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Euro Area Research
Measuring the euro area inflation pulse

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Important disclosures and certifications are contained from page 47 of this report

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Summary: measuring the euro area inflation pulse

1. Euro inflation rewind: re-opening mismatch

- Energy remains the main inflation driver, but underlying inflation pressures are building

2. Theme: Europe's green transition will put the heat on inflation

- Upside risks to inflation if governments become serious about their net zero 2050 targets

3. Theme: 5 things to watch on wage dynamics

- **Negotiated wage growth:** Signs of stronger bargaining power?
- **Minimum wages:** Further increases ahead?
- **Labour supply:** Will it return to pre-crisis levels?
- **Phillips curve:** Will the link between wages and core inflation re-establish itself?
- **Labour productivity:** Trend shift in light of a digital/green revolution?

4. Euro inflation outlook: mind the inflation gap

- We expect HICP inflation to remain above ECB's target until H2 22, but fall back to a 1.5-1.7% range thereafter

5. Inflation expectations and market dynamics: stagflation fears

- Inflation expectations continue to rise, but with no signs of de-anchoring
- Markets are increasingly buying into the permanent inflation narrative

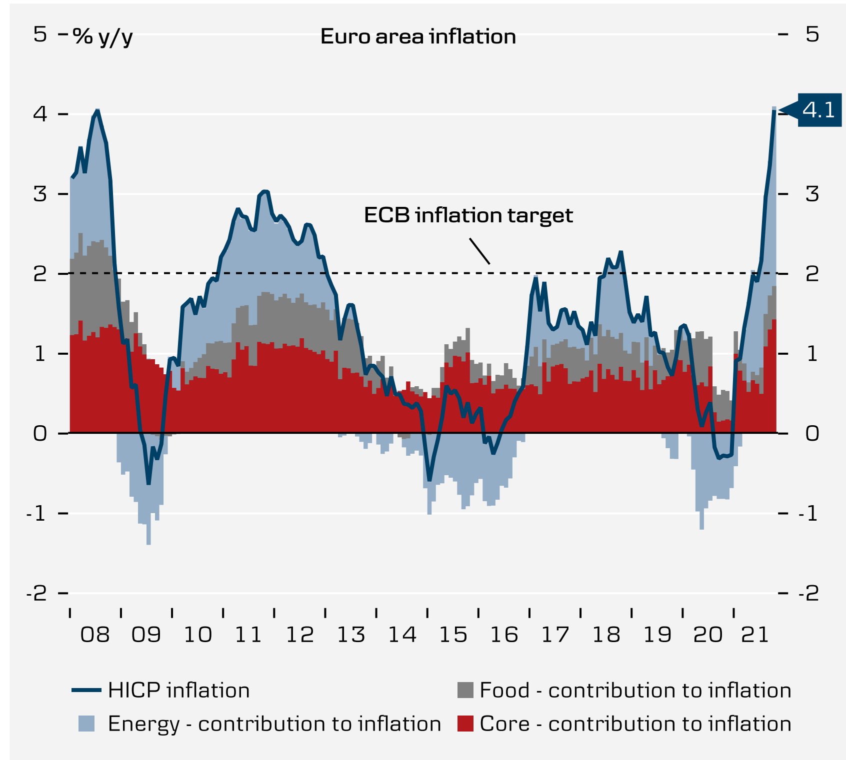
Euro inflation rewind: re-opening mismatch

Is the current inflation surge temporary or permanent?

During October euro area **HICP inflation** surged to a new record high, fuelling market expectations of an ECB interest rate hike during 2022. Rising energy and commodity prices, cost-push effects from supply chain bottlenecks, tax changes and re-opening effects in services all contributed to the inflation jump observed during 2021. While energy accounts for more than half of the observed price surge, **core inflation** (which excludes volatile energy and food items) also accelerated during the year, printing above 2% for the first time since 2002. A large part of the observed rise can be attributed to changes in German VAT rates, but in recent months increasing signs for rising underlying inflation have also emerged.

Headline inflation has printed above the **ECB's** new symmetric 2% inflation target since July. While the new monetary strategy implicitly allows temporary overshoots, markets have increasingly started to price in ECB joining the growing camp of global central bank raising policy rates. The question whether inflation will moderate in 2022 and 2023 will be important for ECB policy calibration. We continue to see the current inflation spike as largely temporary, but also acknowledge upside risks.

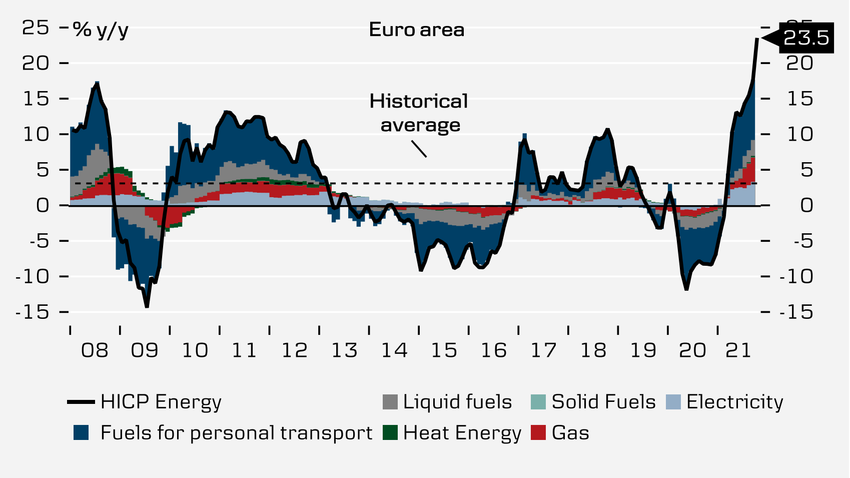
Energy boosts HICP inflation to a new all-time high



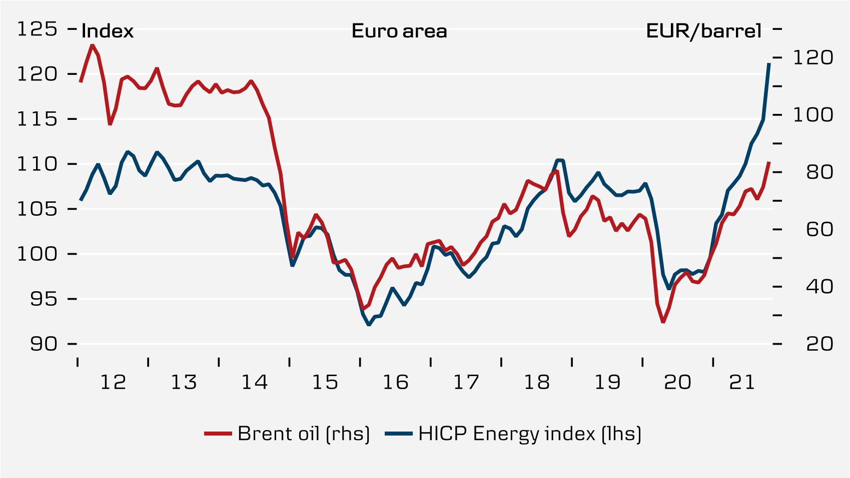
Source: Eurostat, Macrobond Financial, Danske Bank

Energy price surge shows not signs of abating yet

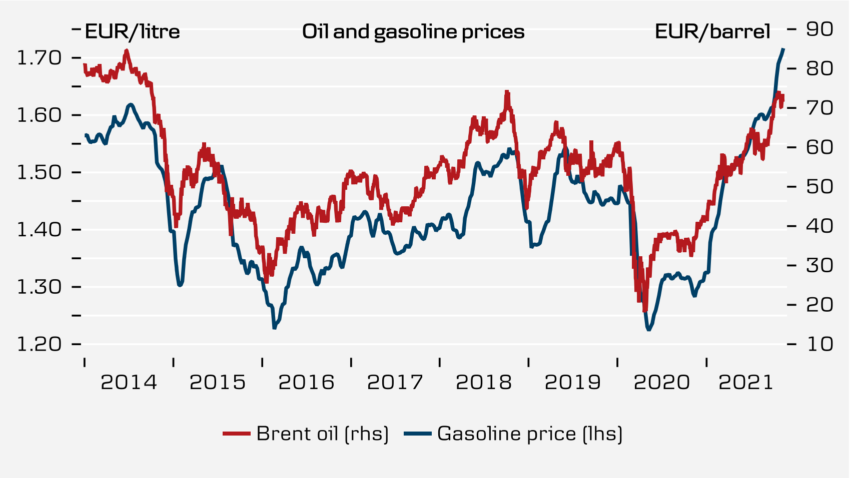
Rising **energy prices** has been the predominant driver behind the surge in HICP inflation during 2021. With the significant rebound in oil prices to above USD/bbl 85 (from USD/bbl 15 in Q2 20), base effects have driven inflation rates for transport and liquid fuels higher, as pass-through happens relatively quickly (usually within 3-5 weeks). We do not expect oil prices to continue rising at the same pace as during 2021 and hence expect the tailwind from energy to start to fade next year. That said, Europe's green transition will probably continue to put upward pressure on energy prices (see theme section p. 17).



Source: Eurostat, Macrobond Financial, Danske Bank



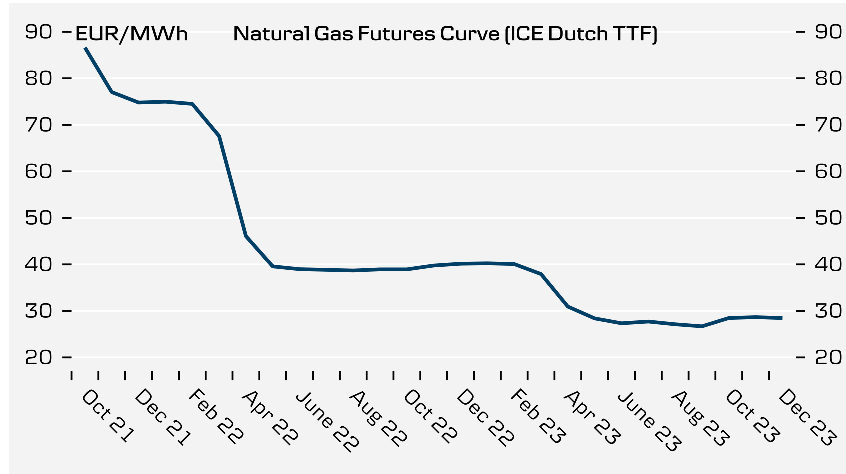
Source: Eurostat, Macrobond Financial, Danske Bank



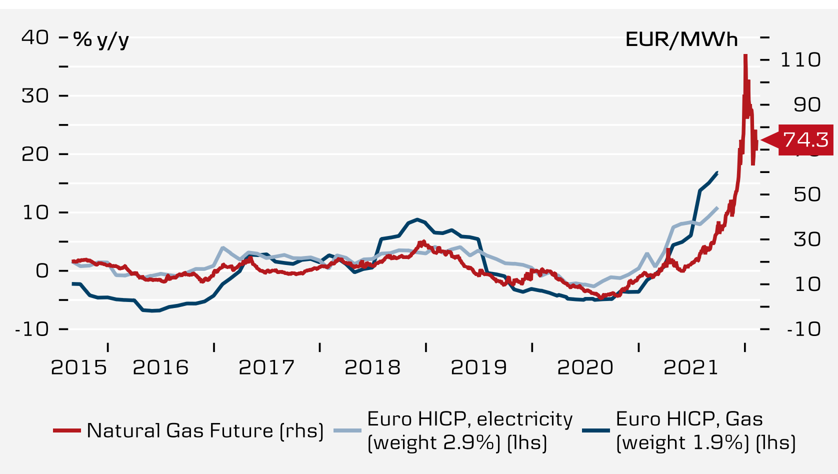
Source: EU Commission, Macrobond Financial, Danske Bank

European gas crunch is adding fuel to the fire

A European **natural gas crunch** has added yet more 'fuel to the fire'. While gas and electricity account for a relatively small share of HICP (ca. 5%), observed price increases of 30-40% y/y will keep energy price inflation elevated well into 2022, despite fading tailwind from oil price increases. A simple regression model based on natural gas futures prices suggest energy prices inflation peaking during Q1 22 and decelerating markedly during H2 22. The pass-through from higher gas prices to consumers will probably be highest in Italy, given that gas accounts for 38% of energy consumption (compared to 23% in Germany, 22% in Spain and 15% in France).



Note: Past performance is not a reliable indicator of current or future results
Source: Macrobond Financial, Danske Bank



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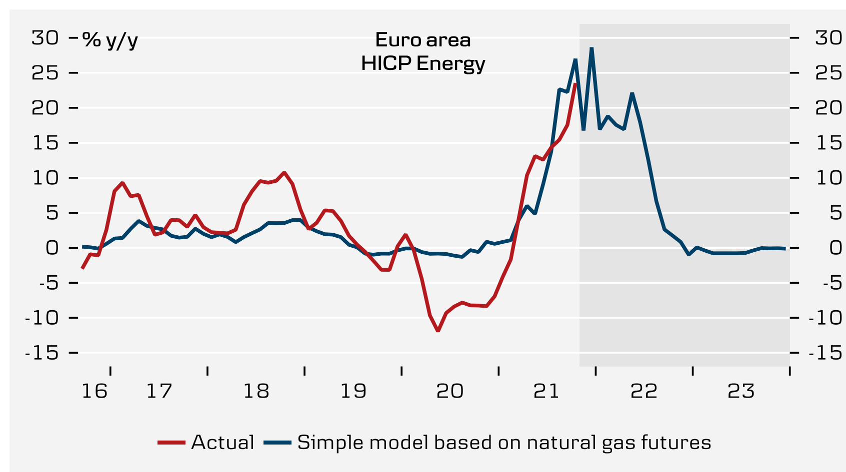
Source: Eurostat, Macrobond Financial, Danske Bank



Source: Eurostat, Macrobond Financial, Danske Bank

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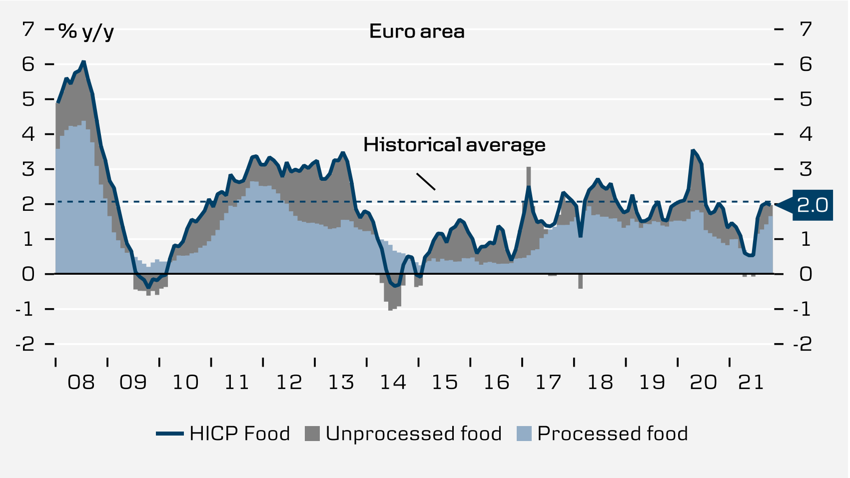
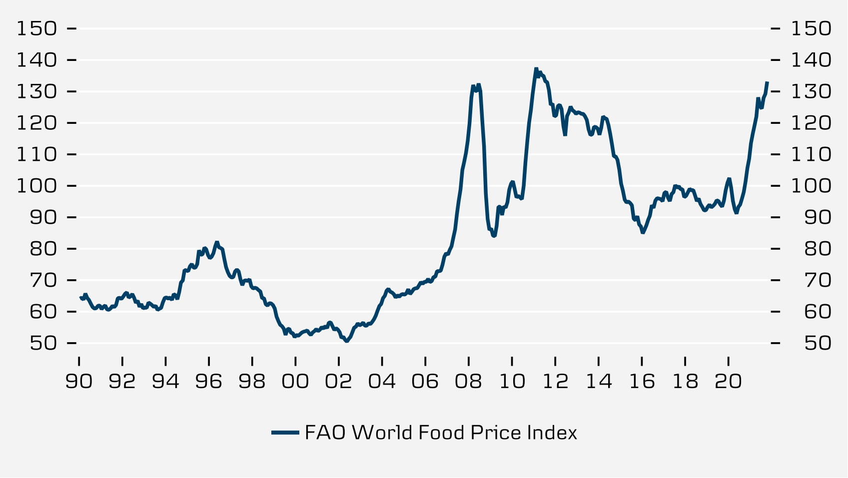
Food prices continue to support headline inflation

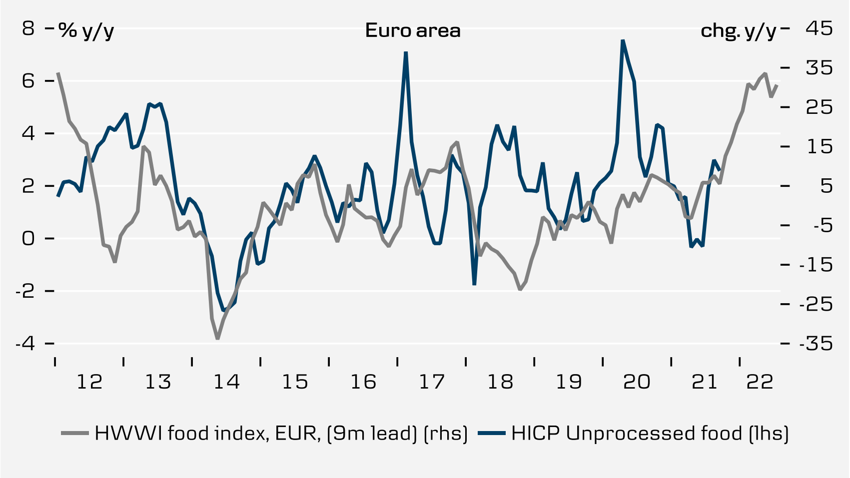
While **food price inflation** has been on a downtrend during H1 21, the last months have seen a marked rebound in food prices in line with global food price developments. Especially processed food prices have seen an acceleration. While base effects from the German VAT cut during H2 20 (which included food items) have contributed to the higher inflation rates, an uptrend was already visible before, notably for dairy products, meats and oil & fats. With the latest surge in global food prices yet to fully feed through to HICP, we expect food price inflation to stay elevated in 2022.



Source: Eurostat, Macrobond Financial, Danske Bank



Source: FAO, Macrobond Financial, Danske Bank

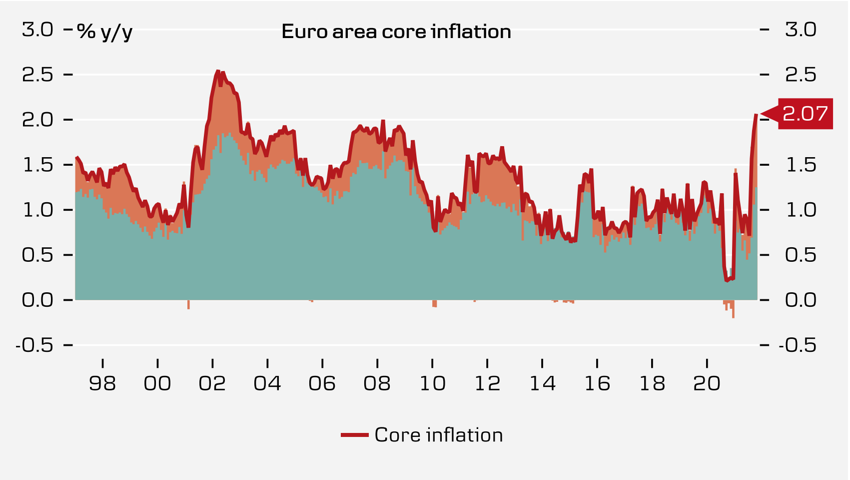


Source: Eurostat, Hamburg Institute of International Economics, Macrobond Financial, Danske Bank

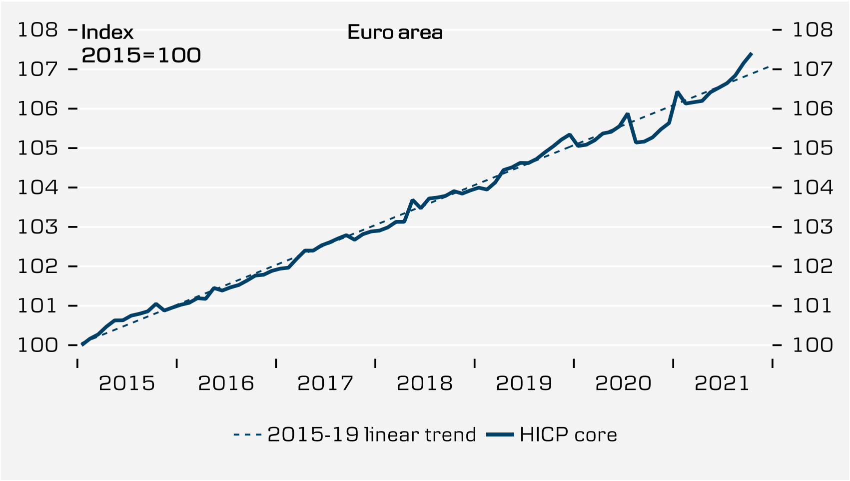
Where does the true core lie?

Core inflation surged to the highest level since 2002 during October and now lies above the ECB's symmetric 2% target. While base effects from the German VAT changes (see p.13) continue to play an important role, we see increasing signs that underlying inflation is also accelerating. Rising input costs and selling price expectations across sectors are increasingly working their way through the pricing chain, with producer and import prices for consumer goods seeing a marked increase recently (see p.10). This has also been reflected in an continued uptrend in durable and non-durable goods price inflation, even after the VAT induced jump in July.

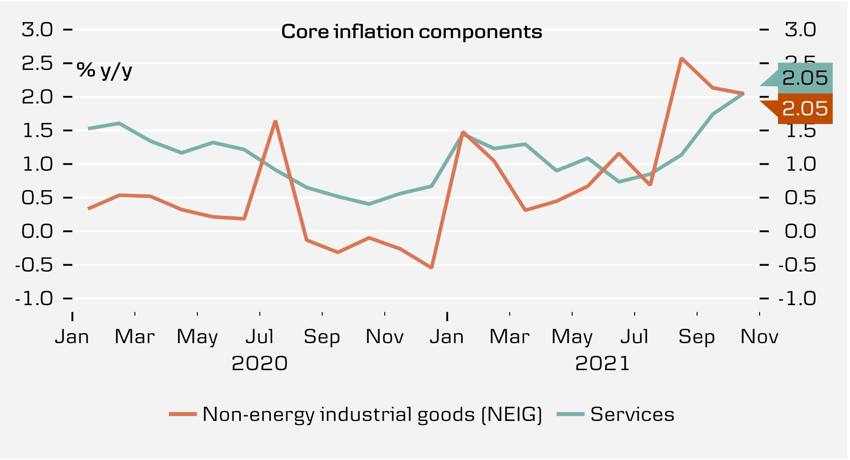
Core inflation at the highest level since 2002



Source: Eurostat, Macrobond Financial, Danske Bank



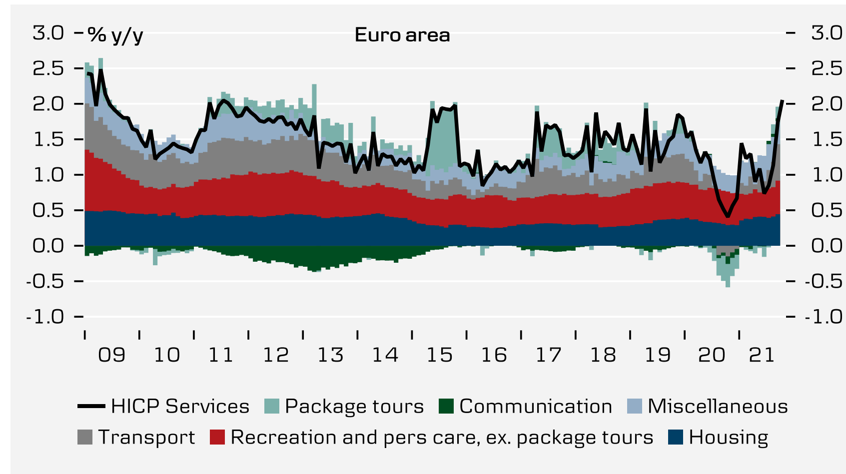
Source: Eurostat, Macrobond Financial, Danske Bank



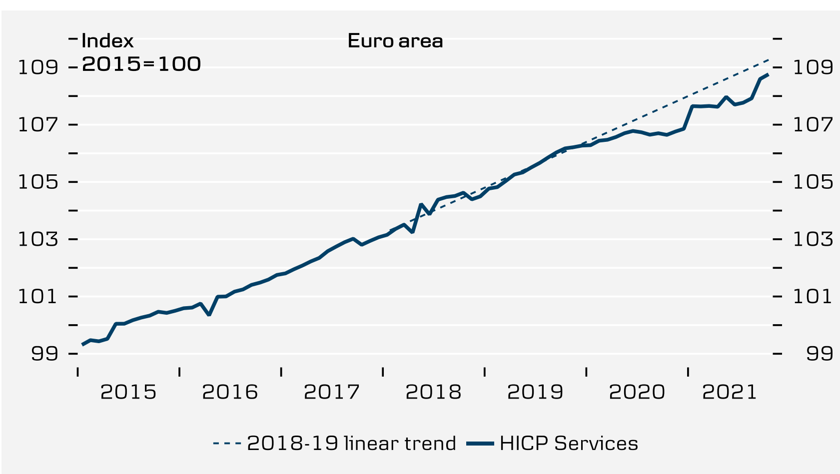
Source: Eurostat, Macrobond Financial, Danske Bank

Services have returned from holiday

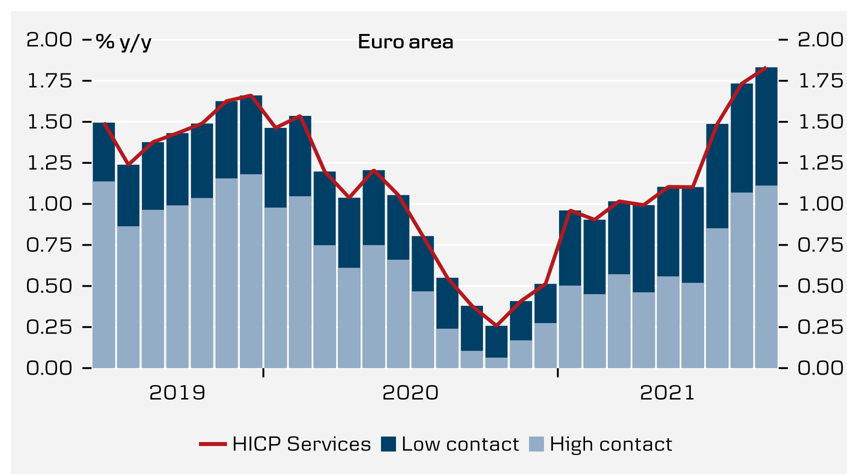
Services were an important driver for the core inflation slump during 2020. Especially contact-intensive services in recreation & culture as well as travel & tourism were hard hit by lockdowns and firms lowered prices to stimulate demand. However, in 2021 fortunes reversed, with especially transport services seeing a marked increase in prices of late. While supply constraints are not yet as big an issue as for goods producers, labour shortages have emerged in some sectors such as restaurants & accommodation services, contributing to the inflation rebound.



Source: Eurostat, Macrobond Financial, Danske Bank



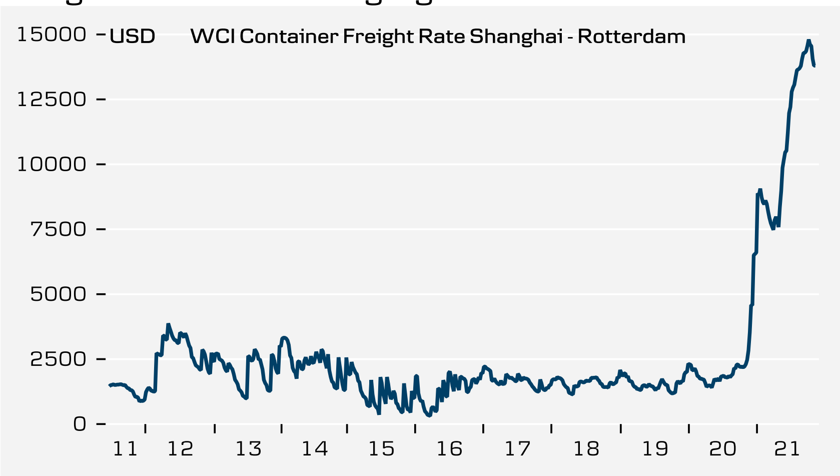
Source: Eurostat, Macrobond Financial, Danske Bank



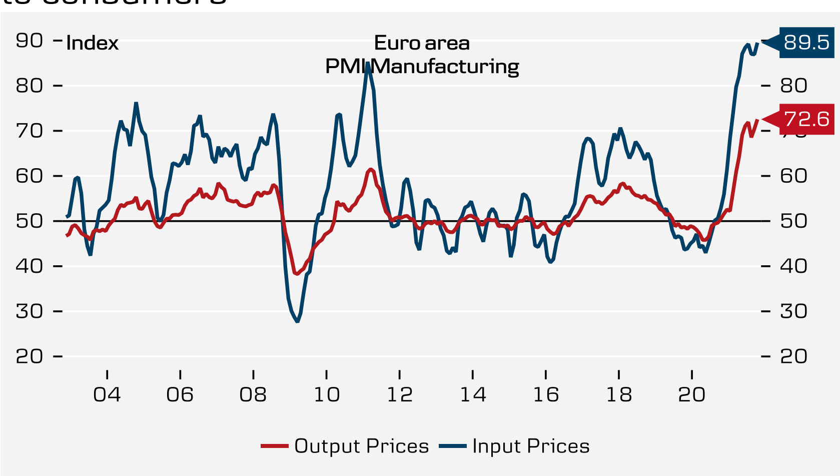
Source: Eurostat, ECB, Macrobond Financial, Danske Bank

Supply side constraints show no signs of abating…

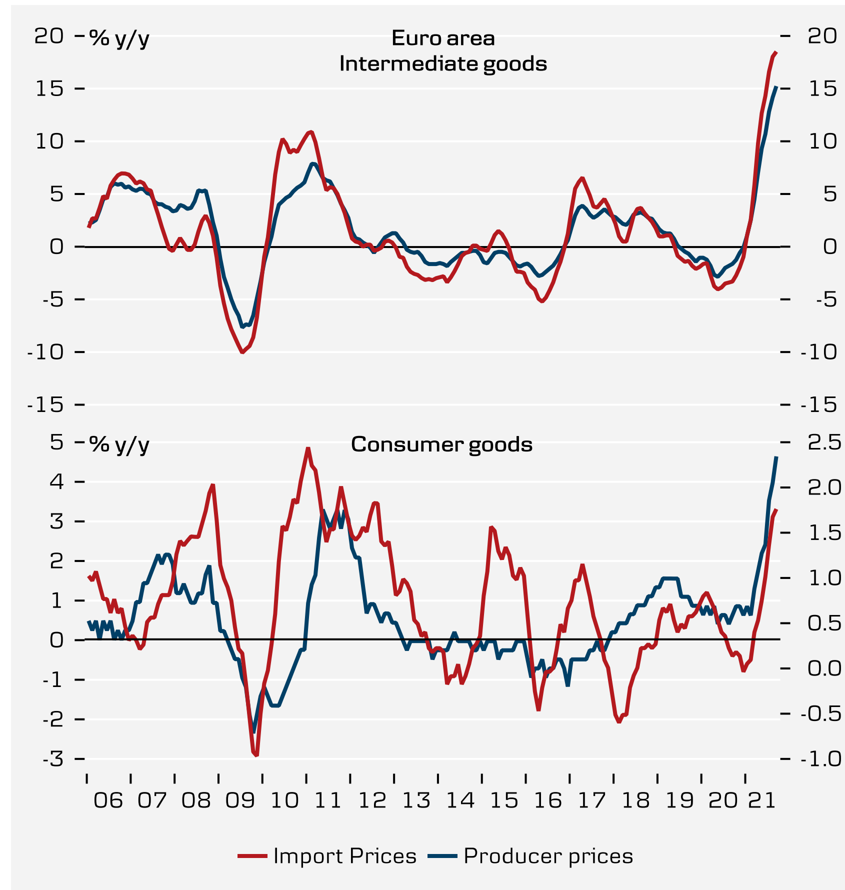
Freights rates still surging



Goods producers are passing on higher input costs to consumers



Cost-push inflation is working its way through the pricing chain



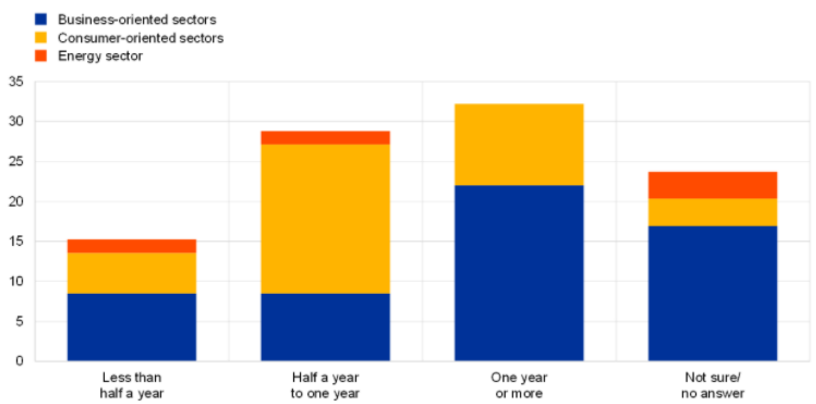
Source (all charts): China Ministry of Transport, Markit, Eurostat, Macrobond Financial, Danske Bank

...with companies expecting increasing pass-through to consumer prices...

An ECB survey of 68 leading non-financial companies operating in the euro area revealed that most firms expect **supply bottlenecks** only to ease gradually throughout 2022-23. The persistence of high and rising input costs, together with the recent surge in energy prices, did lead many firms to raise their price expectations for next year and to anticipate a stronger **pass-through to consumer prices**, particularly for business-oriented sectors. For consumer-oriented sectors the strong competition among retailers and from online merchants was still seen as limiting the pass-through to final consumer prices.

Summary of views on the persistence of supply constraints and input price pressures

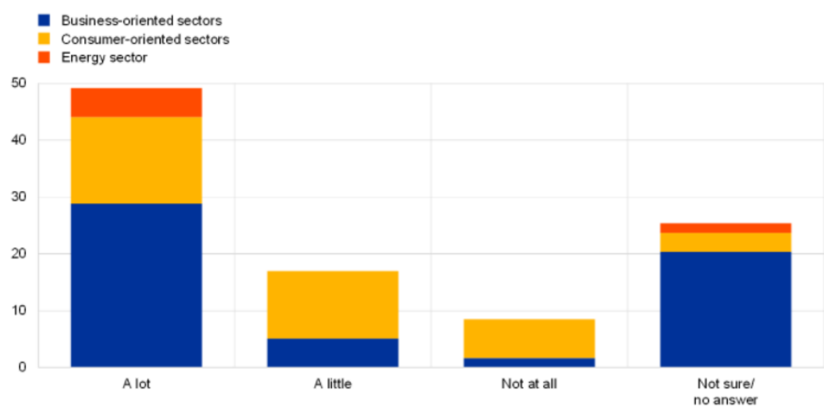
(percentage of respondents)



Source: ECB.
Notes: The chart presents the ECB staff interpretation of what contacts said about the likely duration of the supply constraints and input price pressures currently faced by their industry, including those related to the scarcity of inputs, transport delays, energy costs and labour shortages. The views are expressed as a percentage of the respondents who said that their firm or industry was experiencing supply constraints and/or input price pressures. Business-oriented sectors comprise intermediate and capital goods, construction, transport and business services. Consumer-oriented sectors comprise consumer goods (including food), retail and consumer services.

Summary of views on the extent to which current cost pressures will be passed through to consumer prices

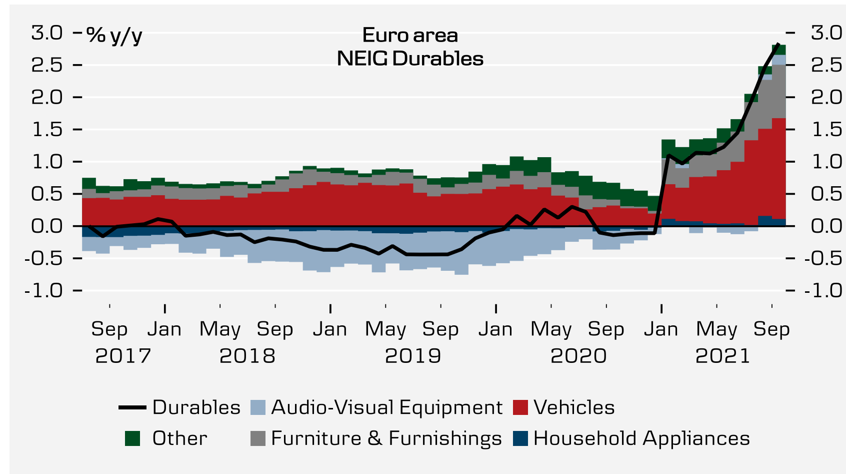
(percentage of respondents)



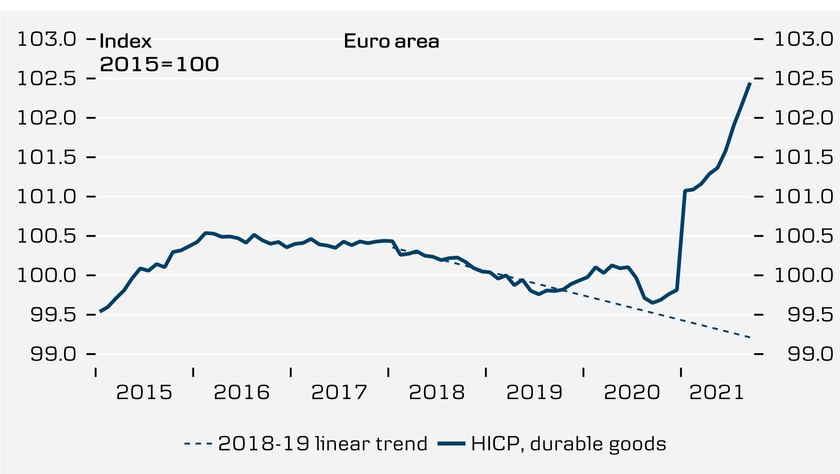
Source: ECB.
Notes: The chart presents the ECB staff interpretation of what contacts said about the extent to which the unusual cost pressures that they were facing would be passed through to consumer prices. The views are expressed as a percentage of the respondents who said that their firm or industry was experiencing supply constraints and/or input price pressures. Business-oriented sectors comprise intermediate and capital goods, construction, transport and business services. Consumer-oriented sectors comprise consumer goods (including food), retail and consumer services.

...sending non-energy industrial goods prices higher

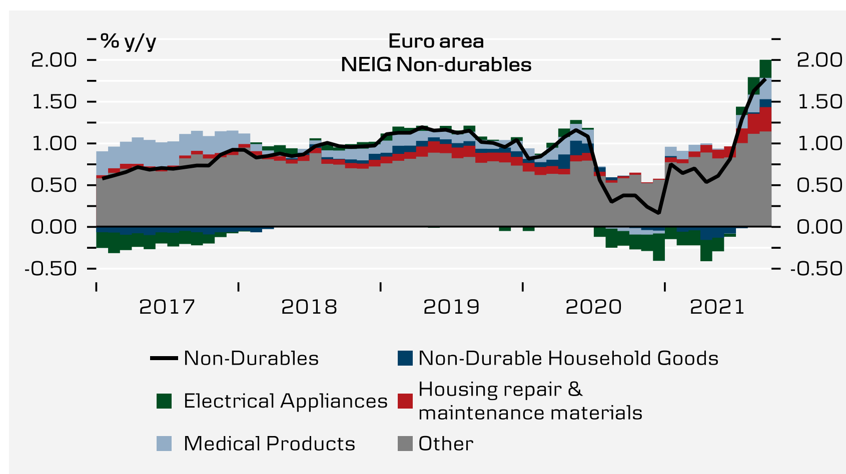
Non-energy industrial goods (NEIG) inflation shows signs of increasing pass-through of higher input costs to consumer prices, especially for sectors that have been particularly hard hit by supply chain bottlenecks (vehicles, furniture, electrical appliances). The sharp increase in durable goods price inflation during 2021 stands in stark contrast to the downtrend observed since 2016. As pressure on supply chains eases up from H2 22, goods price inflation will probably start to slow down, but also here Europe's green transition ambitions could prove a more persistent pro-inflationary force (see theme section p. 17).



Source: Eurostat, Macrobond Financial, Danske Bank



Source: Eurostat, Macrobond Financial, Danske Bank



Source: Eurostat, Macrobond Financial, Danske Bank

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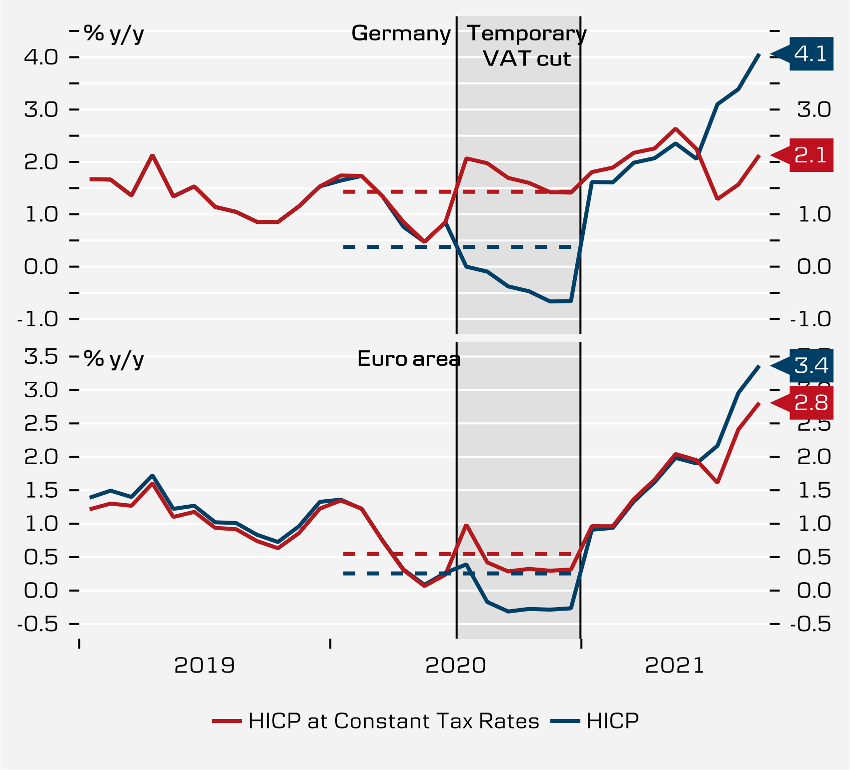
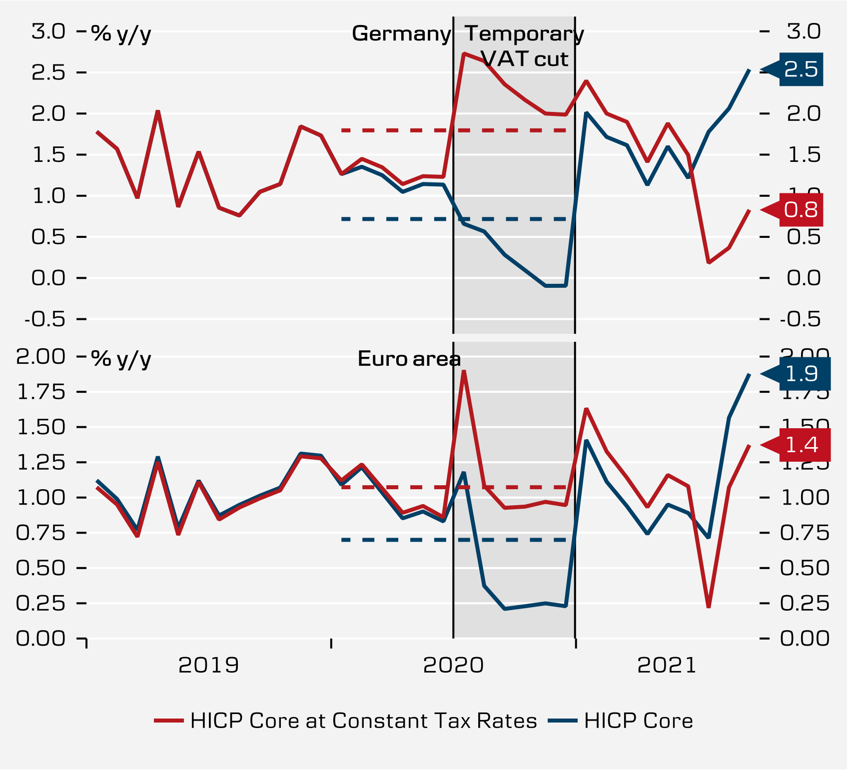
VAT effects are still distorting the inflation picture

To support its economy during the corona pandemic the German government temporarily cut VAT rates in H2 20. While this weighed on euro area inflation in 2020, base effects from the tax change are currently artificially boosting annual inflation rates in H2 21. Comparing HICP and HICP at constant tax rates reveals that the **German VAT effects** boosted euro area HICP inflation by 0.6pp and core inflation by 0.5pp during September. For Germany the effect was even larger, with VAT effects accounting for nearly half of the observed rise in headline inflation. With the turn of the year, the VAT distortions will cease, hence giving a clearer picture of the true inflation dynamics in the euro area.



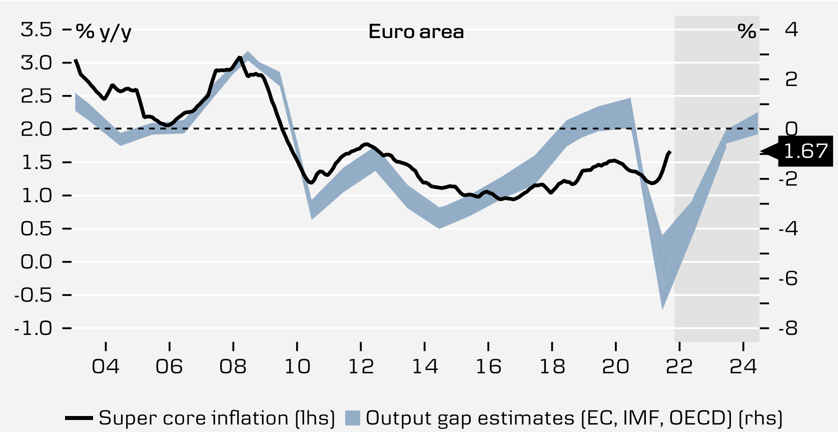
Source: Eurostat, Macrobond Financial, Danske Bank

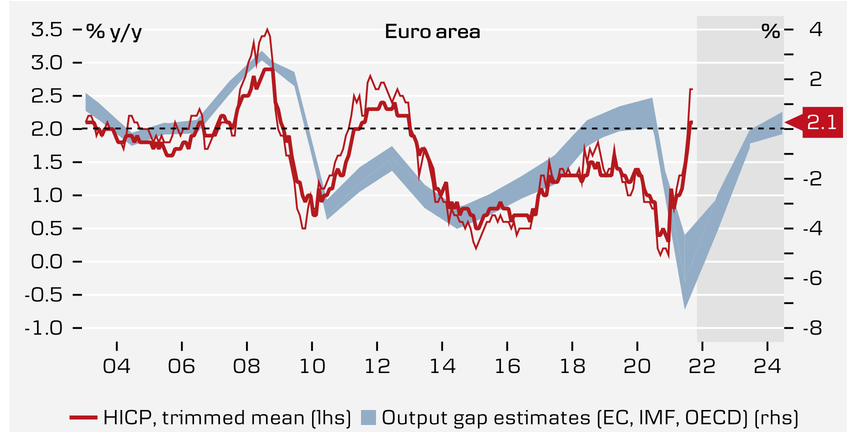


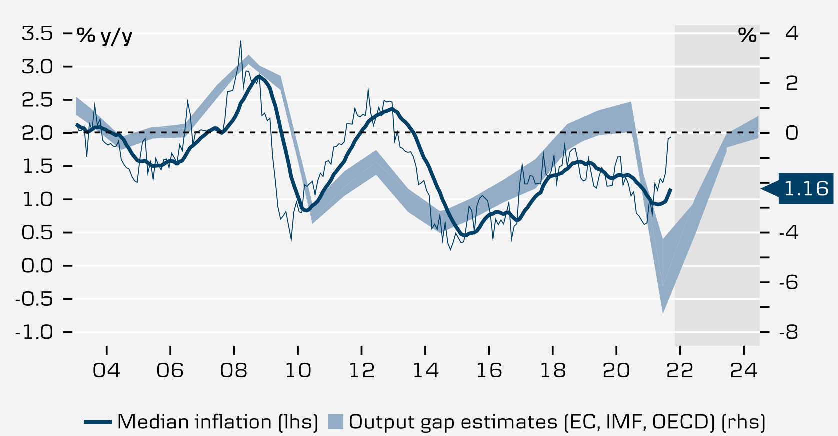
Source: Eurostat, Macrobond Financial, Danske Bank

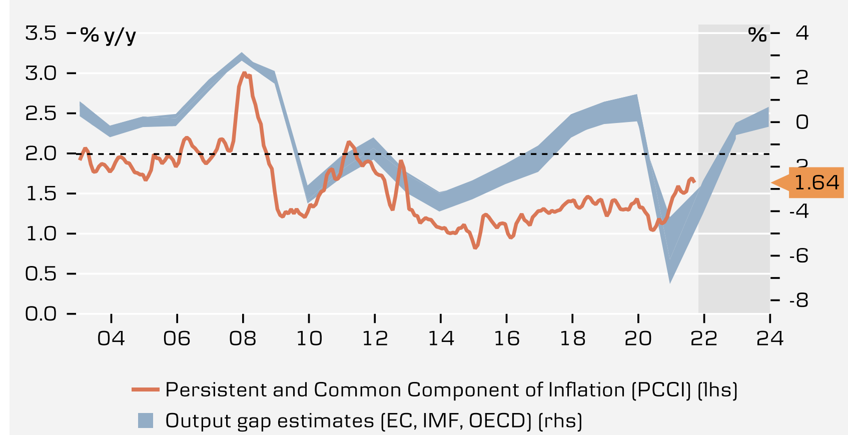
Underlying inflation measures are catching-up

Underlying inflation measures have continued their uptrend in 2021. Closing output gaps across euro area countries suggests the uptrend will persist in the coming two years, but it will likely be a gradual one, with added uncertainty on the degree and pace of rebound due to the weaker responsiveness of core inflation to measures of economic slack since 2017.





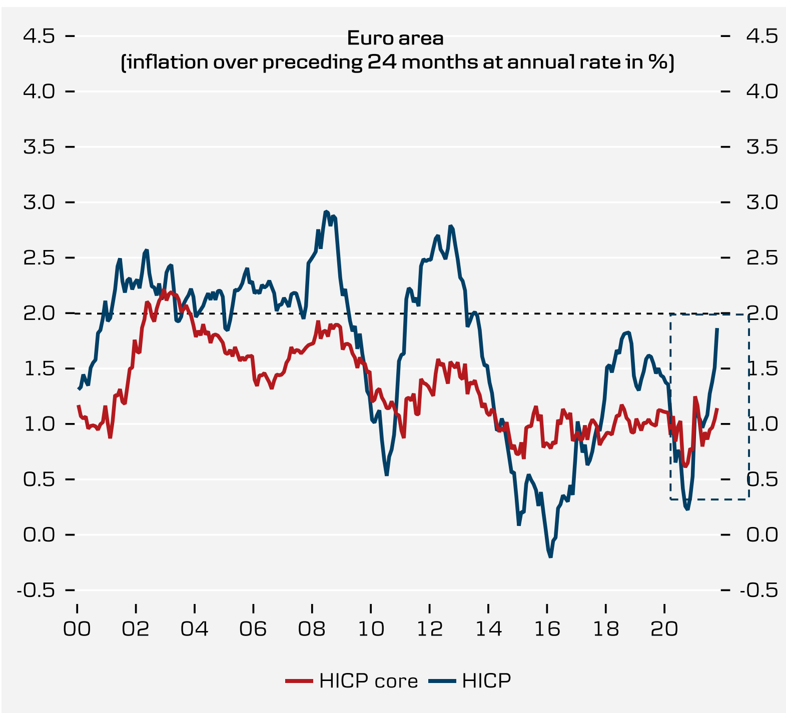




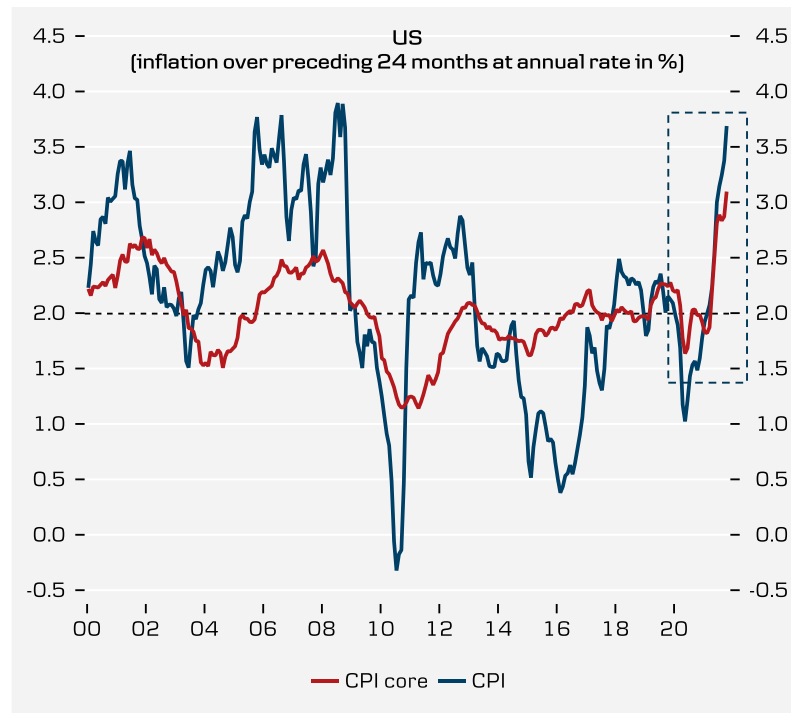
Source (all charts): Eurostat, ECB, EU Commission, IMF, OECD, Macrobond Financial, Danske Bank

A transatlantic divide

Another way to **look through temporary base effects** is to compute inflation not as the increase over the past 12 months, but over the past 24 months, as suggested by Gros and Shamsfakhr. By this measure an interesting **transatlantic divide appears**: In the US, consumer prices have now increased by over 3.5% per annum on average for the past 24 months and even core inflation is now running above 3% on a two-year basis, and above the 1.5-2% range over the past 10 years. By contrast, euro area core inflation still fluctuates around the 1% level it has remained in since 2015, while headline inflation remains just below 2%.



Source: Eurostat, Macrobond Financial, Danske Bank



Source: BLS, Macrobond Financial, Danske Bank

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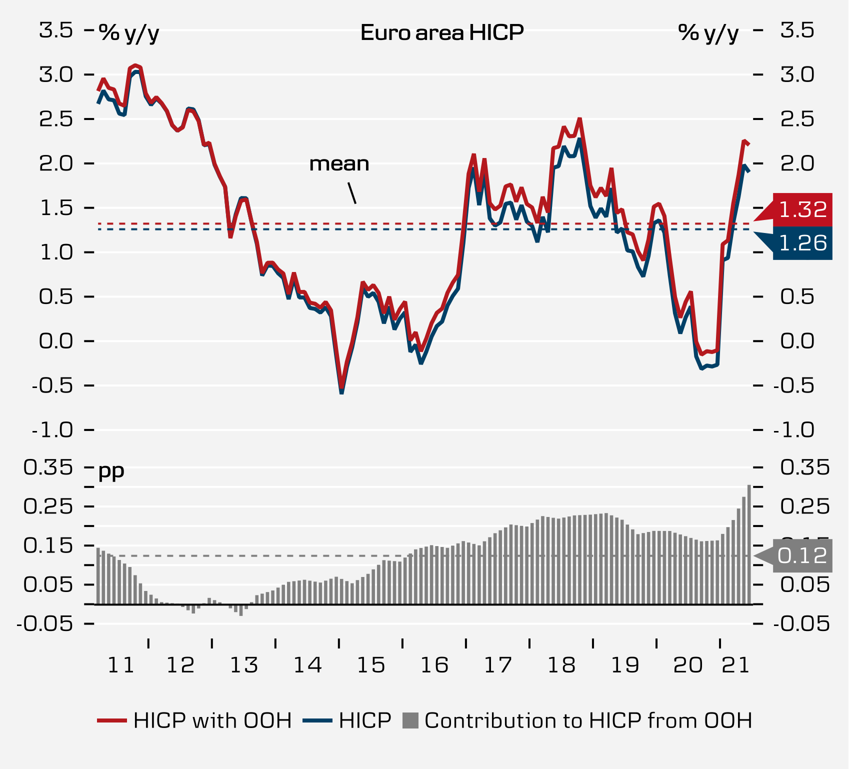
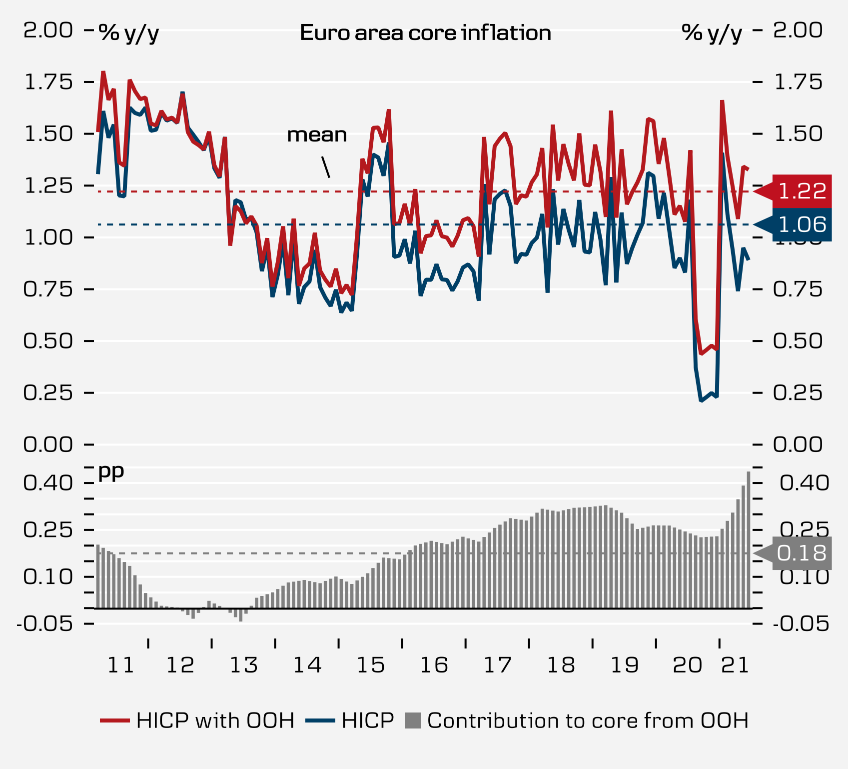
Housing costs to the rescue?

Gros and Shamsfakhr suggest **differences in measures of house price inflation** as one of the factors driving the transatlantic divide, since **owner-occupied housing (OOH) costs** are not considered in the euro area HICP index, while in the US this component is an important part of CPI. Drawing on quarterly country data for OOH costs from Eurostat, our alternative HICP and HICP core measures (see methodology) show a growing divergence from the 'official' inflation rates during H1 21, but at 0.1-0.2pp, the boost from OOH costs to inflation remains fairly contained.



Source: Eurostat, Macrobond Financial, Danske Bank



Source: Eurostat, Macrobond Financial, Danske Bank

Theme: Europe's green transition will put the heat on inflation

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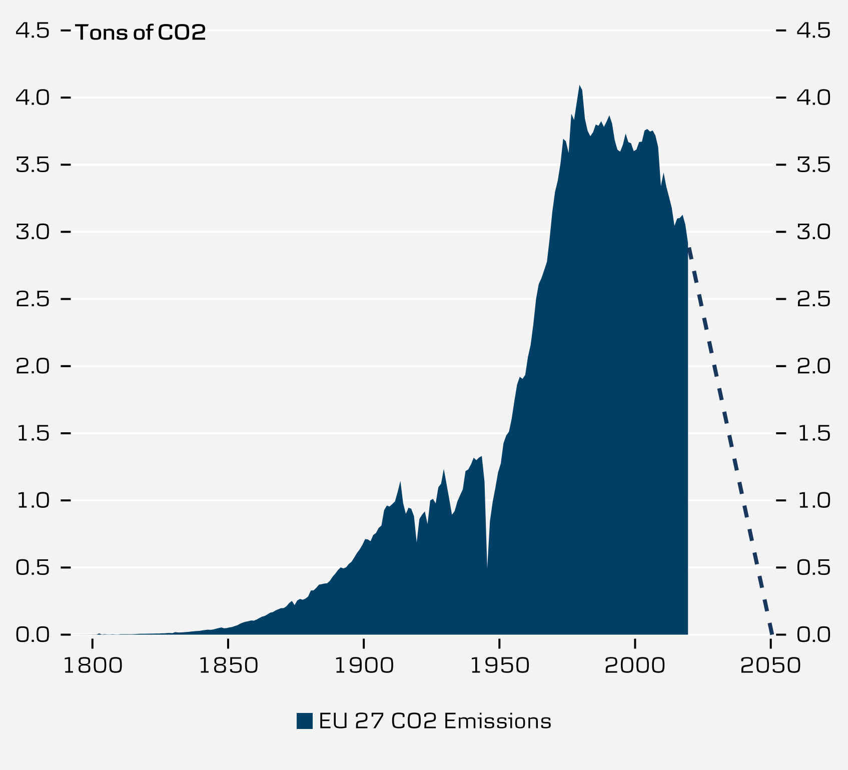
Europe's green ambitions raise inflation questions

EU is aiming to become first CO_2 neutral continent by 2050



Source: Macrobond Financial, Danske Bank

The EU has set itself the ambitious goal of becoming the first climate-neutral continent by 2050. These stepped-up climate mitigation efforts – if they eventually see the light of day – will also have important implications for European growth prospects and inflation developments.

Green transition and climate change impact inflation through various channels (see overview next page). We think that **climate change and stepped up climate mitigation efforts will on balance exert a pro-inflationary impact on euro inflation in the coming decades**, through temperature changes and more frequent natural disasters, rising carbon prices and higher production costs. On the other hand, falling prices for renewable energy and increased energy efficiency as well as substitution away from carbon intensive products should mitigate the pro-inflationary impact.

Read more in Research Euro Area- Europe's green transition - the heat is on for euro inflation, 16 September.

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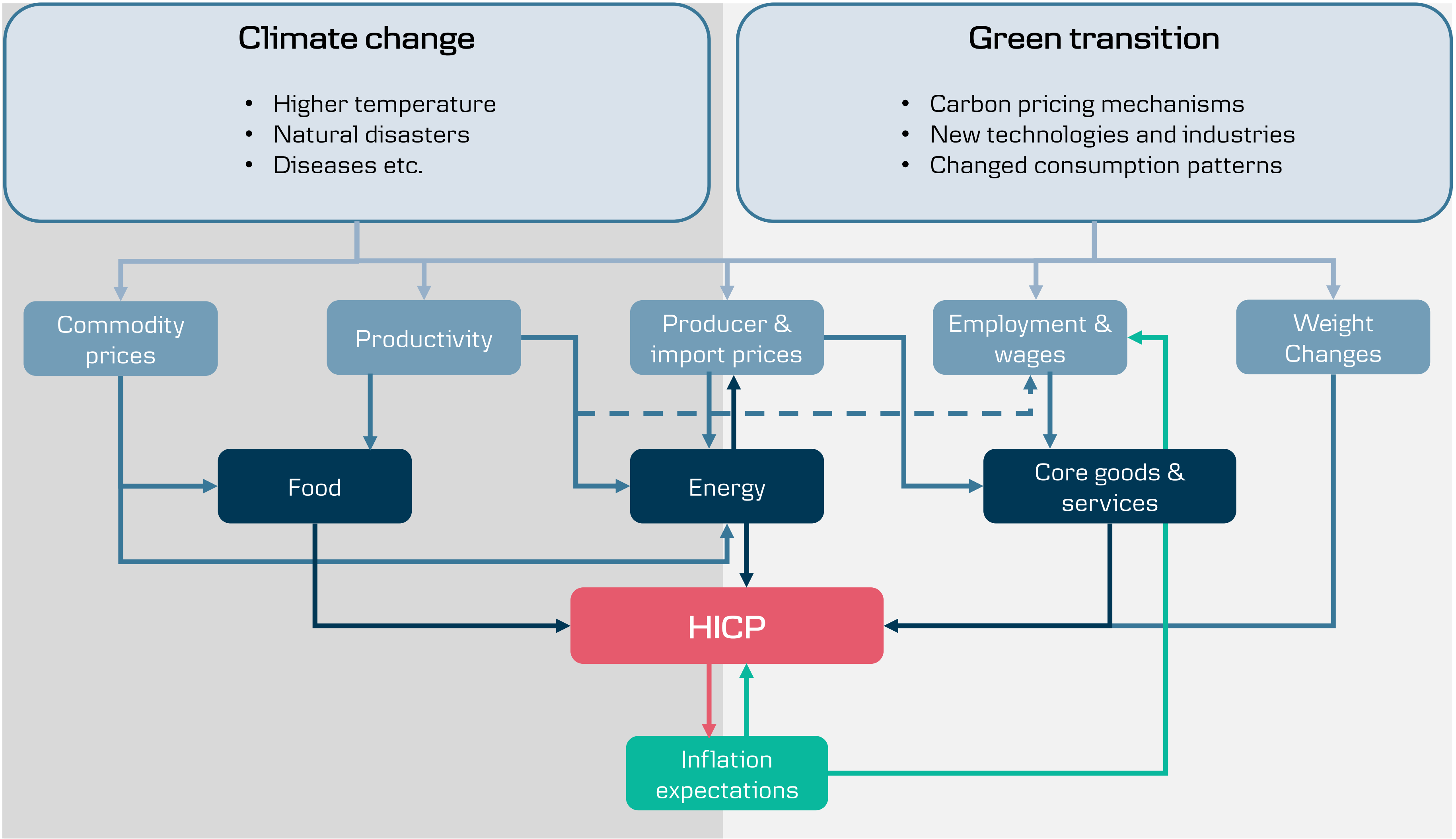
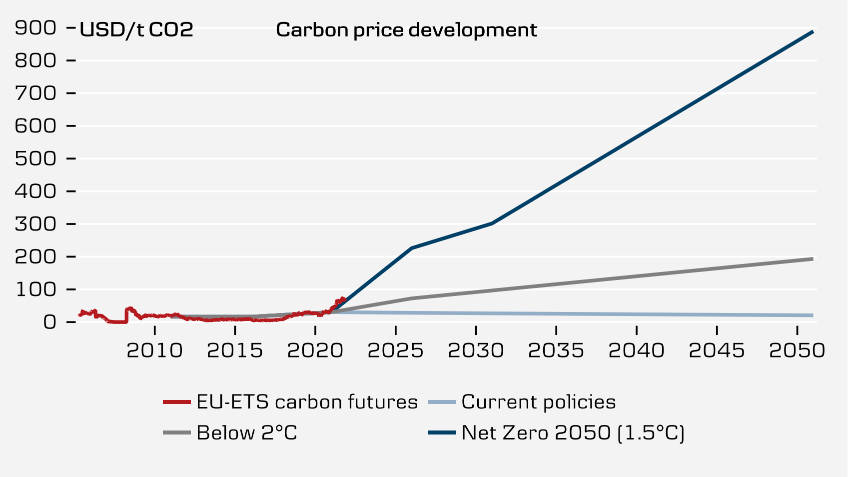
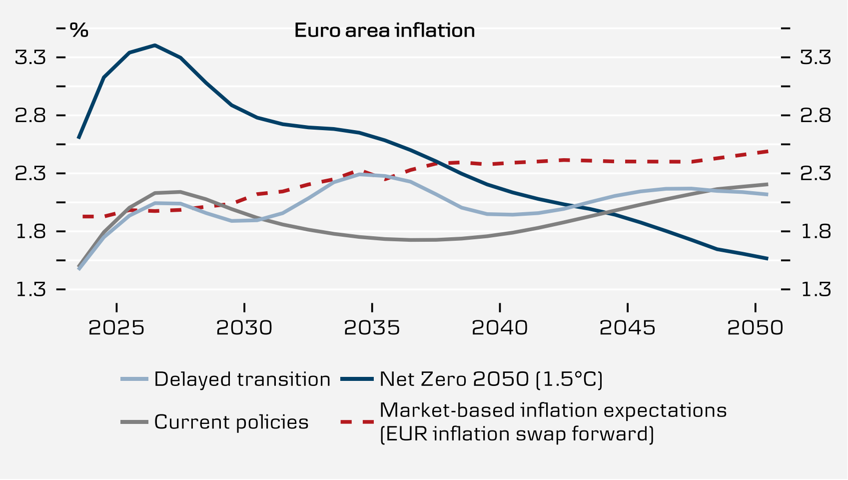
Green transition and climate change impact inflation through various channels



Source: Danske Bank

Upside risks to inflation if governments become serious about their net zero 2050 targets





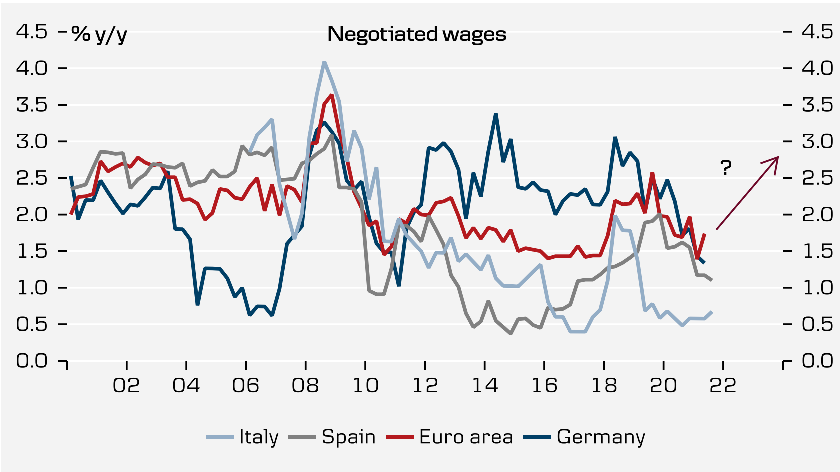
Source: ICE, NGFS Climate Scenarios , Macrobond Financial, Danske Bank
Note: Past performance is not a reliable indicator of current or future results

Carbon pricing tools constitute the most direct channel how the green transition is impacting consumer prices and will likely gain importance in the coming years. Given the fluctuation in EU-ETS carbon prices, greater volatility in inflation could be a consequence of Europe's green transition.

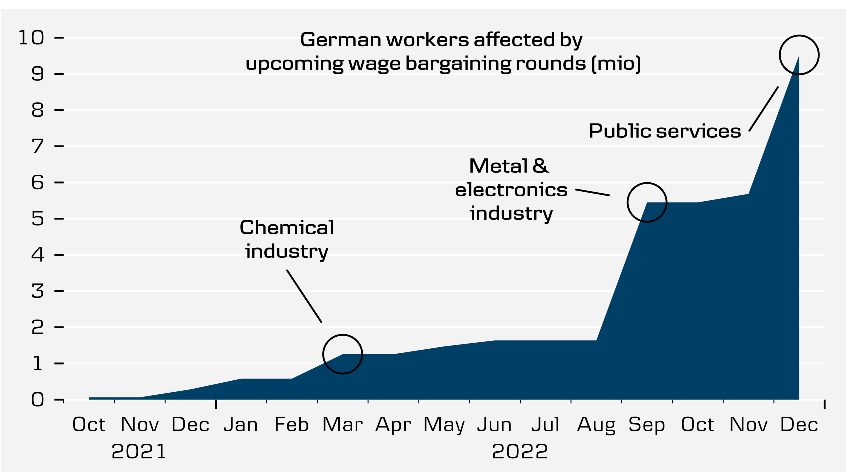
Robust empirical evidence on **inflation implications** of ambitious green policies is still lacking as the green transition is still in its early days. However, *model simulations* from the Network for Greening the Financial System (NGFS) suggest that the inflation boost even in a net zero 2050 scenario will remain in the low single digits. McKibbin et al. (2021) also find only small inflationary effects from carbon prices, with the impact on core inflation even negative. That said, they also find that growth and inflation outcomes from climate shocks significantly depend on the policy reaction from the ECB. As the inflationary impacts of the green transition will probably unfold gradually over time, we do not think that they will trigger aggressive tightening efforts from the ECB, not least due to its new focus on climate issues. However, we see upside risks to **inflation expectations** in the euro area once implementation of the green transition gathers momentum.

Theme: 5 things to watch on wage dynamics

Negotiated wage growth: signs of stronger bargaining power?



Source: ECB, Bundesbank, Macrobond Financial, Danske Bank



Source: [WSI](), Danske Bank

Negotiated wage dynamics will be an important determinant for the question whether the current inflation spike will also lead to more permanent price pressures, as wages constitute an important driver of services (and core) inflation.

ECB and markets will therefore keep a close eye on the upcoming **German wage bargaining rounds in 2022**. In particular, the big rounds for the chemical industry (March), metal and electronics industry (September) and public sector (December) will be key to watch. However, that means a clearer picture on the outlook for German wages (and inflation) might only start to emerge in H2 22.

While so far there have been few signs that German wage demands are picking up markedly, the combination of higher realized inflation, more prominent labour shortages and a trend towards re-shoring supply chains, still leaves the **potential for higher wage settlements in 2022** in our view.

Read more in Research Euro Area - German wages: what to watch in 2022, 25 October

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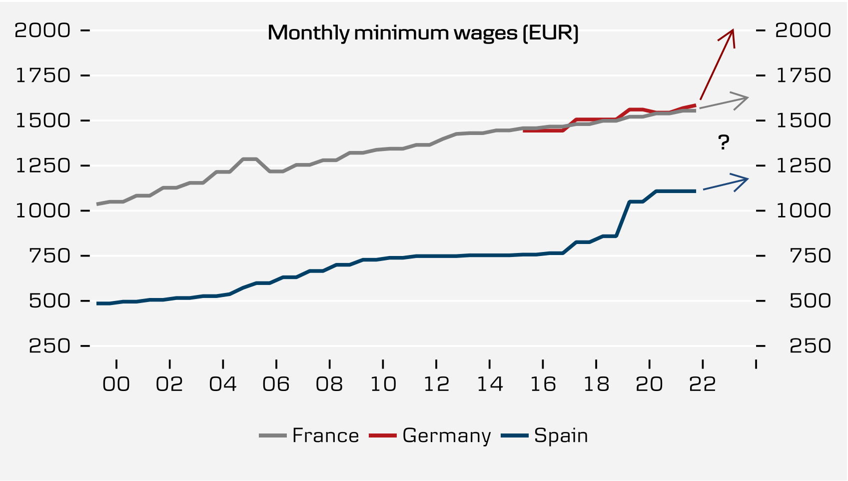
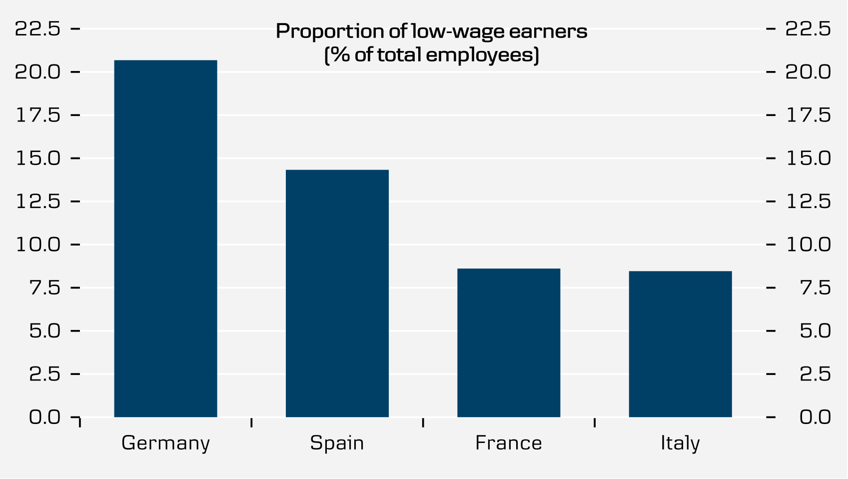
Minimum wages: Will the trend towards higher minimum wages accelerate?



Source: Eurostat, Macrobond Financial, Danske Bank
*Note: **Italy** does not have a statutory minimum wage, but relies on collective bargaining*

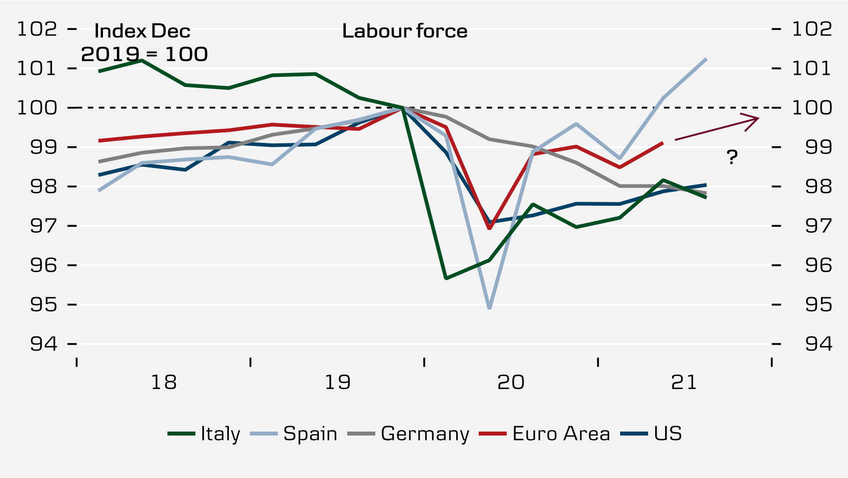


Source: Eurostat, Macrobond Financial, Danske Bank

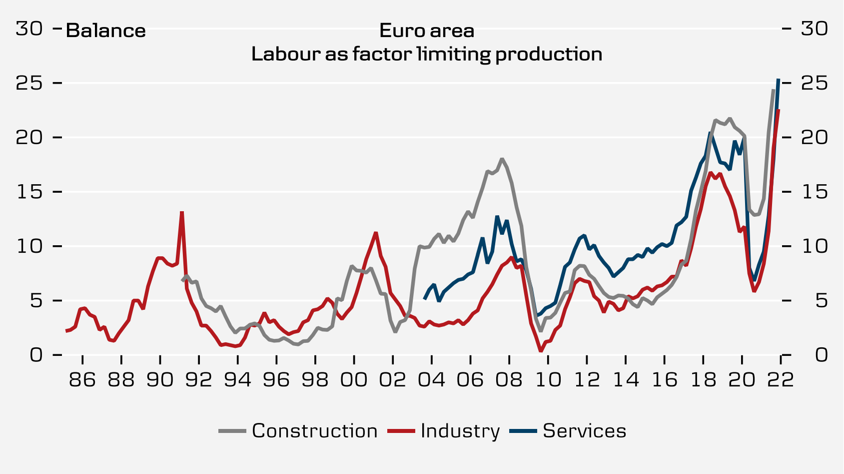
Apart from sector wide wage bargaining, developments in **minimum wages** will also be worth keeping an eye on in our view. Monthly minimum wages vary widely across euro area countries, and accounted for ca. 66% of median gross earnings in France, 52% in Germany and 44% in Spain.

In **Germany** signs are for a 25% increase in the minimum wage during 2022 according to preliminary plans of the new German 'traffic light' coalition. **Spain** recently agreed to a 1.6% increase in the minimum wage from 1 September and aims for another 8.7% rise by 2023. In **France**, annual minimum wage adjustments are linked to the evolution of CPI, as well as to the increase in purchasing power of blue-collar workers' basic hourly wage. In line with last years inflation rate, the minimum wage rose by 2.2% from October and will probably pick up at an even higher rate from January 2022, given the observed inflation increase during 2021. We expect these ongoing minimum wage increases in the coming years to have a positive impact on private consumption and underlying inflation in the euro area, as lower income households usually have a higher propensity to spend.

Labour supply: Will people that left the labour force return? And how fast?



Source: Eurostat, Macrobond Financial, Danske Bank



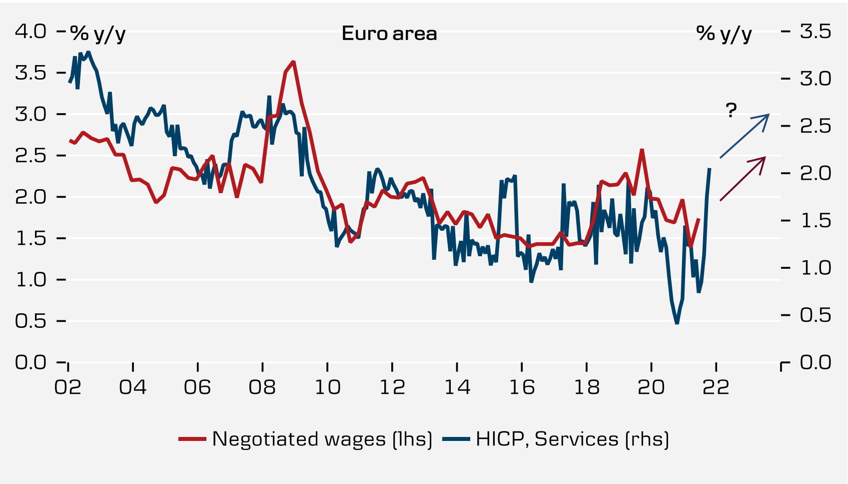
Source: EU Commission, Macrobond Financial, Danske Bank

When, how fast and to what extent will people return to the labour market? This is a key question for how long **labour shortages** will be with us and thus how sustained wage pressures will be. While the issue of labour shortages is most pronounced in the US at the moment, it is increasingly also witnessed in Europe due to people moving to jobs in other industries, returning to their home countries or adjusting their work-life balance. More structural factors might also play a role and for some sectors that are particularly hit by ageing or shifting job preferences (i.e. lorry drivers), higher wages might be the only means to attract new staff.

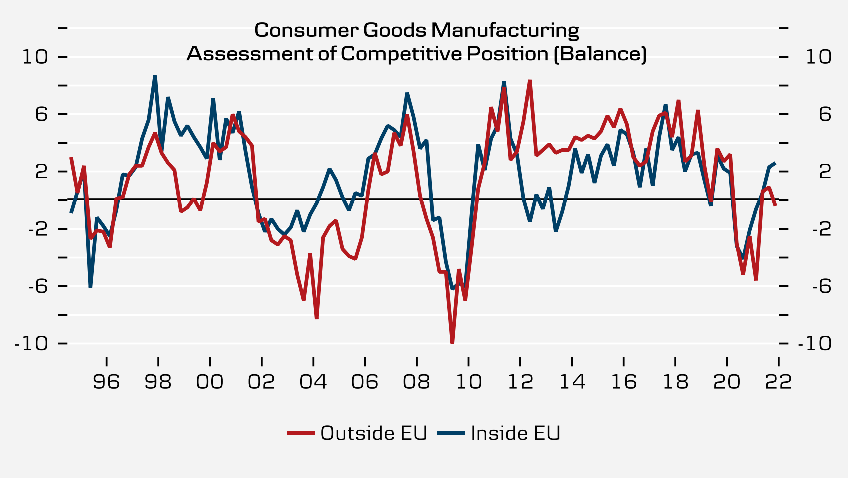
With most short-time working schemes in Europe expiring with the turn of the year, **we expect more workers to gradually return to the labour market during 2022**, as has already been observed in Spain. But the risk is skewed towards a slower return and that labour shortages and bottlenecks are with us for a more extended period of time. This could keep upward pressure on wages in place in 2022-23 even in a scenario where GDP growth is slowing.

Danske Bank

Wage Phillips curve: will the link between wages and core inflation re-establish itself?



Source: ECB, Eurostat, Macrobond Financial, Danske Bank

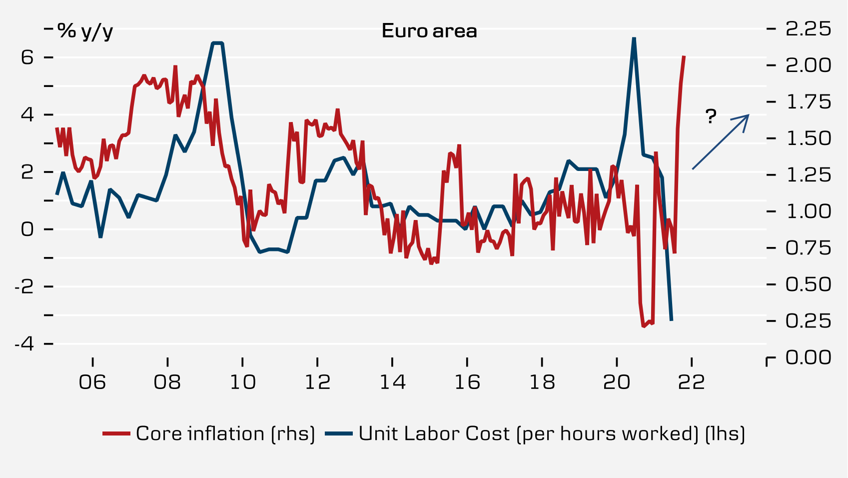


Source: EU Commission, Macrobond Financial, Danske Bank

Wages are a crucial cost item for firms, especially for services providers. There has historically existed a close link between wage growth and core inflation. Historically, rising wage growth has filtered through to core inflation with a six to twelve month lag in the euro area. However, the wage growth episode since 2016 constituted an exception, were rising wages failed to materially lift core inflation. This illustrates the challenge that **rising wages are a *necessary* but not *sufficient* condition for a sustained rise in core inflation**.

To what degree higher wage costs are passed on to consumer prices also crucially depends on the extent of **firms' pricing power**, profit margins and the general economic backdrop. Concerns about competitive position – as indicated in some business surveys – could limit price increases. Waning (goods) demand during 2022 could make some companies more cautious in passing on higher input costs to consumers. Anecdotal evidence from German supermarket chains also point to some reluctance for big price hikes.

Labour productivity: trend shift in light of a digital/green revolution?



Source: Eurostat, Macrobond Financial, Danske Bank

Source: Eurostat, Macrobond Financial, Danske Bank

What ultimately matters for core inflation are wage increases adjusted for productivity growth (i.e. **unit labour costs**). Economic theory suggest that unless wage growth accelerates beyond productivity growth in a sustained manner, inflationary pressures will remain contained. Lately, labour productivity has been subject to large swings in the euro area due to job retention schemes safeguarding employment, but these influences will likely start to fade in 2022.

A key question will be whether the trend of slowing **labour productivity** that preceded the Covid-19 crisis will resume or whether increased investment in digitalization and green technologies will trigger a turnaround. An ECB study on productivity trends in EU countries cautions that the outlook for productivity growth remains uncertain, as downside risks linger from restructuring of global value chains and withdrawal of policy support. The success of NGEU spending will also play a crucial role in this regard in our view (see also Research Euro Area - Decoding Europe's recovery plans, 17 May).

Euro inflation outlook: Mind the inflation gap

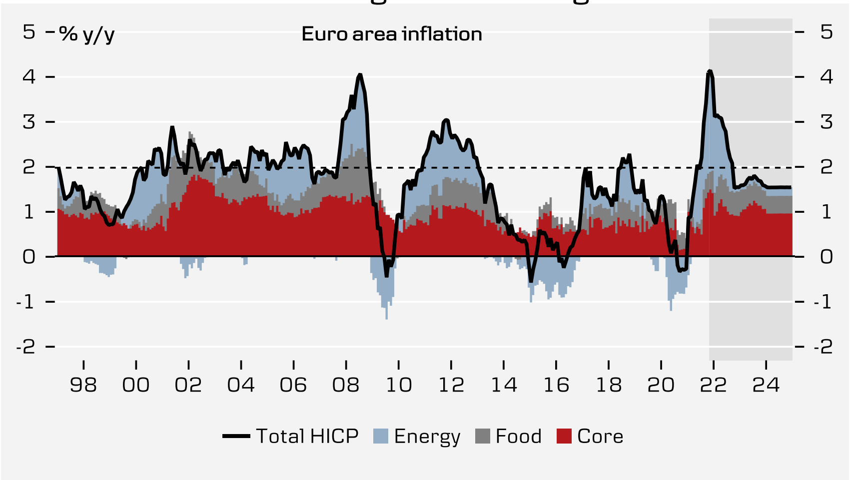
Mind the inflation gap

Overall, we expect HICP inflation to remain above the ECB's target until H2 22, but fall back to a 1.5-1.7% range thereafter. Especially, energy prices should remain a key inflation driver in the coming months. However, as we expect oil prices to stabilize around current levels and natural gas and electricity prices gradually to normalize, the tailwind from energy should start to fade in the course of 2022 in our view. Food price inflation will probably stay elevated in H1 22 as the latest increases in agricultural commodity prices are feeding through to consumer prices. That said, coming 2023, we also expect a slowdown here.

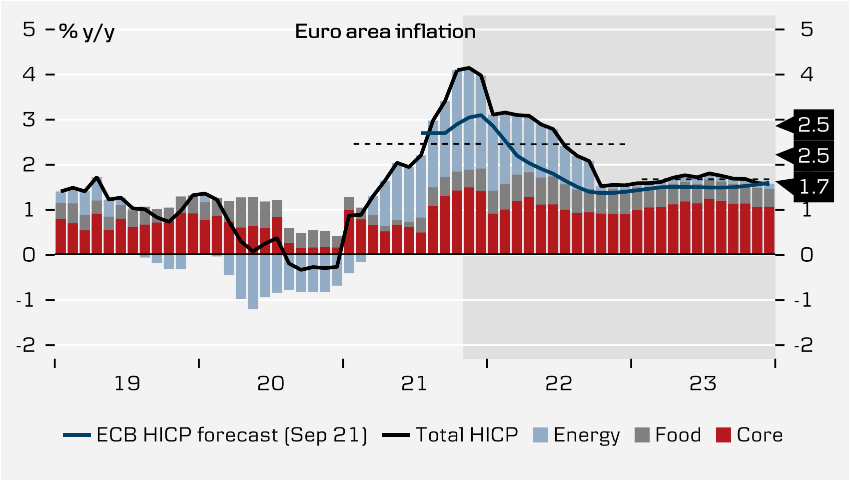
In our view it will still be difficult for HICP inflation to settle durably around 2% over the medium-term in the absence of continued sharp commodity price increases or a durable pick up in wage growth above the long-run average.

In the following (pp. 31-40) we look at some scenarios that relax our baseline assumptions to analyse what it would require to re-anchor euro area inflation at 2% over the medium-term.

HICP inflation still falling short of target in 2023-24



Source: Eurostat, Macrobond Financial, Danske Bank



Source: Eurostat, Macrobond Financial, Danske Bank

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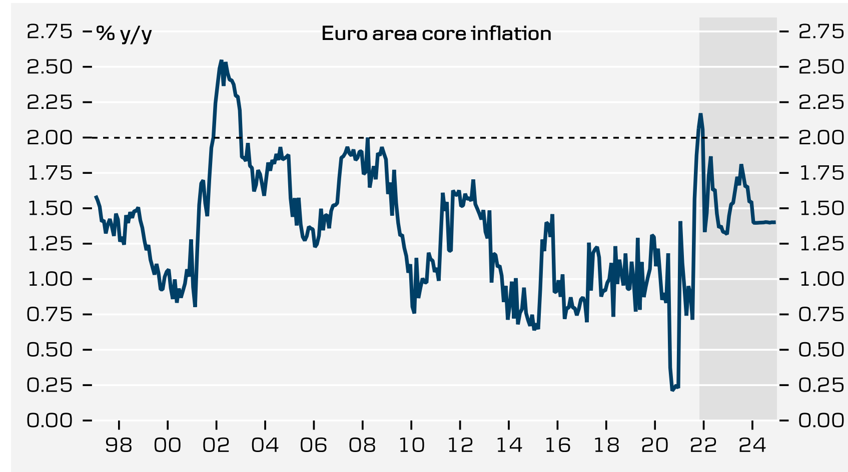
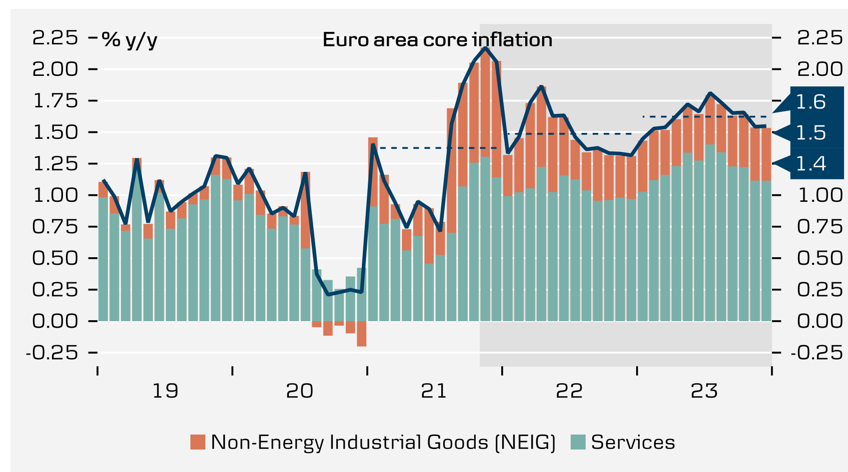
Uptrend in core inflation continues, but with air to the top

The fortunes for euro inflation remain dependent on developments in **core inflation**. Cost-push pressures from supply chain bottlenecks should keep goods price inflation elevated in 2022 in our view. But bottlenecks are per definition a level effect and once pressure on supply chains eases up, **goods price inflation** should start to slow down again. That said, Europe's green transition ambitions could prove a more persistent pro-inflationary force (see theme section p. 17) as will continued effective EUR depreciation, keeping NEIG inflation above its historical average in 2023 in our view. **Service price inflation** remains in the hands of wage developments (see theme section p. 21). As we expect wage growth to pick up from H2 22, we see scope for an acceleration in services and core inflation in the coming years. Particularly, transport and recreational services could see a boost in light of continued supply-demand mismatches, more acute labour shortages and continued slow productivity gains. That said, **core inflation sustainably converging towards the ECB's target would probably require a more persistent trend shift in wage growth** (and not just a one-off increase due to a temporary inflation surprise).

Core inflation to rise further in 2022-23



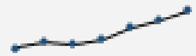
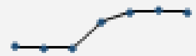
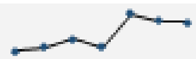
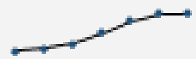
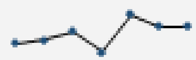
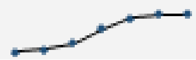
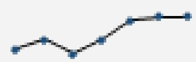
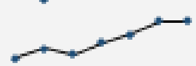
Source: Eurostat, Macrobond Financial, Danske Bank



Source: Eurostat, Macrobond Financial, Danske Bank

Danske Bank

Overview of euro area inflation outlook

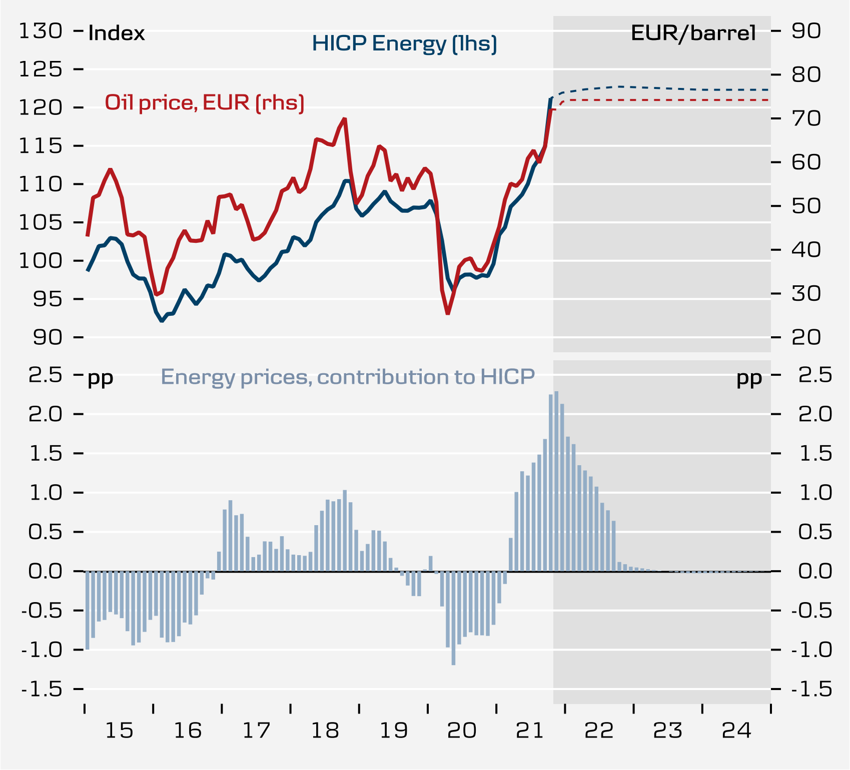
	Danske forecast					
	Current	Sparkline (last 6M)	2021 avg.	2022 avg.	HICP weight	Core weight
HICP	4.05		2.44	2.45	100	
Energy price inflation	23.54		12.57	9.29	9.5	
Food price inflation	1.97		1.44	2.53	21.8	
HICP ex tobacco	3.38		2.41	2.47	97.5	
Core inflation	2.07		1.37	1.49	68.7	100
Non-energy Industrial Goods	2.05		1.39	1.10	26.9	39.1
- Durables	2.84		1.89	1.19	9.8	14.2
- Semi-durables	1.68		1.05	0.79	10.0	14.5
- Non-durables	1.77		1.19	1.43	7.2	10.4
Services	2.05		1.50	1.72	41.8	60.9
- Communication	0.61		0.33	-0.29	2.6	3.8
- Housing	1.53		1.42	1.48	12.2	17.7
- Package tours & accommodation	3.68		0.44	1.73	1.9	2.7
- Recreation & personal care	2.07		1.79	2.18	9.6	13.9
-Transport	3.31		1.88	2.62	6.5	9.5
- Miscellaneous	1.51		1.54	1.49	9.0	13.1

Source: Eurostat, Danske Bank

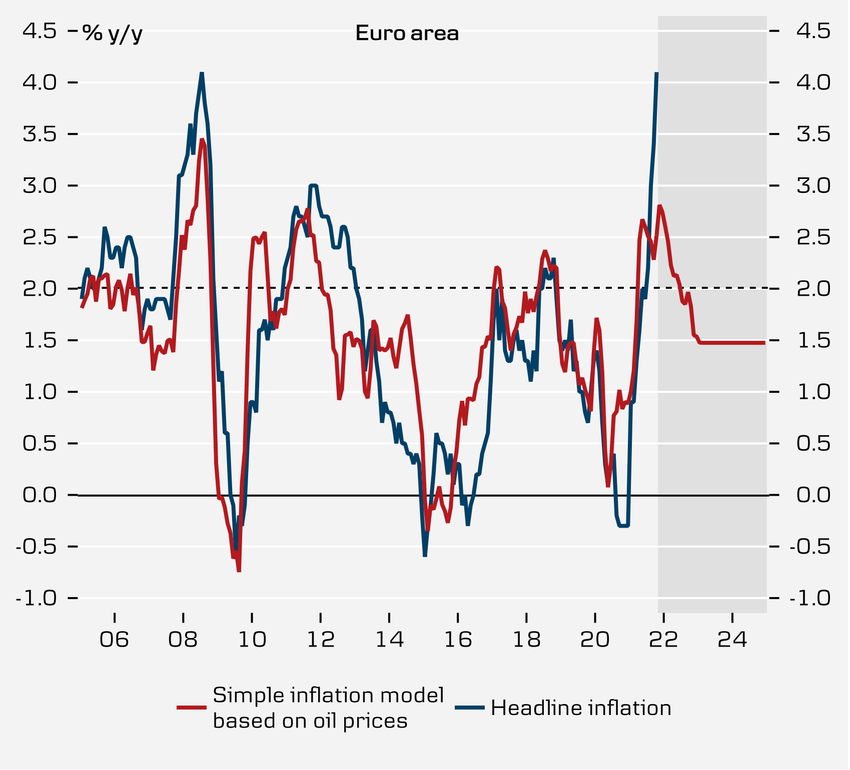
Danske Bank

Energy scenarios: oil prices stabilize around current levels (baseline)

If oil prices stabilize around current levels, HICP energy contribution to headline inflation should fade to zero, with HICP falling back to ca. 1.5%.



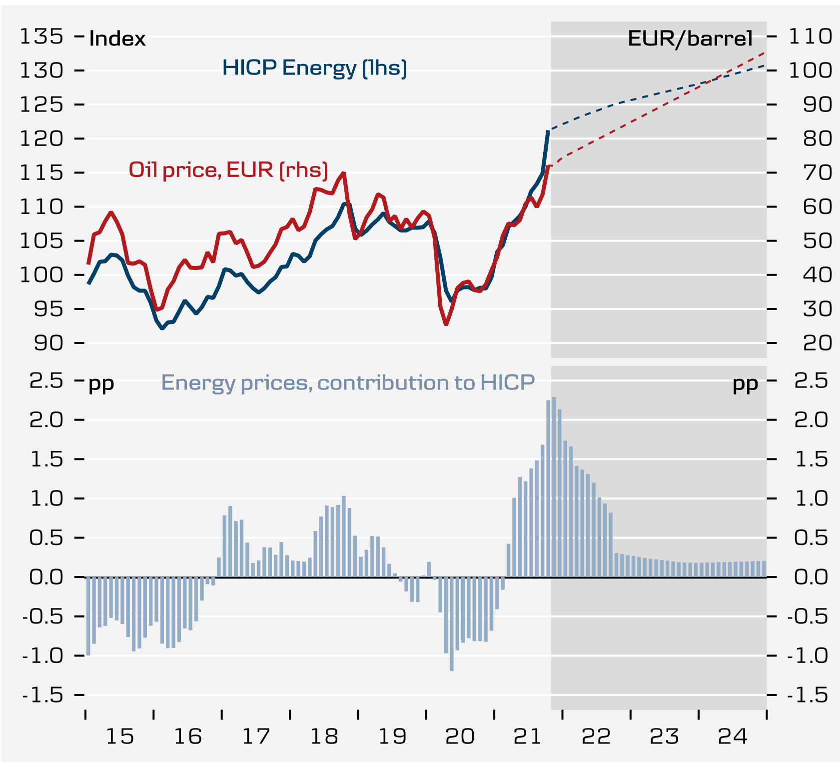
Source: Eurostat, Macrobond Financial, Danske Bank



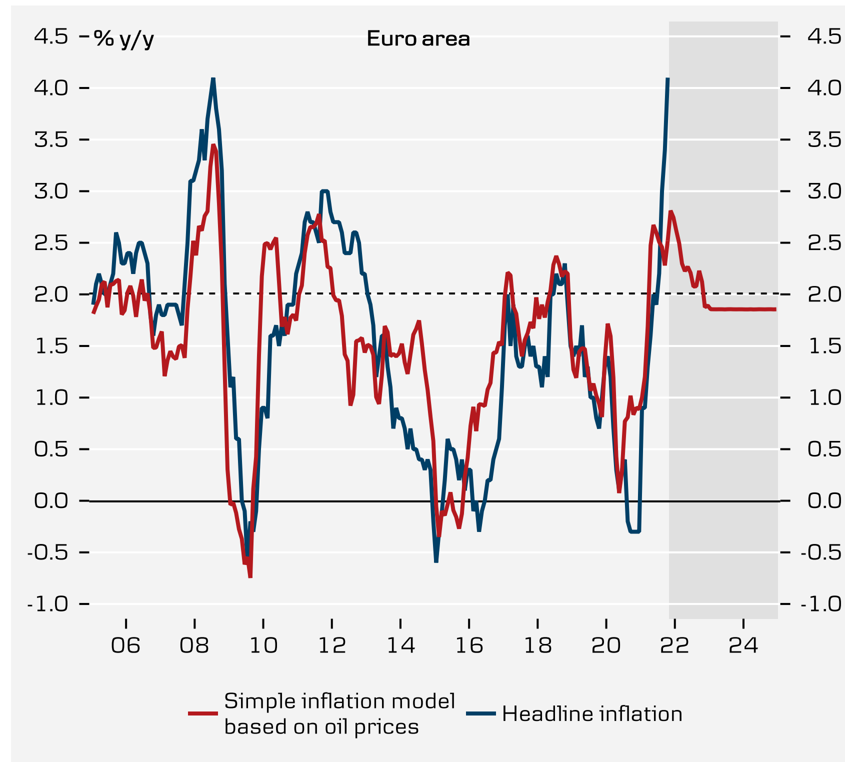
Source: Eurostat, Macrobond Financial, Danske Bank

Energy scenarios: oil prices continue on a more moderate uptrend

If oil prices continue on a more moderate uptrend as in 2021, HICP energy contribution to headline inflation should stabilize around 0.25pp, with HICP falling back slightly below 2%.



Source: Eurostat, Macrobond Financial, Danske Bank

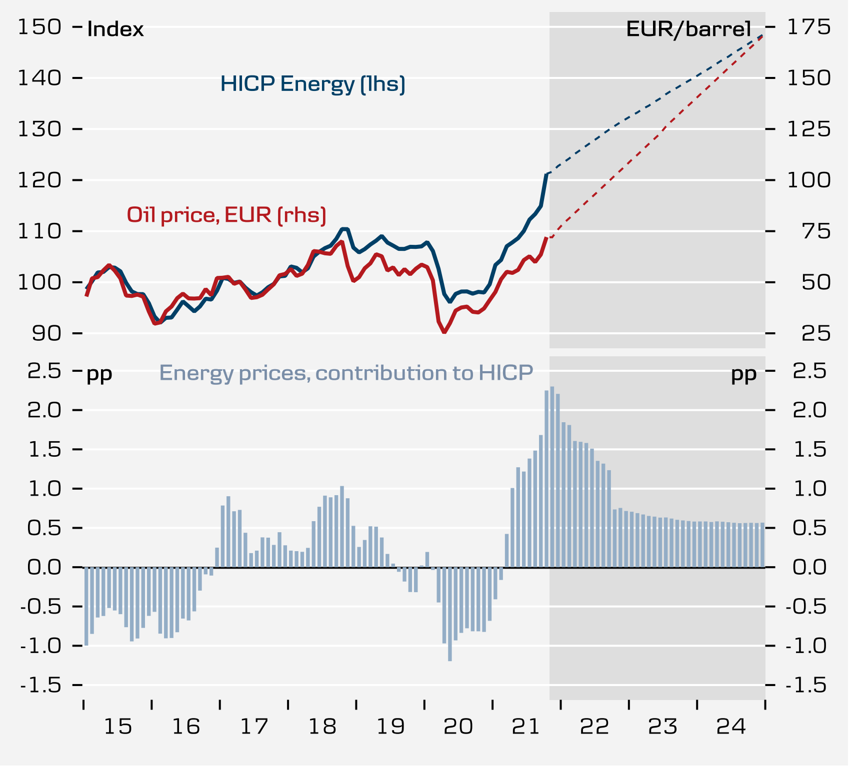


Source: Eurostat, Macrobond Financial, Danske Bank

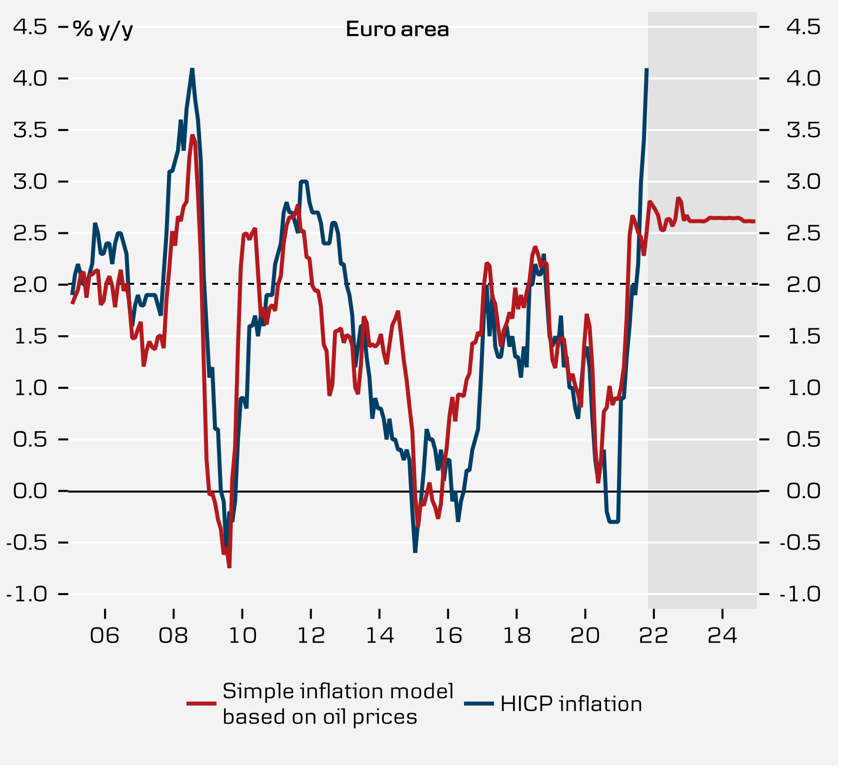
Danske Bank

Energy scenarios: oil prices continue same uptrend as in 2021

If oil prices continue the same uptrend as in 2021, HICP energy contribution to headline inflation should stabilize around 0.5pp, with HICP durably remaining above 2%.



Source: Eurostat, Macrobond Financial, Danske Bank

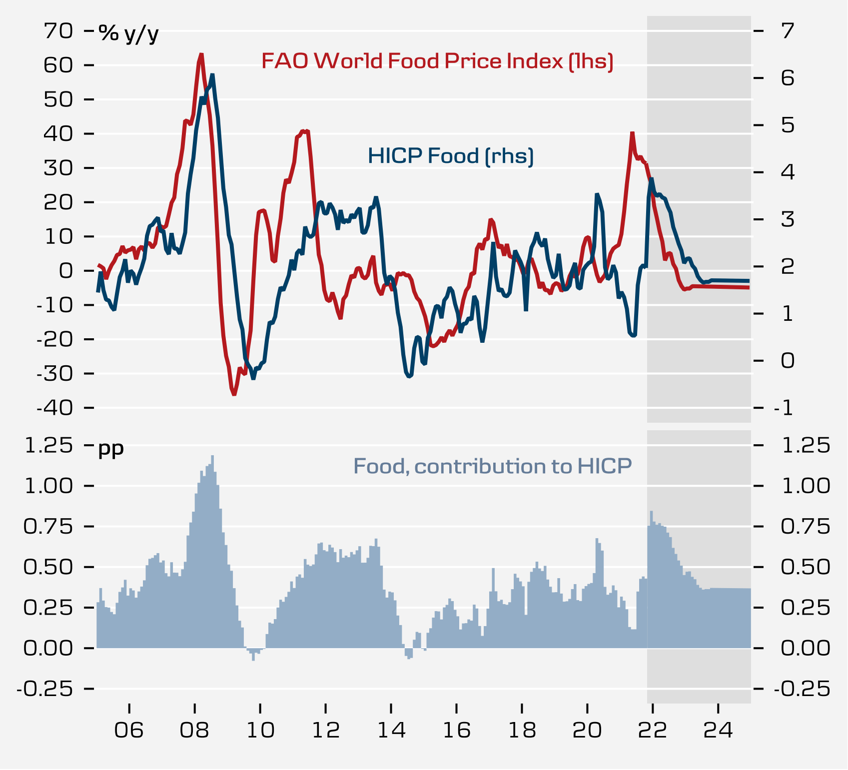


Source: Eurostat, Macrobond Financial, Danske Bank

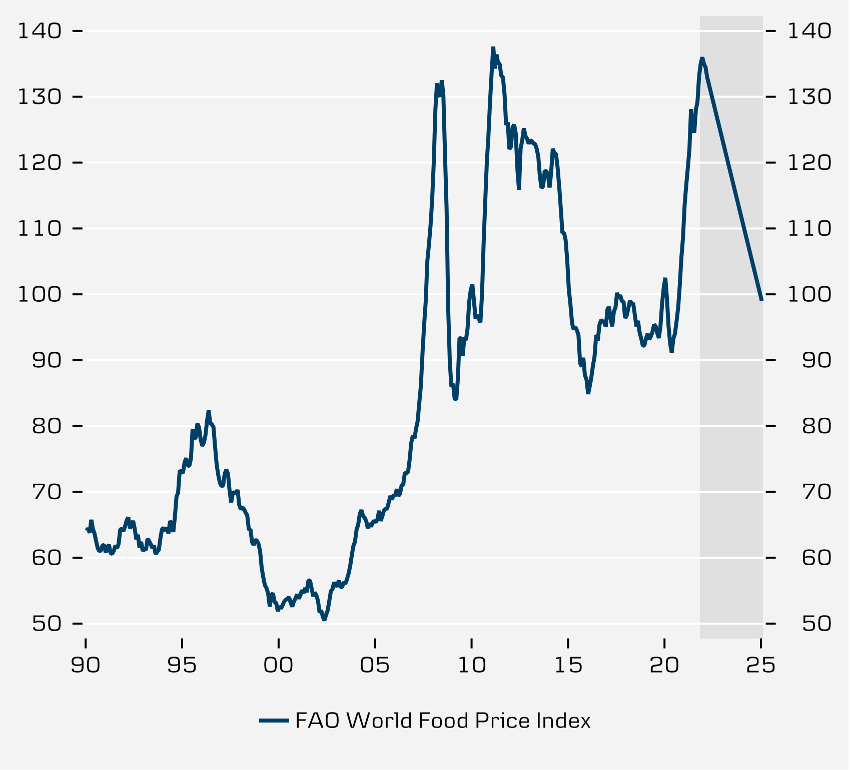
Danske Bank

Food scenarios: prices come down again (baseline)

If food prices start to decelerate again, HICP food contribution to headline inflation should fade to around 0.25pp.



Source: FAO, Eurostat, Macrobond Financial, Danske Bank

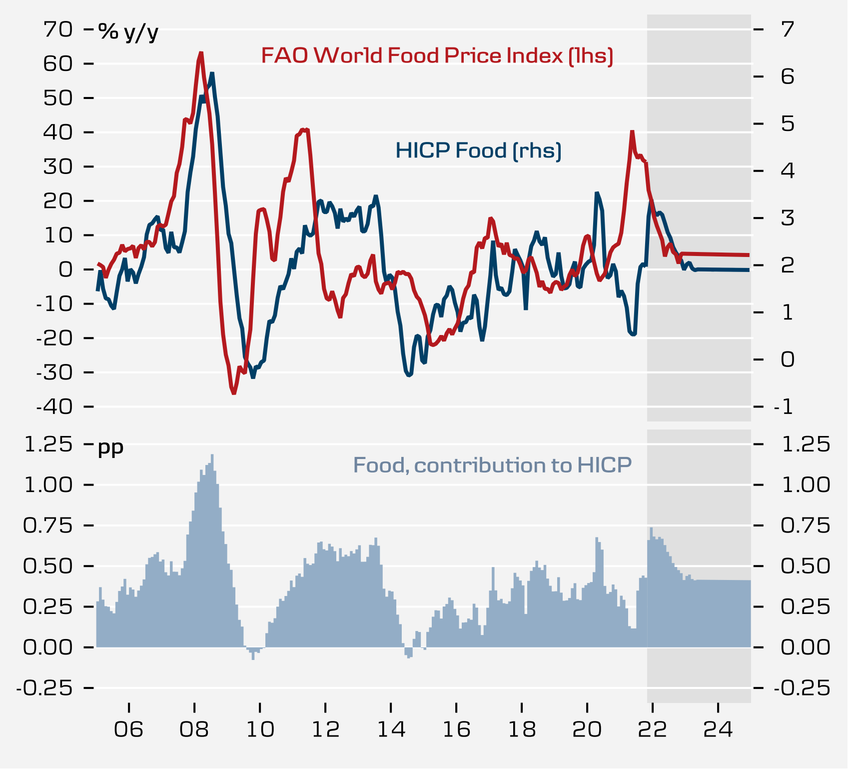


Source: FAO, Macrobond Financial, Danske Bank

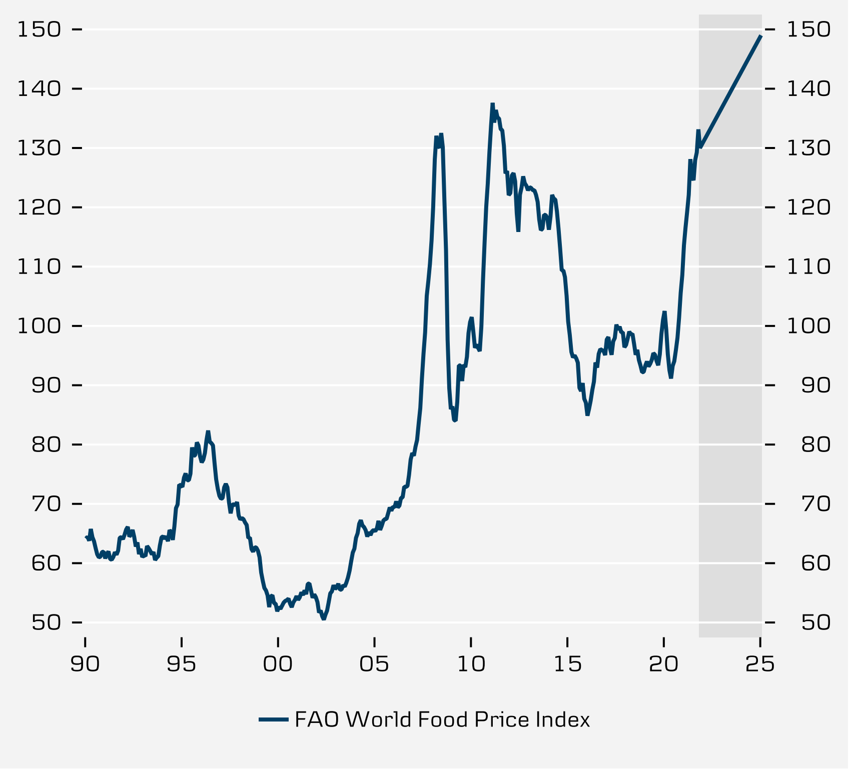
Danske Bank

Food scenarios: prices continue on a more moderate uptrend

If food prices continue on a more moderate uptrend, HICP food contribution to headline inflation should stabilize around 0.4pp.



Source: FAO, Eurostat, Macrobond Financial, Danske Bank

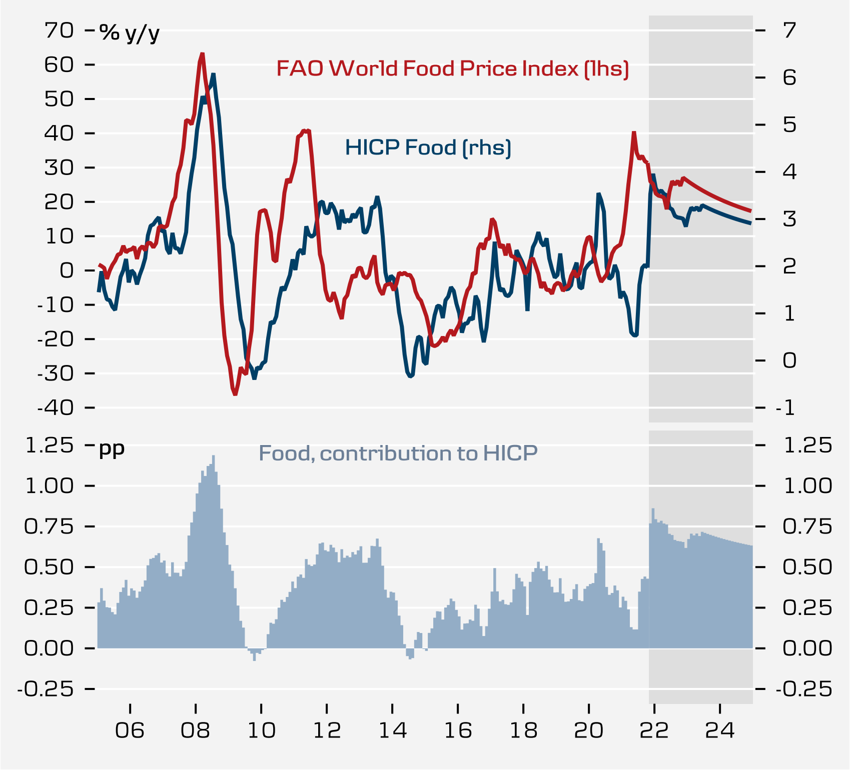


Source: FAO, Macrobond Financial, Danske Bank

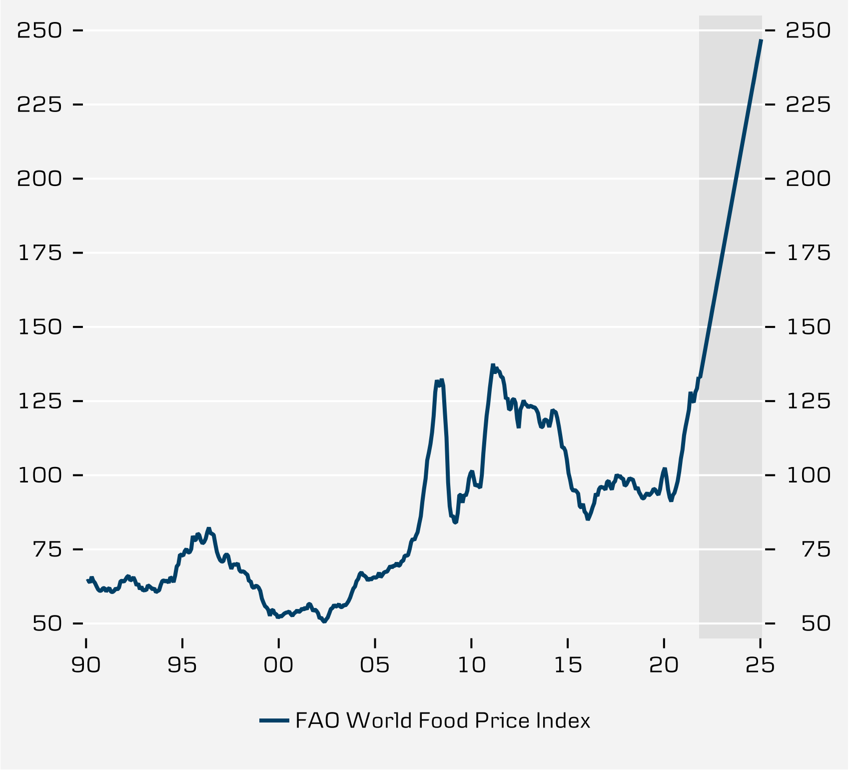
Danske Bank

Food scenarios: prices continue same uptrend as in 2021

If food prices continue the same uptrend as in 2021, HICP food contribution to headline inflation should stabilize around 0.7pp.



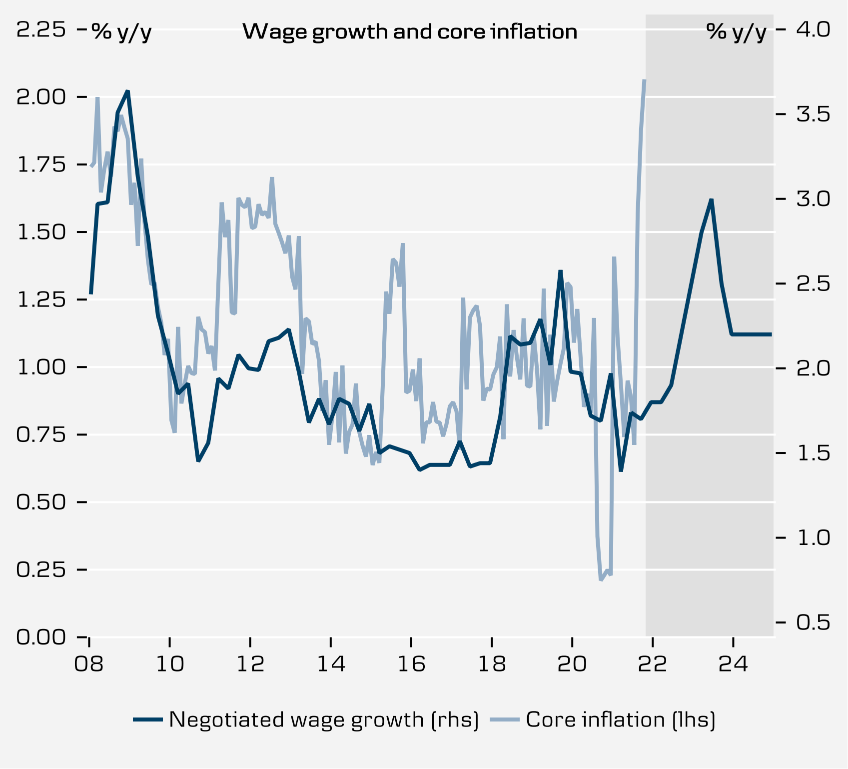
Source: FAO, Eurostat, Macrobond Financial, Danske Bank



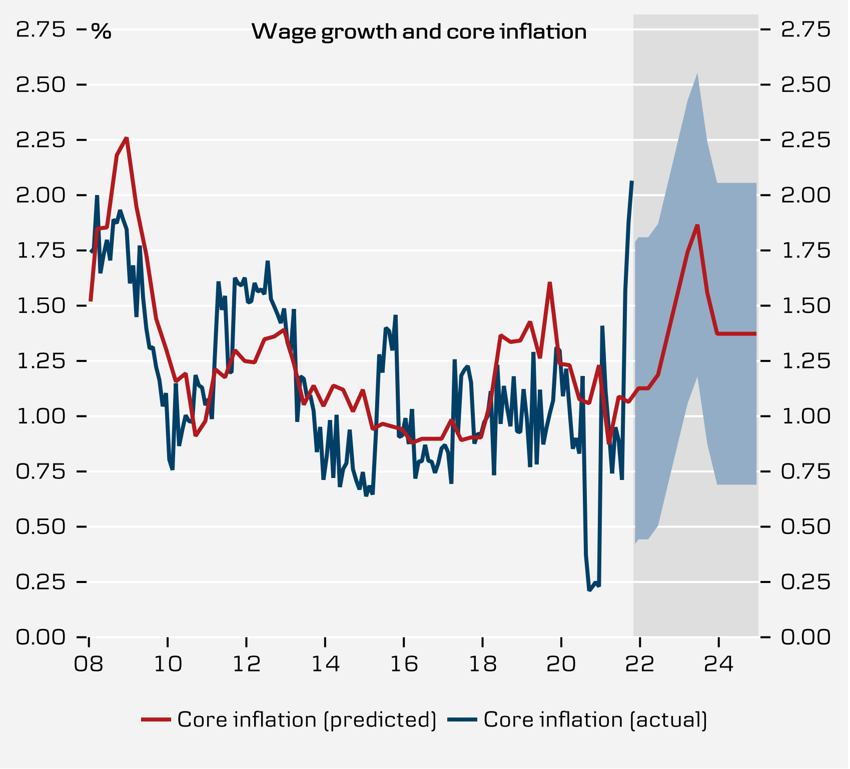
Source: FAO, Macrobond Financial, Danske Bank

Core scenarios: negotiated wages accelerate temporarily in H2 22/2023 (baseline)

If negotiated wage growth temporarily rises in H2 22/23, but slows down again in 2024, core inflation temporarily rises to 1.8%, but slows down again in 2024 as wage growth reverts to long-run average.



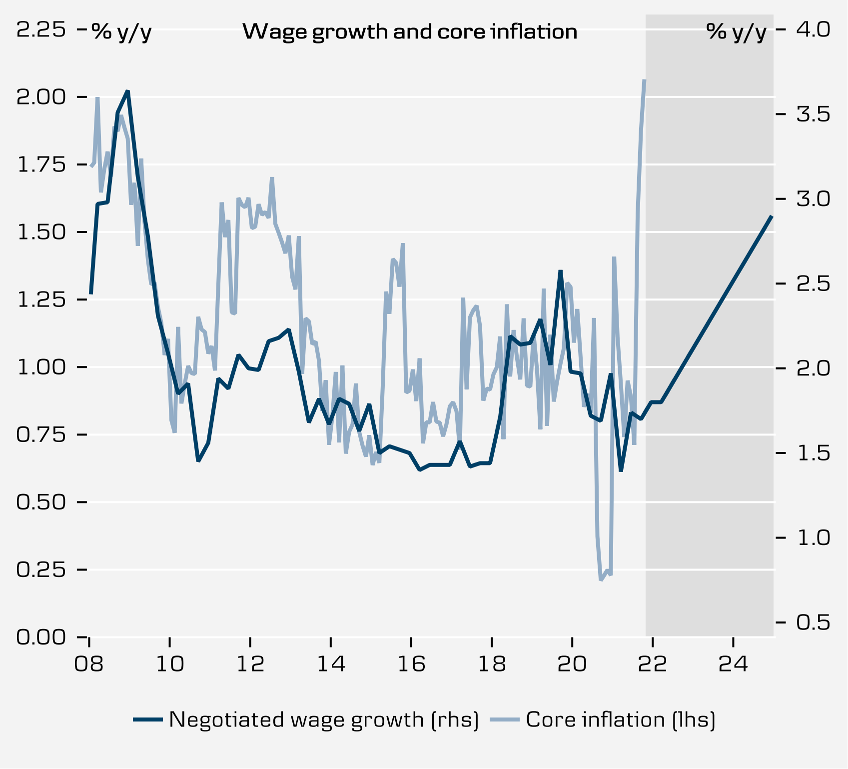
Source: ECB, Eurostat, Macrobond Financial, Danske Bank



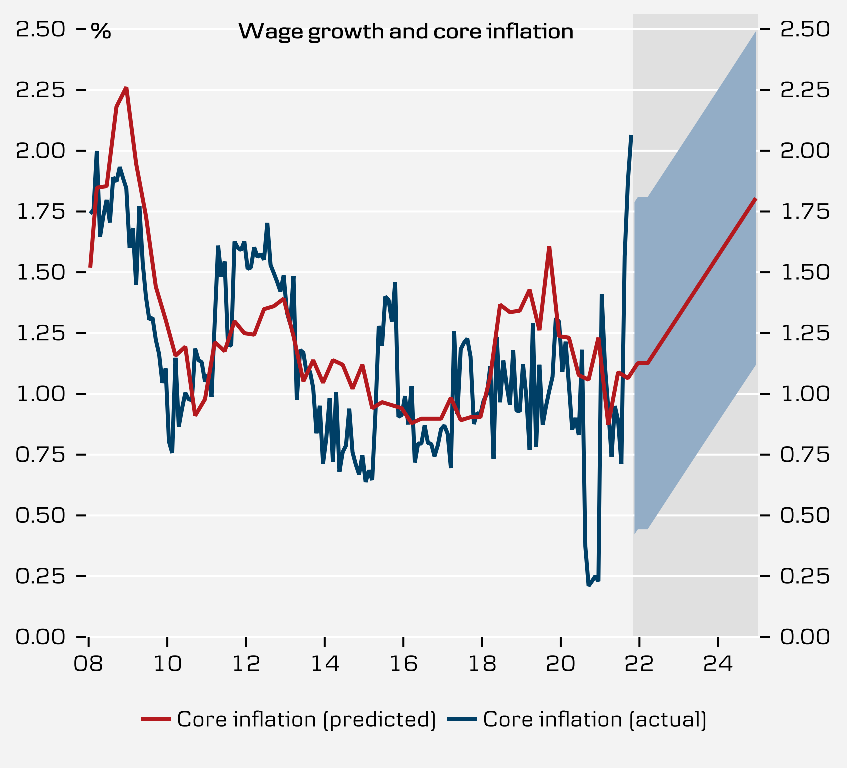
Source: ECB, Eurostat, Macrobond Financial, Danske Bank
Note: Simple core inflation regression model based on negotiated wages.

Core scenarios: negotiated wages continue on a moderate uptrend

If negotiated wage growth continues on a moderate uptrend in the coming years, core inflation gradually rises to 1.8% in 2024.



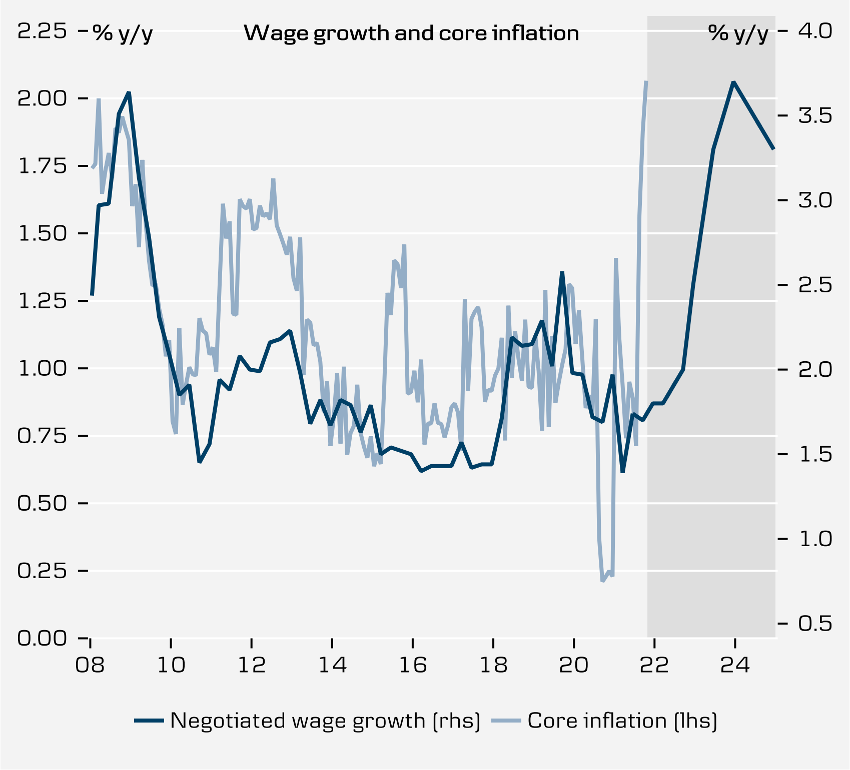
Source: ECB, Eurostat, Macrobond Financial, Danske Bank



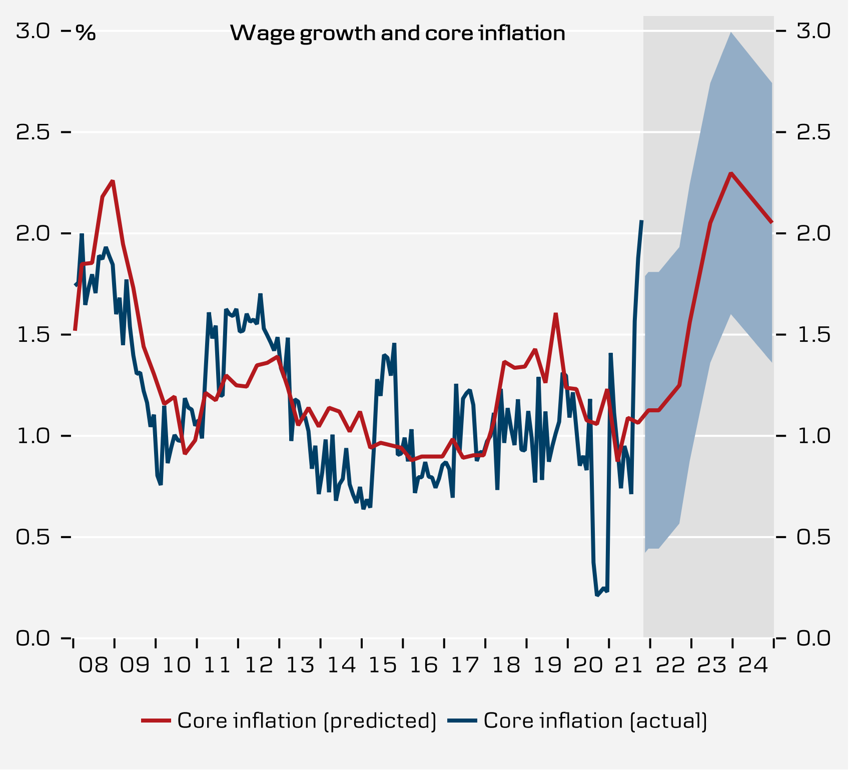
Source: ECB, Eurostat, Macrobond Financial, Danske Bank
Note: Simple core inflation regression model based on negotiated wages.

Core scenarios: negotiated wages accelerate sharply from 2022 onwards

If negotiated wage growth accelerates sharply from 2022 onwards, core inflation settles above 2.0% in 2023-24.



Source: ECB, Eurostat, Macrobond Financial, Danske Bank



Source: ECB, Eurostat, Macrobond Financial, Danske Bank
Note: Simple core inflation regression model based on negotiated wages.

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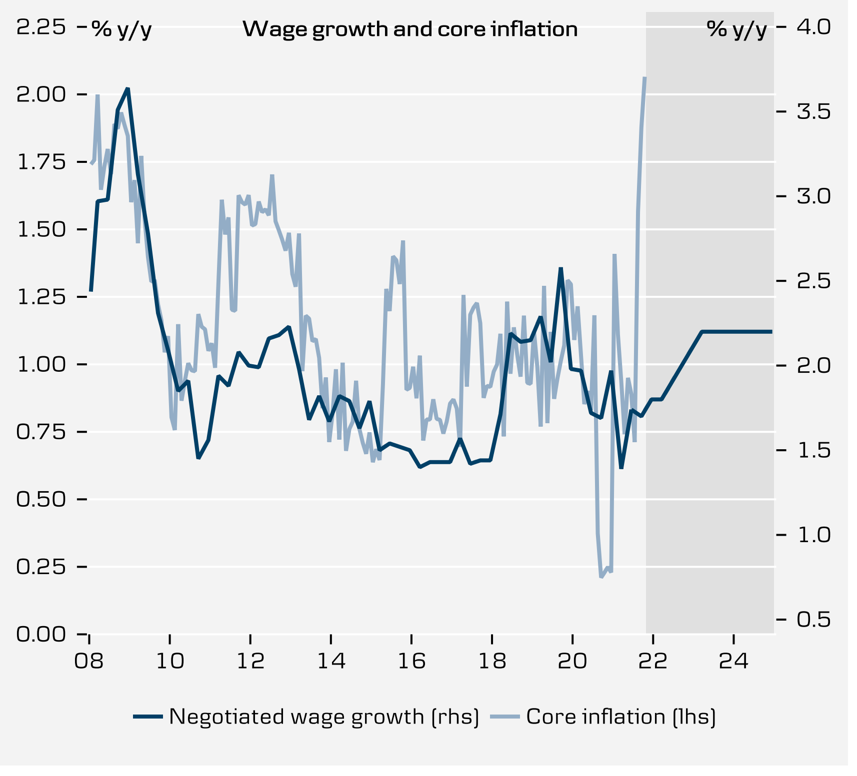
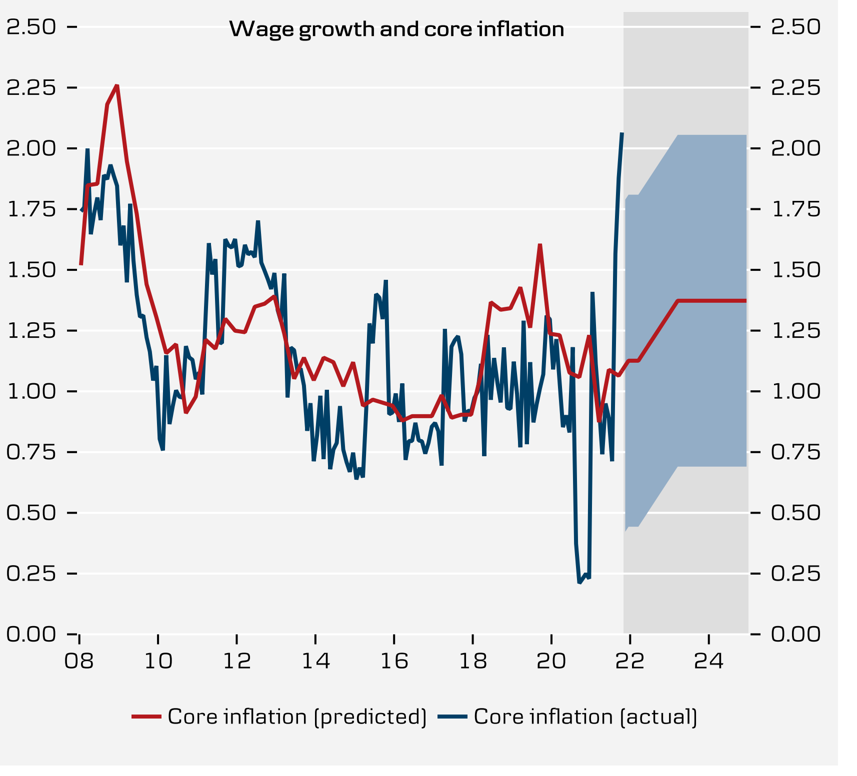
Core scenarios: negotiated wages trend gradually up to long-run average

If negotiated wage growth gradually returns to its long-run average (2.1%), core inflation stagnates around 1.3-1.4% in 2023-24.



Source: ECB, Eurostat, Macrobond Financial, Danske Bank

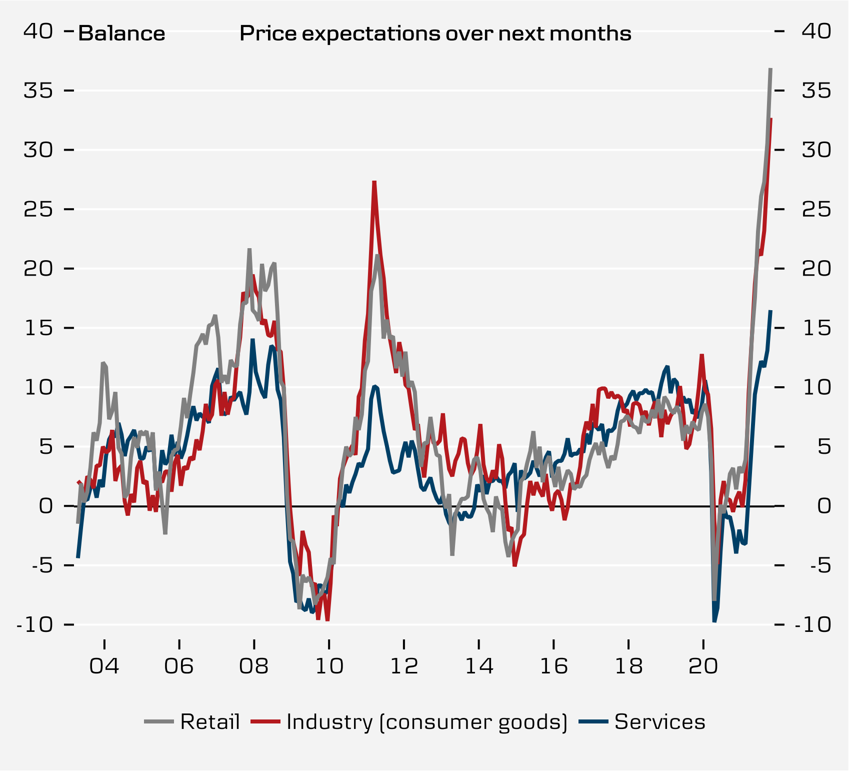


Source: ECB, Eurostat, Macrobond Financial, Danske Bank
Note: Simple core inflation regression model based on negotiated wages.

Inflation expectations and market dynamics: stagflation fears

Selling price expectations are still rising

Selling price expectations have risen significantly in recent months, reaching new all time highs for retailers and consumer goods producers. Even in the most Covid-19 affected services industries, like travel & accommodation, selling price expectations are rising steadily.



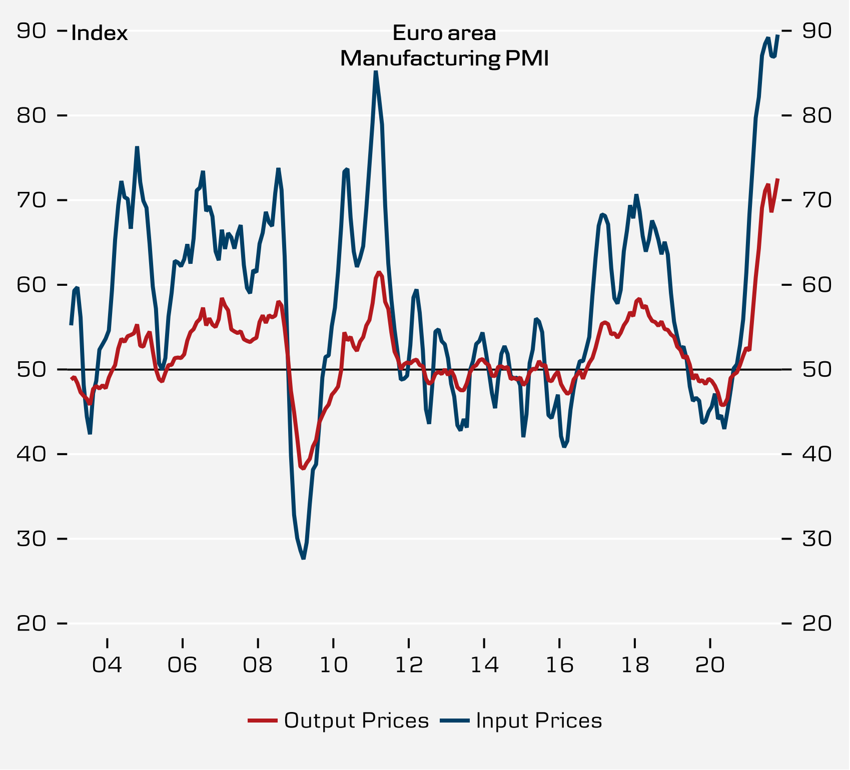
Source: EU Commission, Macrobond Financial, Danske Bank

Source: EU Commission, Macrobond Financial, Danske Bank

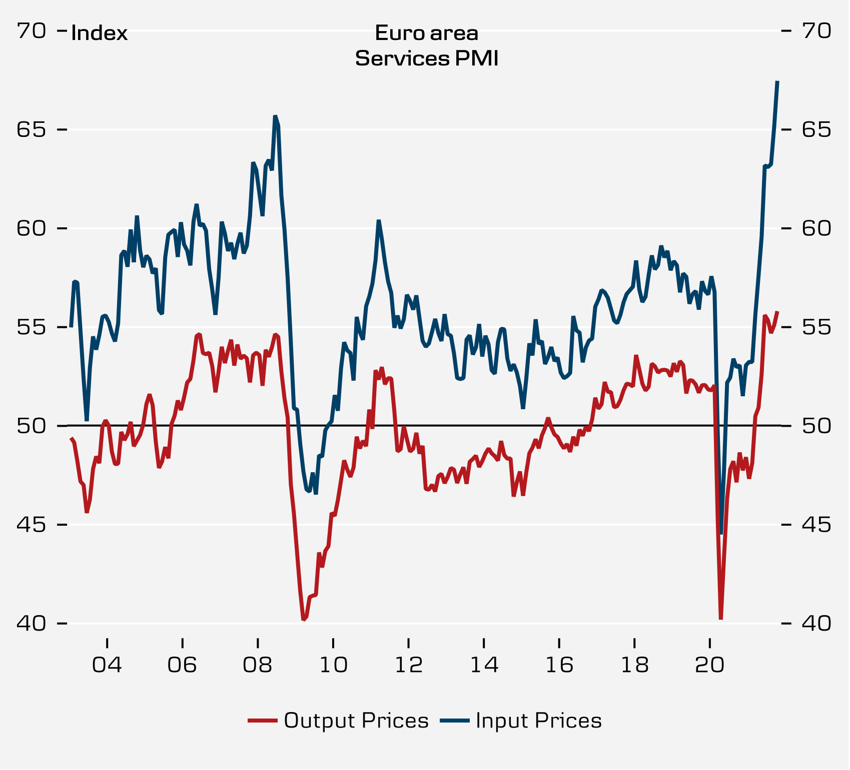
Danske Bank

Inflation pass-through to consumers increasingly visible

Manufacturers and service providers are seeing their **input prices** rising at the fastest pace on record. As higher input prices are weighing on margins, costs are increasingly passed to consumers via rising **output prices** in both manufacturing and services.



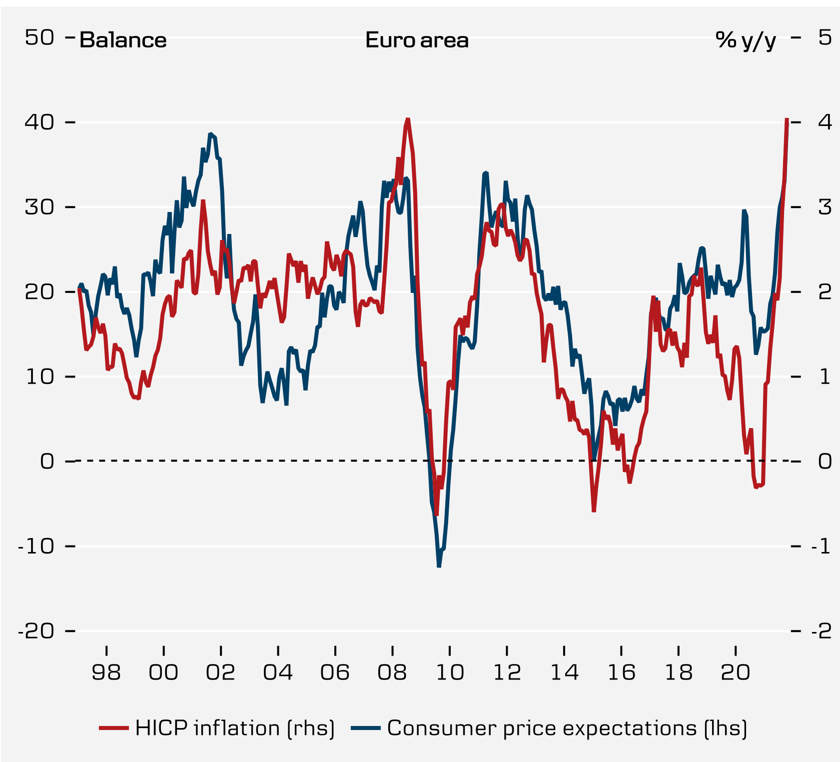
Source: Markit, Macrobond Financial, Danske Bank



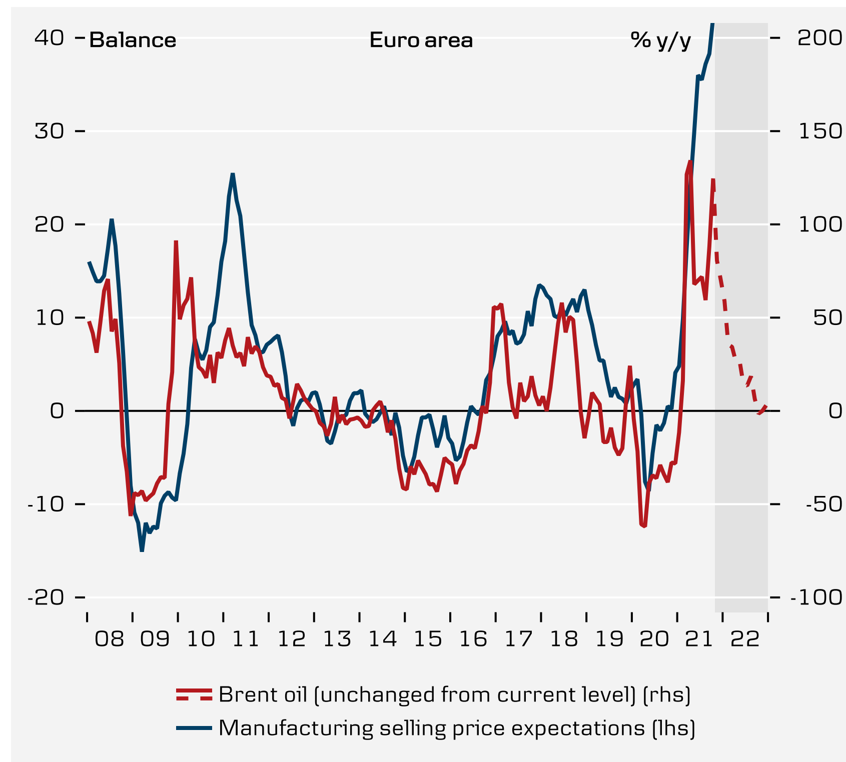
Source: Markit, Macrobond Financial, Danske Bank

Consumers price expectations remain highly adaptive

Consumer surveys suggest that households expect further price increases lie ahead. However, price expectations are highly adaptive in nature. Hence, once the current high observed inflation rates come down in 2022, **consumer price expectations** will likely also start ease.



Source: EU Commission, Macrobond Financial, Danske Bank



Source: EU Commission, Macrobond Financial, Danske Bank

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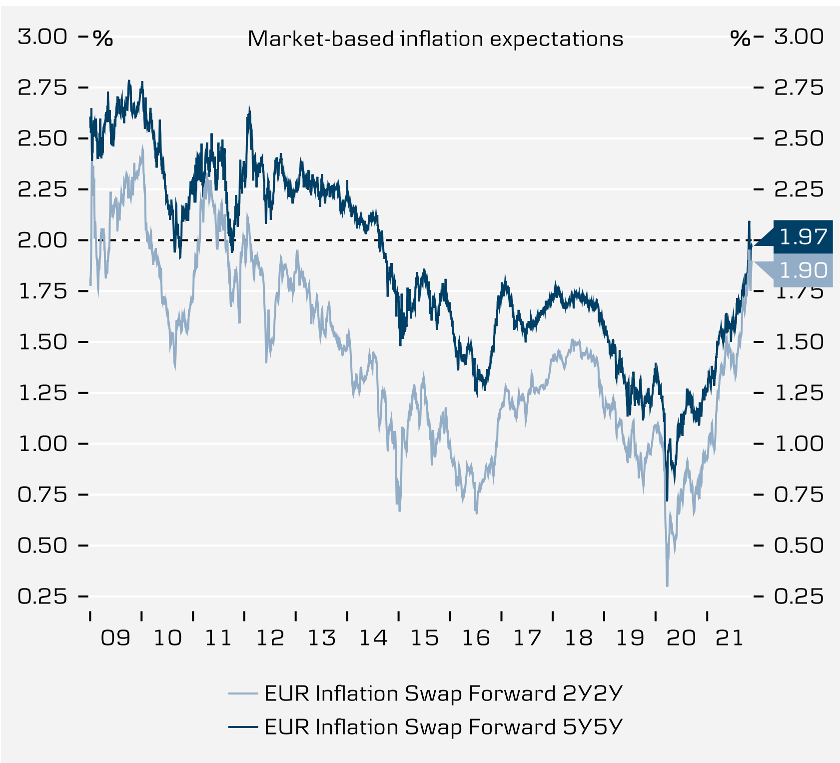
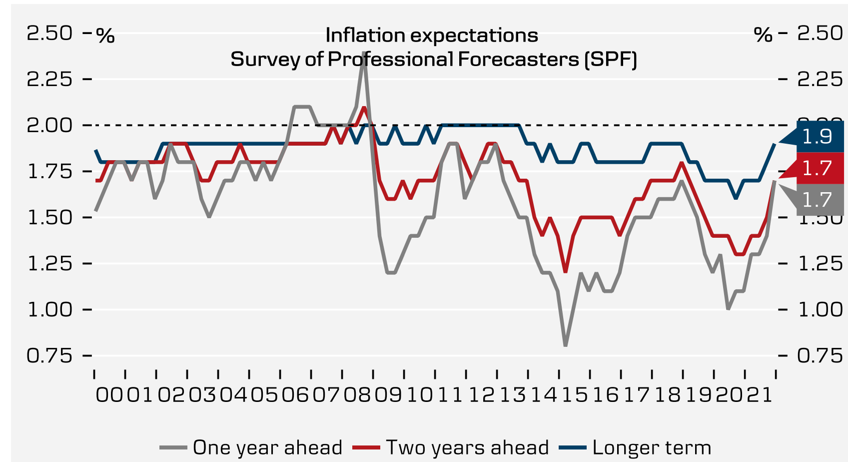
Long-term inflation expectations back to target

Market-based inflation expectations have seen a sharp rebound with 5y5y inflation swap forward rising above 2% (highest since 2014). Survey-based measures of inflation expectations, such as the SPF have seen a similar uptrend, but with no signs of de-anchoring in contrast to the US.



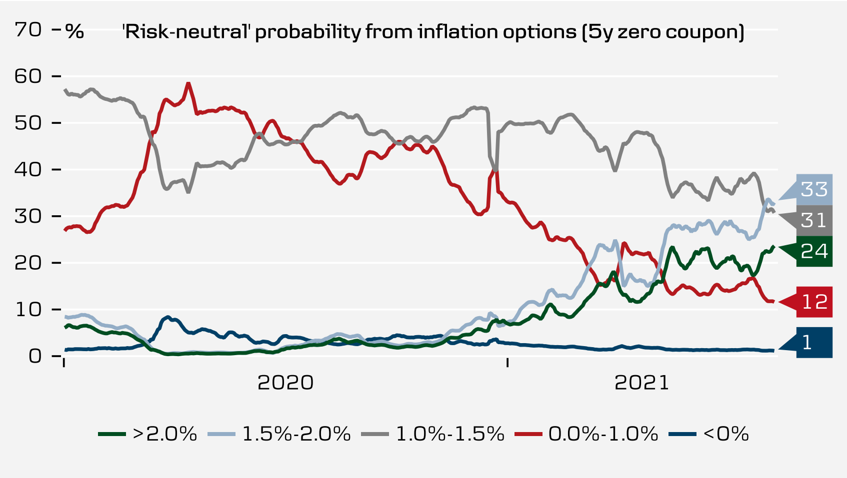
Note: Past performance is not a reliable indicator of current or future results

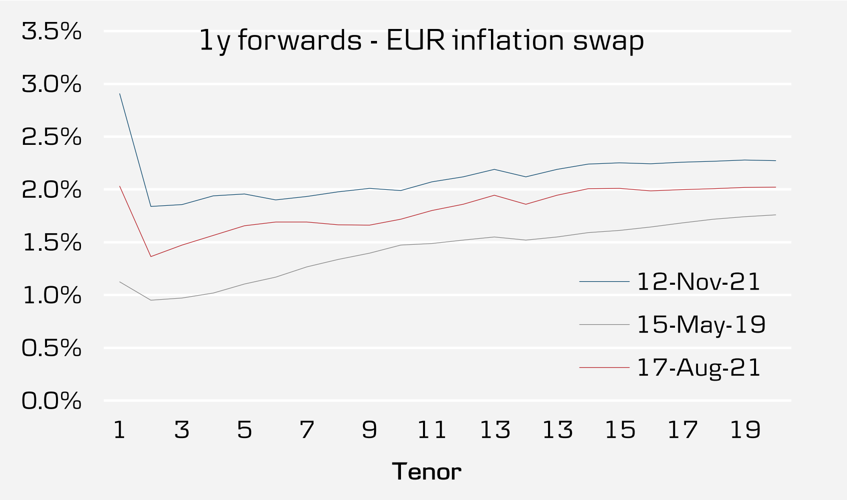
Source: Bloomberg, Macrobond Financial, Danske Bank



Source: ECB, Macrobond Financial, Danske Bank

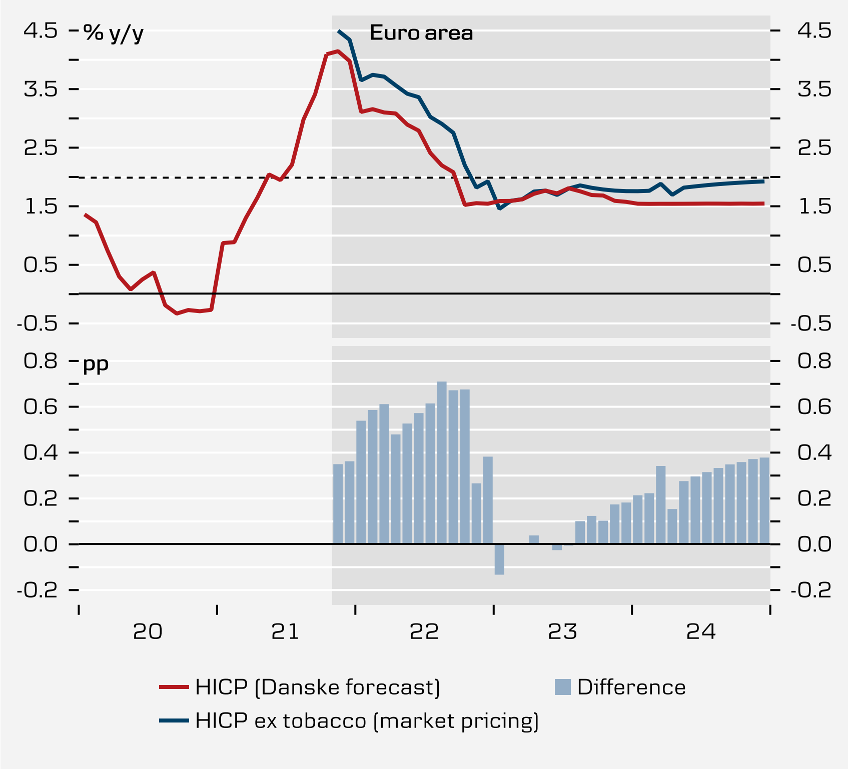
Markets are buying into the 'permanent' inflation narrative





Note: Past performance is not a reliable indicator of current or future results
Source: Bloomberg, Danske Bank

Markets are increasingly buying into the narrative that the rise in euro inflation is more permanent and that inflation will remain above the ECB's target during 2022, and stay close to target over the medium-term.



Note: Past performance is not a reliable indicator of current or future results
Source: Bloomberg, Eurostat, Danske Bank

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