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Executive summary

- ▶ Worldwide economic expansion is projected to decelerate to 3.0% in 2023 following a growth rate of 3.5% in 2022, subsequently receding further to 2.9% in 2024, aligning with the pre-pandemic level of 2.8%. Meanwhile, global inflation rates are anticipated to retract from 8.7% in 2022, to 6.9% in 2023, and further to 5.8% in 2024.
- ▶ Restrictive monetary stances implemented by key central banks are generating positive impacts on price trends in conjunction with the diminishment of factors intensifying inflation previously. Despite these positive developments, unpredictability persists as global trade fluctuations and geopolitical considerations play pivotal roles in shaping the future landscape.
- ▶ The Eurozone continues to show sluggish growth: economic signs remain far from promising and major economies like Germany grapple with significant hurdles, (forecasted growth in Germany sits at -0.5% for 2023). Factors such as the prohibitively high cost of debt, which inhibits household consumption and private investment, along with escalating prices curbing consumer spending capacity, are burdening the economies of member nations. However, the Eurozone's growth is projected to gain momentum in 2024 (experiencing 1.2% growth vs 0.3% of the previous year).
- ▶ Two of the main elements that characterized the Italian economy in 2023 and will characterize it in 2024 are stable but weak growth in household consumption, weakened by the reduction in household purchasing power due to inflation, as well as the low level of private investment, due to the rise in the cost of money and the context of high uncertainty. The recovery of world trade in goods in 2024 is expected to translate into net exports growth, which will provide further support to the economy.
- ▶ The economic effects of the events of the last few years (such as the COVID-19 pandemic, the war between Russia and Ukraine, and the consequent high inflation and rising interest rates) are also reflected in the composition of Italian household consumption. Compared to 2019, Italian households have reduced their consumption of specific services, such as transport and catering, in favor of other categories, such as communication and health-related services. An interesting aspect to consider is the trend in the consumption of durable goods, which does not seem to be affected by the rise in interest rates in recent quarters.
- ▶ In light of the current conditions, EY predicts a 0.7% GDP growth in Italy for 2023 followed by a 0.6% for 2024, while the inflation rate is expected to taper off from 5.6% in 2023 to 2.3% in 2024. Our forecasts are characterized by a high degree of uncertainty owing to the varying indications from available data and recent geopolitical developments.

Figure 1: Real GDP - Italy, % var.

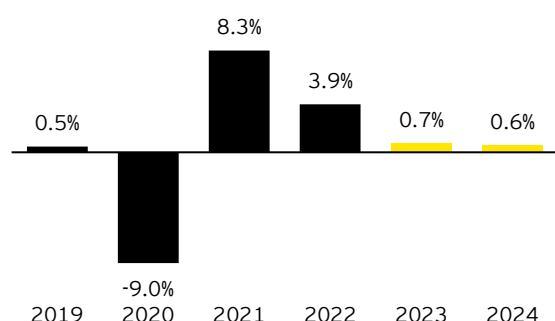
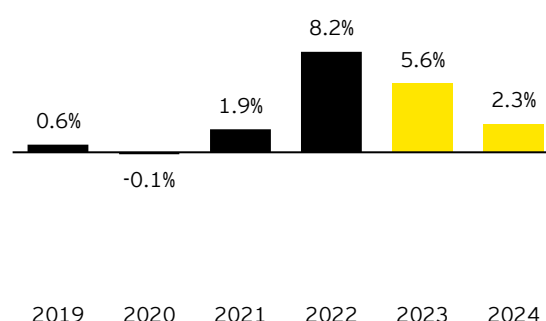


Figure 2: Consumer prices - Italy, % var.



Source: EY calculations on ISTAT data and forecasts from EY Italy's Macroeconometric Model, 'HEY-MoM' (see Technical Appendix for details). The yellow bars represent the forecast horizon.

The Global Environment

The World Economy

The latest projections of the International Monetary Fund (IMF) show an expected growth of the world economy of 3.0% in 2023 and 2.9% in the following year, after recording growth at 3.5% in 2022.¹ Annual growth is thus still below the average of the two decades before the pandemic crisis (2000-2019, 3.8%), although slightly higher than in the year before the pandemic (2.8% in 2019). A similar trend is also expected for the United States, where, after a 2.1% growth in 2022, a similar rate is expected in 2023 (2.1%) with a subsequent slowdown in 2024 (1.5%). In contrast, a more subdued 2023 and 2024 are expected for the Eurozone, with a growth of 0.7% and 1.2% for 2023 and 2024 respectively, after a stronger growth in 2022 (3.3%).

The Organisation for Economic Co-operation and Development (OECD) also came to similar conclusions in its November forecasts (specifically, growth in the US is expected at 2.4% in 2023 and 1.5% in 2024; less optimistic growth for the Eurozone, with forecasted growth of 0.6% in 2023 and 0.9% in 2024).²

With regard to the development of the inflation rate on a global level, a reduction from the peaks reached in 2022 is expected, but values will remain higher than the price stability target.

Overall, the inflation rate is forecasted to stay slightly below 7.0% in 2023, falling by about 1.1 percentage points in 2024 (to 5.8%).

For the United States, on the other hand, annual inflation is expected to reach 4.1% in 2023, followed by a decline to 2.8% in 2024, a value more in line with the price stability target identified by the Federal Reserve. A similar trajectory is also expected for the Eurozone (5.6% in 2023, followed by 3.3% in 2024).

Figure 3: Real GDP - % var.

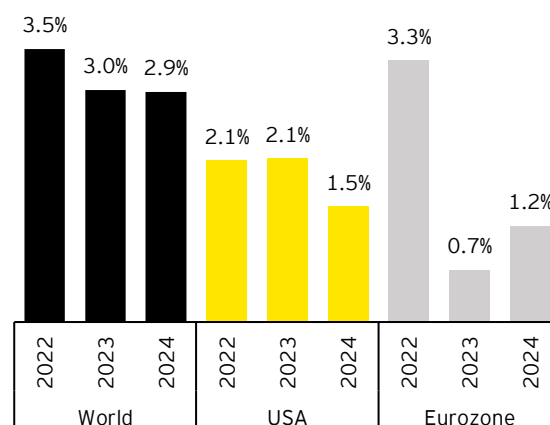
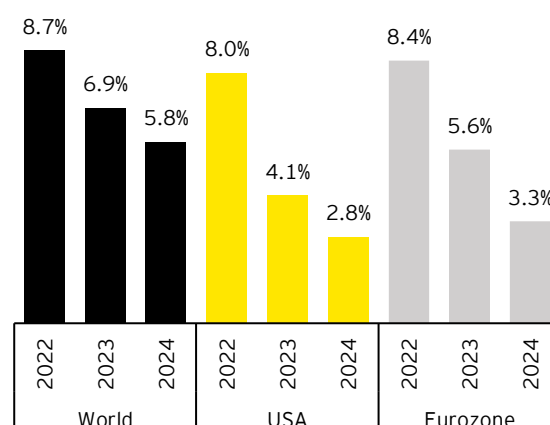


Figure 4: Consumer prices - % var.



Source: EY calculations on IMF World Economic Outlook data and forecasts.

¹ IMF World Economic Outlook, October 2023.

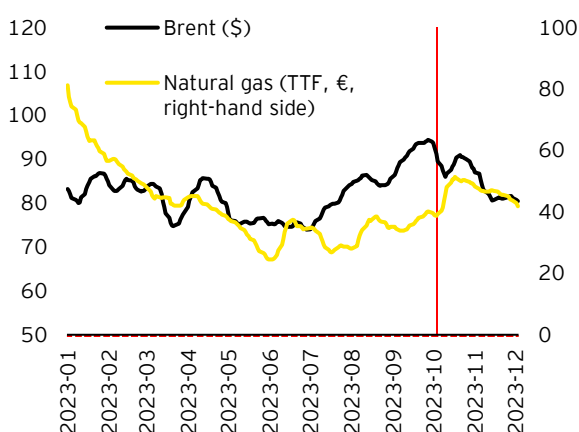
² OECD Economic Outlook, November 2023.

With respect to price developments, it is important to consider some of the key elements that define their short- and medium-term trajectory, such as energy price changes and world trade dynamics.

Over the past few months, the tensions in the Middle East have turned into a new wave of uncertainty, adding to a still highly unstable geopolitical landscape. If the rekindling of the war between Hamas and Israel is, in fact, first and foremost a tragedy from a humanitarian point of view, at the same time it represents a new risk and instability factor in the entire geopolitical landscape, especially in case of an expansion of the conflict and the possible involvement of other countries.

The effects of the new tensions since the 7th of October 2023 are immediately visible in the energy market, particularly with regard to gas prices at the moment.

Figure 5: Brent and natural gas price - 7-day moving average



Source: EY calculations on Energy Information Administration (EIA) data. The series represents the seven-day moving average. The red line indicates 7 October 2023, the reference day of the outbreak of war between Israel and Hamas. Last available data: 5 December 2023.

Even if no significant fluctuations in oil prices are visible at the moment, it should be considered that an *escalation* of the conflict would add to a situation already complicated, from an energy point of view, by the disruptions caused by the

Russian invasion of Ukraine (*dual shock*),³ leading towards a regime of high uncertainty.

The effects of the war between Israel and Hamas on oil prices depend on the potential damage to oil production. In this regard, the World Bank outlines three potential scenarios: a '*small disruption*' scenario, a '*medium disruption*' scenario and a '*large disruption*' scenario. In the first scenario, it is plausible to expect crude oil prices to reach an average value between \$93 and \$102/bbl⁴ in the fourth quarter of 2023; in the second scenario, it is estimated that prices will increase to an average value of between \$109 and \$121/bbl in the fourth quarter of 2023; finally, in the third scenario, it is estimated that prices will increase to an average value between \$140 and \$157/bbl in the fourth quarter.⁵

Oil production-related shocks have already occurred in the past - think for instance of the embargo (between 1973-1974) on the Yom-Kippur war, the Iranian revolution years (late 1978), the Iran-Iraq war (1980s), or the Iraqi invasion of Kuwait (early 1990s): these events all generated a sharp rise in prices in the periods following their occurrence. In this respect, however, it is important to stress that current market conditions differ significantly from those that characterized previous oil price shocks in several respects. On the one hand, the global economy is less dependent on oil, and at the same time there is a more diversified oil supplier base; moreover, several countries have strategic oil reserves and *futures* markets help in hedging the risk.⁶

Going beyond the volatility of the short-term quotations following the rekindling of tensions between Israel and Hamas, and considering a monthly perspective, it is possible to gain further insight into energy market trends.

After the increase in October, the price of natural gas on the European market did not change significantly in November (14.49 \$/mmbtu⁷, against 14.57 \$/mmbtu in October and 11.55 \$/mmbtu in September). On the other side, a more significant decrease for the price of gas on

³ Conflict in Middle East Could Bring 'Dual Shock' to Global Commodity Markets, World Bank, October 30, 2023. For more information, <https://www.worldbank.org/en/news/press-release/2023/10/26/commodity-markets-outlook-october-2023-press-release>.

⁴ Dollars per barrel.

⁵ Commodity Markets Outlook, 'Under the shadow of geopolitical risks', October 2023, World Bank Group.

⁶ Commodity Markets Outlook, 'Under the shadow of geopolitical risks', October 2023, World Bank Group. Special focus: Potential Near-Term Implications of the Conflict in the Middle East for Commodity Markets: A Preliminary Assessment.

⁷ Dollars for one million British thermal units, which is a measure of the amount of gas.

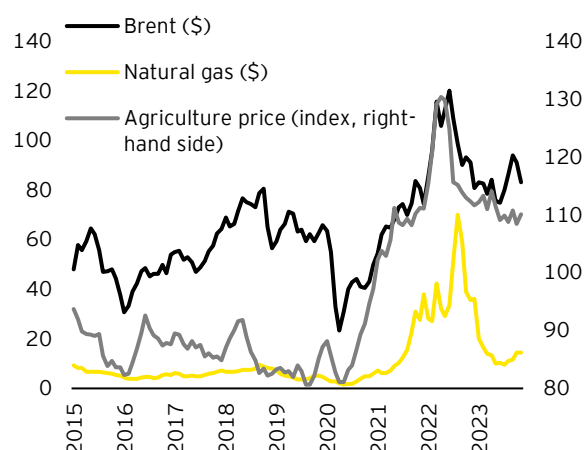
the US market⁸ was recorded (2.71 \$/mmbtu in November 2023, against 2.99 \$/mmbtu in the previous month). If the increases experienced in previous months were expected to be only temporary, as they were linked to contingent factors (such as the turbulence in the sector's labor market in Australia, which is one of the main exporters of Liquid Natural Gas),⁹ the presence of new risk factors and uncertainty could result in a higher price level for longer, if not an increase of prices themselves.

The price of oil fell, which, despite the latest changes (from 91.1 \$/bbl in October to 83.2 \$/bbl in November), still remains slightly above the average value experienced in the first half of the year.

The rise in oil prices in recent months is partly attributable to the decisions of OPEC+ of the recent months.¹⁰ After its decision on 3rd of April 2023 to reduce its production by about one million barrels per day,¹¹ the main oil exporting countries reaffirmed in August¹² their willingness to intervene in crude oil production by keeping it at around 40.5 million barrels per day through 2024.¹³ Added to this is Saudi Arabia's decision to voluntarily reduce oil production by a further one million barrels per day,¹⁴ followed by choices in the same direction by other producing countries.¹⁵

The oil price trend therefore remains characterized by a certain volatility, as it is influenced not only by economic developments (e.g., upward pressures in case of increased global demand and production activity), but also by the choices of the major producers and the geopolitical environment.

Figure 6: Energy commodity prices and agricultural price index (2010 = 100)



Source: EY calculations on World Bank data. Brent and natural gas prices are expressed in \$/bbl and \$/mmbtu, respectively. The natural gas price refers to natural gas quoted in the Title Transfer Facility (TTF). The agricultural price index considers the price of various goods and derivatives related to agriculture globally (e.g., the price of wheat). Last available data: November 2023.

With regard to agricultural price developments, the downward trend continues, bringing the price level close to the ones recorded in the second half of 2021. Overall, however, it remains well above the one recorded in the period between 2015 and the onset of the pandemic crisis, creating potential instability both from the perspective of global inflation and food security.^{16, 17} It is also important to consider the possibility (and relative intensity) of adverse weather conditions and events on harvests and, consequently, on food price developments.¹⁸

The process of partial normalization of world prices is also linked to reduced pressures along global value chains. This reduction is clear when analyzing some of the main indicators measuring

⁸ For the European figure, reference is made to natural gas quoted in the Title Transfer Facility (TTF). For the American figure, reference is made to the spot price at the Henry Hub, Louisiana.

⁹ Quarterly report on European gas markets, European Commission.

¹⁰ Organisation of the Petroleum Exporting Countries (OPEC). It is the grouping of oil exporting countries, whose aim is to coordinate and unify oil policies among member countries in order to ensure fair and stable prices for oil producers, an efficient, cheap and regular supply of oil to consumer countries and a fair return on capital for those who invest in the sector. OPEC's current member countries 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 grouping of OPEC countries and other oil exporting countries, of which Russia is one of the main exponents.

¹¹ 48th Meeting of the Joint Ministerial Monitoring Committee, https://www.opec.org/opec_web/en/press_room/7120.htm.

¹² 49th Meeting of the Joint Ministerial Monitoring Committee, https://www.opec.org/opec_web/en/press_room/7199.htm.

¹³ 35th OPEC and non-OPEC Ministerial Meeting, https://www.opec.org/opec_web/en/press_room/7160.htm.

Reference is made to OPEC and non-OPEC production.

¹⁴ 50th Meeting of the Joint Ministerial Monitoring Committee, https://www.opec.org/opec_web/en/press_room/7223.htm.

¹⁵ Several OPEC+ countries announce additional voluntary cuts to the total of 2.2 million barrels per day, https://www.opec.org/opec_web/en/press_room/7267.htm.

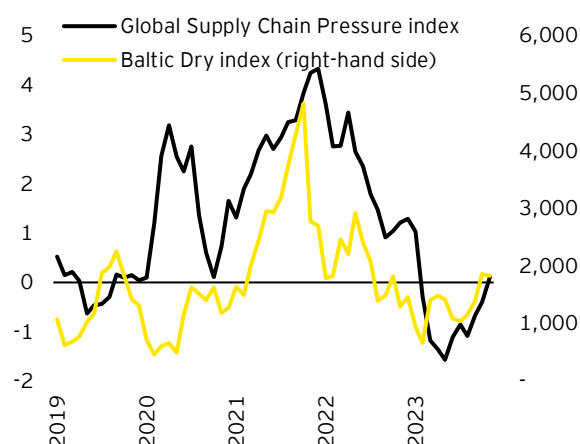
¹⁶ Vos, R., Glauber, J., Hernandez, M., Laborde D. (2022). COVID-19 and Rising Global Food Prices: What's Really Happening? IFPRI. Washington, DC.

¹⁷ WFP & FAO. 2022. Hunger Hotspots: FAO-WFP early warnings on acute food insecurity. October 2022 to January 2023 Outlook.

¹⁸ Adolfsen, J. F., & Lappe, M. S. (2023). Risks to global food prices from El Niño. Economic Bulletin Boxes, 6.

this phenomenon, such as the *Global Supply Chain Pressure Index* and the *Baltic Dry Index*.

Figure 7: Global Supply Chain Pressure index and Baltic Dry Index



Source: EY calculations on Federal Reserve Bank of New York and Baltic Dry index data. The *Global Supply Chain Pressure Index* (GSCPI) - the index created by the NY FED to monitor pressures along supply chains - integrates a number of commonly used metrics to provide a summary of potential supply chain disruptions (for more information see <https://www.newyorkfed.org/research/policy/gscpi#/overview>). The *Baltic Dry Index* is an index of average prices paid for transporting materials over 20 routes (for more information see <https://www.balticexchange.com/en/index.html>). Last available data: November 2023.

Despite the pressure reduction along global value chains, it is important to emphasise that world trade has been going through an important transition process in recent years: the number of trade restrictions, for example, has increased significantly,¹⁹ and the evidence supporting a change in the trend of international trade is increasingly pronounced.^{20, 21}

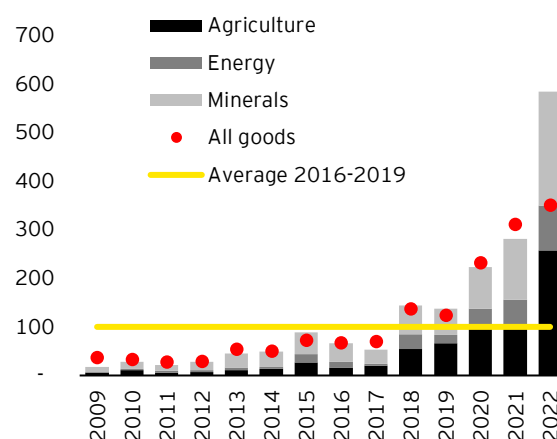
By analyzing the number of trade restrictions imposed annually on goods, services and investments, it can be observed that these have increased significantly since 2020. The increase in these restrictions may lead to greater global geopolitical fragmentation, which may result in a reduction up to 7% of global *output* in the long term (approximately \$7,400 billion of today's dollars).²²

¹⁹ Georgieva, K. (2023). Confronting Fragmentation Where It Matters Most: Trade, Debt, and Climate Action, IMF Blog, 16 January. Reference is made to the period between 2012 and 2022 and to restrictions in trade in goods, services and investments.

²⁰ Alfaro, L. and Chor, D. (2023), Global Supply Chains: The Looming 'Great Reallocation'. Paper presented at the Jackson Hole Economic

With regard to goods, the number of restrictions has essentially tripled since 2019 (a 50% increase compared to 2020), mainly affecting agricultural goods, energy and minerals. Moreover, the concentration of most of the production of these goods in a few countries means that increased geo-economic fragmentation can lead to major negative consequences, both in terms of food supply, growth of countries and achievement of green transition targets.²³

Figure 8: Number of trade restrictions per sector (index, average 2016-2019 = 100)



Source: EY calculations on International Monetary Fund (IMF) data.

Recent geopolitical and economic dynamics have fostered *reshoring*, *friendshoring* or *derisking* processes. These strategies adopted by China, the United States and other OECD countries, which aim to bring production back to original countries (*reshoring*) or to move it to friendly countries (*friendshoring*), may however slowdown world economic growth, even assuming the absence of new trade restrictions with third countries, especially in Asia. It is also interesting to point out that while bringing production back within national borders could generate negative consequences in economic terms, the option of shifting production to 'friend' countries does not seem to generate net benefits for third countries in the long run either. This is because the benefits

Policy Symposium in 2023, held by the Federal Reserve Bank of Kansas City, August 2023.

²¹ Aiyar, S., Ilyina, A. (2023). Charting Globalization's Turn to Slowbalization After Global Financial Crisis, IMF Blog.

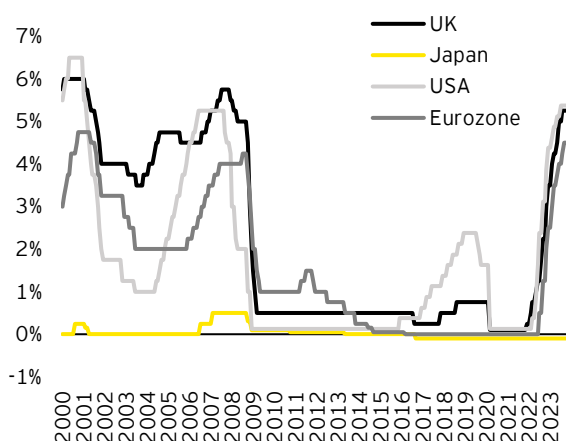
²² The high cost of economic fragmentation, IMF Blog, August 28, 2023.

²³ Geoeconomic Fragmentation Threatens Food Security and Clean Energy Transition, IMF Blog, October 3, 2023.

of trade diversion are offset by the effects of contractions in both China and OECD countries.²⁴

Coming back to global price dynamics, another element affecting inflation is the restrictive monetary policy adopted by the world's main central banks. While these have opted at recent *meetings* to keep the level of rates unchanged, thus avoiding further monetary restrictions, at the same time it is important to emphasize that the current level of rates is very high compared to what has been experienced over the past decade.

Figure 9: Monetary policy reference interest rates



Source: EY calculations on Bank for International Settlements data.

At its meeting on 13th of December, the Federal Reserve (US Central Bank) kept its key interest rates unchanged within the 5.25-5.5% range, following slowing economic activity and tighter credit conditions for households and businesses.²⁵ Similarly to the Federal Reserve, the European Central Bank (ECB) and the Bank of England (BoE) also kept their benchmark interest rates unchanged (4% deposit rate for the Eurozone and 5.25% benchmark rate for the UK).^{26, 27}

In the current scenario, the level of interest rates would not seem to generate significant

complications within the global financial and banking system, the latter being solid.²⁸ On the contrary, in a hypothetical case of more persistent inflation, a more pronounced economic slowdown and an increase in interest rates, the effects on the stability of the banking system would be significant, with more than 150 banking institutions showing some weaknesses (these institutions represent about one third of the world's banking assets).²⁹

Growth in the world's major economies: the latest data

The US recorded a 1.3% growth rate in Q3 2023 compared to the previous quarter (revised from 1.2% in the previous estimate), after a 0.5% growth in the first quarter. Specifically, the second quarter was characterized by an acceleration of private consumption growth (a 0.9% growth from a 0.2% growth in the previous quarter), mainly reflecting strong growth in consumption of goods, especially in durable goods (from -0.1% to 1.7%). Another important element in the third quarter growth was private investment, which marked the second consecutive quarter of sustained growth (from 1.3% in second quarter to 2.5% in third quarter).³⁰

The most recent data also show that consumer spending in October 2023 grew modestly compared to the previous month (0.2% in October compared to 0.3% in September and 0.0% in August). This performance is the result of a not particularly dynamic spending on goods (0.1%, mainly driven by growth in consumption of non-durable goods) and growth in services spending (0.2%).³¹

These figures come with a healthy labor market: in October, the number of nonfarm payroll employees in the US grew by 199,000 compared to the previous month, which was accompanied

²⁴ Harm From 'De-Risking' Strategies Would Reverberate Beyond China, IMF Blog, October 17, 2023.

²⁵ For more information, <https://www.federalreserve.gov/newsevents/pressreleases/monetary20231213a.htm>.

²⁶ For more information, <https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.mp231214~9846e62f62.en.html>.

²⁷ For more information, <https://www.bankofengland.co.uk/monetary-policy-summary-and-minutes/2023/december-2023>.

²⁸ The scenario described represents the *baseline* scenario identified in the IMF *World Economic Outlook* of October 2023. The baseline scenario assumes that long-term inflation expectations are well

anchored and monetary policy remains restrictive, ruling out further rate hikes. For more information, please refer to *Global Financial Stability Report, Financial and Climate Policies for a High-Interest-Rate Era*, Oct 2023.

²⁹ New Look at Global Banks Highlights Risks from Higher-for-Longer Interest Rate, IMF Blog, October 16, 2023.

³⁰ Gross Domestic Product (Second Estimate) Corporate Profits (Preliminary Estimate) Third Quarter 2023, <https://www.bea.gov/news/2023/gross-domestic-product-second-estimate-corporate-profits-preliminary-estimate-third>.

³¹ Bureau of Economic Analysis, Personal Income and Outlays, October 2023, <https://www.bea.gov/news/2023/personal-income-and-outlays-october-2023>.

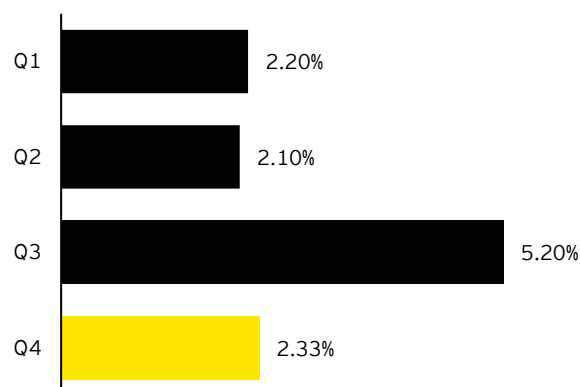
by a stable unemployment rate below 4 per cent (3.7 per cent).³²

Activity in the industrial and manufacturing sectors declined by 0.6% and 0.7% respectively in October 2023 compared to the previous month, with a similar negative year-on-year performance (-0.7% and -1.7% compared to October 2022).³³

The *mixed signals* coming from the US economy increase the expectations of a potential slowdown in the coming quarters, as estimated by yield curve analysis, among other indicators.³⁴ At the moment, the most widely accepted thesis remains that of a *soft landing* and not of a recession. However, the signals remain mixed, forcing us to look very carefully at the other side of the Atlantic for potential repercussions on European economies as well.

Adding to the estimates of recession expectations through yield curve analysis are the latest projections of the Federal Reserve Bank of New York in November 2023, which indicate average GDP growth over the next four quarters in a range of -1.86% to +2.89%, with a median of 0.59%,³⁵ further demonstrating the high uncertainty and trend in economic activity.

Figure 10: GDP 2023 - US, QoQ annualised % var.



Source: EY calculations based on Federal Reserve Bank of New York, U.S. Bureau of Economic Analysis (BEA) data. The bars in yellow represent forecasts for the coming quarters (New York Fed Staff Nowcast). Rates of change are annualized. Last available data: 8th December 2023.

Also, the short-term forecasts of the US economy from the Federal Reserve Bank of New York show an annualized growth rate³⁶ of 2.3% for the last quarter of this year.³⁷ Added to this are the Federal Reserve's latest projections of an overall growth rate of 2.6% in 2023, followed by a growth rate of 1.4% in 2024.³⁸

With reference to the other main global economies, a 0% growth in GDP was recorded in the United Kingdom in the third quarter (+0.6% compared to the same period of the previous year), mainly due to a negative trend in consumption, investment and public spending, which zeroed the positive effect of the export performance.³⁹ Moreover, shorter-term data show a stalling situation: in October, the services sector contracted on a monthly basis by 0.2%, after the slight expansion of the previous month (0.2%).⁴⁰ Also the construction sector contracted by 0.5% in October, after growing 0.4% on a monthly basis in September, as well as industry (contraction of 0.8% in October after zero growth

³² U.S. Bureau of Labor Statistics, Employment Situation Summary. For more information, <https://www.bls.gov/bls/news-release/empst.htm#2023>.

³³ Industrial Production and Capacity Utilisation, August 2023. For more information, <https://www.federalreserve.gov/releases/q17/current/default.htm>.

³⁴ For more information, https://www.newyorkfed.org/research/capital_markets/ycfaq#/.

³⁵ 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>.

³⁶ For more information, <https://www.bea.gov/help/faq/463>.

³⁷ For more information, <https://www.newyorkfed.org/research/policy/nowcast#/overview>.

³⁸ For more information, <https://www.federalreserve.gov/newsevents/pressreleases/monetary20231213b.htm>.

³⁹ Office for National Statistics (ONS), GDP first quarterly estimate, UK: April to June 2023, <https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpfirstquarterlyestimateuk/apriltojune2023>.

⁴⁰ Office for National Statistics, Index of Services, UK: October 2023, <https://www.ons.gov.uk/economy/economicoutputandproductivity/output/bulletins/indexofproduction/october2023>.

in September).^{41, 42} The inflation rate continued to remain high, although on a downward trend: an overall (*headline*) rate of 4.6% was recorded in October, 2.1 percentage points lower than the previous month's figure (at 6.7%). *Core* inflation also fell, from 6.1% in September to 5.7% in October.⁴³

Moving to Asia, the Chinese economy's performance remained subdued compared to the pre-pandemic period, recording a 4.9% growth in the third quarter compared to the same quarter of the previous year (trend growth), down from the second quarter (6.3%). This corresponds to a quarter-on-quarter growth of 1.3%, following the 0.5% in the second quarter.⁴⁴

With reference to industrial production, the last few months have seen substantially stable growth. In October, in fact, industrial activity grew by 4.6% year-on-year, almost in line with the growth seen in the two previous months (August and September, both with a year-on-year growth rate of 4.5%).⁴⁵

Investments in the real estate sector also slowed down more markedly, with a 9.3% drop in the first ten months of 2023 (January-October) compared to the same period of the previous year. This downward trend is also confirmed by the figures for the previous months, showing a sector that is facing significant challenges.⁴⁶

With regard to retail sales, after the first four months of 2023, the trend growth (year-on-year) gradually decreased, until a growth of 2.5% was reached in July, followed by a recovery until October (7.6%).⁴⁷ The recovery in consumer demand is also reflected in a positive performance of imports, which grew 3.0% year-on-year in October 2023.⁴⁸ A recovering domestic demand is matched by a struggling foreign demand (-6.4% growth in exports

expressed in dollars compared to the same month last year).

Finally, a further element to be taken into account is a possible increase in the number of COVID-19 infections. Although the possibility of significant new containment measures seems very remote at the moment, it must be considered that an increase in cases could be matched by restrictive measures, albeit mild ones, which could consequently have a negative impact on the world economy.

⁴¹ Office for National Statistics, Construction output in Great Britain: October 2023, <https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/bulletins/constructionoutputingreatbritain/october2023>.

⁴² Office for National Statistics, Index of Production, UK: October 2023, <https://www.ons.gov.uk/economy/economicoutputandproductivity/output/bulletins/indexofproduction/october2023>.

⁴³ Office for National Statistics, Consumer price inflation, UK: October 2023, <https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/consumerpriceinflation/october2023>.

⁴⁴ Preliminary Accounting Results of GDP for the Third Quarter of 2023, <https://www.stats.gov.cn/english/PressRelease/202310/t202310261943918.html>.

⁴⁵ Industrial Production Operation in October 2023, <https://www.stats.gov.cn/english/PressRelease/202311/t202311281944960.html>.

⁴⁶ Investment in Real Estate Development for Jan-Oct 2023, <https://www.stats.gov.cn/english/PressRelease/202311/t202311281944964.html>.

⁴⁷ Total Retail Sales of Consumer Goods in October 2023. For more information, <https://www.stats.gov.cn/english/PressRelease/202311/t202311281944965.html>.

⁴⁸ For more information, <http://english.customs.gov.cn/Statics/cc0c7032-8a09-4fde-8228-e62871ab8b29.html>. Growth stands at 6.4% when considering imports expressed in Chinese currency. For more information, <http://english.customs.gov.cn/Statics/d9f7b42b-4fd4-437c-86c1-30a02fa23072.html>.

The European Framework

The Eurozone economic framework and economic indicators

In the third quarter of 2023, the Eurozone recorded cyclical growth (quarter-on-quarter) of -0.1%, after a weak growth of 0.1% in the second and first quarter. Germany, the Eurozone's leading country in terms of GDP size, also recorded a contraction of a similar magnitude (-0.1%), preceded by substantially stagnant growth in the previous quarters. Slightly different, however, was the situation in Spain, which recorded a 0.6%, 0.4% and 0.3% growth in the first, second and third quarter of the year, respectively. By contrast, growth was essentially flat in the third quarter for Italy and France.

The performance of the industrial sector in the main European countries has not been particularly positive in recent months. In Germany, after the slight month-on-month increase recorded in August (+0.5%), a further contraction was recorded in September (-1.8%), followed by a further slight reduction in October (-0.1%), which corresponded to a significant year-on-year decrease (-3.7%). Spain and Italy also recorded a negative year-on-year performance, although of different intensity (-1.5% and -1.1% respectively), while France stood out for significant growth in October (2.0%, which, however, was matched by a negative month-on-month economic growth of -0.3%).

Figure 11: GDP - index, 2015 = 100

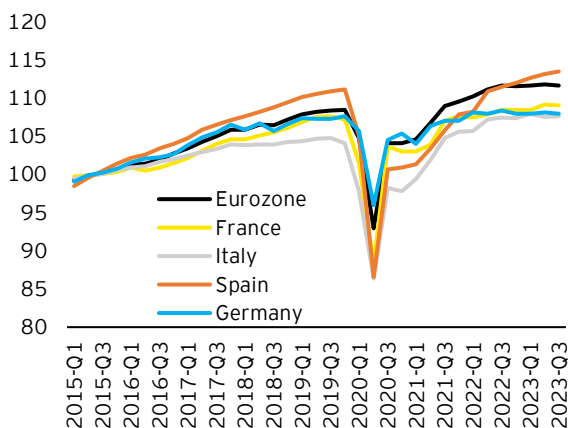
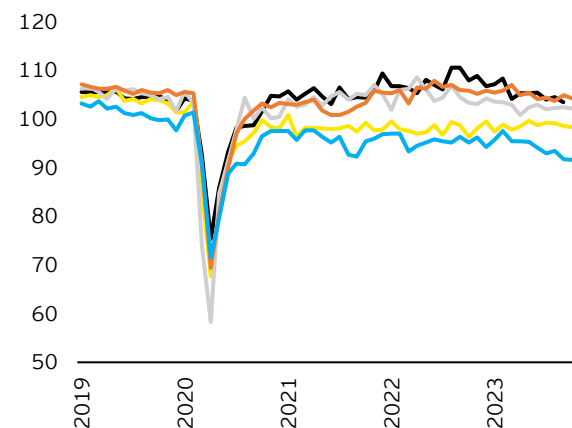


Figure 12: Industrial production - index, 2015 = 100



Source: EY calculation on Eurostat, European Commission (*Business and consumer surveys*) data. For industrial production, reference is made to NACE Rev. 2 B-D codes (*Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply*). Last available data for GDP: Q3 2023; for industrial production: October 2023.

The analysis of the PMI indicator⁴⁹ for manufacturing and services shows interesting and more timely information of the development of the two main sectors of the economy, namely, industry and services.

The latest manufacturing PMI figures show a negative trend for Eurozone manufacturing, with the main countries showing persistent signs of contraction in recent months. Prominent among them is Germany, still below the expansion level (value of 50), despite the slight improvement in recent months.

Expectations for the coming months are, therefore, of a further negative performance of manufacturing and industrial production in the main economies of the Eurozone.

The services sector also declined, which, after a few months above the expansion level, is now below it in the main European countries (with the sole exception of Spain). This figure is even more significant when compared with the trend of the PMI indices in the previous months: while previously the manufacturing sector was weak but accompanied by an expanding services sector, in recent months it is reasonable to expect that the services sector will not offset the negative performance of manufacturing.

Figure 13: Purchasing Managers Index (PMI), manufacturing

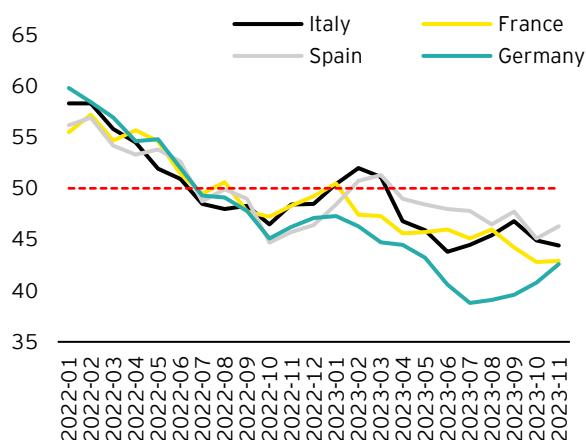
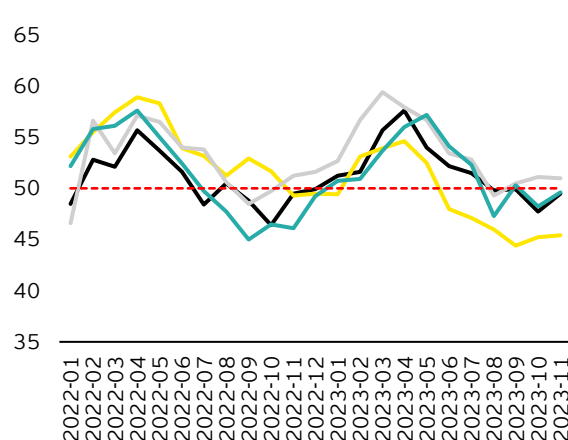


Figure 14: Purchasing Managers Index (PMI), services



Source: EY calculations on S&P Global data. The red dotted line represents the expansion threshold (50) Last available data: November 2023.

The industrial and service sectors therefore still face numerous challenges, the nature of which, however, varies depending on the overall context in which they operate.

It is interesting to note that in the last few quarters, in fact, the major factors hindering economic activity in industry and services are mainly demand factors, unlike what was experienced in the post-pandemic period, during which consumers were recovering their consumption levels. The rise in price levels experienced in recent quarters is in fact translating into a slowdown in consumption by consumers. At the same time, it is interesting to note that the labor factor, indicated as a challenge to economic activity by some companies, is slowly reaffirming, albeit not particularly markedly in the service sector. While this downward trend is potentially linked to a particularly dynamic labor market in the Eurozone, the difference between the trend experienced in the industrial and service sectors could be related to the different demand for skills. In general, however, the labor factor and the related lack of adequate skills remains a major problem faced by many companies not only in the Eurozone, but also in the rest of the European Union, as shown by the European Commission's latest survey on the skills shortages phenomenon.⁵⁰ According to the latter, in fact, about 54% of EU companies indicates finding workers with the right knowledge/skills as one of the main business difficulties of the moment. Moreover, as the size of the enterprise increases, these difficulties seem to be more pronounced: from one side, this phenomenon is a

⁴⁹ The Purchasing Managers' Index (PMI) is one of the most popular business cycle indices, i.e., an index of the prevailing direction of economic trends in the manufacturing, construction and service sectors, obtained through timely surveys of the most representative companies in the relevant sectors. Values above 50 indicate an upward trend in economic activity, values below 50 a downward trend.

⁵⁰ Skills shortages are a serious problem for majority of EU SMEs, Eurobarometer shows. European Commission, Press release, 14th November 2023. For more information, <https://europa.eu/eurobarometer/surveys/detail/2961>.

problem for 53% of micro-enterprises (enterprises with less than 10 employees), while the percentage increases to about 70% for large enterprises (enterprises with more than 250 employees).

Figure 15: Factors hindering industry activity - Eurozone, % of respondents

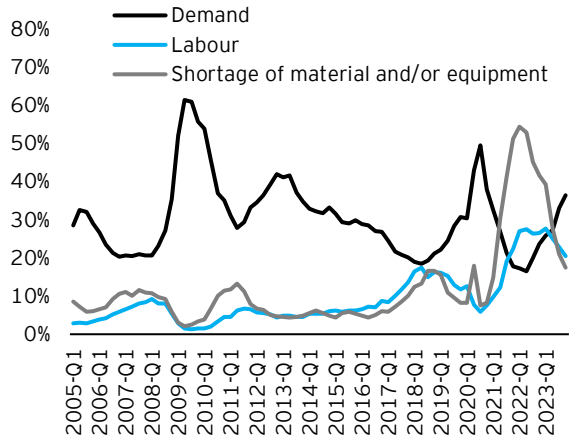
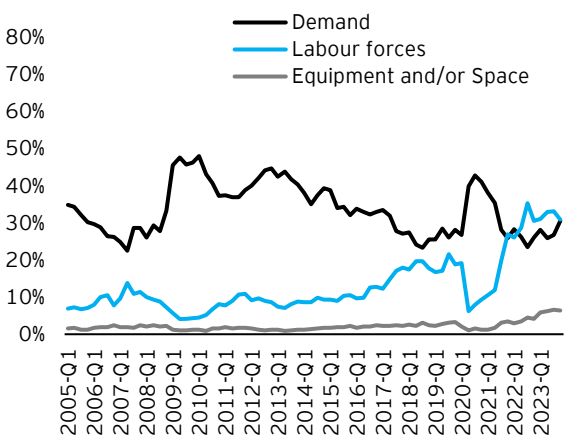


Figure 16: Factors hindering services activity - Eurozone, % of respondents



Source: EY calculations on European Commission data (*Business and Consumer Surveys*). Latest data: 2023-Q4.

Monetary policy and prices in the Eurozone

One of the factors to be considered as a brake to the Eurozone economy is the restrictive monetary policy put in place by the ECB to counter high inflation rates, at their record high-levels since the beginning of the Monetary Union. At its meeting on 14th of December, the European Central Bank decided to keep the level of interest rates in the Eurozone unchanged.⁵¹

Figure 17: Monetary policy reference interest rates for the European Central Bank's

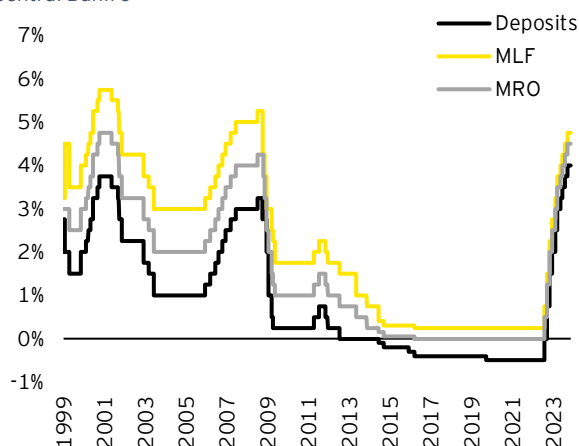
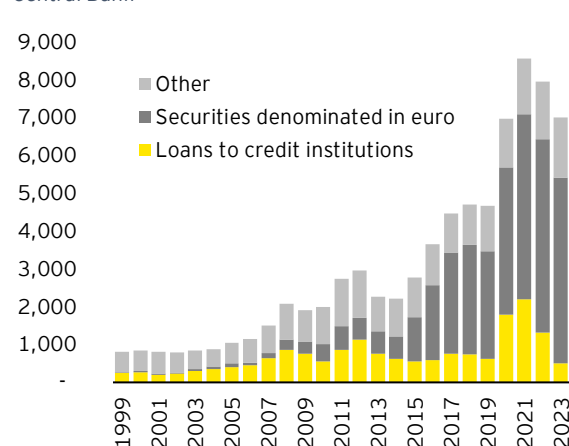


Figure 18: Main balance sheet items of the European Central Bank



Source: EY calculations based on European Central Bank (ECB) data. MLF = marginal lending facility; MRO = main refinancing operation. The deposit rate refers to deposits at the central bank. Balance sheet items - loans to credit institutions: this refers to loans to euro area credit institutions related to monetary policy operations denominated in euro (the different items include main refinancing operations and LTROs); securities denominated in euro: this refers to euro area residents' securities denominated in euro (the different items include assets acquired for monetary policy purposes); other: the different items include gold and claims denominated in foreign currency on euro area residents and non-euro area residents. The latest available data for 2023 refers to the weekly financial statement of 1st of December 2023.

The interest rate on the main refinancing operations, the interest rates on the marginal lending facility and on deposits with the central bank⁵² thus remained unchanged at 4.50%, 4.75% and 4.00% respectively. Maintaining interest rates at these levels for as long as necessary will, in the view of the Governing Council, make a substantial contribution to achieving the objective of price stability.⁵³

As already announced in previous meetings, the ECB is carrying out an increase in key interest rates with a reduction in assets on its balance sheet. With regard to the APP,⁵⁴ the portfolio is shrinking at a measured and predictable pace, with the Eurosystem no longer reinvesting principal payments on maturing securities. With regard to the PEPP,⁵⁵ the Governing Council intends to reinvest principal payments from maturing securities purchased under the programme until at least the end of 2024. In any

⁵¹ For more information, <https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.mp231214~9846e62f62.en.html>.

⁵² The interest rate on deposits with the central bank is one of three reference rates that the ECB sets every six weeks as part of its monetary policy decisions. This rate defines the interest that banks receive on their overnight deposits (for the duration of one business day) with the central bank. The other two reference rates are the rate on the main refinancing operations (MRO) and the rate on the marginal lending operations (MLF). The MRO rate defines the cost at which banks can obtain credit from the central bank with a maturity of one week. If banks need overnight liquidity, they can use the marginal lending facility at a higher rate. For more information, see https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.it.html.

⁵³ "The Governing Council considers that the key ECB interest rates have reached levels that, maintained for a sufficiently long duration, will make a substantial contribution to the timely return of inflation to the target", <https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.mp230914~aab39f8c21.en.html>.

⁵⁴ The ECB's Asset Purchase Programme (APP) is part of a package of unconventional monetary policy measures that also includes targeted longer-term refinancing operations and was launched in mid-2014 to support the monetary policy transmission mechanism and provide the amount of accommodation needed to ensure price stability. The programme consists of: corporate sector purchase programme (CSPP), public sector purchase programme (PSPP), asset-backed securities purchase programme (ABSPP), third covered bond purchase programme (CBPP3). For more information, see <https://www.ecb.europa.eu/mopo/implement/app/html/index.it.html>.

⁵⁵ The ECB's Pandemic Emergency Purchase Programme (PEPP) is a non-standard monetary policy measure launched in March 2020 to counter potential risks to the proper functioning of the monetary policy transmission mechanism following the outbreak of the pandemic. The PEPP is a temporary programme to purchase private and public sector assets. For more information, <https://www.ecb.europa.eu/mopo/implement/pepp/html/index.en.html>.

case, the further reduction of the PEPP portfolio will be managed to avoid interference with monetary policy mechanisms.

Figure 19: Net purchases of government debt securities under PSPP - billion €

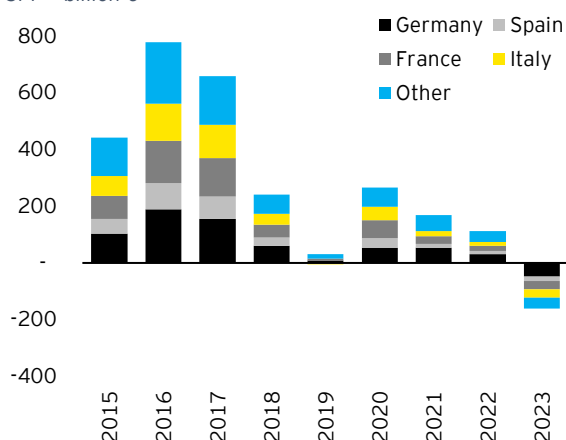
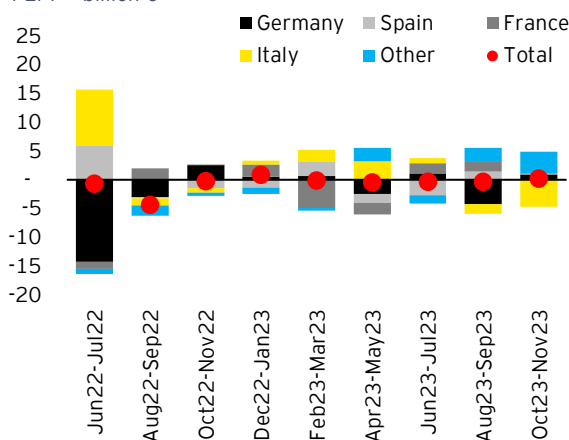


Figure 20: Net Purchases of Public Debt Securities under PEPP - billion €



Source: EY calculations based on European Central Bank (ECB) data. Last available data: November 2023.

Rising interest rates result in an increase in the cost of debt, discouraging investment by households and businesses. This phenomenon consequently affects various types of investment, including those in the real estate sector.

Figure 21: Building permits and household loan demand - Eurozone

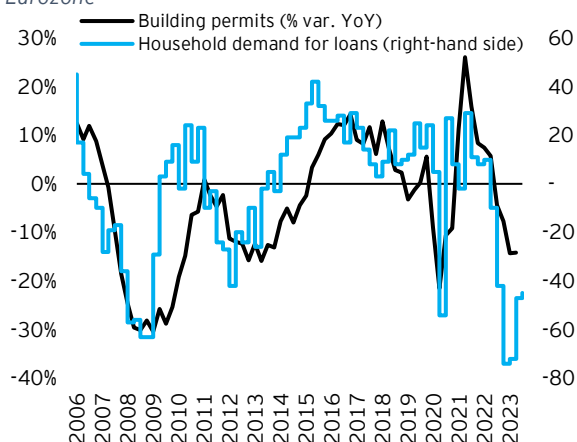
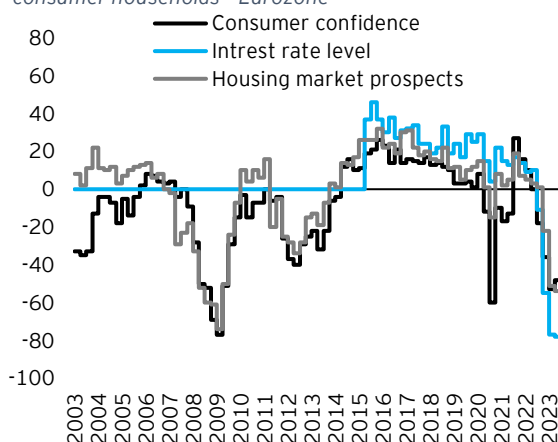


Figure 22: Main factors driving demand for loans by consumer households - Eurozone



Source: EY calculations on Eurostat and European Central Bank (ECB) data. The YoY change in building permits is calculated on the index of building permits expressed as millions of m² of usable area. Household loan demand refers to demand for the purchase of a dwelling. With reference to the main factors behind the demand for loans by consumer households, the values depicted indicate the net percentage of respondents; negative values indicate that the factors identified contributed to a reduction in demand for loans by households; vice versa for positive values. Latest available data: 2023-Q3

The latest edition of the European Central Bank's *Bank Lending Survey*, aimed at capturing the latest changes in the demand and supply of credit by economic operators, shows a significant drop in the demand for loans for the purchase of a home by households. From a historical perspective, the dynamics of this indicator ties in with the trend of other variables useful for understanding the real estate sector's performance, such as the index representing building permits, which has also been falling in recent quarters after the pandemic crisis peak.

Analyzing the main factors behind the reduction in demand for loans by consumer households, low consumer confidence, the not particularly favorable outlook on the housing market and, above all, the

high level of interest rates, are the elements that are contributing most to the dynamics described above.⁵⁶

The European Central Bank's restrictive monetary policy is based on the presence of a still too high inflation rate compared to the ECB's target, and the consequent willingness to keep interest rates high as long as necessary to bring inflation back to 2% in the medium term.⁵⁷ It is interesting to note that, in the Eurozone, core inflation (i.e., the underlying component)⁵⁸ continues to record higher values than headline inflation (inflation that considers all the goods in the basket used to monitor price trends). A similar phenomenon occurred during the pandemic crisis, when the price of energy fell significantly due to the slowdown in global economic activity: a core inflation rate higher than the headline inflation rate indicates a higher rate of change in the core component than in energy and non-processed food.

Figure 23: Inflation rate - Eurozone, % var. YoY

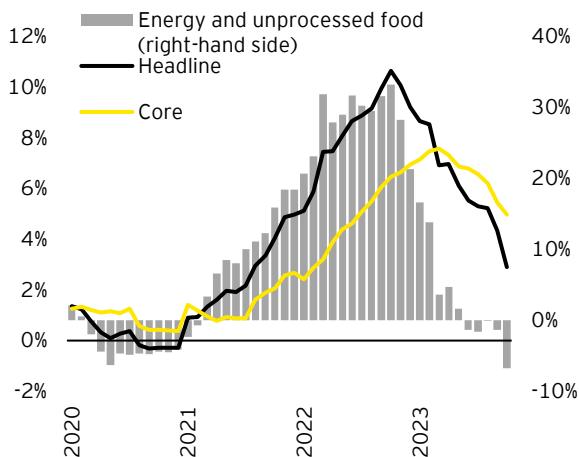
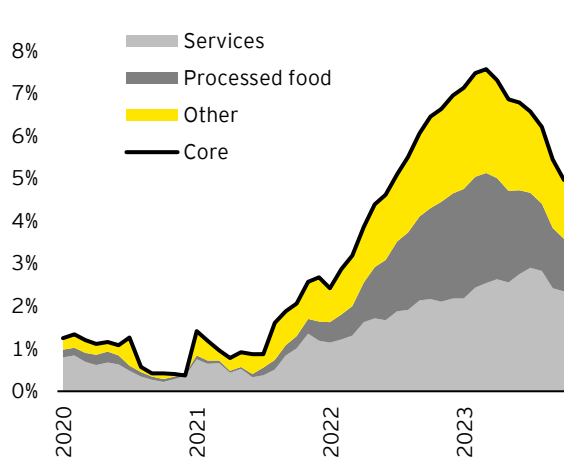


Figure 24: Contribution to core inflation rate - Eurozone



Source: EY calculations on Eurostat data. The *headline* measure considers all goods in the basket for calculating the price change; the *core* measure considers goods in the *headline* basket net of energy and fresh food. Rates refer to harmonized rates. Last available data: October 2023.

In October, *headline* inflation dropped significantly, from 4.3% in September (year-on-year change) to 2.9%. This was due to a significant reduction in both the core component, the unprocessed food and energy component, which slowed down significantly (or, in the case of unprocessed food and energy, contributed negatively). It is important to emphasize, however, that this phenomenon is mainly linked to a large 'base effect':⁵⁹ if, in fact, due to geopolitical tensions with Russia and the sudden rise in commodity and energy prices, the consumer price index rose significantly between the second half of 2022 and the first three quarters of 2023 (thus resulting in high inflation), the less pronounced increase between the last months of 2022 and the last months of 2023 results in lower inflation.⁶⁰

Despite the significant reduction in the inflation rate in recent months, it is important to highlight that the inflation rate in the Eurozone, and specifically the core inflation rate, continues to show some persistence. It is also necessary to consider the possibility that some of the underlying elements may show different dynamics than expected in the short to medium term, such as faster labor cost growth or a higher corporates' profit margins. The presence of differences within the Eurozone and the European Union in the dynamics of the above-mentioned variables also presents important challenges on a broader scale. Consider, for example, the development of price level, unit labor costs and productivity: for most emerging economies in Europe, the combination of low productivity and loss of business competitiveness

⁵⁶ Euro area bank lending survey, Third Quarter of 2023. For more information, https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/index.en.html.

⁵⁷ For more information, <https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.mp230914~aab39f8c21.en.html>.

⁵⁸ Reference is made to ISTAT's definition of core inflation, which considers the consumer price index net of changes in energy goods and non-processed food.

⁵⁹ European Economic Forecast, Autumn 2023, European Commission.

⁶⁰ For more information, ECB Economic Bulletin, Issue 1 / 2023.

caused by relatively faster wage growth could hinder economic convergence with the continent's more advanced economies.⁶¹

Still referring to the internal dynamics of the labor market, it is important to emphasize that an increase in employment in recent quarters has been recorded. The increase is mainly linked to the transition from 'inactive' to 'employed' status. It was estimated, in fact, that only about 37% of new hires in the first half of 2023 were unemployed in the previous quarter. This is in line with data showing that transitions from 'inactive' to 'employed' status accounted for 60% of new hires in 2022, which contrasts with the period 2011-2019, when transitions from unemployment to employment accounted for 51% of new hires. Consequently, higher labor force participation may reduce pressures on the labor market, with possible positive effects on inflation trends.⁶²

Figure 25: Unit labor costs and harmonized consumer price index

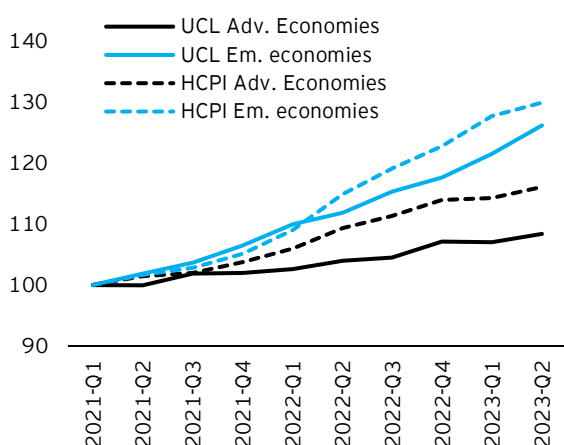
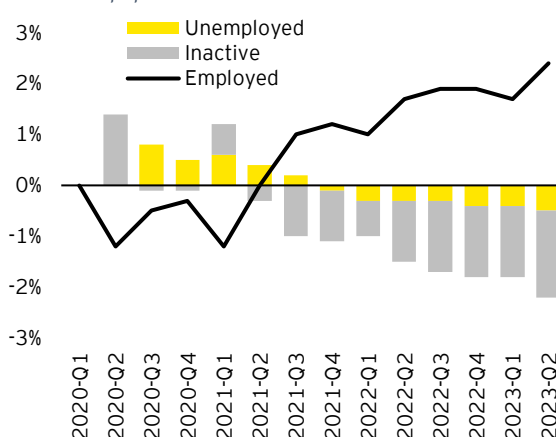


Figure 26: Cumulative % change in employment status over total population - Eurozone



Source: EY calculations on Eurostat data. The aggregation of CLU and HCPI was done considering GDP values expressed in euro. Advanced economies include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom; emerging economies include Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia. The total population refers to the population aged between 15 and 74.

⁶¹ Europe Must Succeed in Restoring Price Stability, IMF Blog, October 13, 2023.

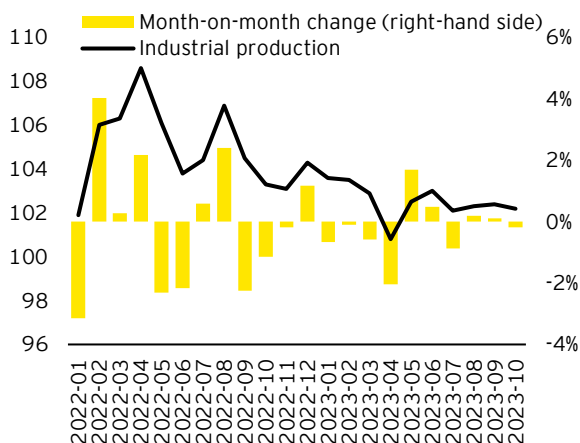
⁶² Consolo, A., Da Silva, A. D., Martínez Hernández, C., & Weißler, M. (2023). The euro area labour force: recent developments and drivers. Economic Bulletin Boxes, 6.

The Italian economy

Real economy and credit trends in Italy

Industrial activity in Italy continues to maintain a low growth profile. In October the industrial production index recorded a contraction compared to the previous month (-0.2%), which corresponds to a more significant reduction compared to the same month of the previous year (-1.1%). The industry's weakness is linked to several factors: from the increase in energy prices, to the reduction in consumers' purchasing power due to high inflation, to the increase in the cost of loans, to the low growth of the main partners, these factors are leading to a non-positive performance of Italian industry. This is even more evident when analyzing the medium-term trend, which shows that the production index has been on a downward trajectory since February 2023, a phenomenon reflected in a negative annual rate of change (year-on-year) over the last nine months.

Figure 27: Industrial Production Index (2015 = 100) and Economic Change % (MoM) - Italy



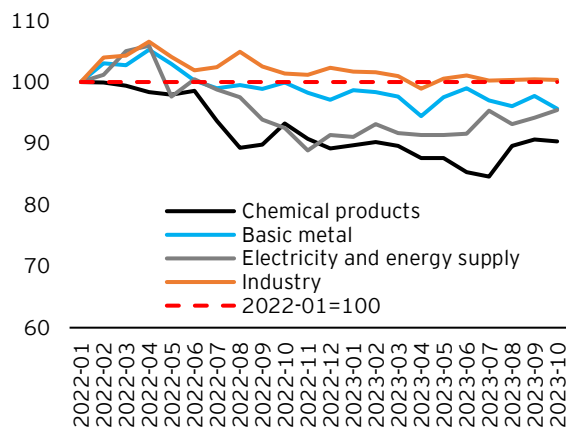
Source: EY calculations on ISTAT data. Indices refer to seasonally adjusted indices. Last available data: October 2023.

While the industrial production index is a summary indicator of industrial dynamics in Italy, the analysis of the different industries adds further detail to the country's picture.

Specifically, the high price of energy goods is mainly penalizing energy-intensive industries, such as the chemical industry, basic metal and the energy supply industry.

Indeed, taking the value of the respective indices at the beginning of 2022 as a reference, it can be seen that, while the overall industrial production index has remained substantially stable, the industries mentioned above have not yet reached the level of production recorded in January last year.

Figure 28: Industrial production index for specific industries - Italy, index 2022-01 = 100



Source: EY calculations on ISTAT data. Indices refer to seasonally adjusted indices. Last available data: October 2023.

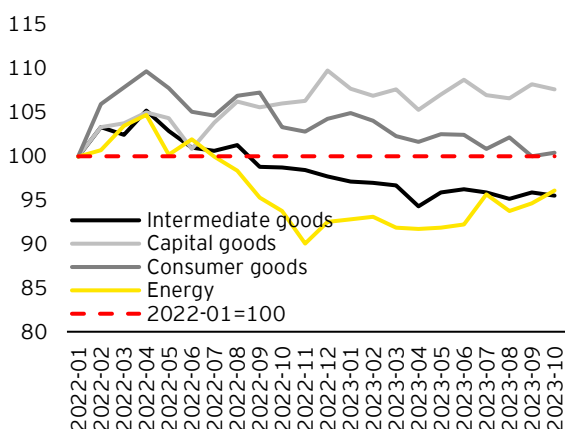
Analyzing the main industrial categories of reference, it can be seen that the production of intermediate goods and energy are the worst performers. Specifically, the intermediate goods category has been contracting, in trend terms, since June 2022.⁶³ A similar, albeit slightly better, dynamic concerns consumer goods and

⁶³ Intermediate goods include, among others, the manufacture of chemicals, the manufacture of metals and metal products, the

manufacture of electrical appliances, the wood industry, and the manufacture of textiles.

energy. In contrast, the production of capital goods is bucking the trend.

Figure 29: Industrial production index by industry groups - Italy, index 2022-01 = 100



Source: EY calculations on ISTAT data. Indices refer to seasonally adjusted indices. Last available data: October 2023.

Expectations on orders in the following three months also confirm the expected negative trend in Italian industry, and specifically in the production of intermediate goods.⁶⁴ Expectations on this type of goods for the following three months have in fact recorded levels similar to those recorded towards the end of 2011, a period characterized by particular turbulence linked to the sovereign debt crisis.

Among the various causes, playing a negative role in the performance of Italian industry is the higher cost of money, i.e., a significantly higher level of interest rates than experienced in past years, which negatively affected the demand for goods by companies and households.

Indeed, the cost of debt has more than doubled since early 2022. Consider, for example, that the cost of debt for households to buy a house has risen from around 1.5% (January 2022) to 4.4% (October 2023); an even more significant increase for companies, for which the cost of debt has risen from 1.3% to 5.5% in the same timeframe.⁶⁵

The rising cost of debt is affecting the trend in bank loans for households and companies.

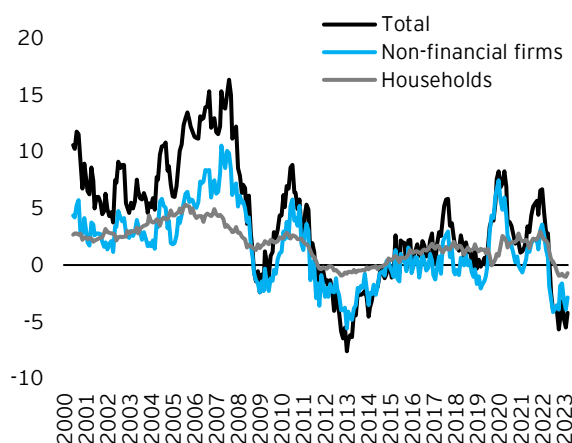
⁶⁴ Consumer and Business Confidence, November 2023. Flash statistics, ISTAT. For more information, <https://www.istat.it/it/files/2023/11/CS-fiducia-delle-imprese-NOVEMBRE-2023.pdf>.

⁶⁵ EY calculations on Bank of Italy data. The cost of

Analyzing the net flows of bank loans to households resident in Italy and non-financial companies resident in Italy, it is possible to note the significant drop recorded in recent months, which has brought net flows into negative territory.

While negative values of net flows (expressed as a six-period moving average) for non-financial corporations and in overall terms had already been recorded in the past, it is interesting to note that, with regard to net flows for households, this phenomenon occurred only during the sovereign debt crisis, and now with greater intensity.

Figure 30: Bank loans to Italian residents - Italy, net flows (6-period moving average, billion €)



Source: EY calculations on Bank of Italy data. Total flows refer to bank loans to all counterparties resident in Italy excluding Monetary Financial Institutions (MFIs) and General Government. The series presented are adjusted on the basis of the ESCB methodology. Loans for which the investment purpose is generic (all purposes) are considered. Last available data: October 2023.

A more detailed analysis of these data also shows us that the ongoing reductions are even faster than those recorded during the sovereign debt crisis period. Indeed, if we look at the difference in flows in each period compared to the same period in the previous year, we can see that the speed of the reduction in net flows is only less than during the period following the great financial crisis.

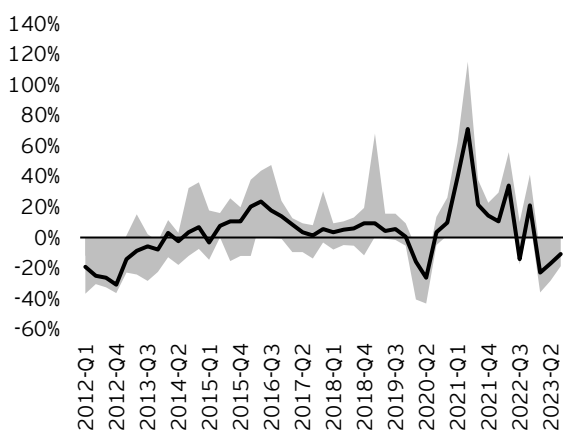
Besides the high level of interest rates, other elements weigh on the trend of net flows of bank loans, both on the demand side (by households

bank loans for businesses refers to the average cost of bank loans; the cost of loans for households refers to the average cost of financing for the purchase of a house, calculated as a 24-month moving average over the aggregation of short- and long-term rates on new volumes.

and businesses) and on the supply side (by banking institutions). As the latest edition of the Bank Lending Survey (BLS) shows, on the supply side of credit to businesses, banks are showing a greater perception of risk and a lower tolerance for risk itself, which translates into a further tightening of supply criteria; a similar situation is also recorded with reference to the supply of loans to households. On the demand side, on the other hand, the latest edition of the BLS shows how, in addition to high interest rates, companies are requesting fewer bank loans as a result of lower requirements for fixed investment expenditure, preferring to resort to self-financing where necessary. With regard to households, on the other hand, low consumer confidence plays a key role in suppressing demand for loans.⁶⁶ High interest rates, of course, also discourage households from borrowing. This reverberates on the purchase of different categories of assets, such as real estate.

Analyzing the trend in the volume of property sales in the residential and non-residential sectors, it can be seen that the last few quarters have been characterized by a negative trend change, after the recovery recorded following the pandemic crisis.

Figure 31: Residential property sales volumes - Italy, % var. YoY



Source: EY calculations on Agenzia Entrate - OMI data. The grey area represents the range of maximum and minimum values for each quarter. Values for the first quarter of 2022 are not available. The analysis considers properties in the residential sector (dwellings and outbuildings) and non-residential sector (tertiary-commercial, manufacturing, agricultural and other properties) in terms of Number of Normalised Transactions (NTN). Last available data: 2023-Q3.

The reduction in the volume of real estate purchases and sales is linked to a slowdown in real estate prices. In this regard, it is interesting to note that the reduction in the value of the house price index is particularly pronounced from the third quarter onwards, after the European Central Bank raised interest rates for the first time in response to the rising price level.

Figure 32: House Price Index - Italy, % var. YoY



Source: EY calculations on Eurostat data. Latest available data: 2023-Q2.

Price dynamics in Italy

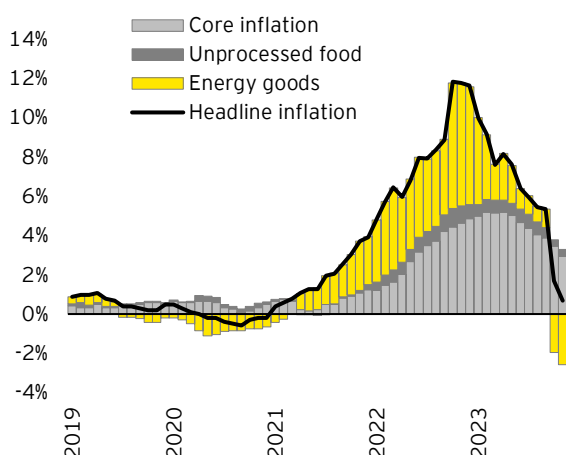
In October, the change in the consumer price index dropped significantly compared to the previous months, from an annual change of 5.3% in September 2023, to 1.7% in October, to 0.7% in November. While this dynamic is certainly a step towards bringing inflation back towards the price stability target, at the same time it is important to emphasize, as we did before, the important role of the 'base effect' component behind this decline.

The base effect is a purely statistical effect. In fact, inflation is calculated as the annual change in the consumer price index, i.e., the ratio of the index value in a given month to the index value in the same month of the previous year. If the index increased (decreased) the previous year due to contingent factors (such as rising energy prices), the return of these factors leads to a reduction (increase) of the index in the following months, resulting in a reduction (increase) of inflation.⁶⁷

⁶⁶ Bank credit survey in the euro area, main results for Italian banks, Q3 2023 and outlook for 2023-Q4. In reference to the demand/supply of household loans, reference is made to demand/supply aimed at the purchase of a house.

⁶⁷ Specifically, the base effect can be defined as the contribution to the change in the year-on-year inflation rate in a particular month that

Figure 33: Headline inflation and components - Italy, % var. YoY

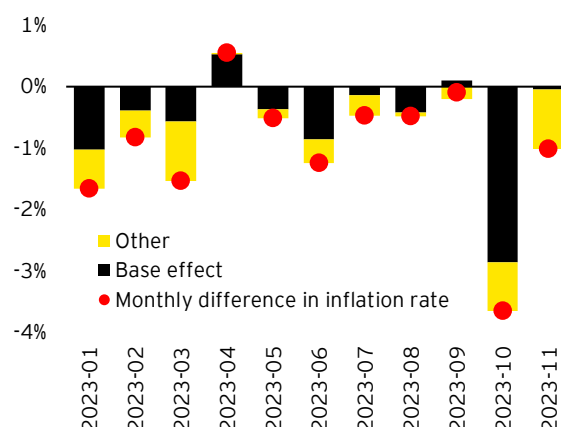


Source: EY calculations on ISTAT data. Last available data: November 2023.

A more detailed analysis allows us to also quantify the contribution of the base effect to the inflation rate trend.

By breaking down the contribution to the change in the year-on-year inflation rate resulting from a deviation of the monthly rate of change in the base month (i.e., the same month one year earlier) from its usual pattern, it can be stated that the base effect contributed about 80% of the change in the year-on-year inflation rate in October.

Figure 34: Contribution of the base effect to the change in inflation - Italy



Source: EY calculations on OECD data. The base effect at month t is equal to the historical average of that month's monthly cyclical inflation minus the monthly actual cyclical inflation of the same month of the previous year. Latest available data: November 2023

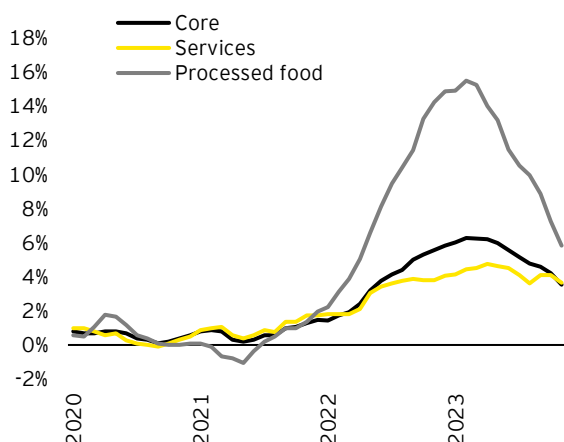
With reference to the components of the price index and their dynamics, the last few months saw a pronounced decrease in the inflation of food (from 8.4% in September to 6.3% in October, to 5.8% in November) and, above all, energy goods (-19.7% in October and -24.4% in November, after 1.7% in September).

More persistent was the core component, which continued its decline, although at a different pace than headline inflation. The November figure, in fact, shows an annual change in the core inflation of 3.6%, about 0.6 percentage points (p.p.) less than in the previous month. While the trajectory shows a downward trend, the analysis of the two main components, i.e., the services and energy component, offers further information.

The decline in core inflation is mainly due to a slowdown in the increase of processed food prices in recent months, while the services component continues to record values in line with those experienced since the beginning of 2023.

results from a deviation of the monthly rate of change in the base month (i.e., the same month one year earlier) from its usual or normal trend, taking into account seasonal fluctuations.

Figure 35: Core inflation and components - % var. YoY, Italy

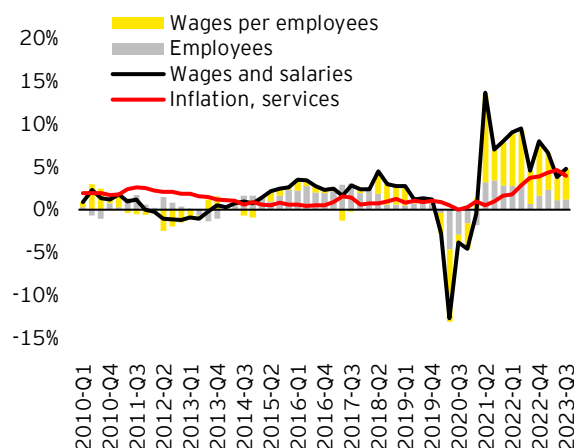


Source: EY calculations on ISTAT data. Last available data: November 2023.

The price level in the service sector is also partly related to the development of wages. Analyzing the development of nominal gross domestic wages, it can be seen that the annual changes over the last period are significant and are partly related to the increase in wages per employee and, to a lesser extent, to the increase in employees.

This phenomenon is depicted in Figure 36, and shows two important phenomena: the first is a healthy labor market, specifically in the service sector, despite the not particularly positive economic environment overall; the second is the phenomenon of second-round inflation,^{68, 69} where a rise in inflation leads to an increase in nominal wages, which in turn can push prices up (in this specific case, in the service sector).

Figure 36: Gross domestic wages and inflation, services - Italy



Source: EY calculations on data from ISTAT, OECD. Wages and salaries are expressed in nominal value. Services inflation is calculated as the annual average change in the price index for services over the three months of each quarter. Latest available data: 2023-Q3.

The inflationary effect of higher wages is expected to diminish, also due to the development of profit margins, which reduce the pressure on the price level, similar to what is expected in the rest of the European Union.⁷⁰

⁶⁸ The inflation outlook and monetary policy in the euro area. Keynote speech by Luis de Guindos, Vice-President of the ECB, at King's College London.

⁶⁹ Arce, O., Hahn, E., Koester, G. (2023). How tit-for-tat inflation can make everyone poorer, The ECB Blog, 30 March 2023.

⁷⁰ European Economic Forecast Autumn 2023. Institutional paper 258 | November 2023.

Focus: the composition of consumption in Italy

Key takeaways:

1. *Geopolitical and economic dynamics, together with the structural changes that have and are characterizing the world's major economies (from the pandemic to sustainability topics), are translating into a change in consumer habits in Italy.*
2. *Breaking down consumption into the relevant macro-groups, we see that consumption of goods returned to pre-pandemic levels in the second half of 2021, while consumption of services took about four quarters more.*
3. *The consumption of durable goods does not seem to be hindered by rising interest rates; this is probably related to the health of the labor market, which continues to support household consumption in general.*
4. *Looking in detail at the expenditure items of Italian households, the spending on transport, hotels and restaurants is still lower than in 2019, unlike other items such as spending on items related to healthcare, energy, and communication.*

The last few years have been characterized by major changes in the economic and geopolitical landscape. From the geopolitical crisis generated by the war between Russia and Ukraine in 2022, to the rekindling of conflict between Israel and Hamas in the second half of 2023, there are numerous exogenous shocks experienced by the world's economies in the last period. But these are not only geopolitical and economic elements: events such as the COVID-19 pandemic or the increased interest in sustainability issues⁷¹ have influenced numerous aspects of today's economy, such as supply and trade relations between different economies,^{72,73} and consumer habits.⁷⁴ This focus therefore aims to analyse how these have changed in Italy in response to the events described above.⁷⁵

In analyzing the change in consumer habits in Italy in recent years, some initial useful information is provided by the breakdown of consumption according to their main categories.

⁷¹ Whitmarsh, L., Poortinga, W., Capstick, S. (2021). Behaviour change to address climate change. *Current Opinion in Psychology*, 42, 76-81.

⁷² Georgieva, K. (2023). Confronting Fragmentation Where It Matters Most: Trade, Debt, and Climate Action, IMF Blog, 16 January. Reference is made to the period between 2012 and 2022 and to restrictions in trade in goods, services and investments.

⁷³ Alfaro, L. and Chor, D. (2023), Global Supply Chains: The Looming 'Great Reallocation'. Paper presented at the Jackson Hole Economic Policy Symposium in 2023, hosted by the Federal Reserve Bank of Kansas City, August 2023.

⁷⁴ Reference may be made, for example, to studies on the effects of COVID-19, including Sheth, J. (2020). Impact of Covid-19 on consumer behaviour: Will the old habits return or die?. *Journal of business research*, 117, 280-283; Baker, S. R., Farrokhnia, R. A., Meyer, S., Pagel, M., & Yannelis, C. (2020). How does household spending respond to an epidemic? Consumption during the 2020 COVID-19 pandemic. *The Review of Asset Pricing Studies*, 10(4), 834-862; Valaskova, K., Durana, P., Adamko, P. (2021). Changes in consumers' purchase patterns as a consequence of the COVID-19 pandemic. *Mathematics*, 9 (15), 1788; Cavallo, A. (2023). Inflation with Covid consumption baskets. *IMF Economic Review*, 1-16.

⁷⁵ The topic is also of interest for economic research, as shown by recent studies on the changes brought about by the COVID-19 pandemic. These include: Sheth, J. (2020). Impact of Covid-19 on consumer behaviour: Will the old habits return or die?. *Journal of business research*, 117, 280-283; Fanelli, R. M. (2021). Changes in the food-related behaviour of Italian consumers during the COVID-19 pandemic. *Foods*, 10(1), 169; Izzo, L., Santonastaso, A., Cotticelli, G., Federico, A., Pacifico, S., Castaldo, L., Colao, A., Ritieni, A. (2021). An Italian survey on dietary habits and changes during the COVID-19 lockdown. *Nutrients*, 13(4), 1197.

Figure 37: Consumption of goods and services - Italy, index, 2019-Q4 = 100

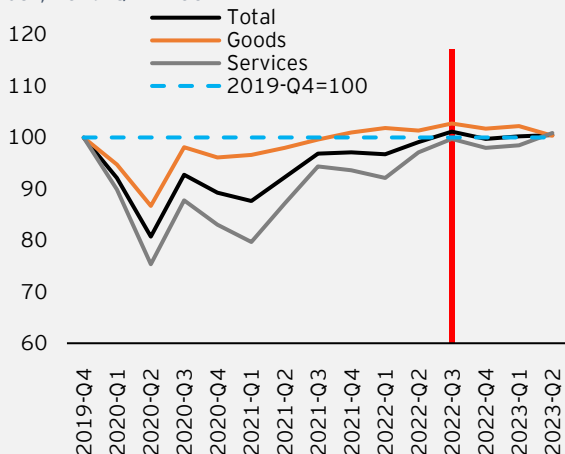
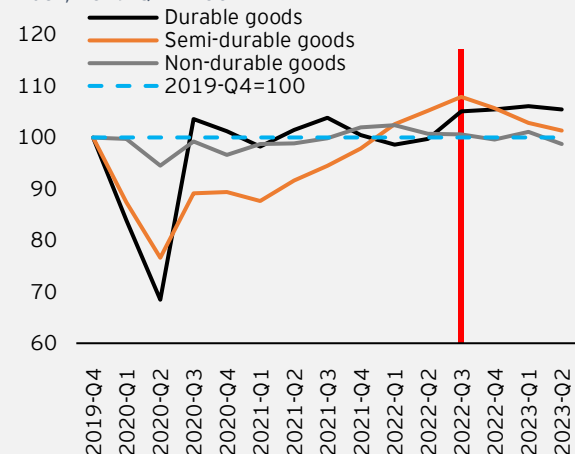


Figure 38 Consumption of goods by product category - Italy, index, 2019-Q4 = 100



Source: EY calculations on ISTAT data. The red line represents the quarter in which the first rate increase by the European Central Bank took place (July 2022).

Figure 37 shows the development of overall consumption and its two main components (goods and services). With reference to goods, it is interesting to note that, after the slump recorded in mid-2020, there was a rather rapid recovery, allowing a return to pre-pandemic levels (last quarter of 2019) around the end of 2021. Consumption of services, on the other hand, was different, as they suffered a greater impact due to restrictions during the pandemic (think of transport services, or the catering and hospitality sectors), and took about a year longer to return to pre-pandemic levels.

Figure 38 also shows us a greater level of detail in relation to the consumption of goods, giving us food for further consideration.

First of all, it is interesting to dwell on the dynamics: the consumption of durable goods,⁷⁶ after collapsing in the second quarter of 2020, returned to pre-crisis levels the following quarter. Consumption of semi-durable goods,⁷⁷ on the other hand, took longer to return to end-2019 levels, and then peaked in the third quarter of 2022, after which it recorded a downward trend. Finally, the consumption of non-durable goods⁷⁸ does not seem to have changed much, remaining along a trajectory consistent with the values of the last ten years. Although explaining this last phenomenon is not straightforward, this dynamic could be partly related to the underlying necessity element in the purchase of these goods (such as food), which makes their consumption less volatile.

With regard to the consumption of durable goods, the trend in the last quarters may seem unexpected, especially in light of the rate increases over the last year and a half. With an increase in the interest rate levels, it could be expected a decline in the consumption of durable goods, as suggested by the economic literature.⁷⁹ A further element to consider is the price level, the effect of which on the consumption of durable goods is not immediately identifiable. While a high inflation rate would in fact seem to discourage spending on durable goods, due to expectations of a reduction in real income,⁸⁰ on the other hand, high inflation rates are generally associated with lower real interest rates, which make the cost of borrowing for the purchase of the goods less expensive.⁸¹

⁷⁶ They include, among others, the manufacture of domestic appliances, the manufacture of furniture, motorbikes, the manufacture of sound and image reproduction equipment.

⁷⁷ They include, among others, clothing, footwear, books.

⁷⁸ They include, among others, the production, processing and preservation of food and beverages, some textile industries, and the manufacture of pharmaceuticals.

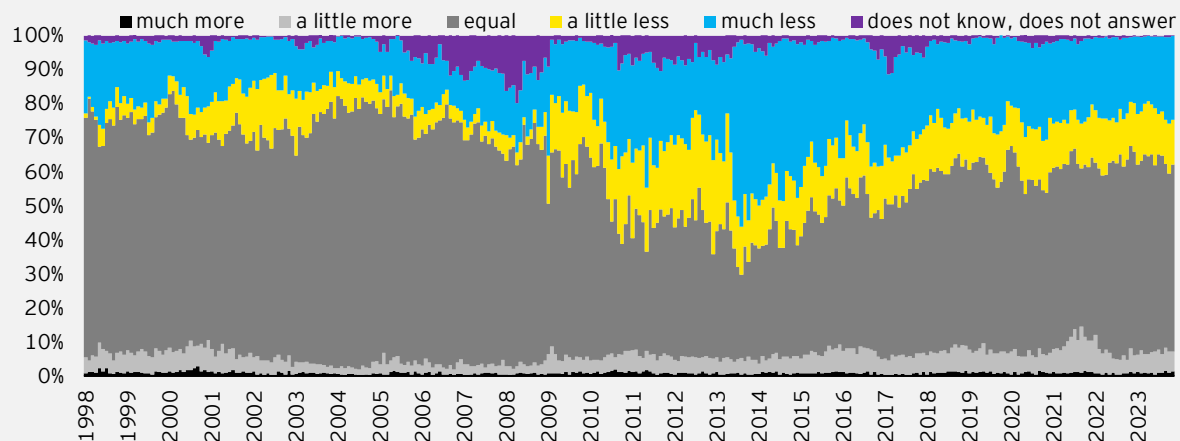
⁷⁹ A few examples can be cited in this regard, such as Mankiw, N. G. (1983). Consumer durables and the real interest rate (No. w1148). National Bureau of Economic Research; Barsky, R. B., House, C. L., Kimball, M. S. (2007). Sticky-price models and durable goods. American Economic Review, 97(3), 984-998; Barsky, R., House, C. L., Boehm, C., Kimball, M. S. (2016). Monetary policy and durable goods.

⁸⁰ Coibion, O., Georgarakos, D., Gorodnichenko, Y., & Van Rooij, M. (2023). How does consumption respond to news about inflation? Field evidence from a randomised control trial. American Economic Journal: Macroeconomics, 15(3), 109-152.

⁸¹ Burke, M. A., Ozdagli, A. (2023). Household inflation expectations and consumer spending: evidence from panel data. Review of Economics and Statistics, 105(4), 948-961.

In any case, the low responsiveness of durable goods consumption to the European Central Bank's interest rate increase is also shown in the future purchase intentions of Italian households.⁸²

Figure 39 Future purchase intentions for durable goods - Italy, % of respondents



Source: EY calculations on ISTAT data. Intentions refer to the twelve months following the consumer confidence survey. Last available data: November 2023.

Figure 39, in this respect, shows the future purchase intentions for durable goods of Italian households according to the ISTAT Consumer Confidence Survey. During the period of the sovereign debt crisis (2011), there was a significant reduction in the percentage of Italian households stating that they maintained approximately the same durable goods purchase intentions in the following year. This was replaced by an increasing percentage of respondents stating an intention to slightly or significantly reduce their purchases of durable goods. In this regard, it is important to describe the context: in fact, a restrictive monetary policy was in place in the years before the outbreak of the great financial crisis, which was subsequently made expansionary in order to cope with the crisis, the direction of which, however, changed again in 2011. Italian households were therefore in a context of high interest rates (the cost of borrowing for households was around 4%),⁸³ the level of which was not too different from what has been experienced recently.

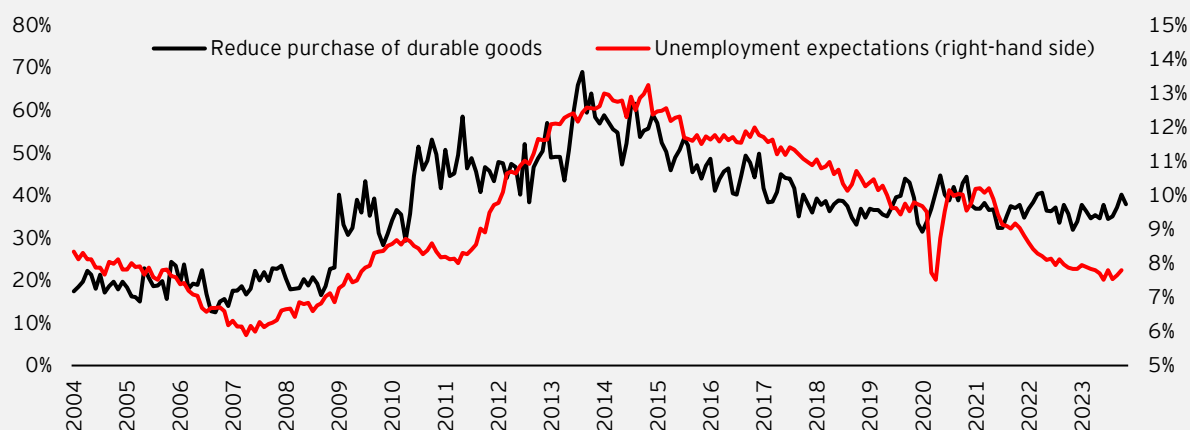
Despite the increase in the level of interest rates, a similar dynamic does not seem to be present in households' purchasing intentions in recent quarters. In fact, the percentage of households stating that their purchases of durable goods remain substantially unchanged remains between 50% and 60%, in line with what has been recorded since 2018.

One possible explanation for this difference in consumer habits can be found in labor market trends.

⁸² Future intentions refer to purchase expectations in the 12 months following the ISTAT consumer confidence survey.

⁸³ The cost of household loans refers 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.

Figure 40: Durable goods purchasing intentions and unemployment - Italy



Source: EY calculations on ISTAT data. The percentage of respondents with an intention to reduce the purchase of durable goods considers respondents who indicated an intention to slightly reduce ("a little less") or significantly reduce ("much less") the purchase of durable goods. For the unemployment expectations, the data represent the percentage of respondents which stated that unemployment will grow significantly. Latest available data: for purchase intentions - September 2023; for unemployment expectations - November 2023.

Focusing on the percentage of households that said they were slightly or significantly reducing their purchase of durable goods, a meaningful correlation with unemployment expectation can be seen. This relationship is strengthened by what emerges from the joint analysis of trends in unemployment and durable goods consumption, which are characterized by an inverse relationship. The academic literature confirms the relationship between unemployment and durable goods consumption. Several studies, for example, focus on the importance of unemployment expectations on the purchase of durable goods,⁸⁴ on the effects of an income shock on the purchase of durable goods,⁸⁵ or on the reduction in the purchase of durable goods following the end of an unemployment scheme.⁸⁶

Analyzing the composition of household goods expenditure in even more detail, it is possible to obtain further information on how the spending habits of Italian households have changed in recent years. It is interesting to note, in this regard, how some expenditure items have been strongly influenced by the events of recent years.

This is evident from Figure 41, which shows that, compared to 2019 (pre-pandemic period), expenditure on transport and hotels and restaurants has not yet reached the levels recorded three years earlier, unlike other expenditure items (such as communication, healthcare and energy). These dynamics are consistent with what was expected: expenditure on transport and restaurants, for example, was significantly affected by the restrictive measures put in place in order to contain the pandemic, a pandemic that in any case discouraged Italian households from travelling even after the easing of containment measures. On the contrary, expenditure on healthcare increased, also demonstrating a greater focus on prevention and treatment after experiencing a health crisis.

⁸⁴ Refer, for example, to Carroll, C. D., Dunn, W. E. (1997). Unemployment expectations, jumping (S, s) triggers, and household balance sheets. *NBER macroeconomics annual*, 12, 165-217; Dunn, W. E. (1998). Unemployment risk, precautionary saving, and durable goods purchase decisions. *Precautionary Saving, and Durable Goods Purchase Decisions* (November 9, 1998); Harmenberg, K., Öberg, E. (2021). Consumption dynamics under time-varying unemployment risk. *Journal of Monetary Economics*, 118, 350-365.

⁸⁵ Baker, S. R. (2018). Debt and the response to household income shocks: Validation and application of linked financial account data. *Journal of Political Economy*, 126(4), 1504-1557.

⁸⁶ Ganong, P., Noel, P. (2019). Consumer spending during unemployment: Positive and normative implications. *American economic review*, 109(7), 2383-2424.

Figure 41: Household final consumption expenditure by expenditure item - Italy, % change, 2019-2022

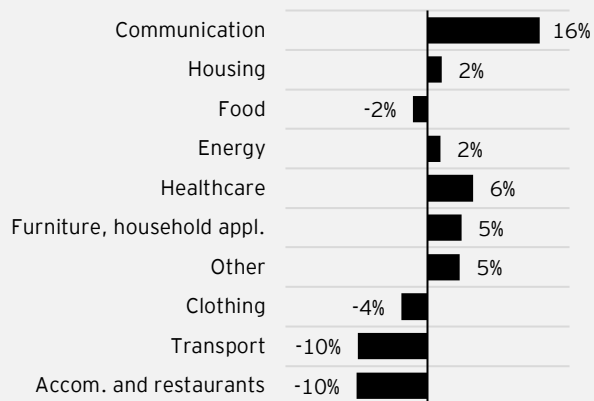
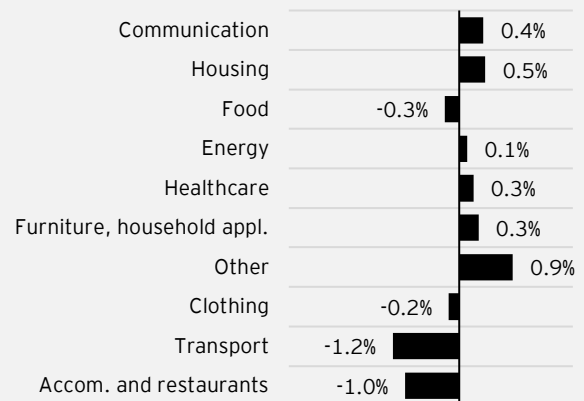


Figure 42: Composition of consumption - Italy, % difference to total basket, 2019-2022



Source: EY calculations on ISTAT data.

In conclusion, by analyzing consumption trends in recent years and breaking them down into the relevant macro-groups, it can be seen that the consumption of goods returned to pre-pandemic levels in the second half of 2021, in contrast to the consumption of services, which took about a year longer. Specifically with regard to goods, the consumption of durable goods shows a largely constant level, despite the increase in interest rates in recent quarters. This could be partly linked to the health of the labor market, which continues to support household consumption in general. In addition, Italian households have seen their consumption basket change as a result of the events and dynamics experienced in recent years: compared to 2019, in fact, the expenditure basket of Italian households shows a lower percentage of resources allocated to the purchase of transport services and hotels and restaurants, while items related to housing, communication, furniture and household appliances, healthcare and energy, for example, have increased.

The Italian economy: GDP and EY forecasts

After a second quarter characterized by negative economic growth, and a third quarter marked by weak growth, EY expects the last quarter to hit 0% growth, mainly due to a slight contraction in consumption and a more significant contraction in investment.

The dynamics in consumption, weakened by the reduction in household purchasing power due to high inflation, coupled with the low investments related to high interest rates and the uncertain environment, are two of the main elements that have characterized the current year and will characterize the following. The recovery of world trade in 2024 is expected to translate into a stronger export growth compared to import growth, resulting in a positive contribution to economic growth.

Going into detail, in the third quarter of 2023 GDP in Italy grew by 0.1% compared to the previous quarter (quarter-on-quarter; similar figure compared to the year-on-year growth).⁸⁷ The figure represents a slightly upward revision compared to the preliminary estimate at the end of October 2023, when both quarter-on-quarter and year-on-year growth were basically zero.⁸⁸ This is the result of a positive trend in consumption compared to the previous quarter (which contributed 0.4 percentage points to growth), no growth in investment, and a sharp reduction in inventories (which contributed -1.3 percentage points to growth).

Figure 43: Contributions to GDP growth - Italy

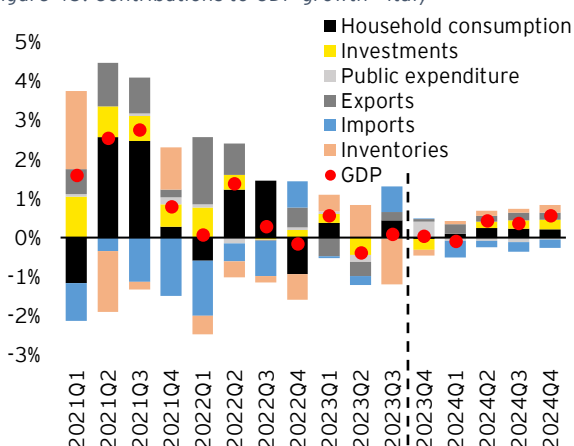
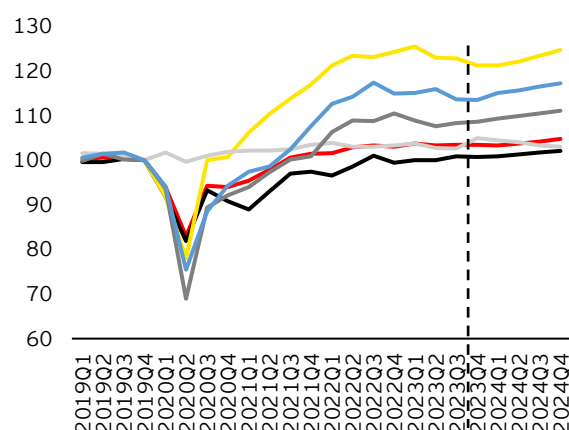


Figure 44: Components of GDP - index 2019Q4 = 100



Source: EY calculations based on Eurostat data and EY forecasts. EY forecasts start from 2023 Q4. Investment refers to fixed investment, which includes gross fixed capital formation, acquisitions less disposals of valuables and depreciation.

With reference to consumption, the growth recorded in the third quarter of 2023 seem to be related to the positive effects of a healthy labor market and the use of the remaining resources from the 'forced' savings generated during the pandemic period, balanced, however, by a reduction in the purchasing power of households, due to a drop in real incomes linked to high inflation. On the other hand, the cost of money, significantly higher than in previous years as a result of the monetary tightening applied by the European Central Bank, and the situation of extreme uncertainty related to global economic and geopolitical dynamics, affected investment choices.

Based on the information in the previous sections and the latest available data, it is possible to EY outlines its outlook for the Italian economy. After the weak growth recorded in 2023 Q3, the year is expected to record an overall growth of 0.7%, with the fourth quarter showing essentially a 0% growth. Growth in 2024

⁸⁷ Quarterly Economic Accounts, Q3 2023, ISTAT. For more information, https://www.istat.it/it/files//2023/12/CET_23q3.pdf.

⁸⁸ Preliminary GDP estimate, Q3 2023, ISTAT. For more information, https://www.istat.it/it/files//2023/10/FLASH_23q3.pdf.

is then expected to be in line with the 2023 growth (0.6%), with the economy accelerating in the second half of the year.

Private consumption, the most significant component of GDP, will drive growth in 2023 thanks to an increase of 1.6 % over 2022, losing some of the momentum in the following year (1.1 % in 2024), but still pushing for growth. Private consumption benefits from a healthy labor market and the presence of excess savings mainly accumulated during the pandemic period. In 2024, consumption will still show some dynamism (albeit dampened) thanks to a higher propensity to consume compared to historical level. GDP growth will also be supported by a positive contribution from net exports, mainly due to an acceleration of world trade.

Investments are expected to slow down in the last quarter of 2023 (-1.3%), leading to a growth of 0.1% in 2023, followed by a contraction in 2024 (-0.2%). A deeper analysis of investment trends by category allows a more precise interpretation of the underlying dynamics. First, it is important to consider that most investments in the Italian economy come from the private sector. With reference to the latter, it is significant to distinguish some of the main investment categories, such as investments in machinery, housing, and intangible assets.

Table 1: Forecast of the Italian economy

	2020	2021	2022	2023	2024
GDP, % change	-9.0%	8.3%	3.9%	0.7%	0.6%
Household consumption, % change	-10.4%	5.3%	5.0%	1.6%	1.1%
Total investments, % change	-8.0%	20.7%	10.1%	0.1%	-0.2%
Exports, var. %	-14.3%	14.0%	10.7%	-0.2%	1.7%
Imports, % change	-12.7%	15.2%	13.1%	-0.2%	1.4%
Unemployment rate	9.4%	9.5%	8.1%	7.7%	7.2%
Consumer price index, % change	-0.1%	1.9%	8.2%	5.6%	2.3%
Deficit, % of GDP	-9.5%	-8.8%	-7.9%	-4.5%	-3.8%
Public debt, % of GDP	155.0%	147.2%	141.6%	141.3%	140.5%

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.

With regard to the former, the current context of uncertainty means that the majority of entrepreneurs prefer to adopt a *wait-and-see* approach, i.e., of waiting and analyzing short-term developments of the dynamics of greatest concern (such as the war in Palestine or the evolution of the war in Ukraine). With regard to investment in buildings and housing, the momentum coming from fiscal policy is gradually diminishing, with the consequent slowdown. On the other hand, a different *trend* is being recorded for intangible assets, which increasingly represent a key and distinctive element for companies to maintain their competitiveness on the market. These investments, in fact, continue to grow, even if the total amount is still small compared to total investments, and therefore their 'driving effect' is still low overall, although their contribution is fundamental for the economic system (e.g., to foster productivity).⁸⁹

Moreover, it is important to emphasize the role of the NRP for growth not just in the medium to long term, thanks to an increase in potential growth due in part to the complex programme of reforms that is part of the Plan, but also in the short term, living in a context of private investment held back by high interest rates. It should be noted, for example, that the Economic and Financial Document (DEF) of 2023 estimates a positive impact of the NRP on GDP of 1% in 2023, 1.8% in 2024, 2.7% in 2025 and 3.4% in 2026

⁸⁹ Greco, R., (2023). A structural analysis of productivity in Italy: a cross-industry, cross-country perspective. Questioni di Economia e Finanza, Occasional Paper, Number 825, December 2023.

(cumulative values). The sectors expected to contribute most to GDP growth will be construction (2.4%), manufacturing (1.4%), real estate (1%) and professional, scientific and technical activities (1%).⁹⁰

The labor market is expected to remain robust in 2023 with an unemployment rate of 7.7%, followed by an improvement in 2024 (7.2%). Inflation is also expected to improve, reducing in 2023 (5.6%) and then falling significantly in 2024 (2.3%), but showing some persistence in the food and services components.

The public deficit is expected at 4.5% in 2023 and 3.8% in 2024, while public debt will be affected by low GDP growth between 2023 and 2024 but will still be on a downward path, standing at 140.4% of GDP in 2024.

The outlook remains subject to a scenario of high uncertainty and therefore presents significant risks, mainly related to the global macroeconomic environment, both downward and upward.

⁹⁰ Economic and Financial Document (DEF) 2023. For more information, <https://temi.camera.it/leg19/provvedimento/il-documento-di-economia-e-finanza-def-2023.html>.



Assumptions behind forecasts

The forecasts described above are based on a series of assumptions outlining the reference scenario.⁹¹ Specifically, the following assumptions are considered:

- ▶ **International trade:** a slowdown is assumed in 2023 followed by a marked acceleration in 2024;
- ▶ **Natural gas:** the price of natural gas (referred to the Dutch Title Transfer Facility) is assumed to be around \$14.5/mmbtu by the end of 2023, and around \$15/mmbtu by the end of 2024;
- ▶ **Oil:** the price of oil is assumed to be around \$86 per barrel at the end of 2023,⁹² and to decline gradually in 2024 to \$80 per barrel;
- ▶ **Exchange rate:** the euro/dollar exchange rate is assumed to be 1.07;
- ▶ **Public expenditure:** this takes into account the projections contained in the latest Update Note of the Ministry of Economy and Finance's Economic and Financial Document;⁹³
- ▶ **Monetary policy and interest rates:** a pause in the rise of the three key interest rates is assumed for the last months of 2023. Thereafter, a reversal is assumed, leading to a reduction of about 0.75 percentage points in the key interest rates by the end of 2024. The long-term interest rate (10 years) is also expected to follow a similar trend, but showing a gradually narrowing differential with the short-term rate.

The data in the analysis are updated to 15 December 2023.

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:

Risks to the upside

- ▶ **Reduction of geopolitical tensions:** tensions related to the ongoing conflicts, specifically the Russian-Ukrainian and Israeli-Palestinian conflicts, could decrease in the short/medium term, thus reducing instability in the macroeconomic framework;
- ▶ **Labour market:** low pressure of the wage component 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;
- ▶ **Faster readjustment of supply chains:** 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.

⁹¹ The data are updated to 15 December 2023.

⁹² Reference is made to the price of Brent.

⁹³ Economic and Financial Document, Update Note, 2023.

Downside risks

- ▶ Increased geopolitical tensions: the Russia-Ukraine conflict may not find a solution in the short/medium term, perpetuating geopolitical insecurity. Added to this is a worsening of the Israeli-Palestinian issue, which would have even more significant humanitarian and economic repercussions if other countries were involved;
- ▶ Stronger-than-expected impact of restrictive monetary policy on the real economy: the ECB and other global central banks may continue with a restrictive monetary policy for longer than expected in the event of persistent inflation in the various economies. This may result in a risk of prolonged low growth due to lower consumption and investment discouraged by high interest rates;
- ▶ Stress in the financial system: high interest rates can translate into increased stress for financial institutions, with a consequent impact on savers and a tightening of credit conditions, both in the US and in the Eurozone;
- ▶ High public debt: the post-pandemic increase in public debt, together with the current high interest rates, poses new challenges to its sustainability in Eurozone economies, especially in the most indebted ones such as Italy. This could ultimately translate into higher risks of stress in financial markets;
- ▶ NRP: the failure to fully achieve the objectives of the NRP and its partial implementation could slow down the pace of growth of investments, and thus of the Italian economy as a whole; the issue could also have repercussions on potential GDP and thus on medium- to long-term growth prospects;
- ▶ Emerging economies: rising global interest rates have an impact on emerging economies through several channels (low US growth; depreciation of emerging country currencies, potentially leading to higher interest rates to avoid excessive depreciation; increased financial fragility);
- ▶ Monetary policy transmission channels: some structural factors such as the presence of a high proportion of households with fixed-rate debt, or an economy where the service sector is predominant, may hamper the transmission mechanisms of monetary policy, thus requiring more time for its effects to be felt;⁹⁴
- ▶ Increased distress in the real estate sector: maintaining interest rates at a high level may add further pressure on the real estate market, discouraging home and property purchases.

⁹⁴ 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 Macroeconomy⁹⁵

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).⁹⁶ This trade-off has been emphasised several times in the literature, see for example the reflections in Granger (1999) and Pagan (2003).

In the construction of 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 specifying 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.

⁹⁵ The model was developed in collaboration with the Department of Economic Sciences of the University of Bologna.

⁹⁶ "ARIMA" stands for "Autoregressive integrated moving average", "VAR" for "Vector autoregression", "RBC-DSGE" for "Real Business Cycle - Dynamic. Stochastic General Equilibrium".

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.

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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