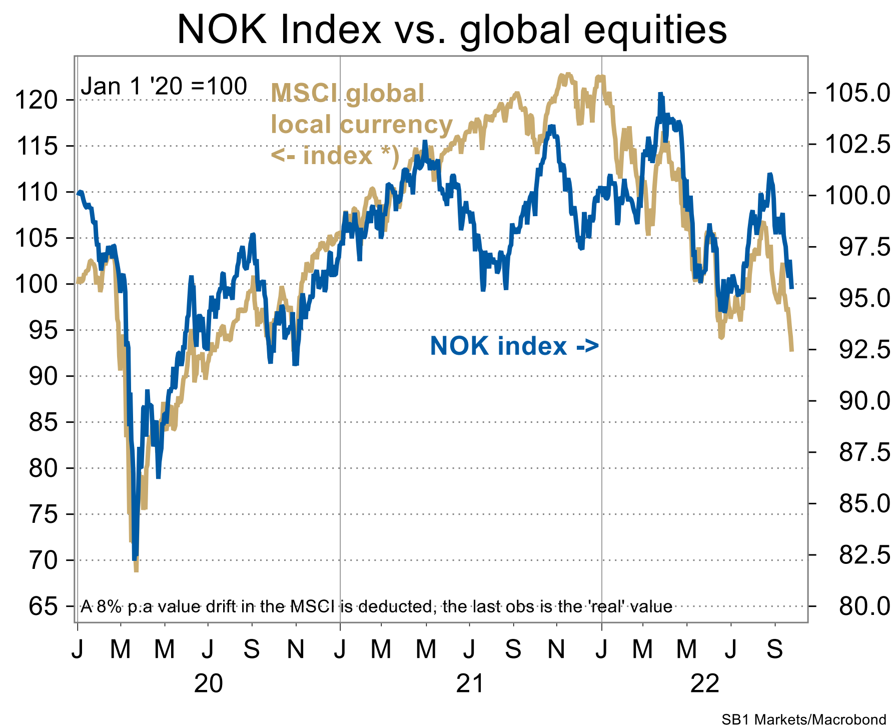


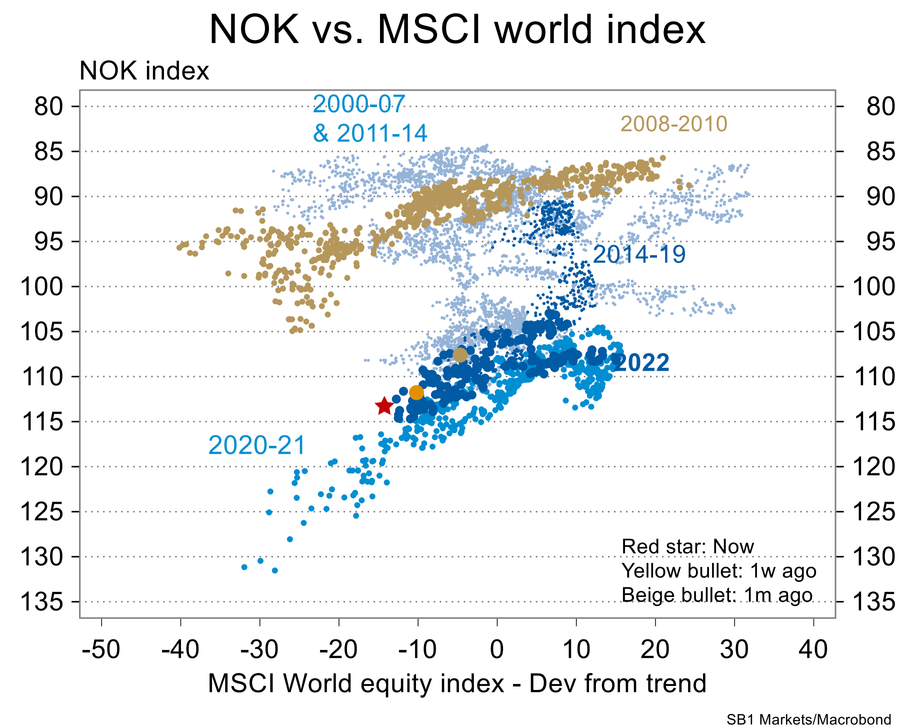


- The x/y chart to the right, the NOK vs the oil price has come closer to the 2018 – 2021 pricing regime
- However, the correlation between the NOK and the oil price has been non-existent since the start of 2022

The NOK has joined global stock markets, downwards

The NOK has been more in sync with stock markets than normal since April

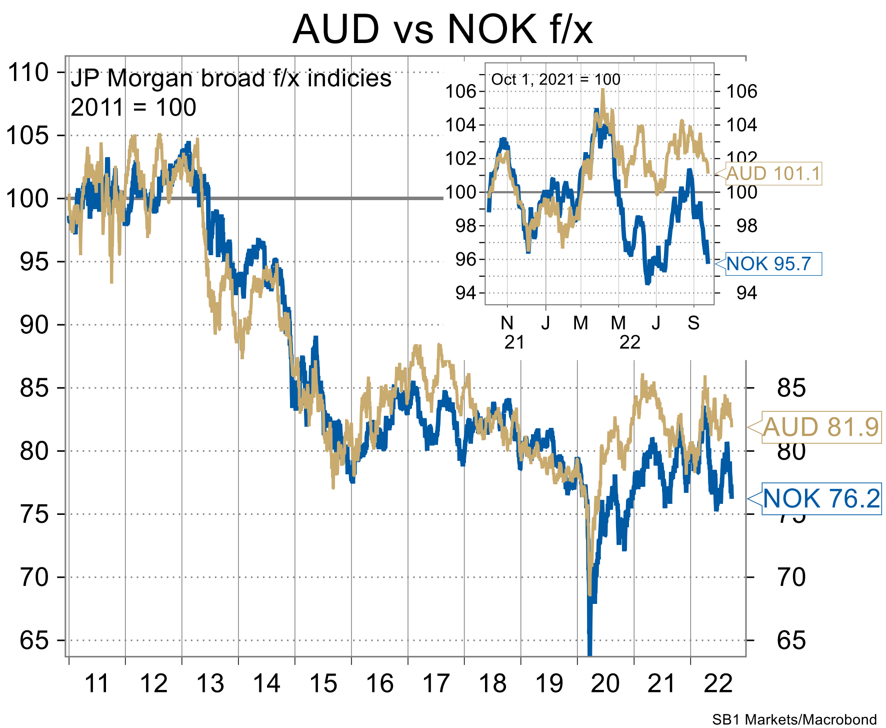


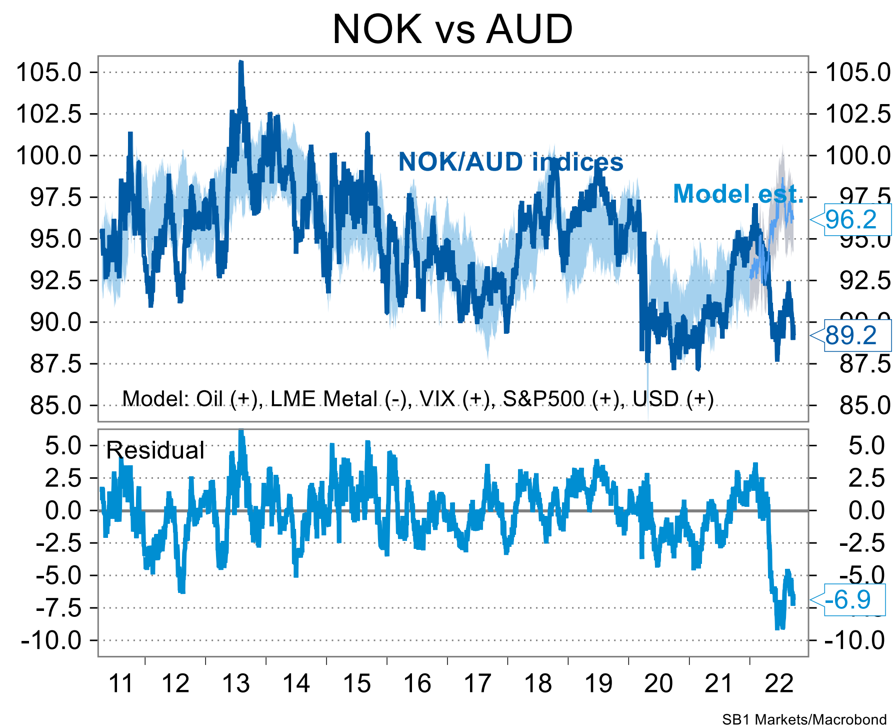


- There is no stable correlation over time, and when it is, the oil price is normally the real driver

AUD down, NOK even more

NOK is 6% below our model f'cast vs AUD, even if the gas price is <u>not</u> included

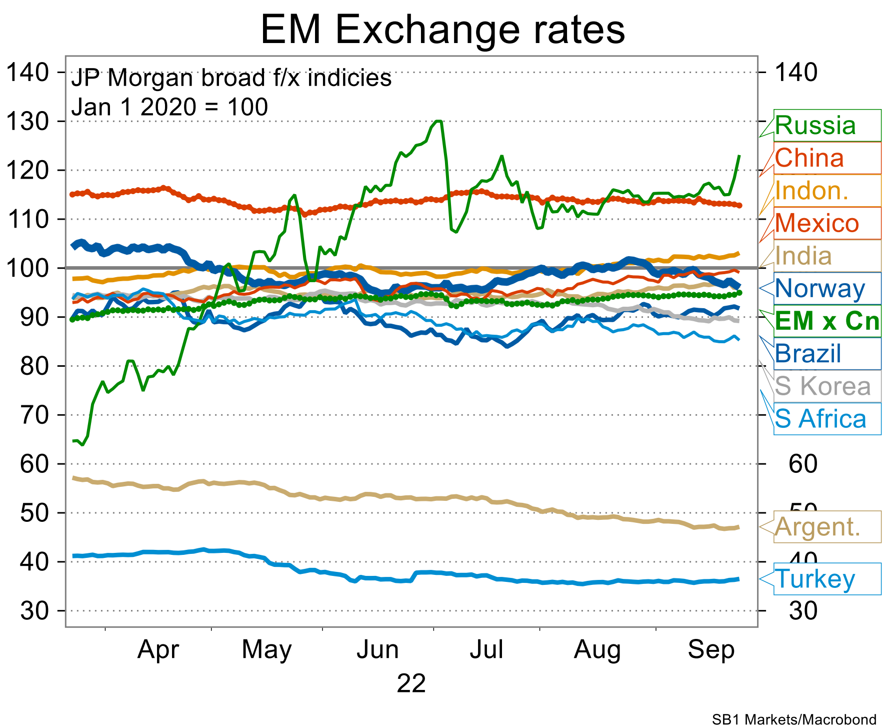


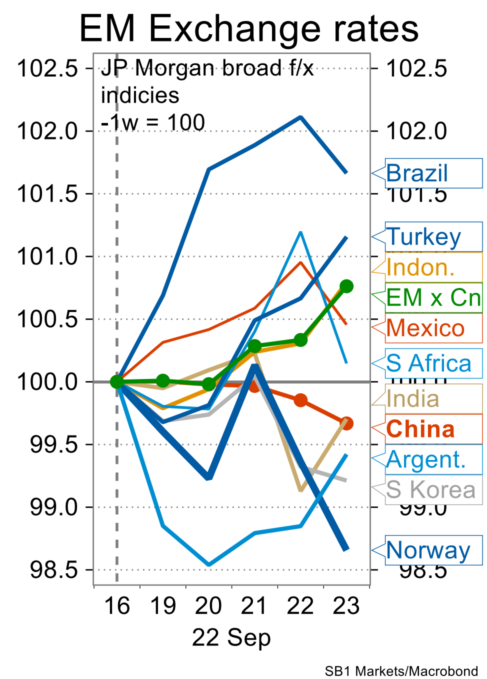


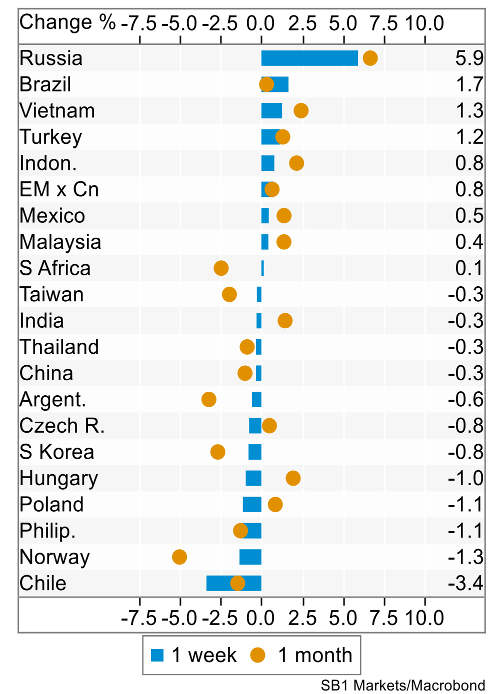
- The discrepancy between the NOK and AUD is unusual, given the normal factors that decide the limited gap between the two
- Normally, NOK strengthens vs the AUD when the oil price rises vs. the LME metal index, when VIX, and the S&P500 index increases, and the USD index appreciates. Seem like we need a new model. Until we find it, buy the NOK index (and short the AUD index)

Russia is escalating the war, threatening with nukes. And the RUB strengthens

Mixed elsewhere in the EM f/x space. For comparison, Norway on/close to the bottom of the list last w/m







- The CNY has been slightly on the weak side recent weeks

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