

Global | Inflation and Bottlenecks Chartbook

Updated June 2023

Summary

- The ongoing **decline in headline inflation accelerated in May** in most BBVA footprint countries. **Core inflation seems to have left the peaked behind** (ex-Argentina) but declines are very gradual, uneven across countries and affected by one-off measures in some cases.
- **US inflation maintained the downward trend in May**, to 4% (from 4.9% YoY in April), dragged by gasoline prices. However, **core inflation showed only a mild drop (5.3% from 5.5%)**. **The rent components explained most of the increase in core inflation**, while leading indicators point a decline in rents in coming months.
- **Euro Area inflation declined more than expected in May** (headline 6.1% YoY; core 5.3% YoY). **Services inflation eased markedly** in sequential terms. Yet Germany's transport subsidies may have played a role. **Disinflationary trends in energy inflation gained traction**. Inflation of food and non-energy industrial good increased but point to a moderation
- **Synchronicity and persistence indicators showed a small improvement**. Though items in CPI basket with inflation above 4% still represent 30% in the US and 50% in the Euro Area, in Europe items with inflation above 8% have fallen.
- **Consumer long-term inflation expectations (US 3%; Euro Area 4%) remain well above both central banks' targets and market-based long-term inflation expectations**. The US and the Euro Area analysts also forecast long-term inflation above central banks' targets (US 2%-2.9%, Euro Area 2%-2.5%)
- **Our supply bottlenecks indicator** continues soften in the Euro Area and is close to normalized levels, as shortage of materials and lower demand for goods helped to contain it. In the US, the indicator is even below normalized levels, reflection of lackluster manufacturing figures

Summary indicators

	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23		
Inflation	8.5	8.9	8.4	8.2	8.2	7.8	7.1	6.4	6.3	6.0	5.0	5.0	4.1	US	IPC Headline (%YoY, SA)
	6.0	5.9	5.9	6.3	6.6	6.3	6.0	5.7	5.5	5.5	5.6	5.5	5.3		IPC Core (%YoY, SA)
	0.9	1.2	0.0	0.2	0.4	0.5	0.2	0.1	0.5	0.4	0.1	0.4	0.1		IPC Headline (%MoM, SA)
	0.6	0.6	0.3	0.6	0.6	0.3	0.3	0.4	0.4	0.5	0.4	0.4	0.4		IPC Core (%MoM, SA)
	4.3	3.6	3.4	3.0	2.5	3.1	2.8	2.5	2.3	2.8	2.6	2.4	2.3		Inf exp (2Y inf. Swap)
	2.7	2.7	2.6	2.5	2.5	2.7	2.6	2.6	2.5	2.6	2.6	2.5	2.6	Inf exp (5Y5Y inf. Swap)	
	8.1	8.7	8.9	9.2	9.9	10.5	10.0	9.2	8.6	8.5	6.8	7.0	6.1	EZ	IPC Headline (%YoY, SA)
	3.7	3.8	4.1	4.4	4.7	5.0	4.9	5.2	5.2	5.6	5.8	5.7	5.3		IPC Core (%YoY, SA)
	0.8	0.7	0.7	0.7	1.0	1.1	0.3	0.1	0.4	0.7	-0.1	0.5	0.0		IPC Headline (%MoM, SA)
	0.5	0.3	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.7	0.5	0.4	0.2		IPC Core (%MoM, SA)
4.7	4.1	4.6	4.9	3.5	3.9	3.5	3.4	2.3	2.8	3.0	2.8	2.5	Inf exp (2Y inf. Swap)		
2.2	2.2	2.1	2.0	2.2	2.3	2.4	2.4	2.3	2.5	2.3	2.5	2.5	Inf exp (5Y5Y inf. Swap)		
Bottlenecks	55.1	54.9	48.6	50.4	47.3	48.2	46.8	45.1	42.5	47.0	44.3	45.7	42.6	US manuf.	ISM New Orders
	58.7	58.7	51.3	53.0	50.9	45.3	40.0	41.4	43.4	45.1	43.9	43.1	37.5		Backlog of Orders
	54.2	54.4	53.3	51.1	51.0	51.9	50.9	48.6	48.0	47.3	47.8	48.9	51.1		Production Index
	65.7	57.3	55.2	55.1	52.4	46.8	47.2	45.1	45.6	45.2	44.8	44.6	43.5		Suppliers' delivery times
	32.7	35.2	39.5	38.9	41.6	41.6	48.7	48.2	47.4	46.9	48.9	51.3	51.4		Customer Inventories
	7.20	13.3	4.6	-2.7	-3.5	-5	-11.2	-12	-8.7	-9.2	-9.6	-13.8	-21.7	EZ manuf.	Order books
	5.0	7.8	3.2	0.0	1.4	0.7	-3.8	0.6	-0.2	4.0	2.3	3.2	-6.6		Production trend
	30.7	27.9	26.8	25.9	26.0	24.7	23.2	21.9	21.8	19.4	16.7	13.2	11.3	EZ const.	Equip shortage
	61.7	54.8	49.3	45.6	44.2	44.3	42.7	44.1	46.4	44.5	44.8	42.2	43.5	Taiwan	Suppliers' delivery times
	634	619	580	587	568	558	560	558	557	553	546	546	546	Input costs	CRB Spot Comdty. Price
4407	4401	4467	4449	4163	1905	1405	1372	1229	1100	1059	1108	1217	Container freight		

Note: US and Taiwan (SA, 50+=Increasing); EZ Percent Balance (SA, %).

Source: BBVA Research and Haver Analytics

Headline inflation in the US fell to 4.1% in May and 6.1% in EZ, the lowest in two and one year respectively and continues its moderation in most countries

INFLATION, YOY%

Headline Inflation

	2021						2022						2023										
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
US	5.2	5.2	5.4	6.2	6.9	7.2	7.6	8.0	8.5	8.2	8.5	8.9	8.4	8.2	8.2	7.8	7.1	6.4	6.3	6.0	5.0	5.0	4.1
China	0.8	0.6	0.3	1.5	2.4	1.4	0.6	1.1	1.3	2.0	2.0	2.4	2.6	2.4	2.7	2.1	1.5	1.8	1.8	1.6	0.8	0.3	0.3
Eurozone	2.2	3.0	3.4	4.0	4.8	5.0	5.1	5.9	7.4	7.5	8.1	8.7	8.9	9.2	9.9	10.5	10.0	9.2	8.6	8.5	6.8	7.0	6.1
Germany	3.7	3.8	4.1	4.4	4.8	4.9	4.1	4.4	6.0	6.4	7.1	6.7	6.7	6.9	8.6	8.9	8.8	8.1	8.7	8.7	7.4	7.1	6.0
France	1.2	2.0	2.1	2.5	2.6	2.7	3.0	3.7	4.5	4.9	5.3	5.8	6.0	5.8	5.6	6.2	6.1	5.9	6.1	6.4	5.8	6.0	5.2
Spain	2.8	3.2	4.0	5.4	5.7	6.6	6.2	7.7	9.7	8.4	8.7	10.1	10.7	10.5	8.9	7.3	6.9	5.8	5.9	6.1	3.3	4.0	3.2
Turkey	18.8	19.5	20.1	20.5	21.9	36.2	48.6	54.1	60.9	68.8	73.4	78.1	79.5	80.5	84.1	86.2	85.1	64.3	57.6	54.9	50.4	43.6	39.0
Argentina	51.6	51.2	52.5	51.9	51.2	51.0	50.8	52.5	55.2	58.1	60.7	64.0	70.8	78.2	83.1	87.9	92.5	94.9	98.9	102.6	104.4	108.8	114.2
Colombia	4.0	4.4	4.5	4.6	5.3	5.6	6.9	8.0	8.5	9.2	9.0	9.7	10.2	10.8	11.4	12.3	12.6	13.1	13.3	13.3	13.3	12.8	12.4
Mexico	5.7	5.5	5.9	6.2	7.4	7.4	7.1	7.3	7.5	7.7	7.6	7.9	8.1	8.7	8.7	8.4	7.8	7.9	8.0	7.6	6.9	6.2	5.8
Peru	3.8	4.9	5.2	5.8	5.6	6.4	5.7	6.2	6.9	8.0	8.1	8.8	8.7	8.4	8.5	8.3	8.4	8.4	8.7	8.7	8.4	8.0	7.9

Core Inflation

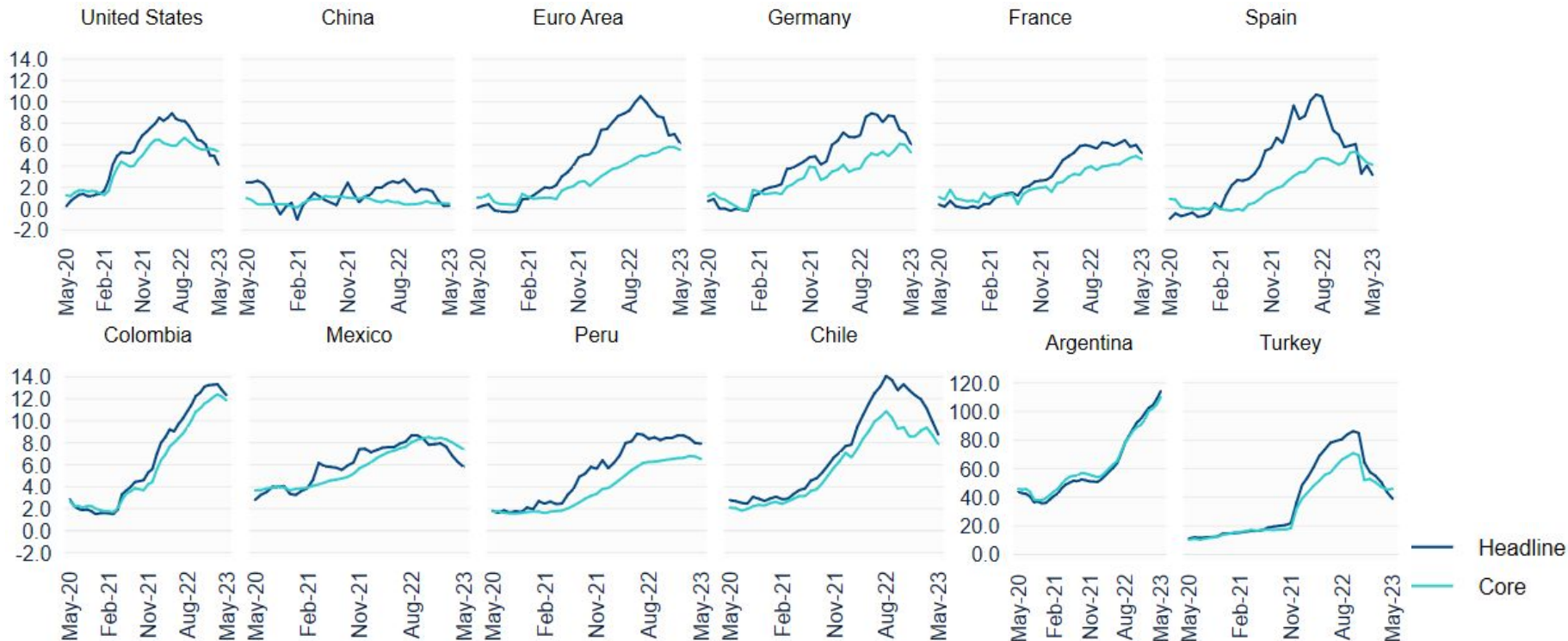
US	4.2	3.9	4.0	4.6	5.0	5.5	6.1	6.4	6.5	6.1	6.0	5.9	5.9	6.3	6.6	6.3	6.0	5.7	5.5	5.5	5.6	5.5	5.3
China	1.2	1.1	1.1	1.1	1.0	1.0	0.9	1.1	0.9	0.7	0.6	0.8	0.6	0.6	0.4	0.4	0.4	0.5	0.7	0.5	0.5	0.5	0.5
Eurozone	0.9	1.7	1.9	2.1	2.5	2.6	2.1	2.6	3.0	3.4	3.7	3.8	4.1	4.4	4.7	5.0	4.9	5.2	5.2	5.6	5.8	5.7	5.3
Germany	2.0	2.3	2.7	2.9	3.9	3.9	2.7	2.9	3.5	3.6	4.1	3.4	3.7	3.8	4.7	5.2	5.0	5.4	4.9	5.4	6.1	6.0	5.3
France	0.4	1.4	1.7	1.9	2.0	2.0	1.6	2.4	2.5	3.0	3.2	3.2	3.8	4.0	3.6	4.0	4.0	4.2	4.2	4.5	4.8	4.9	4.6
Spain	0.4	0.5	0.9	1.4	1.7	1.9	2.1	2.6	3.0	3.4	3.5	4.0	4.6	4.7	4.7	4.4	4.1	4.3	5.2	5.4	4.8	4.3	4.1
Turkey	17.3	17.1	17.5	17.5	18.4	31.9	39.2	43.5	47.9	51.5	55.6	57.3	62.0	66.4	68.5	70.9	69.5	51.9	52.9	50.3	47.2	45.4	45.9
Argentina	55.0	55.3	57.0	56.6	55.8	54.9	54.1	54.8	57.4	60.4	63.0	65.4	71.9	78.2	82.3	86.4	89.3	90.7	94.5	100.6	102.1	105.1	110.2
Colombia	3.6	3.9	3.8	3.7	4.2	4.4	5.5	6.4	6.9	7.7	8.0	8.4	8.8	9.4	10.0	10.8	11.1	11.6	11.8	12.2	12.4	12.2	11.9
Mexico	4.7	4.7	4.9	5.2	5.7	5.9	6.2	6.6	6.9	7.1	7.3	7.5	7.6	8.0	8.3	8.4	8.5	8.3	8.5	8.3	8.0	7.7	7.4
Peru	2.3	2.6	2.9	3.2	3.4	3.8	3.9	4.2	4.7	5.1	5.5	5.8	6.2	6.3	6.3	6.4	6.5	6.5	6.6	6.6	6.8	6.7	6.5

Period considered: 2015-2019
 StDev below: + than 3 2 to 3 1 to 2 -1 to +1 1 to 2 2 to 3 + than 3
 StDev above:

Source: BBVA Research, Haver Analytics. We report here harmonised core inflation excluding food and energy. These measures may differ from local measures of core inflation where EA and Spain: excludes unprocessed food and energy, France excludes government tariffs and volatile prices, Germany excludes energy prices.

Headline inflation inched down in most BBVA footprint countries. Core inflation started to edge down or level off (ex-Arg) but is still high

INFLATION, YOY%



Source: BBVA Research, Haver Analytics.

Sequentially, gains in headline inflation have started to normalize to historical levels, (ex-Tur) although core prices show greater persistence



INFLATION, MOM% (SA)

Headline Inflation

	2021						2022										2023						
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
US	0.4	0.4	0.4	0.9	0.8	0.8	0.6	0.7	1.0	0.4	0.9	1.2	0.0	0.2	0.4	0.5	0.2	0.1	0.5	0.4	0.1	0.4	0.1
China	0.0	0.0	-0.3	0.7	0.6	-0.3	0.0	0.2	0.4	0.6	0.1	0.4	0.2	-0.2	0.0	0.1	0.0	0.0	-0.1	0.1	-0.5	0.1	0.1
Eurozone	0.5	0.4	0.3	0.6	0.8	0.7	1.0	0.7	1.4	0.3	0.8	0.7	0.7	0.7	1.0	1.1	0.3	0.1	0.4	0.7	-0.1	0.5	0.0
Germany	0.5	0.3	0.2	0.5	0.5	0.2	0.7	0.7	1.8	0.5	0.8	0.0	0.5	0.5	1.8	0.8	0.4	-0.4	1.2	0.6	0.6	0.2	-0.2
Spain	0.2	0.6	1.0	1.2	0.5	1.2	0.6	0.9	2.3	-0.7	0.5	1.4	0.7	0.4	-0.5	-0.3	0.1	0.1	0.7	1.1	-0.3	0.1	-0.3
Turkey	2.7	2.3	2.2	1.9	3.1	12.7	10.2	4.5	5.5	5.9	4.1	4.7	3.4	2.9	4.2	3.1	2.4	0.1	5.7	2.8	2.4	1.1	0.8
Argentina	3.1	2.7	2.8	3.2	2.9	3.7	4.2	5.1	5.7	6.0	5.6	5.5	7.4	7.2	5.6	6.0	5.4	5.0	6.4	7.1	6.6	8.3	8.4
Colombia	0.6	0.6	0.5	0.3	0.7	0.5	1.4	1.2	0.8	1.0	1.0	0.8	1.0	1.1	1.0	1.1	1.0	1.0	1.5	1.2	0.8	0.5	0.5
Mexico	0.4	0.3	0.6	0.7	0.9	0.4	0.3	0.9	0.8	0.8	0.6	0.7	0.6	0.8	0.6	0.5	0.4	0.5	0.4	0.6	0.1	0.3	0.2
Peru	0.7	1.0	0.5	0.7	0.4	0.7	0.2	0.4	1.0	1.1	0.5	1.2	0.7	0.6	0.6	0.5	0.6	0.7	0.4	0.4	0.8	0.7	0.4

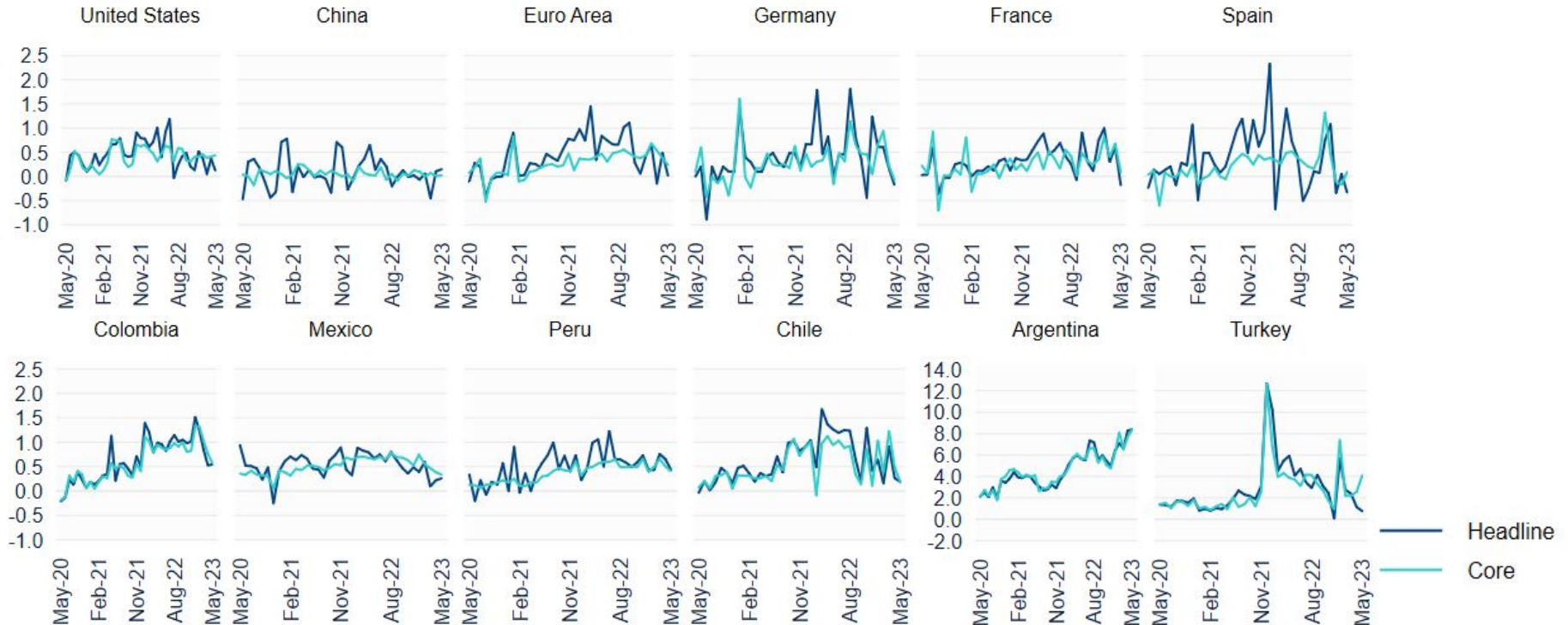
Core Inflation

US	0.3	0.2	0.3	0.7	0.6	0.7	0.6	0.5	0.3	0.5	0.6	0.6	0.3	0.6	0.6	0.3	0.3	0.4	0.4	0.5	0.4	0.4	0.4
China	0.1	0.0	0.1	0.1	0.0	0.0	-0.1	0.2	0.1	0.0	0.0	0.2	-0.1	0.0	-0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0
Eurozone	0.2	0.3	0.2	0.2	0.5	0.1	0.4	0.4	0.3	0.4	0.5	0.3	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.7	0.5	0.4	0.2
Germany	0.2	0.2	0.3	0.2	0.6	0.1	0.5	0.2	0.3	0.3	0.6	-0.2	0.5	0.3	1.1	0.6	0.5	0.5	0.1	0.7	0.9	0.2	-0.1
Spain	-0.1	0.2	0.4	0.5	0.4	0.2	0.4	0.3	0.4	0.3	0.3	0.5	0.5	0.4	0.3	0.2	0.2	0.4	1.3	0.5	-0.1	-0.2	0.1
Turkey	1.1	1.4	2.0	1.2	2.5	12.6	6.7	3.9	4.3	3.9	3.7	3.1	4.2	4.1	3.3	2.7	1.7	1.0	7.4	2.2	2.2	2.6	4.1
Argentina	2.6	2.9	2.9	3.5	3.4	4.0	4.1	4.8	5.7	6.1	5.7	5.6	6.7	6.6	5.3	5.8	5.1	4.8	6.2	8.1	6.5	7.7	8.3
Colombia	0.5	0.5	0.3	0.3	0.6	0.4	1.1	1.0	0.8	0.9	0.9	0.8	0.9	1.0	0.9	1.0	0.8	0.8	1.3	1.3	1.0	0.8	0.6
Mexico	0.5	0.4	0.5	0.6	0.5	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.8	0.7	0.7	0.6	0.5	0.7	0.6	0.5	0.4	0.3
Peru	0.3	0.4	0.5	0.4	0.4	0.6	0.3	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.7	0.4	0.5	0.7	0.5	0.4

Period considered: 2015-2019
 StDev below: 
 StDev above: 
 +than 3 2 to 3 1 to 2 -1 to +1 1 to 2 2 to 3 +than 3

Monthly changes in inflation suggest that core rates have started to decline in most countries; in contrast, it increased in Türkiye

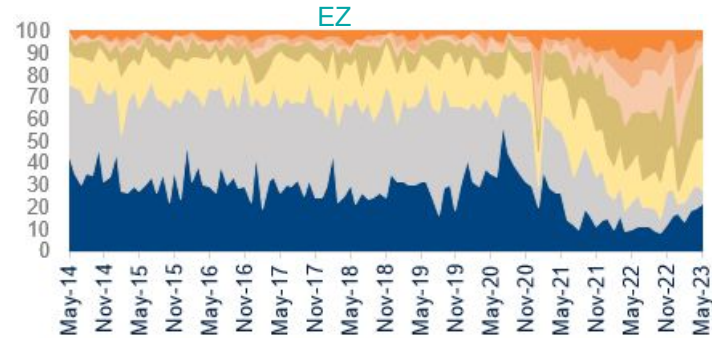
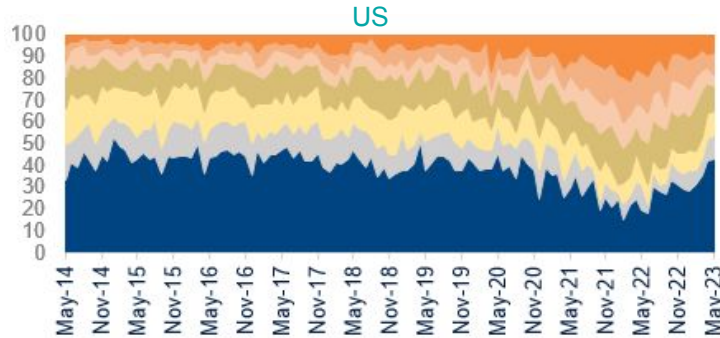
INFLATION, MOM% (SA)



Source: BBVA Research, Haver Analytics.

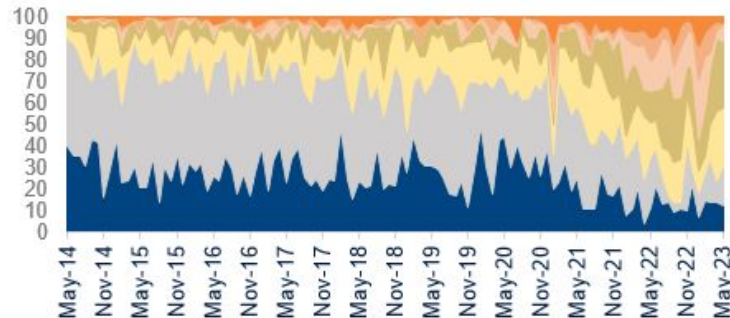
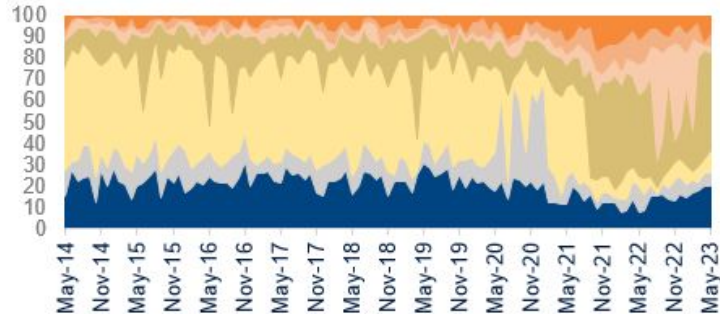
Synchronicity measures show percentage of items with annual inflation higher than 4% in the US are around 30%, and near 50% in EA

PERCENTAGE OF ITEMS WITHIN DIFFERENT INFLATIONARY BRACKETS



% of two-digit items with an annualized monthly inflation:

WEIGHTED* PERCENTAGE OF ITEMS WITHIN DIFFERENT INFLATIONARY BRACKETS



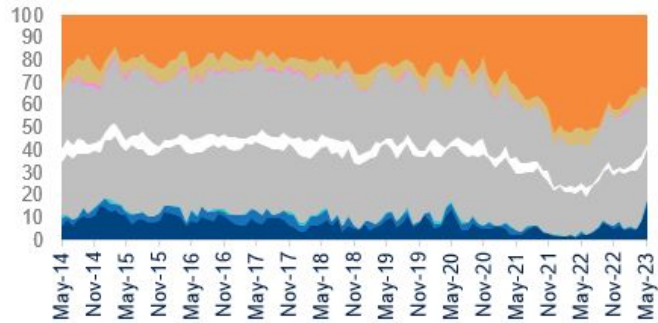
- (20 and more)
- (12 to 20)
- (8 to 12)
- (4 to 8)
- (2 to 4)
- (0 to 2)
- (Less than 0)

*weighted by each item's level of expenditure within the CPI basket.

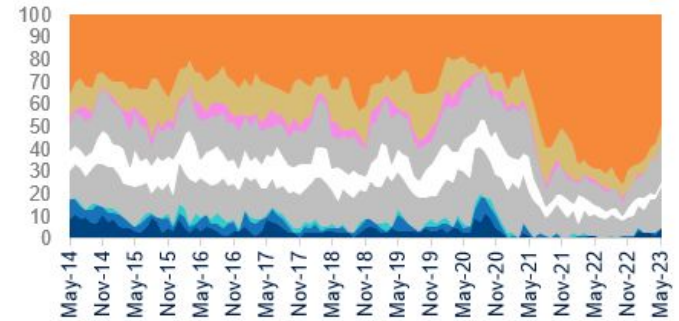
Source: BBVA Research based on Haver Analytics

The share of items with prices with frequent upward adjustments maintains the moderating trend in the US and also in the Euro Area

PERCENTAGE OF ITEMS WITH FREQUENT ADJUSTMENTS US



EZ



■ 3 consecutive months rising

■ Medium upwards trend

■ Slight upwards trend

□ No signal

■ Noise

■ Slight downward trend

■ Medium downward trend

■ 3 consecutive months falling

Medium downward trend refers to 3 price reductions and no increases in the last three months.

Slight downward trend refers to 2 price reduction and no increases in the last three months:

Noise: refers to both price increases AND reductions in the last three months.

No signal: refers to no significant change in prices in the last three months

Slight upward trend refers to 2 price increase and no reduction in the last three months:

Medium upwards trend refers to 3 price increases and no reductions in the last three months.

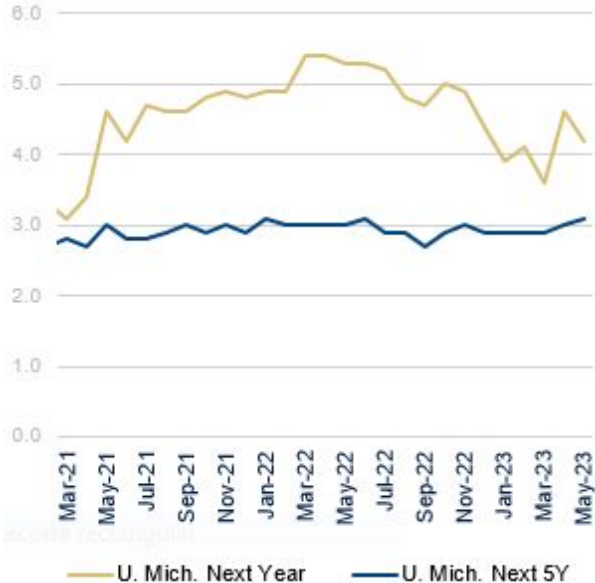
In all of the above, price changes of less than 0.05% annualized inflation are considered insignificant.

% of items* with prices signaling; * items within the CPI basket (2 digits) and where.

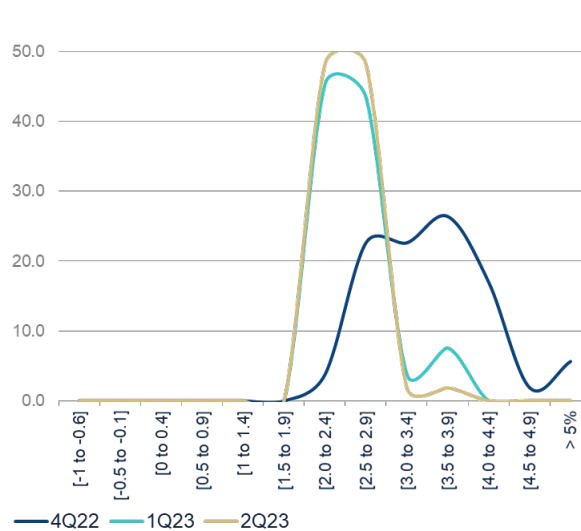
Source: BBVA Research, Haver Analytics.

US long-term inflation expectations by consumers rise above to 3%, more than those of analysts (2-2.9%); while markets' expectations hover near 2.5%

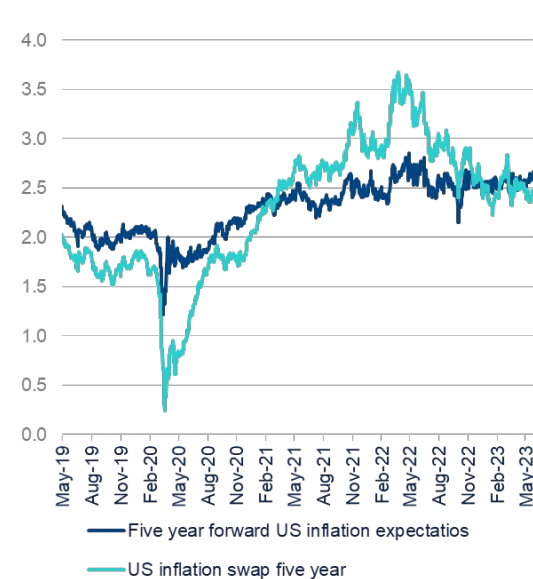
**EXPECTATIONS:
CONSUMERS SURVEY**
(NEXT YEAR, NEXT 5 YEARS)



**EXPECTATIONS:
PROFESSIONAL FORECASTERS**
(LONG-TERM*, %)



**EXPECTATIONS:
MARKET**
(5Y5Y FORWARD, 5Y SWAP)



Source: BBVA Research, Haver Analytics.

*/ This refers to an average of 5 and 10-year ahead expected rate of inflation

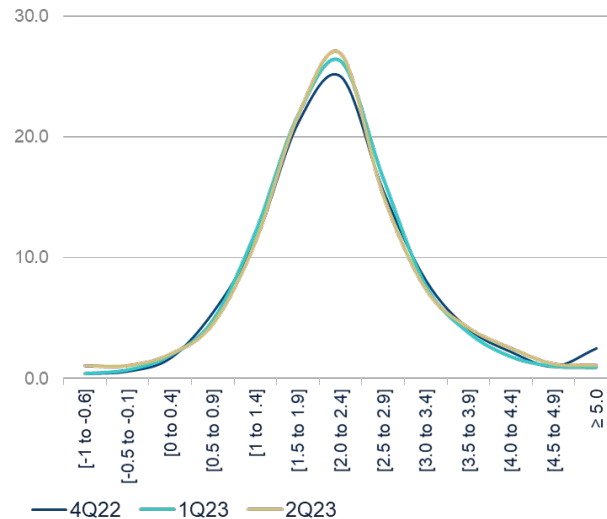
Source: Federal Reserve Bank of Philadelphia.

EZ consumer inflation expectations returned to around 4%; analysts' expectations remain steady (2-2.5%), slightly below those of the market

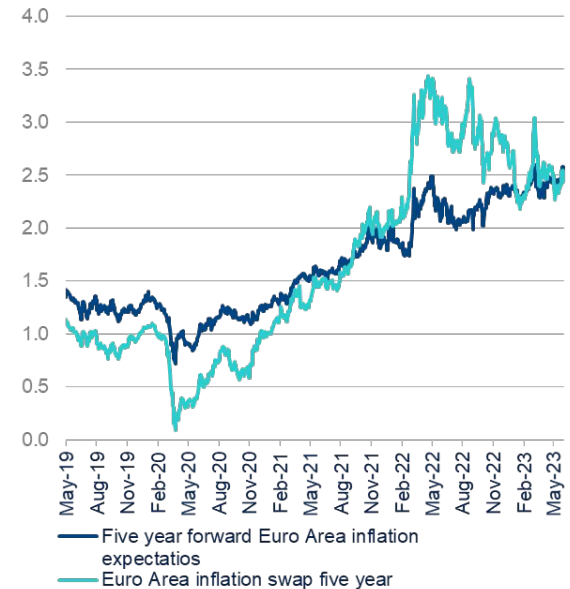
EXPECTATIONS: CONSUMERS SURVEY (NEXT YEAR, 3Y AHEAD)



EXPECTATIONS: PROFESSIONAL FORECASTERS (LONG-TERM*, %)



EXPECTATIONS MARKET (5Y5Y FORWARD, 5Y SWAP)



Source: BBVA Research, ECB, consumer survey

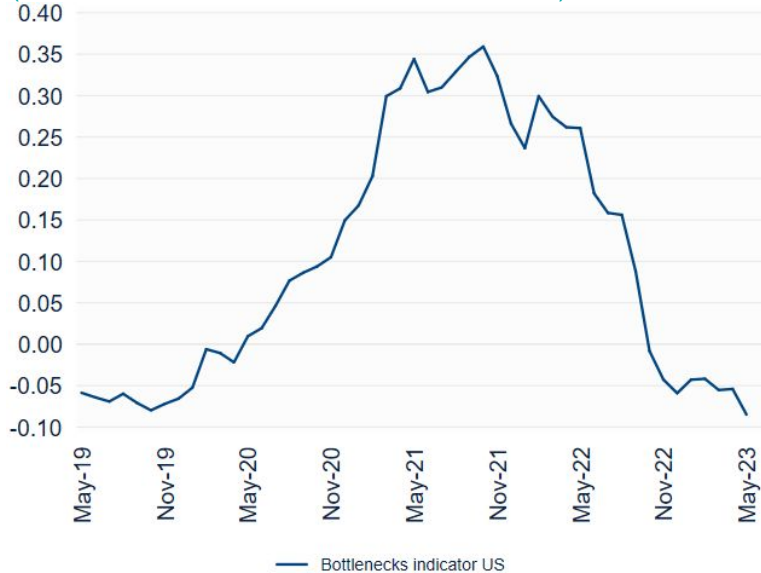
* / Long-Term CPI Inflation refers to 2027 expected headline inflation

Source: ECB

Our supply bottlenecks indicator reflects some slack in US manufacturing. Meanwhile, in the Euro Area supply disruptions are disappearing

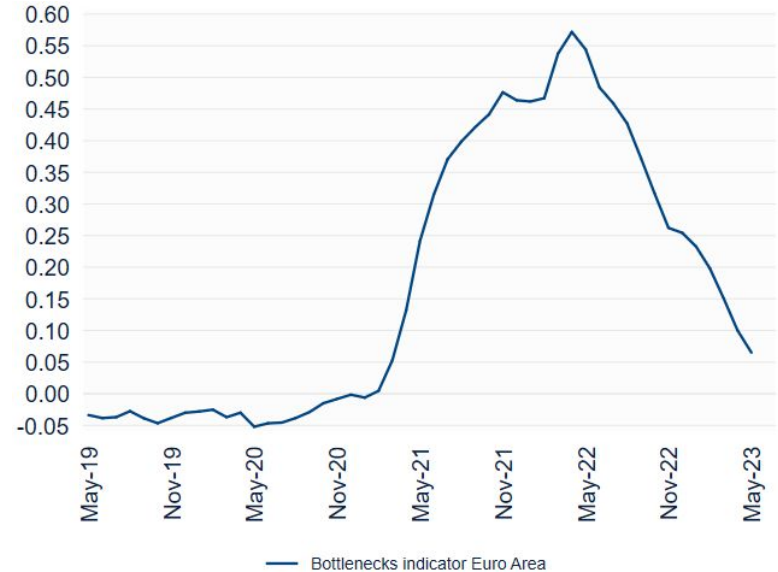
US SUPPLY BOTTLENECKS INDICATOR

(INDEX; LAST AVAILABLE DATA: APRIL 2023)



EZ: SUPPLY BOTTLENECKS INDICATOR

(INDEX; LAST AVAILABLE DATA: APRIL 2023)



Principal Component Analysis (PCA) has been the methodology followed in the construction of the supply bottlenecks indicator for United States and the Euro Area, whereby the first principal component has been considered as the corresponding supply bottlenecks indicator.

Variables included in the indicator: EA19: factors limiting production - Equipment (Percent Balance SA); EA19: Material shortage construction (Percent Balance SA); IFO: Germany: Material shortage in construction (Percent Balance SA); Ea 19: Retail Inventories (Percent Balance SA); Harpex Shipping Index; Vessel Size in TEU - Rates in US\$.

Source: BBVA Research, Haver Analytics.

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