



The bank for a changing world

In March, economic conditions in the major OECD economies remained favourable. While in the US, the growth momentum is continuing, Europe is still benefitting from catch-up effects in the energy-intensive sectors (which had slowed down their production during the winter), and in transport equipment (which is benefitting from reduced supply difficulties). This has favoured employment, whose dynamism has improved (probably temporarily) in Europe compared to Q4 2022.

The decline in energy inflation has led to disinflation, which is relative, as core inflation has not declined to the same extent in either the US or Europe, while food inflation has reached new highs in Europe. As a result, the recovery in household confidence remains very moderate and is not yet reflected in the willingness to buy in many countries. According to our forecasts, the outlook for growth in the first quarter of 2023 is fairly mixed: from the United Kingdom (where negative growth cannot yet be ruled out) to the United States and Japan (where growth should be clearly positive), via Germany (which should avoid recession) and the eurozone as a whole (which should experience moderate growth, as in France, Spain and Italy).

EUROZONE: HOW RESILIENT IS GROWTH?

GERMANY: A RECESSION? WHAT RECESSION?

FRANCE: GREEN SHOOTS FROM EXPORT ORDERS?

ITALY: GROWTH SHOULD BOUNCE BACK IN 01

SPAIN: BETTER CONSUMPTION FIGURES AFTER A DISAPPOINTING LAST QUARTER OF 2022?

UNITED STATES: SHOCKPROOF GROWTH?

UNITED KINGDOM: THE GDP CONTRACTION SHOULD WAIT UNTIL THE SECOND QUARTER

JAPAN: A REBOUND TO BE PUT INTO PERSPECTIVE



EUROZONE

How resilient is growth?

The release on Friday 28 April of the first estimate of euro area Q1 2023 GDP growth will quantify the resilience reported by most available surveys and activity data for this quarter. We expect moderate positive growth (+0.3% q/q, forecast slightly revised upwards – by 0.2 percentage points – due to positive economic news) while our Nowcast estimate is flat (0.0%).

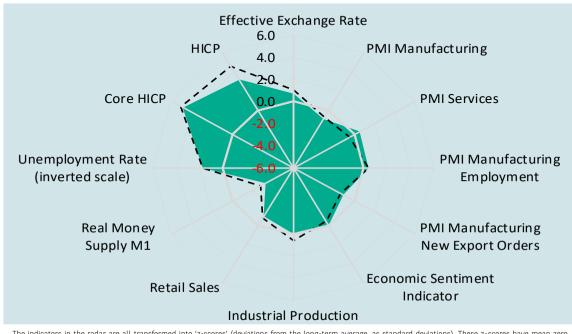
In March, the S&P Global composite PMI continued its recovery, with a fourth consecutive rise (6.4 points in cumulative terms), as strong as in February and still largely driven by services. At 53.7, this index is quite comfortably in the expansion territory. The signal is less positive, however, for the European Commission's economic sentiment indicator (ESI), since over the last two months (February and March), it has not continued its recovery and has fallen slightly. Although modest, its decline in March is noteworthy as it concerns all the sub-components of the indicator (consumer confidence, manufacturing, services, retail trade and construction), which is rather unusual. This could mark a turning point downwards, pointing to the deterioration in growth expected in the second half of 2023 as a result of the inflationary shock and monetary tightening.

On the activity data side, retail sales (excluding motor vehicles) remained on a slight downtrend until February 2023 (the last available reading), while industrial production rebounded significantly in January and February. It mirrors the effect of high inflation on the former and the effect of catching up on the latter, as supply difficulties and the energy shock dissipate. Another good news is that the unemployment rate, which had stabilized at 6.7% from April to December 2022, fell again slightly to 6.6% in January and February 2023 (revised figures).

On the inflation side, the situation remains worrying. As in the United States, headline inflation fell significantly in March (-1.6 percentage points, to 6.9% y/y but only thanks to a favourable and expected base effect on energy prices, down year-on-year (-0.9%), for the first time since February 2021. Food inflation increased further (15.5% y/y, contribution of 3.1 percentage points to headline inflation) as did core inflation (5.7% y/y, contribution of 3.8 pp). Given these figures and the signs of activity resilience, we expect the ECB to raise its key interest rates by another 25 basis points at its next meeting on 4 May. It remains to be seen whether the Bank Lending Survey results for the second quarter of 2023 (released on 2 May), which are expected to show a further tightening of lending standards, will deter the central bank from staying its course.

Hélène Baudchon (article completed on 21/04/2023)

Eurozone: economic indicators quarterly changes



The indicators in the radar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -6 and +6. In the radar chart, the green area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

	Eurozone: GDP growth										
		Actual		Carry-over	Nowcast		Forecast		Annual growth fo	recasts	(y/y)
(2022	Q3 2022	Q4 2022	Q4 2022	Q1 2023	Q1 2023	Q2 2023	Q3 2023	2022 (observed)	2023	2024
	0. 9	0. 4	-0.1	0. 4	-0.0	0. 3	0. 2	-0.1	3. 5	0.8	0. 5

See the Nowcast methodology Source: Refinitiv. BNP Paribas



GERMANY

A recession? What recession?

Growth in industrial activity observed in January (+3.7% MoM) and February (+2% MoM) suggests more than a technical rebound correcting the downturn seen in December (-2.4% MoM). Some sectors, such as metals, have seen recovery in Q1 2023, compared to a difficult Q4 2022. Conversely, transport equipment showed a growth carryover for Q1 2023 of +6.2%, after an already strong increase in Q4 2022 (+7.5% QoQ). Transport equipment is benefiting from another catch-up effect linked to the reduction in supply difficulties. The improvement in industrial activity can also be seen in the IFO survey in March, where 5 out of 22 sectors appear to be booming: this still relates to a minority of sectors but is the highest proportion since February 2022

After a sharp downturn of 1% QoQ in Q4 2022, private consumption should stabilize in Q1, in particular because the upturn in household confidence (from -42.8 in October to -29.5 in April according to GFK) had no impact on the willingness to buy index (-17 in March compared to -17.5 in October 2022).

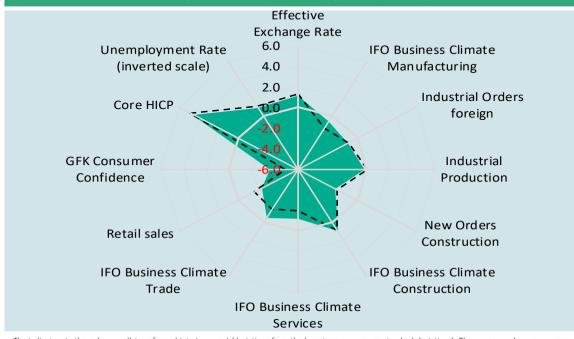
This relative wait-and-see attitude among German consumers mirrors the dynamics of inflation. While disinflation may already appear substantial – inflation fell from 11.6% YoY in October 2022 to 7.8% YoY in March 2023 – this is mainly due to the fall in energy prices (following the federal government's freeze on energy prices in particular). At the same time, inflation in services continued to rise to 4.8% YoY in March (compared to 3.5% YoY in October 2022).

The employment climate, according to the IFO survey, is showing a moderate improvement (99.9 in March, 2 points above its historical average), consistent with the creation of 96k jobs in January-February, supported by business growth and significant labour shortages. This growth in employment partially offsets the weakness seen in H2 2022.

After a very negative figure in Q4 2022 (-0.4% QoQ), German GDP growth should recover significantly in Q1 2023 (+0.2% QoQ), a momentum linked in part to catch-up effects, but also driven in part by the upturn in transport equipment activity, which is identified as being more structural.

Stéphane Colliac (article completed on 19/04/2023)

Germany: economic indicators quarterly changes



The indicators in the radar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -6 and +6. In the radar chart, the green area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

	Germany: GDP growth									
	Actual		Carr	y-over		orecast		Annual growth fo	recasts	(y/y)
Q2 2022	Q3 2022	Q4 2022	Q4	2022	Q1 2023	Q2 2023	Q3 2023	2022 (observed)	2023	2024
0. 1	0. 5	-0.4	- (0. 1	0. 2	0. 2	0.0	1. 9	0.0	0. 5



FRANCE

Green shoots from export orders?

Companies benefited from a slight upturn in the business climate during the 1st quarter of 2023. by one point on average, comparing February and March to the average of the previous five months. Signs of recovery were also visible in business data: the upturn in transport equipment manufacturing was accompanied by an improvement in export order books in industry (balance of opinion of -8.7 in March compared to -15.4 in December). Service production also increased. particularly business services (45% of total services), which suffered from a drop in activity in 04 2022 (-0.2% 0o0, after six consecutive quarters of growth of more than 1%), before a sharp upturn in January (+1.8% MoM).

On the other hand, household confidence shows no renewed optimism, with an index down one point in March to 81. However, rather than a further drop in consumption, which fell sharply in Q4 2022 (-1.2% QoQ), this suggests a stagnation: a likely moderate upturn in car consumption (rise in new registrations of 1.1% 000 in 01), should offset a probable new low in food consumption.

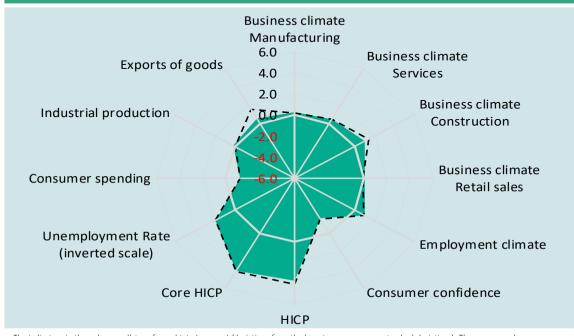
The drop in inflation last March (6.7% YoY compared to 7.3% YoY in February, according to Eurostat's harmonised index) can be explained by the drop in fuel prices compared to their March 2022 level. Food inflation, on the other hand, reached a new high (15.9% YoY) and core inflation only fell moderately (4.5% YoY according to the harmonised index, after 4.6% in February).

On the labour market side, the work climate index remains high (stable between December and March at 110). While job creation slowed in Q4 2022 (+44k compared to around 100k on average per quarter from 01 to 03), the increase in activity observed at the beginning of 2023 should support it in industry, business services and temporary employment.

We expect growth of 0.1% 000 in 01 2023 (a forecast in line with our nowcast estimate), i.e. the same pace as in 04 2022. Exports would be the main driver, while domestic demand excluding inventories is expected to fall for the 2nd quarter in a row (-0.1% 000 in 01, after -0.4% in 04).

Stéphane Colliac (article completed on 19/04/2023)

France: economic indicators quarterly changes



dicators in the radar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -6 and +6. In the radar chart, the green area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

	France: GDP growth										
	Actual		Carry-over	Nowcast		Forecast		Annual growth for	recasts	(y/y)	
Q2 2022	Q3 2022	Q4 2022	Q4 2022	Q1 2023	Q1 2023	Q2 2023	Q3 2023	2022 (observed)	2023	2024	
0. 5	0. 2	0. 1	0. 3	0. 1	0. 1	0. 2	0. 0	2. 6	0. 5	0. 6	

See the Nowcast methodology Source: Refinitiv, BNP Paribas





Growth should bounce back in Q1

According to our current forecasts, the contraction in Italian GDP recorded in the last quarter of 2022 was only temporary and should be followed by a 0.3% q/q rebound in the first quarter of 2023. However, economic growth is expected to slow down over the course of the year and could fall back into negative territory in the third quarter.

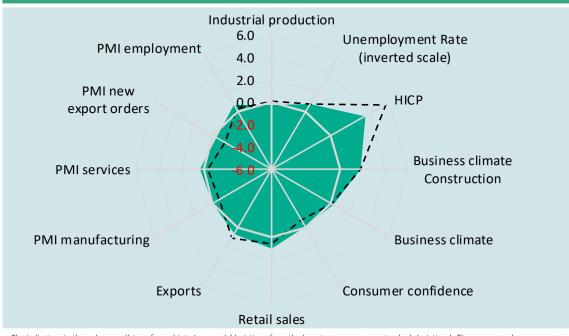
PMI indices continued to rise in March: the composite index improved by 3 points to 55.2, the highest level since November 2021. As elsewhere in the eurozone, the improvement is driven by services – the PMI index in this sector has risen by more than 4 points, from 51.6 in February to 55.7. Conversely, the manufacturing indicator fell in March by 0.9 points to 51.1; however, it remained above the expansion threshold (50). Industrial production has fallen slightly in recent months, dropping below its pre-pandemic level in February

The sharp drop in inflation in March (-1.7 points to 8.1% y/y) enabled household confidence to recover somewhat, in the absence of a real upturn: according to Istat, household confidence rose to its highest level in a year in March, thanks to an expected improvement in personal finance and the labour market. In particular, the one-year outlook for unemployment is the weakest since the first lockdown in spring 2020. Although they are far below inflation, contractual hourly wages are growing more quickly: they were up 2.3% y/y in February compared to 1.6% two months earlier

Since last June, the unemployment rate has remained stable at around 8%. However, employment continued to grow and reached a new record in February, as did the participation rate for this month, which stood at 66.2%. Nevertheless, the labour force grew at the same time (+0.3% since June 2022), which limited the drop in the jobless rate.

Guillaume Derrien (article completed on 18/04/2023)

Italy: economic indicators quarterly changes



The indicators in the radar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -6 and +6. In the radar chart, the green area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

	Italy: GDP growth										
	Actual		Carry-d	over	F	orecast		Annual gro	wth fo	recasts	(y/y)
Q2 2022	Q3 2022	Q4 2022	Q4 20	022	Q1 2023	Q2 2023	Q3 2023	2022 (obser	ved)	2023	2024
1. 0	0. 4	-0.1	0. 4		0. 3	0. 2	-0.1	3. 8		0. 9	0. 7



Better consumption figures after a disappointing last quarter of 2022?

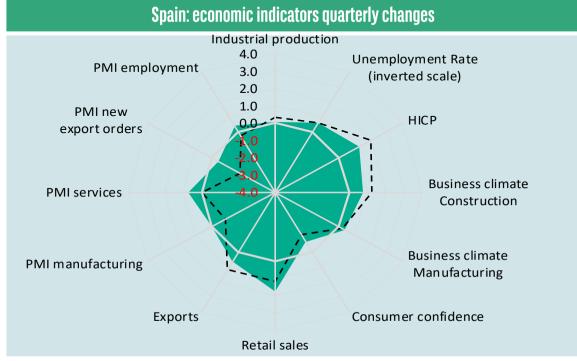
Our forecasts are for Spanish GDP to grow by 0.3% in the first and second quarters of 2023. In fact. PMI surveys have posted a clear rebound since the beginning of the year. In particular, the composite index reached its best level in almost a year and a half (58.2), led by services (59.4). However, the deterioration in purchasing power is still severely affecting households' confidence and their ability to save. In March, it reached its worst level since December 2013. according to European Commission figures.

Private consumption in Spain, which fell 2.4% q/q in 04 2022, could, however, be somewhat better orientated in O1 2023. In real terms, retail sales (excluding service station) fell by 2.6% m/m in February, but the three-month moving average is still up. Furthermore, new vehicle registrations rebounded in the first quarter (+44% q/q compared to 04 2022 in seasonally adjusted terms) after a difficult 2022.

While inflation is weighing on consumer spending, it is supported by job creation, which continued to rise in the first quarter of 2023, following solid gains in 2022. According to the Spanish Employment Agency (SEPE), the number of people in employment affiliated to the social security system increased by 76,000 in March and by 174,000 (+0.9% g/g) over the first guarter as a whole, compared to the previous guarter. Unemployment fell by 60,000 people (-2.1% g/g), hitting its lowest level since September 2008.

In terms of inflation, developments are favourable as it fell sharply in March (3.1% y/y compared to 6.0% in February, harmonised index), with deflation in energy prices having intensified (-25.6% in March). However, core inflation (excluding energy and perishable foods) is far from registering the same momentum. Price increases slowed slightly from 7.6% y/y in February to 7.5% in March but remain excessively high.

Guillaume Derrien (article completed on 18/04/2023)



adar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -4 and +4. In the radar chart, the green area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

				Spain: (GDP grov	wth			
	Actual		Carry-over	F	orecast		Annual growth fo	recasts	(y/y)
Q2 2022	Q3 2022	Q4 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	2022 (observed)	2023	2024
2. 2	0. 2	0. 2	0.8	0. 3	0. 3	0.0	5. 5	1. 4	0.8



UNITED STATES

Shockproof growth?

According to the Atlanta Federal Reserve's latest GDPNow estimate for O1 2023. US growth has remained high (2.5% on an annualised quarterly basis). The pace is almost identical to that of 04 2022 (2.6%), as if growth was impervious to the inflationary shock and the significant monetary tightening undertaken to address it. During the first quarter, however, the GDPNow estimate changed significantly, starting from around 4% at the beginning of January before weakening to 0.7% at the end of the month, then fluctuating within a range of 1.5-3.5% to reach 2.5% in mid-April. This GDPNow estimate is not, however, immune to substantial forecasting errors. Our growth forecast for O1 is close to this (0.6% g/g), but we cannot rule out a surprise on 27 April, when the BEA figures are published.

Furthermore, the economic review of data available for March is mixed. According to the ISM indices, the business climate in the manufacturing sector deteriorated further in quite a significant manner (-1.4 points, to 46.3), and in the non-manufacturing sector, it also fell (-3.9 points, to 51.2 points). But S&P Global's PMI index looks more positive, for the manufacturing sector (+1.9 points, at 49.2 points) and services (+2 points, at 52.6 points). The message is no clearer for household confidence, which fell sharply in March according to the University of Michigan, but the Conference Board index improved slightly.

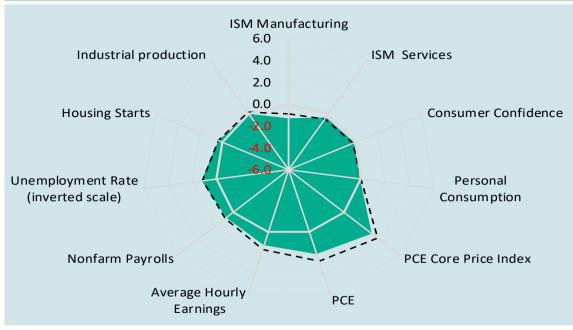
These divergent signs are perhaps the start of a downward turn, a prelude to the US economy's entry into recession, which we expect for O3 2023 and has also (clearly) been signalled for several months by the Conference Board's composite leading indicator. For the time being, although the economy is slowing down, it is doing so gradually, particularly in view of the slow puncture in the labour market¹.

In March, inflation looked as if it were falling more quickly, with the marked drop in the headline rate (-1 point, to 5% year-on-year). This impression is misleading, however, as core inflation rose slightly (+0.1 points, to 5.6% year-on-year); so, its decline is yet fully underway. The shelter component alone contributes to just over half of headline inflation. Combined with the still tight labour market, we believe that the US Federal Reserve will continue its monetary tightening with a new -and final-25 basis points hike in the Fed Funds rate at the beginning of May.

1 See Ecoweek n°23-15, "The US labour market: a slow puncture," 11 April 2023

Hélène Baudchon (article completed on 20/04/2023)

United States: economic indicators quarterly changes



radar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -6 and +6. In the radar chart, the green area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

	United States: GDP growth												
Actual			Carr	y-over	GDPNov	٧		Forecast		Annual growth forecasts (y/y)			
Q2 2022	Q3 2022	Q4 2022	Q4	2022	Q1 202	3 Q	1 2023	Q2 2023	Q3 2023	2022 (observ	ed)	2023	2024
-0.1	0.8	0. 6	0	. 8	0. 6		0. 6	0. 2	-0.4	2. 1		1. 4	-0.1

Source: Refinitiv, BNP Paribas

The bank for a changing world



UNITED KINGDOM

The GDP contraction should wait until the second quarter

UK GDP stagnated in February according to the ONS, after a 0.4% increase m/m in January. The drop in activity in services (-0.1% m/m) and industry (-0.2% m/m) was offset by the upturn in the construction sector (+2.4% m/m), which had contracted sharply in January (-1.7% m/m). The economy was therefore resilient, despite the negative impact of strikes in the public administration and education, which led to a drop in activity in these two sectors, of 1.1% m/m and 1.7% m/m respectively in February. At the same time, March's PMI indices showed an improvement in activity in services (52.8), while manufacturing sector shrank (47.9).

Retail sales, although remaining down 3.5% y/y, rose sharply in February (+1.2% m/m), driven by sales in non-food (+2.4% m/m, excluding fuel) and food retail (+0.9% m/m). Given these data, overall private consumption was therefore able to hold out in February, limiting the expected drop in GDP in Q1 2023.

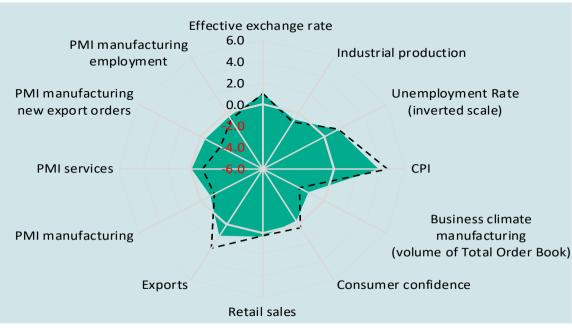
Inflation fell in March (+10.1% y/y), mainly due to the decrease of fuel prices and to favourable base effects on energy prices. However, this level remains exceptionally high and uncomfortable for the Bank of England. The persistence of core inflation (+6.2% y/y), the still high wage growth (see below), as well as the relatively good activity figures are all factors that will support its decision to raise rates by 25 bps at its next meeting in mid-May.

The labour market remains resilient but continues to slow. According to the ONS, the unemployment rate rose from 3.7% in January to 3.8% in February. Wage growth momentum is continuing at a sustained pace (+6.6% y/y in February), which has two implications. On the one hand, this means that jobseekers retain significant wage bargaining power and that their inflation expectations are staying high. On the other hand, this also means that wage pressure on prices will persist, slowing disinflation.

Defying forecasts, the British economy is holding up and does not seem to be heading towards the expected contraction in Q1. However, this contraction would not be avoided in Q2 (-0.2% q/q according to our forecasts), due to the effect of inflation on household purchasing power, and to the rise in interest rates which is impacting business investment.

Guillaume Derrien and Louis Morillon (intern). Article completed on 19/04/2023.

United Kingdom: economic indicators quarterly changes



The indicators in the radar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -6 and +6. In the radar chart, the green area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

	United Kingdom: GDP growth									
	Actual Carry-over				orecast		Annual growth forecasts (y/y)			
Q2 2022	Q3 2022	Q4 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	2022 (observed)	2023	2024	
0. 1	-0.1	0. 1	0. 1	-0.3	-0.2	0.3	4. 1	-0.4	1	

Source: Refinitiv, BNP Paribas



ECONOMIC RESEARCH

A rebound to be put into perspective

A rebound in Japanese activity is expected in the first quarter of 2023, linked to the improvement in business and household confidence surveys. The composite PMI returned above the expansion threshold in January and continued its moderate improvement, reaching 52.9 in March, Household confidence - at its highest for a year - also recovered slightly in March, but it is still very low. The upturn in GDP growth, which we expect to reach 0.5% g/g in 01 2023, follows two disappointing quarters. Its extent should therefore be put into perspective.

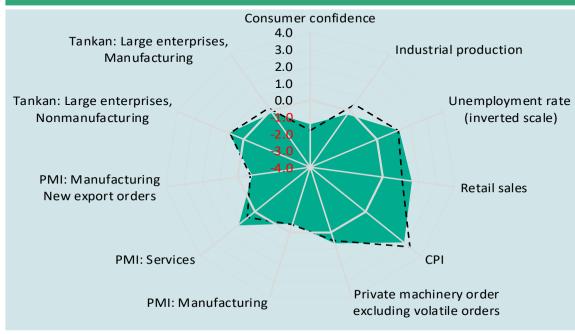
As expected, industrial production rebounded in February (+4.5% m/m), after a sharp contraction in January (-5.3% m/m) linked to the Chinese New Year. Despite this, the three-month moving average slipped again, and has now fallen below its long-term level. New industrial orders were also at their lowest level since May 2021 in February. The removal of health restrictions in China (at the very end of 2022) has offered offers opportunities for Japanese companies in 2023, but the effects have so far been unnoticeable. The latest Tankan survey (March 2023) suggests that activity levels will remain sluggish in the coming months: the general diffusion index is up just one point, from 1 to 2.

The Japanese economy is obviously not spared from the energy shock and its consequences on companies' financial situations are becoming increasingly palpable. The number of bankruptcies jumped by 40% in March to the highest level since June 2015. The number of bankruptcies is still a long way off those recorded during the 2008 crisis and especially during the "lost decade" of the 1990s. Nevertheless, this is the beginning of a reversal and its developments over the coming months will need to be closely scrutinised.

Headline inflation fell sharply in February (-1.1 points to 3.3% v/v) thanks to the beginning of government energy subsidies. This is also pushing down the inflation measure followed by the Bank of Japan (CPI excluding perishable foods). The year-on-year figure for the latter fell from 4.2% y/y in January to 3.1% y/y in February. However, the Tokyo's CPI indicates that a further rise in core inflation is to be expected in March.

Guillaume Derrien (article completed on 18/04/2023)

Japan: economic indicators quarterly changes



radar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -4 and +4. In the radar chart, the green area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

		Japan: GDP growth		
Actual	Carry-over	Forecast	Annual growth fo	orecasts (y/y)
Q2 2022 Q3 2022 Q4 2022	Q4 2022	Q1 2023 Q2 2023 Q3 20	23 2022 (observed)	2023 2024
1. 2 -0. 3 0. 0	0. 2	0.5 0.4 0.3	1. 0	1. 2 0. 8



BNP PARIBAS ECONOMIC RESEARCH

William De Vijlder Chief Economist	+33 1 55 77 47 31	william.devijlder@bnpparibas.com
OECD ECONOMIES AND STATISTICS		
Hélène Baudchon Deputy chief economist, Head - United States	+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, Southern Europe, Japan, United Kingdom - International trade	+33 1 55 77 71 89	guillaume.a.derrien@bnpparibas.com
Veary Bou, Tarik Rharrab Statistics		
ECONOMIC PROJECTIONS, RELATIONSHIP WITH THE FRENCH	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)		lucas.ple@bnpparibas.com
CONTACT MEDIA		
Mickaelle Fils Marie-Luce	+33 1 42 98 48 59	mickaelle filsmarie-luce@hnnnarihas.com

The information and opinions contained in this report have been obtained from or are based on public sources believed to be reliable but no representation or warranty, express or implied is made that such information is accurate complete or up to date and it should not be relied upon as such. This report does not constitute an offer or solicitation to buy or sell any securities or other investment. It does not constitute investment advice nor financial research or analysis. Information and opinions contained in the report are not to be relied upon as authoritative or taken in substitution for the exercise of judgement by any recipient; they are subject to change without notice and not intended to provide the sole basis of any evaluation of the instruments discussed herein. Any reference to past performance should not be taken as an indication of future performance. To the fullest extent permitted by law, no BNP Paribas 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 report. All estimates and opinions included in this report are made as of the date of this report. Unless otherwise indicated in this report there is no intention to update this report. BNP Paribas SA and its affiliates (collectively "BNP Paribas") may make a market in, or may, as principal or agent, buy or sell securities of any issuer or person mentioned in this report or derivatives thereon. BNP Paribas may have a financial interest in any issuer or person mentioned in this report, including a long or short position in their securities and/or options, futures or other derivative instruments based thereon. Prices, yields and other similar information included in this report are included for information purposes. Numerous factors will affect market pricing and there is no certainty that transactions could be executed at these prices. BNP Paribas, 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 report, BNP Parihas 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 report, BNP Parihas may be a party to an agreement with any person relating to the production of this report. BNP Paribas, may to the extent permitted by law, have acted upon or used the information contained herein or the research or analysis on which it was based before its publication RNP Parihas 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 report. Any person mentioned in this report may have been provided with sections of this report prior to its publication in order to verify its factual accuracy.

BNP Paribas is incorporated in France with limited liability. Registered Office 16 Boulevard des Italiens, 75009 Paris. This report was produced by a BNP Paribas group company. This report 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 BNP Paribas. By accepting this document you agree to be bound by the foregoing limitations.

Certain countries within the European Economic Area:

This report has been approved for publication in the United Kingdom by BNP Paribas London Branch. BNP Paribas London Branch is authorised and supervised by the Autoritied Contrôle Prudentiel and authorised and subject to limited regulation by the Financial Services Authority. Details of the extent of our authorisation and regulation by the Financial Services Authority are available from us on request.

This report has been approved for publication in France by BNP Paribas SA. BNP Paribas SA is incorporated in France with Limited Liability and is authorised by the Autorité de Contrôle Prudentiel (ACP) and regulated by the Autorité des Marchés Financiers (AMF). Its head office is 16, boulevard des Italiens 75009 Paris, France.

This report is being distributed in Germany either by BNP Paribas London Branch or by BNP Paribas Niederlassung Frankfurt am Main, a branch of BNP Paribas SA. whose head office is in Paris, France. BNP Paribas SA. – Niederlassung Frankfurt am Main, Europa Allee 12, 60327 Frankfurt is authorised and supervised by the Autorité de Contrôle Prudentiel and it is authorised and subject to limited regulation by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin).

United States: This report is being distributed to US persons by BNP Paribas Securities Corp., or by a subsidiary or affiliate of BNP Paribas that is not registered as a US broker-dealer. BNP Paribas Securities Corp., a subsidiary of BNP Paribas, is a broker-dealer registered with the U.S. Securities and Exchange Commission and a member of the Financial Industry Regulatory Authority and other principal exchanges. BNP Paribas Securities Corp. accepts responsibility for the content of a report prepared by another non-U.S. affiliate only when distributed to U.S. persons by BNP Paribas Securities Corp.

Japan. This report is being distributed in Japan by BNP Paribas Securities (Japan) Limited or by a subsidiary or affiliate of BNP Paribas not registered as a financial instruments firm in Japan, to certain financial institutions defined by article 17-3, Item 1 of the Financial instruments and Exchange Law Enforcement Order. BNP Paribas Securities (Japan) Limited is a financial instruments Jirm registered according to the Financial Instruments and Exchange Law of Japan and a member of the Japan Securities Dealers Association and the Financial Futures Association of Japan. BNP Paribas Securities (Japan) Limited accepts responsibility for the content of a report prepared by another non-Japan affiliate only when distributed to Japanese based firms by BNP Paribas Securities (Japan) Limited. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan.

Hong Kong This report is being distributed in Hong Kong by BNP Paribas Hong Kong Branch, a branch of BNP Paribas whose head office is in Paris, France. BNP Paribas Hong Kong Branch is registered as a Licensed Bank under the Banking Ordinance and regulated by the Hong Kong Monetary Authority. BNP Paribas Hong Kong Branch is also a Registered Institution regulated by the Securities and Futures Commission for the conduct of Regulated Activity Types 1, 4 and 6 under the Securities and Futures Ordinance.

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

© BNP Paribas (2015). All rights reserved.

