

GLOBAL ECONOMIC OUTLOOK

2023 STARTS ON AN UPBEAT NOTE BUT CAUTION
REMAINS WARRANTED

WILLIAM DE VIJLDER

Group Chief Economist
25 January 2023



BNP PARIBAS

The bank for a changing world

GLOBAL ECONOMIC OUTLOOK

2023, A YEAR OF TRANSITION TO 2024, A YEAR OF
NORMALISATION

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2023, A YEAR OF TRANSITION

2022

- War
- Inflation
- Rate hikes

2023

- Policy rates reach peak
- Disinflation
- Recession

2024

- Rate cuts
- Recovery

SOURCE: BNP PARIBAS



US: consensus forecasts during recessions tend to be too optimistic

REAL GDP GROWTH: AVERAGE FORECAST ERROR (FORECAST MINUS REALISED)

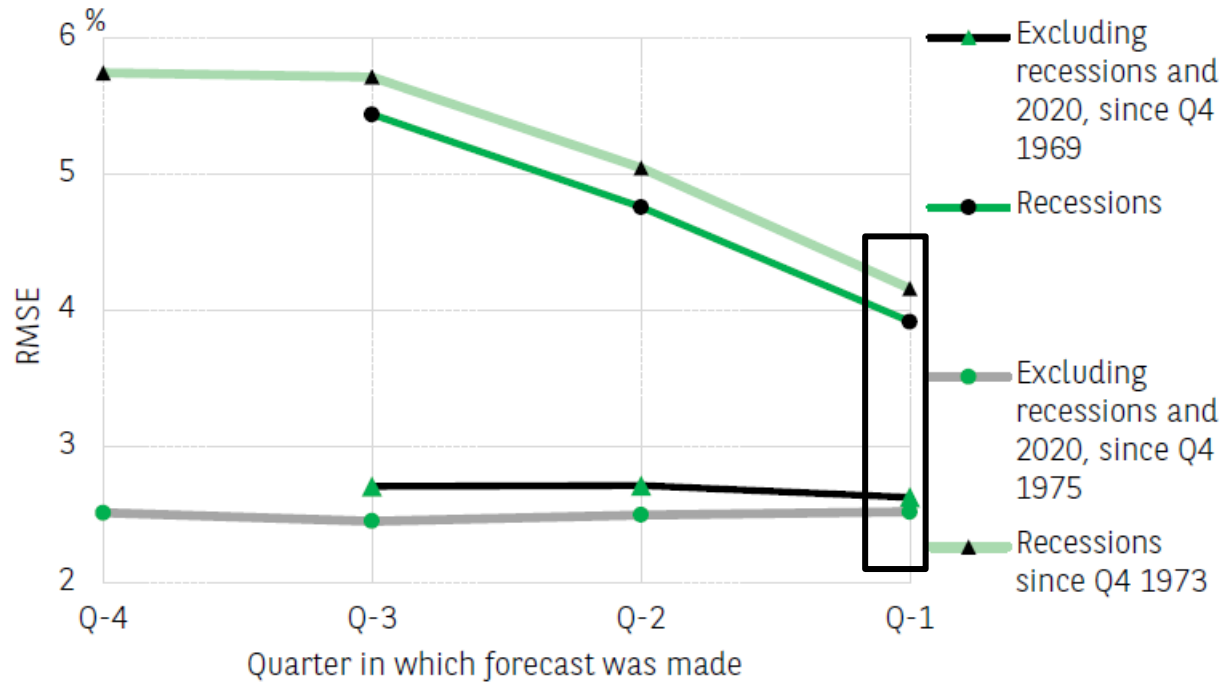


CHART 2

SOURCE: SURVEY OF PROFESSIONAL FORECASTERS, FEDERAL RESERVE OF PHILADELPHIA, BNP PARIBAS

US REAL GDP GROWTH: FORECAST ERROR DURING RECESSION QUARTERS (FORECAST MINUS REALISED)

Recession quarters	Forecast horizon			
	Q-1	Q-2	Q-3	Q-4
1969 Q4	3.8	4.4	6.2	5.97
1970 Q1	0.9	2.0	2.1	non available
1970 Q2	-0.3	0.0	1.9	non available
1970 Q3	-1.0	-1.7	-1.3	non available
1973 Q4	-2.3	-0.7	-0.5	0.34
1974 Q1	3.1	5.7	7.0	7.43
1974 Q2	-1.5	-1.5	1.8	2.15
1974 Q3	5.6	6.0	5.8	7.25
1974 Q4	2.7	5.2	5.3	4.20
1980 Q1	-5.3	-2.7	-0.3	1.15
1980 Q2	5.5	5.2	10.6	9.24
1981 Q3	-2.8	-1.9	-1.4	0.05
1981 Q4	6.4	7.6	8.1	8.51
1982 Q1	5.0	9.5	10.1	10.65
1982 Q2	0.9	1.4	2.1	1.09
1982 Q3	4.9	5.9	6.9	5.87
1990 Q3	2.2	2.1	2.1	3.70
1990 Q4	4.4	5.5	6.3	5.93
2001 Q1	4.6	4.3	3.9	4.14
2001 Q2	-0.3	0.7	0.2	0.06
2001 Q3	3.6	4.9	4.9	4.80
2007 Q4	0.2	0.4	0.7	0.44
2008 Q1	3.8	4.3	4.5	4.68
2008 Q2	-1.0	0.0	0.6	0.69
2008 Q3	3.8	4.9	4.8	4.76
2008 Q4	9.2	10.3	11.3	11.24
2009 Q1	3.5	6.2	6.9	7.70

Percentage of quarters with positive forecast errors	70%	74%	85%	89%
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TABLE 1

SOURCE: SURVEY OF PROFESSIONAL FORECASTERS, FEDERAL RESERVE OF PHILADELPHIA, BNP PARIBAS

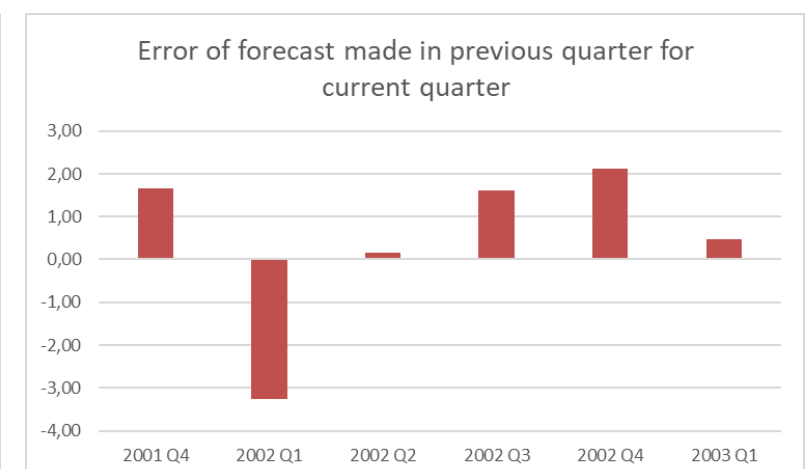
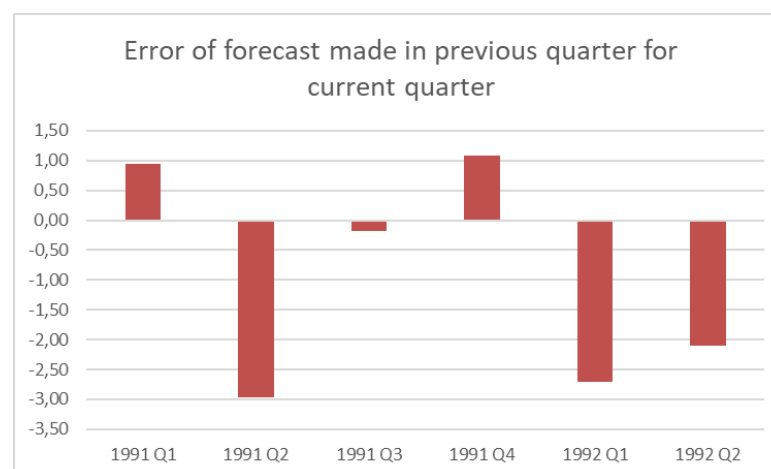
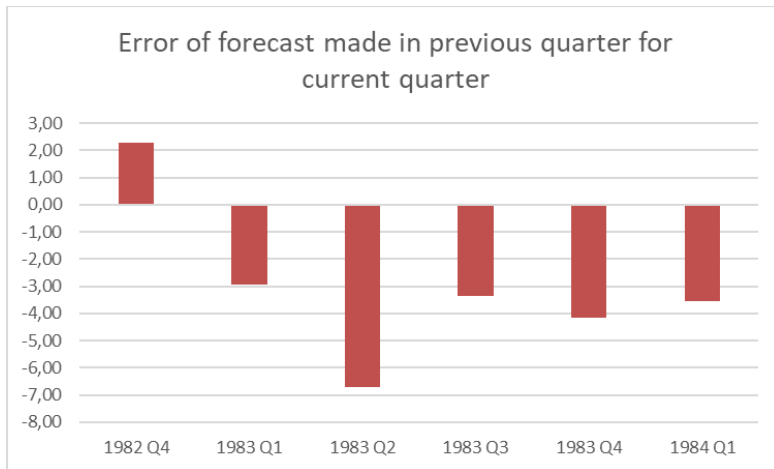
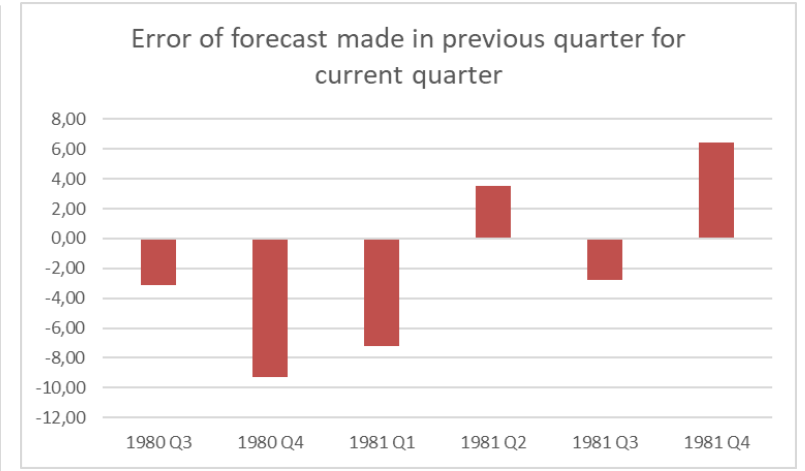
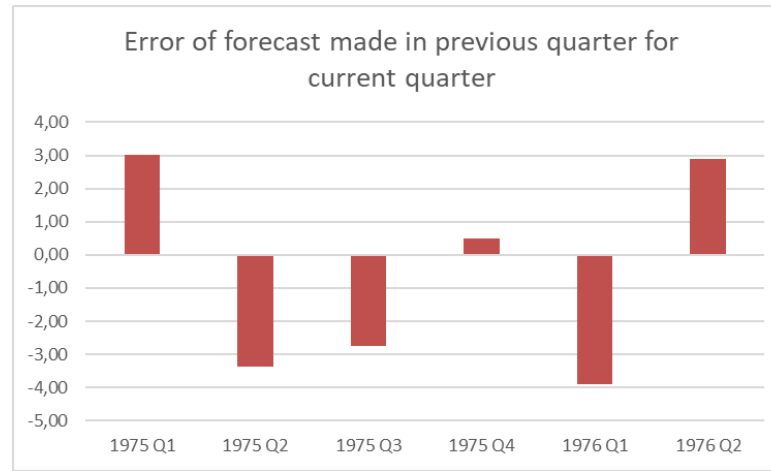
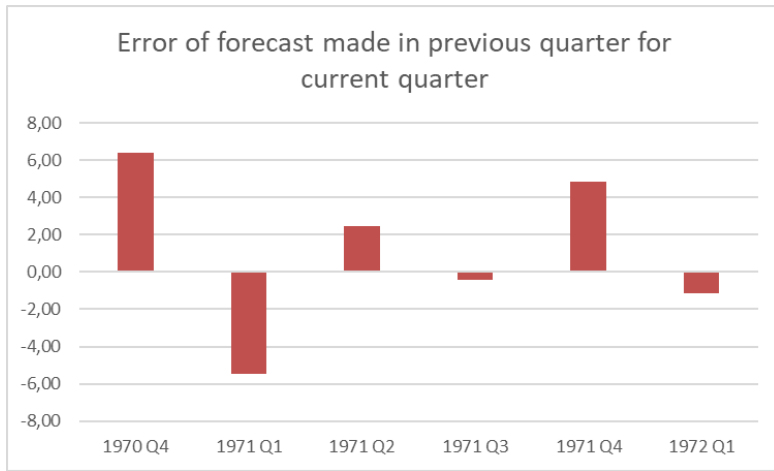


BNP PARIBAS

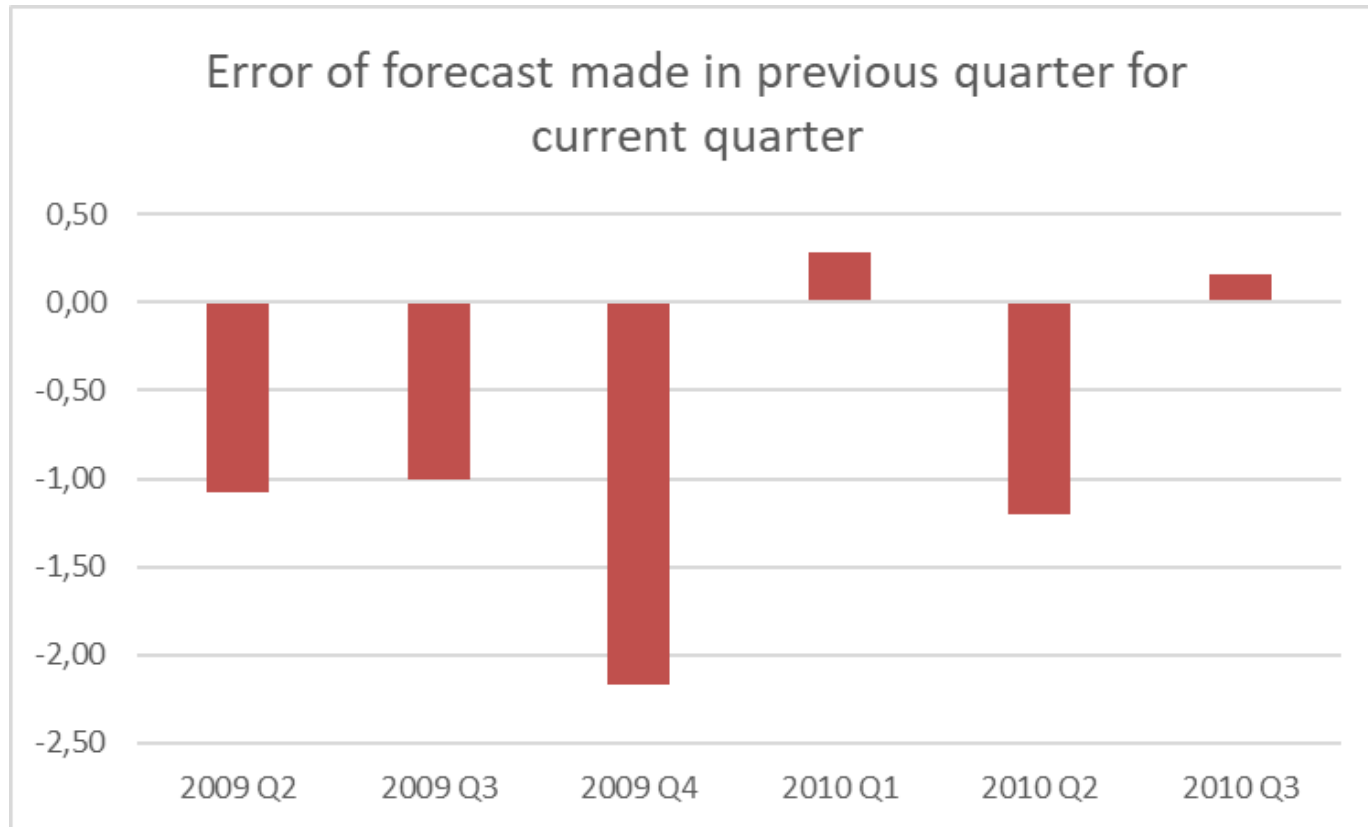
The bank for a changing world

US: consensus forecasts during initial phase* of recovery tend to be too pessimistic (1)

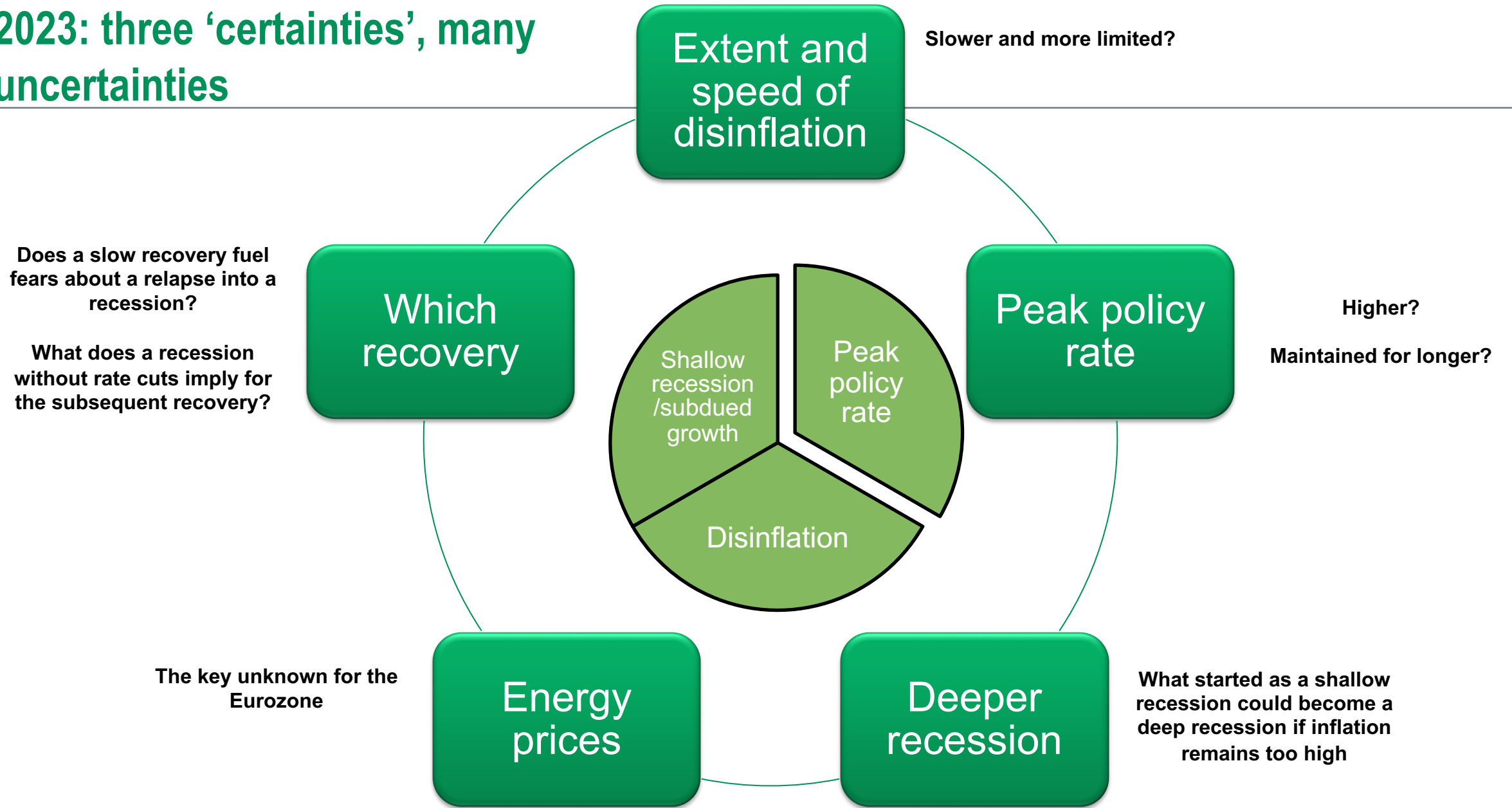
* the first six quarters



US: consensus forecasts during initial phase of recovery tend to be too pessimistic (2)



2023: three 'certainties', many uncertainties



Economic outlook 2023

Disinflation	Peak policy rate	Shallow recession/ subdued growth	Resilience
<ul style="list-style-type: none"> • Slow demand growth • Decline pricing power companies • Increase price elasticity of demand • Impact policy tightening • Easing supply chain pressure 	<ul style="list-style-type: none"> • Monetary policy sufficiently restrictive • Easing labour market tensions • Inflation on a declining path • Asymmetry (gain of doing more, cost of doing too much) 	<ul style="list-style-type: none"> • Loss of purchasing power households • Elevated inflation hitting profit margins of companies with low pricing power • Higher interest rates • Reluctance to spend of cash-rich households and companies • Uncertainty 	<ul style="list-style-type: none"> • Tight labour market • Labour hoarding if recession is expected to be shallow • Energy transition related investments • Private sector balance sheets on average OK • Excess accumulation of wealth during the pandemic • Fiscal policy support to cushion the impact of the energy and inflation shock



Shallow/deep, short/long? Cyclical outlook US and EZ

Base scenario

	Shallow	Deep
Short	<ul style="list-style-type: none"> • Diminishing supply tensions and shortages, allowing to honor the backlog of orders (a sort of pent-up demand) • Labour hoarding • Energy transition related investments • Private sector balance sheets on average OK • Excess savings during pandemic • Fiscal policy support in EZ • EZ doing better than expected towards end of 2022 • Support from decline energy prices and China reopening 	<ul style="list-style-type: none"> • Gas price moving higher to a new plateau • Inflationary shock has bigger than expected impact on consumption and corporate margins • Rate hikes have bigger than expected impact (in particular on the housing market and credit conditions) • Adverse feedback loop between the labour market and activity
Long	<ul style="list-style-type: none"> • Increase in energy bills that will be spread out over time as contracts are renewed • Absence of rate cuts during recession due to slow decline in core inflation • US entering recession after EZ 	<ul style="list-style-type: none"> • Absence of rate cuts during recession due to slow decline in core inflation • US entering recession after EZ • New shocks • Financial turmoil • Wall of delinquencies



1

US: SHORT, SHALLOW RECESSION



US: Federal Reserve Beige Book (January 2023)

1. Overall economic activity:

1. On balance, contacts generally **expected little growth in the months ahead**.
2. Consumer spending increased slightly
3. Manufacturers indicated that activity declined modestly on average, and, in many Districts, reported that supply chain disruptions had eased.
4. Housing markets continued to weaken, with sales and construction declining across Districts.
5. Commercial real estate activity slowed slightly, on average, with more notable weakening in the office market.
6. Nonfinancial services firms experienced stable demand on balance.
7. Most bankers reported that residential mortgage demand remained weak, and some said higher borrowing costs had begun to dampen commercial lending.

2. Labor Markets

1. Employment continued to grow at a modest to moderate pace for most Districts
2. Firms **continued to report difficulty in filling open positions. Many firms hesitated to lay off employees** even as demand for their goods and services slowed and planned to reduce headcount through attrition if needed.
3. With persistently tight labor markets, wage pressures remained elevated across Districts

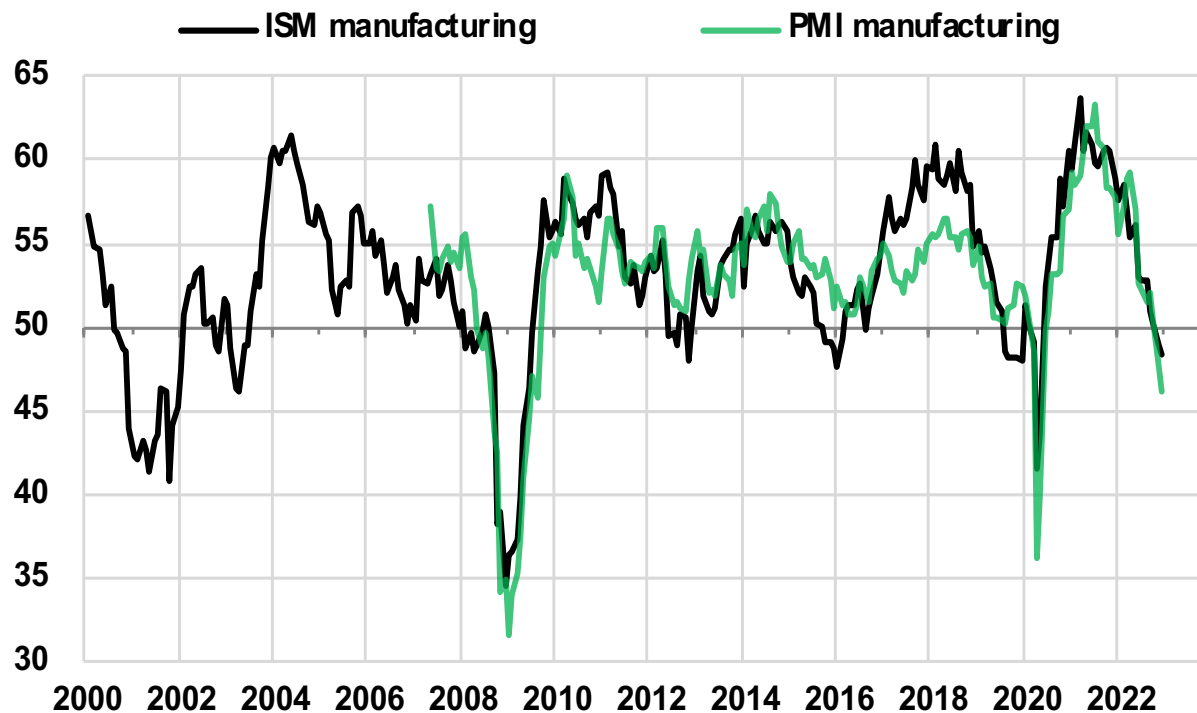
3. Prices

1. Selling prices increased at a modest or moderate pace in most Districts
2. Many retailers noted **increased difficulty in passing through cost increases**, suggesting greater price sensitivity on the part of consumers.
3. On balance, contacts across Districts said they expected future price growth to moderate further in the year ahead.



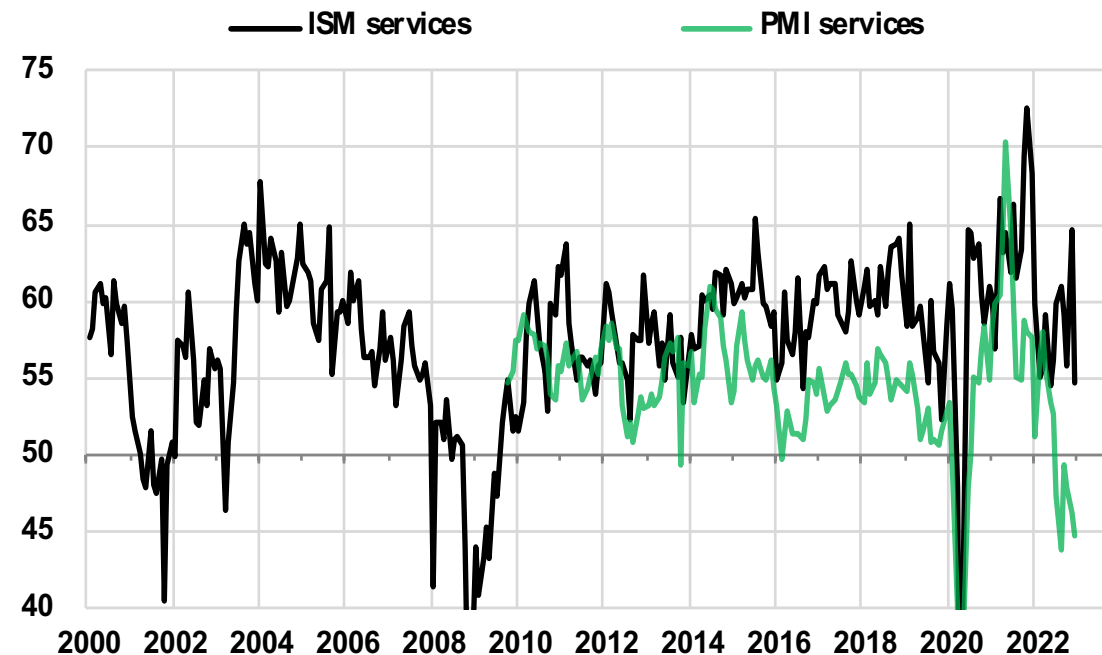
US: business sentiment has dropped

US: ISM and PMI manufacturing



Source: ISM, S&P Global, BNP Paribas

US: ISM and PMI services

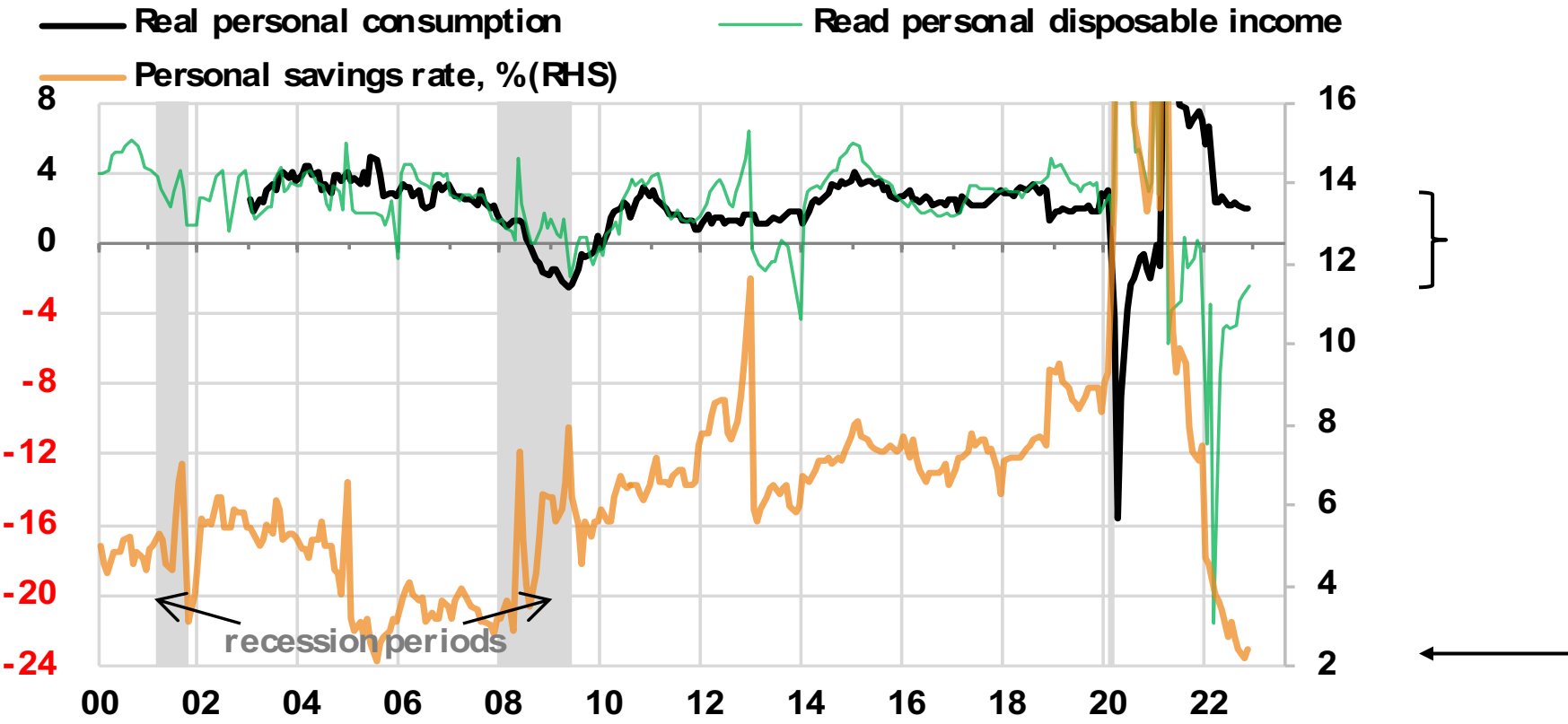


Source: ISM, S&P Global, BNP Paribas



US households: spending growth > income growth, causing big decline in savings rate

US: real personal disposable income & consumption (y/y %)

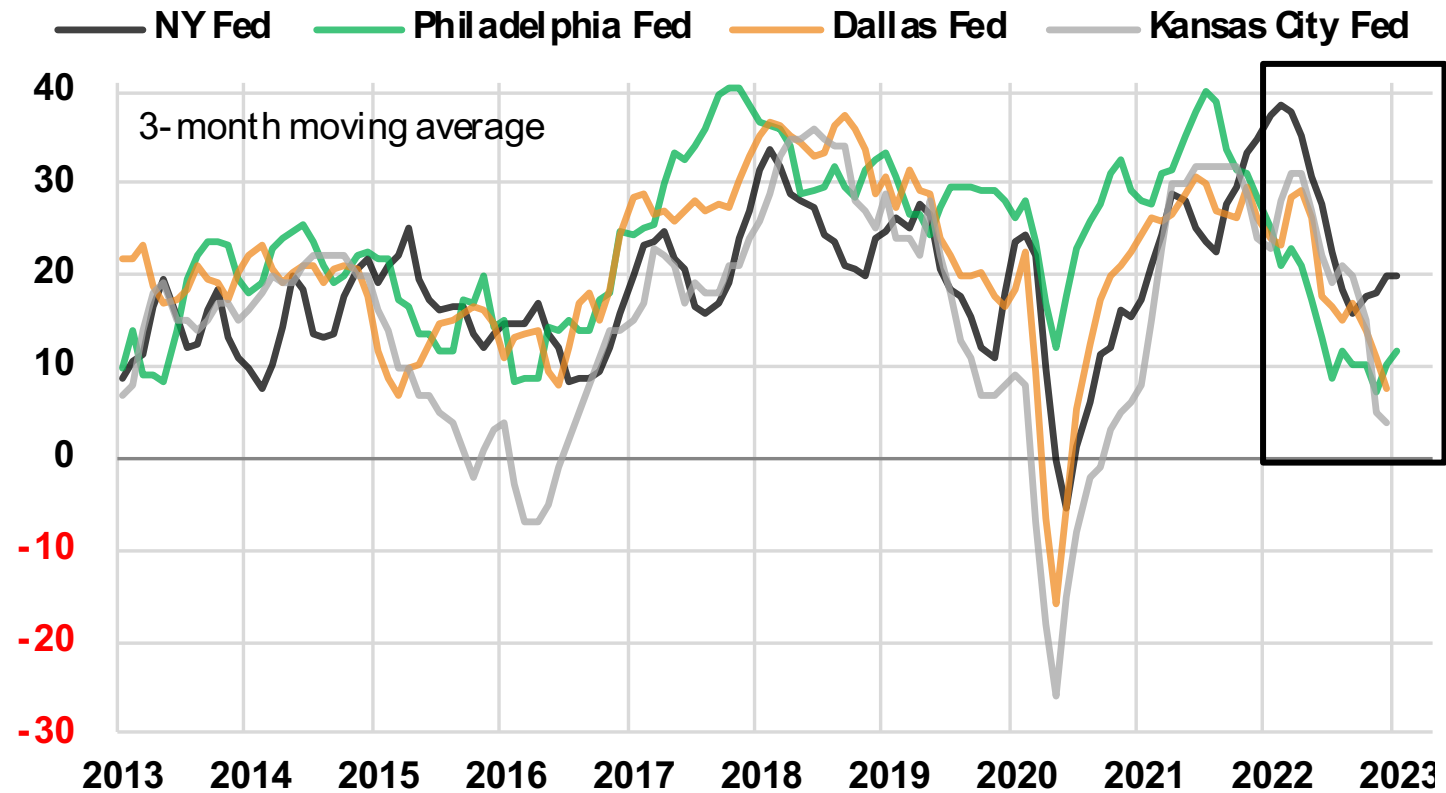


Source: BEA, BNP Paribas



US: corporate investment surveys have stabilised after dropping in 2022

US regional Fed manufacturing surveys: index of future capital

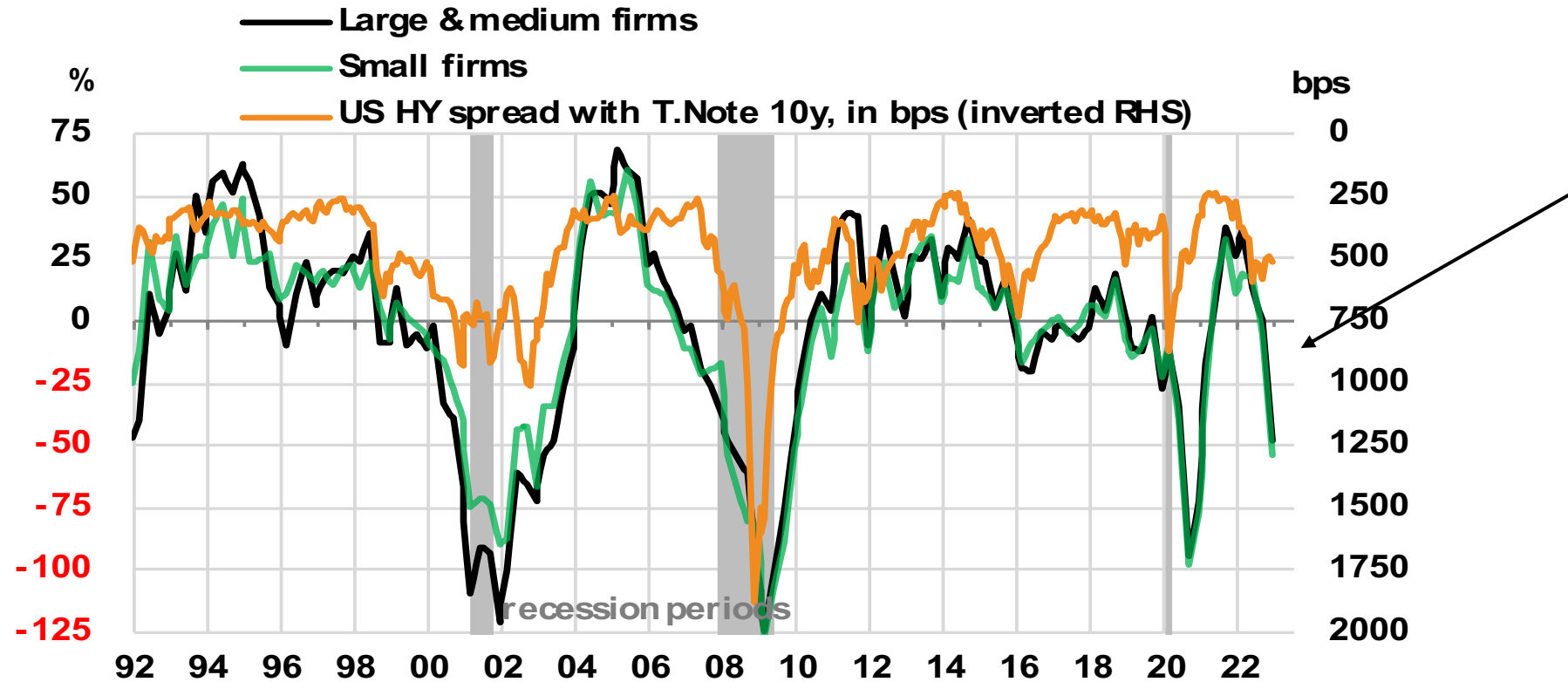


Source: Federal Reserve banks of New-York, Philadelphia, Dallas & Kansas City, BNPP



US corporate investment drivers weaken. Capacity utilisation has peaked, downward earnings revisions, tighter lending standards and weaker loan demand

US high yield vs C&I loans (stronger demand - tightening standards)

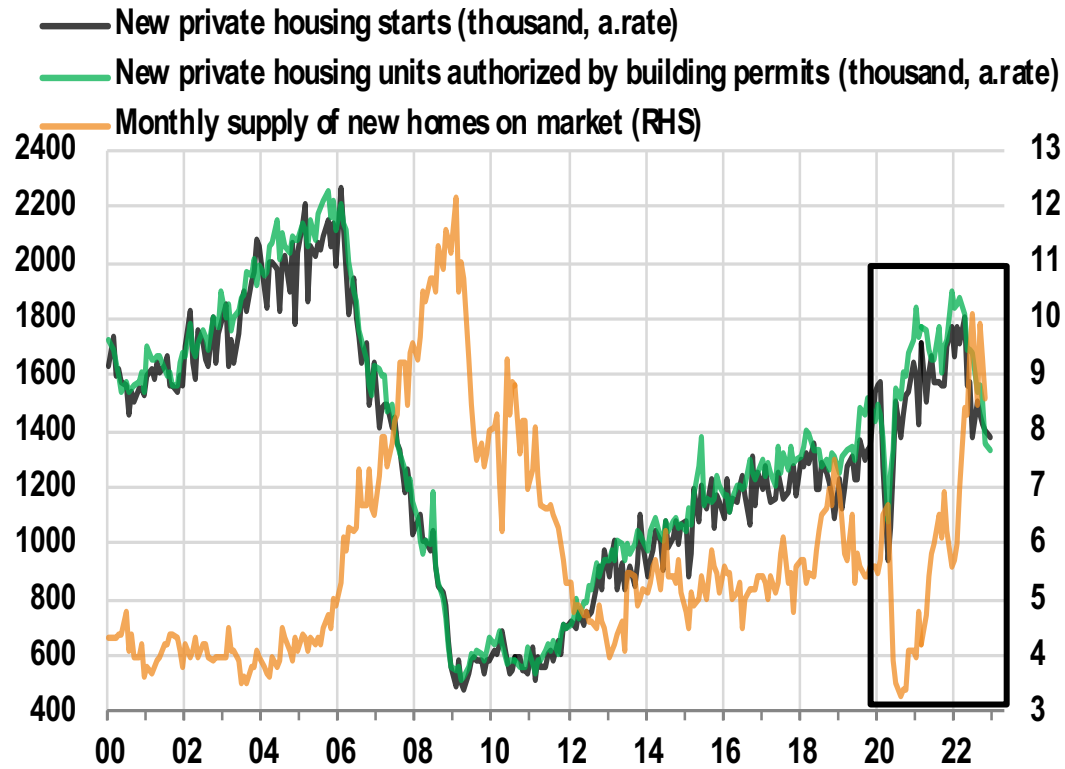


Source: Federal Reserve (Senior Loan Officer surveys), Barclays, Datastream, BNPP



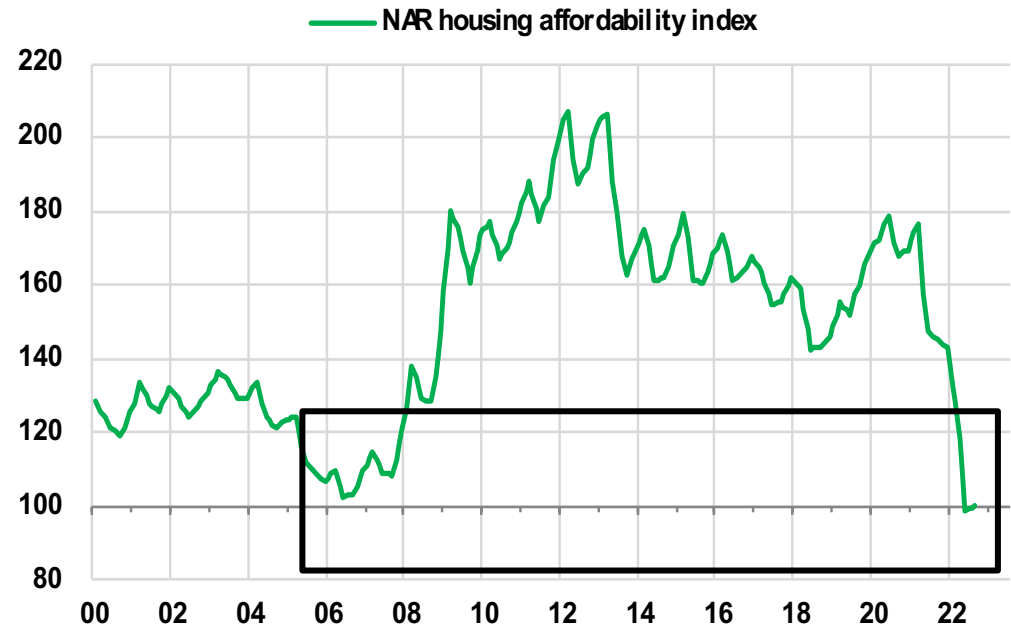
US: jump in mortgage rates → drop in housing affordability → excess supply in housing market

US housing indicators



Source: US Census Bureau, BNP Paribas

US housing indicators

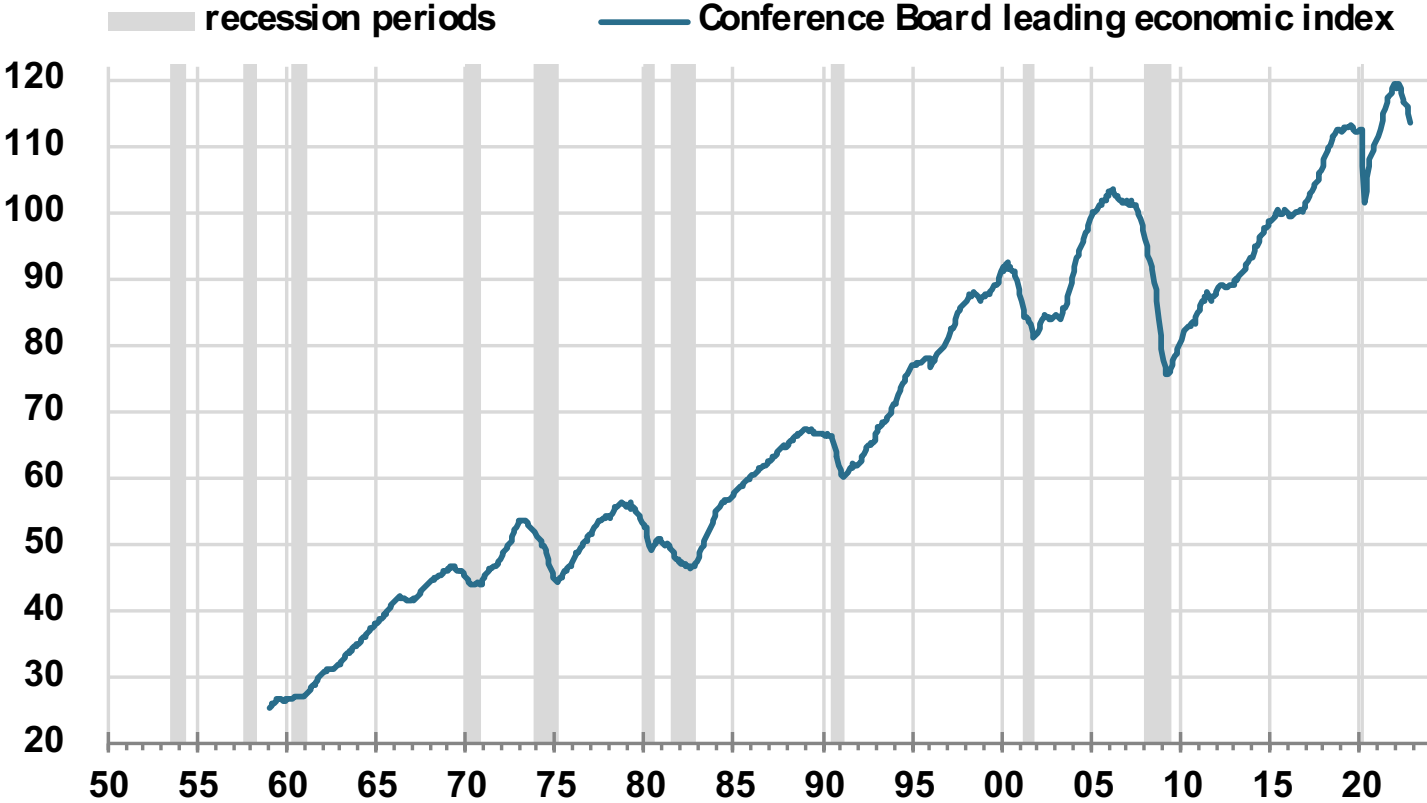


Source: National Association of Realtors, BNP Paribas



US: index of leading economic indicators points toward mounting recession likelihood

Conference Board leading economic index



Source: Conference Board, NBER, BNP Paribas



If index of leading economic indicators continues to decline –which is very likely- the pace of job creation should slow down. This should fuel recession fears...

US: NONFARM PAYROLLS AND DRAWDOWN OF THE CONFERENCE BOARD INDEX OF LEADING INDICATORS

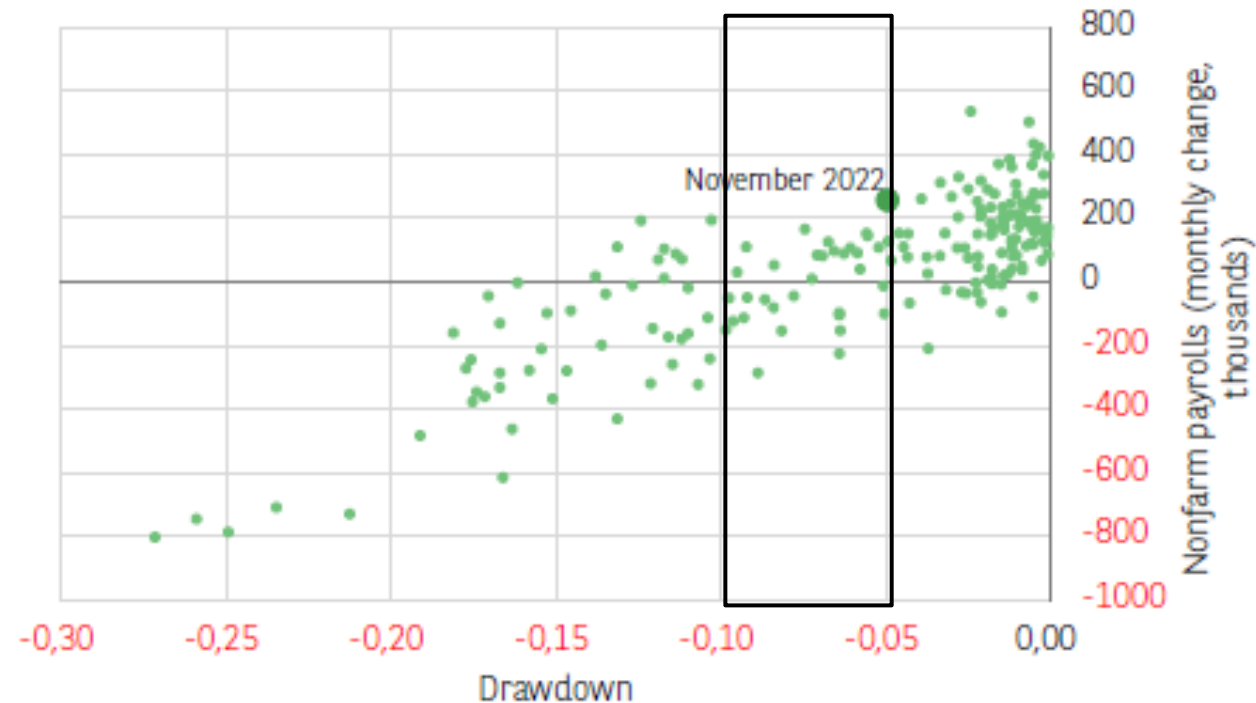
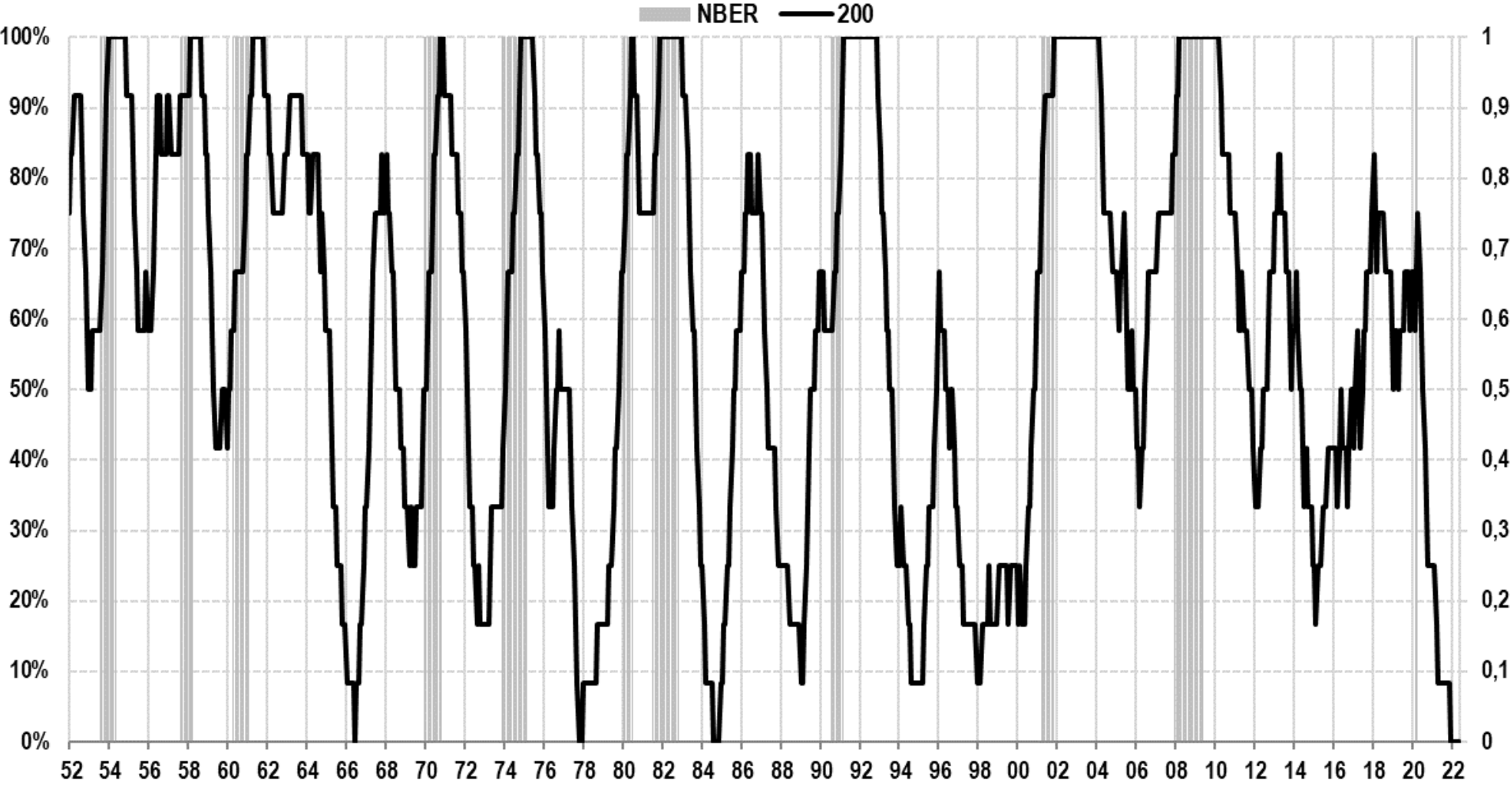


CHART 2

SOURCE: BLS, CONFERENCE BOARD, BNP PARIBAS



... because in run-up to recession, the percentage of months (over the past 12 months) with nonfarm payrolls below 200K increases



The Sahm rule and recession risk spotting: when will the unemployment rate hit 4.0%?

- According to the Sahm rule, the US economy enters a recession when the three-month moving average of the national unemployment rate (U3) rises by 0.50 percentage points or more relative to its low during the previous 12 months.
- **Which nonfarm payrolls number would push the unemployment rate to 4.0% by December this year?**
- **Answer: a decline of 21K, which is a big gap from the recent numbers (+223K in December)**
- Either growth should slow down abruptly (not clear why) or growth continues, implying risk of slower disinflation and high interest rates for longer

US : REAL-TIME SAHM RULE RECESSION INDICATOR

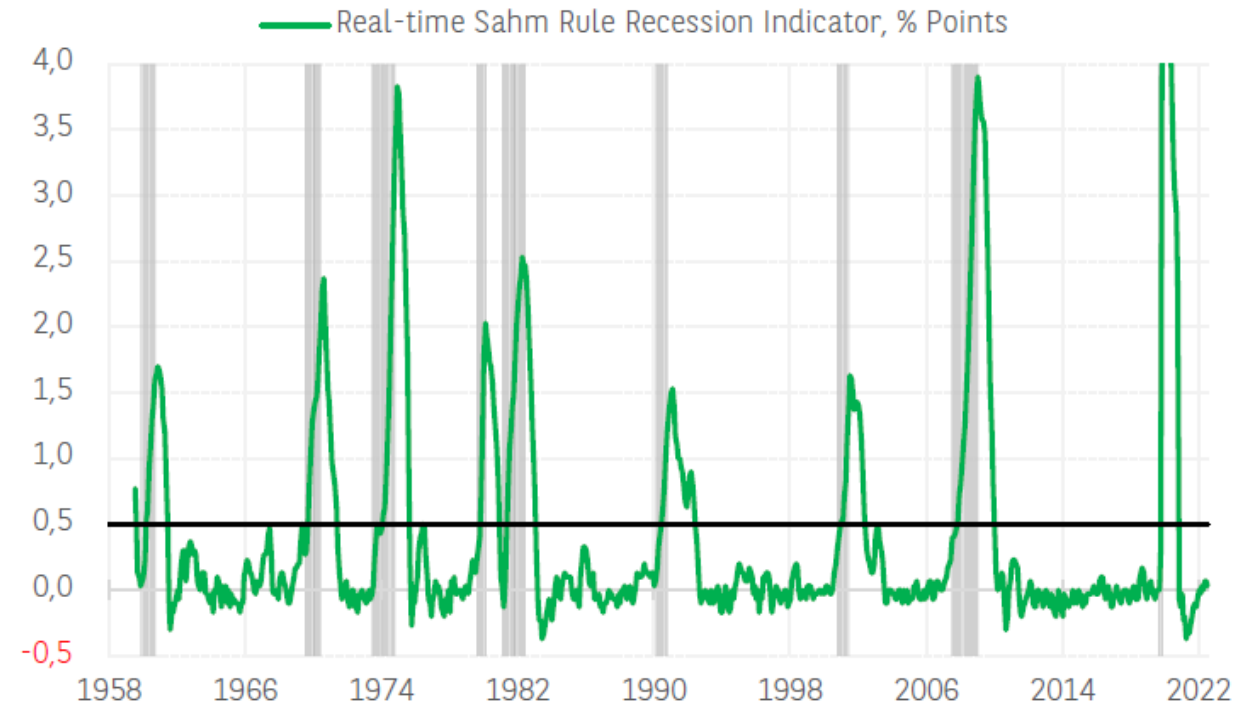


CHART 1

SOURCE: FEDERAL RESERVE BANK OF ST. LOUIS, NBER, BNP PARIBAS



2

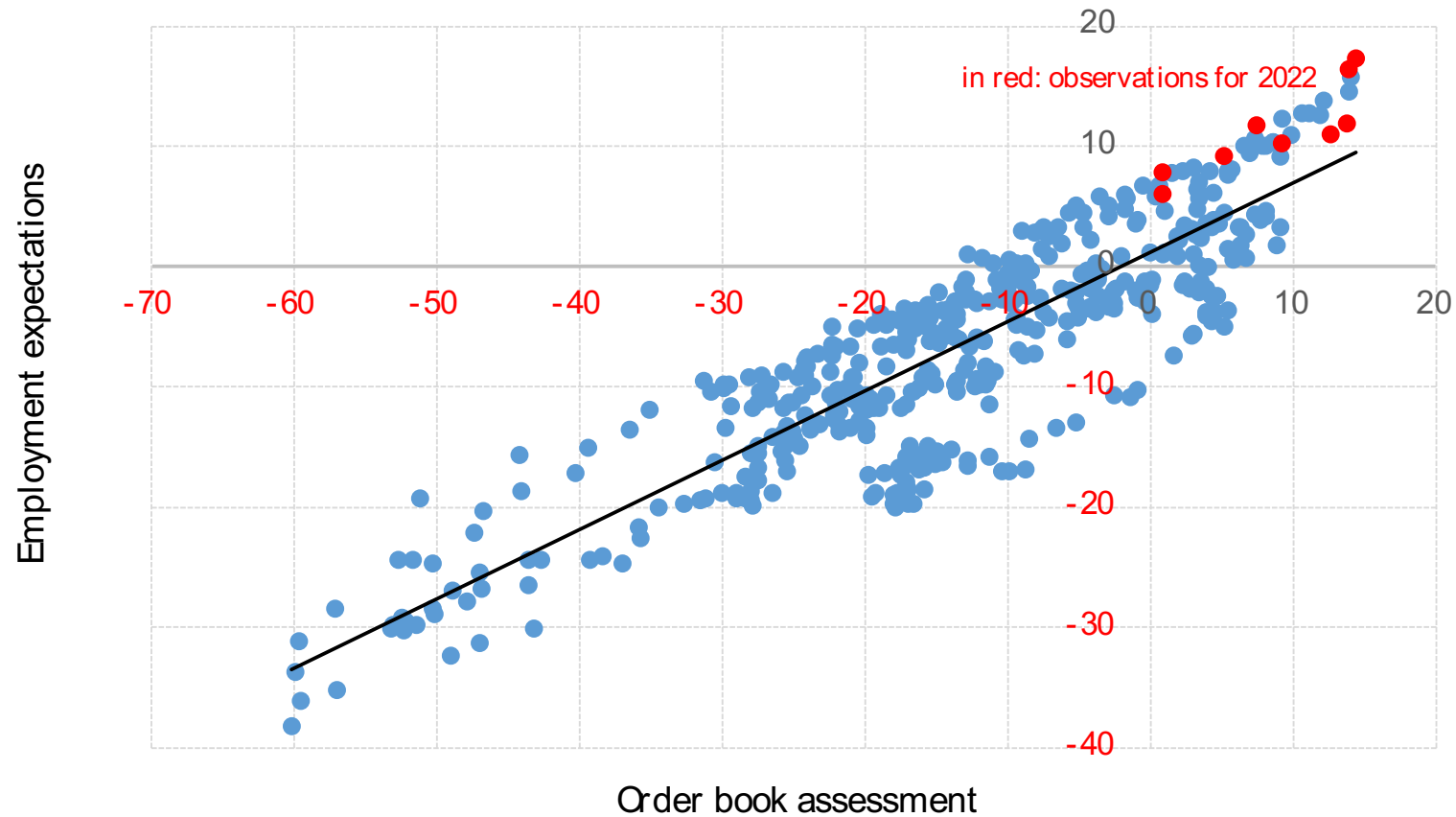
EUROZONE: SUBDUED GROWTH. STAGNATION RATHER THAN RECESSION



Eurozone: the mechanics of a growth slowdown (1)

As order book assessment worsens, hiring plans will suffer

Eurozone: order book assessment and employment expectations



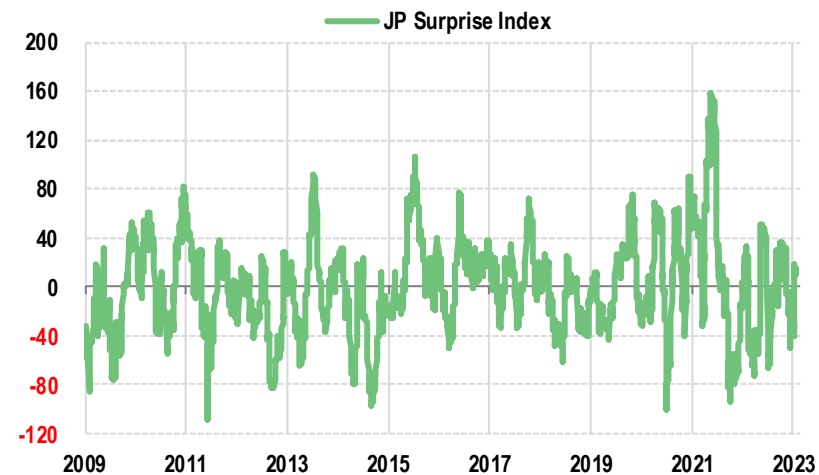
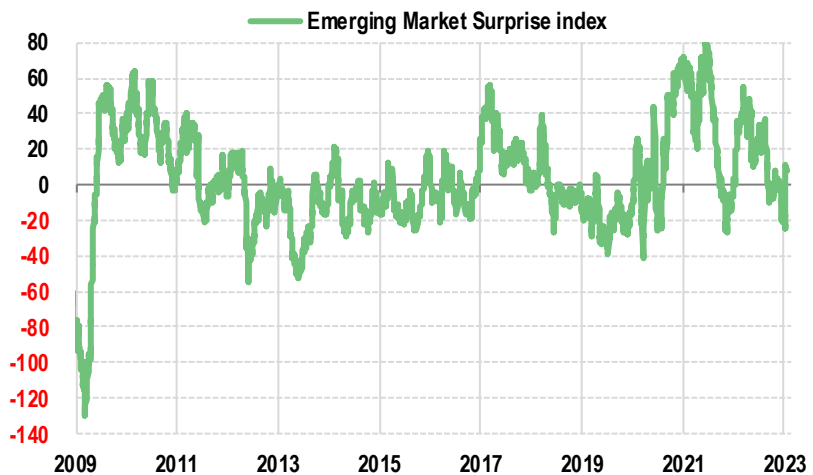
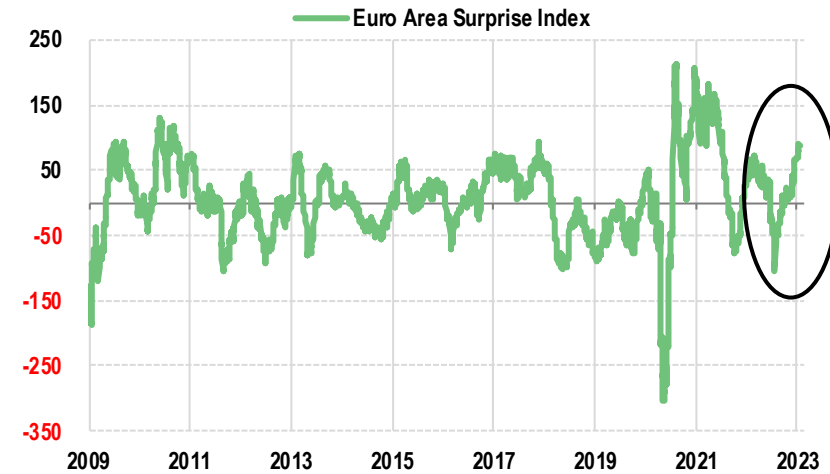
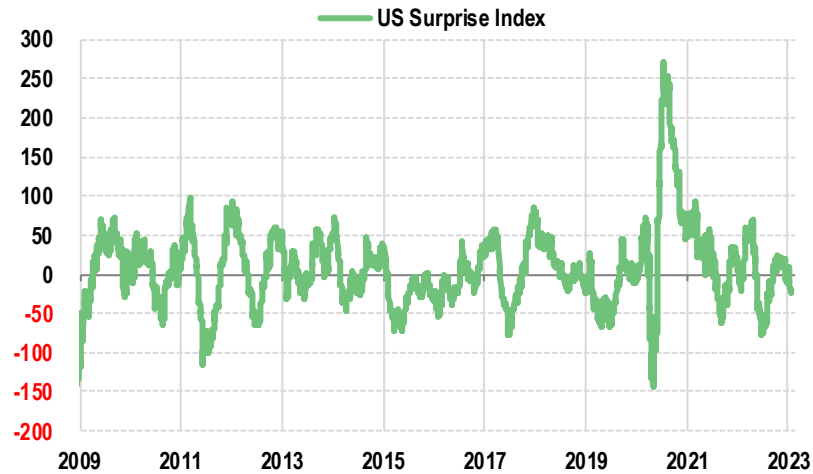
Eurozone: the mechanics of a growth slowdown (3)

Reduction in hiring plans should cause increase in households' unemployment expectations, which should weigh on spending

Eurozone: employment expectations in industry and unemployment expectations of households



The Eurozone 'exception': positive data surprises

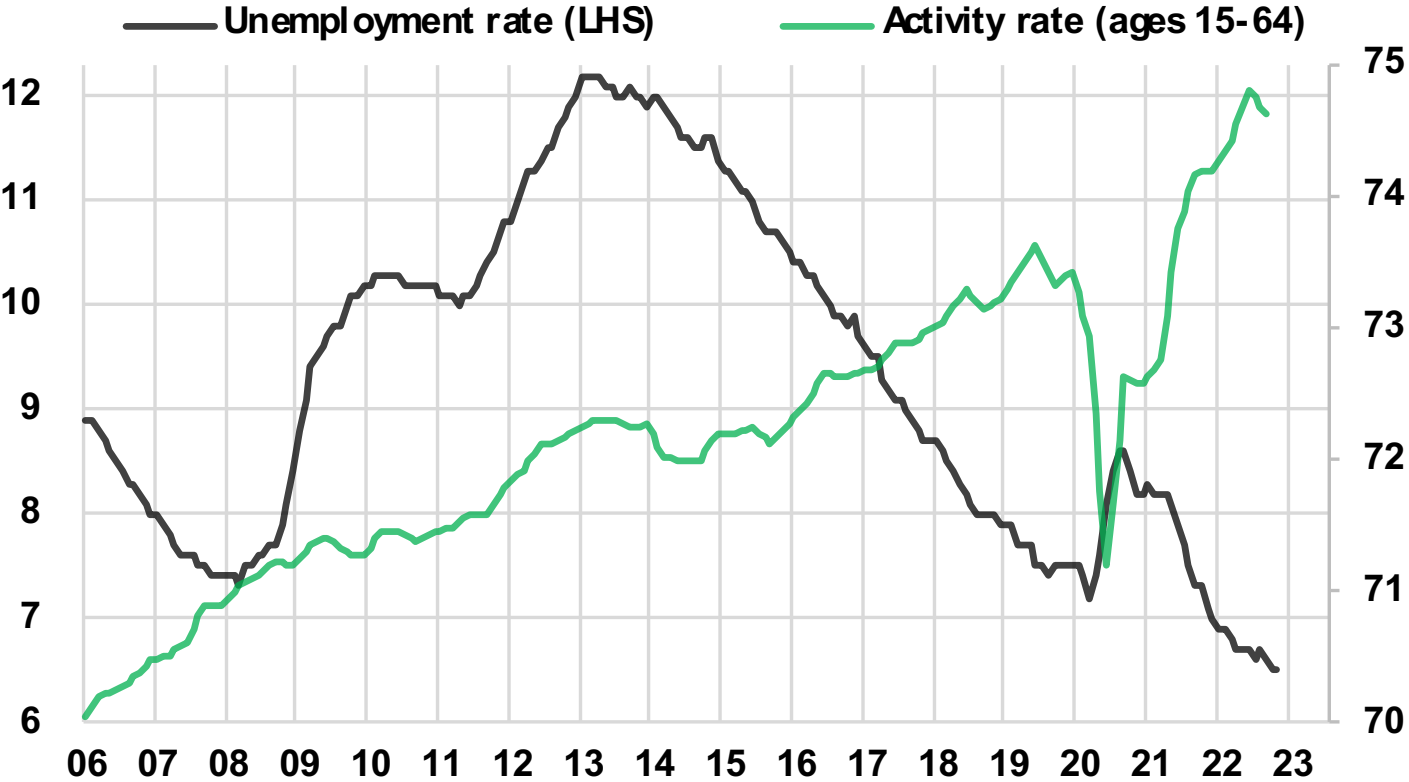


Source: Citigroup Inc., BNP Paribas



Eurozone: very low unemployment rate despite activity rate still close to record high

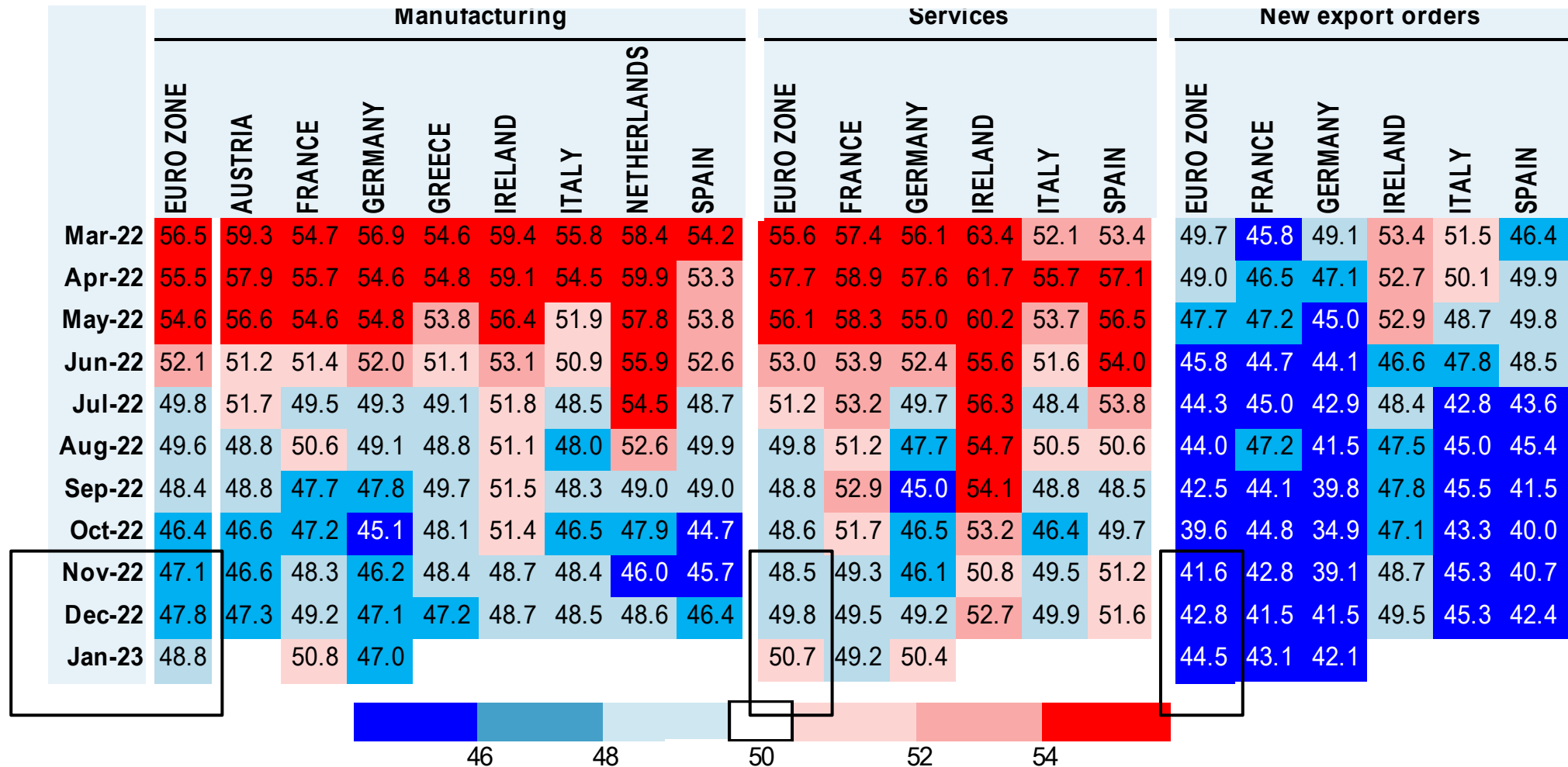
Eurozone: employment vs unemployment



Source: Eurostat, OECD, BNP Paribas

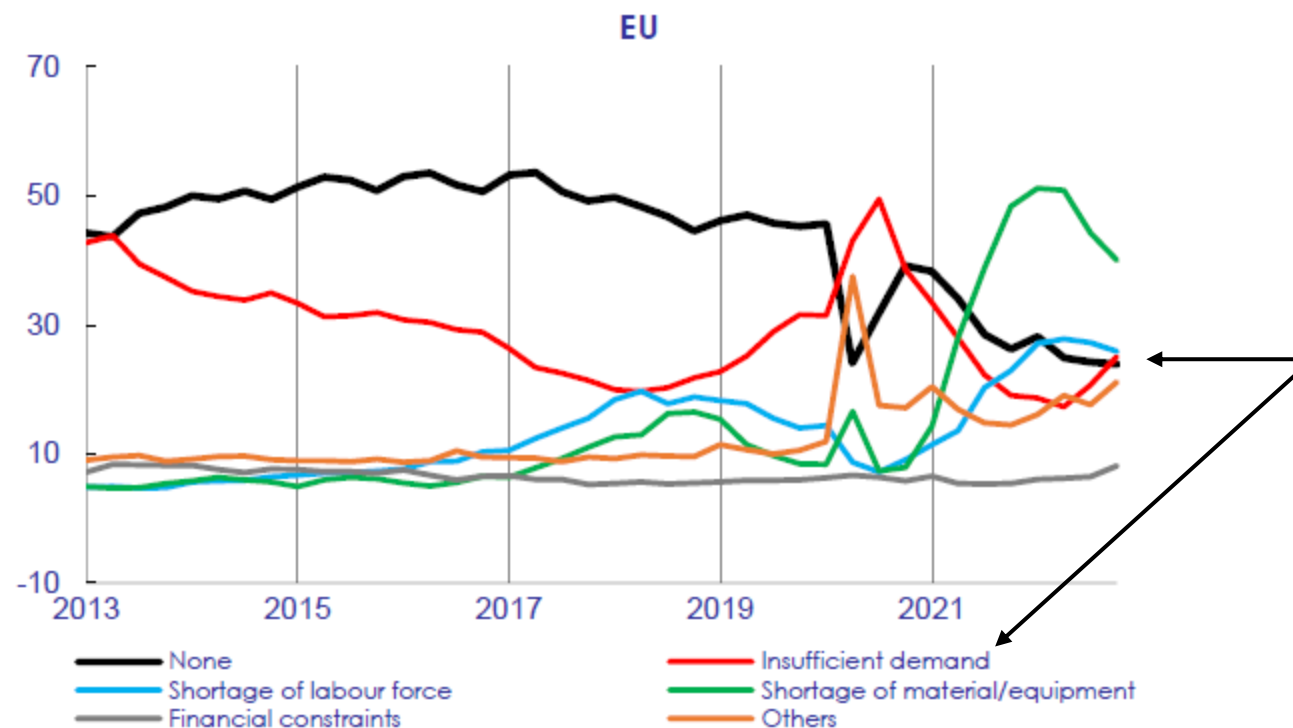


Eurozone: PMI heatmaps have rebounded since November. Level still corresponds to a 'chilly temperature', i.e. very slow growth



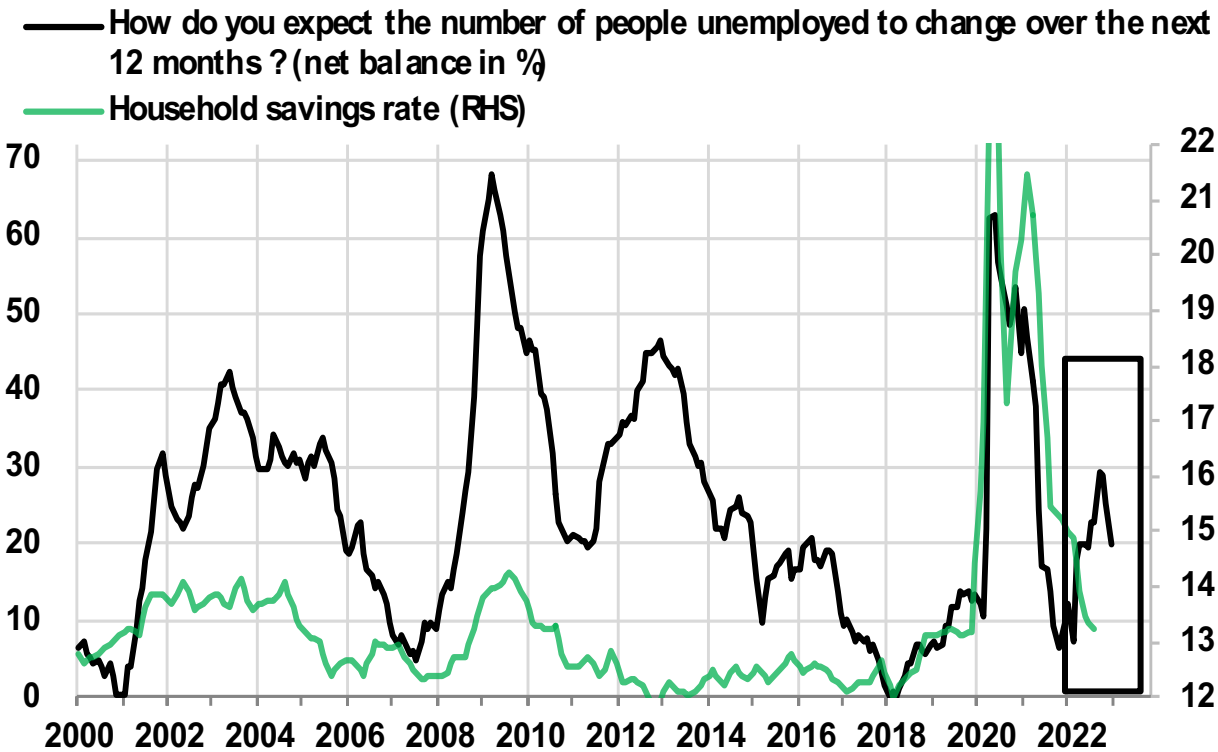
Insufficient demand growing in importance as factor limiting production

Graph 1.1.7: Industry – Factors limiting production (in %)



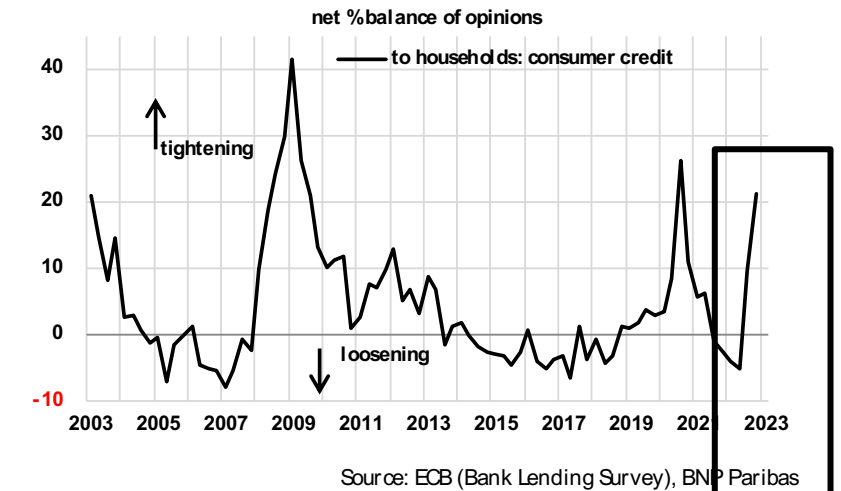
Eurozone: most drivers of household consumption are trending down. Unemployment expectations have declined recently. Loan conditions are being tightened and demand is down

Eurozone: consumer survey, unemployment expectations

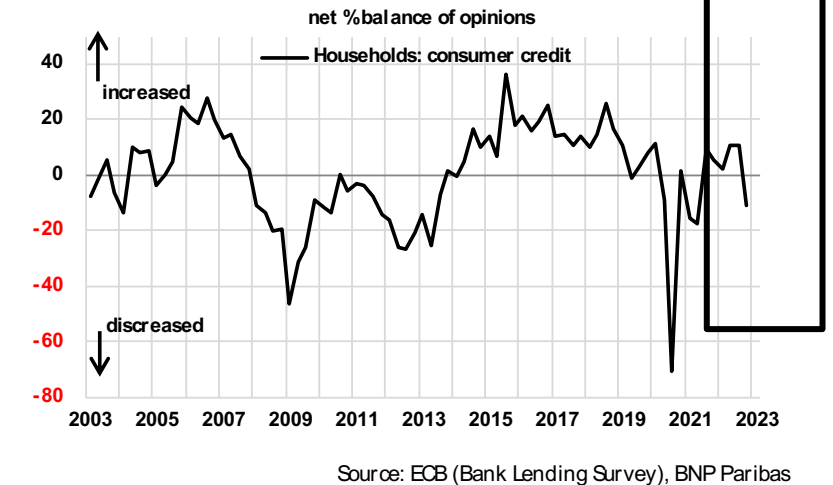


Source: European Commission surveys, Eurostat, BNP Paribas

Eurozone: recent approval of bank loans

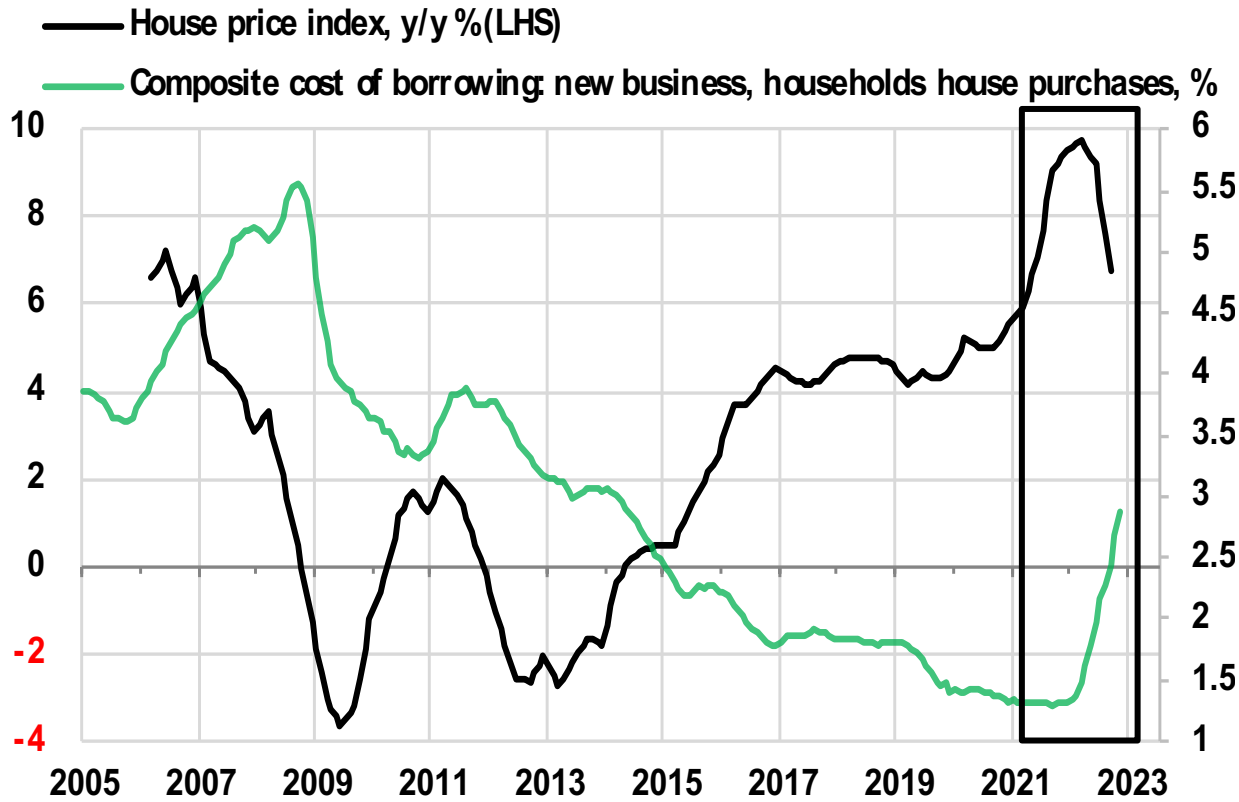


Eurozone: changes in demand for bank loans



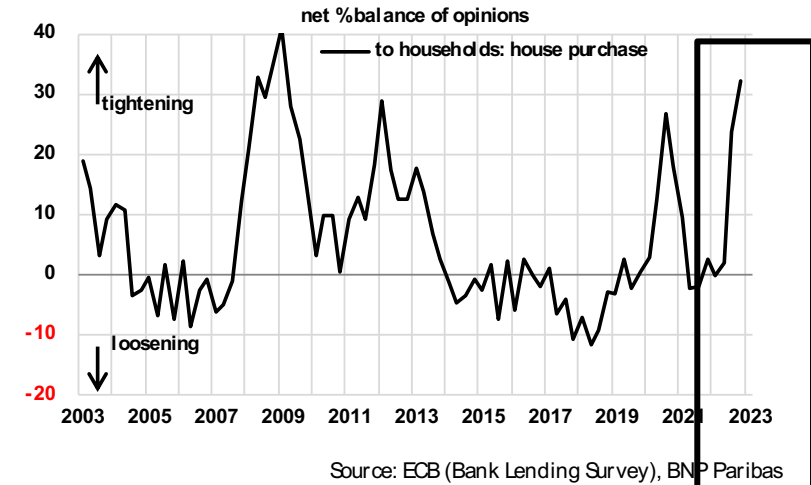
Eurozone: housing is weakening. Price increase (yoy) is slowing, lending standards are being tightened, loan demand is down

Eurozone: house price and interest rate

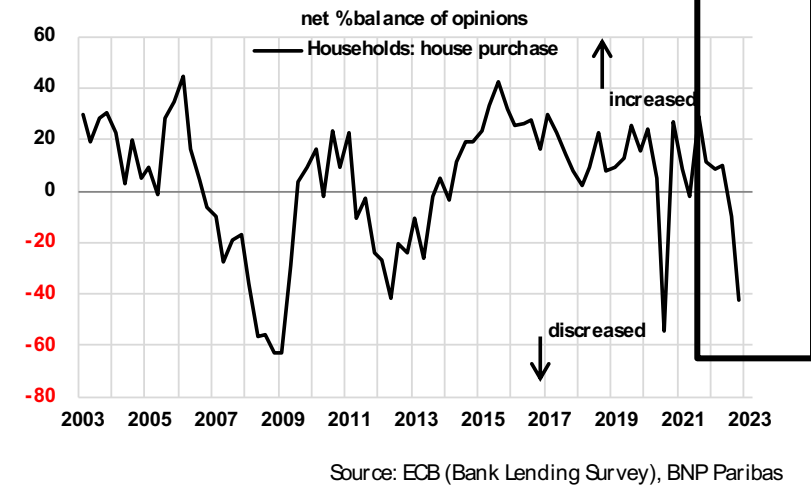


Source: Eurostat, ECB, BNP Paribas

Eurozone: recent approval of bank loans

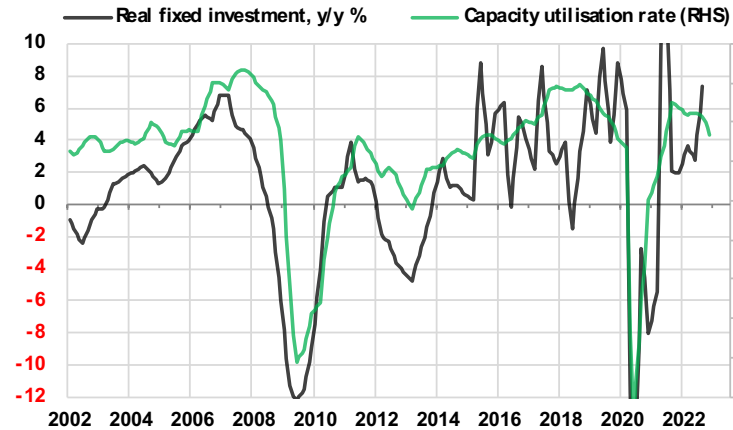


Eurozone: changes in demand for bank loans



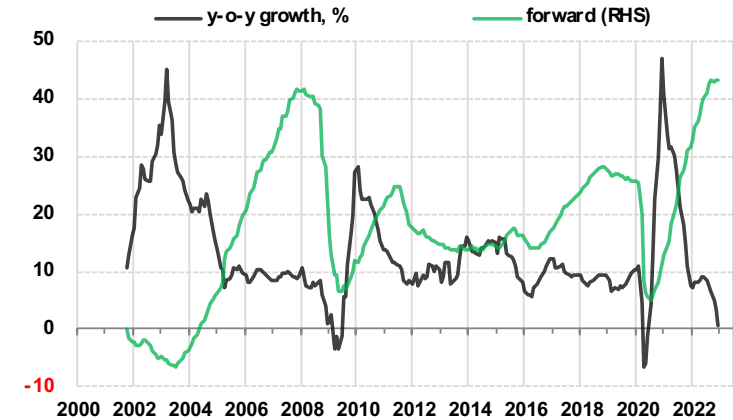
Eurozone: corporate investment to slow on the back of declining capacity utilisation, downward revisions of earnings outlook and tighter financing conditions

Eurozone: fixed investment and utilisation rate



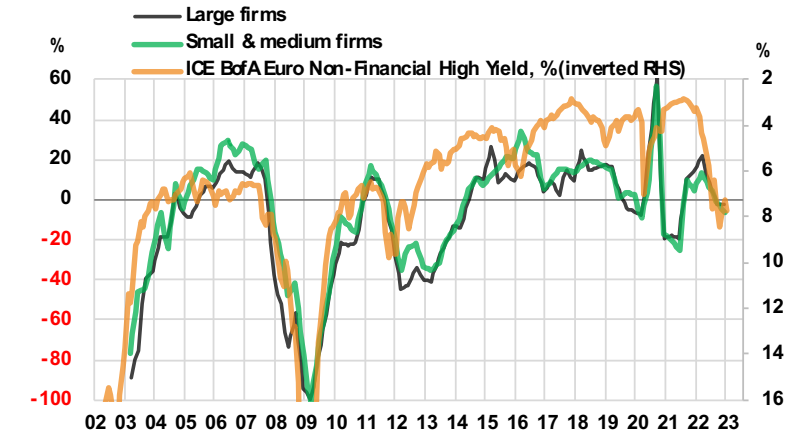
Source: Eurostat, BNP Paribas

MSCI EMU: weighted average EPS 12 months forward



Source: IBES, BNP Paribas

Euro high yield vs bank lending surveys (demand - standards)



Source: ECB (Bank Lending Surveys), Merrill Lynch, Datastream, BNP Paribas

- In industry, investment for both 2022 and 2023 served or will mainly serve to replace worn-out plants or equipment or streamline production. The share of investment used to extend production capacity is expected to account for just over a fifth of investment, well below the long-term average of nearly one-third. Also for services, for both 2022 and 2023, investment mainly served or will serve replacement purposes. The share of investment used for extension and rationalisation accounts for slightly more than 20% each.
- **For 2023, high investment growth is expected in the investment goods sector, including, in particular, motor vehicle production. By contrast, investment growth is set to slow down markedly among intermediate goods and consumer goods producers, especially for durables.** In services, investment is set to decline more markedly in 2023 according to the survey results, mainly due to decreases in investment plans in 'real estate activities' and 'repair of computers and personal and household goods'.

Source: European Commission, European Business Cycle Indicators, 4th quarter 2022, Technical paper, January 2023



Eurozone: most export markets have seen significant decline of their manufacturing PMI, which doesn't bode well for Eurozone exports. China reopening should help

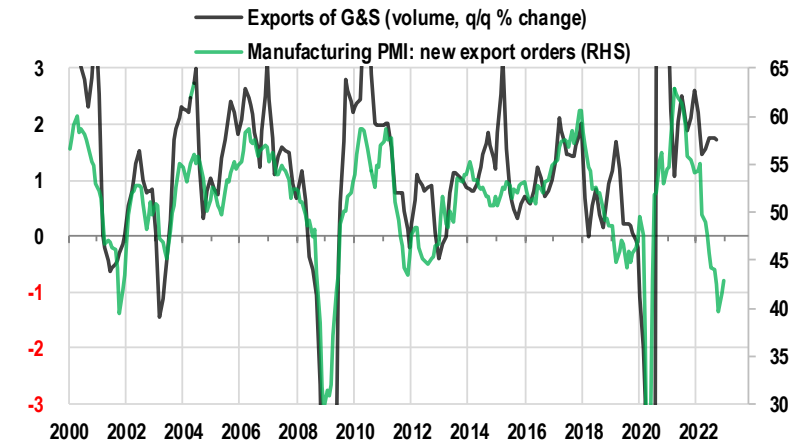
PMI Manufacturing of the main partner countries of Euro zone exports

part of the country as % of EZ19 total exports to non-EZ19 in 2018 (nb. Total of the sample countries = 73.5 %)

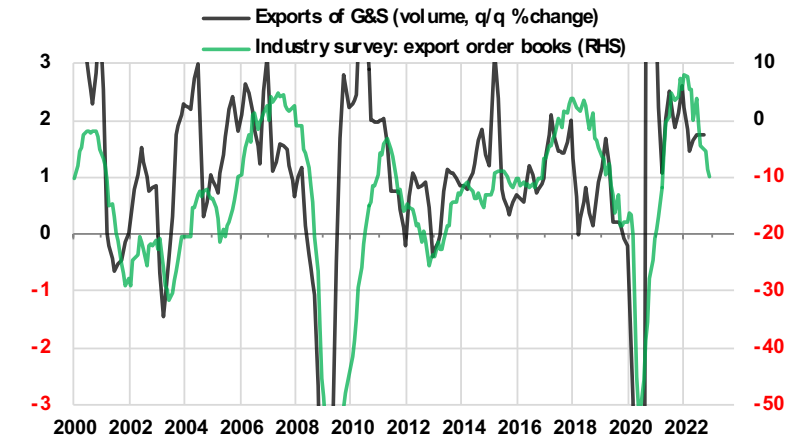
	US	UK	CHINA exc. HK	POLAND	SWITZERLAND	CZECH REP.	RUSSIA	TURKEY	JAPAN	KOREA	INDIA	MEXICO	CANADA	SINGAPORE	BRAZIL	AUSTRALIA	UAE	HONG-KONG	SAUDI ARABIA	S. AFRICA	EGYPT	MALAYSIA	INDONESIA	VIETNAM	LEBANON	NEW ZEALAND	weighted Sample
Jan-22	55.5	57.3	49.1	54.5	63.8	59.0	51.8	50.5	55.4	52.8	54.0	46.1	56.2	50.6	47.8	48.4	54.1	48.9	53.2	57.4	47.9	50.5	53.7	53.7	47.1	52.3	54.8
Feb-22	57.3	58.0	50.4	54.7	62.6	56.5	48.6	50.4	52.7	53.8	54.9	48.0	56.6	50.2	49.6	53.2	54.8	42.9	56.2	58.2	48.1	50.9	51.2	54.3	47.5	53.4	55.0
Mar-22	58.8	55.2	48.1	52.7	64.0	54.7	44.1	49.4	54.1	51.2	54.0	49.2	58.9	50.1	52.3	55.7	54.8	42.0	56.8	58.6	46.5	49.6	51.3	51.7	47.4	53.1	54.3
Apr-22	59.2	55.8	46.0	52.4	62.5	54.4	48.2	49.2	53.5	52.1	54.7	49.3	56.2	50.3	51.8	58.5	54.6	51.7	55.7	52.3	46.9	51.6	51.9	51.7	47.9	50.9	54.3
May-22	57.0	54.6	48.1	48.5	60.0	52.3	50.8	49.2	53.3	51.8	54.6	50.6	56.8	50.4	54.2	52.4	55.6	54.9	55.7	54.5	47.0	50.1	50.8	54.7	48.6	52.8	53.5
Jun-22	52.7	52.8	51.7	44.4	59.1	49.0	50.9	48.1	52.7	51.3	53.9	52.2	54.6	50.3	54.1	54.0	54.8	52.4	57.0	52.0	45.2	50.4	50.2	54.0	49.1	50.2	52.0
Jul-22	52.2	52.1	50.4	42.1	58.0	46.8	50.3	46.9	52.1	49.8	56.4	48.5	52.5	50.1	54.0	52.5	55.4	52.3	56.3	49.4	46.4	50.6	51.3	51.2	49.9	53.2	51.0
Aug-22	51.5	47.3	49.5	40.9	56.4	46.8	51.7	47.4	51.5	47.6	56.2	48.5	48.7	50.0	51.9	49.3	56.7	51.2	57.7	51.1	47.6	50.3	51.7	52.7	50.1	54.6	49.7
Sep-22	52.0	48.4	48.1	43.0	57.1	44.7	52.0	46.9	50.8	47.3	55.1	50.3	49.8	49.9	51.1	50.2	56.1	48.0	56.6	48.2	47.6	49.1	53.7	52.5	48.8	51.5	49.8
Oct-22	50.4	46.2	49.2	42.0	54.9	41.7	50.7	46.4	50.7	48.2	55.3	50.3	48.8	49.7	50.8	49.6	56.6	49.3	57.2	50.0	47.7	48.7	51.8	50.6	49.1	49.0	48.8
Nov-22	47.7	46.5	49.4	43.4	53.9	41.6	53.2	45.7	49.0	49.0	55.7	50.6	49.6	49.8	44.3	44.7	54.4	48.7	58.5	52.6	45.4	47.9	50.3	47.4	48.1	47.2	48.3
Dec-22	46.2	45.3	49.0	45.6	54.1	42.6	53.0	48.1	48.9	48.2	57.8	51.3	49.2	49.7	44.2	###	54.2	49.6	56.9	53.1	47.2	47.8	50.9	46.4	47.3	47.2	48.1

Source: S&P Global, BNP Paribas

Eurozone: real exports growth and PMI export orders



Eurozone: real exports growth and export order books



3

CHINA: REOPENING, BUT STRUCTURAL ISSUES REMAIN



China: reopening causes upgrade of 2023 growth forecast

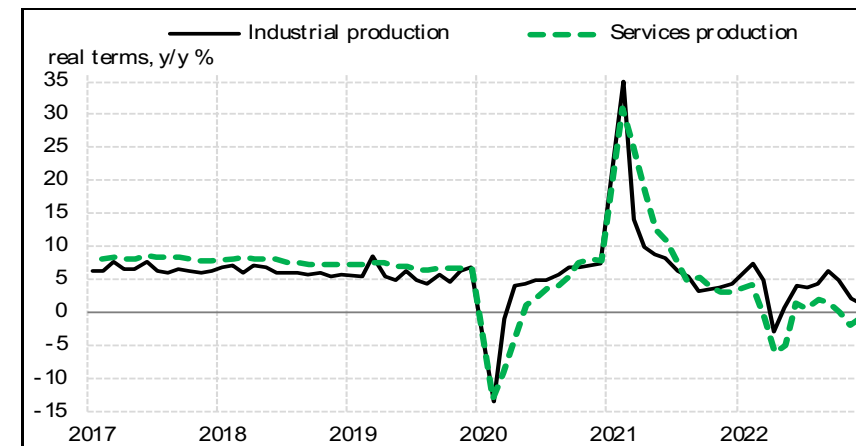
➤ Weakening economic growth in 2022

- Unbalanced recovery following the Q2 2022 Covid shock, with faster and stronger rebound in industrial production and lagging rebound in the services sector
- **Strong headwinds constrain domestic demand: disruptions linked to Covid policy, severe crisis in the property sector, unfavorable labor market dynamics, falling confidence of households.**
- Significant slowdown in exports in Q4 2022
- Monetary policy not constrained by inflation (which is moderate), but by depreciation pressure on the yuan. Fiscal policy constrained by falling revenue of local governments.

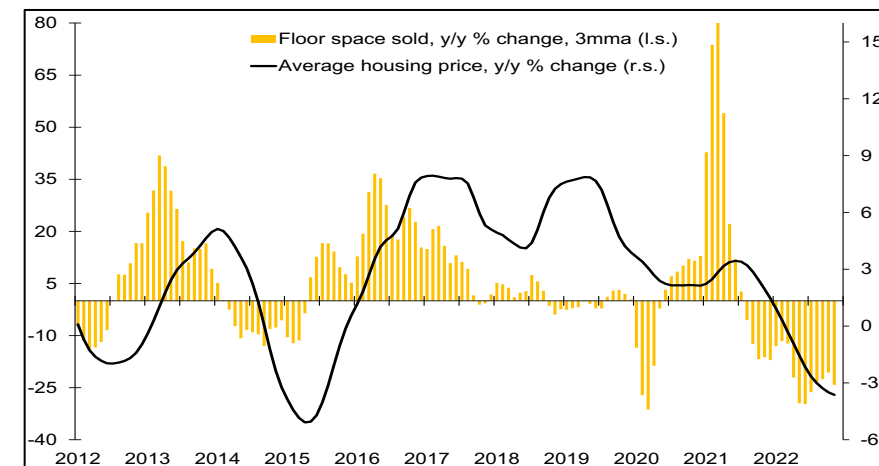
• Post-Covid rebound in 2023

- Since early Dec22, the sudden and ill-prepared abandonment of the zero Covid policy has plunged China into new chaos (spike in the number of infections, impact on both production and demand).
- However, after a turbulent period that could last until after the Chinese New Year in late January, **activity driven by domestic demand should rebound and the easing of the pandemic should be accompanied by a catch-up effect.**
- **The authorities will strengthen further fiscal and monetary support policies.** In the property sector, the goal is to provide more short-term financing to the healthiest developers in order to mitigate credit risks in the financial sector and complete unfinished construction projects, as well as to boost household demand for housing. With these support measures, and assuming that the health situation improves, the property sector should, at best, stabilize over the course of 2023.

Economic activity



Property sector



Sources: NBS, CEIC, BNP Paribas



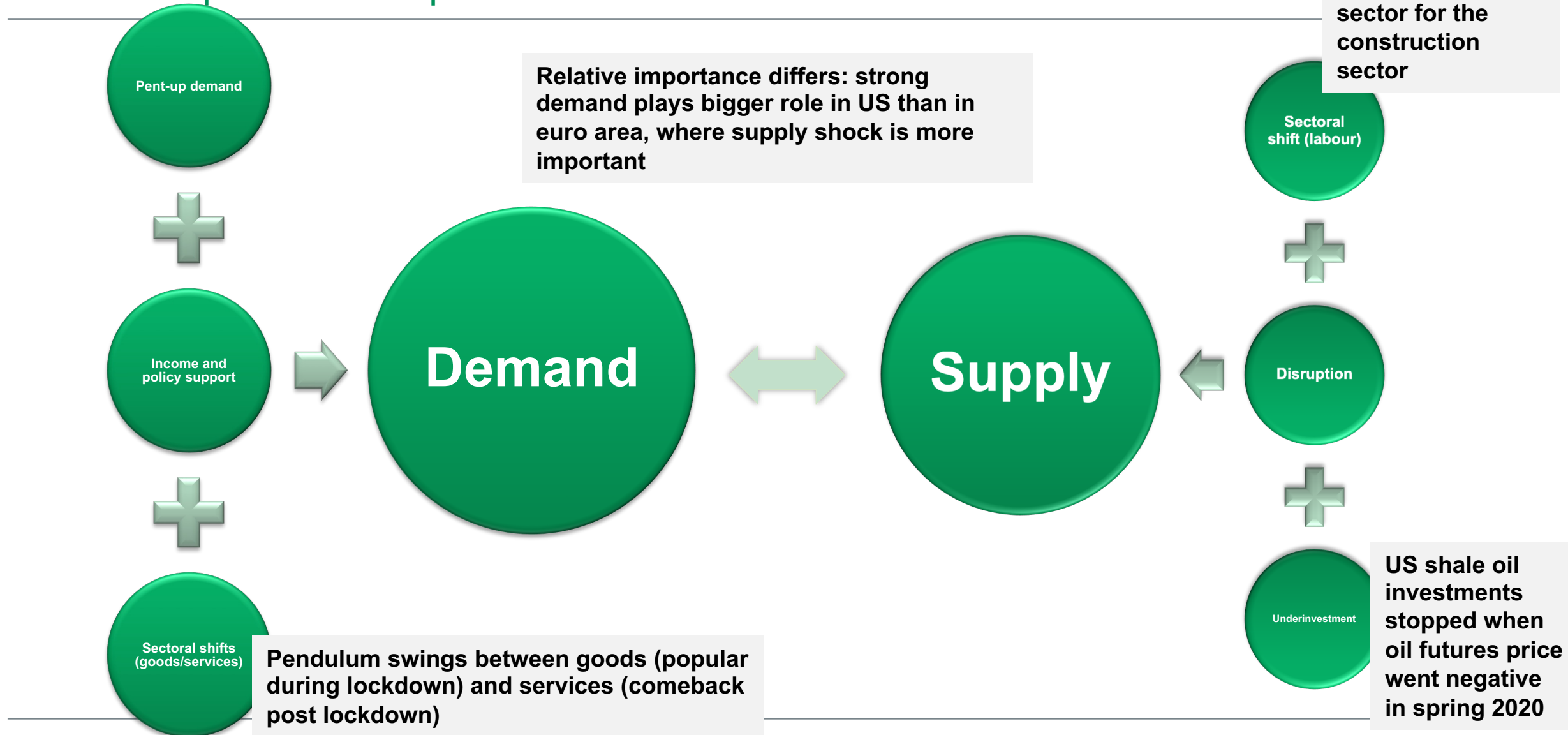
4

EXTENT AND SPEED OF DISINFLATION



“If these things were so large, how come everyone missed them?”*

2021-2022: multiple shocks in multiple waves



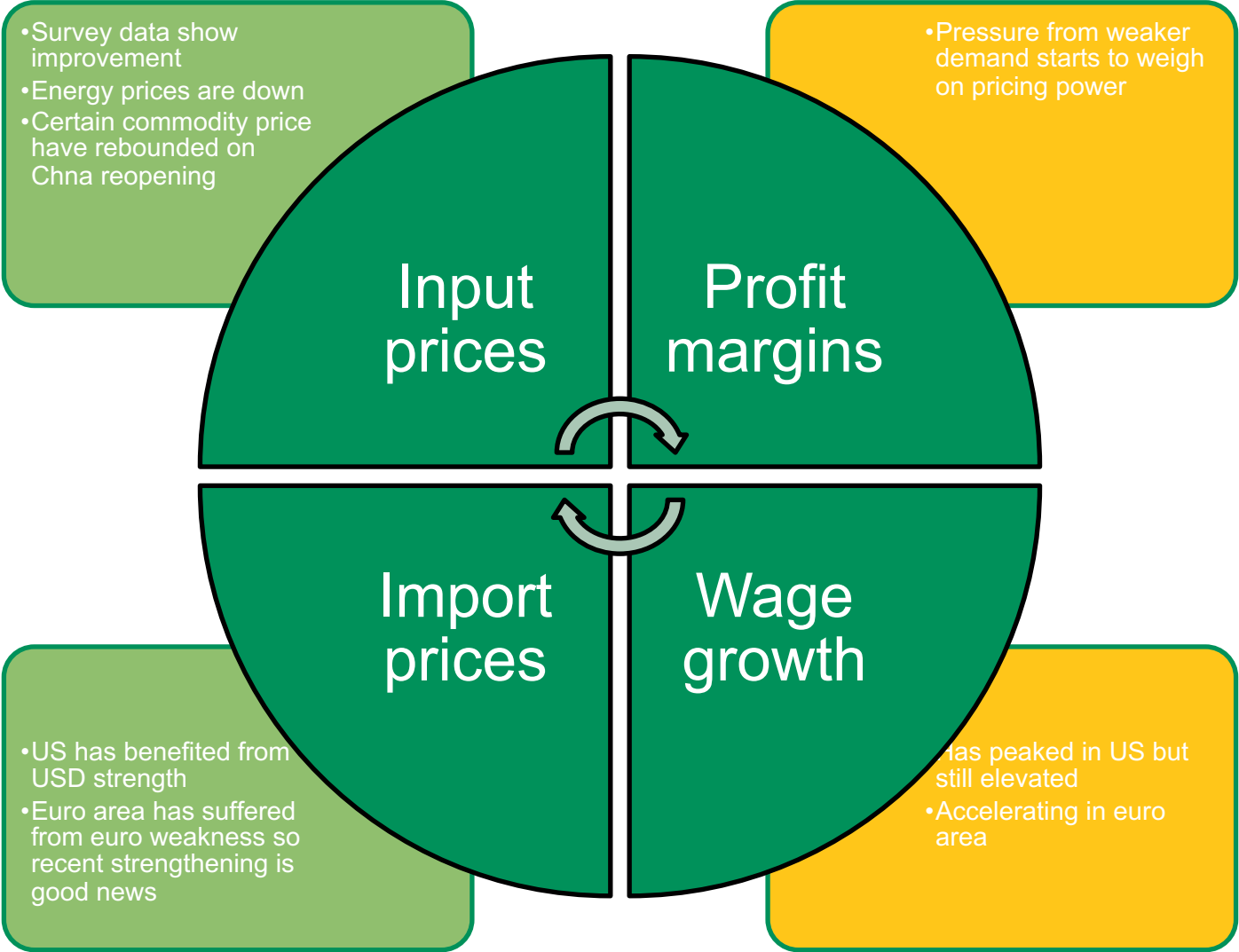
BNP PARIBAS

The bank for a changing world

*Queen Elisabeth, visiting London School of Economics on 5 November 2008, asking this question in reaction to the global financial crisis.

Source: Daily Mail website.

Key drivers of inflation



The mechanics of disinflation (1)

Euro area: selling price expectations are down, reflecting lower input price pressure

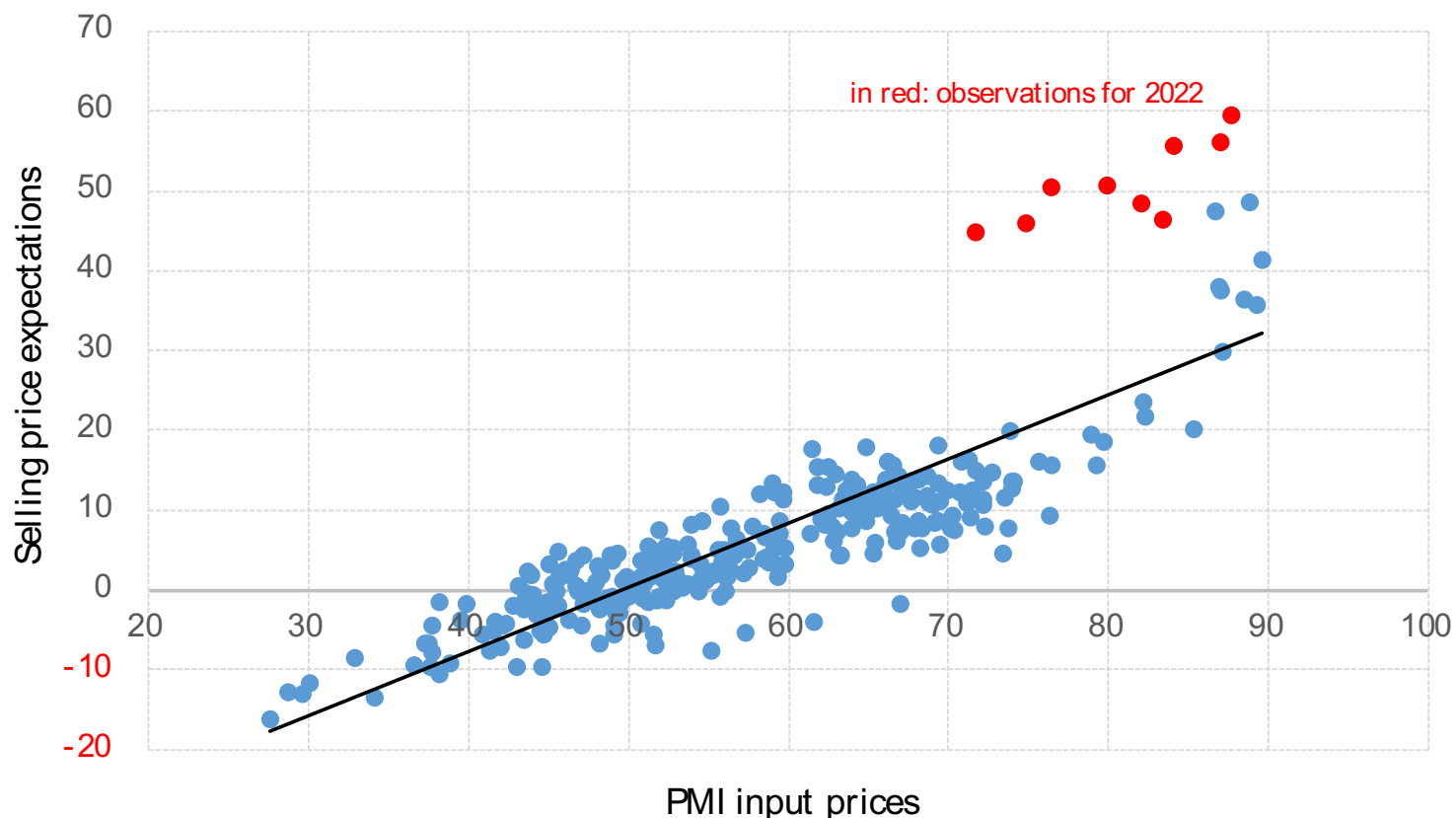
The scatter plot shows the positive correlation that historically exists between input prices and selling price expectations.

Since the start of this year (red dots), as shown on the horizontal axis, fewer companies than before are faced with rising input prices (though a vast majority remains confronted with rising input prices).

As a consequence, selling prices expectations (vertical axis) have declined, which means that fewer companies than before plan to raise their selling prices.

The takeaway is that when input prices stop rising, companies will be less inclined to raise their prices.

Eurozone: PMI input prices and selling price expectations



The mechanics of disinflation (2)

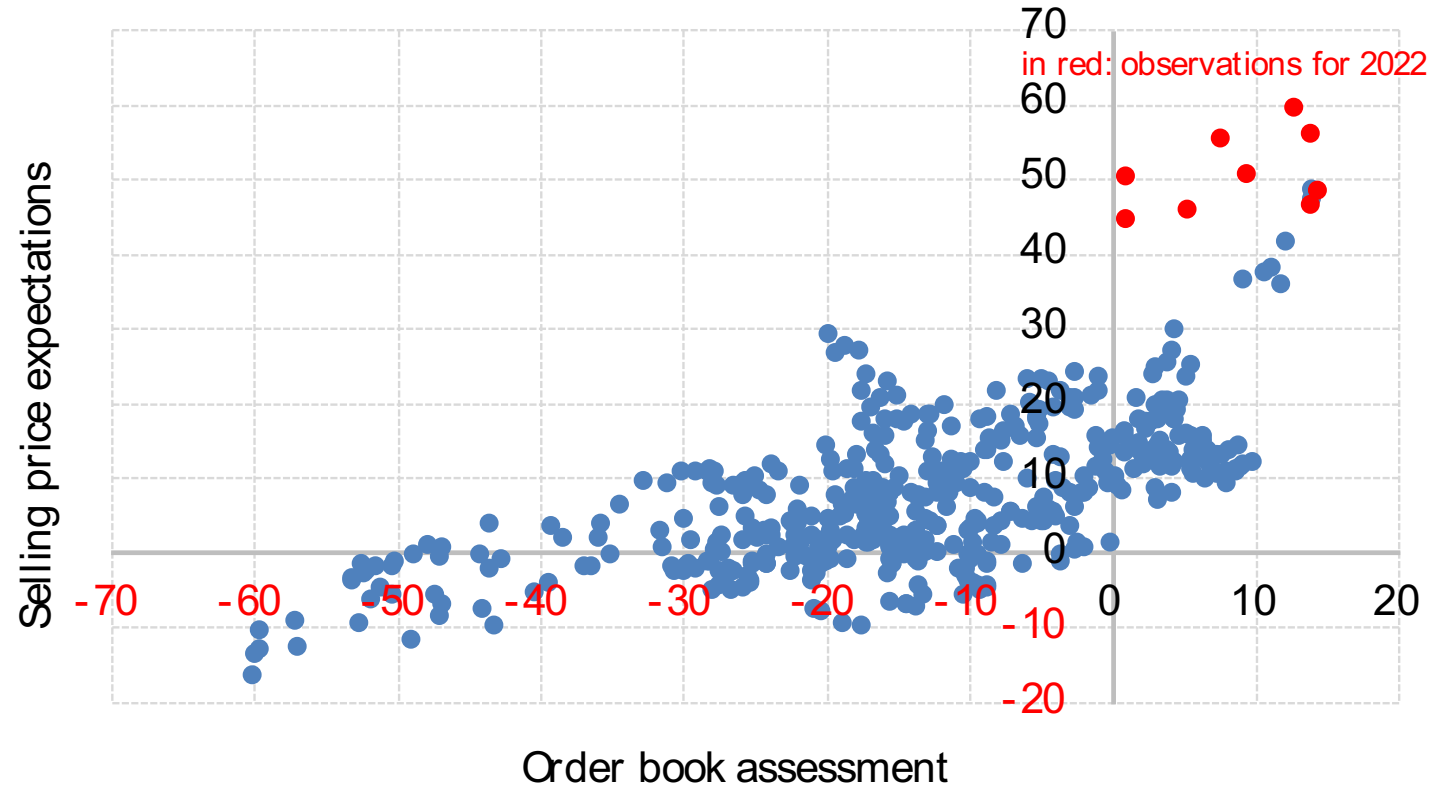
Euro area: weakening of new orders causes decline of selling price expectations

The scatter plot shows the positive correlation that historically exists between the order book assessment and selling price expectations. Since the start of this year (red dots), as shown on the horizontal axis, the order book assessment has become less positive (at the end of last year it had reached record levels).

A less upbeat assessment of order books tends to be associated with a decline in selling price expectations.

The takeaway is that when companies are becoming less upbeat on the outlook for the demand of their products, they will become more cautious in their pricing strategy in order to protect their market share.

Eurozone: order book assessment and selling price expectations



Source: European Commission, BNP Paribas

Source: European Commission, BNP Paribas



BNP PARIBAS

The bank for a changing world

US: the dynamics of job openings, unfilled vacancies, voluntary departures and layoffs

US: WAGE GROWTH AND JOB VACANCIES



CHART 2

SOURCE: FED ATLANTA, OECD, BNP PARIBAS

US: DIFFERENCE IN WAGE GROWTH AND JOB VACANCIES



CHART 3

SOURCE: FED ATLANTA, OECD, BNP PARIBAS

US: DIFFERENCE IN WAGE GROWTH AND QUILTS RATE

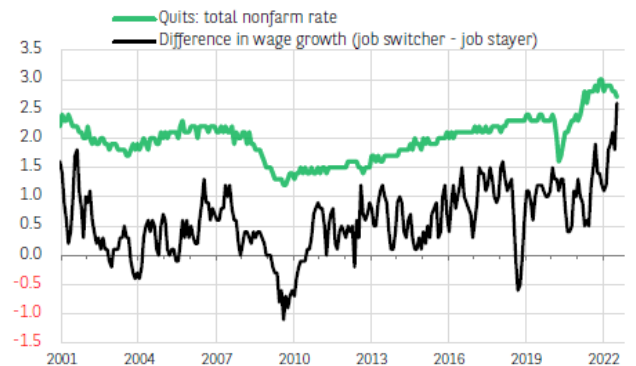


CHART 4

SOURCE: BLS, FED ATLANTA, BNP PARIBAS

US: QUILTS RATE AND LAYOFFS

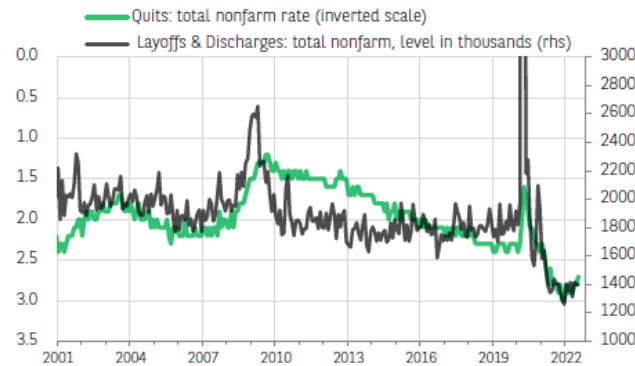


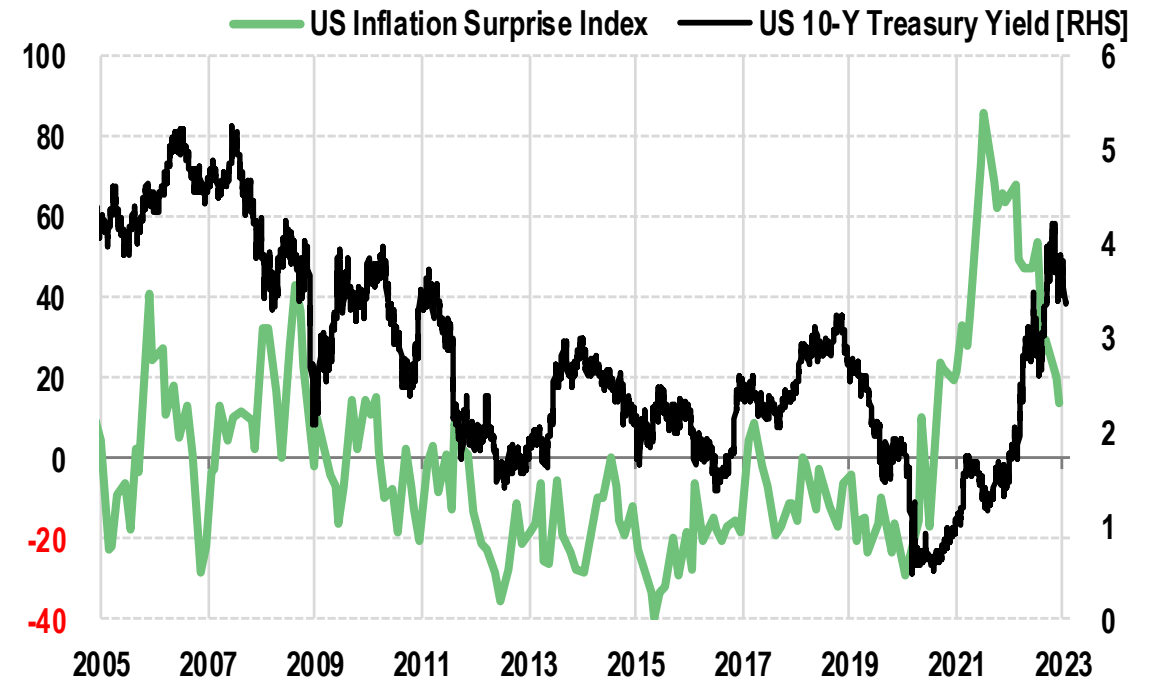
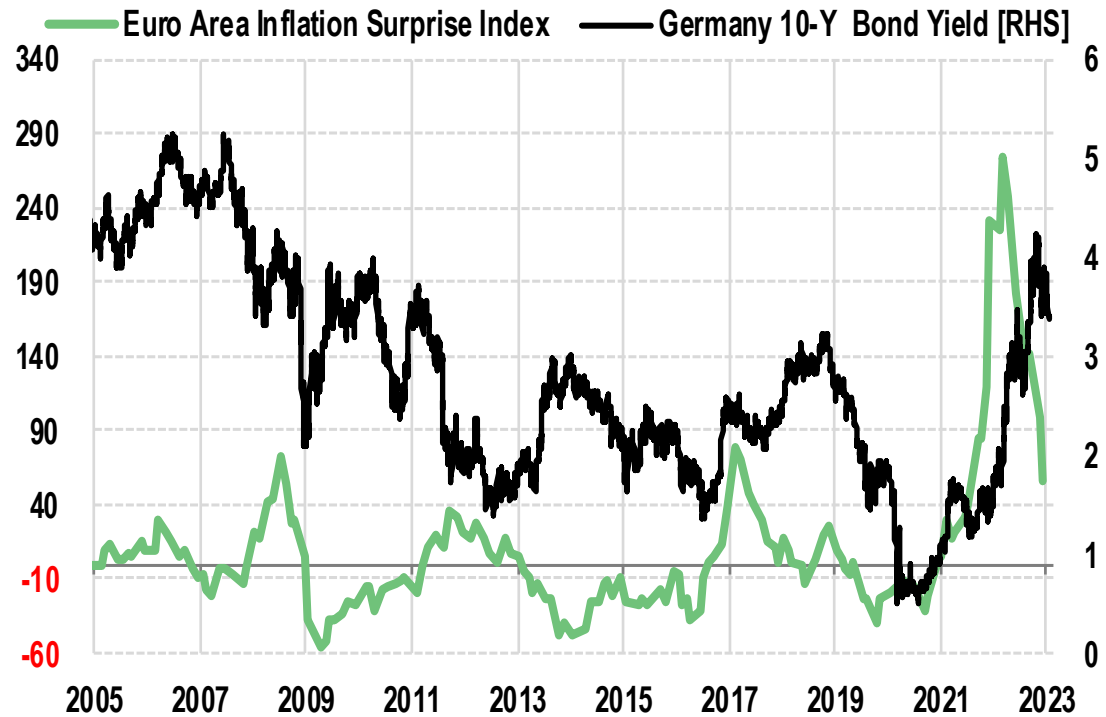
CHART 5

SOURCE: BLS, BNP PARIBAS

- There is a dynamic interaction between job openings, unfilled vacancies, voluntary departures (quits) and layoffs.
- These variables influence the pace of wage growth.
- **In an upswing, the number of job openings and unfilled vacancies rises, creating an upward pressure on wages, whereby the wage increase of job switchers is larger than the increase of those who don't change jobs (job stayers) (charts 2 and 3).**
- **Consequently, the quits rate increases (chart 4).**
- **In a downswing, unfilled vacancies decline, the difference in wage growth between job switchers and job stayers narrows, layoffs increase and, unsurprisingly in this riskier and less rewarding environment, the quits rate declines (chart 5).**
- **Overall wage growth also slows down.**
- At the current juncture, we are in the very early stage of this process – unfilled vacancies and the quits rate have started to decline-, but based on the historical experience, one should expect that this dynamic will gather pace and that slower wage growth will contribute to the decline of inflation next year.
- The question remains however to what extent, which is why the Federal Reserve's policy is completely data-dependent.

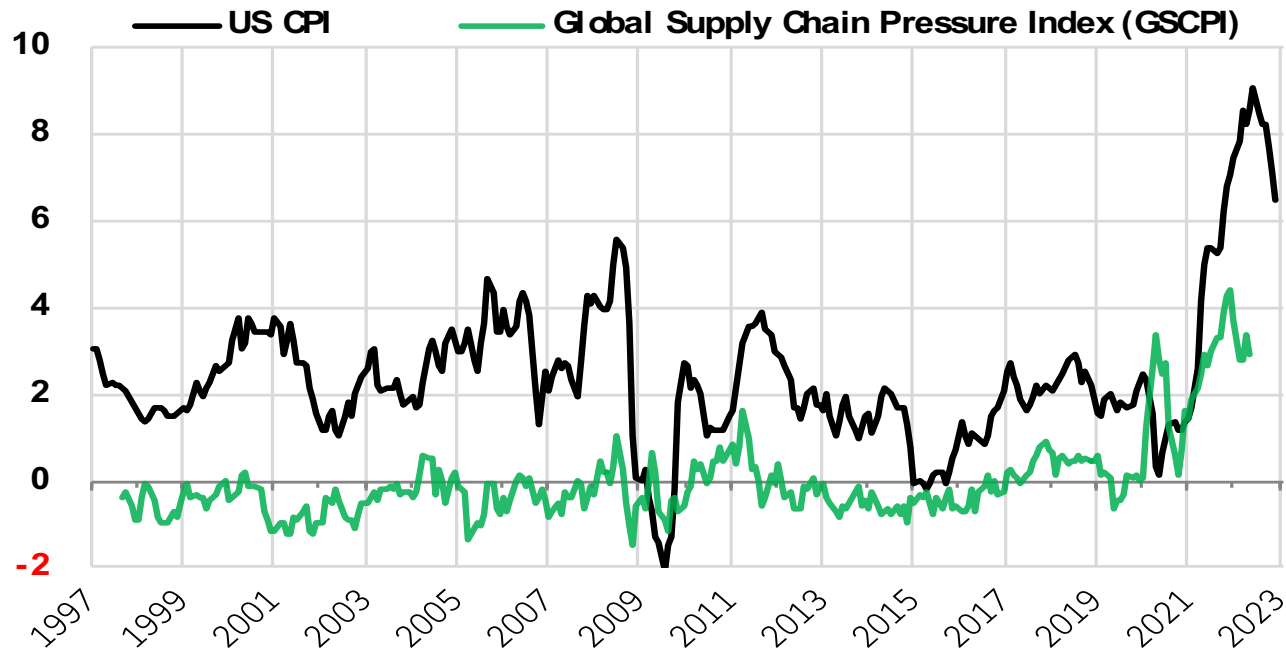


Inflation surprises are declining

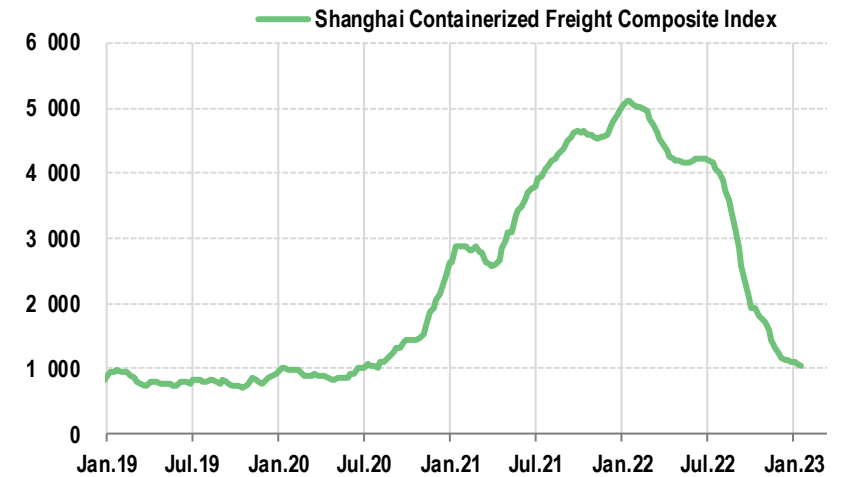
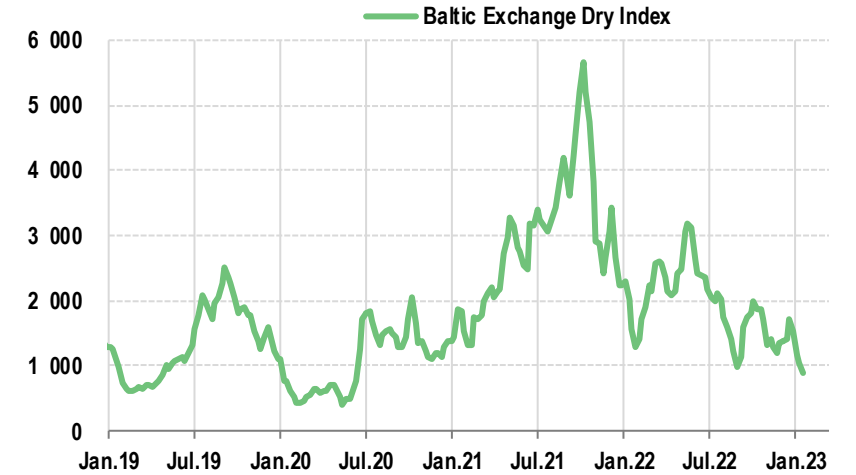


Global supply chain pressures are easing

US CPI vs New-York FED Supply Chain Index



Source: BLS, NYFED, BNP Paribas

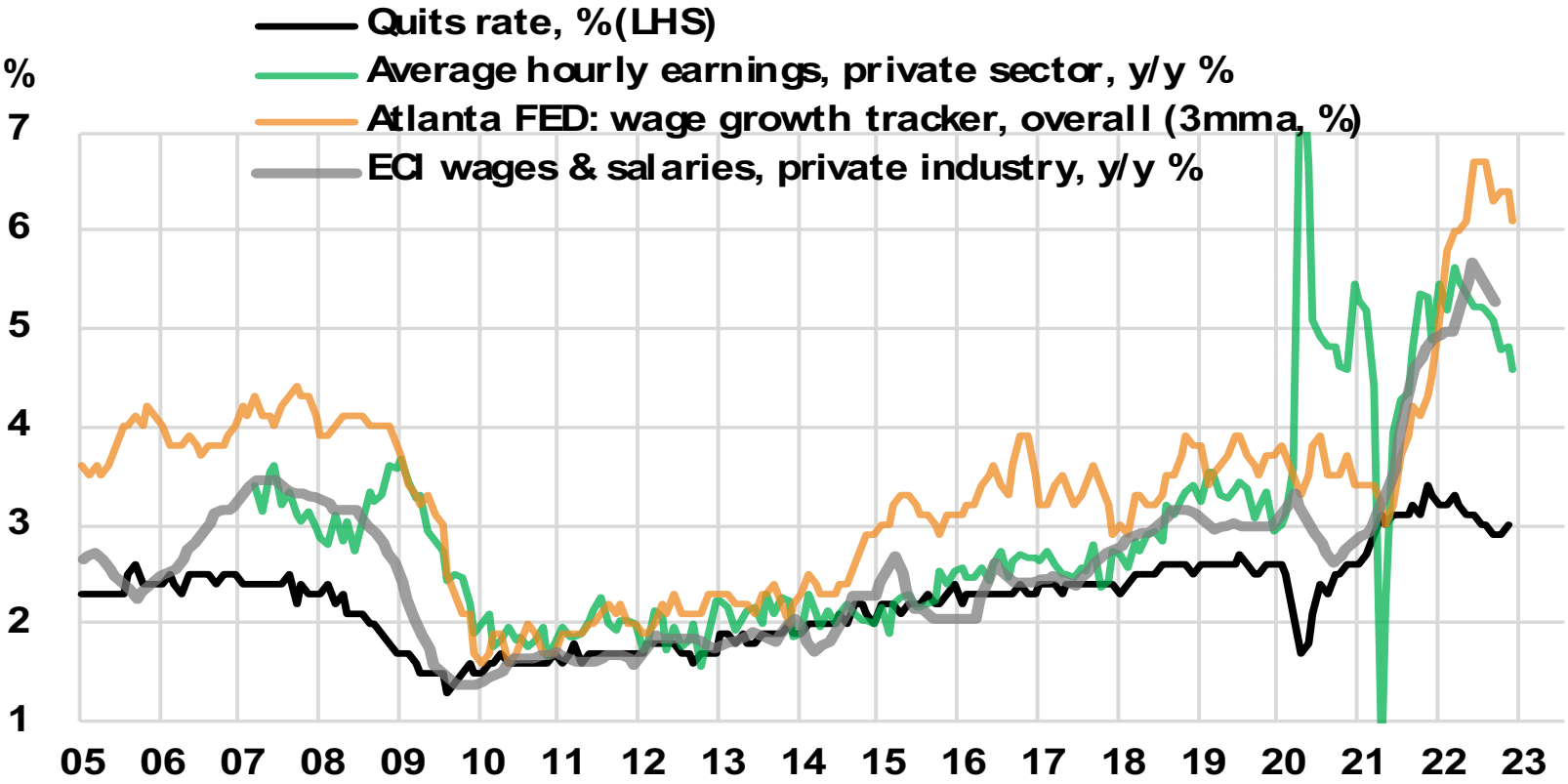


Source: Baltic Exchange, Shanghai Shipping Exchange, BNP Paribas



US: wage growth is slowing but remains high. Quits rate is down but is still elevated

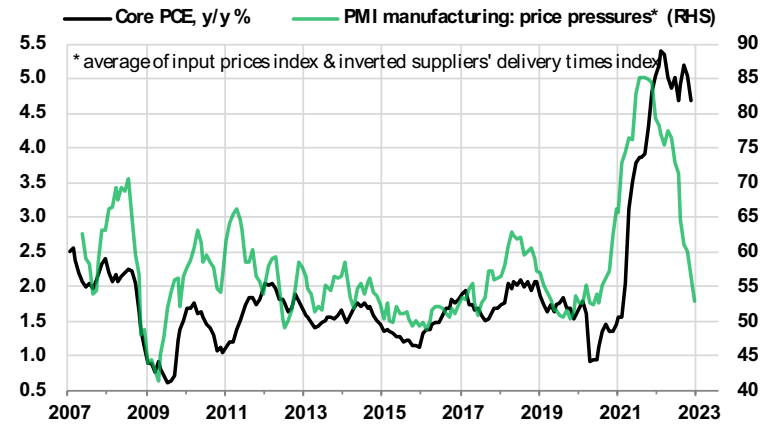
US wages indicators



Source: BLS, Atlanta FED, BNP Paribas

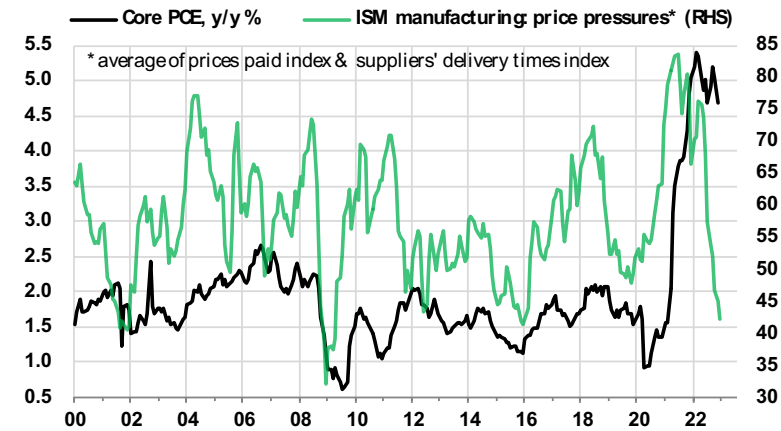
US: supply side has normalised (input prices, delivery times), which bodes well for future inflation

US: manufacturing PMI components vs inflation



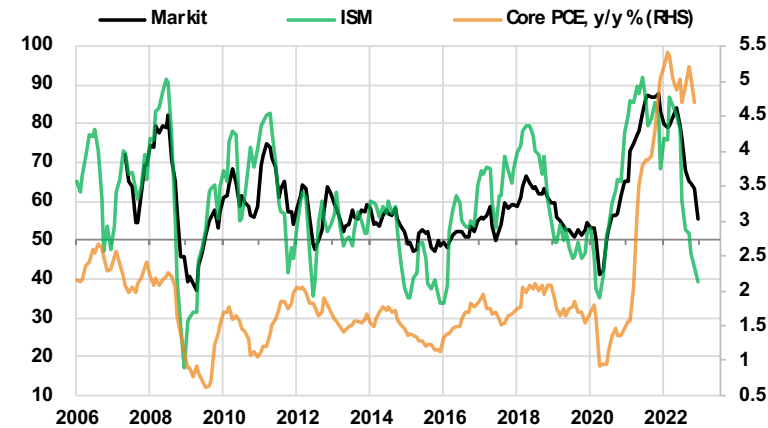
Source: S&P Global, BEA, BNP Paribas

US: ISM manufacturing components vs inflation



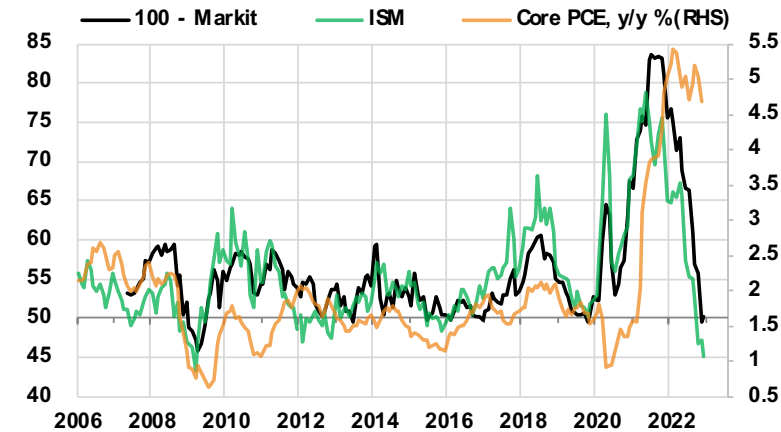
Source: ISM, BEA, BNP Paribas

US: manufacturing input prices or prices paid



Source: S&P Global, ISM, BNP Paribas

US: manufacturing supplier's delivery times



Source: S&P Global, ISM, BNP Paribas



US: inflation concentrated in shelter and services

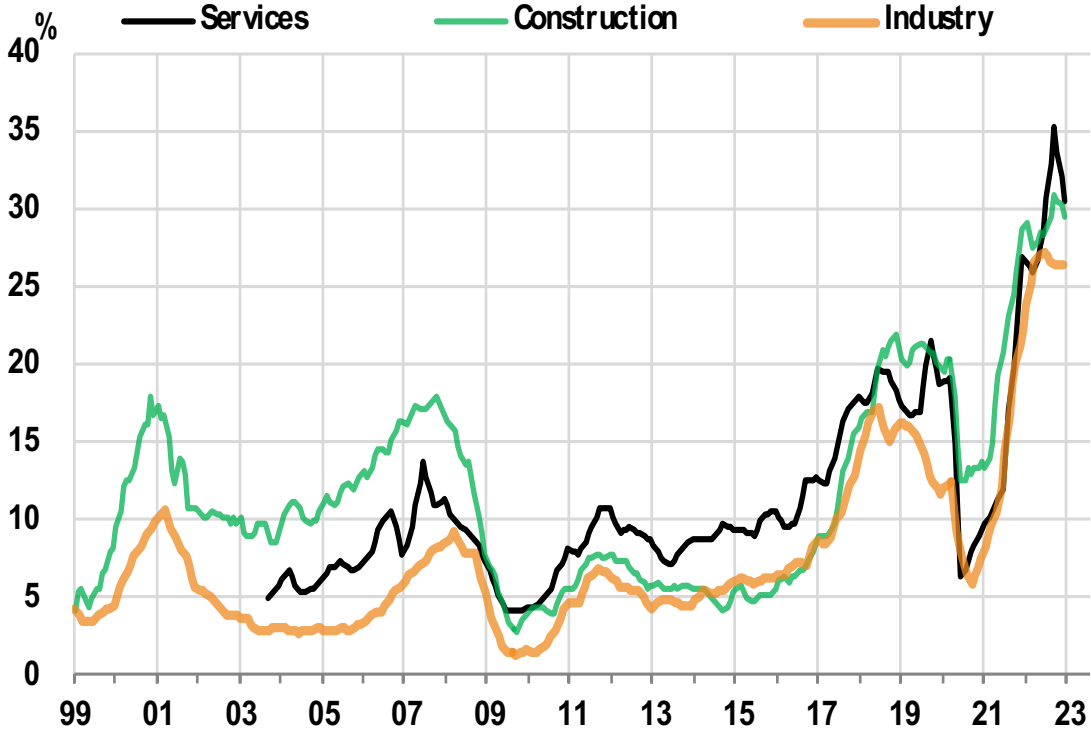
US: INFLATION DISPERSION																			
	All items	All items less Food & Energy (core)	Food	Energy	Energy commodities	Energy services	Shelter	Household furnishings & supplies	Transport. less motor fuel	Medical care commodities	Recreation commodities	Education & communication commodities	Services less energy services	Transpo r-tation services	Medical care services	Recrea- tion services	Education & commun. Services	Other personal services	
Item weight	100.000	79.271	13.249	7.481	4.199	3.282	33.489	3.306	6.442	1.689	1.759	0.501	60.103	5.916	7.141	3.881	6.034	1.642	
	month/month % change																		
Dec-22	-0.3	0.2	0.3	-6.2	-12.4	1.4	0.7	0.1	-1.0	0.1	-0.1	-0.9	0.5	-0.2	0.0	0.3	0.2	-0.2	
Nov-22	-0.1	0.1	0.2	-2.5	-3.2	-1.5	0.6	-0.2	-1.2	0.2	-0.6	-1.7	0.4	0.3	-0.7	0.9	0.9	0.8	
Oct-22	0.4	0.3	0.7	1.0	3.6	-2.0	0.7	0.1	-0.8	-0.0	0.7	-1.5	0.5	1.2	-0.5	0.7	0.1	0.4	
Sep-22	0.2	0.4	0.7	-2.6	-5.4	0.8	0.7	0.7	-1.8	-0.1	0.1	-0.5	0.7	1.7	0.7	0.1	0.4	0.3	
Aug-22	-0.0	0.5	0.8	-6.2	-11.7	1.8	0.7	0.7	0.1	0.2	0.8	-0.4	0.5	-0.2	0.8	-0.0	0.5	0.3	
Jul-22	-0.0	0.3	1.1	-4.5	-7.6	0.3	0.6	0.4	0.5	0.6	0.1	-0.5	0.4	-0.5	0.5	0.4	-0.1	0.4	
Jun-22	1.4	0.7	1.0	7.6	9.3	5.2	0.7	0.7	1.4	0.4	0.3	0.2	0.7	2.2	0.6	0.2	0.2	0.4	
May-22	1.1	0.6	1.1	6.1	8.0	3.4	0.6	0.1	0.9	0.3	0.1	-1.7	0.6	1.5	0.4	0.5	0.2	0.1	
Apr-22	0.6	0.5	1.0	0.1	-0.7	1.3	0.5	0.6	0.2	0.1	0.5	-2.2	0.7	3.3	0.4	0.3	0.1	0.5	
Mar-22	1.3	0.4	1.0	11.4	19.6	1.2	0.6	0.9	-0.9	0.2	-0.2	-0.8	0.6	2.0	0.6	0.5	-0.2	0.4	
Feb-22	0.9	0.7	1.0	2.7	5.4	-0.4	0.6	1.0	0.6	0.3	1.0	-0.5	0.6	1.6	0.4	0.9	0.1	1.2	
Jan-22	0.8	0.7	1.0	1.7	0.4	3.4	0.4	2.0	1.1	0.9	1.3	0.1	0.5	0.8	1.0	0.8	0.0	0.7	
	year/year % change																		
Dec-22	6.5	5.7	10.4	7.3	0.4	15.6	7.5	7.3	-0.9	3.2	4.1	-10.1	7.0	14.6	4.1	5.7	2.4	5.5	
Nov-22	7.1	6.0	10.6	13.1	12.2	14.2	7.1	8.3	2.4	3.1	3.6	-9.7	6.8	14.2	4.4	5.4	2.2	6.5	
Oct-22	7.7	6.3	10.9	17.6	19.3	15.6	6.9	8.8	5.5	3.1	4.3	-9.1	6.7	15.2	5.4	3.9	1.3	5.8	
Sep-22	8.2	6.6	11.2	19.8	19.7	19.8	6.6	9.9	8.4	3.7	4.0	-8.3	6.7	14.6	6.5	4.1	1.4	5.9	
Aug-22	8.3	6.3	11.4	23.8	27.1	19.8	6.2	10.6	9.1	4.1	3.8	-7.3	6.1	11.3	5.6	4.2	1.5	5.8	
Jul-22	8.5	5.9	10.9	32.9	44.9	18.8	5.7	10.8	8.8	3.7	4.1	-7.0	5.5	9.2	5.1	4.5	1.5	5.9	
Jun-22	9.1	5.9	10.4	41.6	60.6	19.4	5.6	10.2	9.5	3.2	4.5	-5.7	5.5	8.8	4.8	4.7	1.7	6.7	
May-22	8.6	6.0	10.1	34.6	50.3	16.2	5.5	9.7	14.1	2.4	3.8	-6.0	5.2	7.9	4.0	4.9	1.7	6.5	
Apr-22	8.3	6.2	9.4	30.3	44.7	13.7	5.1	10.6	17.2	2.1	4.0	-4.0	4.9	8.5	3.5	4.4	1.7	6.2	
Mar-22	8.5	6.5	8.8	32.0	48.3	13.5	5.0	10.8	21.8	2.7	4.7	1.3	4.7	7.7	2.9	4.8	1.6	5.7	
Feb-22	7.9	6.4	7.9	25.6	37.9	12.3	4.7	10.3	23.9	2.5	4.6	0.3	4.4	6.6	2.4	5.1	1.7	6.2	
Jan-22	7.5	6.0	7.0	27.0	39.9	13.6	4.4	9.3	23.4	1.4	4.1	0.8	4.1	5.6	2.7	5.0	1.7	5.4	

Source: BLS, BNPParibas



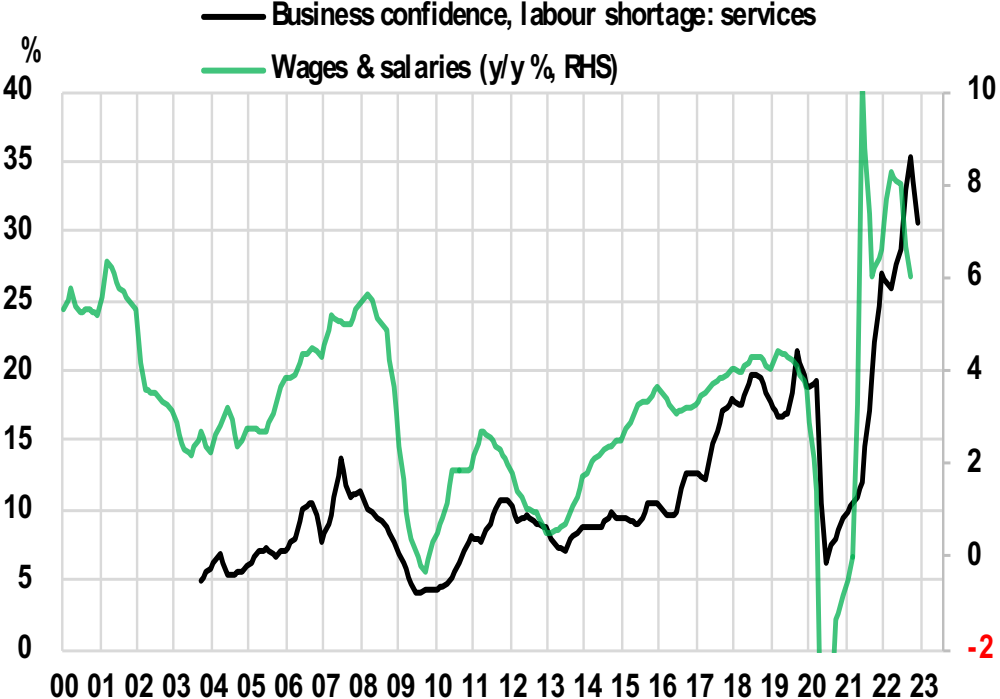
Eurozone: ongoing labour market bottlenecks should underpin wage growth

Eurozone: business confidence, labour shortage by activity



Source: European Commission surveys, BNP Paribas

Eurozone: labour shortage and wages

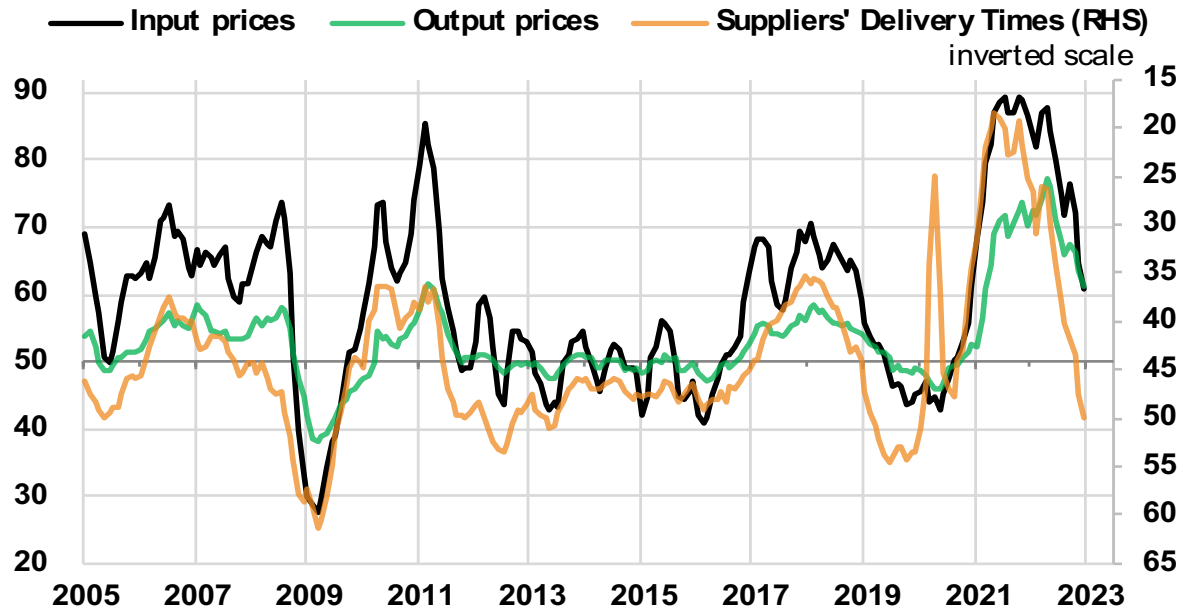


Source: European Commission surveys, Eurostat, BNP Paribas



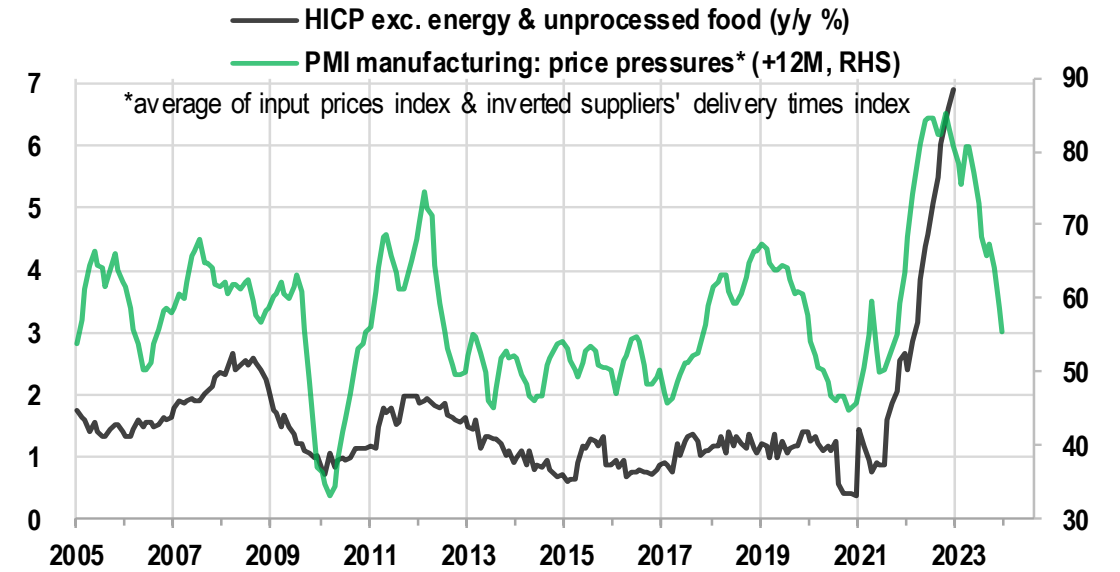
Eurozone: supply side is normalising

Eurozone: PMI manufacturing components



Source: S&P Global, BNP Paribas

Eurozone: PMI manufacturing components vs inflation

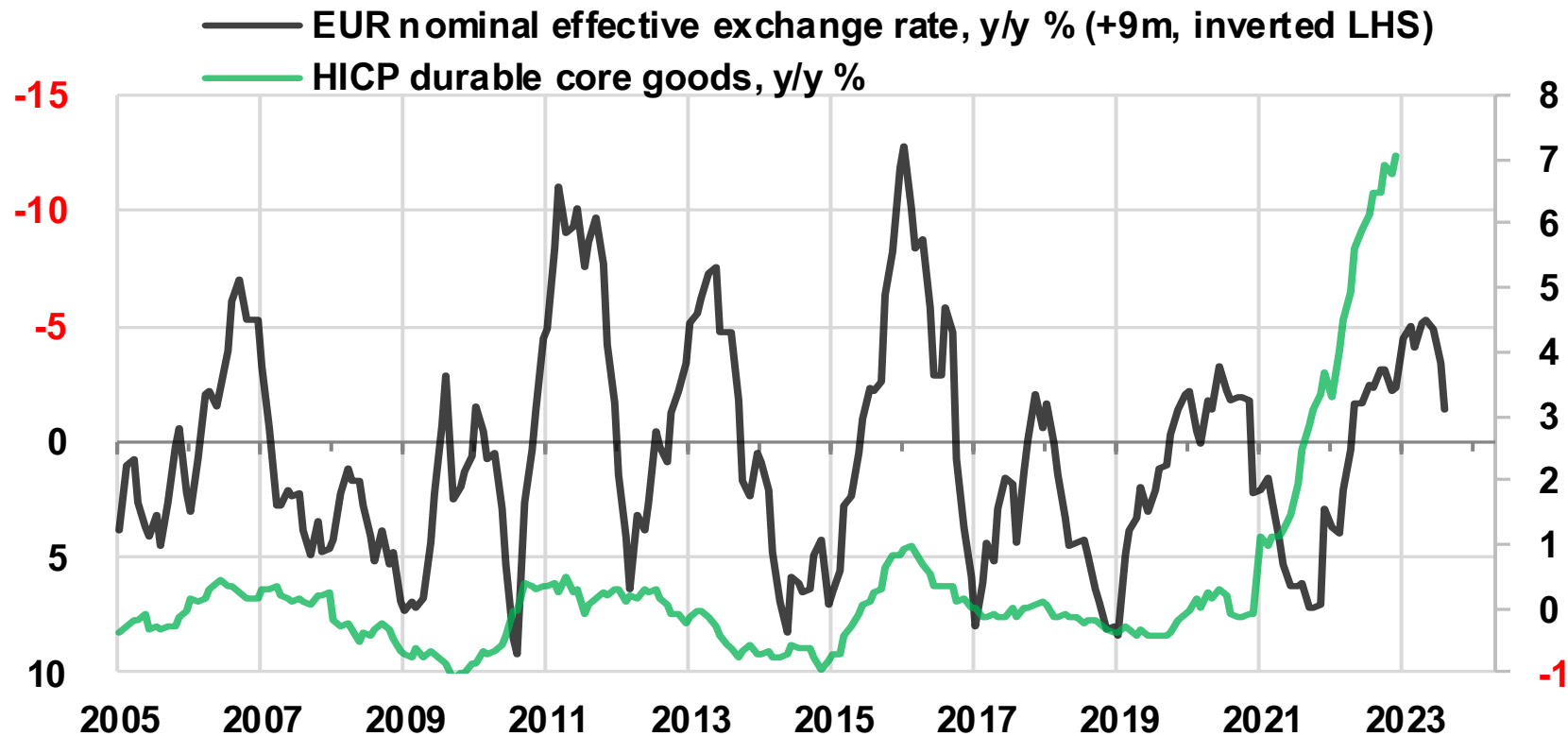


Source: S&P Global, Eurostat, BNP Paribas



Eurozone: euro weakness has added to inflation pressure but that should ease given recent appreciation

EZ: EUR effective exchange rate vs durable core goods price

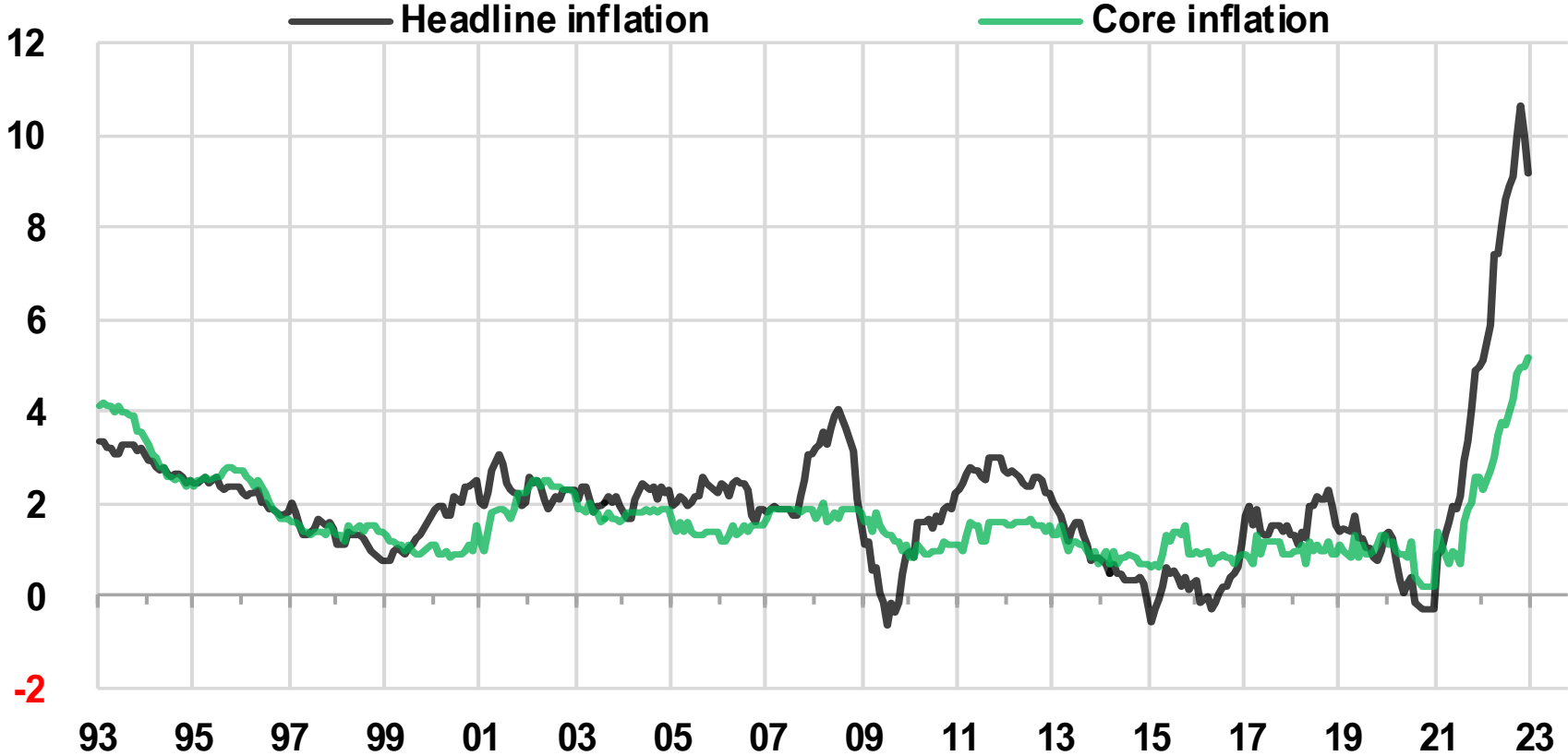


Source: ECB, Eurostat, BNP Paribas



Eurozone: headline inflation has peaked but core hasn't

Eurozone: core and headline inflation, %



Source: Eurostat, BNP Paribas



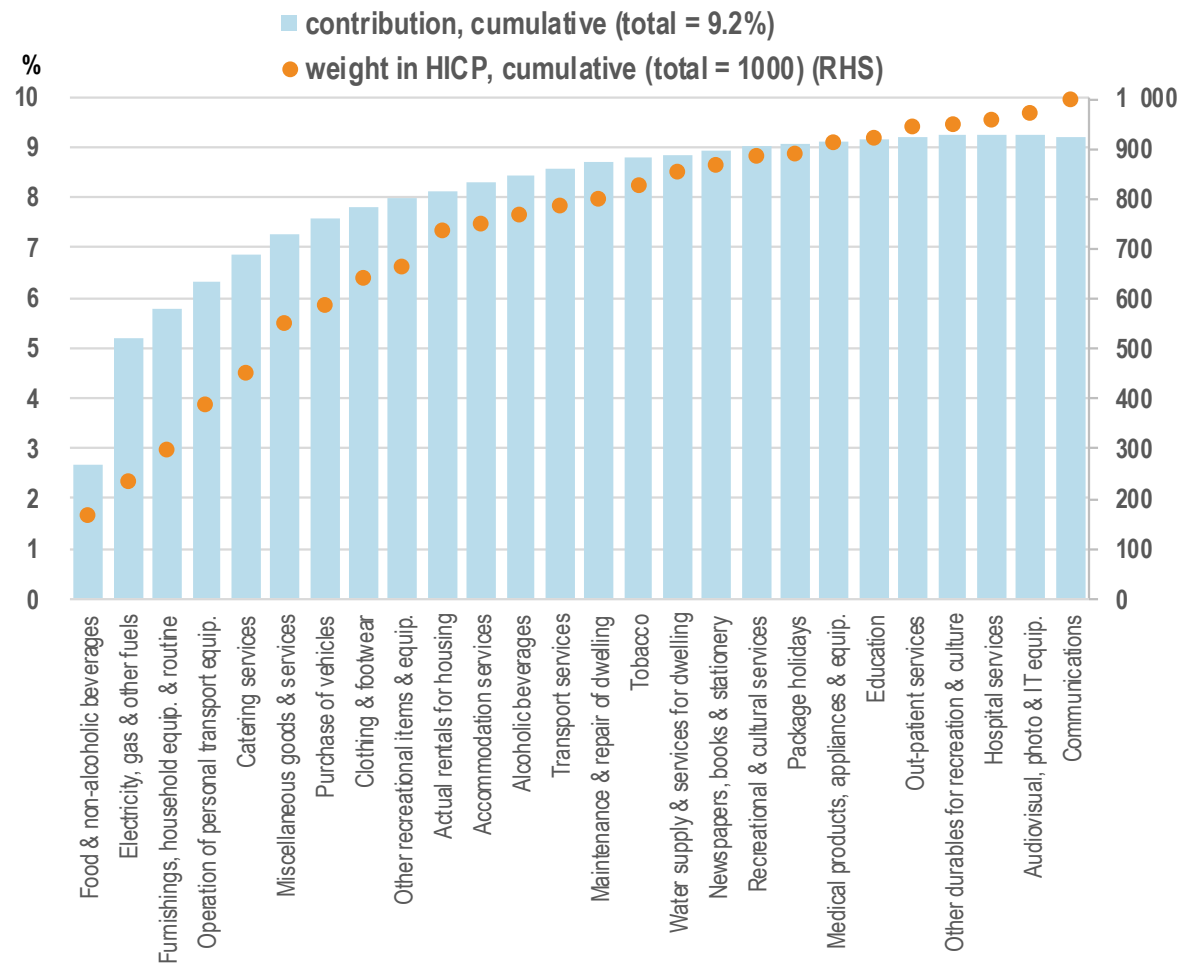
Eurozone: elevated inflation is broadbased

INFLATION DISPERSION IN EUROZONE: SERVICES AND GOODS PRICES (Y/Y %)												
December 2022	Housing, water, electricity, gas & other fuels Furnishings, household equip. & routine hhd maintenance Health Transport Communica- tions Recreation & culture Education Restaurants & hotels Misc. goods & services											
	HICP	Core inflation	Clothing & footwear	Housing, water, electricity, gas & other fuels	Furnishings, household equip. & routine hhd maintenance	Health	Transport	Communica- tions	Recreation & culture	Education	Restaurants & hotels	Misc. goods & services
item weight as % of Total (for EZ19)	100.0%	68.2%	5.3%	17.9%	6.7%	5.1%	14.6%	3.1%	7.9%	1.0%	8.0%	9.7%
Eurozone 19	9.2	5.2	3.7	16.3	9.1	1.8	6.9	-0.9	5.5	4.1	8.3	4.2
Germany	9.6	5.4	4.9	12.9	9.5	2.1	8.0	-0.2	6.8	3.0	9.7	4.2
France	6.7	4.2	2.7	8.2	9.0	0.7	7.9	-1.7	4.0	3.5	5.1	3.8
Italy	12.3	4.8	3.3	54.4	7.8	1.4	6.2	-1.4	4.5	0.7	8.1	3.5
Spain	5.5	4.1	-2.6	-4.5	8.5	1.0	2.8	-1.9	5.1	1.4	8.0	4.4
Austria	10.5	7.6	5.2	17.7	11.3	3.3	11.3	-2.5	5.2	3.9	13.1	5.7
Belgium	10.2	5.5	7.0	22.6	6.5	2.7	7.3	-0.3	5.3	1.6	7.3	5.4
Cyprus	7.6	5.3	0.5	17.2	6.5	0.9	8.3	-3.8	5.0	1.8	8.9	5.6
Estonia	17.5	12.5	8.6	21.3	15.9	8.8	14.9	2.2	14.6	8.0	17.1	15.6
Finland	8.8	4.9	3.1	14.4	9.0	1.6	6.0	6.1	6.1	2.4	7.6	4.5
Greece	7.6	5.9	5.3	2.5	10.9	2.8	10.0	-2.0	3.0	2.2	8.7	5.3
Ireland	8.2	4.1	3.2	27.8	4.2	1.3	2.4	0.3	2.3	-7.2	8.1	0.9
Latvia	20.7	10.7	5.3	42.8	12.6	9.8	12.5	6.6	9.0	7.2	19.5	17.2
Lithuania	20.0	12.6	5.8	42.8	12.8	9.1	13.1	4.0	11.4	6.7	20.5	13.8
Luxembourg	6.2	3.9	4.9	6.1	8.7	3.1	10.5	2.1	3.5	0.6	3.8	1.3
Malta	7.3	6.7	3.4	10.6	9.4	3.8	4.8	2.4	6.1	4.7	5.9	4.7
Netherlands	11.0	7.1	11.3	21.8	11.2	2.4	3.4	-2.9	5.9	83.5	10.0	5.1
Portugal	9.8	5.5	1.6	18.4	12.9	-2.3	5.8	0.3	4.4	2.6	12.0	3.3
Slovakia	15.0	9.8	6.8	15.9	12.3	7.5	7.9	6.7	7.3	5.0	14.1	12.8
Slovenia	10.8	7.5	2.5	16.4	11.0	10.4	9.2	0.2	6.6	1.5	12.3	7.2

Source: Eurostat, BNPParibas



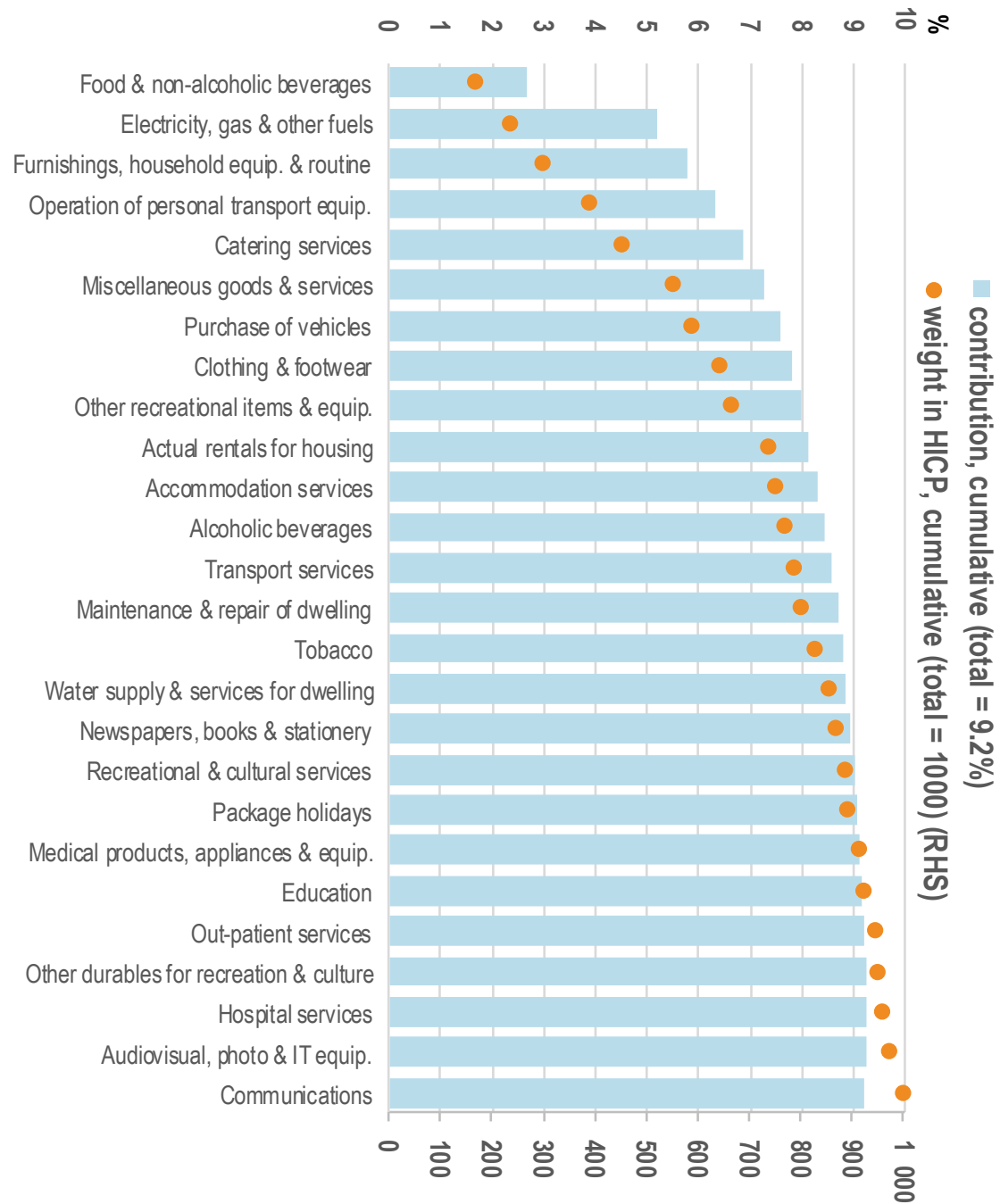
Eurozone: contributions to HICP inflation (y/y %) on December 2022



Source: Eurostat, BNP Paribas



Eurozone: contributions to



Source: Eurostat, BNP Paribas



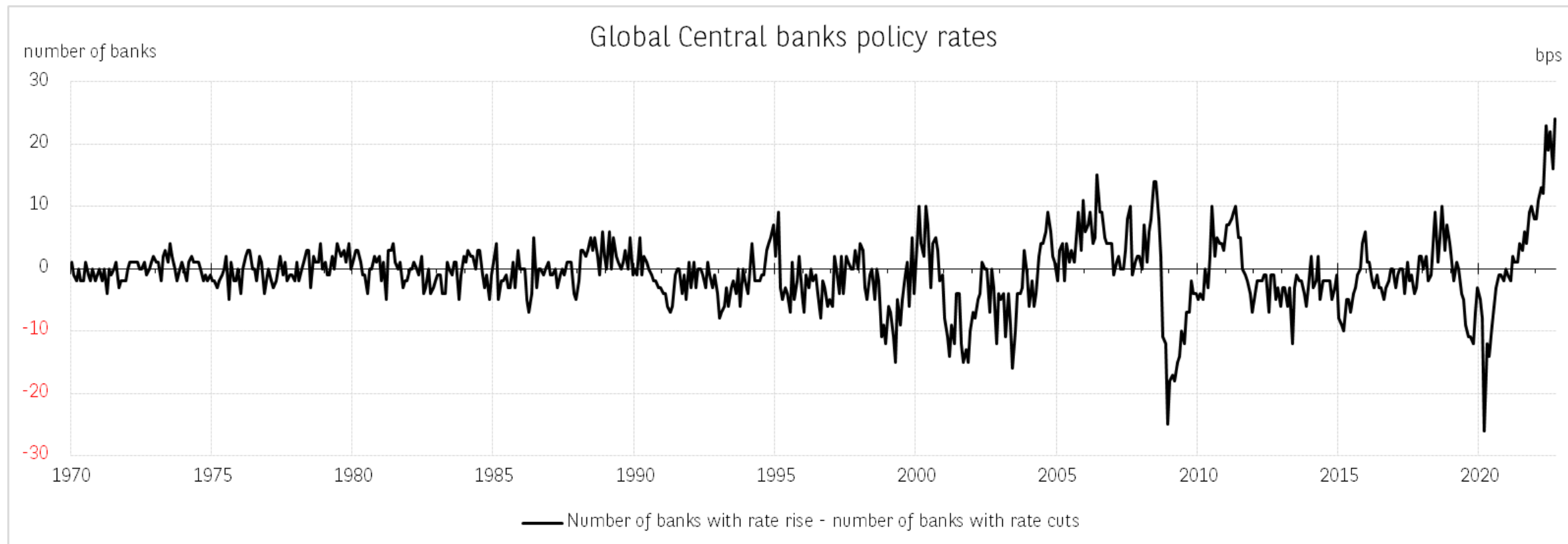
5

PEAK POLICY RATE

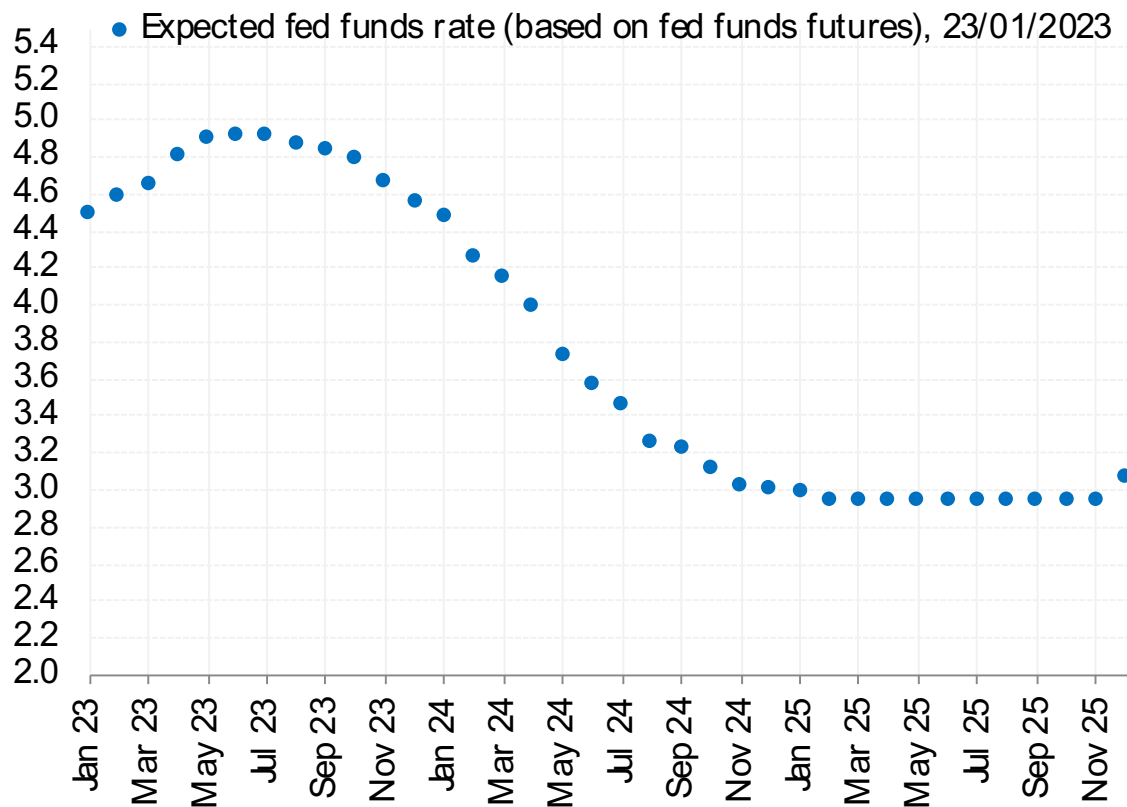


A frightening picture: monetary policy, a sum-of-the-parts analysis

Synchronous monetary tightening raises concern of doing too much



US: market pricing too optimistic. We expect terminal fed funds rate of 5.25%

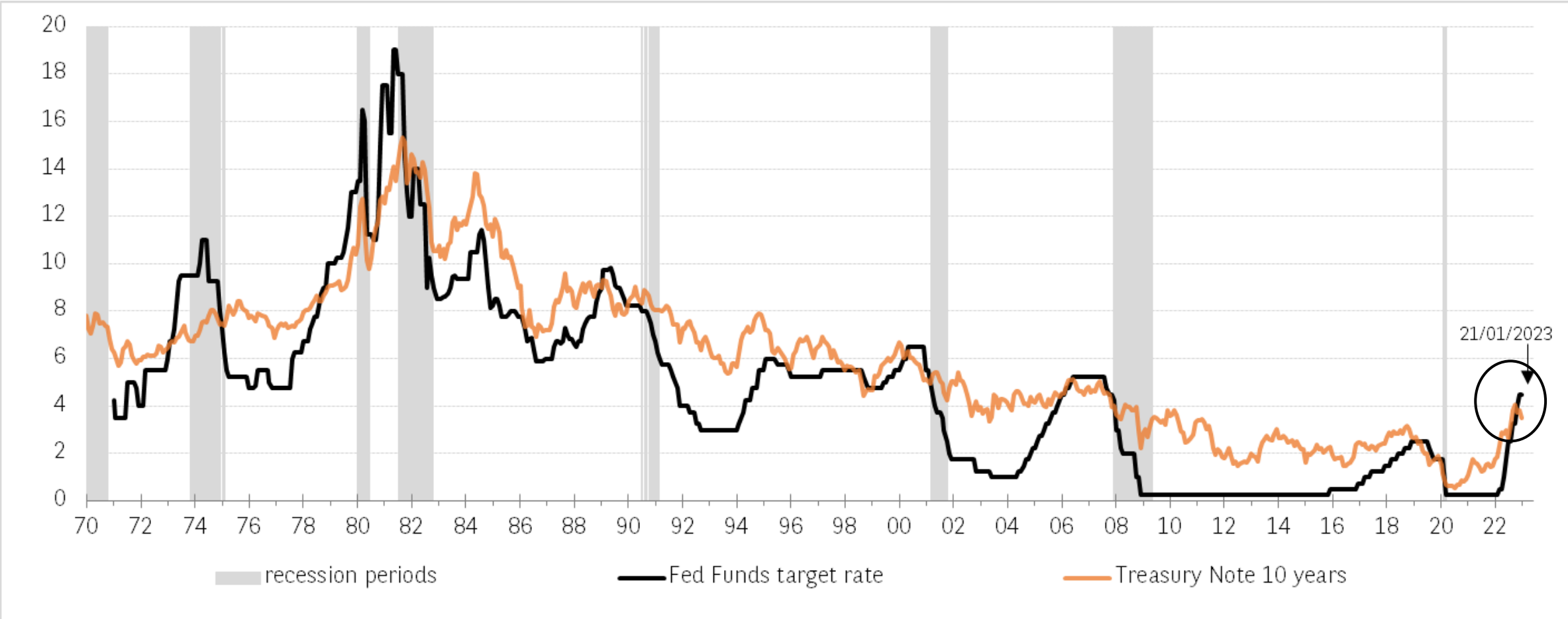


Source: Refinitiv, BNP Paribas

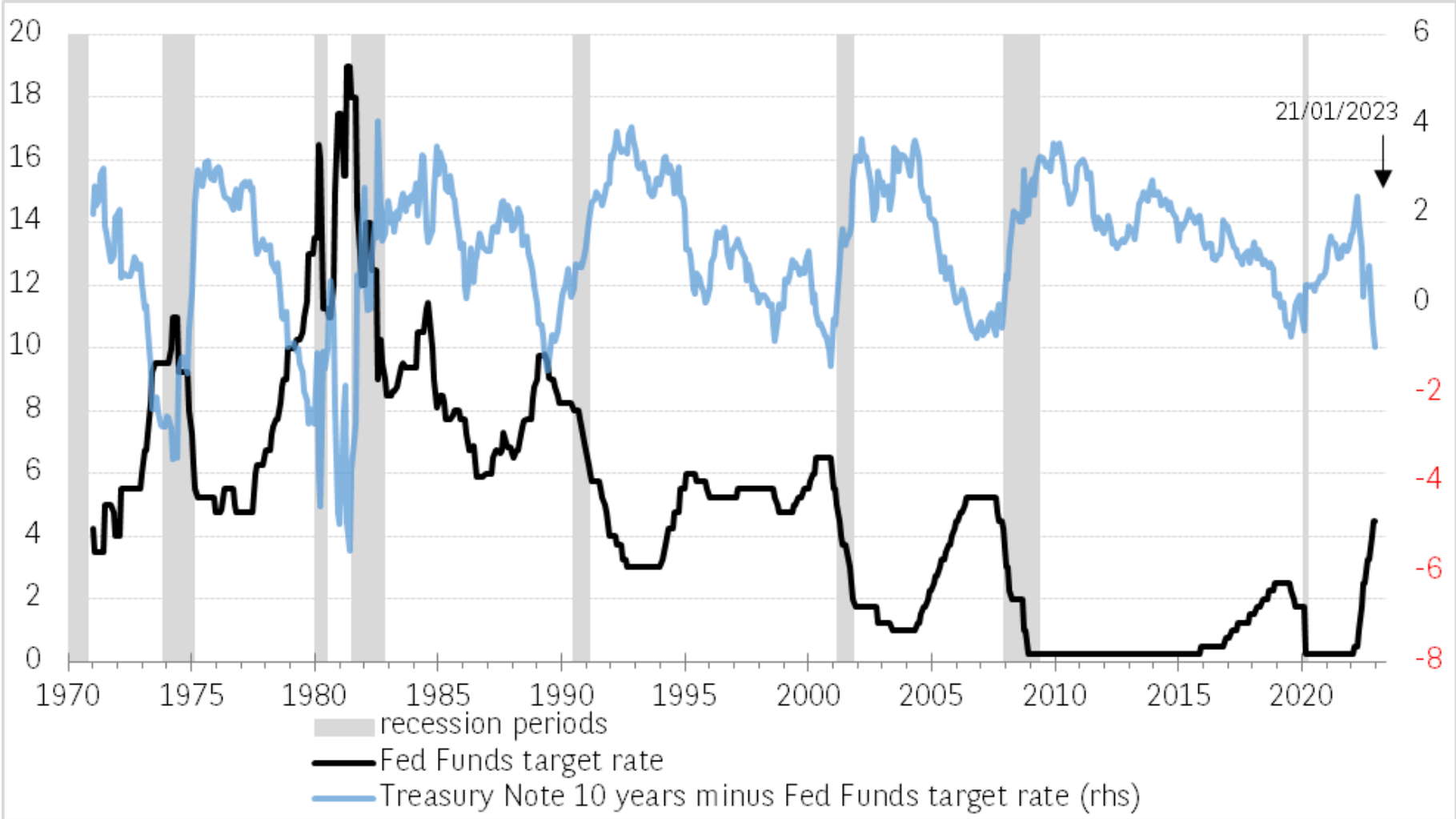
- In the US, the Federal Reserve will continue its tightening policy, **bringing the federal funds rate to its terminal rate for this cycle at 5.25% (upper end of the target range) in the first half of this year.**
- Given the expected slow decline in inflation and despite the economy entering recession, this level should be maintained through 2023 and only be followed by **rate cuts in 2024.**
- US Treasuries are largely pricing in the upcoming rate hikes.
- In the near term there is still some upward potential, but subsequently yields should move lower as the inflation outlook improves and the market starts anticipating policy easing in 2024.



US Treasuries: 10 year yield already anticipates rate cuts. Too optimistic



Gap between 10 year Treasury yield and fed funds at previous cyclical lows

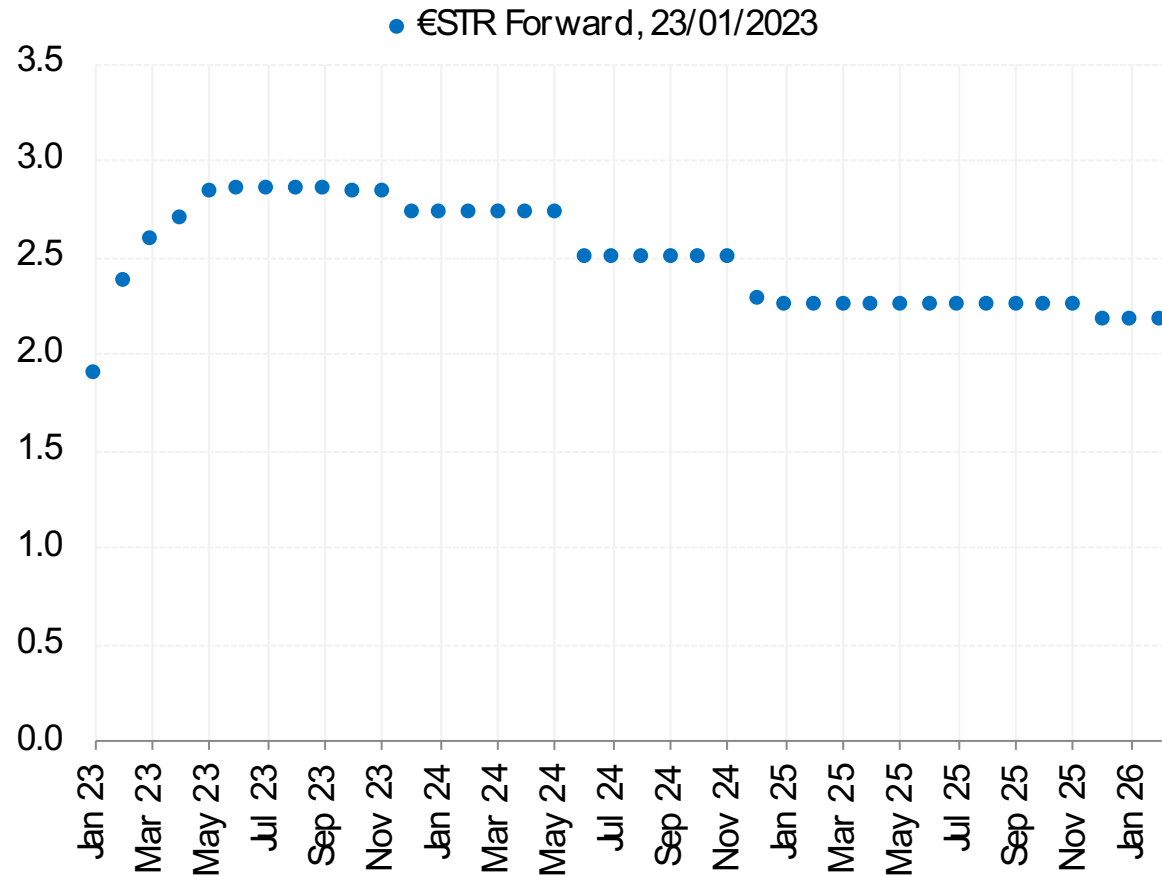


ECB: Philip Lane interview with FT

- 1. we need to raise rates more. Once we've made further progress, the risks will be more two-sided, where will have to balance the risks of doing too much versus doing too little. This is not just an issue about the next meeting or the next couple of meetings, it's going to be an issue for the next year or two.**
- 2. the scale of monetary policy tightening needed to adjust inflation to target is smaller in the euro area than in the US**
- 3. It's to make sure that the last kilometre of returning to target is delivered in a timely manner.**
- 4. So, if expectations have now re-anchored at our 2 per cent target, compared to being well below it, interest rates will go to the level consistent with that target, not back to the super-low rates we needed to fight below-target inflation. For nominal rates, that makes a big difference.**
- 5. On the equilibrium real interest rate, I would be in the agnostic camp. It's not clear whether there will be a large movement in the equilibrium real rate.**



ECB: terminal deposit rate of 3.25%



Source: Bloomberg, BNP Paribas

- The ECB Governing Council will continue to raise its policy rates at its next meetings.
- We expect the terminal rate -i.e. the peak rate in this cycle- to be reached in the first half of this year.
- We expect a peak for the deposit rate at 3.25%.
- Early on in 2023, we expect higher government bond yields on the back of important supply but thereafter
- Subsequently, yields should move lower, driven by a gradual decline in inflation.
- Lower US yields should also play a role in the decline of eurozone yields.



Forecasts

INTEREST & EXCHANGE RATES

Interest rates, %

End of period		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024
US	Fed Funds (upper limit)	5.00	5.25	5.25	5.25	3.25
	T-Note 10y	4.30	4.00	3.75	3.50	3.25
Eurozone	deposite rate	3.00	3.25	3.25	3.25	2.00
	Bund 10y	2.75	2.65	2.50	2.30	2.00
	OAT 10y	3.45	3.30	3.10	2.90	2.50
	BTP 10y	5.25	5.05	4.80	4.60	3.80
	BONO 10y	4.05	3.90	3.75	3.55	2.90
UK	Base rate	4.25	4.25	4.25	4.25	3.50
	Gilts 10y	4.00	3.75	3.60	3.35	3.15
Japan	BoJ Rate	-0.10	-0.10	-0.10	-0.10	-0.10
	JGB 10y	0.90	0.95	0.95	0.90	0.90

Exchange Rates

End of period		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024
USD	EUR / USD	1.01	1.00	1.03	1.06	1.10
	USD / JPY	140	138	133	128	120
	GBP / USD	1.09	1.08	1.11	1.14	1.18
EUR	EUR / GBP	0.93	0.93	0.95	0.95	0.95
	EUR / JPY	141	138	137	136	132

Brent

End of period		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024
Brent	USD/bbl	95	93	95	92	95

SOURCES: BNP PARIBAS (E: ESTIMATES & FORECASTS) (MARKET ECONOMICS, INTEREST RATE STRATEGY, FX STRATEGY, COMMODITIES DESK STRATEGY)



6

ENERGY PRICES

SOURCE: BNP PARIBAS GLOBAL MARKETS



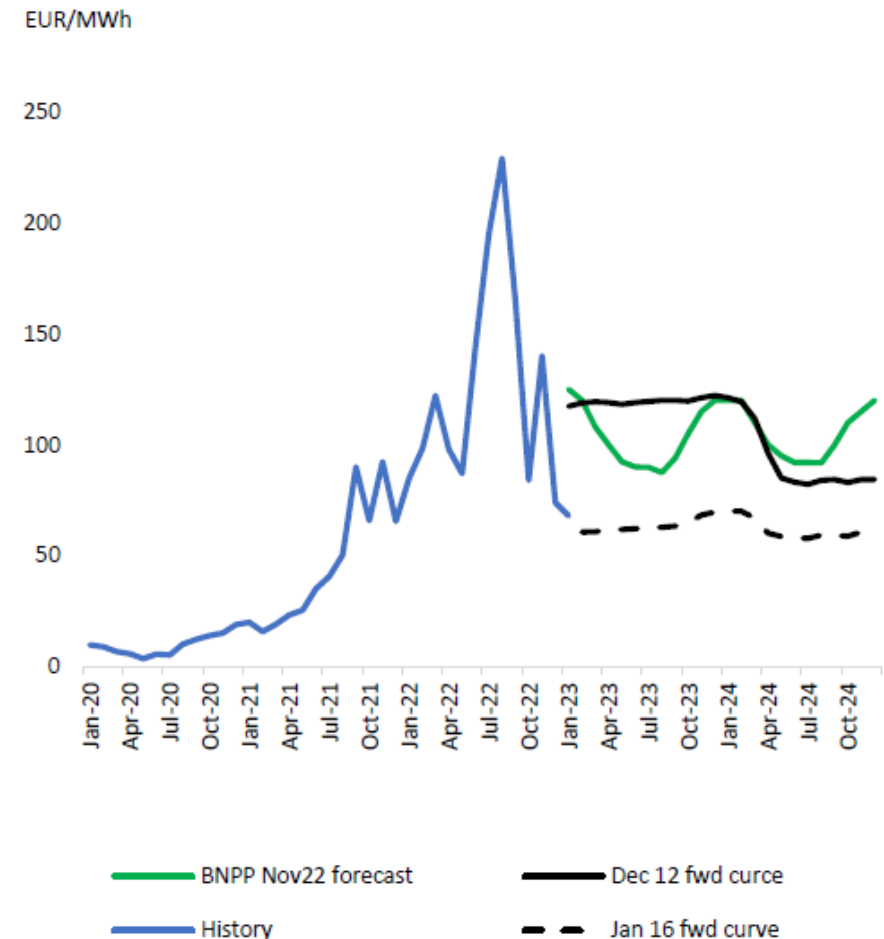
Brent: supply risk is underestimated

- The market undervalues the bullish risks to both Brent and diesel cracks in Q1 2023
- Brent traded above historical ranges throughout 2022 due to supply concerns (some of which predate the Russia-Ukraine war).
- Brent depreciated significantly in H2 2022 due to demand worries and, in December, a reduced risk premium on Russian crude volumes.
- Risks are skewed to the upside:
 - Russia may need to shut in more volumes, particularly when the 5 Feb product ban is implemented.
 - Chinese crude demand may pick up in 2023 on the back of relaxing of zero-Covid policies.
 - Diesel cracks may tighten further as the EU bans Russian diesel and gas prices appreciate.



Current gas prices are unsustainable

- They induce a demand response in industry/power generation complicating balances further out
- There remains significant risk to Russian flows through Ukraine and via LNG
- Chinese LNG demand may pick up later in 2023 after significant decline in 2022
- TTF needs to price above JKM, the Asia-Pacific LNG benchmark, for Europe to attract more LNG to fill the supply gap.
- We don't expect there to be enough LNG to replace all Russian gas volumes before 2025/26 at the earliest.



Sources: Bloomberg, BNP Paribas



7

WHICH RECOVERY?

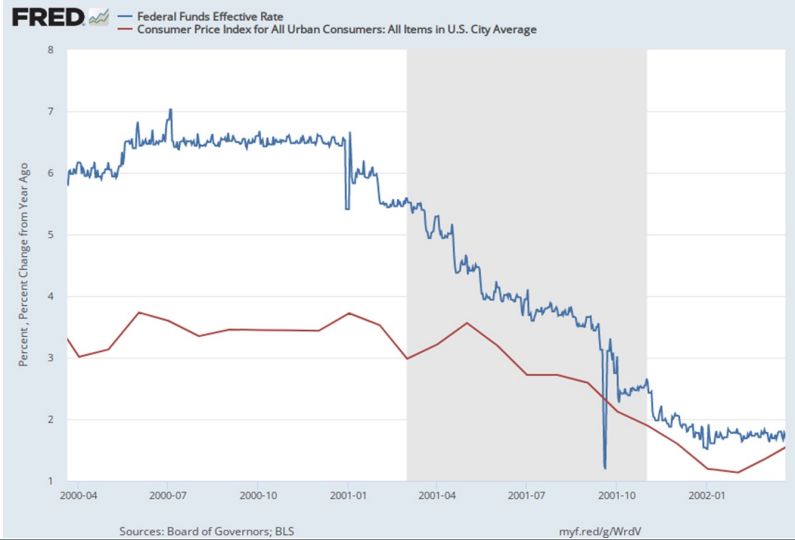
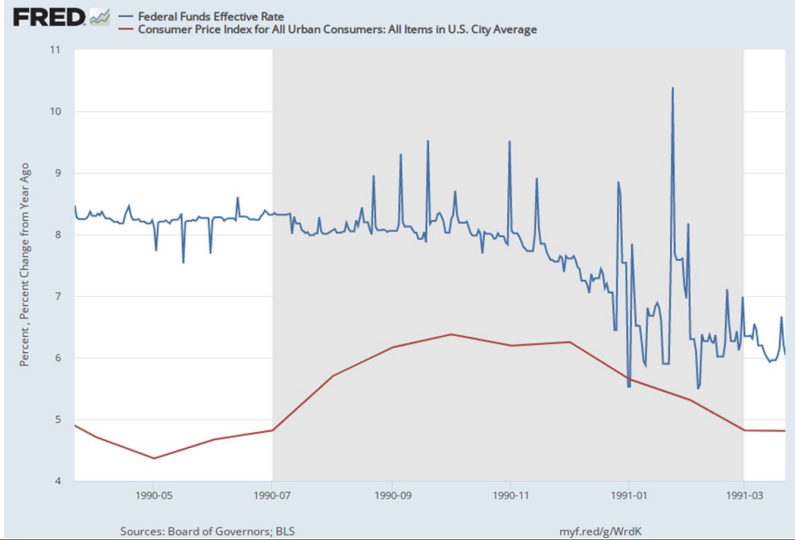
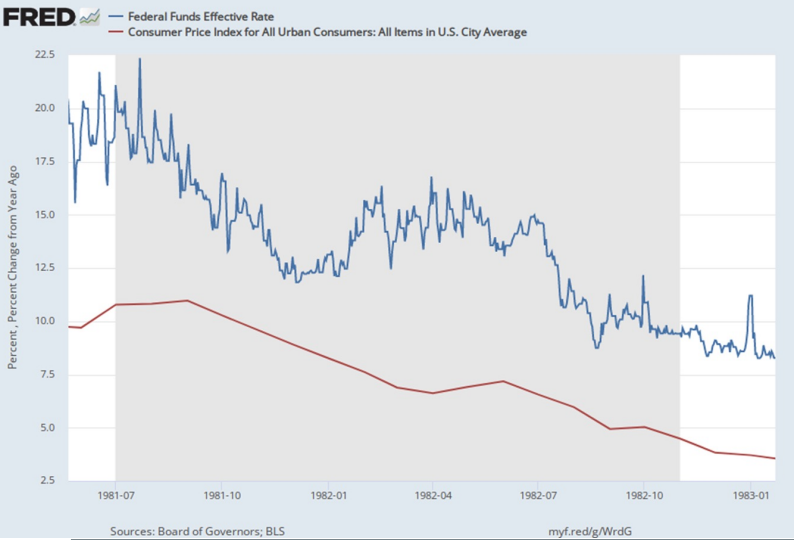
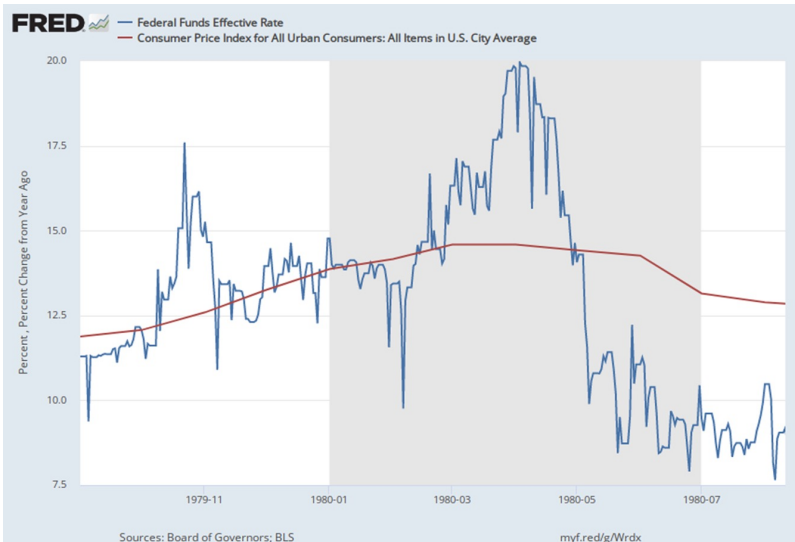
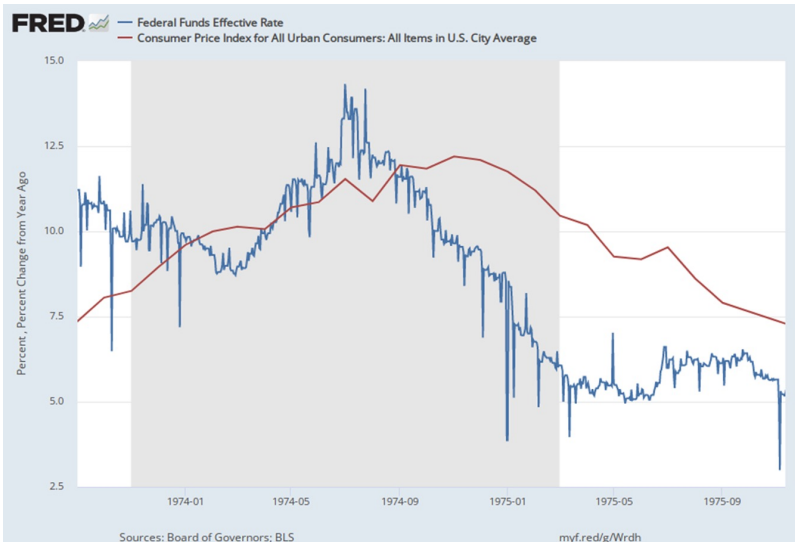
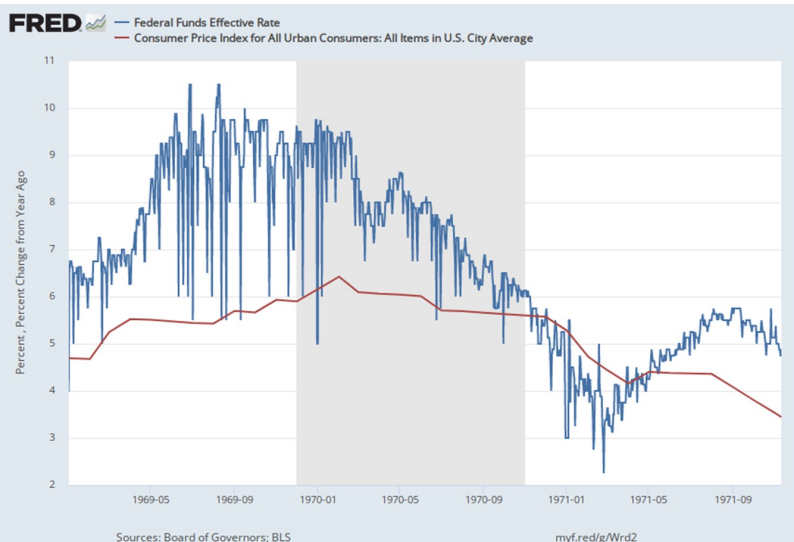


Strong/soft? Which recovery?

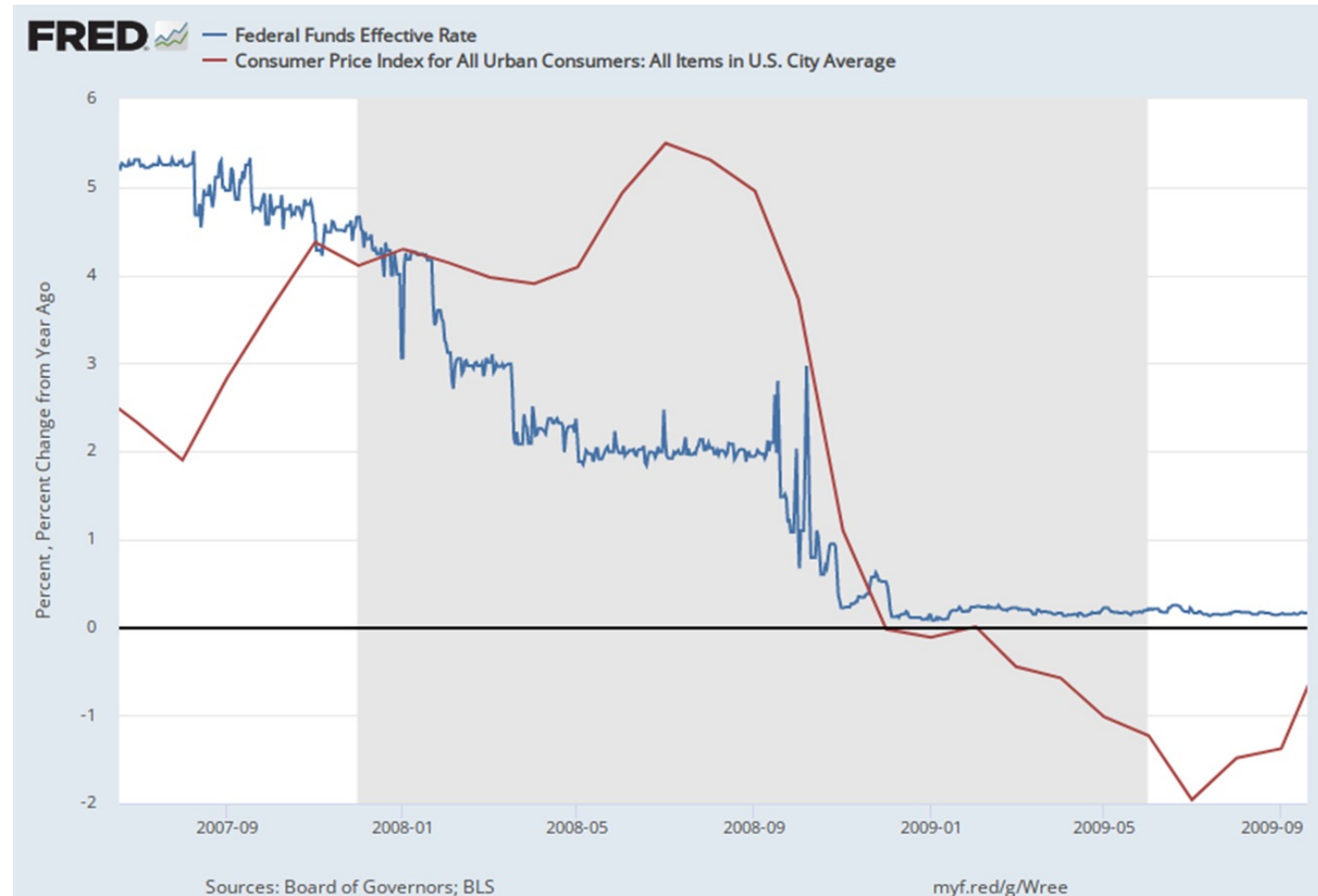
Recovery: drivers	Soft recovery	Strong recovery
<ul style="list-style-type: none">• Decline in inflation eases pressure on purchasing power and profit margins• Confidence that policy rates will not be hiked further• Cash-rich households and companies with healthy balance sheets start to spend and invest• In EU and EZ, ongoing fiscal policy support (Next Generation EU)• 'The need to invest': energy transition, digital transition	<ul style="list-style-type: none">• Labour hoarding → slow increase in employment during recovery• Rate cuts come late due to slow decline in core inflation	<ul style="list-style-type: none">• Inflation drops faster than expected• China surprises positively and pulls along rest of the global economy• Lasting drop in energy prices



Slow disinflation → recession without rate cuts? (1)



Slow disinflation → recession without rate cuts? (2)

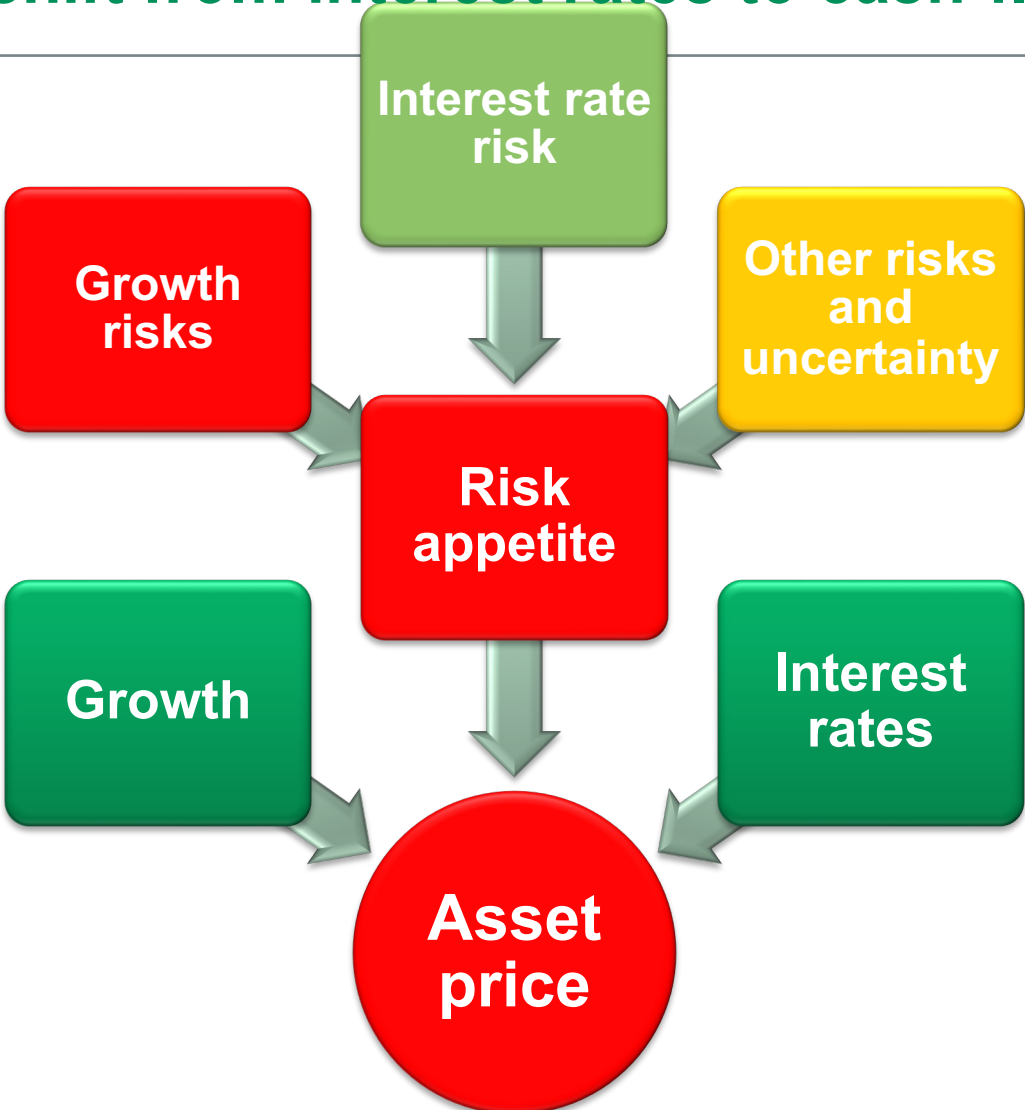


8

FINANCIAL MARKETS AND THE MONETARY AND BUSINESS CYCLE

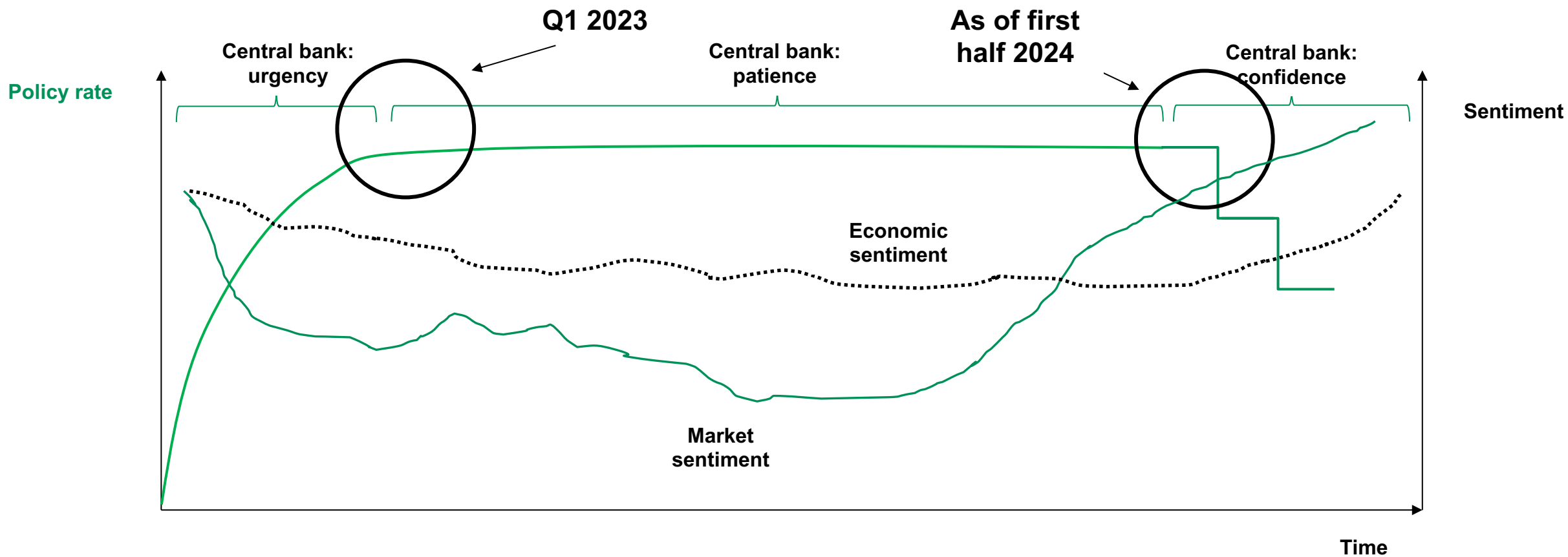


Market attention to shift from interest rates to cash-flow growth



Pay attention to delayed impact of higher interest rates and high inflation

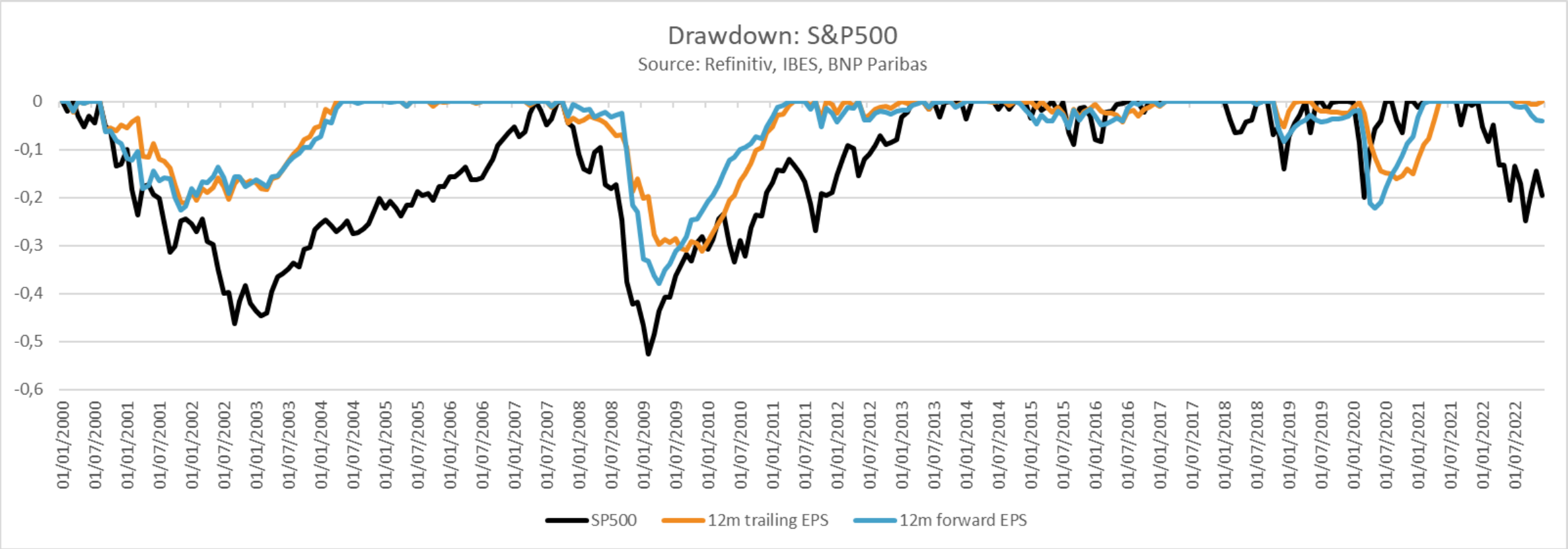
Disinflation, central bank policy, market and economic sentiment: a stylized representation



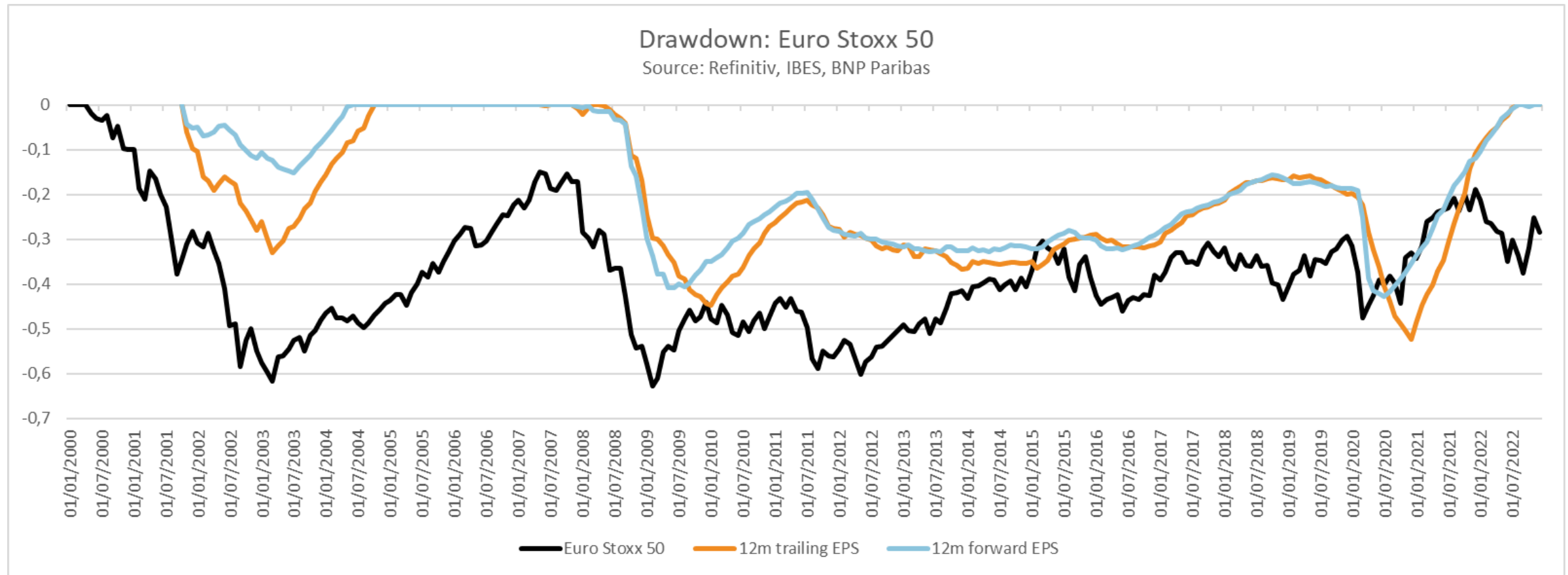
Market sentiment should bottom out before economic sentiment (i.e. confidence of households and firms)



Equity markets in 2022 have suffered from rising rates. Hardly any decline in forward earnings per share estimates: S&P500



Equity markets in 2022 have suffered from rising rates. No decline yet in forward earnings per share estimates: Euro Stoxx 50



9

FORECASTS

SOURCE: BNP PARIBAS GLOBAL MARKETS



BNP Paribas GDP growth forecasts							
Developed Markets							
	ANNUAL GROWTH (% y/y)			QUARTERLY GROWTH (% q/q)			
	2022	2023	2024	2023	2023	2023	2023
				Q1	Q2	Q3	Q4
US	2.1	0.3	-0.2	0.0	-0.4	-0.4	-0.3
Eurozone	3.4	0.2	1.3	-0.3	0.1	0.2	0.2
Germany	1.9	-0.2	1.2	-0.4	0.0	0.1	0.2
France	2.5	0.0	1.0	-0.4	0.2	0.2	0.1
Italy	3.9	0.2	1.2	-0.4	0.1	0.2	0.3
Spain	5.3	0.6	1.4	-0.3	0.2	0.2	0.3
China	2.6	5.1	5.3	2.1	1.8	1.4	1.0
Japan	1.2	0.9	0.3	0.2	0.1	-0.1	-0.1
UK	4.4	-0.9	0.8	-0.6	-0.2	0.2	0.2

BNP Paribas GDP growth forecasts			
Emerging Markets			
	ANNUAL GROWTH (% y/y)		
	2022	2023	2024
Latam			
Argentina	5.0	0.0	1.0
Brazil	3.0	0.5	1.2
Chile	2.4	-2.0	1.5
Colombia	7.8	0.0	2.0
Mexico	2.8	0.3	-0.2
CEEMEA			
Czech Rep.	2.5	-0.4	3.0
Egypt	5.1	4.0	6.0
Hungary	5.2	-1.4	2.9
Poland	5.0	0.0	3.1
Romania	6.7	1.0	4.5
Russia	-4.5	-2.0	0.3
Saudi Arabia	7.3	3.1	2.1
South Africa	2.2	0.2	1.0
Turkey	4.8	2.8	3.5
UAE	5.2	3.3	3.2
EM Asia			
South Korea	2.6	1.2	1.7



BNP Paribas consumer price inflation forecasts Developed Markets							
	ANNUAL RATE (% y/y)			QUARTERLY RATE (% y/y)			
	2022	2023	2024	2023	2023	2023	2023
				Q1	Q2	Q3	Q4
US	8.0	4.2	2.4	6.1	4.3	3.6	3.1
Eurozone	8.4	5.0	2.4	7.7	5.7	4.1	2.6
Germany	8.6	4.6	2.1	7.6	5.4	3.8	1.5
France	5.9	5.8	2.9	7.1	6.2	5.5	4.3
Italy	8.7	6.7	2.3	9.9	8.6	6.5	2.4
Spain	8.3	1.8	1.7	3.5	1.7	0.1	1.9
China	2.0	2.7	2.5	2.5	2.1	2.7	3.4
Japan	2.5	2.3	1.2	3.2	3	2.0	1.3
UK	9.1	6.0	1.8	9.7	7.2	4.6	2.5

BNP Paribas consumer price inflation forecasts Emerging Markets			
	ANNUAL RATE (% y/y)		
	2022	2023	2024
Latam			
Argentina	65	105.0	85.0
Brazil	9.4	4.8	4.8
Chile	11.7	8.0	4.0
Colombia	10.1	10.3	4.9
Mexico	7.9	6.3	4.4
CEEMEA			
Czech Rep.	15.6	11.5	4.5
Egypt	14.0	22.0	13.8
Hungary	14.5	20.0	7.2
Poland	14.5	14.0	8.0
Romania	13.6	11.0	5.8
Russia	13.2	10.5	7.6
Saudi Arabia	2.7	2.1	1.9
South Africa	6.9	6.0	5.5
Turkey	73.0	48.0	37.6
UAE	4.5	3.1	1.8
EM Asia			
South Korea	5.1	3.5	1.9



INTEREST & EXCHANGE RATES

Interest rates, %

End of period		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024
US	Fed Funds (upper limit)	5.00	5.25	5.25	5.25	3.25
	T-Note 10y	4.30	4.00	3.75	3.50	3.25
Eurozone	deposite rate	3.00	3.25	3.25	3.25	2.00
	Bund 10y	2.75	2.65	2.50	2.30	2.00
	OAT 10y	3.45	3.30	3.10	2.90	2.50
	BTP 10y	5.25	5.05	4.80	4.60	3.80
	BONO 10y	4.05	3.90	3.75	3.55	2.90
UK	Base rate	4.25	4.25	4.25	4.25	3.50
	Gilts 10y	4.00	3.75	3.60	3.35	3.15
Japan	BoJ Rate	-0.10	-0.10	-0.10	-0.10	-0.10
	JGB 10y	0.90	0.95	0.95	0.90	0.90

Exchange Rates

End of period		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024
USD	EUR / USD	1.01	1.00	1.03	1.06	1.10
	USD / JPY	140	138	133	128	120
	GBP / USD	1.09	1.08	1.11	1.14	1.18
EUR	EUR / GBP	0.93	0.93	0.95	0.95	0.95
	EUR / JPY	141	138	137	136	132

Brent

End of period		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024
Brent	USD/bbl	95	93	95	92	95

SOURCES: BNP PARIBAS (E: ESTIMATES & FORECASTS) (MARKET ECONOMICS, INTEREST RATE STRATEGY, FX STRATEGY, COMMODITIES DESK STRATEGY)



BNP Paribas end-period policy rate forecasts (%)			
Emerging Markets			
	YEAR END		
	2022	2023	2024
Latam			
Argentina	75.00	60.00	45.00
Brazil	13.75	12.00	9.00
Chile	11.25	7.00	4.00
Colombia	12.00	12.00	7.00
Mexico	10.50	11.00	9.00
CEEMEA			
Czech Rep.	7.00	6.50	4.00
Egypt	15.25	16.25	13.25
Hungary	17.00	12.00	7.50
Poland	6.75	6.75	5.50
Romania	7.00	7.00	5.50
Russia	7.50	7.00	8.00
Saudi Arabia	5.25	5.75	3.75
South Africa	7.00	7.75	7.00
Turkey	9.00	28.00	22.00
UAE	6.00	6.50	4.50
EM Asia			
South Korea	3.25	3.75	2.50



BNP Paribas end-period FX forecasts

USD Bloc	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
EURUSD	1.01	1.00	1.03	1.06	1.08	1.09	1.10	1.10
USDJPY	140	138	133	128	125	123	121	120
USDCHEF	0.96	0.95	0.91	0.88	0.86	0.85	0.85	0.85
GBPUSD	1.09	1.08	1.11	1.14	1.16	1.17	1.18	1.18
USDCAD	1.35	1.36	1.35	1.34	1.33	1.32	1.31	1.30
AUDUSD	0.64	0.63	0.65	0.68	0.70	0.72	0.73	0.74
NZDUSD	0.57	0.56	0.58	0.60	0.62	0.63	0.64	0.65
USDSEK	10.59	10.70	10.39	10.09	9.91	9.82	9.73	9.73
USDNOK	10.30	10.50	10.10	9.72	9.44	9.36	9.27	9.27



BNP Paribas end-period FX forecasts

EUR Bloc	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
EURJPY	141	138	137	136	135	134	133	132
EURGBP	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
EURCHF	0.97	0.95	0.94	0.93	0.93	0.93	0.93	0.93
EURSEK	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70
EURNOK	10.40	10.50	10.40	10.30	10.20	10.20	10.20	10.20
EURAUD	1.58	1.59	1.58	1.56	1.54	1.51	1.51	1.49
EURNZD	1.77	1.79	1.78	1.77	1.74	1.73	1.72	1.69
EURCAD	1.36	1.36	1.39	1.42	1.44	1.44	1.44	1.43



BNP Paribas end-period FX forecasts

CEEMEA Bloc	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
USDPLN	4.85	4.90	4.66	4.43	4.31	4.22	4.18	4.18
EURCZK	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
EURHUF	405	410	415	420	425	425	430	435
USDZAR	18.50	18.50	18.50	18.00	17.85	17.65	17.55	17.50
EURRON	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95
EURPLN	4.90	4.90	4.80	4.70	4.65	4.60	4.60	4.60
USDEGP	27.00	28.00	29.00	30.00	30.00	30.00	30.00	30.00
USDCZK	24.26	24.50	23.79	23.11	22.69	22.48	22.27	22.27
USDHUF	401	410	403	396	394	390	391	395
USD RON	4.90	4.95	4.81	4.67	4.58	4.54	4.50	4.50



BNP Paribas end-period FX forecasts

Asia Bloc	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
USDSGD	1.38	1.38	1.36	1.33	1.32	1.30	1.29	1.28
USDMYR	4.75	4.75	4.60	4.40	4.38	4.35	4.32	4.30
USDIDR	16	16	15,8	15,6	15,4	15,2	15,1	15
USDTHB	35.50	35.50	34.00	33.50	33.00	32.50	31.90	31.30
USDPHP	58.50	59.00	58.80	58.60	58.40	58.20	58.10	58.00
USDRMB	7.25	7.20	7.00	6.90	6.85	6.80	6.80	6.75
USDTWD	32.30	32.20	31.50	30.70	30.10	29.50	29.20	28.90
USDKRW	1,38	1,4	1,3	1,25	1,24	1,225	1,215	1,2
USDINR	83.20	83.50	83.00	82.75	82.10	81.50	81.30	81.00
Latam Bloc	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
USDBRL	5.30	5.30	5.20	5.20	5.15	5.10	5.05	5.00
USDCLP	925	950	950	925	925	925	925	925
USDMXN	20.00	20.50	20.50	20.50	20.25	20.00	20.00	20.00
USDCOP	5	5,3	5,5	5,6	5,7	5,8	5,8	5,8
USDPEN	3.95	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Others	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
USD Index	110	110	107	104	102	101	100	100



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