

The background features a close-up of a notebook with several pages. The pages contain colorful bar charts and circular diagrams. A silver pen lies horizontally across the middle of the notebook. The overall scene is brightly lit, suggesting a professional or analytical environment.

ECOPULSE

January 2023

MONTHLY PULSE OF ECONOMIC INDICATORS



BNP PARIBAS

The bank for a changing world

Will a GDP contraction be avoided again in Q4?

In December 2022, according to the European Commission surveys as well as the S&P Global PMIs, the business climate improved quite significantly, surprising positively despite the accumulation of shocks. The improvement was evident in all sectors as well as in the leading sub-components (those related to new orders). However, the level of the surveys remains relatively depressed.

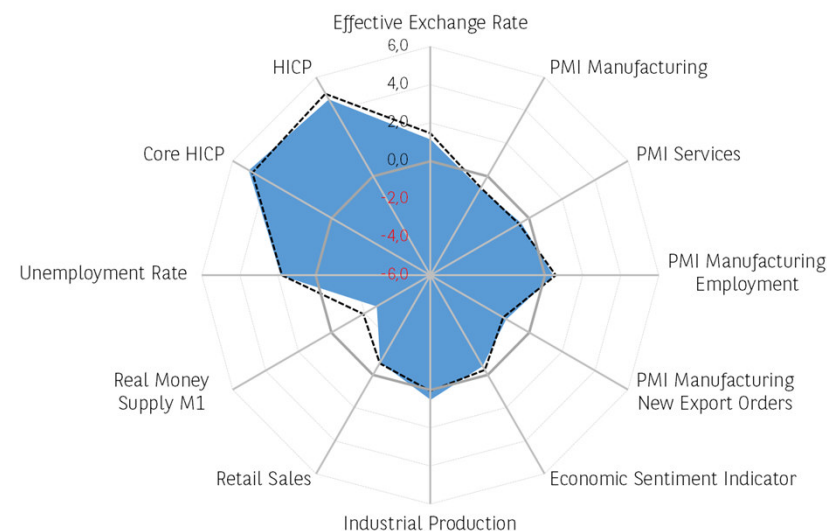
In December, consumer confidence continued its recovery for the third month in a row. While starting from a very low level, this improvement is nonetheless encouraging, driven by smaller concerns about unemployment and inflation.

The sharp fall in inflation in December (down around 1 point, at 9.2% year-on-year), which surprised expectations very favourably, is the most positive news in this month's economic picture, although it should be put into perspective by the absence of a fall in core inflation. The latter actually increased further to 5.2% (+0.2 points), due to the acceleration in the prices of manufactured products and of services. However, inflationary pressures are continuing to diminish, and this should ultimately drive core inflation down.

Given the signs of resilience in the economy and core inflation, the ECB shows its determination to continue with the tightening of its monetary policy. We are now expecting policy rate increases to be extended beyond Q1, driving the terminal point a little higher (3.25% instead of 3% for the deposit rate).

Thanks to favourable surprises in a number of Q4 indicators, including in the hard data (production and consumption in November), growth prospects appear much less negative than had been feared. The supporting factors appear to be stronger (fewer supply problems, fiscal measures) and the headwinds not so severe (energy crisis less acute). According to our Nowcast estimate, Eurozone GDP is even expected to avoid a contraction and growth would be zero. We have also raised our forecast, but it remains slightly negative (-0.1% q/q instead of -0.4%).

Economic indicators quarterly changes



Source: Refinitiv, BNP Paribas.

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 blue 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.

GDP growth q/q: actual, carry-over and forecasts

Actual			Nowcast	Forecast	Carry-over	Forecast		Carry-over	Annual growth forecasts (y/y)		
Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q4 2022	end 2022	Q1 2023	Q2 2023	mid 2023	2022	2023	2024
0,6	0,9	0,3	0,0	-0,1	0,3	-0,3	0,1	0,1	3,4	0,2	1,3

See the Nowcast methodology page 11

NOWCAST METHODOLOGY

Near real-time forecasting ("nowcast") models, also labeled as GDP forecasting models through a direct approach, are commonly used by economic analysts who monitor developments in GDP growth on a daily basis before the publication of quarterly national accounts.

These models allow an estimation of GDP growth using data already published at the time of the nowcast. It offers the most reliable possible picture of the economy's dynamics for the current quarter, before the publication of quarterly national accounts. The sophistication of near real-time GDP forecasting models has increased significantly, and the data used has been enhanced with, in particular, the integration of Google queries, articles published in different media, satellite images, credit card spending data, etc.

We use a factor-augmented mixed-frequency approach based on real economic data (industrial production, retail sales, etc.), data from opinion and economic surveys (S&P Global's PMI, European Commission survey, etc.), international and financial data.

The factor-augmented mixed-frequency approach is estimated in two stages. First of all, we reduce the dimensionality of our monthly data through a principal component analysis (PCA). This statistical technique makes it possible to estimate, by linear combination of the initial variables, a monthly factor which represents the common dynamic. Then we use this monthly common factor to explain quarterly growth using mixed-frequency linear regression (MIDAS¹).

¹ The MIDAS model makes it possible to estimate a low-frequency variable (quarterly in our case) with high-frequency variables (monthly).

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
Head - Eurozone - Climate +33 1 58 16 03 63 helene.baudchon@bnpparibas.com

Felix Berte
United States, United Kingdom +33 1 40 14 01 42 felix.berte@bnpparibas.com

Stéphane Colliac
France +33 1 42 98 43 86 stephane.colliac@bnpparibas.com

Guillaume Derrien
Southern Europe, Japan - 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

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 Paribas 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 Paribas 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. BNP Paribas 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 Autorité de 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 firm 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.



BNP PARIBAS

The bank for a changing world

ECONOMIC RESEARCH | ECOPULSE | 4