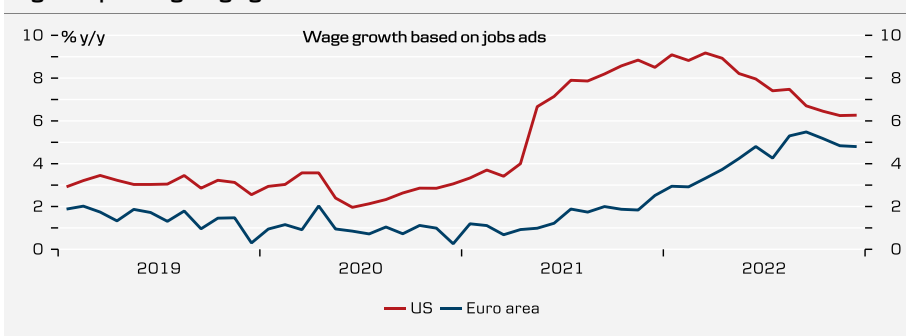


Global Inflation Watch

Central banks welcome easing wage inflation

- Overview:** Inflation drivers continue to paint a mixed picture but inflation is likely to head lower through 2023 in US and the euro area. Price pressures from food and freight rates have clearly eased while metal prices have recovered lately. Energy and electricity prices have declined sharply amid warmer weather in Europe. Labour markets remain tight, but wage pressures have showed tentative signs of easing as economies are cooling down. In December, core inflation continued to pick up speed in the euro area, while US CPI showed some easing in underlying inflation pressures. Looking forward, easing financial conditions, less negative growth outlook and the recovery in China continue to pose upside risks to inflation in 2023.
- Inflation expectations:** Both US and euro area consumer inflation expectations have remained elevated, but off the peak levels. Market-based long-term inflation expectations have remained stable over the past month.
- US:** On first glance, US December CPI came out close to our and consensus expectations: headline -0.1% m/m (forecast 0.0%) and core +0.3% m/m (+0.3%). While core services inflation picked up more than expected (0.5%; from 0.4%), the uptick was driven by faster shelter and health care inflation, while broader wage-sensitive inflation cooled. The contribution from core goods CPI was slightly less negative than in November, but the normalizing consumption will likely continue pushing prices gradually lower in the coming months. Energy prices also declined, and food price inflation continues to ease. Overall the early signs of easing wage and core services inflation ease the pressure on the Fed to continue hiking rates aggressively in the spring.
- Euro:** While markets cheered another marked decline in headline inflation to 9.2%, the same cannot be said for core inflation which reached a new record high of 5.2% in December. For the time being, lower energy prices and base effects, as well as government interventions are pushing down headline inflation. However, with a tight labour market and still elevated selling price expectations, high core inflation will likely remain a worry for ECB for some time. In a positive development, consumer inflation expectations and high-frequency wage growth measures have eased a bit lately.
- China:** CPI increased from 1.6% y/y to 1.8% y/y in December and CPI ex. food was unchanged at a low 1.1%. PPI increased to -0.7% y/y from -1.3% y/y.

Signs of peaking wage growth on both sides of the Atlantic

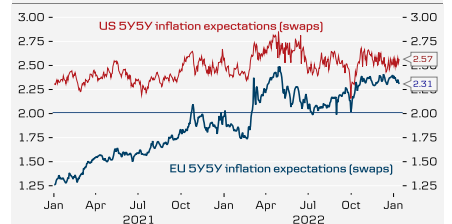


Source: Bank of Ireland, Indeed Hiring Lab, Macrobond Financial, Danske Bank

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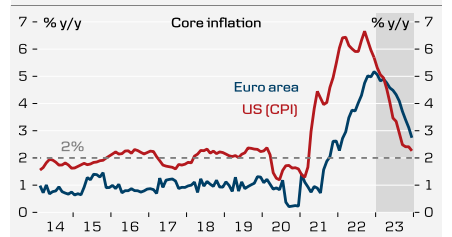
Market-based inflation expectations sideways lately above 2%



Note: Past or current performance is no guarantee of future performance

Source: Macrobond Financial, Bloomberg

High core inflation will likely remain a worry for ECB for some time yet



Source: Macrobond Financial, Eurostat, Danske Bank

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Top down overview

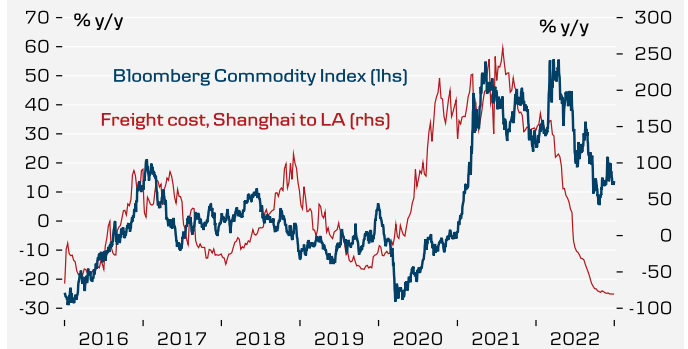
Trend in inflation pressure moving lower

Inflation Score Card

Commodity prices	Oil	↓
	Metals	↓
	Food stuff	↓
	Gas	→
Supply Chains	Freight rates	↓
	Delivery times	↓
Wage pressure		↑
Inflation expectations		→
Pricing power		↓

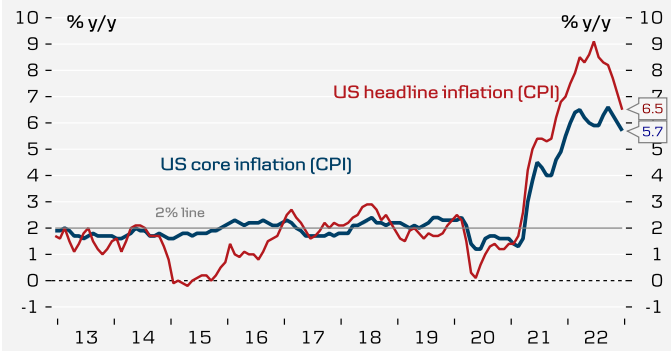
Source: Macrobond Financial, BLS

Commodity price and freight inflation



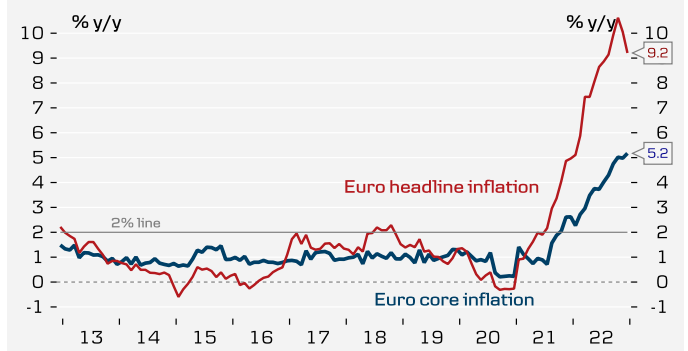
Source: Macrobond Financial, Eurostat

US headline and core inflation (CPI)



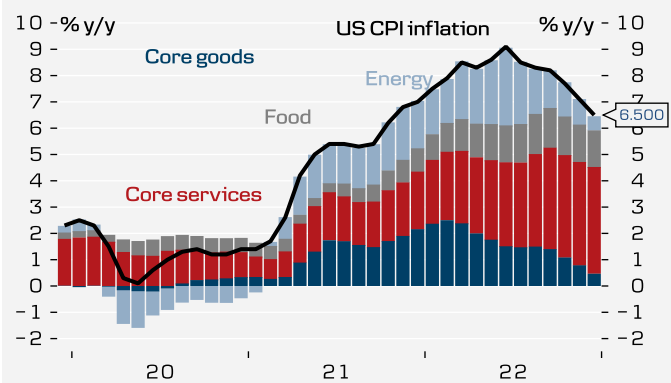
Source: Macrobond Financial, BLS

Euro headline and core inflation



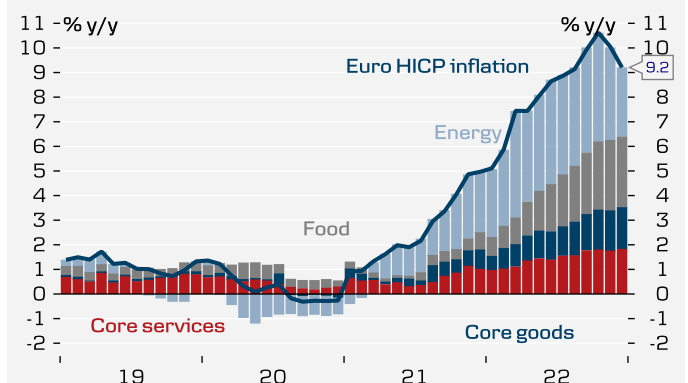
Source: Macrobond Financial, Eurostat

Contributions to US inflation



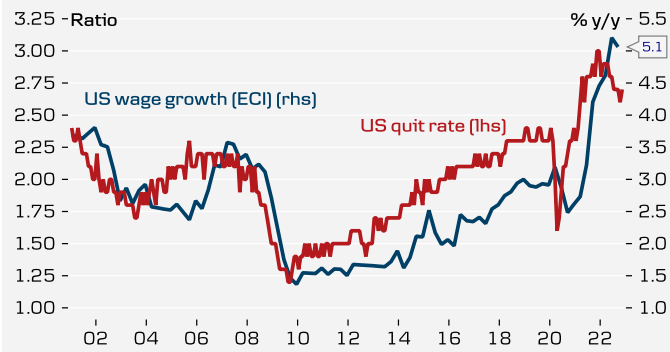
Source: Macrobond Financial, BLS

Contributions to euro inflation



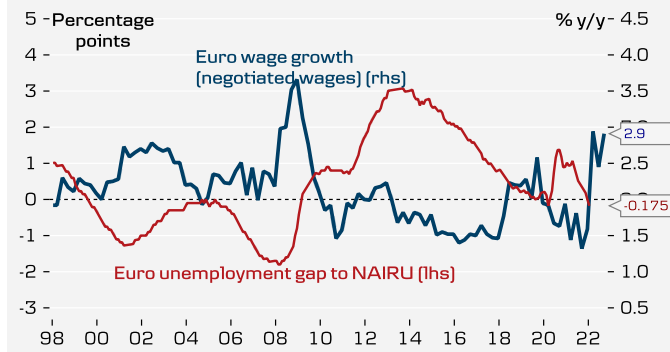
Source: Macrobond Financial, Eurostat

US wage growth and labour market tightness



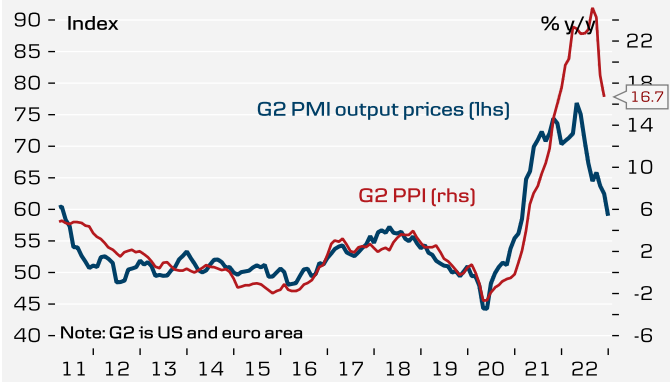
Source: Macrobond Financial, BLS

Euro wage growth and labour market tightness



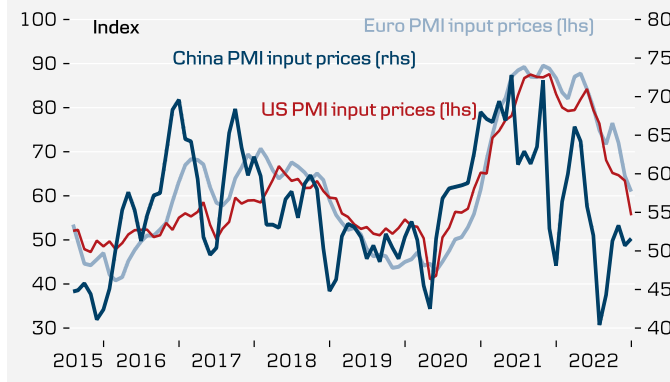
Source: Macrobond Financial, Eurostat, ECB

G2 PPI inflation vs oil price inflation



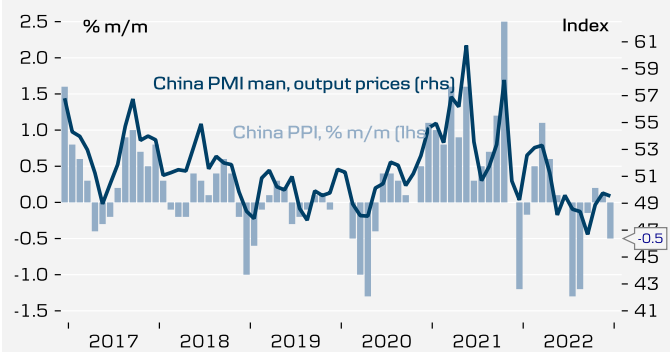
Source: Macrobond Financial, BLS, Eurostat

PMI input price indices US, Euro and China



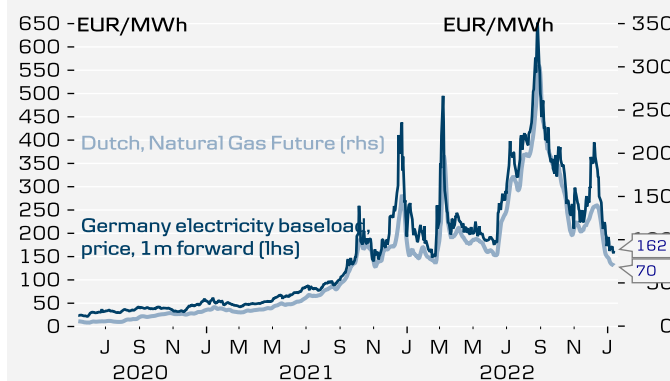
Source: Macrobond Financial, Markit

China PPI inflation momentum



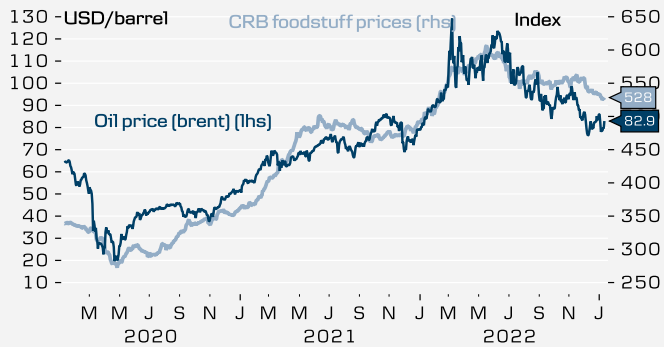
Source: Macrobond Financial, Markit

European natural gas and electricity prices



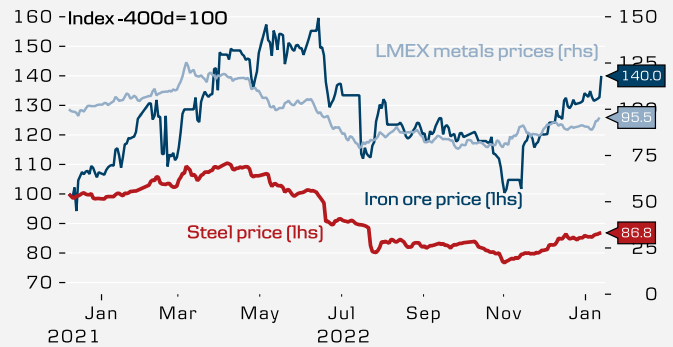
Note: Past or current performance is no guarantee of future performance
Source: Macrobond Financial, PBoC, Danske Bank

Commodity price levels – oil, metals and food



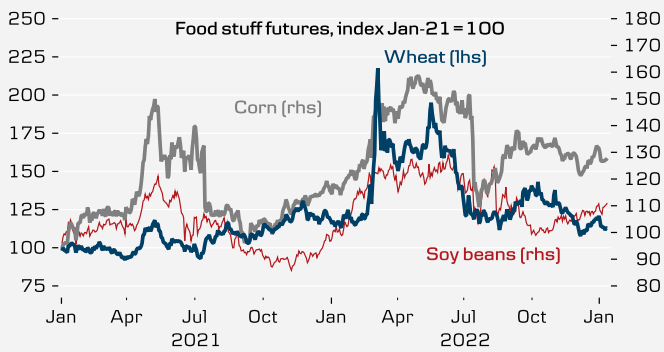
Source: Macrobond Financial, Bloomberg
 Note: Past performance is not a reliable indicator of future performance.

Commodity price levels – steel, iron ore and lumber



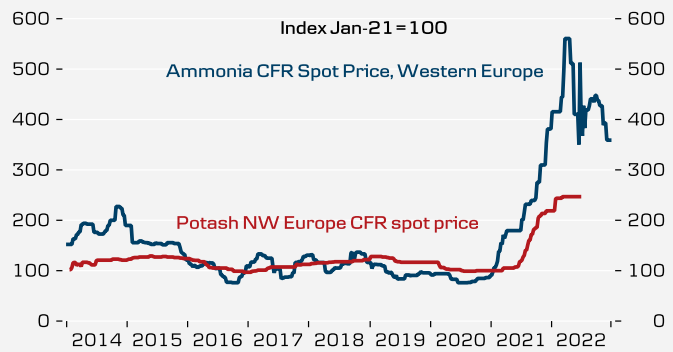
Source: Macrobond Financial, Bloomberg
 Note: Past performance is not a reliable indicator of future performance.

Grain prices



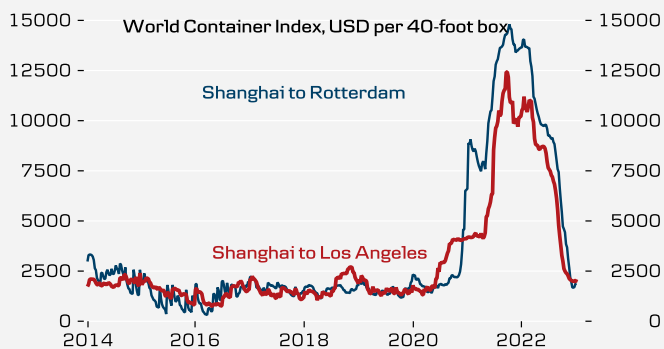
Source: Macrobond Financial, Bloomberg
 Note: Past performance is not a reliable indicator of future performance.

Fertilizer input prices



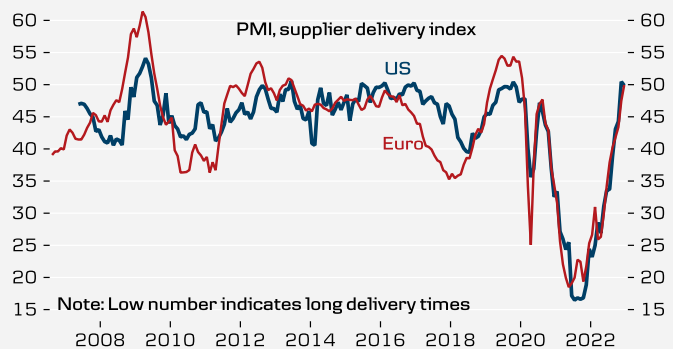
Source: Macrobond Financial, Bloomberg
 Note: Past performance is not a reliable indicator of future performance.

Freight rates



Source: Macrobond Financial, Bloomberg, WCI

Bottle necks - supplier delivery indices

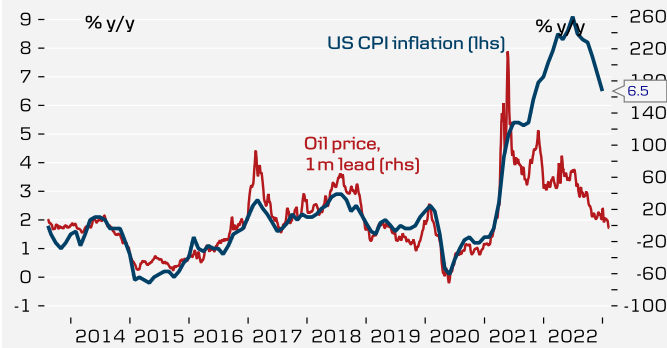


Source: Macrobond Financial, Markit

Country details - US

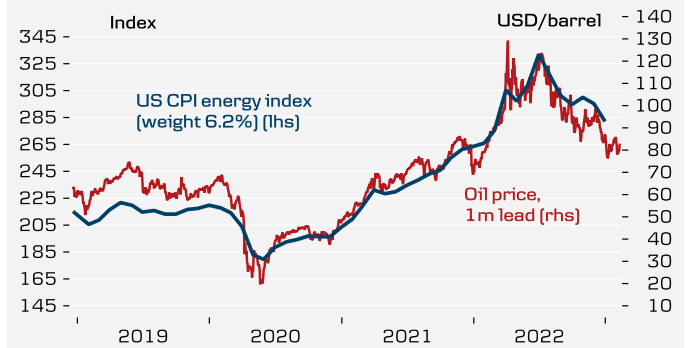
Top down

Headline CPI inflation vs. oil prices



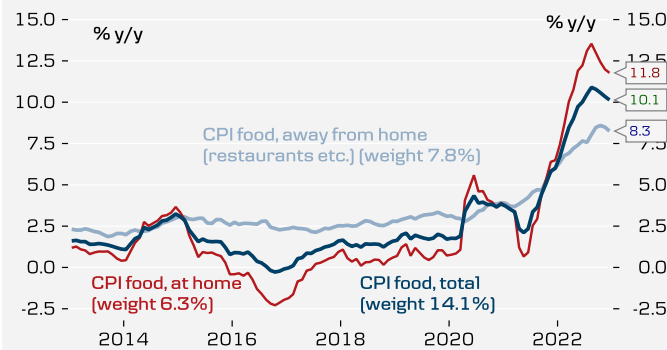
Source: Macrobond Financial, BLS.
 Note: Past performance is not a reliable indicator of future performance.

CPI energy prices vs oil



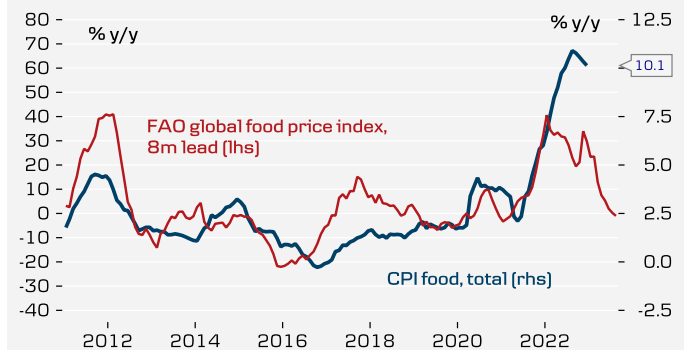
Source: Macrobond Financial, BLS.
 Note: Past performance is not a reliable indicator of future performance.

Food prices



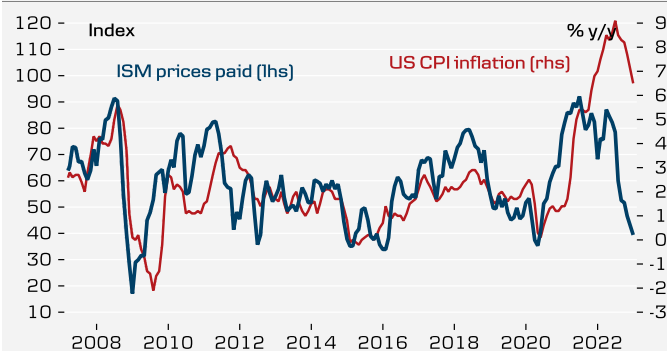
Source: Macrobond Financial, BLS

Food prices vs FAO food price index



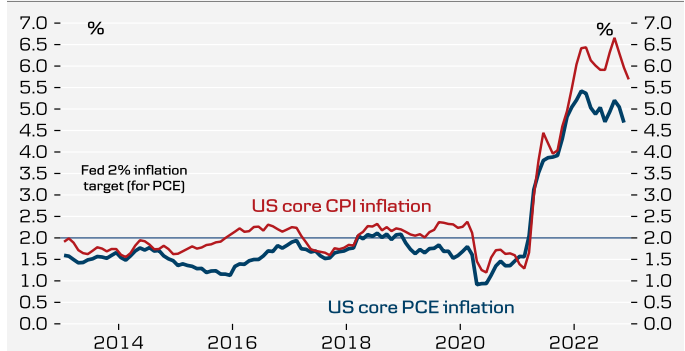
Source: Macrobond Financial, FAO, BLS
 Note: Past performance is not a reliable indicator of future performance.

US PMI output prices vs CPI inflation



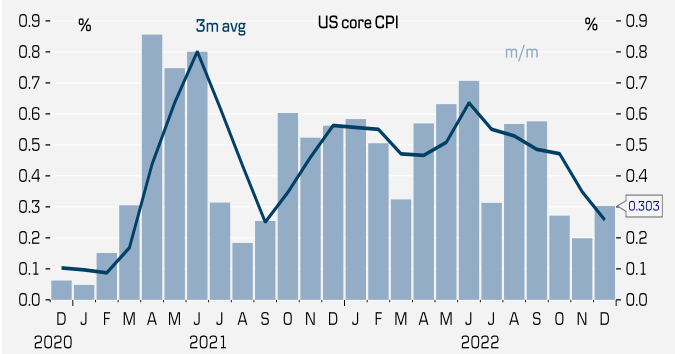
Source: Macrobond Financial, BLS, Markit

Core PCE inflation vs core CPI inflation



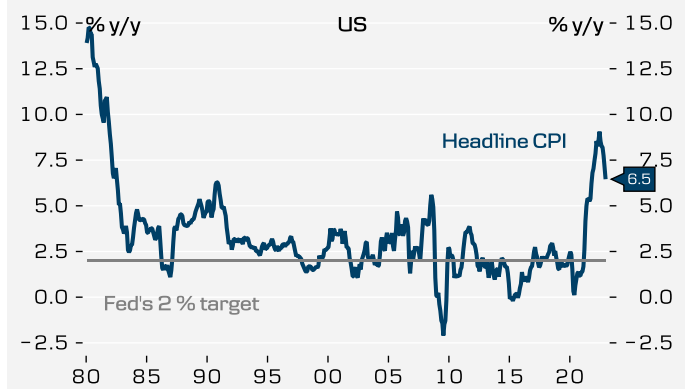
Source: Macrobond Financial, BLS, BEA

Core CPI momentum



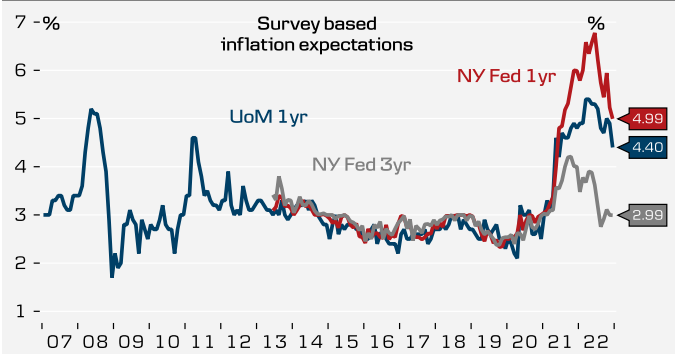
Source: Macrobond Financial, BLS

Headline CPI since 1980



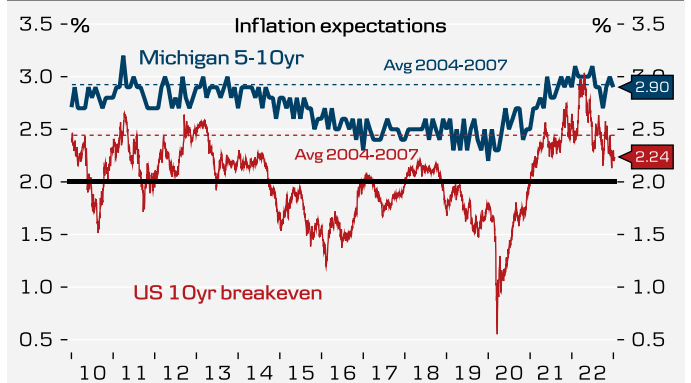
Sources: BEA, BLS, Macrobond Financial

Survey-based inflation expectations



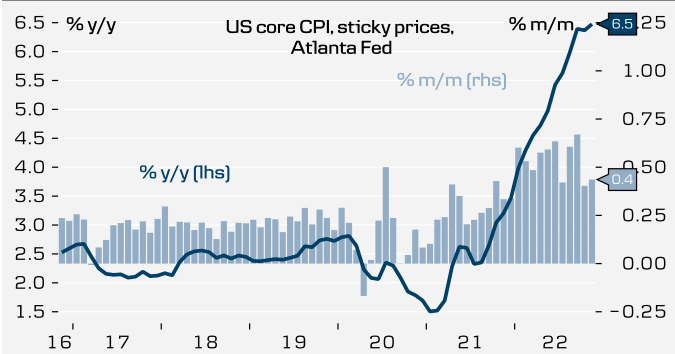
Source: NY Fed, University of Michigan, Macrobond Financial

Long-term inflation expectations



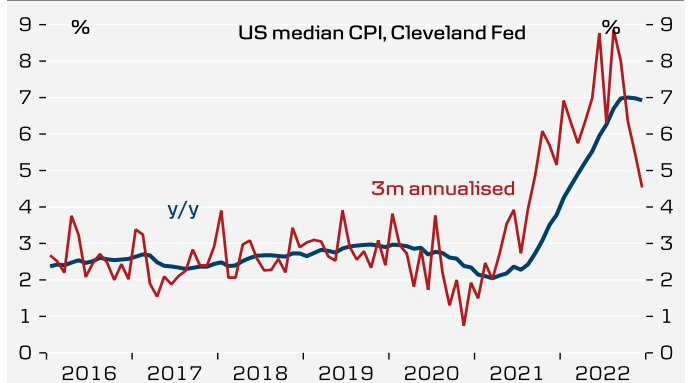
Source: Macrobond Financial, University of Michigan
Note: Past performance is not a reliable indicator of future performance.

Core sticky prices inflation (prices changed less frequently)



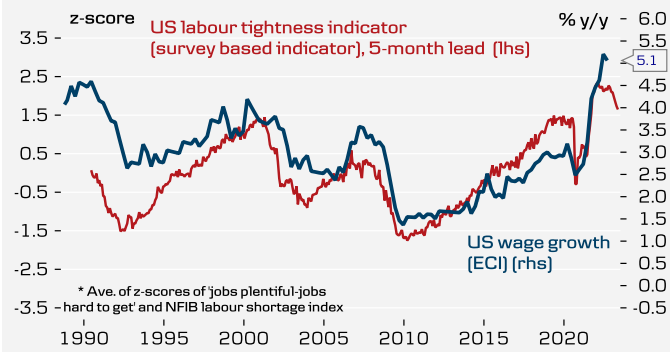
Source: Macrobond Financial, Atlanta Fed

Median CPI inflation



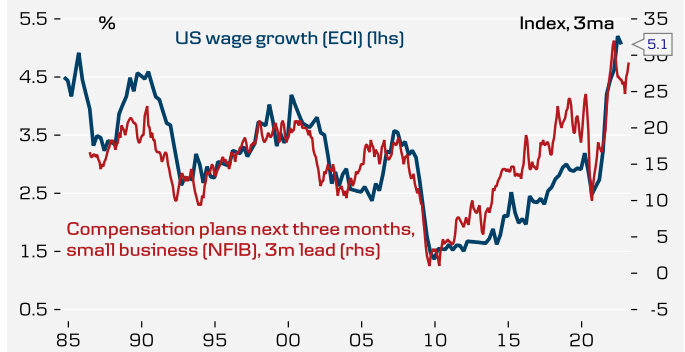
Source: Macrobond Financial, Cleveland Fed

Labour market tightness: wage growth vs tightness



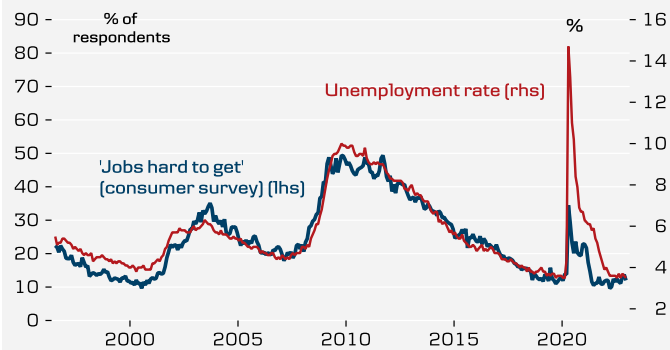
Source: Macrobond Financial, Conference Board, NFIB, BLS, Danske Bank

Labour market tightness: job openings and shortage



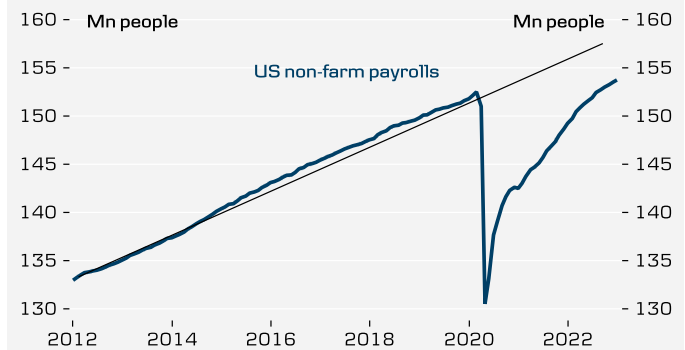
Source: Macrobond Financial, NFIB, BLS

Labour market tightness: Jobs hard to get and unemployment



Source: Macrobond Financial, Conference Board, BLS

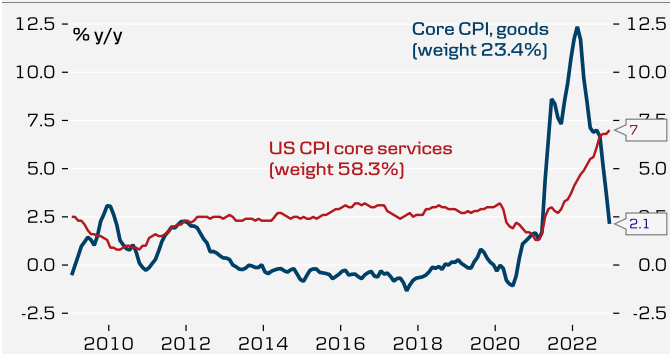
Employment gap



Source: Macrobond Financial, BLS

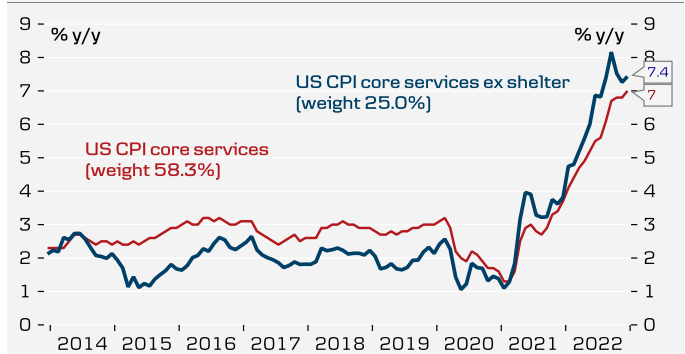
Bottom up

Core goods vs. services



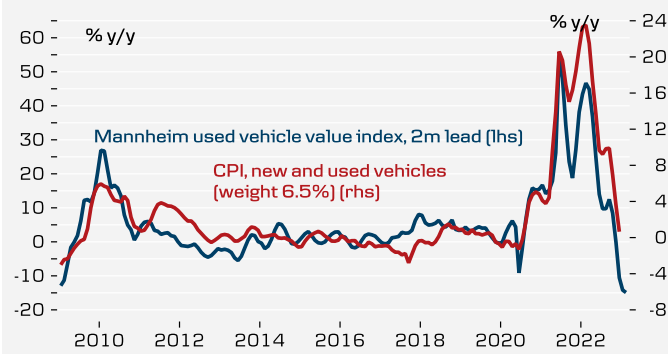
Source: Macrobond Financial, BLS

Core services ex shelter



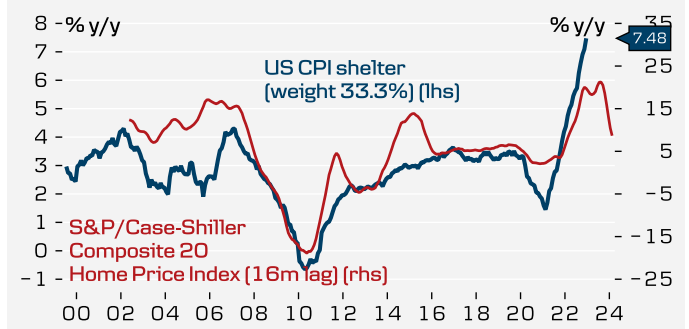
Source: Macrobond Financial, BLS

Used car prices



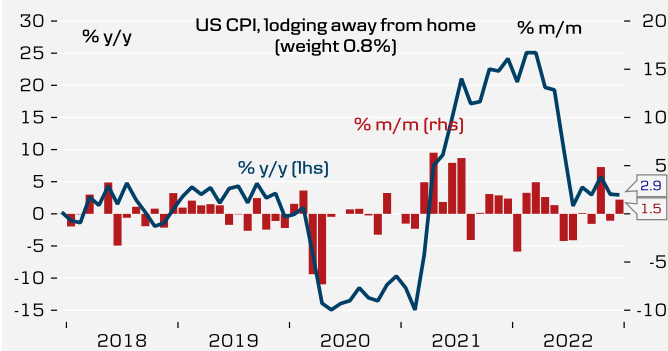
Source: Macrobond Financial, BLS, Manheim Consulting

Rent of shelter



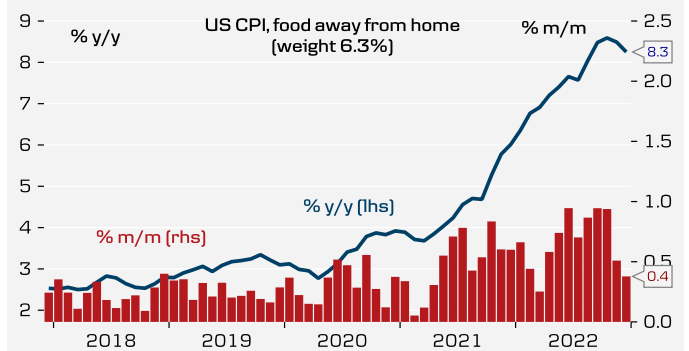
Source: Macrobond Financial, BLS, S&P Dow Jones

Lodging away from home (hotels etc.)



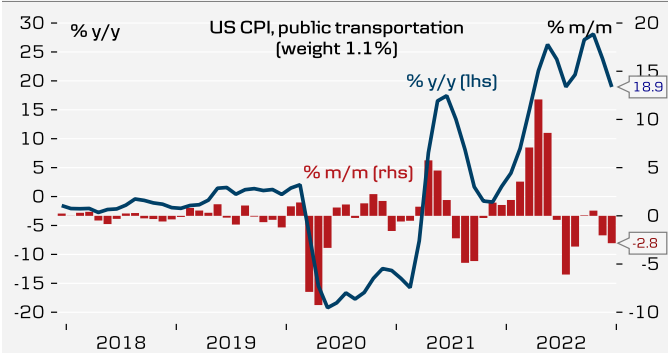
Source: Macrobond Financial, BLS

Food away from home (restaurants etc.)



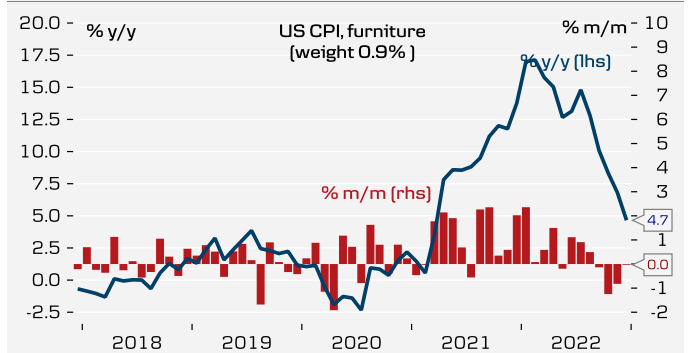
Source: Macrobond Financial, BLS

Public transportation (airfares etc.)



Source: Macrobond Financial, BLS

Furniture

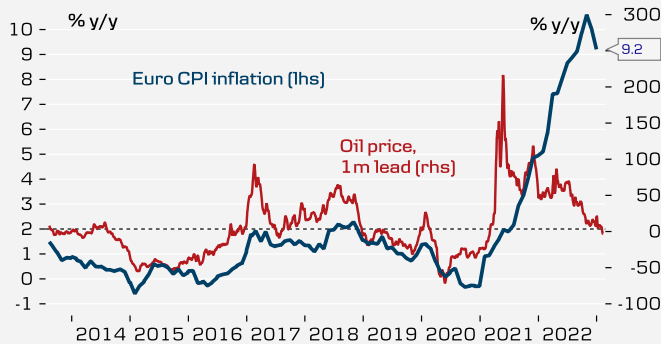


Source: Macrobond Financial, BLS

Country details – Euro

Top Down

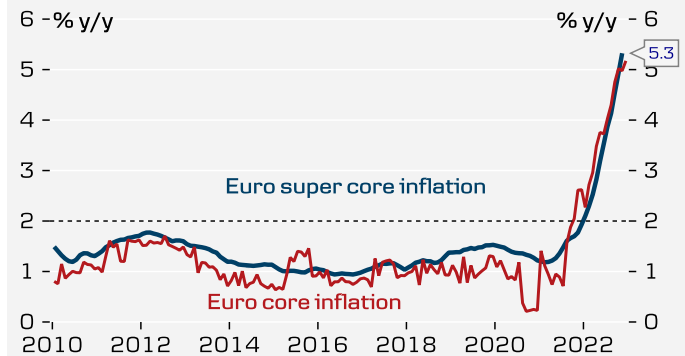
Headline vs. oil prices



Source: Macrobond Financial, Eurostat

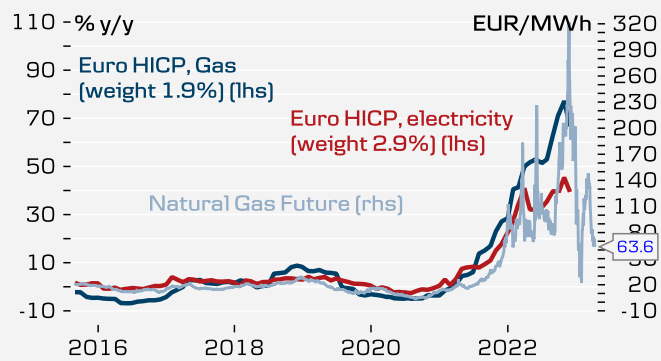
Note: Past performance is not a reliable indicator of future performance.

Core inflation



Source: Macrobond Financial, Eurostat, Danske Bank

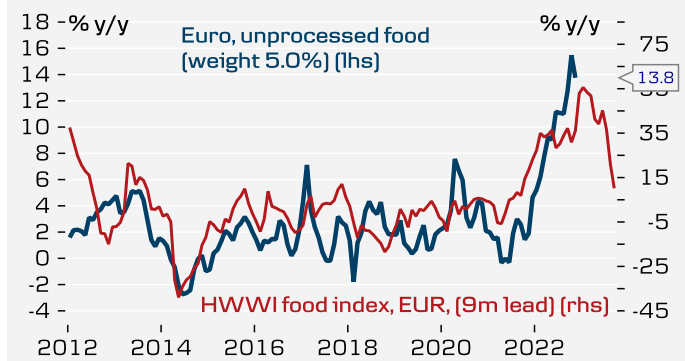
Natural gas & electricity



Source: Macrobond Financial, Eurostat

Note: Past performance is not a reliable indicator of future performance.

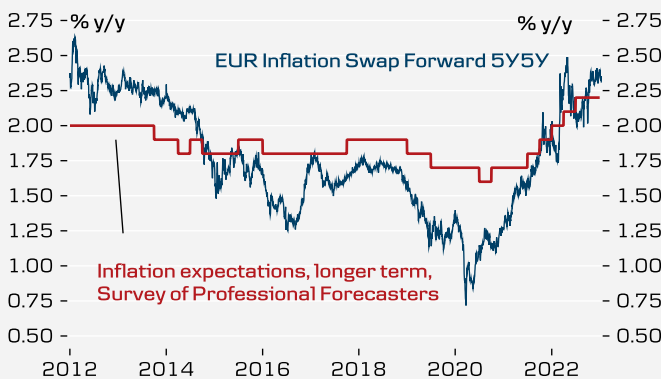
Food



Source: Macrobond Financial

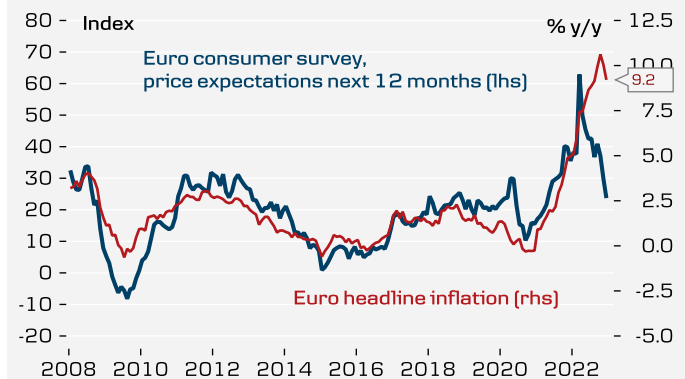
Note: Past performance is not a reliable indicator of future performance.

Inflation expectations



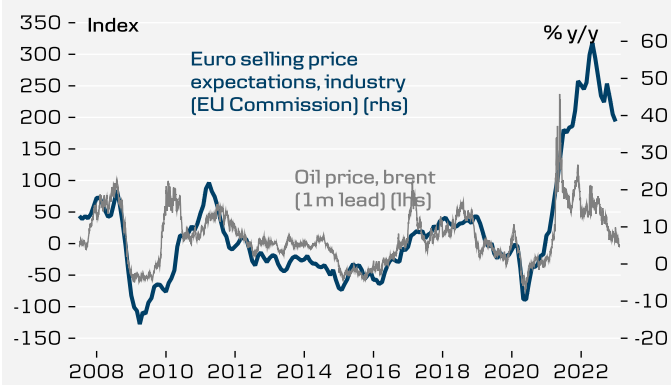
Source: Macrobond Financial, Bloomberg, ECB

Consumer confidence - price expectations



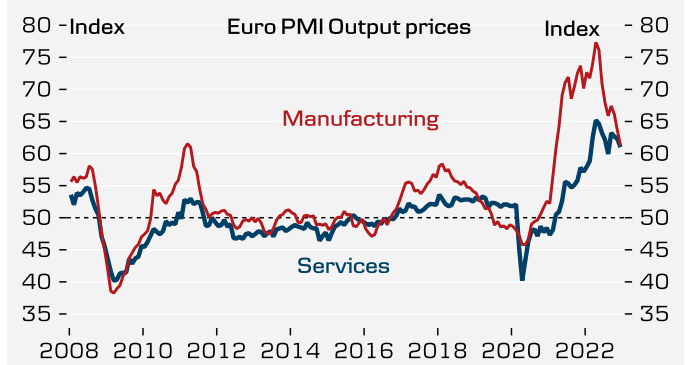
Source: Macrobond Financial, EU Commission, Eurostat

Selling price expectations from companies



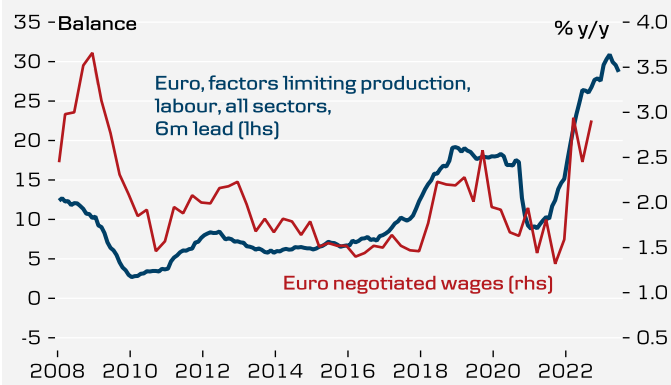
Source: Macrobond Financial, EU Commission
 Note: Past performance is not a reliable indicator of future performance.

PMI output prices



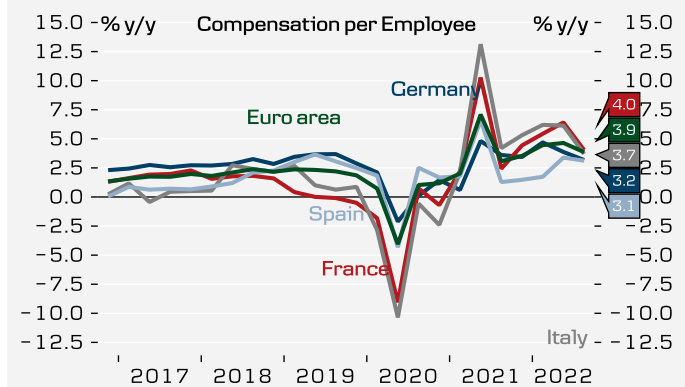
Source: Macrobond Financial, Markit

Labour shortage and wage growth



Source: Macrobond Financial, EU Commission

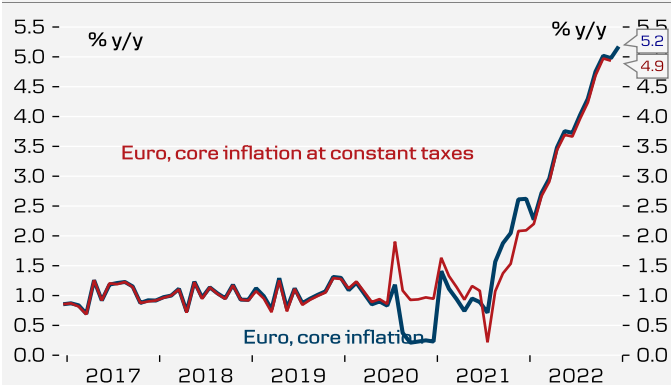
Wage compensation



Source: Macrobond Financial, ECB.
 Note: Compensation is affected by changes in working hours in contrast to negotiated wages, which is per hour worked.

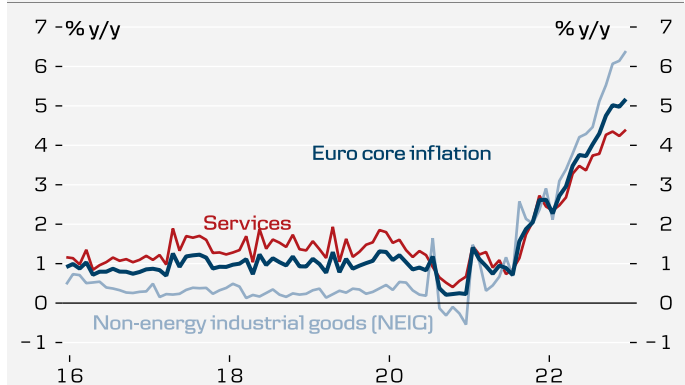
Bottom up

Core inflation, effect from taxes



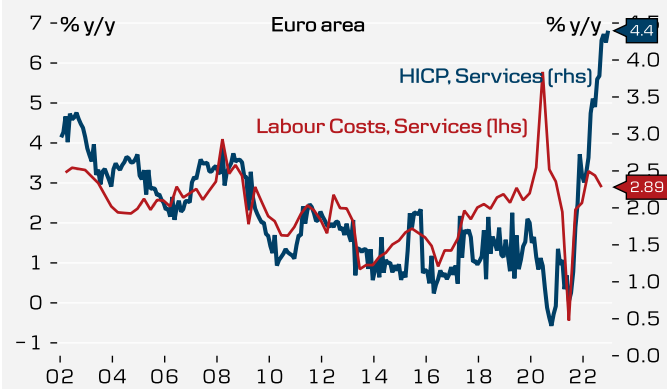
Source: Macrobond Financial, Eurostat

Core inflation components



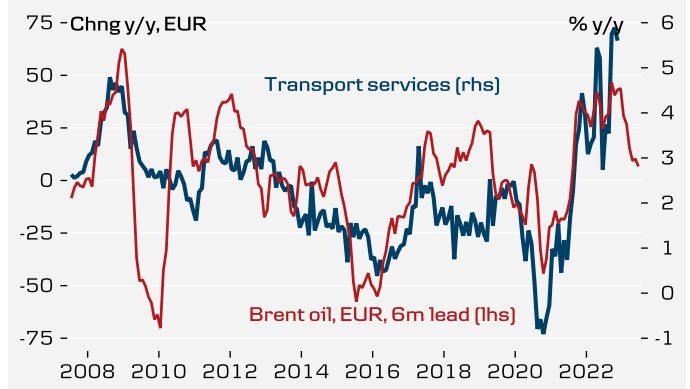
Source: Macrobond Financial, Eurostat, ECB

Service inflation vs. labour costs



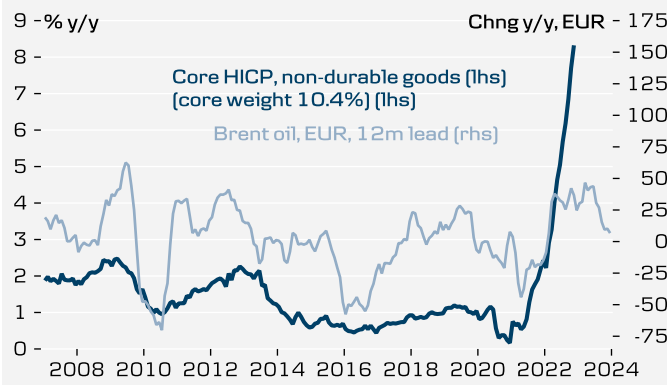
Source: Macrobond Financial, Eurostat, Danske Bank

Transport services vs. oil



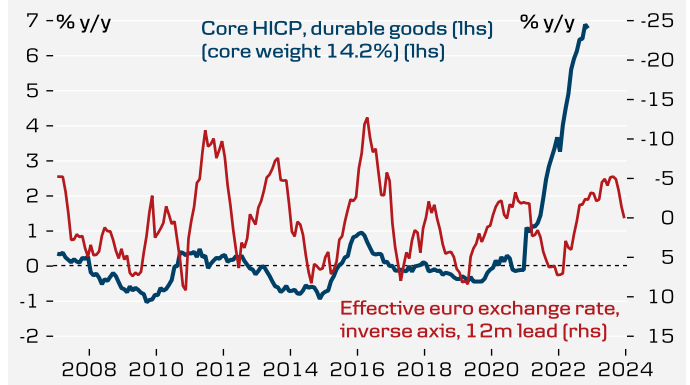
Source: Macrobond Financial, Eurostat, Danske Bank
 Note: Past performance is not a reliable indicator of future performance.

Core non-durable goods



Source: Macrobond Financial

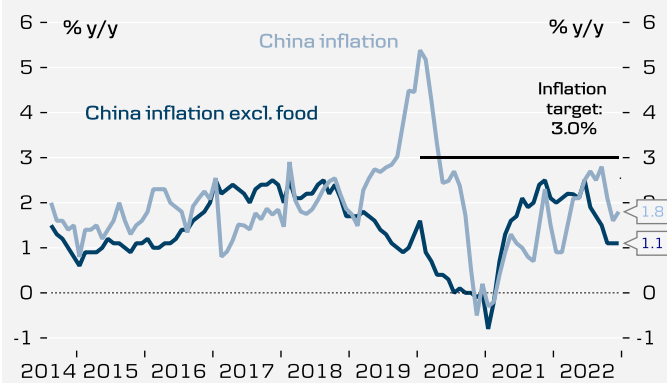
Core durable goods



Source: Macrobond Financial

Country details – China

CPI and CPI ex food



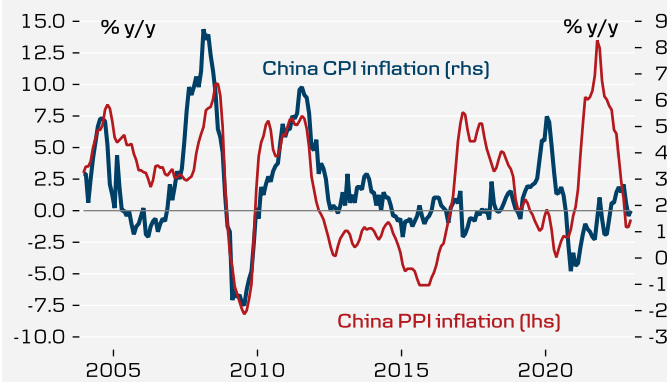
Source: Macrobond Financial, NBS

CPI and food prices



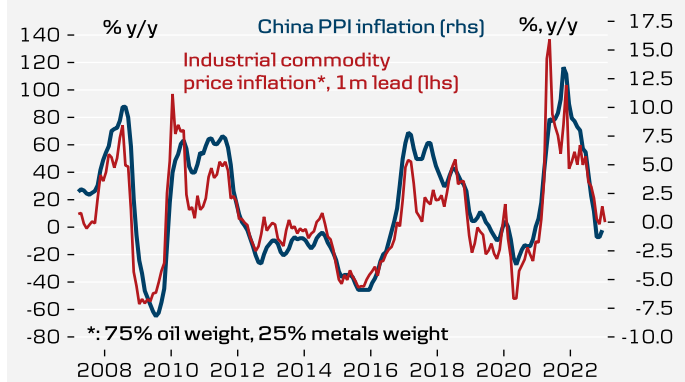
Source: Macrobond Financial, NBS

PPI vs. CPI



Source: Macrobond Financial, NBS

PPI vs. commodity prices



Source: Macrobond Financial, NBS, Danske Bank

Note: Past performance is not a reliable indicator of future performance.

Disclosures

This research report has been prepared by Danske Bank A/S ('Danske Bank'). The authors of this research report is Aila Mihr, Associate, Allan von Mehren, Director and Antti Ilvonen, Associate.

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Each research analyst responsible for the content of this research report certifies that the views expressed in the research report accurately reflect the research analyst's personal view about the financial instruments and issuers covered by the research report. Each responsible research analyst further certifies that no part of the compensation of the research analyst was, is or will be, directly or indirectly, related to the specific recommendations expressed in the research report.

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