



The bank for a changing world

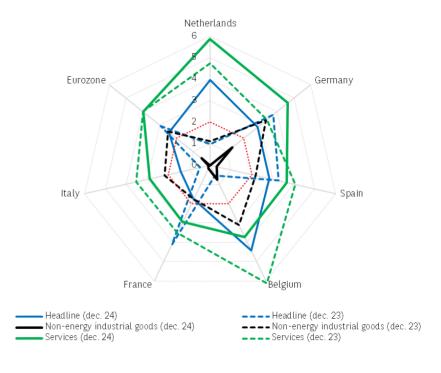
#### CHART OF THE MONTH: Eurozone: positive developments masked by the recent rise in inflation

Our Chart of the Month illustrates the different disinflation profiles in the main economies of the euro area. These differences contribute to limit the disinflation, but they also mask important positive developments.

Average inflation in the euro area is currently being driven up by higher inflation in Germany, the Netherlands, Belgium and, to a lesser extent, Spain. Germany and the Netherlands stand out in particular for significantly higher inflation in services, which increased between December 2023 and December 2024 (latest available point). Over the same period, disinflation in the prices of non-energy manufactured goods was significant in all countries. However, Germany is once again unfavourably outstanding, with manufacturing inflation higher than its partners in December 2024, a situation that has the appearance of stagflation.

In Spain, Belgium, France and Italy, inflation in services declined, on the other hand, between December 2023 and December 2024, an encouraging but still contained trend. Preliminary data from France for the month of January 2025 confirm this dynamic. Indeed, inflation in services has slowed further, even falling below the 2% mark year-on-year according to the INSEE national measure (non-harmonised CPI). Admittedly, energy, food and manufacturing inflation is rising at the same time, dragging in its wake headline inflation (which rises slightly from 1.3% to 1.4% y/y for the CPI). Nevertheless, these developments are partly the result of base effects. What matters to consolidate disinflation and support the return to target is that the last pocket of inflation, services, is showing signs of receding.

Eurozone: decomposition of inflation by country and by component



Source: Eurostat

Hélène Baudchon Helene.baudchon@bnpparibas.com



#### **KEY POINTS:** Inflation is rising: should we be worried?

- On both sides of the Atlantic, the recent rise in inflation has mainly been driven by volatile components (energy and food), while the core measures are stable. In the United States, inflationary momentum is more worrying, as economic activity remains strong and Donald Trump's economic policies are likely to fuel further upward pressure on prices. The inflation outlook in the United Kingdom is more uncertain, with the main drivers (sustained wage growth and fiscal measures) being counteracted by the increasingly clear fragility of economic activity. Japan has been seeking higher inflation and it remains under control there, while in the euro zone, the 2% target remains in sight.
- In the United States, the scenario of bringing down inflation to the 2% target in the near future is fading. Household long-term inflation expectations have gone above 3% in January (page 21), while price pressure indices (on the supply side) are rising (page 19). Inflation, as measured by the CPI, rose from 2.7% y/y in November to 2.9% in December, mainly due to lower motor fuel deflation. However, core inflation (excluding energy and food) fell slightly from 3.3% to 3.2%. Rents and car insurance are still rising significantly, but the pace is slowing, dropping from 4.9% to 4.8% and from 14.0% to 12.7%, respectively. The PCE deflator also increased from 2.4% a/a in November to 2.6% a/a in December.
- Inflation in the euro zone also picked up again during the final quarter of 2024, hitting 2.4% in December. The year-on-year change in energy prices is back in positive territory and is the main contributor to rising inflation within the monetary union, despite the large differences in this component between Member States. At 1.0%, Ireland is enjoying the lowest inflation in the euro zone, followed by Italy (1.6%), while Belgium (+4.4%) and Croatia (4.5%) are facing the largest price increases. The alternative measures being tracked by the ECB are still in a relatively narrow range, ranging from 2.1% for the PCCI measure to 2.8% for the supercore.
- Inflation is accelerating significantly in Japan, where the increase in volatile components (energy and perishable foods) has pushed total inflation to 3.7%, its highest level since January 2023. Public subsidies for energy were reduced in November, but new measures have been reintroduced in January for a period of three months. The BoJ targeted measure (CPI excluding perishable foods) has hit 3.0%, but the measure excluding energy and perishable foods has stabilised at 2.3%. The breakeven inflation rate is now close to 2% (page 25). Following the meeting on 24 January, which resulted in a further hike in key rates by 25 basis points, the BoJ raised its core inflation forecasts by 0.2 percentage points, both for the 2024 fiscal year (+2.2% now) and the 2025 fiscal year (+2.1%).
- In the United Kingdom, inflation fell slightly in December, dropping from 2.6% to 2.5%. There are further pressures on industrial goods (+1.2% year-on-year), but inflation in services dropped from 5.0% to 4.4%, half of which is due to falling air travel prices. However, rent increases intensified (+7.6% year-on-year, the strongest rise since September 1993), fuelling most of the inflation in services, which, without this component, would have stood at 3.2% in December. Despite the increasingly clear deterioration in the labour market, wage growth is still strong (page 27) and should limit disinflation in 2025.

**Guillaume Derrien** 

quillaume.a.derrien@bnpparibas.com



General dynamics of inflation

Inflation and survey data

Inflation expectations (households, forecasters, markets)

Inflation-wage dynamics

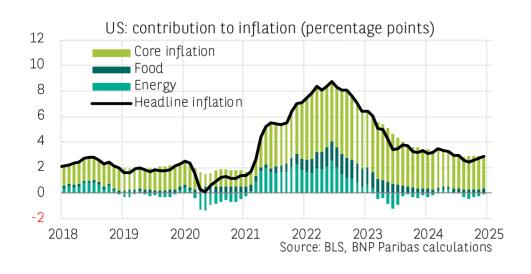
**Commodities** 

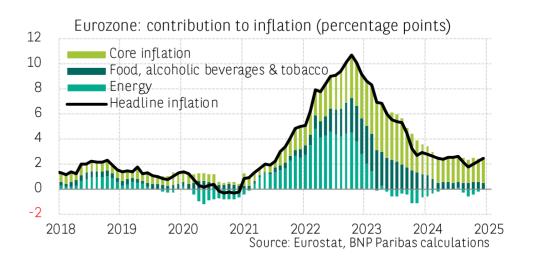


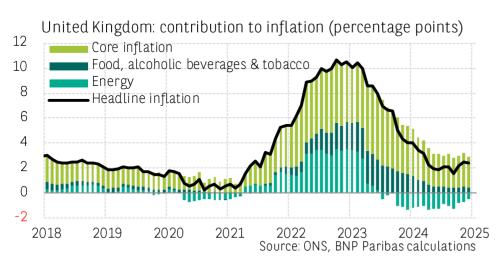
# General dynamics of inflation

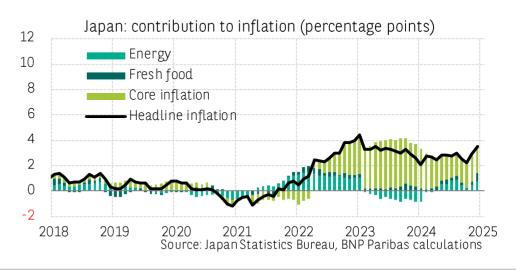


## General dynamics of inflation: decomposition of inflation



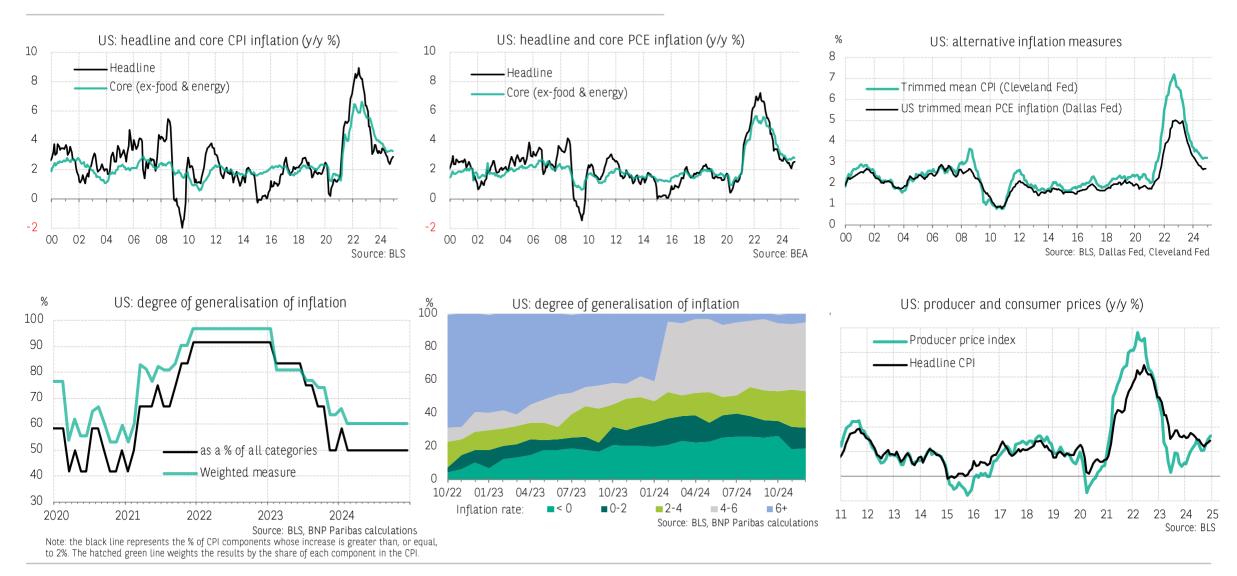








### Inflation dynamics in the United States: different metrics and degree of generalisation





## United States inflation heatmap

#### Difference between the current inflation rate (y/y, %) and the 2010-2019 average

	Weight (%)	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
Total	100	1.55	1.33	1.39	1.70	1.59	1.48	1.20	1.15	0.82	0.64	0.80	0.96	1.13
Food and non-alcoholic beverages	8.3	-0.03	-0.01	-0.23	-0.04	-0.07	-0.17	-0.10	-0.21	-0.38	-0.02	-0.17	0.37	0.69
Alcoholic beverages, tobacco and narcotics	1.1	2.02	1.85	2.05	1.82	1.73	2.23	2.61	2.56	2.84	2.58	1.67	1.63	1.60
Clothing and footwear	2.4	0.58	-0.13	0.19	0.40	1.38	0.85	0.53	0.09	0.19	1.02	-0.30	0.44	0.76
Housing, water, electricity, gas and other fuels	36.4	2.99	2.75	2.78	2.98	2.87	2.87	2.64	2.52	2.42	2.26	2.29	1.98	1.94
Furnishings, household equipment and routine household maintenance	4.1	0.28	0.28	-0.43	-0.46	-1.17	-0.85	-0.66	-0.40	-0.38	-0.04	-0.34	0.69	0.98
Health	7.1	0.58	1.23	1.14	1.46	1.53	1.37	1.21	0.80	0.34	0.21	0.43	0.34	0.06
Transports	16.2	-0.81	-2.23	-1.79	-2.04	-3.93	-4.08	-5.06	-5.80	-7.18	-5.75	-3.63	-1.82	-0.14
Communications	3.1	-0.21	-0.59	-0.44	-0.71	-0.76	-0.64	-0.10	-0.11	0.01	0.14	0.07	0.00	-0.21
Recreation and culture	5.9	1.91	2.04	0.94	0.64	0.43	0.32	0.25	0.62	0.65	-0.36	0.09	0.62	0.10
Education	2.4	-2.13	-0.48	-0.22	-0.55	-0.61	-0.36	-0.32	-0.23	0.01	0.40	0.57	0.69	0.58
Restaurants and hotels	6.5	2.69	2.59	2.06	1.73	1.68	1.53	1.57	1.57	1.50	1.39	1.33	1.20	1.14
Miscellaneous goods and services	6.5	3.72	4.53	4.61	6.11	6.57	5.86	6.20	6.16	5.60	5.94	4.81	4.39	3.54

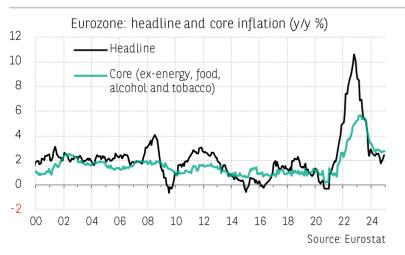
Source: BLS. OECD

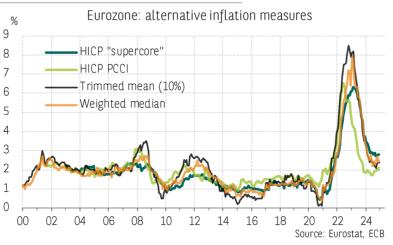
#### Difference with the 2010-2019 average

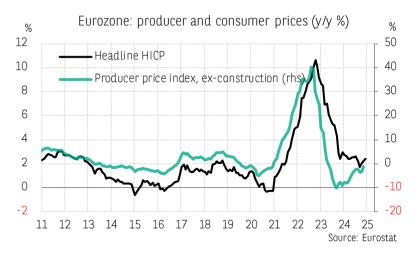
Difference with the 2010 2013 average	
Less than 0	
Between 0 and 1	
Between 1 and 2	
Between 2 and 4	
Between 4 and 7	
Greater than 7	

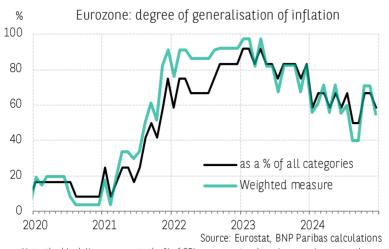


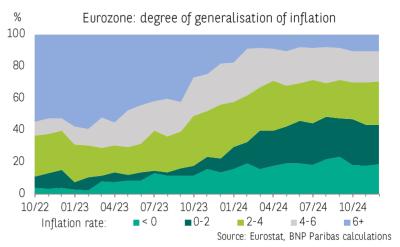
## Inflation dynamics in the Eurozone: different metrics and degree of generalisation







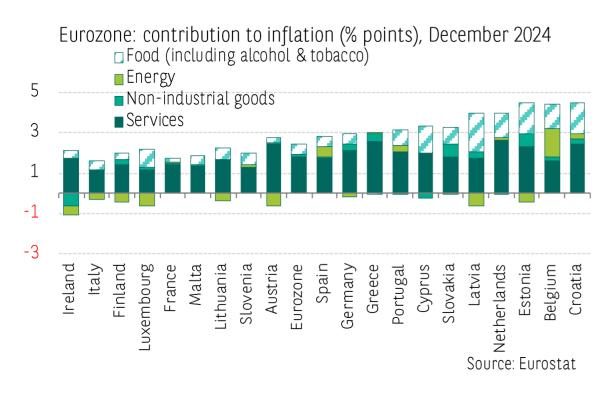


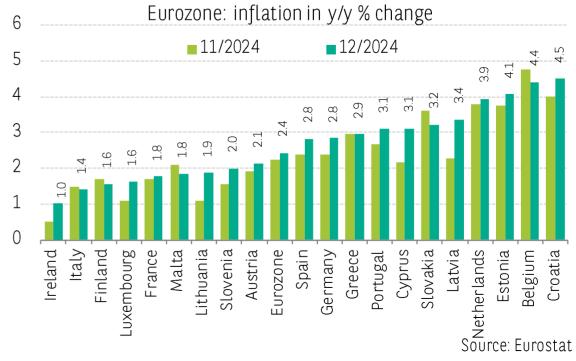


Note: the black line represents the % of CPI components whose increase is greater than, or equal to 2%. The hatched green line weights the results by the share of each component in the CPI.



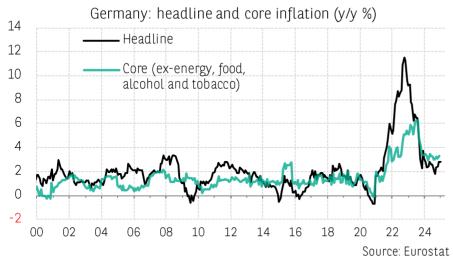
## Inflation dynamics in the Eurozone by country (1)

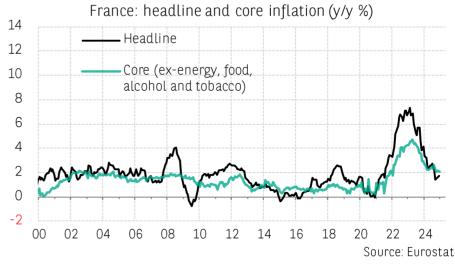


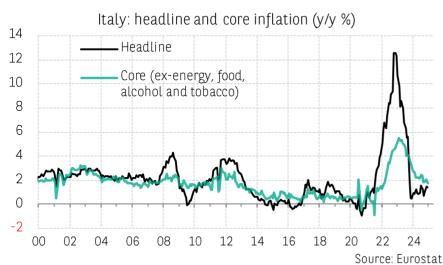


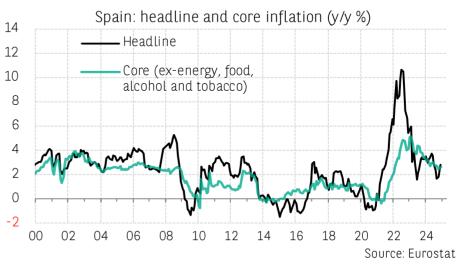


## Inflation dynamics in the Eurozone by country (2)









### Eurozone inflation heatmap

#### Difference between the current inflation rate (y/y, %) and the 2010-2019 average

	Weight (%)	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
Total	100	1.58	1.42	1.23	1.07	1.02	1.21	1.17	1.22	0.82	0.39	0.65	0.88	1.08
Food and non-alcoholic beverages	16	4.64	3.98	1.86	0.59	0.74	0.59	0.36	0.17	0.23	0.27	0.79	0.59	0.42
Alcoholic beverages, tobacco and narcotics	4	2.95	3.44	3.51	2.12	2.14	1.75	1.92	2.09	2.09	2.17	2.50	2.43	2.67
Clothing and footwear	5	1.75	1.35	1.68	0.86	0.92	0.79	1.14	1.68	0.59	0.60	0.42	0.82	0.16
Housing, water, electricity, gas and other fuels	15	-4.62	-2.98	-2.24	-1.28	-0.98	-0.87	-0.11	0.79	0.17	-0.04	0.21	0.90	1.11
Furnishings, household equipment and routine household maintenance	6	2.11	1.32	0.58	0.29	-0.10	-0.46	-0.55	-0.88	-0.94	-1.00	-0.88	-0.68	-0.75
Health	5	1.95	1.87	1.91	1.92	2.00	2.35	2.65	2.55	2.57	2.47	2.40	2.28	2.19
Transports	15	0.63	-0.95	-0.21	0.33	-0.07	1.00	0.17	-0.12	-1.90	-3.99	-3.12	-1.93	-0.66
Communications	3	1.41	0.55	0.20	-0.15	-0.22	-0.35	-0.02	-0.30	-0.67	-1.49	-1.77	-1.33	-1.79
Recreation and culture	9	2.56	2.62	2.35	2.01	1.74	2.18	1.83	1.78	1.72	1.71	1.89	1.51	1.75
Education	1	3.08	3.26	3.18	3.24	3.18	3.22	3.19	3.17	3.30	3.31	3.33	3.27	3.24
Restaurants and hotels	11	3.73	3.59	3.50	3.50	3.04	3.38	3.28	2.99	3.03	2.94	2.72	2.63	2.74
Miscellaneous goods and services	10	2.75	2.87	2.74	2.62	2.81	2.66	2.64	2.69	2.60	2.66	2.91	3.02	3.04

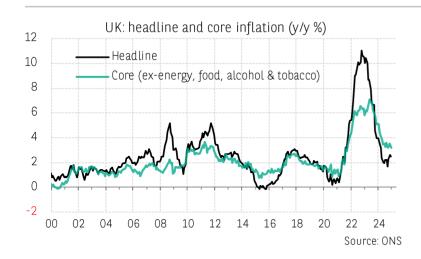
Source: Eurostat

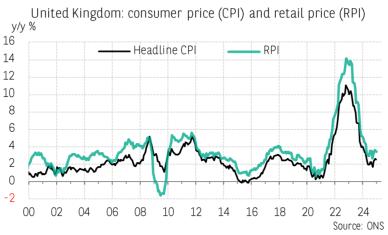
#### Difference with the 2010-2019 average

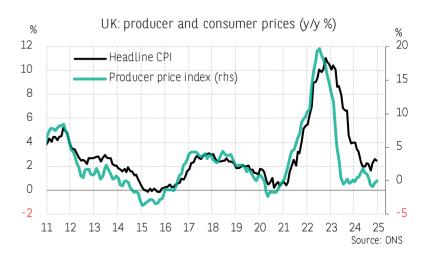
Less than 0 Between 0 and 1 Between 1 and 2 Between 2 and 4 Between 4 and 7 Greater than 7

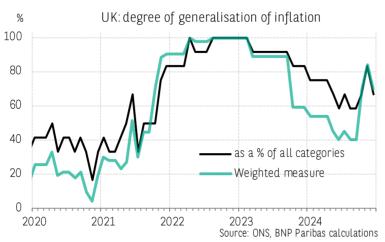


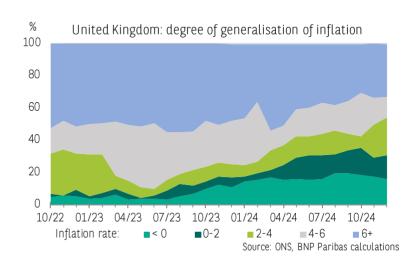
### Inflation dynamics in the United Kingdom: different metrics and degree of generalisation











Note: the black line represents the % of CPI components whose increase is greater than or equal to 2%. The hatched green line weights the results by the share of each component in the CPI



## United Kingdom inflation heatmap

#### Difference between the current inflation rate (y/y, %) and the 2010-2019 average

	Weight (%)	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
Total	100	1.77	1.75	1.18	1.00	0.11	-0.24	-0.25	0.01	-0.01	-0.55	0.05	0.39	0.28
Food and non-alcoholic beverages	9.1	6.38	5.31	3.32	2.38	1.26	0.07	-0.10	-0.16	-0.30	0.23	0.24	0.39	0.36
Alcoholic beverages, tobacco and narcotics	3.2	8.21	7.66	7.22	7.37	3.37	3.12	2.60	2.56	1.08	0.18	0.57	2.16	0.59
Clothing and footwear	4.7	5.78	4.94	4.39	3.31	3.07	2.35	0.96	1.41	1.00	0.20	0.38	1.38	0.45
Housing, water, electricity, gas and other fuels	29.9	-5.83	-4.51	-4.20	-4.08	-7.35	-7.27	-7.16	-3.94	-4.06	-4.13	0.43	0.58	0.66
Furnishings, household equipment and routine household maintenance	5.0	0.72	-1.30	-1.74	-2.67	-2.70	-3.59	-3.35	-3.39	-2.99	-2.74	-2.28	-2.14	-2.08
Health	2.1	4.69	4.27	3.92	3.95	4.08	3.62	3.68	3.10	2.88	2.56	2.97	2.91	2.96
Transports	10.9	-4.00	-3.19	-3.07	-2.78	-2.82	-2.45	-2.00	-2.69	-1.67	-5.14	-4.81	-3.87	-3.56
Communications	1.9	5.72	5.40	2.84	4.74	1.22	1.32	0.10	1.68	1.27	2.35	1.81	1.95	3.26
Recreation and culture	11.5	4.62	4.65	4.31	4.23	3.37	2.87	2.81	2.62	2.89	2.76	1.96	2.50	2.29
Education	2.4	-2.52	-2.52	-2.52	-2.52	-2.52	-2.52	-2.52	-2.52	-2.52	-2.55	-1.95	-1.95	-1.95
Restaurants and hotels	11.7	4.21	4.18	3.17	3.00	3.21	2.93	3.38	2.03	1.51	1.26	1.43	1.13	0.57
Miscellaneous goods and services	7.5	3.04	3.27	2.43	2.15	2.35	1.85	1.66	2.23	2.03	2.04	1.69	1.79	2.23

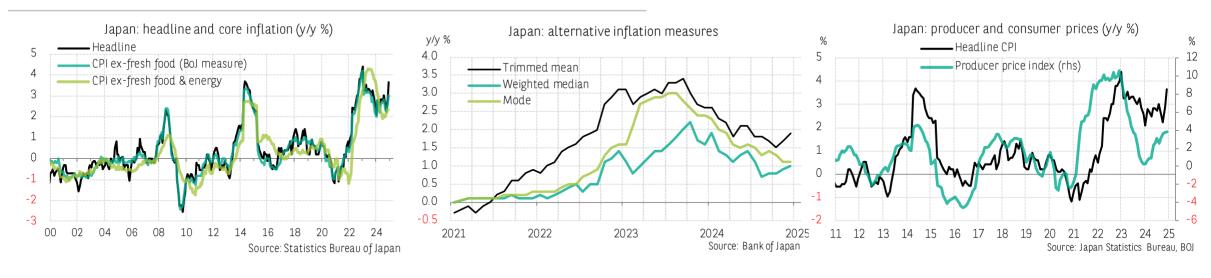
Source: ONS

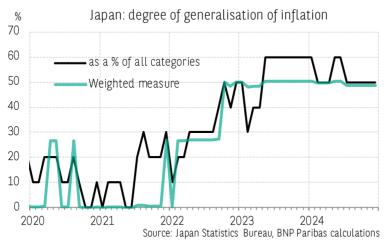
#### Difference with the 2010-2019 average

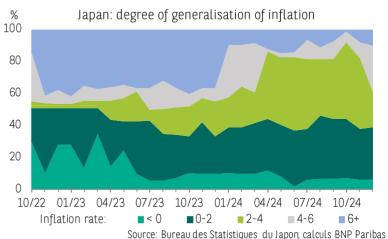
Difference with the 2010 2013 average	
Less than 0	
Between 0 and 1	
Between 1 and 2	
Between 2 and 4	
Between 4 and 7	
Greater than 7	



### Inflation dynamics in Japan: different metrics and degree of generalisation







Note: the black line represents the % of CPI components whose increase is greater than or equal to 2%. The hatched green line weights the results by the share of each component in the CPI



### Japan inflation heatmap

#### Difference between the current inflation rate (y/y, %) and the 2010-2019 average

	Weight (%)	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
Total	100	2.12	1.63	2.32	2.21	2.00	2.38	2.38	2.27	2.55	2.07	1.77	2.43	3.18
Food	9.1	5.72	4.61	3.77	3.75	3.25	3.05	2.60	1.87	2.56	2.43	2.48	3.88	5.29
Clothing and footwear	3.2	2.48	2.43	2.03	1.70	1.67	1.67	1.58	1.70	1.62	1.93	1.74	2.00	2.30
Housing	4.7	0.73	0.83	0.83	0.83	0.73	0.73	0.73	0.73	0.82	0.82	1.02	1.02	1.02
Fuel, light and water charges	29.9	-14.83	-15.63	-4.83	-3.43	-2.73	4.87	5.77	11.17	13.27	7.17	1.47	4.97	9.67
Furniture and household utensils	5.0	7.50	7.50	6.09	4.10	3.50	3.91	4.62	4.60	6.12	5.83	5.35	4.57	3.90
Medical care	2.1	2.08	2.08	1.46	1.16	0.96	0.76	1.05	1.15	1.25	1.24	1.34	1.24	1.34
Transportation and communication	10.9	2.50	2.61	2.50	2.07	2.39	1.96	2.17	0.88	-0.15	-0.26	0.15	0.57	0.67
Culture and recreation	1.9	7.64	6.69	7.24	7.16	6.10	5.21	5.46	4.33	4.70	4.22	4.09	4.38	3.90
Education	11.5	1.99	1.99	1.88	1.88	-0.38	-0.47	-0.47	-0.47	-0.47	-0.47	-0.47	-0.47	-0.47
Miscellaneous goods and services	2.4	0.04	-0.05	-0.15	-0.16	-0.06	-0.06	-0.06	0.04	-0.45	-0.36	-0.07	-0.07	-0.07

Source: Statistics Bureau of Japan

#### Difference with the 2010-2019 average

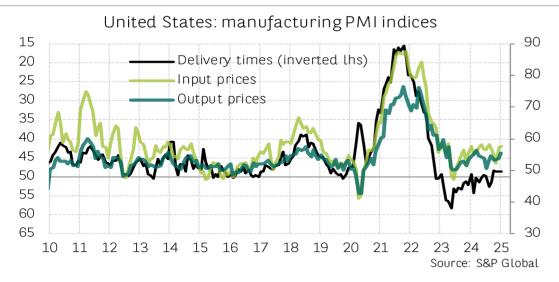
Less than 0 Between 0 and 1 Between 1 and 2 Between 2 and 4 Between 4 and 7 Greater than 7

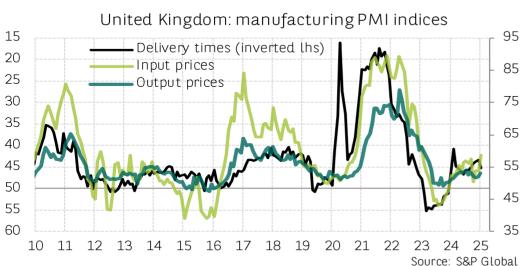


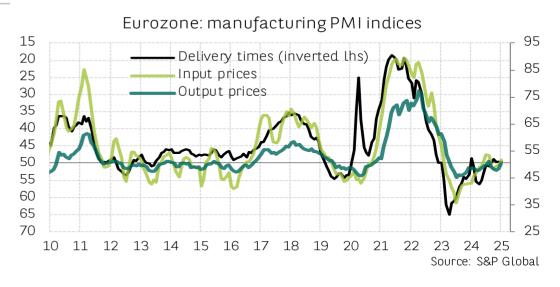
# Inflation and survey data

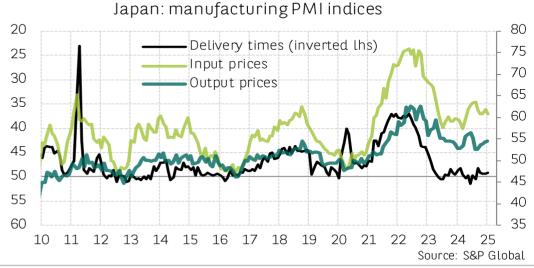


## PMI surveys: an indication of inflationary pressures (1)



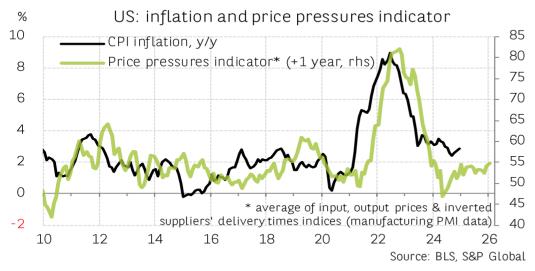


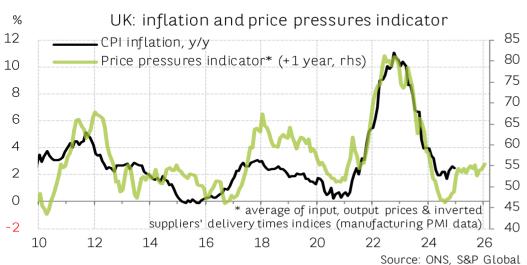


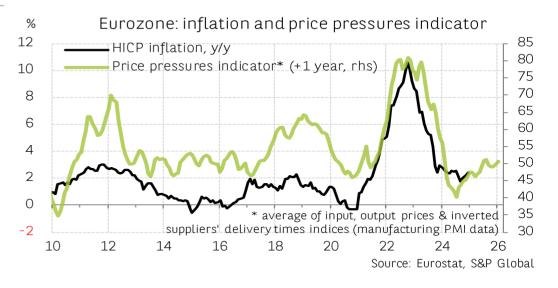


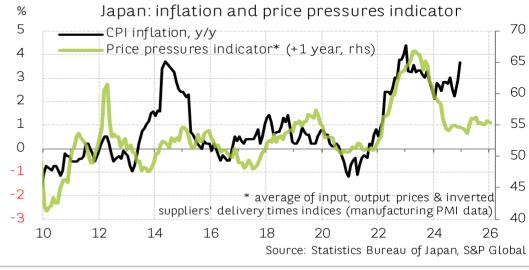


## PMI surveys: an indication of inflationary pressures (2)







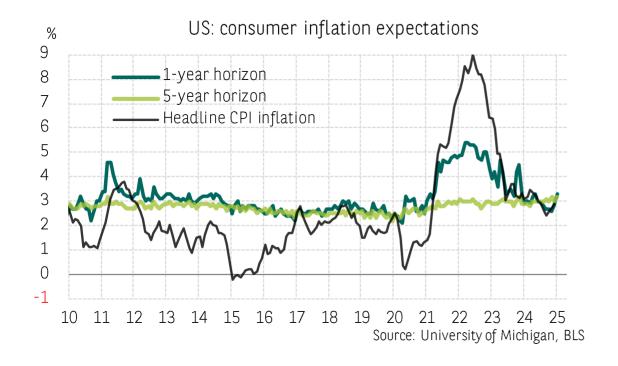


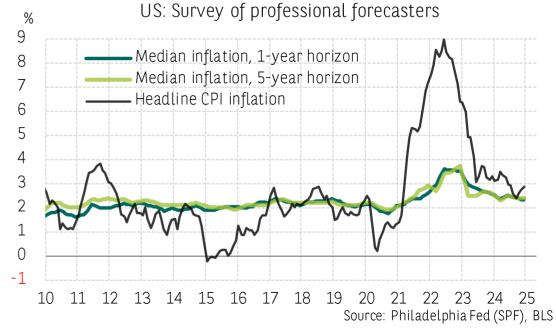


# Inflation expectations (households, forecasters, markets)

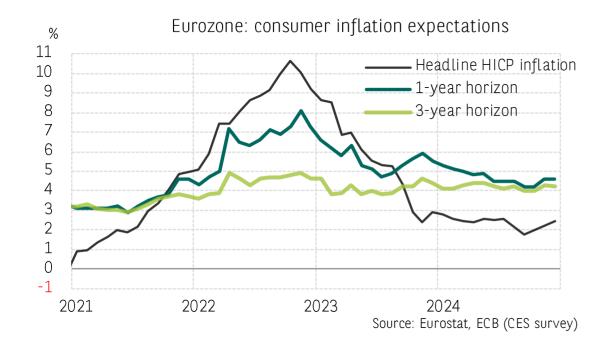


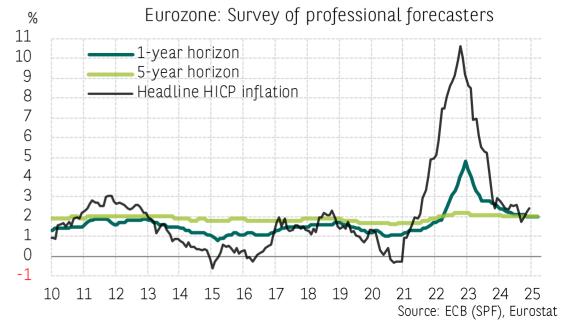
#### Inflation expectations in the United States



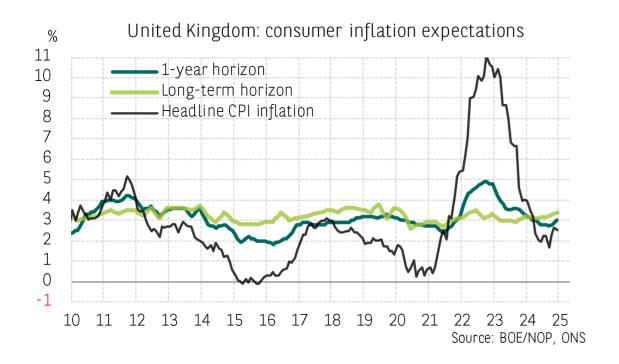


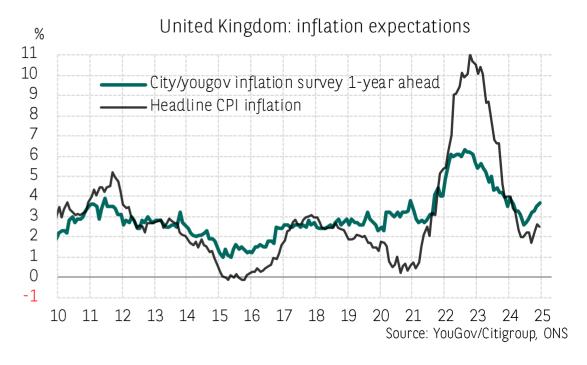
#### Inflation expectations in the Eurozone





#### Inflation expectations in the United Kingdom

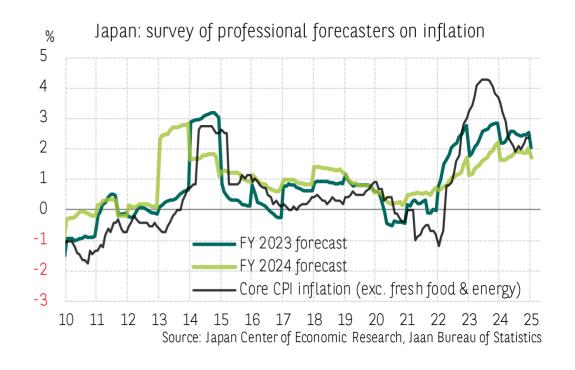




#### Inflation expectations in Japan

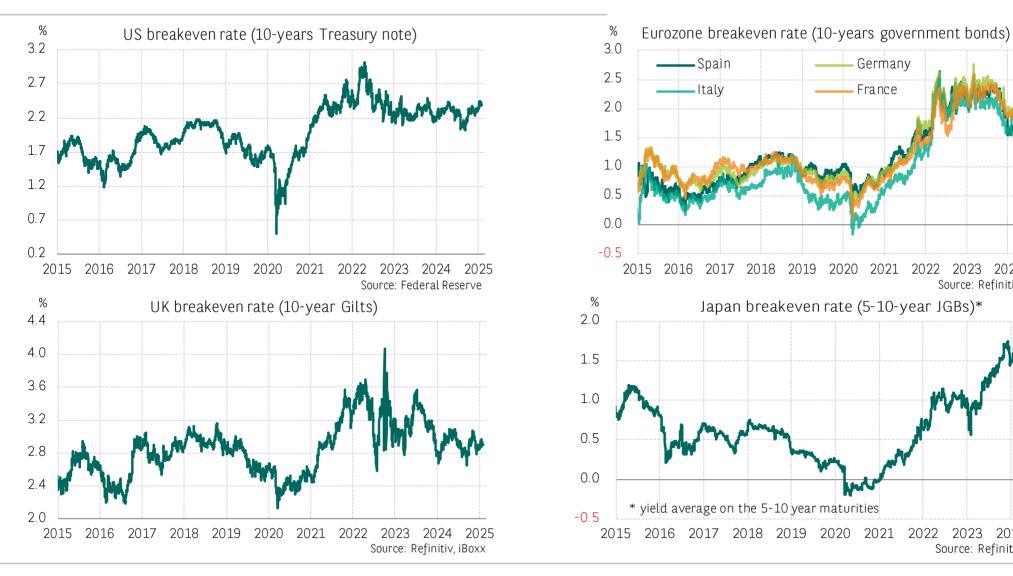


<sup>\*</sup> Weighted average of respondents' answers from the consumer confidence survey (Cabinet Office)





#### Market expectations: breakeven inflation rate





2022

2023 2024 2025

Source: Refinitiv, iBoxx

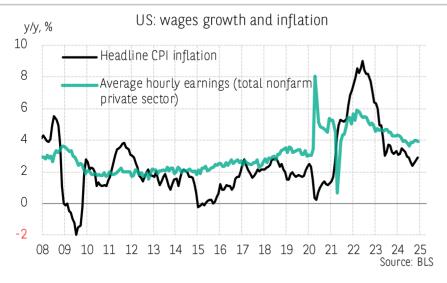
2022 2023 2024 2025

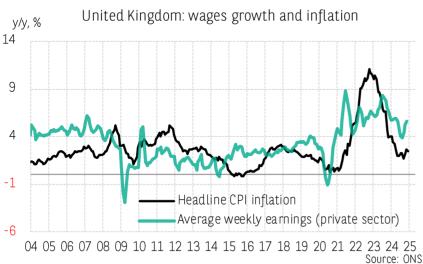
Source: Refinitiv, iBoxx

# Inflation-wage dynamics



### Inflation-wage dynamics







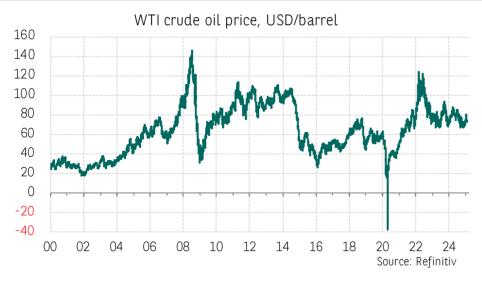


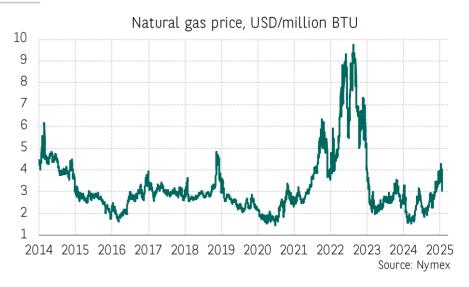


# **Commodities**



#### **Commodities**









#### BNP PARIBAS ECONOMIC RESEARCH

Isabelle Mateos y Lago Chief Economist		isabelle.mateosylago@bnpparibas.com
OECD ECONOMIES AND STATISTICS		
Hélène Baudchon Deputy chief economist, Head	+33 1 58 16 03 63	helene.baudchon@bnpparibas.com
Stéphane Colliac France, Germany	+33 1 42 98 43 86	stephane.colliac@bnpparibas.com
Guillaume Derrien Eurozone, United Kingdom - Global trade	+33 1 55 77 71 89	guillaume.a.derrien@bnpparibas.com
Anis Bensaidani United States, Japan	+33 187 74 0151	anis.bensaidani@bnpparibas.com
Lucie Barette Southern Europe Tarik Rharrab	+33 1 87 74 02 08	lucie.barette@bnpparibas.com
Statistics		
ECONOMIC PROJECTIONS, RELATIONSHIP WITH THE F	RENCH NETWORK	
Jean-Luc Proutat Head	+33 1 58 16 73 32	jean-luc.proutat@bnpparibas.com
BANKING ECONOMICS		
Laurent Quignon Head	+33 1 42 98 56 54	laurent.quignon@bnpparibas.com
Céline Choulet	+33 1 43 16 95 54	celine.choulet@bnpparibas.com
Thomas Humblot	+33 1 40 14 30 77	thomas.humblot@bnpparibas.com
Marianne Mueller	+33 1 40 14 48 11	marianne.mueller@bnpparibas.com
EMERGING ECONOMIES AND COUNTRY RISK		
François Faure Head - Argentina, Turkey - Methodology, Modelling	+33 1 42 98 79 82	francois.faure@bnpparibas.com
Christine Peltier Deputy Head – Greater China, Vietnam – Methodology	+33 1 42 98 56 27	christine.peltier@bnpparibas.com
Stéphane Alby Africa (French-speaking countries)	+33 1 42 98 02 04	stephane.alby@bnpparibas.com
Pascal Devaux Middle East, Balkan countries	+33 1 43 16 95 51	pascal.devaux@bnpparibas.com
Hélène Drouot South Korea, Philippines, Thailand, Andean countries	+33 1 42 98 33 00	helene.drouot@bnpparibas.com
Salim Hammad Latin America	+33 1 42 98 74 26	salim.hammad@bnpparibas.com
Cynthia Kalasopatan Antoine Ukraine, Central European countries	+33 1 53 31 59 32	cynthia.kalasopatan.antoine@bnpparibas.com
Johanna Melka India, South Asia, Russia, Kazakhstan	+33 1 58 16 05 84	johanna.melka@bnpparibas.com
Lucas Plé Africa (Portuguese & English-speaking countries)	+33 1 40 14 50 18	lucas.ple@bnpparibas.com
CONTACT MEDIA		
Mickaelle Fils Marie-Luce	+33 1 42 98 48 59	mickaelle.filsmarie-luce@bnpparibas.com

The information and opinions contained in this document have been obtained from, or are based on, public sources believed to be reliable, but there is no quarantee of the accuracy, completeness or fitness for any particular purpose of such information and such information may not have been independently verified by BNPP or by any person. None of BNPP, any of its subsidiary undertakings or affiliates or its members, directors, officers, agents or employees accepts any responsibility or liability whatsoever or makes any representation or warranty, express or implied, as to the accuracy and completeness of the information or any opinions based thereon and contained in this document, and it should not be relied upon as such. This document does not constitute research, as defined under MIFID II, or form any part of any offer to sell or issue and is not a solicitation of any offer to purchase any financial instrument, nor shall it or any part of it nor the fact of its distribution form the basis of, or be relied on, in connection with any contract or investment decision. Information and opinions contained in this document are published for the information of recipients but are not to be relied upon as authoritative or taken in substitution for the exercise of judgment by any recipient, are subject to change without notice. In providing this document, BNPP does not offer investment, financial, legal, tax or any other type of advice to, nor has any fiduciary duties towards, recipients. Any reference to past performance is not indicative of future performance, which may be better or worse than prior results. Any hypothetical, past performance simulations are the result of estimates made by BNPP, as of a given moment, on the basis of parameters, market conditions, and historical data selected by BNPP, and should not be used as guidance, in any way, of future performance. To the fullest extent permitted by law. no BNPP group company accepts any liability whatsoever (including in negligence) for any direct or consequential loss arising from any use of or reliance on material contained in this document even when advised of the possibility of such losses. All estimates and opinions included in this document are made as of the date of this document. Unless otherwise indicated in this document there is no intention to update this document, BNPP may make a market in, or may, as principal or agent, buy or sell securities of any issuer or person mentioned in this document or derivatives thereon. Prices, yields and other similar information included in this document are included for information purposes however numerous factors will affect market pricing at any particular time, such information may be subject to rapid change and there is no certainty that transactions could be executed at any specified price. BNPP may have a financial interest in any issuer or person mentioned in this document, including a long or short position in their securities and/or options, futures or other derivative instruments based thereon, or vice versa, BNPP. including its officers and employees may serve or have served as an officer, director or in an advisory capacity for any person mentioned in this document. BNPP may, from time to time, solicit, perform, or have performed investment banking, underwriting or other services (including acting as adviser, manager, underwriter or lender) within the last 12 months for any person referred to in this document. BNPP may be a party to an agreement with any person relating to the production of this document. BNPP may to the extent permitted by law, have acted upon or used the information contained herein or in the document, or the analysis on which it was based, before the document was published. BNPP may receive or intend to seek compensation for investment banking services in the next three months from or in relation to any person mentioned in this document. Any person mentioned in this document may have been provided with relevant sections of this document prior to its publication in order to verify its factual accuracy.

This document was produced by a BNPP group company. This document is for the use of intended recipients and may not be reproduced (in whole or in part) or delivered or transmitted to any other person without the prior written consent of BNPP. By accepting or accessing this document you agree to this.

BNP Paribas is a société anonyme incorporated in France, licensed and supervised as a credit institution by the European Central Bank (ECB) and as an investment services provider by the Autorité de contrôle prudentiel et de résolution (ACPR) and Autorité des marches financiers (AMF), and having its registered office at 16, boulevard des Italiens, 75009 Paris, France

Some or all of the information contained in this document may already have been published on https://globalmarkets.bnpparibas.com.

For country-specific disclaimers (United States, Canada, United Kingdom, Germany, Belgium, Ireland, Italy, Netherlands, Portugal, Spain, Switzerland, Brazil, Turkey, Israel, Bahrain, South Africa, Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, Singapore, South Korea, Taiwan, Thailand, Vietnam) please type the following URL to access the applicable legal notices; https://globalmarkets.bnpparibas.com/qm/home/Markets 360 Country Specific Notices.pdf

© BNP Paribas (2023). All rights reserved.

