EY
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EY Italian Macroeconomic Bulletin

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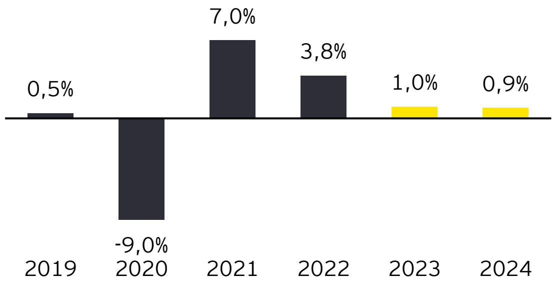
Index

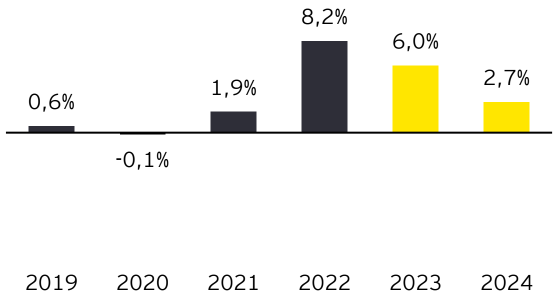
Executive summary

- Global growth is expected to slow down to 2.8% in 2023 after the 3.4% recorded in 2022, and accelerate again to 3.0% in 2024, although still a lower figure than the 2000-19 average (3.8%).
- Global inflation is expected to decline to 7.0% in 2023, from 8.7% in 2022. The level remains much higher than the 2000-2019 historical average, close to 4%. Expectations of lower inflation reflect lower energy prices, an easing of pressures on supply chains and energetic and coordinated action by global central banks.
- Global monetary policy continues to remain generally restrictive, with some exceptions: on the one hand, the Federal Reserve, the US central bank, kept the monetary policy reference interest rates stable during its last meeting on 14 June. On the other hand, the Central Bank of China (PBoC) was more expansive, cutting its key interest rates. These dynamics could anticipate changes of monetary policy also in the Eurozone in the short to medium term.
- Inflation in the Eurozone and in Italy remains high, but down compared to the previous months. The ECB's still restrictive monetary policy is influencing the dynamics of prices – which are slowing down (to 6.1% in May 2023 from 7.0% in April) – but also economic activity, especially the manufacturing sector.
- Monetary policy is also having an impact on bank credit. Various indicators show that, since the beginning of the monetary tightening, bank credit have been declining, and that the intentions of the various players (banks, households, and businesses) are not improving in the coming months.
- High-frequency macroeconomic indicators show prospects for a slowdown for the European scenario. The manufacturing PMI index is worsening for the main Eurozone countries (Germany, France, Italy, Spain), showing values below the expansion threshold. On the other hand, the PMI index relating to services remains above the reference threshold (with the exception of France) but shows a significant drop in recent months.
- Taking this context into account, EY's forecasts indicate a GDP growth of 1.0% in Italy in 2023 and 0.9% in 2024, while the inflation rate is expected to decrease from 6.0% in 2023 to 2.7% in 2024. These forecasts remain subject to a high level of uncertainty, considering the mixed signals from the currently available data, and they are linked to both the international context and the response of households and businesses to the increase in interest rates and persistent inflation, as well as the implementation of the National Recovery and Resilience Plan (PNRR).
- Two simulations conducted using EY's model on possible scenarios of partial utilization of PNRR funds, in line with the deviations in actual expenditures compared to those projected until 2022, highlight the importance of the PNRR for growth in the short to medium term.

Real GDP - % change YoY, Italy



Consumer prices - % change YoY, Italy



Source: ISTAT and forecasts from the Macroeconometric Model of EY Italia, "HEY-MoM" (for details, refer to the Technical Appendix). The yellow bars represent the forecast horizon.

The global scenario

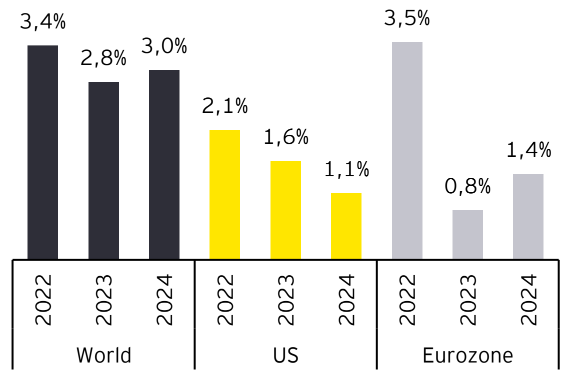
The world economy

The latest projections from the International Monetary Fund (IMF) forecast global economic growth of 2.8% for 2023, followed by a slight acceleration in 2024 (3.0%). The growth remains below the average of 2000-2019 (3.8%), although in line with pre-crisis levels (2.8% in 2019),[1] despite slight downward revisions compared to the January 2023 projections (-0.1% for 2023 and -0.1% for 2024).[2]

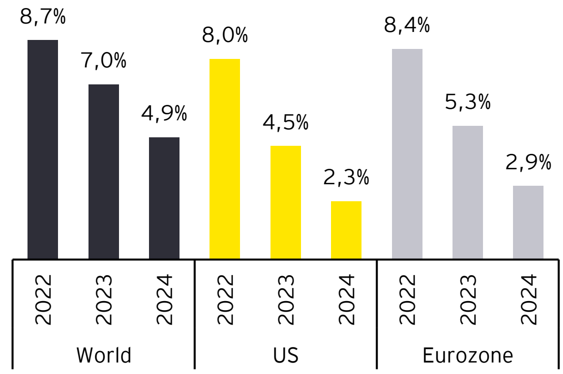
Taking a closer look at the growth forecasts, it is important to highlight the slowdown in the United States: after a growth rate of 2.1% in 2022, both 2023 and 2024 are expected to see declining growth rates, falling below the pre-pandemic average. On the other hand, the outlook for the Eurozone is different. Following the 5.4% growth recorded in 2021 (due to the post-pandemic recovery) and 3.5% in 2022, according to the IMF, 2023 will be characterized by modest growth (0.8%), primarily due to ongoing geopolitical tensions, the weight of high inflation, and record-level interest rates. Expectations of a reduction in these tensions and the normalization of other economic aspects (such as diversifying energy resource procurement from partners other than Russia) fuel expectations of an acceleration in growth for 2024 (1.4%).

Regarding the price dynamics, after the levels reached in 2022, a gradual return of inflation is expected globally. However, the values still remain below the target rates set by central banks (around 2% annually), which encourages restrictive monetary policies.

Real GDP - % change YoY



Consumer prices - % change YoY



Source: EY elaborations on IMF World Economic Outlook, April 2023.

The trend of inflation rates globally continues to be influenced by various factors, such as energy and food prices, the state of global supply chains, and the policy choices of major central banks worldwide.

With regard to the trend in energy prices, the price of natural gas continues its decline (10.11 $/mmbtu[3] for the European gas and 2.15

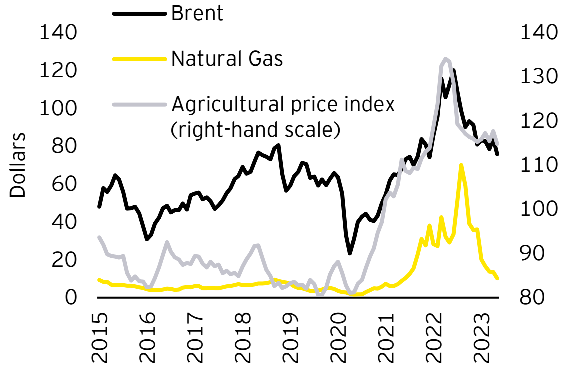
[1] IMF World Economic Outlook, April 2023: A Rocky Recovery.
[2] IMF World Economic Outlook, January 2023: Inflation Peaking amid Low Growth.

[3] Dollars per million British thermal units (BTU), which is a measure of the quantity of gas.

$/mmbtu for the American one[4] in May 2023), along with the price of oil, which experienced a further decline in May 2023 compared to March after a significant increase in April (taking the example of Brent, which rose from $78.5/bbl[5] in March 2023 to $84.1/bbl in the following month, and $75.7/bbl in May 2023)

The decision of OPEC+[6] on April 3, 2023, to reduce its production by approximately one million barrels per day is among the factors influencing the price of oil.[7] The price of oil continues to exhibit a certain level of volatility, as it is influenced not only by economic trends (such as upward pressure in the event of increased global demand and production activity) but also by the choices made by major producers.

Energy commodity prices and agricultural price index



Source: EY elaborations on World Bank data. The prices of Brent and natural gas are expressed in $/bbl and $/mmbtu, respectively. The price of natural gas refers to natural gas quoted in the Title Transfer Facility (TTF). The agricultural price index considers the price of various agricultural goods and derivatives at a global level (e.g., the price of wheat). Last observation: May 2023.

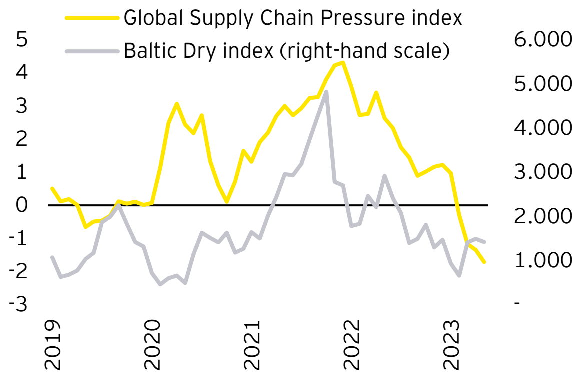
Regarding agricultural commodity prices, the decline observed in the last months of 2022 appears to have resumed, although the values are still in line (but slightly lower) with those of previous months. While the price growth seems to have largely halted, even showing negative price changes in recent months (partially due to a strong base effect[8]), it is important to note that the price level for these goods remains significantly higher than the levels recorded in 2015, creating potential global instabilities in terms of both inflation and food security.[9, 10]

Another point to consider in analyzing the global price trends is the frictions and slowdowns along the global value chains. By examining some of the key indicators, such as the Global Supply Chain Pressure index and the Baltic Dry Index, the decline in supply chain pressures appears to have brought a good degree of normalization. This should translate into reduced price pressures, contributing to an improvement in global inflation rates.

Alongside the lower energy costs and the easing of supply chain pressures, another crucial element contributing to price stability is the monetary policy implemented by most global central banks. It is noteworthy that in recent meetings, central bankers have firmly reaffirmed their intention to maintain a restrictive monetary policy, albeit with a slowdown (or halt) in raising benchmark interest rates.

[4] For the European data, reference is made to natural gas quoted in the Title Transfer Facility (TTF). For the American data, reference is made to the spot price of Henry Hub, Louisiana.
[5] Dollars per barrel.
[6] Organization of the Petroleum Exporting Countries (OPEC). It is the organization of oil-exporting countries, whose objective is to coordinate and unify petroleum policies among member countries to ensure fair and stable prices for oil producers, efficient, economical, and regular supply of oil to consuming countries, and fair returns on capital for those investing in the sector. The current member countries of OPEC are Algeria, Angola, Congo, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, United Arab Emirates, and Venezuela. For more information, https://www.opec.org/opec_web/en/about_us/24.htm. OPEC+ is the group composed of OPEC countries and other oil-exporting countries, with Russia being one of the main participants.
[7] 48th Meeting of the Joint Ministerial Monitoring Committee https://www.opec.org/opec_web/en/press_room/7120.htm.
[8] Inflation is typically measured by comparing price changes from one year to another. In 2022, prices were exceptionally high due to geopolitical tensions with Russia. When comparing today's lower prices to those much higher levels, the differences appear significant. This phenomenon is known as the "base effect."
[9] R., Vos, J., Glauber, M., Hernandez, D., Laborde (2021), COVID-19 and Rising Global Food Prices: What's Really Happening? IFPRI. Washington, DC.
[10] WFP & FAO. 2022. Hunger Hotspots: FAO-WFP early warnings on acute food insecurity. October 2022 to January 2023 Outlook.

Global Supply Chain Pressure index and Baltic Dry Index



Source: EY elaborations on data from the Federal Reserve Bank of New York and the Baltic Dry Index. The Global Supply Chain Pressure Index (GSCPI), created by the NY FED to monitor supply chain pressures, incorporates a range of commonly used metrics to provide an overview of potential supply chain disruptions (for more information, please refer to https://www.newyorkfed.org/research/policy/gscpi#/overview). The Baltic Dry Index is an index of average prices paid for the transportation of materials on over 20 routes (for more information, please refer to https://www.balticexchange.com/en/index.html). Last observation: May 2023.

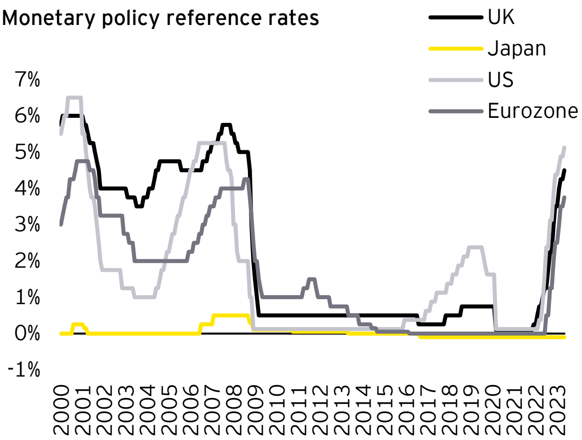
On June 14th, the Federal Reserve (the US central bank) decided to keep interest rates unchanged for the first time since the beginning of the post-pandemic tightening cycle, thus confirming rates between 5% and 5.25%.[11]

Following the Federal Reserve meeting, on June 15th, the European Central Bank decided instead to continue the path of raising the reference rates by 25 basis points, considering the still significant presence of underlying factors that keep the inflation rate at levels that are still too high compared to the 2% target.[12] The rates are thus contained within a range of 3.50% (deposit facility rate) to 4.25% (marginal lending facility rate).

The Bank of England (BoE) took a more decisive action, as on June 22nd, it decided to increase the policy interest rate by 50 basis points, bringing it to 5.0%, in response to overall inflation showing high persistence (inflation expectations for May were at 8.4%, 0.3 percentage points lower than the actual recorded inflation of 8.7%)[13] and an increasing underlying inflation.[14]

One of the channels through which an increase in interest rates reduces price changes is through the rise in the cost of debt, which discourages investments and reduces global demand, thereby indirectly impacting energy prices as well. The effects of this restrictive monetary policy appear to be even more effective in the case of "coordinated" restrictive monetary policies (as in the current case), thanks to a reduction in global energy demand.[15]

Monetary policy reference rates



Source: EY elaborations on data from the Bank for International Settlements.

Growth in the major world economies

In relation to the performance of the US economy, the United States experienced a growth of 0.5% in the first quarter of 2023 compared to the previous quarter, following a growth of 0.6% in the last quarter of 2022. Specifically, the first quarter of 2023 was characterized by an increase in consumer spending on both goods and services, a robust trend in goods exports partially offset by a decrease in services exports, and a decline in private investments.[16]

[11] The reference is to the Federal Funds Rate. For more information, please visit https://www.federalreserve.gov/newsevents/pressreleases/monetary20230614a.htm.
[12] For more information, see https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.mp230615~d34cddb4c6.en.html.
[13] BoE Monetary Policy Summary and minutes of the Monetary Policy Committee meeting, June 2023. For more information, see https://www.bankofengland.co.uk/monetary-policy-summary-and-minutes/2023/june-2023.
[14] For more information, see https://www.bankofengland.co.uk/monetary-policy-summary-and-minutes/2023/june-2023.
[15] Auclert, A., Monnery, H., Rognlie, M., and Straub, L. (2023), Managing an Energy Shock: Fiscal and Monetary Policy. Mimeo, Stanford.
[16] Gross Domestic Product (Third Estimate), Corporate Profits (Revised Estimate), and GDP by Industry, First Quarter 2023, https://www.bea.gov/news/2023/gross-domestic-product-third-estimate-corporate-profits-revised-estimate-and-gdp-industry.

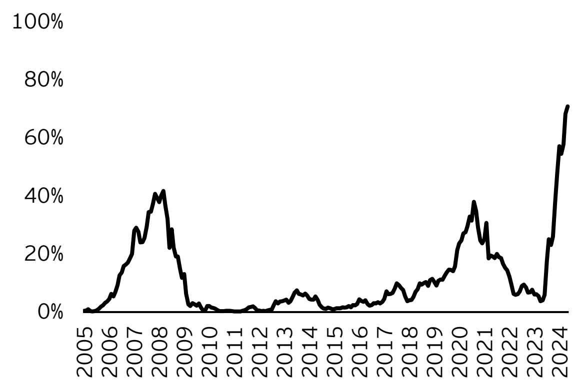
In April 2023, volume consumer spending showed modest growth compared to the previous month (0.2%), followed by flat growth in May (0.0%). This performance was driven by a decline in spending on goods (-0.4%, with a decrease of 1.2% in durable goods consumption) and a modest increase in spending on services (0.2%).[17] When analyzing the recent months' dynamics of consumer spending in the US, it is important to note that in February and March 2023, total spending remained unchanged, primarily due to a slowdown in durable goods consumption. However, there was a slight growth in services spending (0.1% in February, 0.4% in March).

These data are accompanied by a growing labor market, with additional 339,000 individuals employed in May compared to the previous month. However, there was a slight increase in the unemployment rate, which reached 3.7%.[18]

The sequential growth of the industrial and manufacturing sectors appears weak, with a variation of -0.2% and 0.1% respectively in May 2023 compared to the previous month (-0.3% and 0.2% on an annual basis).[19] The industrial production data becomes even more significant when compared to analysts' expectations, which anticipated a modest growth of the index (0.1% on a monthly basis).

The mixed signals coming from the US economy translate into expectations of a possible recession in the coming quarters, as estimated through various indicators, including the analysis of the yield curve.[20] At the moment, the most widely accepted thesis is still that of a soft landing rather than a full-fledged recession. The signals remain mixed and compel us to closely monitor the other side of the Atlantic for potential repercussions on European economies as well.

12-month recession probability - US



Source: EY elaborations based on data from the Federal Reserve Bank of New York. The probability of a recession in the United States over the next twelve months is based on the slope of the yield curve, or the "term spread." The term spread is defined as the difference between the 10-year Treasury yield and the 3-month Treasury yield.

In addition to recession expectations, the latest estimates from the Federal Reserve Bank of New York in May 2023 indicate an average GDP growth in the next four quarters ranging from -2.1% to +2.3%, with a median growth of 0.19%.[21] These estimates further emphasize the significant uncertainty and overall weak trajectory of economic activity.

Referring to other major global economies, the United Kingdom records a relatively modest growth, with the quarterly GDP estimate showing a 0.1% expansion in the first quarter of 2023.[22] The cyclical data also indicate a situation that is not improving: in April, the services sector experienced a weak monthly growth (0.3%) following a contraction in the previous month (0.5%).[23] The construction sector contracted (-0.6%), as well as the industry sector (-0.3%), driven by a decrease of 0.3% in the manufacturing sector.[24, 25] Discouraging data also comes from the performance of consumer spending in the

[17] Bureau of Economic Analysis, Personal Income and Outlays, May 2023, https://www.bea.gov/news/2023/personal-income-and-outlays-may-2023.
[18] U.S. Bureau of Labor Statistics, Employment Situation Summary, giugno 2023. For more information, see https://www.bls.gov/news.release/empsit.nr0.htm.
[19] Industrial Production and Capacity Utilization, giugno 2023. For more information, see https://www.federalreserve.gov/releases/g17/current/default.htm.
[20] For more information, see https://www.newyorkfed.org/research/capital_markets/ycfaq#/.
[21] Federal Reserve Bank of New York, Outlook-at-Risk: Real GDP Growth, Unemployment, and Inflation, https://www.newyorkfed.org/research/policy/outlook-at-risk#root:growth-at-risk.
[22] Office for National Statistics (ONS), GDP first quarterly estimate, UK: January to March 2023, https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpfirstquarterlyestimateuk/januarytomarch2023.
[23] Office for National Statistics, Index of Services, UK: April 2023, https://www.ons.gov.uk/economy/economicoutputandproductivity/output/bulletins/indexofservices/april2023.
[24] Office for National Statistics, Construction output in Great Britain: April 2023, https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/bulletins/constructionoutputingreatbritain/april2023/pdf.
[25] Office for National Statistics, Index of Production, UK: April 2023, https://www.ons.gov.uk/economy/economicoutputandproductivity/output/bulletins/indexofproduction/april2023.

first quarter (virtually no growth compared to the previous quarter) and from an inflation rate that remains high. In May, the overall (headline) inflation rate stood at 8.7% (similar to April and 0.3 percentage points higher than expectations), while core inflation continues to rise (7.1% in May 2023 compared to 6.8% in April 2023). [26] The United Kingdom also presents a complex situation, adding further challenges to the international and European landscape. Weak growth corresponds to reduced demand for foreign goods, leading to a slowdown in international trade.

With the return to normalcy of economic and social activities in China, annual growth for most production and demand indicators has improved, albeit at a slight slowdown. The services sector and consumption of goods have shown rapid recovery, while employment and prices have remained generally stable (0.2% in May 2023, following the 0.1% recorded in April). For example, in May, the services production index increased by 11.7% compared to the previous year, with a decrease of 1.8 percentage points compared to the growth recorded in the previous month. On the other hand, the manufacturing PMI remains below the expansion threshold (50), standing at 48.8, indicating some weakness in the sector with potential global repercussions.[27]

It is also interesting to note that retail sales of consumer goods have recorded a deceleration in year-on-year growth in May 2023 (12.7%) compared to the previous month (18.4%).

To support economic activity, the central bank has pursued a monetary policy of reducing interest rates. The Loan Prime Rate (LPR) and the Medium-term Lending Facility (MLF), which are the two main policy rates in China, stand at 3.55% and 2.65% respectively as of June 2023 (these rates remained unchanged at 3.65% and 2.75% since August/July 2022).[28]

The overall outlook for the Chinese economy appears robust but does show a hint of weakness, despite the ongoing recovery from the pandemic crisis. Given the weight of this economy and its strategic importance globally, a slow recovery of economic activity translates into a slower overall global economic recovery.

[26] Office for National Statistics, Consumer price inflation, UK: May 2023, https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/consumerpriceinflation/may2023/pdf.
[27] National Bureau of Statistics of China, National Economy Continued to Recover in May, June 2023, http://www.stats.gov.cn/english/PressRelease/202306/t20230615_1940633.html.

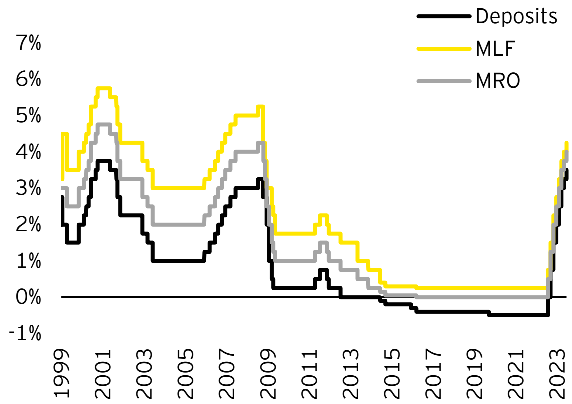
[28] Loan Prime Rate (LPR) is the reference rate used by commercial banks to determine the cost of loans for customers with the highest credit standards. The Medium-term Lending Facility (MLF) is the rate at which commercial banks and other institutions (such as China Development Bank) borrow from the central bank on a medium-term basis. For more information, please refer to http://www.pbc.gov.cn/en/3688229/3688335/3883798/index.html.

The European framework

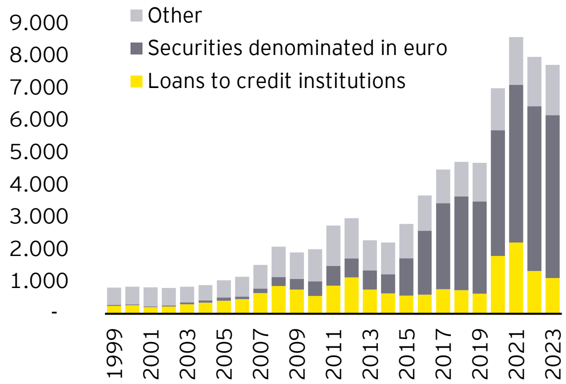
Monetary policy, prices and bank credit

The increase in interest rates in the Eurozone continues, but at a slower pace. On June 15, 2023, the Governing Council of the ECB decided to raise the key interest rates by 25 basis points. The interest rate on main refinancing operations, marginal lending facility, and deposit facility[29] were set at 4.00%, 4.25%, and 3.50% respectively, with effect from June 21, 2023.[30] The magnitude of the latest rate hike is in line with the one experienced in the previous meeting in May 2023 but lower than the one in the March meeting. Despite the temporary pause in rate hikes by the Federal Reserve, future increases are not ruled out for the Eurozone.

Monetary policy rates - ECB



ECB - main balance sheet items



Source: EY analysis based on European Central Bank data. MLF = Marginal Lending Facility; MRO = Main Refinancing Operations. The deposit facility rate refers to deposits with the central bank. Balance sheet items - Loans to credit institutions: refers to loans to credit institutions in the euro area connected to monetary policy operations denominated in euros (including main refinancing operations and LTROs); Securities denominated in euros: refers to securities denominated in euros by residents in the euro area (including assets acquired for monetary policy purposes); Other: includes gold and foreign currency-denominated claims on residents and non-residents in the euro area. Last observation for 2023 refers to the weekly financial statement as of June 27, 2023.

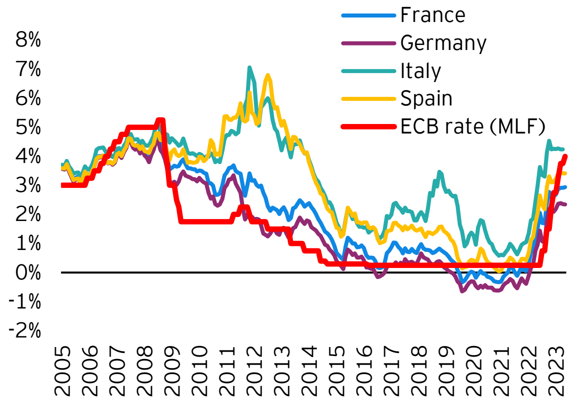
As announced in the previous meetings, the ECB is combining an increase in benchmark interest rates with a reduction in assets on its balance sheet and a planned decrease in the assets in the APP (Asset Purchase Programme) portfolio at a pace of 15 billion euros per month on average until the end of June 2023. The Governing Council then plans to halt reinvestments under the APP from July 2023 onwards. Regarding the Pandemic Emergency Purchase Programme (PEPP), the Governing Council intends to reinvest the principal payments from maturing securities purchased under the programme at least until the end of 2024, allowing for a certain degree of flexibility in reinvesting maturing redemptions in the PEPP portfolio to address risks to the transmission mechanism of monetary policy associated with the pandemic.

[29] The interest rate on deposits with the central bank is one of the three key reference rates that the ECB sets every six weeks as part of its monetary policy decisions. This rate determines the interest that banks receive on their overnight deposits (for the duration of one working day) with the central bank. The other two reference rates are the rate on main refinancing operations (MRO) and the rate on marginal lending facilities (MLF). The MRO rate determines the cost at which banks can obtain credit from the central bank with a one-week maturity. If banks need overnight liquidity, they can turn to marginal lending facilities at a higher rate. For more information, please refer to https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.it.html.
[30] For more information, see https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.mp230615~d34cddb4c6.en.html.

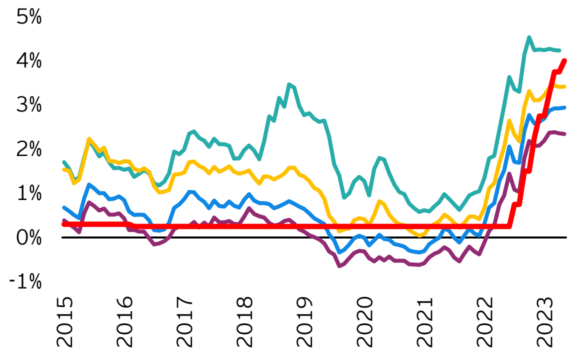
In addition to the reduction of the central bank's balance sheet, the process of quantitative tightening (QT)[31] has further impacts to consider, such as the increase in long-term interest rates. It has been estimated that a reduction of $60 billion per month in the balance sheet leads to an increase in long-term interest rates of 9 basis points. It is also important to consider how the reduction of the central bank's balance sheet results in sectoral reallocation of assets, with different responses depending on the elasticity of demand in each sector as yields change.[32]

In addition to these tools aimed at maintaining price stability, the ECB also employs additional instruments for financial stability within the Eurozone. An example of this is the Transmission Protection Instrument (TPI) program, which aims to prevent fragmentation of financial markets and ensure smooth transmission of monetary policy guidance. This instrument allows for the purchase of government securities, but only in jurisdictions that meet a set of eligibility criteria. The mere possibility of activating the TPI has helped to halt the disorderly and unjustified increase in spreads between different Eurozone government bonds.[33]

10-year yield rates and ECB rate



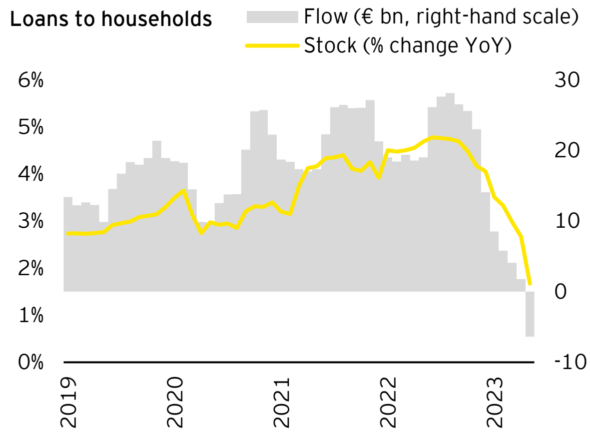
10-year yield rates and ECB rate - zoom 2015-2023

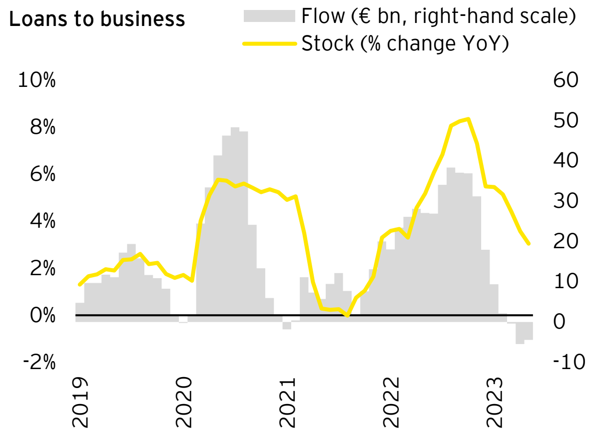


Source: EY elaborations on OECD and ECB data. Last observation: May 2023.

Among the various impacts of an increase in interest rates on Eurozone economies, it is important to focus on the implications related to the credit dynamics in member countries. Since the first rate hike in mid-2022, the average cost of credit for households in the Eurozone has increased by approximately 1.2 percentage points, rising from 2.2% in July 2022 to 3.4% in April 2023. The increase has been even more pronounced for businesses, with the average cost of credit rising from 1.8% to 4.4% (representing a relative increase of 2.6 percentage points).[34]

[31] The term "quantitative tightening" refers to the process of reducing the balance sheet of a central bank by reducing the assets acquired during operations that are part of the "quantitative easing" process. For more information, please refer to https://www.europarl.europa.eu/RegData/etudes/STUD/2023/741490/IPOL_STU(2023)741490_EN.pdf.
[32] Eren, E., Schrimpf, A., Xia, F., D. (2023), The demand for government debt, BIS Working Papers, No 1105. The study was conducted on the US economy, but the results are similar for the Eurozone, as specified by the authors.
[33] ECB, Monetary and financial stability - can they be separated?, https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230519~de2f790b1c.en.html.
[34] For households, the average cost of housing financing is considered, calculated as a 24-month moving average of short and long-term interest rates on new volumes. For businesses, the average cost of bank loans is taken into account.





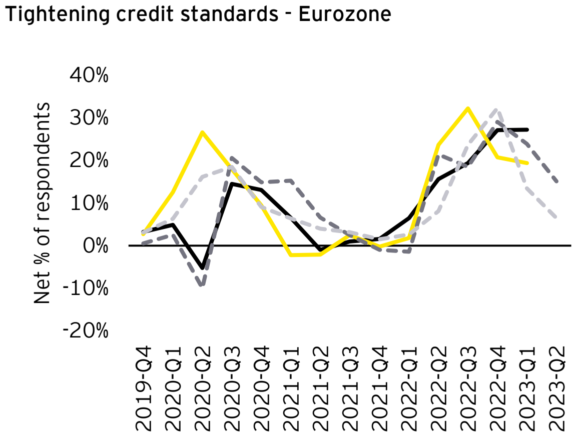
Source: EY elaborations on ECB data. Household loans also include loans to non-profit institutions. For businesses, non-financial organizations are considered. The flows are represented as a six-period moving average. Last observation: May 2023.

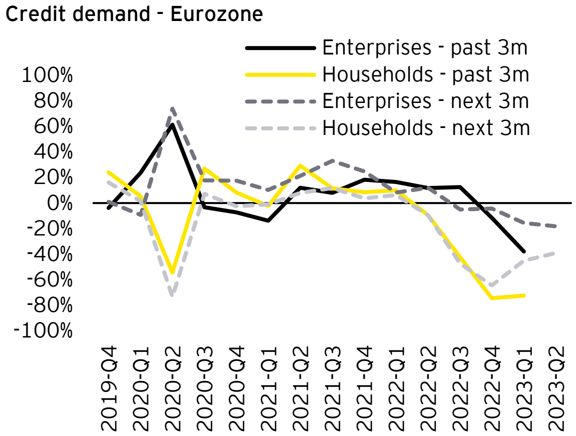
The total outstanding loans to households and businesses in the Eurozone's banks are experiencing a deceleration in their growth. This deceleration first affected households, which experienced a reversal of the trend in the second half of 2022 that had been ongoing since 2018. A similar picture emerges for businesses.

The speed of the decline in loan flows is also significant from a historical perspective. If we consider the period between the latest available data (May 2023) and the post-pandemic peak (September 2022), it is noticeable that, within a 9-month interval, the contraction in loans to households is greater than that experienced in 2009 following the financial crisis, which was the most significant crisis ever recorded in the Eurozone. A similar situation is also observed for non-financial businesses.[35]

A similar picture to the one described is also depicted in the surveys conducted by the Eurosystem's central banks. According to the Bank Lending Survey (BLS) conducted in the Eurozone,[36] the majority of banks have continued to tighten credit conditions for households and businesses in the past quarters, in some cases even more than anticipated in previous survey editions. This is evident, for example, in the provision of loans to households in the second and third quarters of 2022. However, there has been a partial reversal of this trend in the last quarter of 2022 and the first quarter of 2023. Nevertheless, a further tightening is expected in the second quarter of 2023.There are various factors underlying the phenomenon observed in recent quarters, including both general characteristics and more specific aspects. In the former case, the overall condition of the economies in different countries is the primary concern for Eurozone banks. Additionally, there are also more specific reasons linked to the performance of certain economic sectors.[37]

[35] For the analysis of flows, three-period moving averages are considered.
[36] The Bank Lending Survey (BLS) provides information on the conditions of bank lending in the euro area. It complements existing statistics with information on the supply and demand of loans to businesses and households. The survey contributes to the assessment of monetary and economic developments conducted by the Governing Council of the European Central Bank (ECB), informing the decision-making process in monetary policy. The BLS is conducted four times a year. For more information, please visit https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/index.en.html.
[37] The euro area bank lending survey - First quarter of 2023, https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/ecb.blssurvey2023q1~22c176b442.en.html.





Source: EY analysis based on ECB data (Bank Lending Survey, BLS). The survey refers to the first quarter of 2023. Credit standards (left chart): The percentages represent the net percentage between banks that tightened credit standards and banks that made them less stringent. The data refers to both the experience in the previous three months and the expectations for the next three months. The higher the percentage, the greater the number of banks that will require stricter standards for lending. Credit demand: The percentages represent the net percentage of banks reporting an increase in credit demand and banks reporting a decrease. The data refers to both the experience in the previous three months and the expectations for the next three months. In both charts, the data for the next three months has been shifted forward by one quarter. The data for households refers to the supply and demand of credit related to house purchases.

In relation to the credit demand from households and businesses, since the beginning of the ECB's monetary tightening in the second half of 2022, banks have observed a continuous decline in loan requests. The decline in demand was initially seen among households, followed by businesses. However, banks in the Eurozone expect a gradual recovery in loan demand in the next quarter.

Similar to credit supply, credit demand is influenced by various factors, some of which are more general and others more specific. Concerning business demand, higher interest rates are one of the main obstacles that operators must face, along with a simultaneous reduction in fixed investments. The situation is similar for households, which are deterred by high interest rates and a general deterioration in consumer confidence.[38]

Monetary tightening contributes to a slowdown in economic activity through the credit channel in the Eurozone, where GDP is expected to grow by 0.9% in 2023 according to the latest forecasts from the European Central Bank (0.8% according to the International Monetary Fund, as shown at the beginning of the document). This represents a 0.1 percentage point decrease compared to the ECB's March 2023 projections.[39] The revision of the forecast is particularly influenced by the prospects for consumption, which have shifted from a projected growth of 0.7% for 2023 in March to a growth of 0.2%. However, this is partially offset by a larger positive contribution from external demand and a reduction in imports. Export growth for 2023 is now expected to be 2.7% instead of the previous forecast of 3.4%, while imports are projected to grow by 1.4% instead of the previous estimate of 3.0%. This implies a stronger positive contribution from foreign demand but also indicates a slowdown in international trade.

While on one hand, the increase in interest rates reduces economic activity, on the other hand, the restrictive monetary policy is effectively contributing to curbing the rise in price levels. It has been estimated[40] that in 2022, the tighter interest rates implemented by the ECB resulted in a reduction of

[38] In this context, consumer confidence refers to the assessments of the past and current financial situation of households and their expectations (regarding income) for the future, assessments of the past and current political and economic situation, and the corresponding outlook for the future, as well as evaluations of the desirability of making residential investments.
[39] ECB, Eurosystem staff macroeconomic projections for the euro area, June 2023, https://www.ecb.europa.eu/pub/projections/html/index.en.html.
[40] The estimation relies on a set of models: two structural DSGE models (NAWM II and MMR) and a large-scale semi-structural model (ECB-BASE). For detailed information on the NAWM II model, refer to Coenen, G., Karadi, P., Schmidt, S., and Warne, A., "The New Area-Wide Model II: an extended version of the ECB's micro-founded model for forecasting and policy analysis with a financial sector," Working Paper Series, No. 2200, ECB, November

approximately 50 basis points in the inflation rate in the Eurozone. The maximum effect is expected to be recorded in 2024, and overall, over the three-year period between 2023 and 2025, a reduction of around 2 percentage points in inflation is anticipated.[41]

When examining the price dynamics in the Eurozone, it is important to highlight that the scenario described represents the Eurozone as a whole but provides limited insight into individual economies. Inflation rates at different speeds, which are linked to the varying economic impact of the Russia-Ukraine conflict across Eurozone countries, could hinder the convergence process of Eurozone economies and the European Union more broadly. In the latter, the pace of convergence, defined as the difference in per capita GDP growth between the EU average and the 16 EU countries with below-average per capita income, has slowed down following the pandemic. It decreased from an average of 1.6% annually during the 2015-2019 period to 1.1% during the 2021-2022 period, implying a slower convergence towards the EU average income.[42]

When considering the trend of inflation in the Eurozone, it is interesting to note that core inflation, which represents the underlying component,[43] has recorded higher values in recent months compared to headline inflation, which takes into account all the items in the basket used to monitor price developments. A similar phenomenon occurred during the pandemic crisis when energy prices significantly decreased due to the global economic slowdown. A higher core inflation rate compared to headline inflation indicates a higher rate of change in the underlying component relative to energy and/or fresh food prices.

In the latest data, the underlying component shows a reduction in year-on-year growth (compared to the same month of the previous year) after reaching its peak in March 2023 (7.6%), stabilizing at 6.9% in May 2023. The underlying component is still driven by the price trend of services (with a 5.1% inflation rate for services in May 2023), while the component for non-fresh food items experiences a slowdown in the growth rate, although it remains relatively persistent overall.[44]

2018 (revised in December 2019). For information on the MMR model, see Mazelis, F., Motto, R., and Ristiniemi, A., "Monetary policy strategies for the euro area: optimal rules in the presence of the ELB," Working Paper Series, No. 2797, ECB, March 2023. For detailed information on the ECB-BASE model, refer to Angelini, E., Bokan, N., Christoffel, K., Ciccarelli, M., and Zimic, S., "Introducing ECB-BASE: The blueprint of the new ECB semi-structural model for the euro area," Working Paper Series, No. 2315, ECB, September 2019.

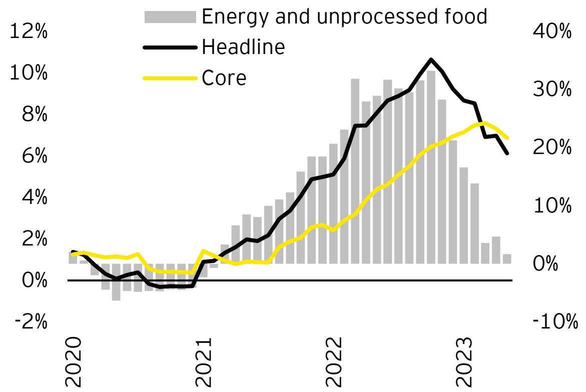
[41] ECB, A model-based assessment of the macroeconomic impact of the ECB's monetary policy tightening since December 2021, https://www.ecb.europa.eu/pub/economic-bulletin/focus/2023/html/ecb.ebbox202303_06~b2bdff5cda.en.html.

[42] World Bank, Energizing Europe, EU regular economic report 9, https://www.worldbank.org/en/region/eca/publication/eurer.

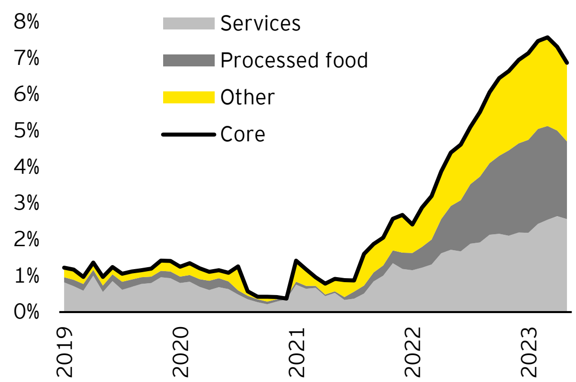
[43] The reference is made to the definition of core inflation by ISTAT (Italian National Institute of Statistics), which considers the consumer price index excluding the changes in energy prices and fresh food prices.

[44] ECB, Challenges for monetary policy at times of high inflation, April 2023, https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230419_1~03b3c404b1.en.pdf.

Inflation rate - % change YoY



Contributions to core inflation - Eurozone



Source: EY elaborations on Eurostat data. The headline measure considers all goods in the basket used to calculate price changes, while the core measure excludes energy and unprocessed food from the headline basket. The rates refer to harmonized rates. Last observation: May 2023.

When analyzing the inflation trends in the Eurozone and individual countries, it is important to consider the role that fiscal policy choices made in recent years have played in determining these trends. Similar to other major global economies, the Eurozone has experienced significant fiscal stimulus, first to counteract the negative effects of the pandemic crisis and later to address the energy crisis.

Regarding the first point, the four largest economies have implemented measures ranging from 3% of GDP for Italy to 8% for Germany, with Spain at 4% and France at 5% (these percentages increase significantly when considering liquidity support guarantees and the deferral of certain payments, such as taxes and social contributions).[45] Regarding the second aspect (fiscal response to the energy shock), the total resources vary from 7.4% of GDP for Germany to 5.2% for Italy, and 3.7% and 3.4% for France and Spain, respectively.[46]

These fiscal stimuli in response to shocks have likely also played a role in explaining the persistence of inflation in the analyzed countries. It has been recently demonstrated that while unfunded fiscal stimuli support the recovery and alleviate deflationary pressures, they also add a certain degree of persistence to inflation.[47]

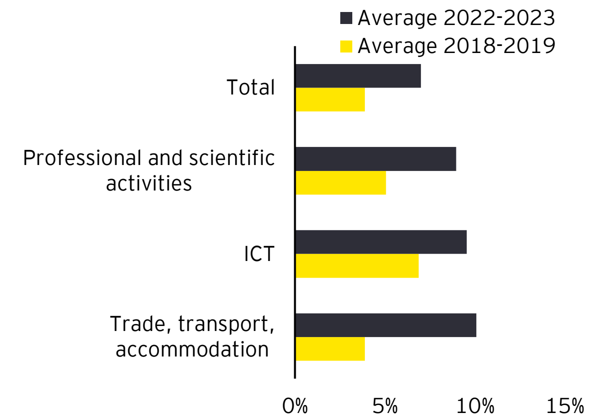
The growth in service prices is also partly linked to the trend in wages within the same sector. In the Eurozone, there has been a continuous increase in labor costs in the service sector since 2022,[48] similar to the increase in service prices. For example, in the wholesale and retail trade, transportation, and accommodation sector, the average annual increase in labor costs between early 2022 and the first quarter of 2023 was 10.1%, compared to an average of 3.9% between 2018 and 2019. Similarly, in the ICT sector, the growth rate was 9.6% during the same period, compared to an average growth of 6.9% in 2018-2019. In the professional activities sector, the growth rates were 9.0% and 5.1% respectively.[49] The significant growth in labor costs in recent quarters contributes to maintaining high inflation rates.

[45] Bruegel, The fiscal response to the economic fallout from the coronavirus, November 2020 https://www.bruegel.org/dataset/fiscal-response-economic-fallout-coronavirus.
[46] Bruegel, National fiscal policy responses to the energy crisis, March 2023, https://www.bruegel.org/dataset/national-policies-shield-consumers-rising-energy-prices.
[47] Bianchi, F., Faccini, R., Melosi, L. (2023), A Fiscal Theory of Persistent Inflation, The Quarterly Journal of Economics, qjad027, https://doi.org/10.1093/qje/qjad027https://doi.org/10.1093/qje/qjad027.
[48] The cost of labor is determined by the sum of gross wages and social contributions. For more information, see https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Compensation_of_employees. The reference is made to ATECO codes G-I, J, M, N, including retail trade.
[49] The reference is made to sectors classified as G-I in the NACE Rev. 2 classification (Wholesale and retail trade, transport, accommodation, and food service activities), J (Information and communication), and M_N (Professional, scientific and technical activities; administrative and support service activities).

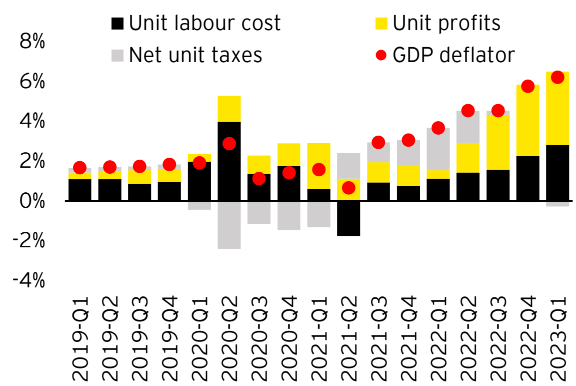
In addition to wage dynamics, it is important to consider a second element that has gained relevance in recent times. By decomposing the GDP deflator[50] into its main components from the income side,[51] unit profits appear to have played a significant role in explaining the price developments in recent quarters. Since the outbreak of the pandemic, global supply chains have faced strong pressures, and energy prices have experienced a significant surge, leading to a substantial increase in the cost of production factors. In general, businesses can respond to such cost increases in two ways: by passing them on to consumers to avoid a reduction in profits and margins, or by reducing production, which can result in job losses, economic growth slowdown, and potential repercussions on the financial sector and public finances. Despite cost pressures, companies seem to have been able to withstand them by maintaining, if not increasing, their nominal profits.[52] They have partly increased prices of their final products, thus offsetting the cost increases (with significant heterogeneity across different sectors) during a period of economic slowdown.[53]

An increase in prices higher than what is necessary to absorb higher costs can further fuel inflation, potentially leading the European Central Bank to maintain a restrictive monetary policy for a longer period.

Labour costs - Eurozone, % change YoY



Contributions to GDP deflator growth - Eurozone



Source: EY elaborations on Eurostat data. The contributions are calculated as a weighted sum of the changes in individual components of GDP from the income side. The weights are given by the ratio of the values of the individual components in real terms to nominal GDP. Net unit taxes are given by the difference between taxes on products and imports and subsidies. Last observation for labour cost is for the first quarter of 2023.

On this topic, however, it is important to shed light on some fundamental elements, in order not to make the mistake of attributing a causal value to a phenomenon that in many cases is of an accounting and income distribution nature, and is less pronounced than it seems when viewed in historical perspective (not only looking at the current quarters, but expecting a possible reversal of the situation in the future), and is characterized by a strong sectoral heterogeneity. The phenomenon was nevertheless predictable as it is in line with historical regularities (take for example the oil crises of the 1970s and 1980s, where similar phenomena were observed).

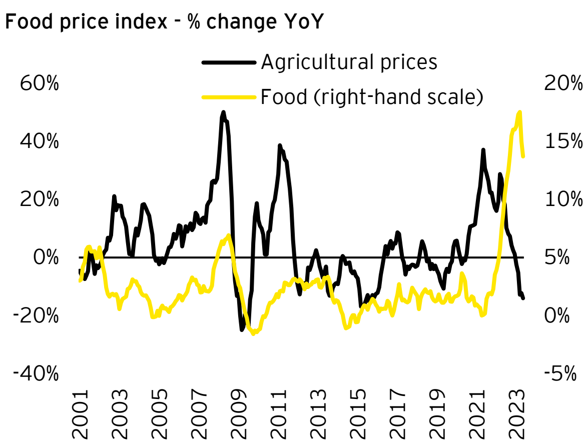
[50] A deflator is a value that expresses the price changes over a period of time for a product or a basket of products, used to deflate (adjust prices) a measure of value changes for the same period (e.g., sales of this product or basket), thus eliminating price increases or decreases and leaving only volume changes. For more information, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Deflator.
[51] The analysis of Gross Domestic Product (GDP) from the income side considers income from employment, taxes on production and imports minus production subsidies, gross operating surplus, and other incomes. The income-based approach shows how GDP is distributed among the different participants in the production process. For more information, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Income_approach.
[52] ECB, Inflation and monetary policy, May 2023, https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230508~7014c100eb.en.pdf?57d7ec165307b4e2182ad256dca0d992.
[53] Firms' profits: cure or curse?, https://www.esm.europa.eu/blog/firms-profits-cure-or-curse. https://www.esm.europa.eu/blog/firms-profits-cure-or-curse.

Regarding this, a recent IMF paper focuses on some important elements.[54] Through a decomposition of the consumption deflator and not just the GDP deflator, taking into account more accurately the foreign component, it is shown that import prices, in addition to profits, represent a significant part of the average variation in the consumption deflator in the Eurozone over the past year. The increase in profits has been greater in sectors most affected by rising commodity prices and those exposed to demand and supply imbalances. The data show that, on average, businesses have been less affected by cost shocks and have fared relatively better than workers, but the available data to date do not indicate a widespread increase in margins in the Eurozone. In perspective, according to the authors, a normalization of profit shares will be necessary to achieve the 2% inflation target within the next two years; alternatively, wage pressures will add to this dynamic, making inflation recovery more difficult. It is therefore important that monetary policy manages to anchor inflation expectations to the target, so that workers and businesses stabilize on a consistent relative price fixation with disinflation.

In addition, as mentioned in a recent paper on the same topic published by the Bank of Italy,[55] profit shares are not calculated relative to total revenues, but relative to value added, which excludes the value of intermediate goods. Therefore, when the relative price of intermediate goods increases, value added may grow less than total revenues, and thus the ratio of profits to value added could increase, even if firms' pricing strategies have not changed. An increase in the profit share is therefore compatible with a decrease in profit margins (as has happened in some sectors), and it certainly would not be a case of "greedflation" in this scenario.

The presence of these two dynamics, namely the increase in prices to maintain profits by companies and the adjustment of wage demands by workers to recover lost purchasing power, still keeps upward pressure on prices in the Eurozone. And the mutually reinforcing relationship between attempts to maintain margins and higher nominal wages risks translating into a second-round of inflation, with the risk of an upward inflationary spiral. This could ultimately move long-term inflation expectations away from the ECB's target of 2%.[56]

[54] Hansen, N. J., Toscani, F., & Zhou, J. (2023). Euro Area Inflation after the Pandemic and Energy Shock: Import Prices, Profits and Wages. IMF Working Paper No. WP/2023/131
[55] Colonna, F., Torrini, R., & Viviano, E. (2023). The profit share and firm markup: how to interpret them? Bank of Italy Occasional Paper, (770).
[56] How tit-for-tat inflation can make everyone poorer, https://www.ecb.europa.eu/press/blog/date/2023/html/ecb.blog.230330~00e522ecb5.en.html.



In analyzing the price dynamics, an important role is played by the component of food prices (which account for approximately 16% of the total basket used to estimate price increases as of 2022).

By cross-referencing the trend in food price changes in the Eurozone with the agriculture price index produced by the World Bank,[57] it is interesting to note that what is expected in the coming months is a further significant reduction in the inflation rate of the sector, potentially leading to a negative contribution to the overall index.

Source: EY elaborations on Eurostat data. The food price index refers to the Eurozone. The Agriculture Price Index measures the monthly change in prices of agricultural goods, specifically considering the categories of "beverage," "food," and "raw materials." For more information, please visit https://www.worldbank.org/en/research/commodity-markets. Last observation: May 2023.

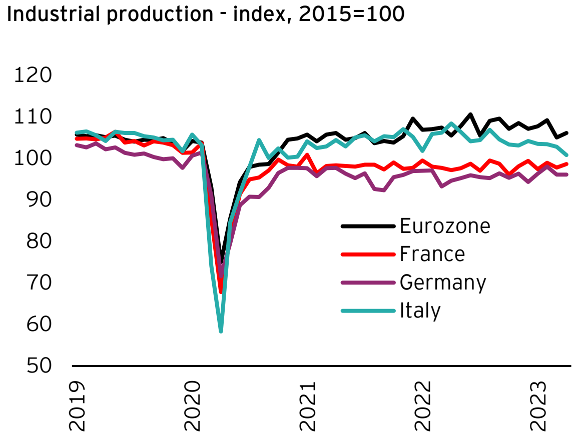
By combining the two historical series, it is noticeable that the World Bank index generally seems to anticipate the movement of food inflation by approximately ten months.[58] This could potentially result in a further reduction in the price index in the medium term.

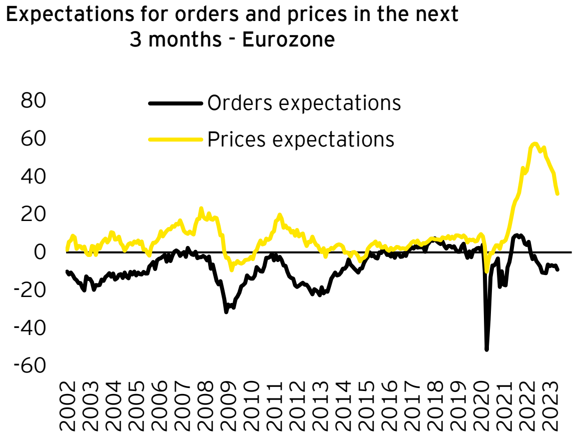
Short-term indicators

Analyzing the main economic indicators, it is noticeable that the major European economies continue to experience a highly complex economic situation. In the first quarter of 2023, the Eurozone recorded a negative growth compared to the previous quarter, similar to the one registered in the fourth quarter of 2022 (-0.1%), thus entering a technical recession. The situation is slightly better in France, with modest growth (+0.2%), while Germany records a negative performance (-0.3%), adding to the negative data of the fourth quarter of 2022 (-0.5%). On the other hand, Italy shows a better result, with a GDP growth of 0.6% compared to the previous quarter. Household consumption has been a major drag in the Eurozone, contracting by -0.3%. Particularly, Germany (-1.2%) and Spain (-1.3%) experienced a significant decline in consumption. A broader analysis also shows that the GDP levels of Eurozone countries have not yet returned to pre-pandemic values.

Industrial production in the major Eurozone countries is declining. The data for April 2023 shows a significant reduction for Italy compared to the previous month, reaching -1.9% (-7.0% on a year-on-year basis; -7.2% adjusted for calendar effects), the worst performance among the four major European countries (Italy, Germany, Spain, France). Germany, on the other hand, records zero growth on a monthly basis, while France shows modest growth (0.8%). Observing the historical series of industrial production, it is also noticeable that both France and Germany are still significantly below pre-pandemic levels.

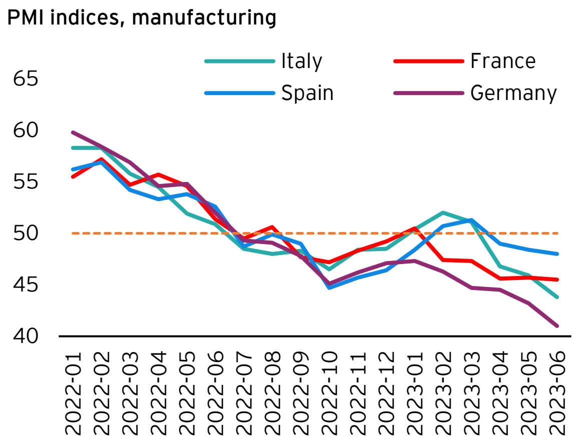
[57] For more information, see https://www.worldbank.org/en/research/commodity-markets.
[58] Reference is made to the time distance at which the maximum correlation between these two variables is recorded (0.43).

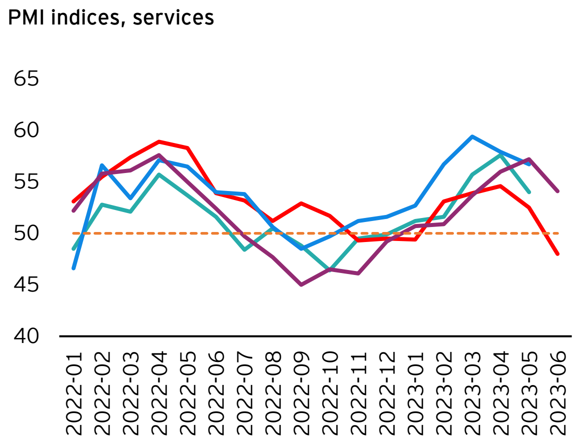




Source: EY elaborations on Eurostat data, European Commission (Business and consumer surveys). For industrial production, reference is made to NACE Rev. 2 codes B-D (Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply). Last observation for: industrial production: April 2023; expectations: May 2023.

Furthermore, analyzing the data on retail trade orders for the Eurozone, operators continue to not see signs of recovery in the short term (next three months), considering an uncertain economic situation and a not particularly significant growth of the economy. Interesting, in this regard, are also the expectations that these operators have regarding price developments for the next three months. Two main points emerge: on one hand, analyzing the operators' expectations, it can be noted that expectations for orders and price expectations generally move in a rather similar manner (an increase in order expectations is generally accompanied by an increase in prices, and vice versa). However, this relationship is no longer visible since 2020, when additional factors contributed to the increase in price levels (reduction in global supply, supply chain pressures, etc.). The second point of interest concerns the expectation of prices for the coming months, which is still declining after reaching its peak in the second half of 2022.





Source: EY elaborations based on S&P Global data. Last observation: June 2023.

The analysis of the PMI indicator[59] for manufacturing and services also reveals interesting and more recent details about the situation in the two reference sectors. The latest readings of the manufacturing PMI show a negative trend for Eurozone manufacturing, with Italy and Spain continuing their decline after

[59] The Purchasing Managers' Index (PMI) is one of the most popular economic indicators, representing an index of the prevailing direction of economic trends in the manufacturing, construction, and services sectors. It is obtained through timely surveys conducted on the most representative companies in these sectors. Values above 50 indicate a growth trend in economic activity, while values below 50 indicate a decline.

the moderate expansion recorded in previous months, following the trend shown by France and Germany. Expectations are therefore for further negative performance in manufacturing and industrial production in the major economies of the single currency in the coming months. Germany, in particular, does not seem to halt its descent towards increasingly negative values.

The services sector is also declining, after recording positive performance in the first quarter, it has reversed the trend and approached the threshold value of 50. This trend is very important to consider as it shows the first signs of a strong slowdown in the services sector, which appeared to be going against the trend compared to manufacturing.

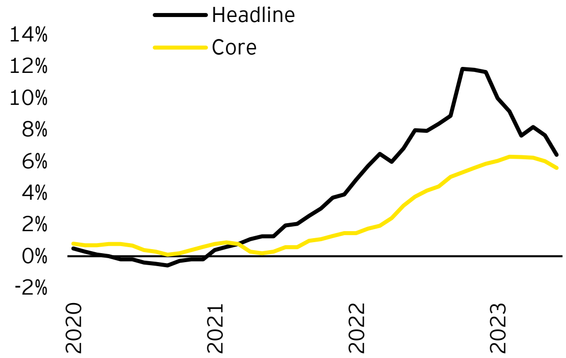
The Italian economy

The state of the Italian economy

June 2023 was characterized by a reduction in headline inflation (i.e., related to the total of goods in the basket), which decreased from 7.6% recorded in May (year-on-year change) to 6.4% (year-on-year change). The decline observed moves inflation in a downward direction, thanks to a sharp drop in energy costs (specifically, non-regulated energy, which decreased from a 20.3% year-on-year change in May 2023 to 8.4% in June, and regulated energy, which decreased from -28.5% to -29.2%). There was also a decrease in the prices of goods in general (from 9.3% in May to 7.6% in June).

Alongside the overall decrease in inflation in June, there was also a reduction in the variation of the core price index (core inflation), which decreased from 6.2% in April to 6.0% in May and further to 5.6% in June.

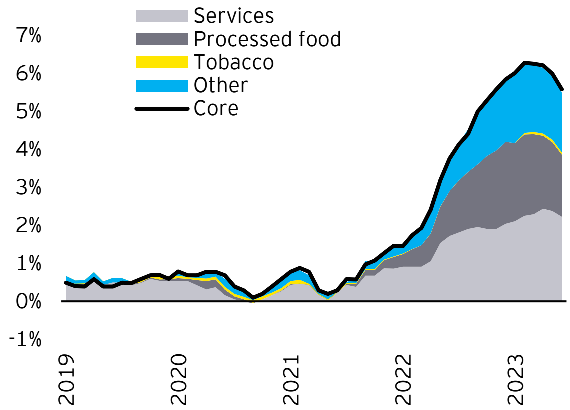
Headline and core inflation - % change YoY, Italy



Source: EY elaborations on ISTAT data. Last observation: June 2023.

Excluding the increase recorded in April, the overall trend of inflation seems to continue in a downward direction. The analysis of producer prices in April confirms this trend: the producer price index for industrial activity (excluding construction) experienced a further decline in May (-2.3%) compared to the previous month, accompanied by a slowdown in the year-on-year change as well (-4.3% in May after -1.5% in April).

***Core* inflation - components**



Source: EY elaborations on ISTAT data. Last observation: June 2023.

As previously mentioned, the inflation rate remains significantly above the level conventionally identified as the target for monetary policy (around 2% annual inflation). Taking into account the latest statements from President Lagarde,[60] further interest rate increases are expected in the coming months, along with the continuation of elevated rates for a longer period, resulting in a negative impact on the economic growth of the Eurozone and Italy.

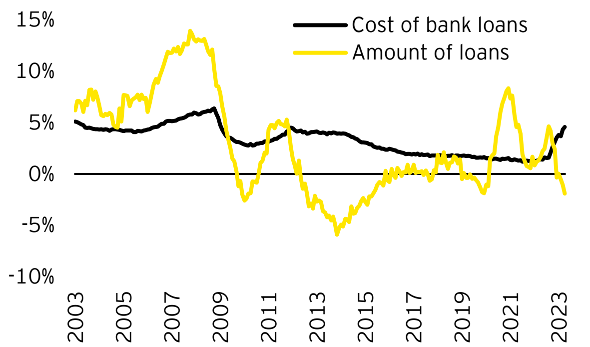
One of the channels through which higher reference interest rates can reduce economic activity concerns the subsequent increase in the

[60] Breaking the persistence of inflation. Speech by Christine Lagarde, President of the ECB, at the ECB Forum on Central Banking 2023 on "Macroeconomic stabilisation in a volatile inflation environment" in Sintra, Portugal (June 2023).

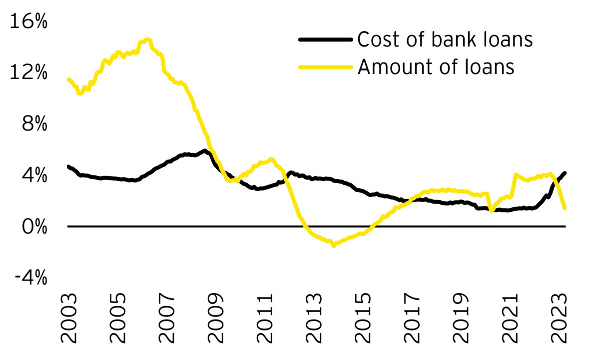
cost of loans for households and businesses, as mentioned earlier.

In April 2023, the representative interest rate for business financing[61] was 4.6%, approximately 3 percentage points higher than the pre-pandemic level. This has contributed to the annual growth of business loans turning negative (-1.9% in April 2023), for the first time since February 2020.

Cost of bank loans (% rate) and amount of loans (% change YoY) - enterprises



Cost of bank loans (% rate) and amount of loans (% change YoY) - households



Source: EY elaborations on data from the Bank of Italy. The cost of bank loans for businesses refers to the average cost of bank loans; the cost of loans for households refers to the average cost of home purchase financing, calculated as a 24-month moving average on the aggregation of short-term and long-term rates on new volumes. "Businesses" refer to non-financial corporations resident in Italy (adjusted based on the SEBC methodology); "households" refer to households resident in Italy (adjusted based on the SEBC methodology). Last observation: April 2023.

Considering the further increases in interest rates that occurred between the publication of the last available data on bank credit and the publication of this bulletin, it is possible that the situation currently presents even greater critical elements. Similar to what was seen for businesses, the cost of loans for households[62] has also increased significantly in recent quarters, rising from around 1.4% recorded in the period before the pandemic to 4.2% in April 2023.

Despite the rise in interest rates and modest economic growth, labor market statistics in Italy continue to show positive numbers. The number of employed individuals has reached a historical high (over 23.4 million), while the number of people seeking employment continues to decrease. As a result, the unemployment rate in May 2023 stands at 7.6%, down from the 7.8% recorded in April.

When discussing the labor market and the number of employed individuals, an important factor for a coherent analysis is the distribution of workers by contract type. In this regard, analyzing the cumulative increase in the number of employed individuals from January 2022 to May 2023, it is evident that the majority of new employees (595,000 out of 724,000)[63] were hired on permanent contracts, while the remaining are self-employed: this reinforces the positive trend in Italy and reduces the possibility that new entrants to the labor market will soon find themselves without employment. Conversely, there has been a reduction of approximately 129,000 individuals with fixed-term contracts since the beginning of January 2022. In terms of age, around 280,000 new employees are between the ages of 25 and 34, while approximately 470,000 fall within the age group of 50-64.

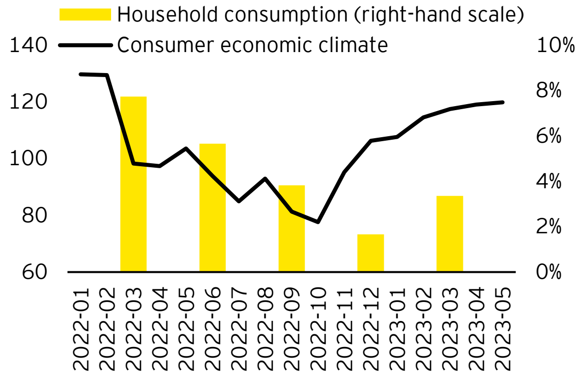
The employment trend is a fundamental element in the analysis of inflation: a dynamic market that has shown improved statistics in recent quarters results in increased pressure from workers for potential upward wage negotiations, considering the significant loss of purchasing power experienced in recent quarters. When analyzing the trend of workers' incomes in Italy, there is indeed a sustained growth in nominal values since the period immediately following the pandemic, a trend similar to that experienced in the rest of the Eurozone. This data is confirmed for 2023 and

[61] It refers to the average cost of bank loans.
[62] Reference is made to the average cost of financing for the purchase of a house, calculated as a 24-month moving average on the aggregation of short- and long-term rates on new volumes.
[63] Self-employed persons are also considered.

2024 as well, as shown by the forecasts of the European Commission.[64]

According to these forecasts, the increase in nominal values in Italy is such that it keeps the real value of workers' incomes largely unchanged. While this would allow workers to preserve their purchasing power, on the other hand, this phenomenon puts greater pressure on price movements, with potential risks of a second inflationary round in the medium to long term.

Consumer economic climate and household consumption growth



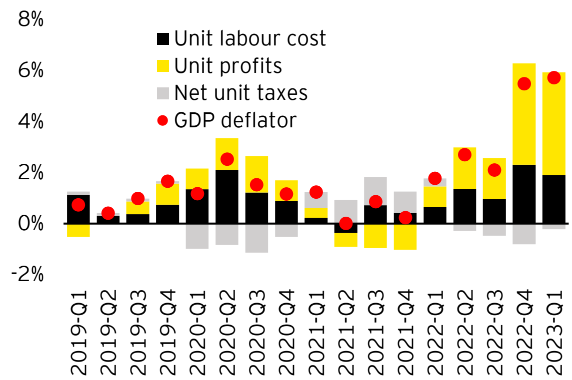
Source: EY elaborations on ISTAT data. Household consumption is represented as the year-on-year growth rate based on quarterly data. The consumer economic climate is expressed as the simple arithmetic average of weighted balances concerning judgments and expectations about Italy's economic situation and expectations regarding unemployment (the latter balance with the opposite sign). For more information, visit https://www.istat.it/it/files//2023/05/CS-fiducia-delle-imprese-MAGGIO-2023.pdf. Last observation for: consumption - March 2023; consumer economic sentiment - May 2023.

The positive trend in the labor market also translates into improved consumer expectations, which in turn contributes to overall positive consumption patterns.

Among the various factors influencing consumption, evaluation of consumer economic sentiment is significant. As observed by analyzing the historical series of both variables, they exhibit similar dynamics. Focusing on the recent period (since the beginning of 2022), it is noticeable that consumer economic sentiment is anticipating consumption trends. As previously described, consumption experienced an increase in the first quarter of 2023, in line with the improving economic sentiment observed since the latter months of 2022.

Therefore, while the nominal increase in workers' incomes is an important element in interpreting current and future dynamics regarding price levels in Italy and the Eurozone, it is also interesting to emphasize, as mentioned in the preceding paragraph, the role of businesses and their profits, albeit without delving into any causal analysis.

Contributions to GDP deflator growth - Italy



Source: EY elaborations based on Eurostat data. The contributions are calculated as a weighted sum of the changes in individual components of GDP from the income side. The weights are determined by the ratio of the values of the individual components in real terms to nominal GDP. Net unit taxes are defined as the difference between taxes on products and imports and subsidies.

In the fourth quarter of 2022 and the first quarter of 2023, the contribution of unit profits to the determination of the GDP deflator was significant and higher compared to previous quarters.

When comparing these variables with the rest of the Eurozone, two main elements should be considered: the first relates to the magnitude of the increase in the contribution of profits to the Italian economy in the first quarter of 2023 (4.0 percentage points) compared to the same variable recorded in the Eurozone (3.7 percentage points). The second point concerns the disproportion between the component of unit profits and the component of unit labor costs. While in the Eurozone there is a notable but not particularly pronounced difference between the

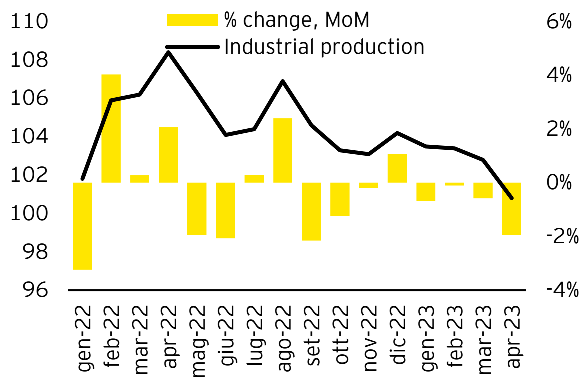
[64] For more information, see https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/spring-2023-economic-forecast-improved-outlook-amid-persistent-challenges_en.

two variables (3.7 percentage points for unit profits compared to 2.8 percentage points for unit labor costs), in Italy, the gap is much more significant (4.0 percentage points for unit profits compared to 1.9 percentage points for unit costs in the first quarter of 2023).

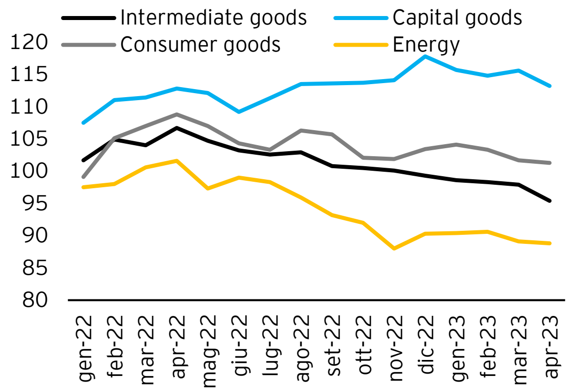
It is also important to highlight that the trend of profits is not the same across different sectors of the Italian economy, which are characterized by significant heterogeneity in this regard. On one hand, the extractive industry and energy supply sectors are the two sectors that recorded the highest growth rate of profits from 2021 to 2022 (124% and 90% respectively). On the other end of the spectrum, we find the food industry, textile industry, and manufacture of coke and derivatives, which experienced declines in profits (-33%, -40%, and -231% respectively).[65] The manufacturing sector also performed below the average of the economy, which recorded a growth of 3.5%. However, it should be noted that maintaining or increasing nominal profits does not necessarily correspond to an increase in profit margins.

Regarding the industry, the analysis of production trends shows a sluggish economy. The industrial production index has marked the fourth consecutive quarter of negative growth, with a decline of 1.9% in April compared to the previous month, reaching the lowest level since December 2020. The manufacturing sector followed a similar trend, recording a 2.1% decrease in April compared to the previous month.

Industrial production - Italy



Industrial production by main industry grouping



Source: EY elaborations on ISTAT data.

The performance of the Italian industry is primarily weighed down by the production of intermediate goods, which have been declining since April 2022, as well as consumer goods, which also show a downward trajectory, although less steep than that of intermediate goods. The negative performance in the production of intermediate goods is consistent with the slowdown in the German economy, one of Italy's main markets for intermediate goods.

Regarding consumer goods, the data for April is mainly influenced by durable consumer goods, which exhibit a more pronounced downward trend compared to non-durable consumer goods. This is most likely due to the increase in interest rates and the resulting decrease in the use of consumer credit.

[65] Variations are calculated as the growth rate from 2021 to 2022 of unit profits, which are calculated as the ratio between value added and total labor income by branch of economic activity. Labor income includes both employees and self-employed workers, with an assumed income equal to the branch average for the latter.

Looking at industrial production over the past year, energy-intensive sectors are the ones experiencing the most critical trends. The wood, paper, and printing industry contracted by 17.2% year-on-year, followed by the supply of electricity, gas, steam, and air (-13.6%), and the chemicals and metallurgy sectors (both with a contraction of 10.9%). On the other hand, the manufacture of transport equipment and the coke and refined petroleum products industry show the most significant growth compared to the same month of the previous year (5.7% and 2.1% respectively), well above the general index (-7.2%).

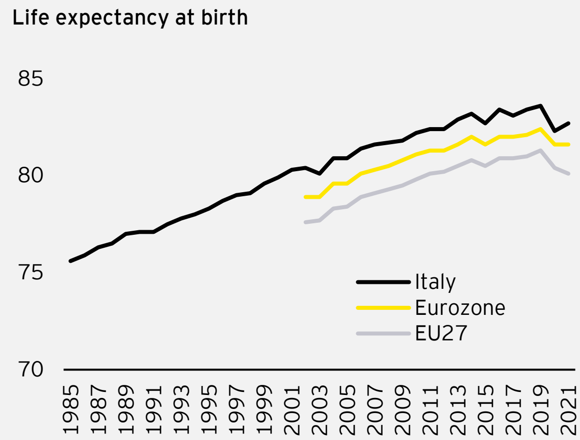
Focus: demography and economy

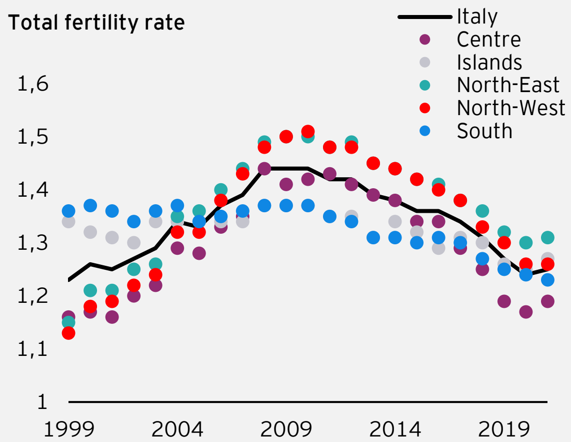
If the analysis of the topics discussed so far provides us with a picture of the economy in the short and medium term, there are other topics of interest that allow for a longer-term analysis. An example of these topics is demography.

Demographic trends are mainly characterized by long-term patterns, although short-term events can positively or negatively influence their trajectory. Some examples of these shorter-term events could be geopolitical events such as Brexit or the war between Russia and Ukraine, or health crises like the COVID-19 pandemic in the years 2020-2021.[66]

One of the main channels through which the aforementioned events can influence demographic trends is by reducing migratory flows. Consider, for example, the increased complexity of migration activities due to the introduction of new rules (Brexit) or the larger migratory flows resulting from the war in Ukraine, which lead to Ukrainian families relocating to safer and socially stable countries. As for the pandemic, it has led to a reduction in life expectancy in Europe and the rest of the world.[67]

On the other hand, concerning long-term trends, increases in life expectancy and the fertility rate are two of the main indicators to consider.





Source: EY elaborations based on Eurostat and ISTAT data. Life expectancy refers to life expectancy at birth. Total fertility rate: the number of children a woman would have during her reproductive years (aged 14-50) if she were subject to the specific fertility rates of the observed year. For more information, please refer to the ISTAT glossary at https://www.istat.it/it/files/2012/01/nota_indicatoridemografici2011.pdf. Last observation: 2021.

In Italy, life expectancy has been on an upward trajectory since 1985, with the significant exception of the pandemic. Life expectancy in Italy before the pandemic (2019) was nearly 84 years (around 82 in 2020 and 83 in 2021), compared to approximately 82 in the Eurozone and 81 in the European Union.

In addition to this phenomenon, the total fertility rate[68] has been falling since 2009-2010 throughout Italy, although with different dynamics depending on the macro-regions considered. The drop in the total fertility rate is in turn linked to a decreasing natural balance (difference between the number of births and

[66] European Commission (2023), The impact of demographic change in a changing environment.
[67] BMJ (2021), Effects of covid-19 pandemic on life expectancy and premature mortality in 2020: time series analysis in 37 countries, doi: https://doi.org/10.1136/bmj-2021-066768https://doi.org/10.1136/bmj-2021-066768.
[68] The number of children a woman would bring into the world if, during her reproductive life, she were subject to the specific fertility rates (14-50 years) of the year of observation. For more information, please refer to the ISTAT glossary, https://www.istat.it/it/files/2012/01/nota_indicatoridemografici2011.pdf.

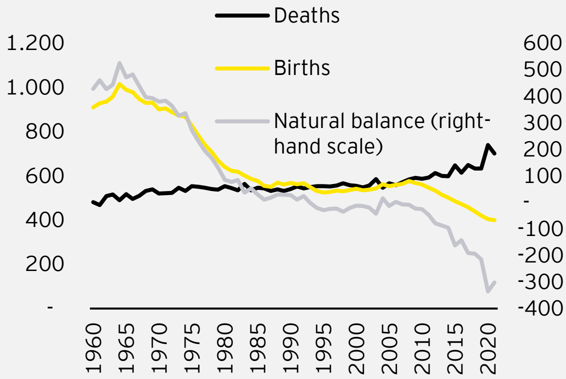
deaths), which has shown increasing negative values in recent years (approximately -310,000 natural balance in 2021 and -214,000 in 2019, against an average of - 66,000 between 1999 and 2019).[69]

The birth rate in Italy has also declined, which is the ratio between the number of live births in a year and the average population size. Over the past twenty years, it has decreased from 9.4% in 2002 to 6.7% in 2022, with a peak observed between 2004 and 2008. This downward trend has affected the entire peninsula without significant differences among the Italian macro-regions.

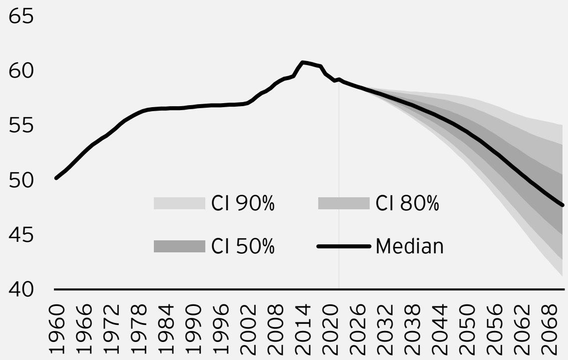
Another essential factor to consider when analyzing demographic trends is the net migration balance, which is the difference between incoming and outgoing migrants from the country. In terms of this indicator, Italy has had an average positive balance between 2015 and 2021 of around 45,000 individuals.

The combination of these indicators and dynamics (negative natural balance, declining fertility rate, positive but declining net migration balance in recent years) reflects a reduction in the overall population in Italy. It is projected to be around 48 million people by 2070, after reaching a peak of approximately 61 million in 2014.

Births, deaths and natural balance (thousands), Italy



Total population and projections (millions) - Italy



Source: EY elaborations on ISTAT data. The grey areas represent the 90%, 80% and 50% confidence intervals. Last observation for births, deaths and natural balance is 2021; for population projections it is 2070. Population projections starts at 2022.

Demography plays a major role in shaping long-term economic trends. The following is a (non-exhaustive) list of the main economic variables influenced by demographic dynamics, and which are the main channels identified.

Labour market

Demographic changes have a major impact on the labour force, in particular on its composition.[70] Generally, when mortality rates fall and people live longer, labour supply increases. Although increased life expectancy means that individuals will have to work longer in order to save more for social security purposes, an ageing population usually results in a downward trend in the aggregate labour force participation rate.[71]

[69] ISTAT, Statistiche report, 20 March 2023.
[70] Bagavos, C., Fotakis, C. (2001), Demographic dimension of labour force trends: national and regional diversities within the European Union, Genus, Vol. 57, No. 1 (January - March 2001), pp. 83-107.
[71] Federal Reserve Bank of Cleveland (2017), Demographics and Their Implications for the Economy and Policy.

Changes in the age distribution of workers can influence not only growth and labour force participation rates, but also the natural long-term unemployment rate.[72] Older workers generally have lower unemployment rates than other age groups and tend to change jobs less frequently. With regard to younger workers (15-34 years), they make up a minority share of the total employed, declining from the levels recorded in the 1990s: In this regard, it is emphasised that in Italy, the percentage of workers aged between 15 and 34 years in 2022 is about 23% (about 32% the 1995-2015 average), against the European (27 countries) average of 28%.

The issue of age distribution in the population plays a crucial role in analyzing the impact of demography on the economy. While there are different schools of thought regarding the demographic impact on growth, the topic remains of fundamental importance in literature. It has been highlighted, for example, that a country with a high percentage of children or elderly individuals will allocate significant resources to their care, thus diverting resources from economic growth. Conversely, countries with a high percentage of working-age individuals are associated with a higher growth rate.[73]

In Italy, it is important to consider the increasing trend of young people who are not studying, employed, or in training. This phenomenon is known as NEET (Not in Education, Employment or Training), and Italy recorded the highest percentage in 2022 (21%, with an average of 26% between 2012 and 2021) among the European countries (EU27 average of 13%) for the age group considered (15-34).

Saving and investment

The demographic structure and age of the population have a strong relationship with the savings rate, a relationship that has been widely studied and demonstrated in literature.[74] Specifically, higher age is associated with higher savings rates:[75] the decline in consumption over the course of life implies that individuals transition from being "net debtors" in their youth to being "net savers" during their working years.

However, this trend reverses in old age, with the transition from being net savers to "dis-savers." This is known as the life cycle hypothesis,[76] which suggests that individuals aim to maintain a relatively consistent level of consumption throughout their lives, taking on debts or liquidating assets in the early and late stages of life (when income is low) and saving during the years of higher income.[77] Therefore, if the proportion of elderly individuals in the population increases, aggregate savings would decrease, leading to lower investment growth.[78]

In addition to its impact on savings, demography can also directly influence investment patterns, as demonstrated by the economic history of recent decades. This is evident in the development of East Asia since the 1960s, where population growth corresponded to an increased need for adequate infrastructure to support their growth, acting as a catalyst for investments in that specific region.[79, 80]

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[72] Reference is made to the unemployment rate consistent with constant inflation. A recent estimate of the natural unemployment rate in Italy is available in D'Amuri et al. (2021).
[73] Bloom, D., Canning, D., & Sevilla, J. (2001), Economic growth and the demographic transition, (Working Paper No. 8685). NBER. Cambridge, MA: National Bureau of Economic Research.
[74] Among the numerous works in the literature, reference is made to Fry e Mason (1982), Higgins (1998), Higgins e Williamson (1997), Kelley and Schmidt (1996), Leff (1969), Mason (1987, 1988).
[75] Manson, A. (1988), Saving, Economic Growth, and Demographic Change, Population and Development Review, Vol. 14, No. 1 (Mar. 1988), pp. 113-144.
[76] Modigliani, F., Brumberg, R. H. (1954), Utility analysis and the consumption function: an interpretation of cross-section data, in Kenneth K. Kurihara, ed., PostKeynesian Economics, New Brunswick, NJ. Rutgers University Press. pp 388-436; Ando, A., & Modigliani, F. (1963). The" life cycle" hypothesis of saving: Aggregate implications and tests. The American economic review, 53(1), 55-84.
[77] Federal Reserve Bank of Richmond – Life Cycle Hypotesis, 2016 https://www.richmondfed.org/-/media/RichmondFedOrg/publications/research/econ_focus/2016/q3-4/jargon_alert.pdf. Federal Reserve Bank of Richmond – Life Cycle Hypotesis, 2016 https://www.richmondfed.org/-/media/RichmondFedOrg/publications/research/econ_focus/2016/q3-4/jargon_alert.pdf.
[78] Kim, J. (2016), The Effects of Demographic Change on GDP Growth in OECD Economies, Board of Governors of the Federal reserve System.
[79] Bloom, D., E., Williamson, J., G. (1997), Demographic transitions and economic miracles in emerging Asia, NBER Working Paper Series.
[80] Bloom, D., E., Canning, D. (2004), Global demographic change: dimensions and economic significance, NBER Working Paper Series.

Productivity

The demographic structure also has important implications in terms of labor productivity. It has been demonstrated that a higher presence of individuals in the middle-age groups within the workforce (for example, 40-49) has a positive impact on labor productivity.[81] Labor productivity tends to increase in the early years of employment, then stabilize, and begin to decline in the later years of work. However, it is important to note that the potential decline in productivity associated with advancing age varies depending on the types of jobs performed, with a more pronounced effect in occupations that require physical involvement.[82]

It is also interesting to highlight how the propensity for innovation is influenced by demographic dynamics. In this regard, it has been demonstrated, for example, that patent applications are positively influenced by the proportion of middle-aged individuals and negatively influenced by the number of retirees.[83]

Welfare and public debt

Demographic change puts pressure on public finances by increasing spending related to aging. The most significant spending effects are expected in public pension systems and healthcare and long-term care expenditure.[84] Regarding healthcare spending, it is important to consider how, with increasing life expectancy, the expenditure for this type of services is expected to grow, especially in the scenario of a greater number of years spent in suboptimal health conditions.[85] On the other hand, population growth has a positive impact on a country's finances.[86] This is linked, for example, to higher tax revenues associated with a larger workforce.

The topic of the relationship between demography and public finance is of paramount importance and is also addressed in the latest Document of Economic and Financial Planning (DEF) of April 2023. It emphasizes how "demographic transition" is one of the most significant challenges that Italy will face in the coming decades, assessing the impact on the public debt trend of life expectancy at birth (positive effect on reducing the debt-to-GDP ratio), the gradual reduction of the fertility rate (resulting in a deterioration of the debt-to-GDP ratio in the forecasted years), and changes in the net immigration flow (where a reduction in the net immigration flow is associated with a progressive increase in the debt-to-GDP ratio).[87]

Interest rate

The demographic trend has an inverse relationship with medium to long-term interest rate trends. This is mainly because middle-aged individuals tend to save and provide funds to the rest of the economy, while young people and the elderly tend to disinvest and require funds. As a result, the real interest rate that balances the overall supply of savings with investment demand is influenced by the relative size of these age groups (young/old and middle-aged individuals).[88] One representative variable of this balance is, for example, the ratio between middle-aged individuals (between 40 and 49 years old) and young individuals (between 20 and 29 years old),[89] which represents a persistent component in the movement of interest rates.

[81] Feyrer, J. (2007), Demographics and Productivity. The Review of Economics and Statistics 2007; 89 (1): 100–109. doi: https://doi.org/10.1162/rest.89.1.100.
[82] Skirbekk, V. (2008), Age and productivity capacity: Descriptions, causes and policy options. Ageing Horizons, 8, 4 –12.
[83] Aksoy, Y., Basso, H. S., Smith, R. P., & Grasl, T. (2019), Demographic Structure and Macroeconomic Trends. American Economic Journal: Macroeconomics, 11(1), 193–222. doi:10.1257/mac.20170114.
[84] Maddaloni, A., Musso, A., Rother, P., Ward-Warmedinger, M., Westermann, T. (2006), Macroeconomic implications of demographic developments in the Euro Area, Occasional paper series, n. 51 / August 2006.
[85] Castles, F.G. (1989), Explaining public education expenditures in OECD nations, European Journal of Political Research 17: 431-449.
[86] Yoon, J., Kim, J., and Lee, J. (2014), Impact of Demographic Changes on Inflation and the Macroeconomy, IMF Working Papers WP/14/210.
[87] Documento di Economia e Finanza 2023, 11 aprile 2023, pag. 123.
[88] Del Negro, M., Giannone, D., Giannoni, M.P. Tambalotti, A. (2019), Global trends in interest rates. Journal of International Economics, 118, pp.248-262.
[89] Favero, C. A., Arie E. G., Haoxi Y. (2016), Demographics and the Behaviour of Interest Rates, IMF Economic Review, November 2016, 64 (4), 732-776.

The relationship between rates and demography has been extensively studied and continues to be a subject of research in recent years as well. In this regard, one study considers changes in demographic structure as a starting point for analyzing the movement of real interest rates (referring to the safe real rate, the interest rate for low-risk assets), showing a negative correlation between the proportion of the population between 40 and 64 years old and the movement of these rates.[90] Another study has shown how demographic factors have resulted in a reduction of 1.25 percentage points in the natural interest rate from 1980 to recent years.[91] Similar conclusions are reached when analyzing interest rate dynamics in OECD countries (where it has been demonstrated that population aging and a reduction in fertility lead to a decrease in real interest rates)[92] and in the Eurozone.[93]

Going into detail, demographics can influence the real interest rate through three channels:[94]

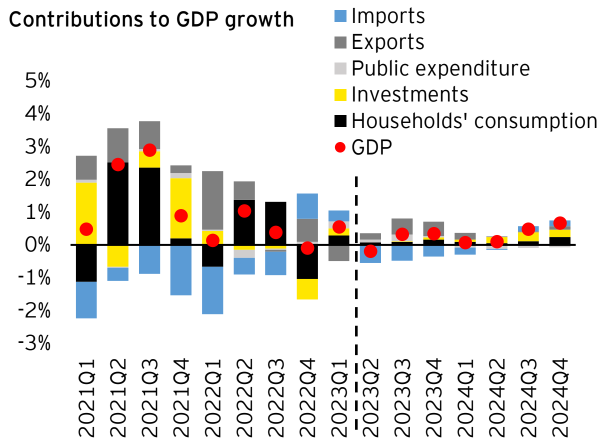
- Longevity of individuals: an increase in longevity, or the associated life expectancy, puts downward pressure on the real interest rate as agents accumulate savings in anticipation of a longer retirement period;
- Population growth: consider a reduction in the population growth rate, which has two opposing effects - on one hand, the capital-to-labor ratio increases, inducing lower real interest rates through a reduction in the marginal product of capital; on the other hand, the decrease in population growth leads to a higher dependency ratio (the fraction of retirees compared to workers);
- Demographic structure: since retirees save less than workers, this compositional effect reduces the aggregate saving rate and pushes real interest rates upward.

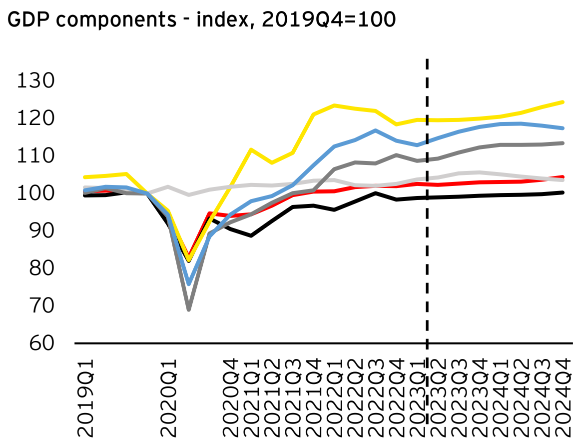
[90] Lunsford, K. G., West, K. D. (2018), Some evidence on secular drivers of U.S. safe real rate, NBER Working Paper Series, November 2018.
[91] Etienne, G., Johannsen, B. K., Lopez-Salido, J. D. (2016), Understanding the New Normal: The Role of Demographics, Finance and Economics Discussion Series 2016-080, Board of Governors of the Federal Reserve System.
[92] Aksoy, Y., Smith, R. P. Grasl, T., Basso, H. S. (2015), Demographic structure and macroeconomic trends, Working Paper 1528, Banco de Espana Working Papers, October 2015.
[93] Ferrero, G., Gross, M., Neri, S. (2017), On secular stagnation and low interest rates: demography matters, European Central Bank Working Paper 2088.
[94] Carvalho, C., Ferrero, A., Nechio, F. (2016), Demographics and real interest rates: Inspecting the mechanism, European Economic Review, 2016, pp. 208-226.

The Italian economy: GDP and EY forecasts

In the first quarter of 2023, GDP recorded a growth of 0.6% compared to the previous quarter (quarter-on-quarter growth) and 1.9% compared to the first quarter of the previous year (year-on-year growth). This data represents an upward revision from the preliminary estimate published in April 2023, which indicated a quarter-on-quarter growth of 0.5% and a year-on-year growth of 1.8%. Therefore, growth has resumed after the negative figure in the last quarter of 2022. The first-quarter data was much higher than previously expected (consensus among economic operators was +0.2%, which means almost one percentage point less of GDP on an annualized basis compared to the actual figure) and significantly higher than the previous quarter (-0.1% quarter-on-quarter in the fourth quarter of 2022).

The growth was primarily driven by a strong recovery in household consumption (with a year-on-year growth of 3.4% and quarter-on-quarter growth of 0.5%, following respective growth rates of 1.7% and -1.7% in the fourth quarter of 2022). This is accompanied by a quarter-on-quarter growth in fixed investments (0.8%) and a reduction in exports (-1.4%) and imports (-1.0%), reflecting a significant slowdown in global trade. Despite the recent acceleration, household consumption remains below pre-pandemic levels.





Source: EY elaborations based on Eurostat data and EY forecasts. EY forecasts start from 2023 Q2. Investment refers to fixed investment, which includes gross fixed capital formation, changes in inventories, acquisitions less disposals of valuables and depreciation. The dotted line represents the forecast horizon.

Based on the information provided in the previous sections and the latest available data, it is possible to outline the prospects for the Italian economy in the coming quarters.

After the stronger growth in the first quarter of 2023, a slight contraction is expected in the second quarter of 2023. The weakness in the economy during the quarter is partly linked to a reduction in exports, which are expected to grow by 0.6% compared to the previous forecast of 1.1%, due to the slowdown in global trade, and a simultaneous acceleration in imports (expected to grow by 1.6% compared to the previous estimate of 1.1%).

The increase in interest rates, general uncertainty, and ongoing inflation that erodes real incomes also result in weak growth in private consumption, but still a slight improvement compared to previous estimates (0.1% growth in the second quarter of 2023 compared to the previous quarter, compared to the previous forecast of -0.2%), thanks in part to a labor market that continues to show positive signs.

Regarding private investments, the tightening of interest rates will continue to weigh on the performance of the next quarter, but to a lesser extent than previously expected, resulting in a growth of 0.6%. Finally, fiscal stimulus will continue to support the economy, in line with the government's spending plans.[95]

The unemployment rate is expected to continue to decline in 2023 and 2024, moving away from the levels recorded in 2020 and 2021, and falling below 8%.

There is also improvement in the estimates regarding inflation, which is expected to decrease in 2023 and then significantly decline in 2024, but still showing some persistence. Therefore, it is not yet in line with the monetary policy objectives until the latter part of next year.

Taking these considerations into account, EY forecasts indicate a real GDP growth of 1.0% in Italy in 2023 and 0.9% in 2024, while the inflation rate is projected to decrease from 6.0% in 2023 to 2.7% in 2024.

Table 1: Forecasts on the Italian economy

	2020	2021	2022	2023	2024
GDP, % var.	-9.0	7.0	3.8	1.0	0.9
Households' consumption, % var.	-10.4	4.7	4.6	1.1	0.7
Total investments, % var.	-8.0	18.6	9.7	2.9	0.3
Exports, % var.	-14.3	14.1	10.2	1.8	2.5
Imports, % var.	-12.7	15.3	12.5	0.9	2.3
Unemployment rate, %	9.4	9.5	8.1	7.9	7.8
Consumer price index, % var.	-0.1	1.9	8.2	6.0	2.7
Deficit, % of GDP	-9.5	-9.0	-7.8	-4.4	-3.5
Public debt, % of GDP	155.1	150.0	144.3	141.3	139.6

Source: Forecasts from EY Italy's Macroeconometric Model, 'HEY-MoM'. The area in grey represents the forecast horizon, changes in GDP and its components are calculated on values expressed in real terms.

The public deficit is expected to reach 4.4% in 2023 and 3.5% in 2024, while the public debt will continue its decline from the peaks of the pandemic crisis, decreasing to around 141% of GDP in 2023 and 140% in 2024. This gradual reduction of the debt is partly due to the growth in price levels, which reflects a higher nominal GDP value and, consequently, a lower debt-to-GDP ratio. The forecasts are subject to a high level of uncertainty and significant risks, mainly associated with the global macroeconomic context, both on the downside and the upside.

The impact of partial implementation of the National Recovery and Resilience Plan

The forecasts just described assume the actual implementation of reforms and projects from the National Recovery and Resilience Plan (PNRR) as outlined in the Documento di Economia e Finanza 2023. By

[95] Documento di Economia e Finanza 2023, 11 aprile 2023.

analyzing the available official information regarding the financial progress of the PNRR,[96] it is possible to outline a forecast of expenditures that will be carried out until 2026. This allocation presents differences compared to the initially projected ones in the Documento di Economia e Finanza 2021 and involves a partial reallocation of resources initially planned for the first four years (2020-2023) to subsequent years, particularly in 2025 and 2026.

Table 2: National Recovery and Resilience Plan – resources allocation

	2020-21	2022	2023	2024	2025	2026	Total
DEF 2021 *(bn €)*	18.5	28.7	38.7	41	34.2	30.4	191.5
Third report on the status of the PNRR (*bn €*)	6.8	17.7	33.8	44.0	48.8	40.4	191.5
Difference	*-11.7*	*-11.0*	*-4.9*	*3.0*	*14.6*	*10.0*	*0.0*

Source: "Documento di Economia e Finanza (DEF) 2021" and "Monitoraggio dell'attuazione del Piano Nazionale di Ripresa e Resilienza – terza relazione sullo stato di attuazione del PNRR". The values from DEF 2021 have been recalculated based on the data presented as a percentage of GDP. The cells in gray represent the expected investments for future years, while the cells in white represent the investments made.

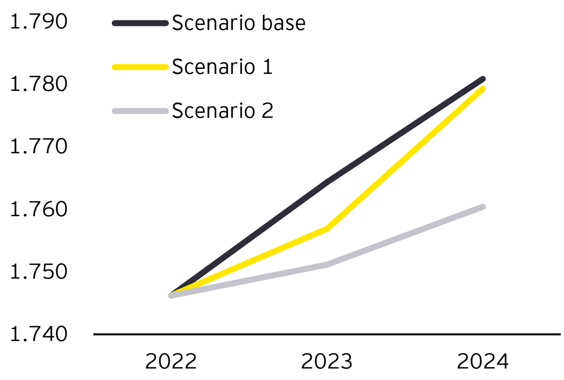
Given the scale of investments and the ongoing uncertainty regarding the actual capacity to fully invest the available resources, it is of interest to develop two additional scenarios in addition to the one outlined in the Monitoring of the Implementation of the National Recovery and Resilience Plan document. Specifically, two alternative scenarios are identified alongside the baseline forecast, which include:

- *Scenario 1*: An increasing investment of resources over time, assuming that 70% of the resources projected in the third report on the status of the PNRR will be spent in 2023 and 90% of those projected for 2024;
- *Scenario 2*: An increasing investment of resources over time, assuming that 45% of the resources projected in the third report on the status of the PNRR will be spent in 2023 and 70% of those projected for 2024.

It is assumed that the resources will be spent on public investments (estimated to be 62% of the total resources), collective consumption (12%), and other categories of expenditure (e.g., various incentives, 26%).[97]

[96] Monitoraggio dell'attuazione del Piano Nazionale di Ripresa e Resilienza – terza relazione sullo stato di attuazione del PNRR, focus sui profili di riprogrammazione del piano.
[97] For the breakdown by type of expenditure (investments, consumption, or other), please refer to the working paper No. 2 "A macroeconomic assessment of the Italian National Recovery and Resilience Plan", by the Ministry of Economy and Finance, March 2022.

Real GDP, Italy (mln €)



Source: Elaborations from EY Italy's Macroeconometric Model, 'HEY-MoM'.

Taking into account these two scenarios, it is estimated that in Scenario 1 (where PNRR resources are spent at 70% and then 90% of the projected amount in 2023 and 2024), the GDP would experience a growth of 0.6% in 2023 and 1.3% in 2024. In Scenario 2 (where PNRR resources are spent at 45% and then 70% of the projected amount in 2023 and 2024), the Italian economy would see a growth of 0.3% in 2023 and 0.5% in 2024, indicating two years of below-average growth. As mentioned before, the PNRR resources play a significant role in driving the growth of the Italian GDP in 2023 and 2024, particularly in a context of rising interest rates that discourage private consumption and investment.

Assumptions behind the forecasts

The forecasts described above are based on a number of assumptions outlining the reference scenario.[98] Specifically, the following assumptions are considered:

- **International trade:** a slowdown is assumed in 2023 followed by an acceleration in 2024, when international trade will return to growth levels of around 3% (this refers to the definition of the CPB, Netherlands Bureau for Economic Policy Analysis);
- **Natural gas:** the price of natural gas (referred to the Dutch Title Transfer Facility) is assumed to be around $17/mmbtu by the end of 2023, and to remain at this level in 2024;
- **Oil:** the oil price is assumed to be in line with the latest quotations, around $81 per barrel in 2023,[99] and to remain stable in the following years;
- **Exchange rate:** the euro/dollar exchange rate is assumed to be 1.07;
- **Public expenditure**: the projections contained in the latest Update Note of the Economic and Financial Document of the Italian Ministry of Economy and Finance are taken into account;[100]
- **Monetary policy and interest rates**: Two consecutive 25 basis points rate hikes are assumed for the three reference rates by the end of the year. Afterwards, from the end of 2023 to the end of 2024, a reversal is anticipated, leading to a one percentage point reduction in the reference rates by the end of 2024. It is also expected that the long-term interest rate (10 years) will follow a similar trend, but with a progressively decreasing spread compared to the short-term rate;

Finally, considering the current scenario and the very high uncertainty, some downside and upside risks are listed below to support a more complete view of what might happen in the future:

Upward risks

- Reduction of tensions between Russia and Ukraine: tensions related to the conflict could decrease in the short/medium term, thus reducing instability in the macroeconomic environment;
- Low wage component pressure on the price level, reducing the risk of inflation rate persistence;
- Monetary policy: a freeze on monetary tightening by the European Central Bank and less pressure on domestic demand;
- Fast readjustment of supply chains: a faster readjustment of European and global value chains would lead to less pressure along them, bringing with it greater security of supply and world trade;
- Acceleration of domestic demand: growth in domestic demand, especially consumption, could turn out to be more significant than expected thanks also to a healthy labour market. The combination of a resilient labour market and sustained wage growth could largely offset the erosion of purchasing power after the phasing out of fiscal support measures.

[98] The data are updated to 3 July 2023.
[99] Reference is made to the price of Brent.
[100] Documento di Economia e Finanza 2023, 11 aprile 2023.

Downward risks

- Rising tensions between Russia and Ukraine: the conflict may not find a solution in the short/medium term, perpetuating geopolitical instability;
- Stronger-than-expected impact on the real economy of restrictive monetary policy: The ECB and other global central banks may continue with a restrictive monetary policy for longer than anticipated in the event of persistent inflation in different economies. This can result in a risk of prolonged low growth, as consumption and investment are discouraged by high interest rates;
- Stress in the financial system: High interest rates can lead to increased stress for financial institutions, impacting savers and tightening credit conditions both in the United States and the Eurozone;
- Recovery and Resilience Plan (PNRR): Failure to achieve PNRR goals and its partial implementation could slow down the pace of investment growth and, consequently, the overall Italian economy. This issue could also have repercussions on potential GDP and long-term growth prospects;
- Emerging economies: The increase in global interest rates negatively affects emerging economies through various channels (low growth in the United States and globally, depreciation of emerging market currencies resulting in potential interest rate hikes in emerging economies to avoid excessive depreciation, increased financial fragility);
- Fiscal policy normalization: Challenging transition from supportive economic policies. Policymakers will need to pursue a carefully calibrated combination of macroeconomic policies that continue to manage inflation while avoiding further volatility or stress in financial markets;
- Monetary policy transmission channels: Some structural factors, such as a high percentage of households with fixed-rate debt or an economy where the services sector is predominant, can hinder the transmission mechanisms of monetary policy, requiring more time to exert its effects.[101]

[101] ECB, the risks of a stubborn inflation, June 2023, https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230619_1~2c0bdf2422.en.html.

Technical Appendix

HEY-MOM: Hybrid EY MOdel for the Macroeconomy[102]

The construction of a new macro-econometric model required the optimisation of an inevitable trade-off between building a model that emphasises data information (such as the ARIMA and VAR models, which make no use of economic theory) or a model that only pays attention to the foundations on which its relationships are based (in the extreme case, the calibrated RBC-DSGE models that pay no attention to the data of their variables).[103] This trade-off has been emphasised several times in the literature, see for example the reflections in Granger (1999) and Pagan (2003).

In constructing HEY-MOM, an attempt was made not to neglect either of the above two ingredients (economic theory and data), in an attempt to produce a hybrid model with a careful balance in the specification of relationships (a) based on micro-founded economic behaviour and at the same time (b) careful in the application of rigorous statistical information evaluation techniques. An example of a hybrid model is MARTIN, the model currently in use at the Australian Central Bank (see Cusbert and Kendall, 2018).

In a nutshell, the role of HEY-MOM is to unify the analytical framework of macroeconomics in EY. In order to do so, the model refers to the main aggregates of the Italian economy, based on empirical data, non-monetary in nature, with explicit long-run relations between the variables it studies, and mainly oriented towards the definition of short-term forecasts (over a two-year horizon).

Economic foundations

Rigidity in the movement of prices and wages implies rigidity in the speed with which macroeconomic systems adjust to unexpected shocks. Thus, on the one hand in the model market demand drives short-term fluctuations, as outlined by Keynesian theories, while in the long run supply determinants drive the state of the economy.

The long-run output (the potential of the economy) depends on the combined effect of trends in total factor productivity, labour supply and duration in hours and, finally, the capital stock. These factors are combined by a Cobb-Douglas-type technology with constant returns to scale. The demand for factors of production is that which minimises the cost given a planned level of output in the context of an economy in which oligopolistic forms of competition prevail, in which firms are free to set prices on the basis of a margin over labour costs and, at those prices, are prepared to collectively meet any level of market demand. Wages are defined on the basis of a 'Phillips curve' driven by the inertia of the inflation rate, labour productivity, and the distance between actual and natural unemployment rates (defined by the long-run state of the labour market). Actual output is composed of the following domestic and foreign demand items: private (household) and public consumption; private and public investment by type of asset (residential and non-residential buildings, machinery and equipment, and expenditure on research and development); imports and exports.

In each period, the gap between actual and potential output affects prices (through changes in margins) which, in turn, interact with the demand components. In this way, an equilibrium between supply and demand is achieved.

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[102] The model was developed in collaboration with the Department of Economic Sciences of the University of Bologna.
[103] "ARIMA" stands for "Autoregressive integrated moving average", "VAR" for "Vector autoregression", "RBC-DSGE" for "Real Business Cycle - Dynamic. Stochastic General Equilibrium'.

Data evaluation techniques

The speed at which the economic dynamics outlined above evolve over time is estimated using econometric methods based on the actual time series of the variables of interest in the model.

To this end, the model uses a combination of the London School of Economics approaches and Fair's (2004) review of the Yale Cowles Commission approach. The synthesis carried out in HEY-MOM uses cointegration methods (Engle and Granger, 1987, and Johansen, 1995) to estimate long-run relationships between non-stationary variables (Dickey and Fuller, 1979), which can be interpreted in light of economic theory and identified by state relationships whose parameters are estimated on the basis of error-corrected models (Hendry et al., 1984, and Pesaran et al., 2001). In the absence of exogeneity of some explanatory variables in the model, the relationships are first inspected following the instrumental variables estimation approach, and then definitively estimated at three stages (Hsiao, 1997).

The overall result is a model composed of 74 equations, of which 29 are stochastic and 45 are accounting identities. The forecasts and analyses performed are conditional on the delineation of scenarios for 65 exogenous variables that can be classified as: fiscal and monetary policy instruments, foreign bloc, and economic indicators.

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