upB ufficio parlamentare di bilancio

Summary[*]

Military hostilities in Ukraine show no signs of ending and economies are beginning to adapt to the war. Last year, the euro area grew more than the US and China and significantly reduced its dependence on Russian gas. The economic cycle in Europe lost momentum in the final part of 2022, however, forward-looking indicators on world trade point to stronger growth in the coming quarters. The rapid decline in energy commodity prices, aided by exceptionally mild weather conditions, contributed to the resilience of the European economy. Consumer prices also benefited from such factors, showing a downward trend although not yet sufficient to manage a normalisation of monetary policies; the central banks continue to adopt a vigilant approach in light of the available data. The budgetary policies of the member states of the European Union are also moving towards a reabsorption of the imbalances that have accumulated following the pandemic and the conflict in Ukraine.

In 2022 the GDP of the Italian economy increased by 3.7 per cent, stronger than that of the euro area for the second year in a row. The expansion of GDP in Italy was mainly driven by the services sector and, in terms of demand, by exports and private consumption. In the last quarter of 2022 the economy weakened, suffering from a slowdown in household purchases due to price increases. Consumer price inflation is decreasing, but the core components most affecting the "shopping basket" remain on the rise; among the items that have gone up in price in the last two years are those related to energy efficiency, which in Italy has benefited from generous tax incentives. Employment is growing, especially with regard to permanent contracts, but there are still imbalances between labour demand and supply, which are also holding back production.

Industrial activity between the end of 2022 and the start of 2023 was very volatile. Household and business surveys, however, point to a strengthening of the economy, and the Parliamentary Budget Office (PBO) estimates that GDP began to grow again in the first three months of the year; activity increased at a moderate pace, with short-term risks broadly balanced.

On the contrary, downside risks on growth and upside risks on inflation clearly prevail in the medium term. In addition to the conflict in Ukraine, potentially negative factors include the timeframe for the implementation of the NRRP, global financial tensions, the persistence of inflation, and climatic and environmental risks.

[*] *Prepared by the Macroeconomic Analysis Department. Information updated to 5 April 2023.*

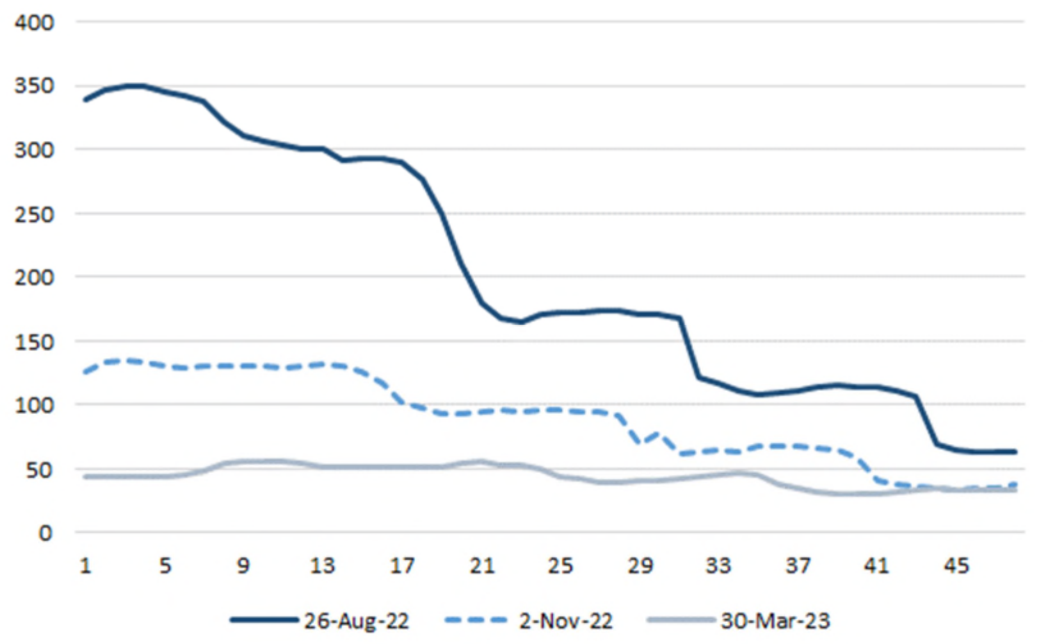
The international environment

Economies show signs of being resilient to the war in Ukraine

Fourteen months after the Russian invasion of Ukraine, the conflict shows no sign of abating; on the contrary, in some areas the battles are becoming even fiercer. The countries not directly involved in the war, but which are still strongly affected by it, nevertheless seem to be adapting to the new international scenario. In particular, European economies have strongly reduced their dependence on Russian gas imports, both by diversifying their supply sources and by reducing their overall consumption. According to the International Energy Agency (IEA), in 2022 European countries belonging to the OECD reduced their gas consumption by more than 12 per cent compared to the previous year, also due to a milder winter than in the recent past. As a result, gas futures prices on the Dutch market dropped considerably (Figure 1).

The economies' resilience to the war seems to apply also to Russia itself, which appears to be able to circumvent international sanctions by diverting its trade flows; overall, last year's GDP contraction was much smaller than originally assumed at the start of the invasion of Ukraine. According to official data, Russian GDP in 2022 contracted by a little over two percentage points, whereas in April last year the International Monetary Fund had predicted a heavy recession (-8.5 per cent). However, the President of the Russian Federation recently stated that sanctions could have a negative effect on the economy in the medium term.

Figure 1 – Gas futures
(Euro/MWh at different maturities)



Source: S&P Global.

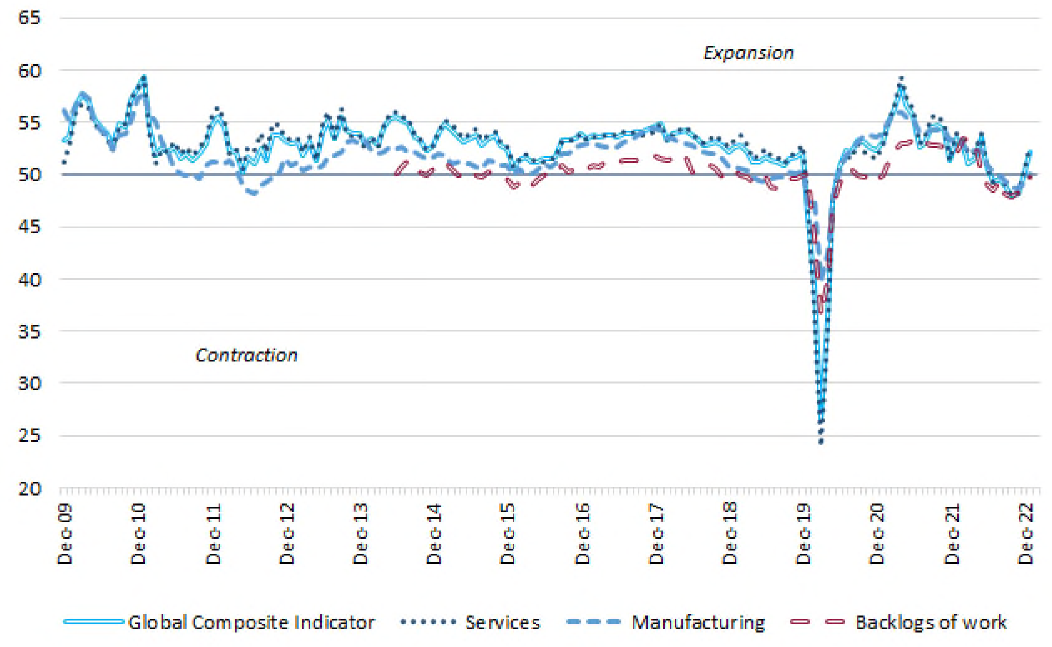
At the same time, tensions have re-emerged in international financial markets due to bankruptcies and liquidity crises of major banking institutions in the US and Switzerland. Markets are worried about possible contagion effects, but central banks have intervened and declared themselves ready to do so again to counter financial crisis risks.

Since the end of 2022, traders' expectations have started to improve and last February, after six months of contraction, the S&P Global PMI Purchasing Managers' Indices returned to point to an expansion of manufacturing activity (Figure 2).

The year 2022 ended with a 2.1 per cent growth in the US, with a decelerating fourth quarter at 0.6 per cent; in the euro area the annual growth was much stronger (3.5 per cent), despite a stagnant fourth quarter. Last year, the Chinese economy decisively slowed down, reaching 3.0 per cent, the lowest growth rate since 1976 excluding 2020, the year of the pandemic.

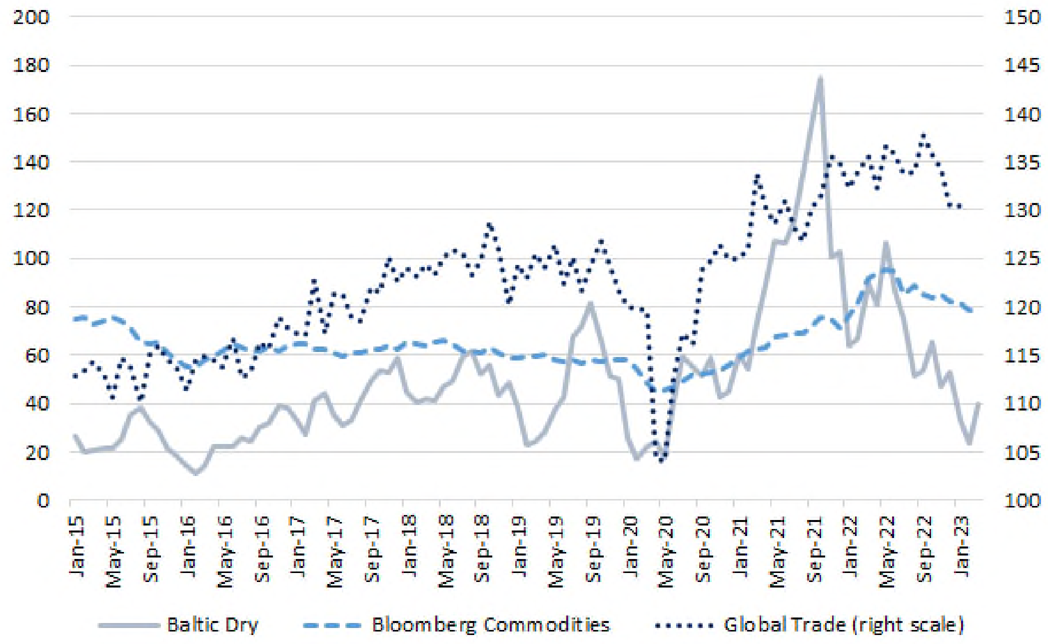
Quarterly data on global economic activity point to a slowdown in the fourth quarter of 2022, although at the same time projecting an improvement in the first part of the current year. Indeed, while recent indicators on world trade, pressures on global supply chains and commodity prices show a weakening, the Baltic Dry Index rebounded last month, foreshadowing a strengthening of international activity. According to Central Plan Bureau data, world trade is expected to grow by 3.3 per cent in 2022 as a whole (Figure 3), roughly in line with the average since 2000.

Figure 2 – JP Morgan Global PMI (1)



Source: S&P Global.

Figure 3 − Global economic indicators
(indicator numbers, 2010=100)



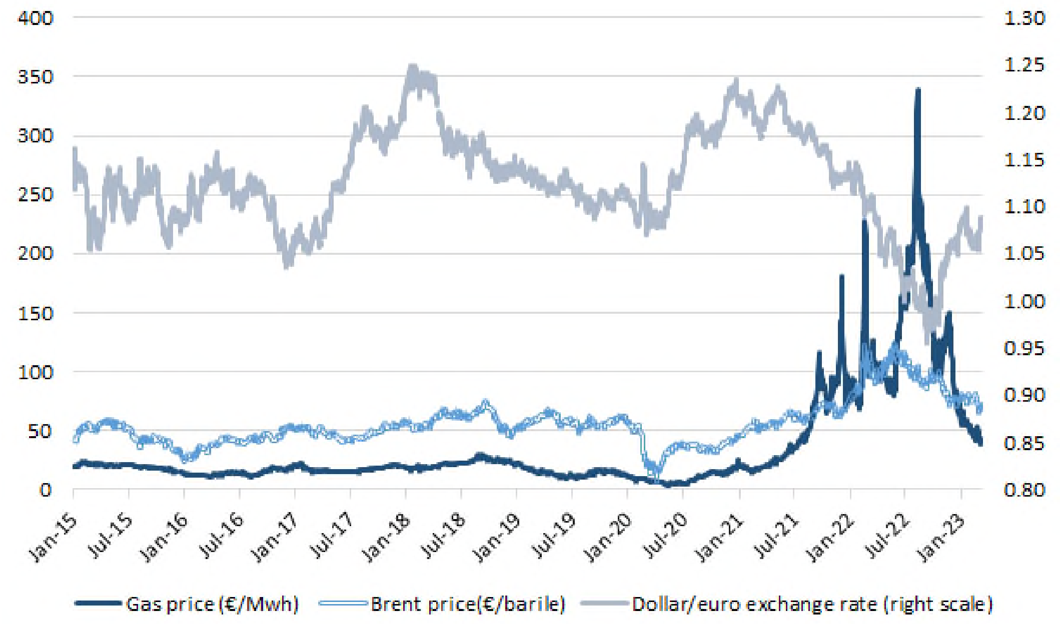
Source: based on CPB, Baltic Exchange and Bloomberg data.

Gas prices have fallen sharply, oil prices remain high

The European strategy for the diversification of gas supply sources, undertaken after the outbreak of the conflict between Russia and Ukraine, proved effective and the EU's dependence on Russia went in just a few months from almost 50 per cent in mid-2021 to just under 13 per cent in November 2022.[2] Benefiting also from a mild winter, gas stocks in storage sites at the end of March stood at around 56 per cent of capacity, a historically high figure equal only to that recorded in the first months of lockdown during the pandemic, when many production activities were closed. Overall, tensions in the gas market have therefore been gradually reduced (Figure 4), despite the fact that the military hostilities show no signs of ending. By the end of March, the price of gas per MWh had returned to around EUR 40, i.e. the end-of-July 2021 quotations. The price of oil, which had almost halved since its peak in early June 2022, remained between USD 75 and USD 85 per barrel in the first three months of 2023. OPEC+'s announcement last week of an output cut of 1.660 million barrels per day, of which 500,000 barrels in Russia alone, caused a sudden rebound in prices, from just under USD 80 on Friday 31 March to around USD 85 on 5 April.

[2] https://tinyurl.com/2p9ekbpw.

Figure 4 – Oil and gas prices and dollar/euro exchange rate (1)



Source: S&P Global.
(1) Oil and gas prices are expressed in euros.

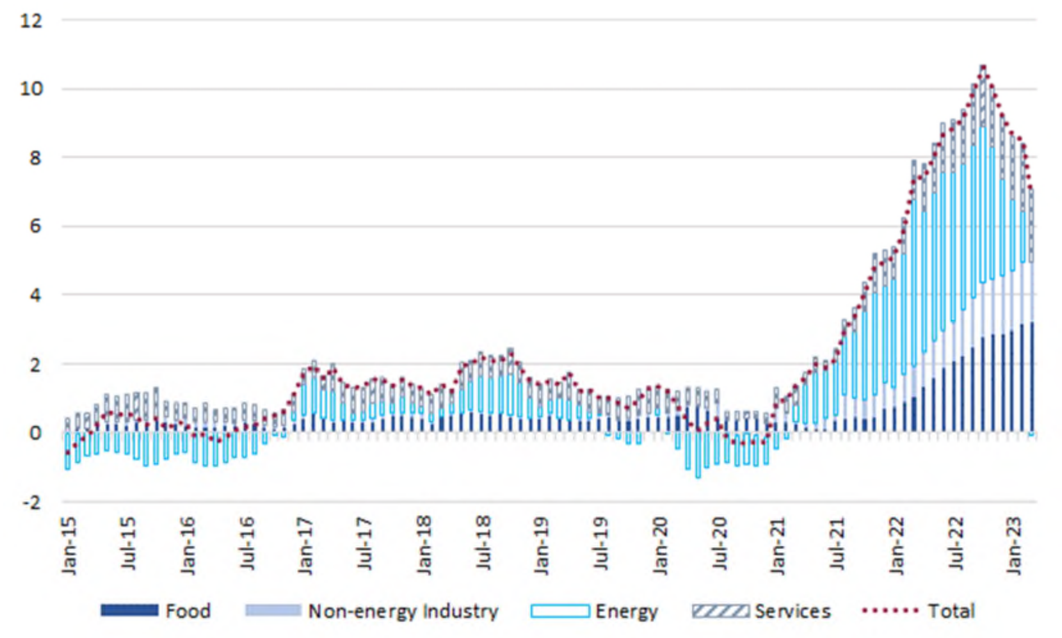
The euro exchange rate, which had recovered from its September low of 0.95 against the dollar to above parity at the beginning of November, has since been above 1.05, with fluctuations often due to changes in expectations about monetary policy developments on both sides of the Atlantic.

Prices continue to slow down, but expectations remain above two per cent

Since the peak recorded last October, when prices in the euro area had risen by 10.6 per cent, inflation has been falling steadily. According to preliminary estimates by Eurostat, inflation fell to 6.9 per cent in March (Figure 5), more than one and a half percentage points lower than in the previous month; the energy component registered a negative trend for the first time since February 2021. The gradual increase in prices, which started in mid-2021 and was driven by energy prices, has now spread to the other components of the basket. Inflation in March 2022 was two-thirds driven by the increase in energy prices, while last month it was almost half driven by food prices, more than 30 per cent by increases in services and more than 25 per cent by non-energy industrial goods. Core inflation, on the other hand, shows no sign of abating, rising again in March (5.7 per cent), albeit marginally.

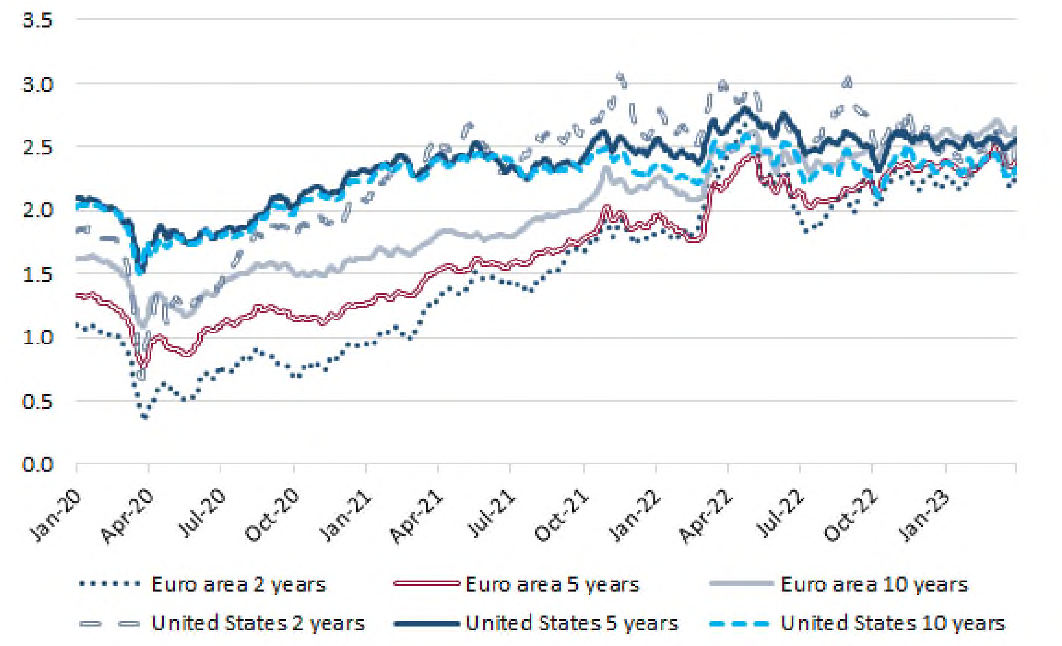
Although the decline in inflation is slower in the old continent, inflation expectations now appear to have stabilised at around 2.5 per cent on both sides of the Atlantic and at different horizons (Figure 6).

Figure 5 – Inflation in the euro area (1)
(year-on-year percentage change and contributions)



Source: based on Eurostat data.
(1) The sum of the contributions may not equal the change in the total index due to chain-linking and calculation using a greater level of detail.

Figure 6 – Inflation expectations implied in inflation swaps in the euro area and the United States
(percentage points)



Source: S&P Global.

In their latest meetings in March, central banks continued to raise interest rates in order to bring inflation back in line with monetary policy targets. The European Central Bank (ECB) raised the main refinancing operations rate by 0.5 percentage points, reaching 3.5 per cent; the Federal Reserve increased the federal funds rate by 25 basis points, reaching 5.0 per cent. The less restrictive stance of the US central bank is due to the fact that the rate normalisation process started earlier in the US than on the old continent, and also due to the need to reassure markets about possible interventions that might be necessary following the recent bank failures in the country.

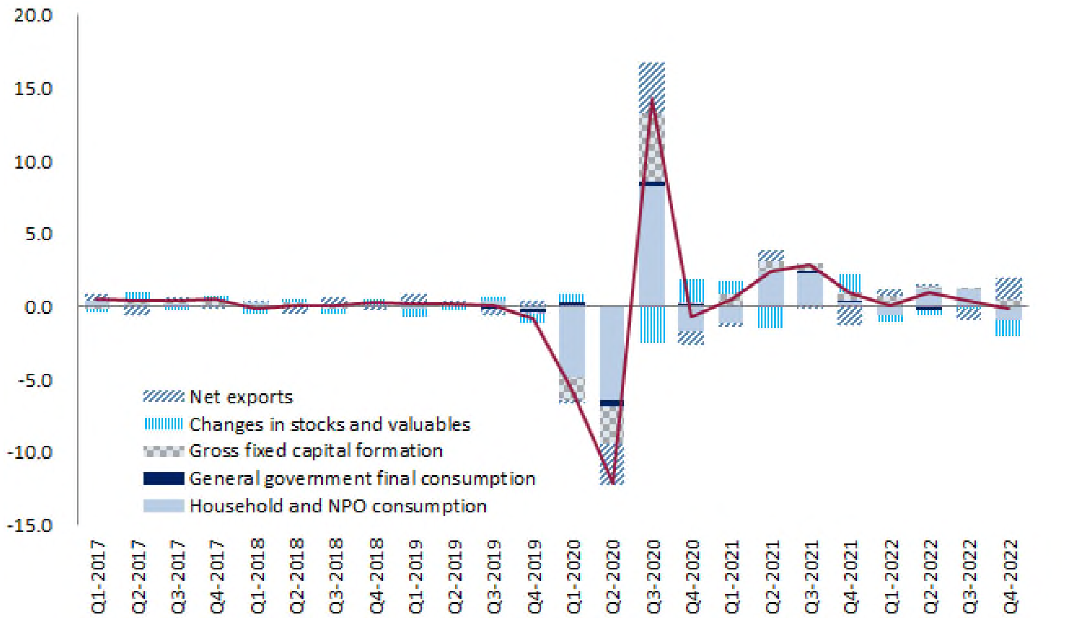
The Italian economy

GDP grew rapidly in 2022, but lost momentum in the final part of the year

The recovery of GDP which began in 2021 continued last year, after the unprecedented contraction recorded in peacetime in 2020 due to the pandemic. According to the annual economic accounts, released in early March, the Italian economy grew by 3.7 per cent in 2022, more than the other main European partners. Italy's GDP was mainly driven by domestic demand, for household consumption and gross fixed capital formation, which together contributed 4.6 percentage points to growth; the contribution of net exports, as well as stocks, was negative by about half a percentage point, although exports alone contributed 3.0 GDP points (Figure 7). With regard to supplies, value added increased markedly in the tertiary sector (which contributed 3.3 points to GDP), driven mainly by trade, transport, accommodation and catering services; the construction sector also contributed positively, by half a point of GDP, while there was a further decline in agriculture and a substantial stagnation in the industry sector (excluding construction).

The final quarter of 2022 saw a marginal decline in GDP, down by a tenth of a percentage point compared to the average for the summer months. On the supply side, the cyclical trends in value added were negative in all the main productive sectors, more marked in agriculture (-0.7 per cent) and more moderate for industry and services (-0.3 and -0.1 per cent, respectively). With regard to the components of demand, private consumption fell sharply (-1.6 per cent), while gross fixed capital formation jumped by 2.0 per cent.

Figure 7 – GDP change and demand component contributions
(quarterly percentage changes and contributions in percentage points)



Source: Istat.

Accumulation was driven by non-residential buildings and plant and machinery, while residential investment increased moderately (the six-month change remained negative). With regard to trade flows, exports recovered rapidly (2.6 per cent), while imports decreased by 1.7 per cent.

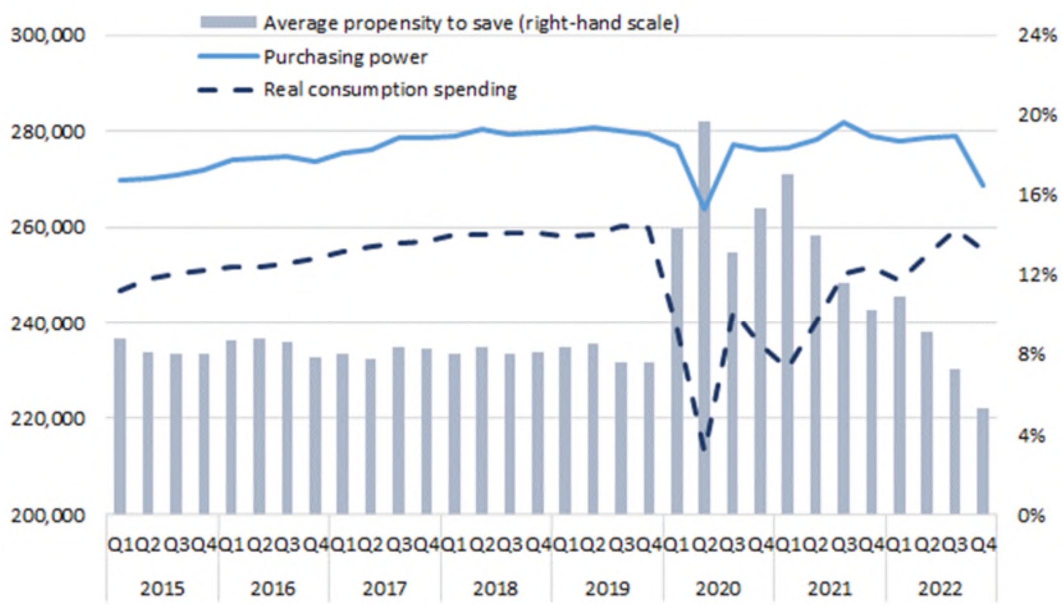
Savings shrink and families become more cautious in their purchases

In 2022 private consumption grew by almost five percentage points compared to the previous year. After the economic upswings in the middle quarters of the year, household expenditure fell sharply in the autumn (-1.6 per cent), reflecting the widespread contraction in almost all the major components, with the exception of semi-durables.

The contraction in household spending during the autumn reflected the sharp drop in purchasing power (-3.7 per cent in quarterly terms), as the increase in nominal income (0.8 per cent) was largely eroded by the rise in prices (4.5 per cent). This resulted in a marked decline in the propensity to save, which fell to 5.3 per cent of disposable income (from 7.3 per cent in the previous quarter), the lowest level in more than a decade (Figure 8).

The latest consumption data paint an uncertain picture. The performance of Confcommercio's consumption indicator (in volume) in the two months of January-February is said to be essentially unchanged compared to the fourth quarter of 2022, due to a slight increase in the purchase of goods offset by a drop in the purchase of services.

Figure 8 – Household purchasing power, consumption and propensity to save *(EUR million, 2015 chain-linked values and percentage shares)*



Source: Istat.

Retail sales recorded by Istat were more positive, with a rise in value of about two percentage points in January and February compared to the fourth quarter of 2022, whereas over the same period the increase in volume was limited to a few tenths of a percentage point. Consumer confidence has gradually improved since the second half of last year; this trend continued in the first quarter of the current year, with the index rising to a level similar to the average level for 2021-22.

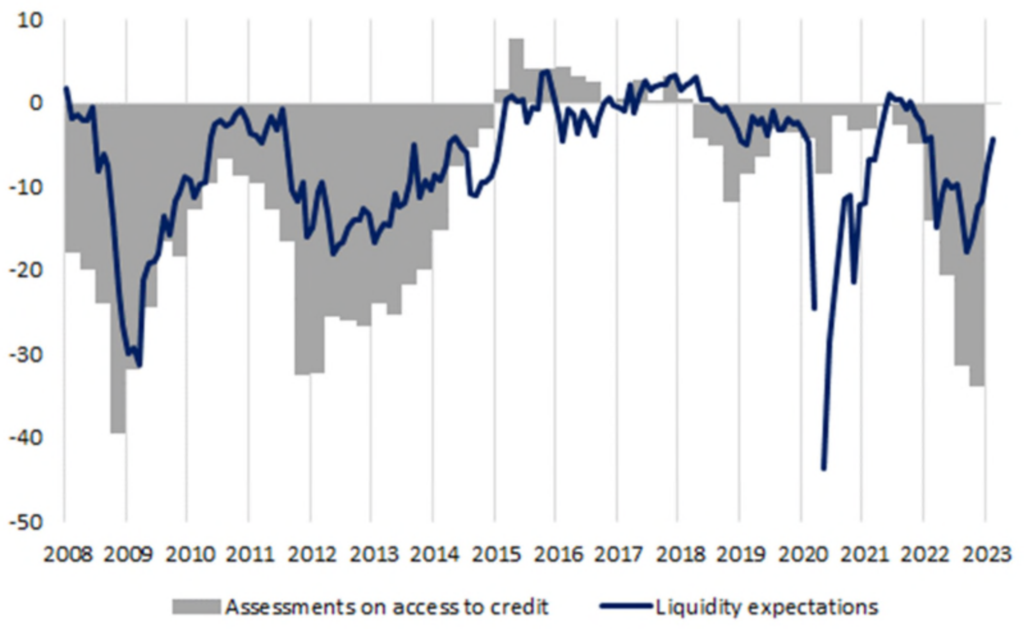
After the strong growth of 2022, a slowdown in accumulation is expected

Having already recovered considerably in 2021 (18.6 per cent), gross fixed capital formation continued to expand at a still high pace last year (9.4 per cent). Accumulation gained strength in all components, with increases of 10.3 per cent for investment in dwellings, 12.9 per cent for spending on non-residential buildings and public works, and 8.6 per cent for spending on machinery and equipment. In the first half of 2022, accumulation was supported by both the residential and non-residential constructions sector, driven by households' disposable income and still relaxed financing conditions. Conversely, investment in machinery and equipment accelerated in the summer months, driven by the transport component. The rise in the economy in the final quarter of 2022 (2.0 percent) was mainly attributable to expenditure in non-residential construction, while the performance of the residential component was subdued, despite the approaching expiration of major tax incentives.

The investment rate (the ratio of gross fixed capital formation to value added) remained in 2022 at a level (24.4 per cent) close to its maximum in the last decade. 2022 also saw a slight increase to 43.2 per cent in the profitability of non-financial corporations (measured as the ratio of gross operating profit to value added at basic prices).

The Bank of Italy Survey on Inflation and Growth Expectations for November-December revealed a deterioration in assessments of investment conditions, reflecting the rise in energy prices, difficulties in procuring raw materials and intermediate inputs, as well as tighter conditions for access to credit. According to the ISTAT survey on capacity utilisation and obstacles to production in manufacturing firms, the degree of capacity utilisation in the fourth quarter stood at 77.6 per cent, roughly in line with the average figure for the two-year period 2018-19; simultaneously, the share of firms facing production obstacles decreased (40.1 per cent compared to 50.2 in July-September), although the incidence of companies experiencing labour shortages and plant shortages increased. Qualitative surveys foreshadow a weakening of the accumulation process in the short term, as indicated by domestic orders for capital goods in January-March, standing just above the minimum levels recorded in the last two years. Opinions on access to credit also deteriorated and are at levels close to those recorded during the 2008-09 recession, despite expectations on liquidity being less pessimistic than in previous months (Figure 9).

Figure 9 – Assessments of credit conditions in the manufacturing sector and liquidity expectations
(difference between percentage shares of positive and negative responses)

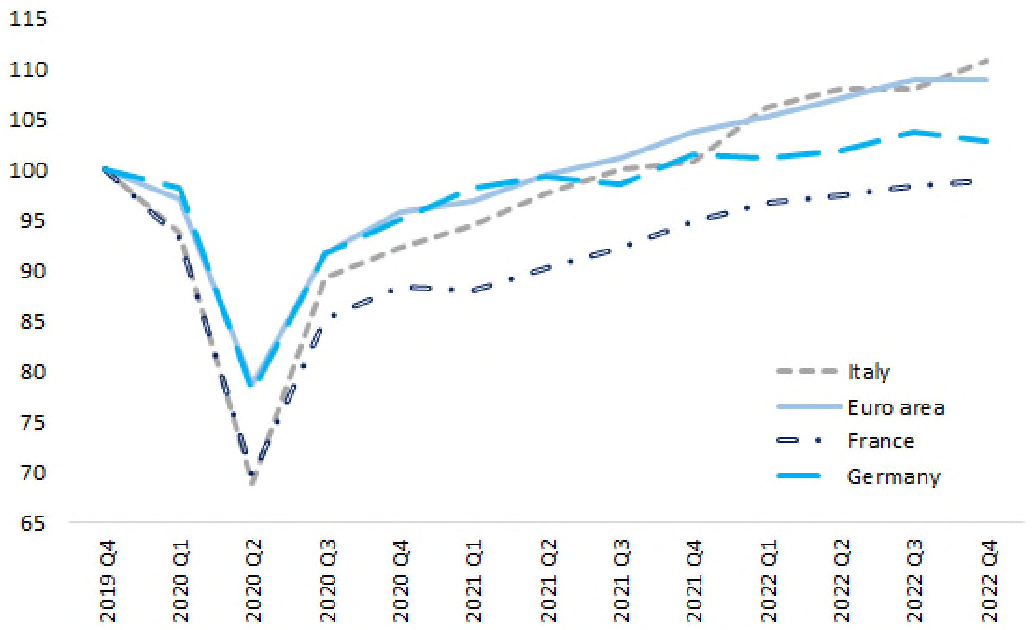


Source: Istat.

Italian companies recover foreign market shares

The upturn in international trade and tourist flows had a favourable impact on Italy's exports, which strengthened further in 2022; on average, the annual change reached 9.4 per cent, much higher than that of world trade, resulting in gains in foreign market shares for Italian companies. In the autumn the quarterly increase in foreign sales (2.6 per cent) was opposite to Germany's decline and in any case more favourable than the moderate increases in France and the euro area (0.5 and 0.1 per cent, respectively); with respect to pre-crisis levels, Italian exports therefore grew more than those of the other main partners in the euro area (Figure 10). Last year Italian exports were also favoured by a slight improvement in price competitiveness (given by comparing the price of foreign manufactured goods with the deflator of Italian exports of non-energy and non-agricultural goods). With regard to export markets, the figures on merchandise trade indicate that, on average in 2022, Italy's exports within the EU were less dynamic than those outside the EU. Qualitative surveys point to further increases in trade with the rest of the world in the short term, albeit with some risks: in March, assessments of foreign orders improved for the fourth month in a row, although in January-March as a whole they were lower than in the second half of last year.

Figure 10 – Total exports of the euro area and the major economies
(index numbers, 2019Q4=100)



Source: based on Istat data.

Even the change in imports was very high in 2022 (11.8 per cent) despite the large loss of terms of trade and the depreciation of the euro. The decline in the volume of imports against the favourable dynamics of exports resulted in a positive contribution of net foreign demand to GDP growth in the fourth quarter (1.4 per cent).

Last year the current account balance showed a deficit of EUR 12.3 billion (compared with a surplus of EUR 50.3 billion in 2021), mainly due to the sudden increase in the energy deficit. However, the net foreign creditor position remained solid: at the end of September it was a positive EUR 105.8 billion, equal to 5.7 per cent of GDP, a slight improvement compared with the end of June.

Recent sectoral developments

Since the beginning of the year, the picture of available indicators has become more favourable, despite the continuing uncertainty surrounding the conflict between Russia and Ukraine.

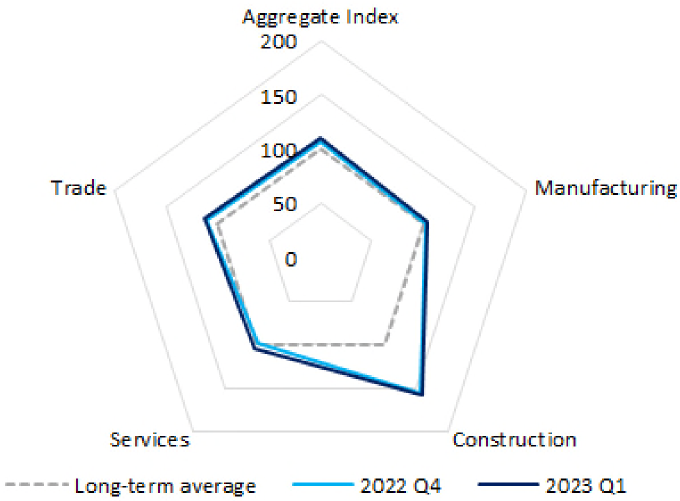
The year 2022 ended with a modest increase in industrial production (by four tenths of a percentage point) compared to the previous year. The year 2023 opened with a setback in January, which brought the index close to its value at the beginning of 2021, but economic surveys point to a recovery in the short term. In the first three months of the year, the PMI for the manufacturing sector was again above 50, the threshold between expansion and contraction, recovering about two points compared to the end-December figure; in March, the ISTAT sectoral confidence index recorded its third consecutive increase, reaching a level (104.2) close to that of August 2022.

After having gained marked strength last year, construction output increased again in January (1.4 per cent on a quarterly basis), bringing the index to a level just below the peak recorded in March 2022. The survey on the housing market, conducted in January and February by the Revenue Agency, the Bank of Italy and Tecnoborsa, revealed a deterioration in the expectations on housing demand and a concurrent decline in sales orders, while confidence in the construction sector further increased in March, following the trend that began after the lockdown in spring 2020.

In the final quarter of 2022, value added in the tertiary sector decreased by 0.1 per cent in quarterly terms, in line with GDP, while in 2022 it increased by 4.8 per cent overall, thus above GDP. Qualitative indicators seem to point to an expansion of services activity in the short term. In the January-March average, the PMI was well above the threshold between expansion and contraction; similarly, the ISTAT confidence index in March improved for the third consecutive month, reaching a level almost three points higher than that recorded last December.

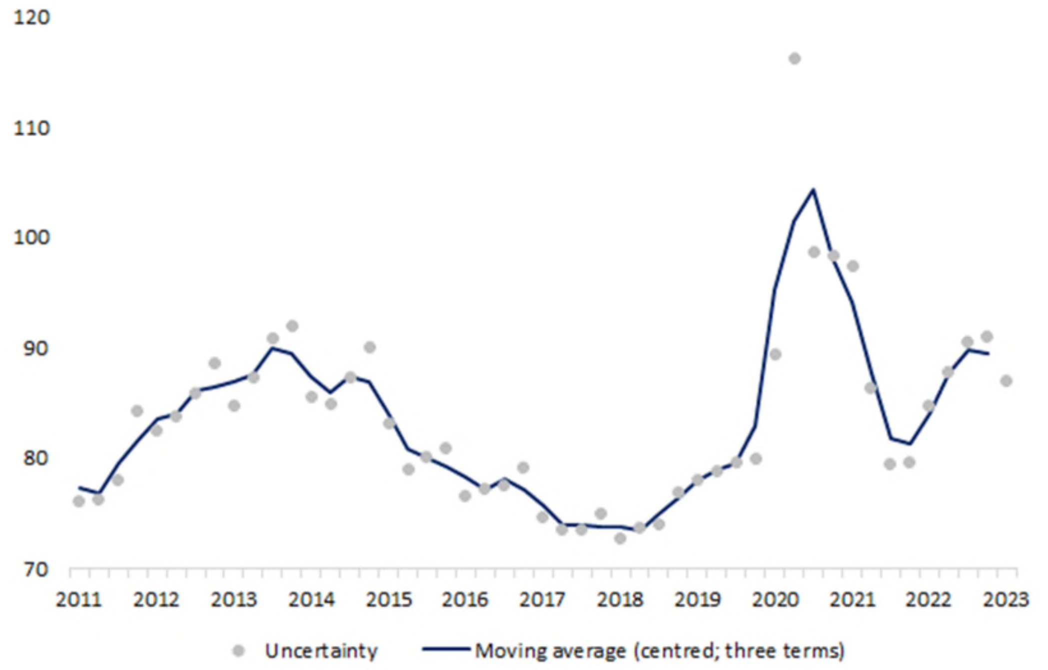
With regard to production sectors as a whole, the aggregate index of business confidence, obtained as a weighted average of sectoral indices, showed a marked increase in the first quarter of the year compared to the October-December average, interrupting the down phase that had characterised the second half of 2022 (Figure 11). According to the Parliamentary Budget Office (PBO), last quarter the uncertainty of households and businesses declined for the first time since the second half of 2021 (Figure 12); the easing of uncertainty concerned both businesses and, to a greater extent, households.

Figure 11 – Confidence in production sectors



Source: Istat.

Figure 12 – PBO indicator of uncertainty
(index, 1993 Q1=100)



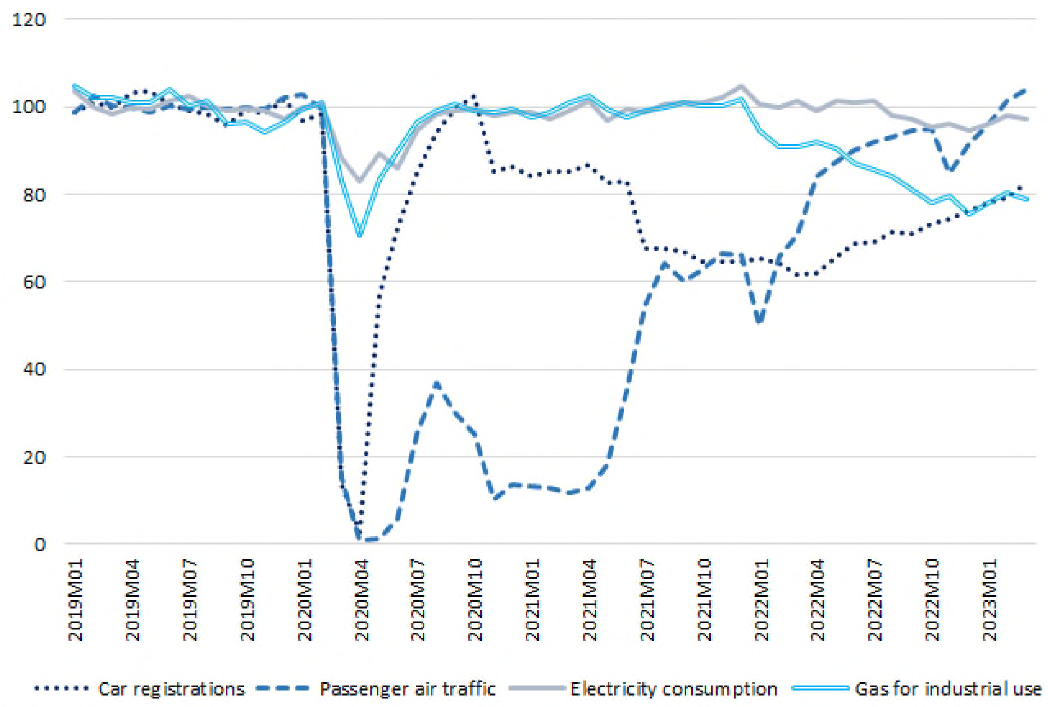
Source: based on Istat data.

Short-term forecasts

Real-time monthly quantitative variables point, on the whole, to a cyclical phase of moderate growth in the first part of the year: after the downturn observed since last summer, following the turbulence in energy markets, electricity and gas consumption for industrial use recovered in the first months of 2023; the flow of passengers on air flights continued to increase, reaching in March the average pre-pandemic levels for the first time. Motor vehicle registrations, on the other hand, register a gradual upward trend, remaining at levels far below those of 2019 (Figure 13).

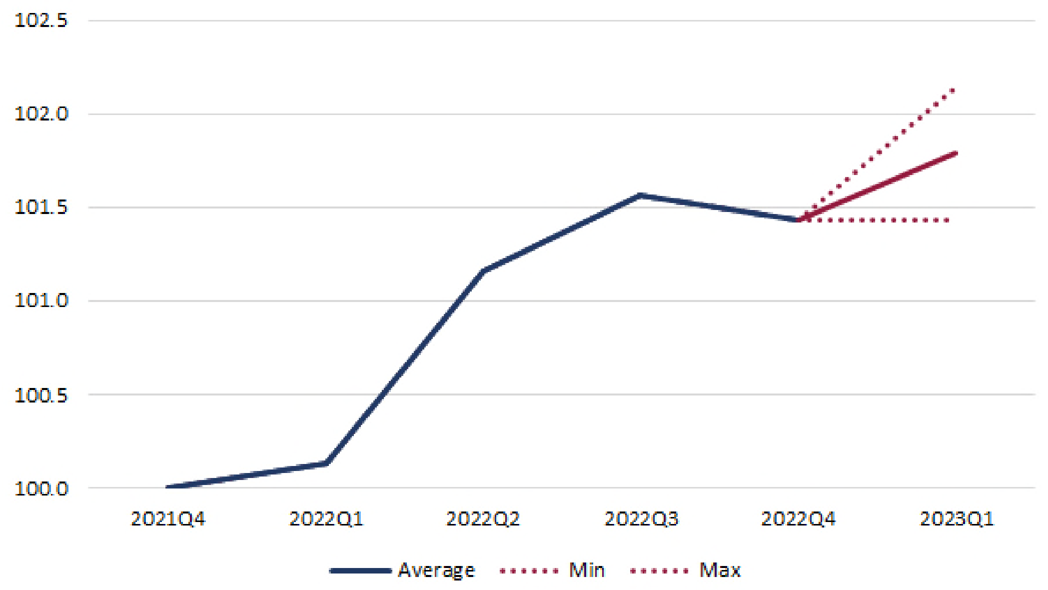
According to the UPB's estimates, in the first quarter of this year, GDP expanded again in quarterly terms, albeit moderately; the uncertainty surrounding these estimates is high, but the change range is nevertheless balanced (Figure 14). The manufacturing sector started the quarter with a non-marginal downturn, although it benefitted from the easing of energy cost pressures. Services continued to benefit from significant tourism flows, which in January grew more than in other European countries, although short-term estimates are highly uncertain due to the lack of real-time economic indicators for the sector. With regard to the construction industry, activity grew at a sustained pace between November and January, but is expected to return to a more moderate pace in the future, also due to the reorganisation of incentives in the residential sector.

Figure 13 – Real-time indicators of economic activity
(index; 2019=100)



Source: based on ANFIA, Assaeroporti, Terna and SNAM data.

Figure 14 – Short-term GDP forecasts (1)
(index 2021Q4=100)



(1) GDP forecasts are derived from the UPB's short-term models. For more details visit: http://www.upbilancio.it/wp-content/uploads/2018/01/Nota-tecnica-previsione-macro-UPB.pdf).

Employment continues to expand and wage growth strengthens slightly

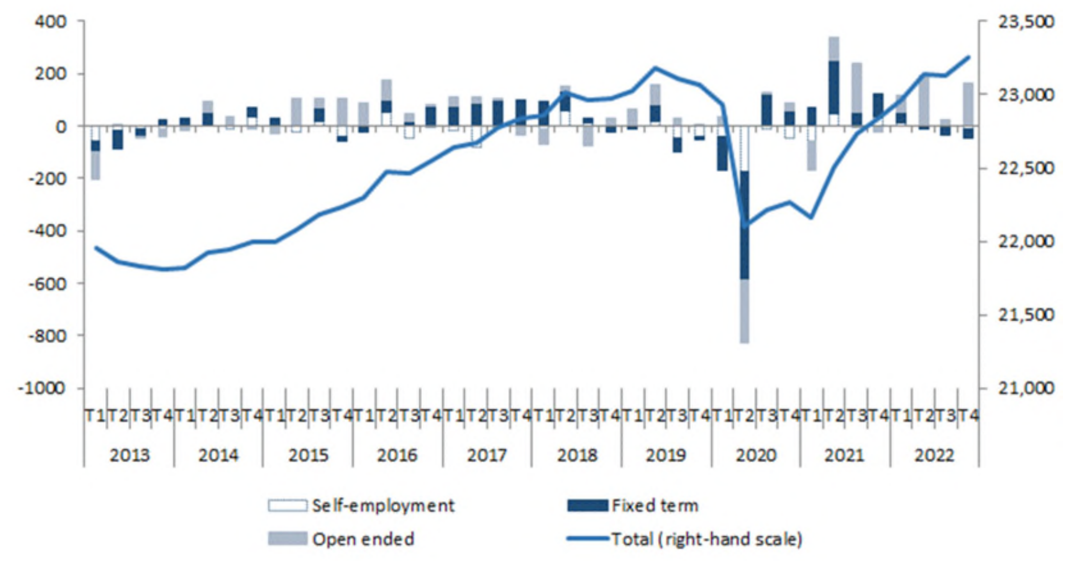
Last year, the number of hours worked slowed down to 3.9 per cent, after the marked expansion in the year of the pandemic (8.1 per cent); the increase in 2022 was in line with economic activity, with the apparent elasticity of hours worked with respect to output still above unity. Despite a considerable recovery in the two years following the pandemic, the hours worked only surpassed pre-pandemic levels in the second half of 2022 and were still below pre-crisis levels for the year as a whole (-0.8 per cent).

The labour market strengthened in the fourth quarter, contrary to the setback in GDP. The evolution of labour input was heterogeneous across the major production sectors. The number of hours worked declined in the agriculture and industry sector excluding construction (-0.5 per cent), consistent with the decline in value added, but rebounded in the construction sector by 1.0 per cent (less than the increase in output) and was dynamic in the services sector, despite the stagnation in production levels.

According to the quarterly Labour Force Survey, the increase in employment in the final part of the year was driven by a surge in the permanent component (1.1 per cent compared to the previous three months; Figure 15), against a decrease in temporary employment and self-employment.

According to preliminary data, employment continued to grow in January and February this year (0.3 per cent compared to the previous three months), still driven by permanent and self-employed workers. Contributing to this rise were workers of all ages (with the exception of the 35-49 age group) and both gender groups.

Figure 15 − Payroll employment and self-employment
(absolute quarterly changes; levels)



Source: Istat.

The employment rate (for 15-64 year-olds) rose to an all-time high (to 60.8 per cent), partly as a result of the contraction in the working population, although still far from euro area levels; the improved activity rate was also due to an increase in the participation of women in the labour market, which substantially returned to pre-pandemic values.

According to data from firms' mandatory reporting in the non-agricultural private sector, more than 100,000 new jobs were created in January-February this year, almost three times as many as in the previous two months, all of which relating to the permanent component. When considering only activations, however, the share of new fixed-term contracts in total employment has been gradually increasing since the second half of last year and, especially, over the last two months. The progress in temporary jobs was driven by the services sector, accounting for about two-thirds of the total jobs created in the first two months of the year (tourism contributed about one-fifth). The improvement in net job activations in the industry sector (excluding construction) also reflected the recovery of energy-intensive sectors[3], which benefited from lower energy prices. The recovery was less pronounced in construction.

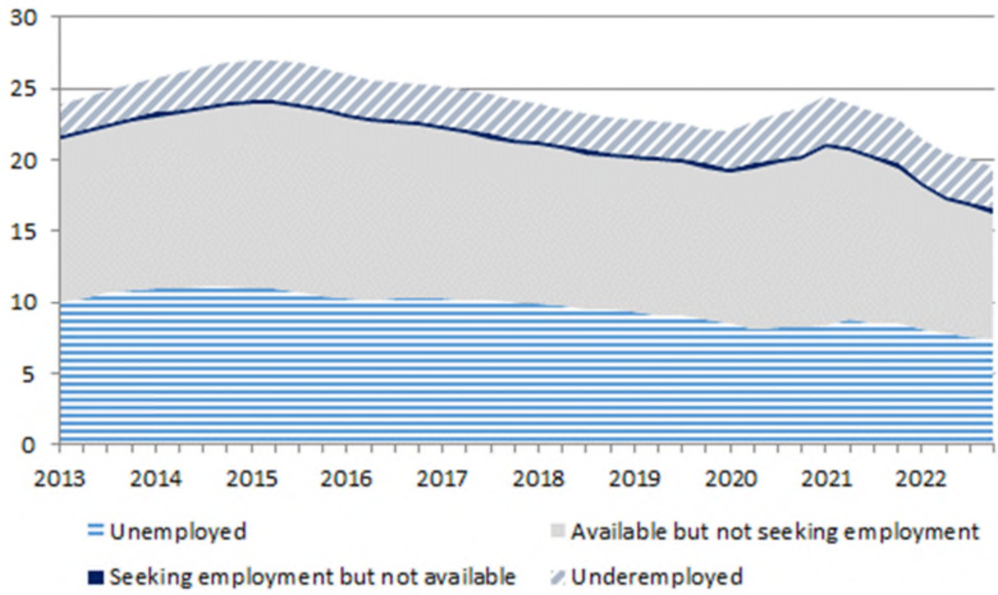
In 2022, wage supplementation benefits declined by about a fifth compared to the previous year and the actual use of these instruments almost halved compared to the authorised hours. In the first two months of this year, total hours decreased again, thanks to the reduced use of solidarity funds, as a result of improved economic conditions for small and tertiary enterprises. The use of wage supplementation funds, however, remains uneven across sectors. In the industry sector (excluding construction), although decreasing, the number of authorised hours remained about double the pre-pandemic level. In the construction sector, the number of hours has returned to pre-crisis levels since the second half of last year, and the recent increase may reflect seasonal factors or the uncertainty of operators following the revision of tax incentives for residential construction.

The number of jobseekers fell in the final quarter of last year (-30,000 people, -1.5 per cent compared to the previous three months) at a pace similar to that of the summer period, although slower than in the first half of the year; this trend was due to younger male workers (up to 49 years of age). The labour supply nevertheless showed an increase (0.4 per cent), equally distributed between the two gender segments; the involvement of women in the labour market contributed to lowering the inactivity rate to the lowest values in the historical series. The unemployment rate in the fourth quarter returned to its lowest value since mid-2009 (7.8 per cent), thanks to an increase in the employment rate exceeding the participation rate. The simultaneous decline in unemployment and inactivity, in particular of people available for work but not looking for work, led to a significant reduction in the degree of underutilisation of labour, which fell below 20 per cent (Figure 16) for the first time in more than a decade. The gap between labour supply

[3] Manufacture of paper and paper products; manufacture of coke and refined petroleum products; manufacture of chemicals and chemical products; manufacture of non-metallic mineral products, metallurgy.

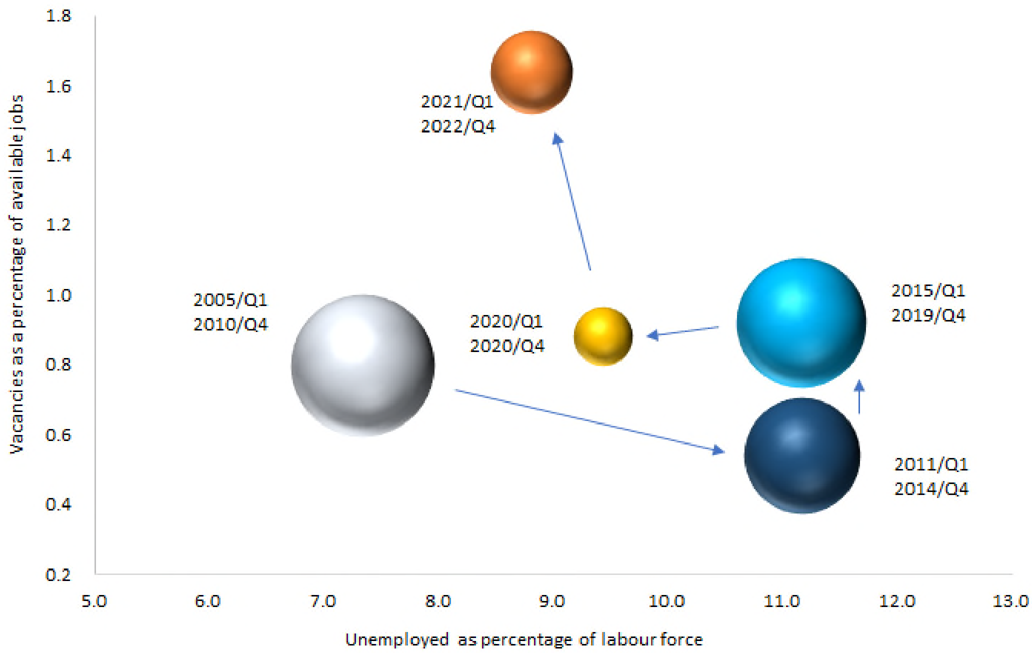
and demand (Figure 17) became stable with respect to the manufacturing and services sectors, while the increase in vacancies in the construction sector continued.

Figure 16 – Unemployment, underemployment and potential additional labour force (1)
(4-term moving average; percentage shares)



Source: based on Istat data.
(1) Ages 15-74 years.

Figure 17 – Unemployment and vacancies (1)
(average percentage values)



Source: based on Istat data.
(1) The size of the spheres is proportionate to the number of quarters in each sub-period, indicating the breadth of the period represented.

The growth of hourly contractual wages increased in January and February this year (2.1 per cent year-on-year, up from 1.5 in the fourth quarter of 2022) due to stronger wage growth in the public sector (4.8 per cent, up from 2.3 in October-December), which started to include the increases foreseen by the contract renewals signed in 2022. By contrast, hourly wage growth appeared moderate in the private sector, where a high share of employees is awaiting its contract renewals (almost 76 per cent in February in private services). In the final quarter of 2022, the change in contractual wages was lower than the trend in actual hourly wages, which, on the other hand, strengthened (3.7 per cent on average over the year, against 1.1 in contractual wages). The increase in hourly labour costs in the fourth quarter and the significantly negative change in hourly productivity led to an increase in unit labour costs (to 5.4 per cent, 2.7 on average for the year).

Inflation decreases and the expectations of households and businesses ease

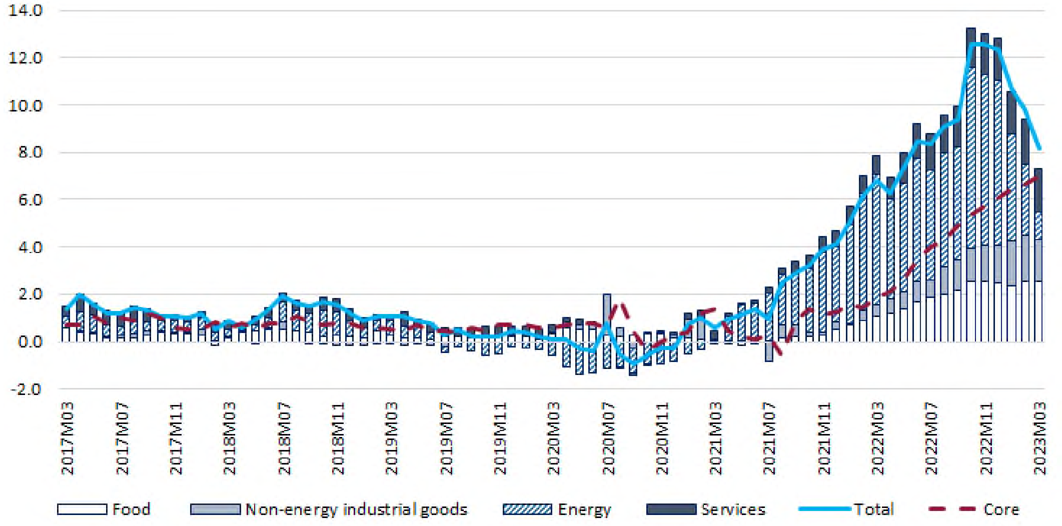
The decline in inflation, which started in recent months, is gaining momentum as the fall in energy prices continues and upward pressures in the distribution chain subside. However, moderate price pressures remain on food and certain services; these pressures support core inflation and the “shopping basket”, which weighs mainly on the budgets of households with lower disposable incomes, dampening the expectations of households and businesses.

In March, the year-on-year increase in the national consumer price index (NIC) fell back to 7.7 per cent (from 9.1 per cent in the previous month), down by almost three percentage points (8.9 per cent from 11.7 per cent in the previous quarter) on average over the first three months of the year. The negative quarterly trend in March (-0.3 per cent) resulted from the contraction in the prices of regulated energy products (-20.4 per cent from -16.4) and the slowdown in market prices (18.9 per cent from 40.8); on the other hand, the prices of certain services (recreational and housing) continue to rise, as also the unprocessed food prices (9.3 per cent from 8.7). The decline in inflation benefits also from a base effect, resulting from a comparison with the strong increases observed in the same month last year.

In March, the European harmonised index increased by 8.2 per cent year-on-year (from 9.8 in February; Figure 18), still remaining above the NIC dynamics, due to the different characteristics of the basket and the different treatment of seasonal sales.

Core inflation, which excludes the prices of energy and fresh food, increased slightly in March, reaching 6.4 per cent, driven by increases in the prices of culture-related products and holiday packages, as well as furnishings and tobacco.

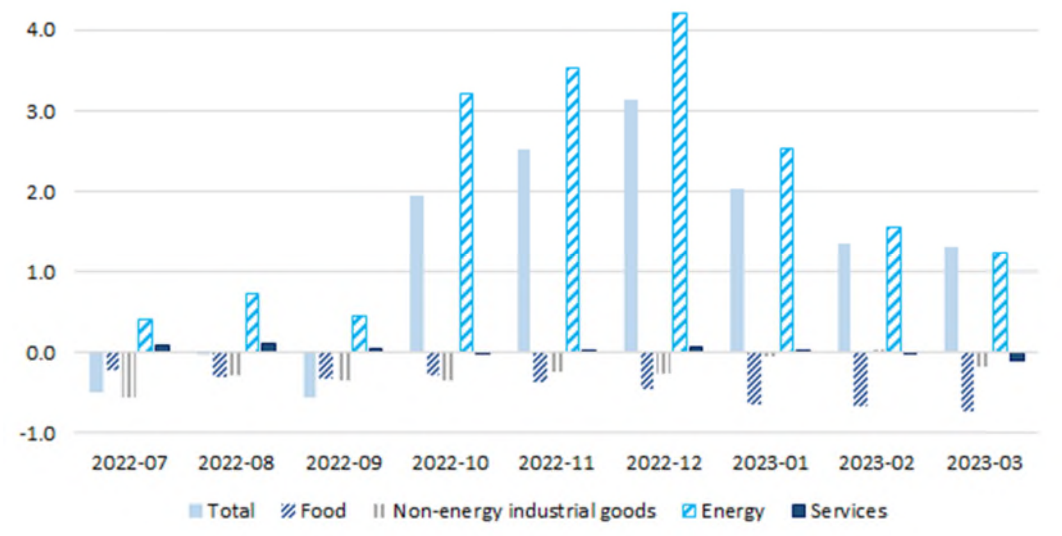
Figure 18 – Harmonised consumer price index (HICP), components and core index (1)
(percentage year-on-year change and contributions)



Source: based on Eurostat data.
(1) The chart shows the contributions to growth of the sectoral components of the overall harmonised consumer price index, and the change in the core index. The sum of the contributions may not equal the change in the total index due to chain-linking and calculation using a greater level of detail.

The growth differential of the Italian harmonised consumer price index with respect to the euro area remains positive, but has started to weaken since January. In March the differential amounted to 1.3 percentage points, almost entirely due to the energy component, while food prices in Italy were relatively moderate (Figure 19).

Figure 19 – Italy's inflation differential with the euro area (1)
(differences in percentage points)



Source: based on Eurostat data.
(1) Differences in total harmonised inflation and the contributions of its components between Italy and the euro area.

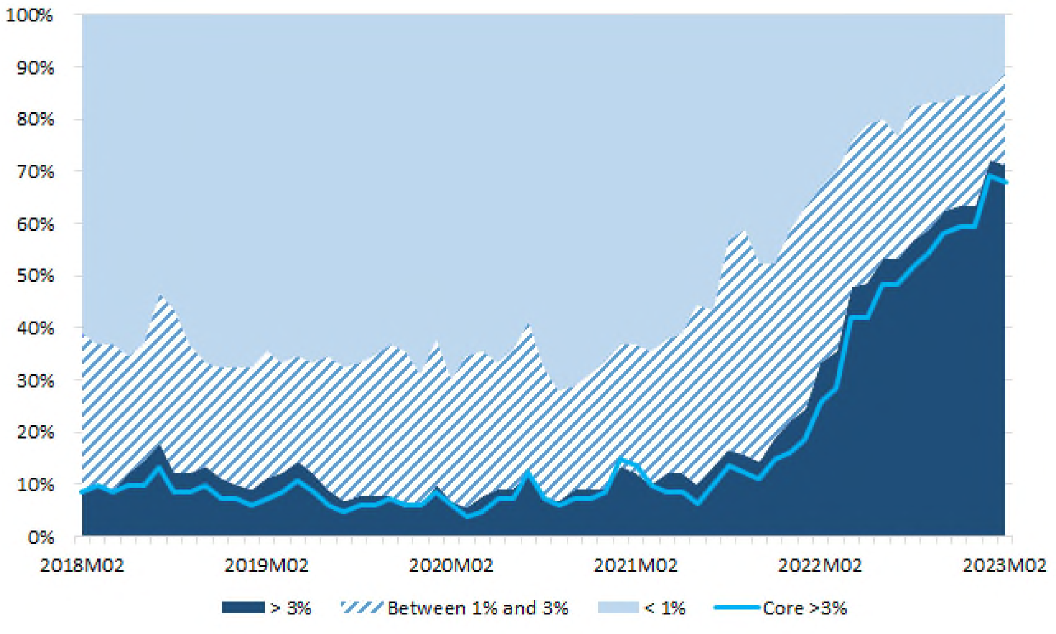
Prices have benefited from the measures taken by the Government against increases in energy commodity prices; according to ARERA[4] estimates, a typical household will see the cost of electricity fall by about 55 per cent in the second quarter of this year, compared to the previous quarter.

The growth in prices acquired for 2023 fell to 5.1 per cent (from 5.4 in February) for the general index and rose to 4.1 for the core component (from 3.7 the previous month).

Throughout last year, the inflationary pressures on consumer prices resulting from the energy crisis spread across the expenditure items: in February 2022, only 30 per cent of the goods in the basket had recorded increases of more than 3 per cent, one year later this share is close to 65 per cent (Figure 20).

In addition to price increases for energy products, which are still extreme although declining, there are also noticeable price increases for air transport (70 per cent year-on-year in February) and for certain food products, such as oils and fats (29 per cent) and milk, eggs and cheese (20 per cent), which may still be affected by price increases upstream in the production chain recorded in recent months.

Figure 20 – Percentage of elementary items of the HICP basket experiencing price changes greater than specified thresholds
(percentages)



Source: based on Eurostat data.

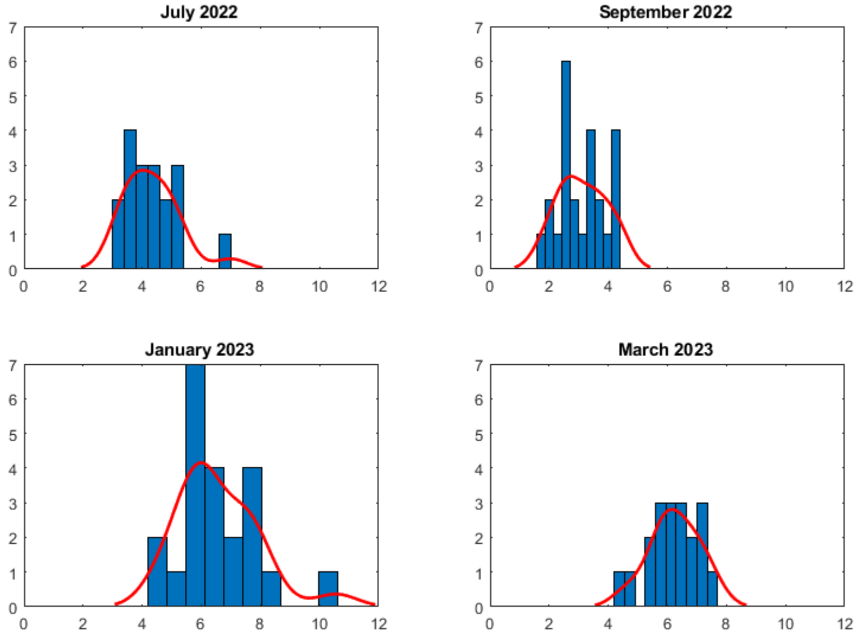
[4] In the recent *"DL bollette"* (Bill Decree Law), the general system charges have also been set at zero for the next quarter for all gas customers, while they are reinstated for all electricity customers; at the same time, the electricity and gas social bonuses for large and lower-income households have been increased. For more details see 230330st.pdf (arera.it)

The increase in consumer inflation was initially triggered by upstream pressures in the production process, which intensified during 2022 before easing off at the end of the year and falling back at the beginning of 2023 (4.6 per cent year-on-year growth of import prices in January from 11.3 in December), in the wake of declines in the prices of natural gas and intermediate goods. Producer prices continued to fall in February, due to sharp declines in the domestic market for electricity and gas supplies; this performance joins the already exceptional decline observed in January and brings the series back to the levels of the summer of 2021 (9.6 per cent year-on-year). At the same time, pressure on producer prices in the construction sector continued to ease, thanks to the fall in the costs of certain materials. In the tertiary sector, inflationary trends remained modest compared to other sectors (3.6 per cent year-on-year in the fourth quarter), with the exception of the transport sector, also due to the recovery in tourism.

The inflation expectations of firms and households, as measured by ISTAT confidence surveys, fell considerably in the first months of the year, in the wake of the rapid fall in gas prices. In March, the weighted balance of consumers' expectations dropped to -25.9 (from -10.6 in January) with households anticipating stable prices exceeding 50 per cent. Businesses are also optimistic, with the balance of those expecting price increases and decreases returning to the levels seen last spring, before the flare-up in energy prices, with more than 70 per cent of companies in the manufacturing sector expecting stable prices in the coming months. The easing of commodity prices is also fuelling the optimism of purchasing managers of manufacturing firms, who in the April S&P Global survey report a substantial reduction in cost pressures, equal to that of June 2020, mainly due to lower pressures for raw materials and energy, which in some cases resulted in lower prices.

Inflation peaked last November and since then prices have eased, thanks to lower pressures upstream in the production chain and reduced wage and real estate pressures. However, core inflation, i.e. the less volatile inflation, continues to rise, albeit not as strongly as in recent months, and the impact of the energy crisis has spread to other expenditure items, so that the risks of more persistent inflation remain high. Analysts' forecasts for inflation in 2023 in Italy are improving overall; last month, in the most recent survey, expectations fell to an average value not far from the acquired value, and the dispersion of estimates has definitely lessened compared to the beginning of the year (Figure 21).

Figure 21 − Distribution of Italian inflation forecasts for the year 2023 according to the Consensus Forecast (1)
(percentage changes)



Source: based on Consensus Economics data.
(1) The graphs represent the frequency histograms of the Consensus Forecast predictions, interpolated by means of a kernel (red line).

Box – The recent inflation in prices for home air-conditioning systems

An issue that has been receiving recent attention in the public debate is the possible effects on prices stemming from the generous incentives for energy efficiency in homes, primarily the Superbonus. In spite of the caps introduced on deductible amounts, a measure that finances more than 100 per cent of the expenditure could lead to an increase in prices, due to the lack of conflicting interest between seller and buyer.

Italian consumer inflation in the past two years was overall close to that of the euro area, being somewhat lower in 2021 and higher last year. To isolate the possible effect of tax incentives for home energy efficiency, however, it is necessary to focus on those items in the basket that are most directly related to such interventions. For example, an analysis of the products in the "Heaters, air conditioners" category of the harmonised consumer price index[5] shows that prices in Italy have been growing at a higher rate than the European average since the second half of 2019: the cumulative increase in the prices of this subset of goods amounted to almost forty per cent in Italy, compared to smaller increases not only in Germany and the euro area (around twenty per cent), but also in France and Spain, where the change was between three and ten per cent.

It should be noted, however, that the "Heaters, air conditioners" category of the harmonised consumer price index also includes products whose purchase was not encouraged by the Superbonus measure. In order to further refine the analysis, focusing on the goods whose price could be potentially affected by the Superbonus, an in-depth analysis was conducted using data mining techniques on a subset of goods. Specifically, data were collected on the daily prices of around 7,000 products in the "gas boilers and water heaters" and "air conditioners" categories[6] sold online in different countries (Italy, France, Germany and Spain). This approach allows the collection of granular information on consumer price inflation, ahead of the official information provided by statistical offices and with a higher level of disaggregation, while still allowing for a consistent international comparison.

Goods that, based on their price, weight and other contextual information contained in the ad, do not fall into the three groups analysed (e.g. spare parts or ancillary accessories) or that show anomalous values were removed from the dataset. The final dataset consists of a sample of 1,007 products (of which 431 are air conditioners), for sale between January 2019 and March 2023. Daily prices[7] of individual products were aggregated using the median, resulting in a synthetic monthly price index for the four countries surveyed.

The dynamic of the Eurostat national indices and that of the corresponding indicators presented here, which are more specific, appear to be positively correlated for Germany, France and especially Italy (50.3, 63.7 and 73.3 per cent, respectively); therefore, this seems to confirm the validity of the approach adopted. In contrast, the correlation with the official index is low for Spain[8] (6.7 per cent). Figure B1 shows the evolution of the index constructed by the PBO, aggregated on a quarterly basis. A gradually increasing trend is observed, with only a break in the last quarter of 2021 and the first quarter of 2022.

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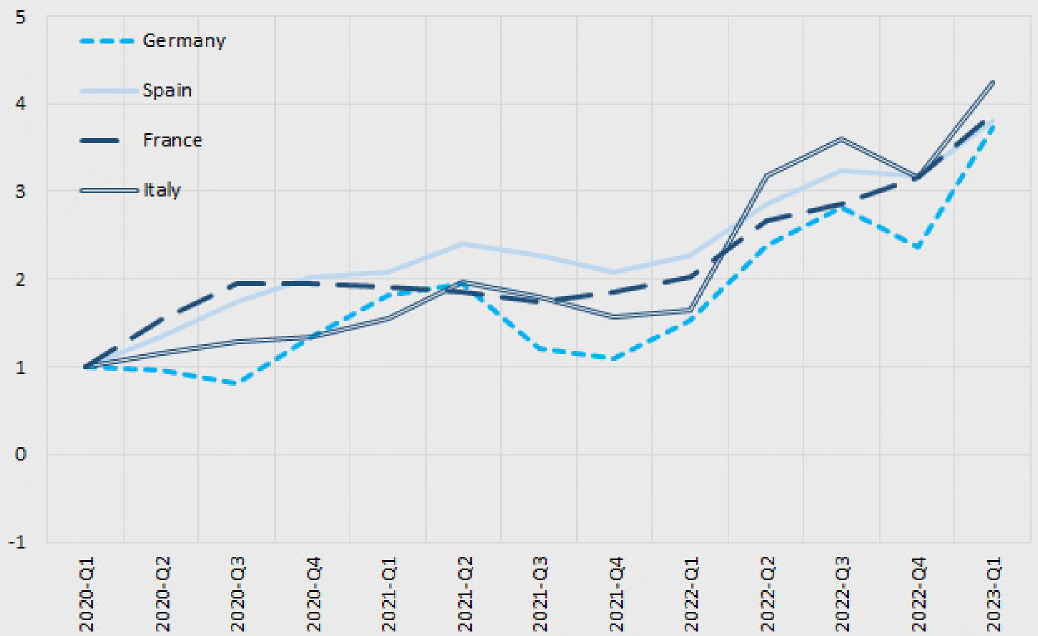
[5] The official reference set is COICOP (Classification of Individual Consumption According to Purpose) which includes air conditioners, humidifiers, space heaters, water heaters, fans and extractor hoods and excludes repair and rental of such appliances.

[6] Data of prices actually observed on Amazon.it were retrieved. In particular, focus was placed on the Amazon.it product categories 3120120031, 3120121031, 3692885031 and the equivalent categories on Amazon.de, Amazon.fr and Amazon.es for which "best sellers" were identified. Time series of prices for the identified products - as well as other statistical information - were massively acquired for each country using the API provided by the Keepa.com platform.

[7] In periods when the observed price is not updated, it is assumed to be constant with respect to the previous observation and is recorded accordingly.

[8] This result might depend on national specificities to be taken into account by a different definition of the product categories for which the query is conducted.

Figure B1 – Aggregate price index for heating and air conditioning products for the main euro area countries
(index; 2020Q1=1)



Source: PBO processing of Keepa.com data

Compared with the trends recorded in the other countries, Italian inflation tended to be lower than in France and Spain until mid-2021, while the gap closed and became positive last year, in the quarters during which the works financed with the Superbonus intensified rapidly.[9] For Germany, the index remained at a lower level than in Italy for almost the entire period analysed, but with an increasing gap in 2022, when the Superbonus financing intensified.

Although the final part of the period analysed is also affected by the economic consequences of the ongoing conflict in Eastern Europe, which makes it difficult to quantify the main factors relevant for explaining the observed phenomenon, the use of microdata collected online provides a real-time view of prices' dynamics for individual commodity categories, in different countries in real-time and with a high level of accuracy. However, it should be considered that anti-crisis measures to mitigate energy prices and support the construction sector have also been implemented in other countries, thus a comparison with these economies should be viewed with caution. It should also be noted that the analysis is based on the prices of a single online retailer, albeit a very large and widespread one, so the statistical representativeness for the sample of reference products used in the analysis should be regarded as incomplete.

[9] The monthly volume of works financed with the Superbonus, in comparison with the housing investments recorded in the national accounts, was recently documented in the Hearing on the Macroeconomic and Public Finance Effects of Construction Tax Incentives of 16 March 2023.