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SYMBOLS AND CONVENTIONS

Unless otherwise specified, Bank of Italy calculations; for Bank of Italy data, the source is omitted.

In the tables:

- – the phenomenon does not exist;
- .... the phenomenon exists but its value is not known;
- .. the value is nil or less than half of the final digit shown;
- :: not statistically significant;
- () provisional.

In the figures with different right- and left-hand scales, the right-hand scale is identified in the notes.

OVERVIEW

Global growth weakens further

In the third quarter, the global economy continued to be affected by the exceptionally high inflation, worsening financial conditions, the uncertainty linked to the conflict in Ukraine, weak economic activity in China and, less so than at the beginning of the year, supply chain difficulties. The price of natural gas in Europe reached new heights in August and decreased after the storage targets were met; futures contracts indicate that the prices will remain very high throughout next year, partly due to the risks weighing on energy supply security. Oil prices instead fell owing to the widespread deterioration in the economic situation. World trade slowed. The latest forecasts by the international institutions expect global growth to weaken further next year, with risks tilted to the downside.

The normalization of monetary policy accelerates in many advanced economies

In July and September, the Federal Reserve decided on two further sizeable increases in the benchmark rate and confirmed the need to maintain a restrictive monetary policy stance until inflation is brought back in line with the target. The Bank of England also raised its reference rate again in its last two meetings; between the end of September and mid-October, it intervened by purchasing government bonds to counter the financial tensions in the wake of the government's announcement of highly expansionary fiscal measures. Several other central banks in advanced economies have raised their key interest rates; however, monetary policy remains accommodative in Japan and, among the emerging economies, in China. The financial conditions in international markets have become more tense since the beginning of July: government bond yields have risen further and equity prices have continued to fall; volatility continues to be very high. The appreciation of the dollar against the other leading currencies continues, reflecting the more rapid normalization of monetary policy in the United States.

Economic activity stagnates in the euro area and inflation continues to rise

Following the expansion in the first half of the year, euro-area GDP likely stagnated in the third quarter, mostly as a consequence of further sharp rises in the prices of energy commodities and the heightened uncertainty. Inflation reached 9.9 per cent in September, driven above all by the most volatile components. Firms and households expect additional increases in inflation in the short term, while expectations three years ahead have stabilized. The five-year, five years forward expectations derived from financial indicators remain at around 2 per cent. Wage growth has remained moderate so far, although it could pick up in the latter part of the year, partly as a result of the increase in the minimum wage in Germany.

The ECB has begun to raise official interest rates and has introduced a new instrument to counter financial market fragmentation

The ECB Governing Council approved two increases in key interest rates in its July and September meetings of 1.25 percentage points overall. It expects to raise them again at its next meetings at a pace and to a level that shall be determined on the basis of new data and revised growth and inflation prospects. The Council also confirmed that it will continue reinvesting the redemptions coming due under the asset purchase programmes; as regards the pandemic emergency purchase programme (PEPP), reinvestment will take place in a flexible manner. At the July meeting, the Council also introduced the new Transmission Protection Instrument (TPI). The announcement in mid-June on the new instrument and on flexible reinvestment under the PEPP helped to curb the yield spreads between the government bonds of the countries most exposed to tensions on the sovereign debt markets and German bonds, as well as their responsiveness to changes in the expectations of rises in official interest rates.

GDP in Italy is estimated to have decreased slightly in the third quarter

According to the central value of our estimates, GDP declined marginally in Italy in the summer quarter, in part because of the sharp rises in energy prices and the uncertainty over the course of the war in Ukraine. The slight fall in industrial production was accompanied by signs of weakening in construction. In contrast, activity in the service sector likely remained stable, thanks to the still positive contribution of the tourism and leisure sectors. On the demand side, household spending was curbed by the loss of purchasing power due to high inflation. The firms interviewed in August and September for our surveys indicate greater pessimism over investment conditions because of the persistent uncertainty.

The current account balance is hampered by the widening of the energy trade deficit

In the second quarter, Italian exports in volume increased, driven by both the goods and, even more so, the service components. However, total imports grew at a faster pace. Goods exports appear to have slowed slightly in July and August. The steep deterioration of the current account balance, underway since the second half of 2021, continued owing to the further widening in the energy trade deficit. Nevertheless, the positive net international investment position remains solid.

Employment slows and wage growth remains moderate

Employment continued to expand in the second quarter; however, signs of a slowdown emerged over the summer months. Firms' employment expectations have also worsened, though they remain compatible with an expansion in labour demand. The growth in contractual wages remained moderate overall. The most recent bargaining agreement renewals have provided for wage increases over the contractual period in line with inflation, net of the imported energy component. The share of employees awaiting renewals remains high in the sectors most affected by the pandemic. According to our estimates, the implementation of the National Recovery and Resilience Plan – provided it is complete and within the scheduled time frame – will lead to a significant expansion in employment by 2026, especially in construction and in some high-tech sectors.

Inflation increases further, though partly mitigated by government measures

Over the summer, harmonized consumer price inflation rose further, to 9.4 per cent in September, as it continued to be affected by the exceptional rises in energy prices and by their pass-through to the prices of other goods and services. We estimate that the measures adopted by the Government to mitigate the impact of higher energy prices on the financial position of households and firms lowered inflation by about 2 percentage points in the third quarter, in line with the estimates for the second quarter.

The growth outlook worsens and inflation is more persistent

Our latest projections indicate that, in a baseline scenario, GDP would rise by 3.3 per cent this year overall, slow to 0.3 per cent in 2023 and grow by 1.4 per cent in 2024. However, these figures remain subject to considerable downside risks. Consumer price inflation is expected to equal 8.5 per cent on average in 2022, to decline to 6.5 per cent in 2023, and to reach just above 2 per cent in 2024. In an adverse scenario – which assumes the interruption of Russian gas supplies starting from the last quarter of 2022, further increases in energy prices and a sharper slowdown in world trade – GDP is projected to contract by over 1.5 per cent in 2023 and turn moderately upwards in 2024. Inflation is expected to continue to rise next year too, to more than 9 per cent, and then fall sharply in 2024.

The cost of bank loans increases slightly and financial conditions worsen

Bank lending to firms accelerated in August, reflecting higher working capital requirements – due to greater input costs – and lower corporate bond issues. The surveys of banks point to a further tightening of their supply policies, confirmed by the more stringent credit access conditions reported by firms in the latest business surveys. The increase in policy rates in July was only partly passed on to the cost of borrowing for firms and households recorded in August, which remains low overall. Financial market conditions have worsened, amid persistent inflationary pressures and fears of a deteriorating business cycle. Higher policy rates and expectations of further hikes resulted in a sharp increase in government bond yields, especially on short maturities. The spreads of Italian sovereign bond yields vis-à-vis the ten-year German Bund widened compared with July.

The Government's estimates for the public accounts are more favourable than in the spring

At the end of September, the Government updated its estimates for the public accounts in the current year and over the three years 2023-25. Net borrowing is estimated at 5.1 per cent of GDP in 2022, around 0.5 percentage points below what had been programmed in April; the debt-to-GDP ratio will also likely decline more than expected last spring. In the last few months, additional measures have been enacted to counter the impact of rising energy commodity prices on the financial position of households and firms, in line with the deviations from the government budget authorized by Parliament.

1 THE WORLD ECONOMY

1.1 THE GLOBAL CYCLE

The global economic cycle continued to be affected by the exceptionally high inflation, the worsening financial conditions, the uncertainty linked to the conflict in Ukraine, weakening economic activity in China and, less than at the beginning of this year, the procurement difficulties along the value chains. Over the summer, the purchasing managers' indices (PMIs) indicated downside risks for economic activity in most economies. The price of natural gas in Europe reached new heights in August and began to decrease again after the storage targets were met, although it remained at high levels. Oil prices fell, partly owing to the widespread deterioration in the economic outlook. The normalization of monetary policy continues in the main advanced economies, with the exception of Japan. For the current year as a whole and for 2023, the International Monetary Fund estimates a marked slowdown in the global economic cycle, with downside risks.

The global economic cycle remains weak in the second quarter ...

High inflation, tense financial conditions, persistent constraints on the supply side and uncertainty relating to the conflict in Ukraine continued to weigh on the economic activity of the main advanced economies. GDP contracted in the United States for the second quarter in a row (Table 1), reflecting the decrease in investment and public spending. Conversely, labour market conditions remained highly favourable.

Table 1

GDP and world trade growth and macroeconomic projections
(percentage changes)

	Growth			Forecasts		Revisions (1)	
	2021	2022 Q1 (2)	2022 Q2 (2)	2022	2023	2022	2023
GDP							
World	**6.0**	**–**	**–**	**3.2**	**2.7**	**0.0**	**-0.2**
of which:							
Advanced countries							
Euro area	5.3	2.4	3.3	3.1	0.5	0.5	-0.7
Japan	1.7	0.2	3.5	1.7	1.6	0.0	-0.1
United Kingdom	7.4	3.1	0.9	3.6	0.3	0.4	-0.2
United States	5.7	-1.6	-0.6	1.6	1.0	-0.7	0.0
Emerging countries							
Brazil	4.6	1.7	3.2	2.8	1.0	1.1	-0.1
China	8.1	4.8	0.4	3.2	4.4	-0.1	-0.2
India (3)	8.7	4.1	13.5	6.8	6.1	-0.6	0.0
Russia	4.8	3.6	-4.1	-3.4	-2.3	2.6	1.2
World trade	**11.2**	**1.6**	**0.9**	**5.3**	**1.4**	**1.9**	**–**

Sources: National statistics for actual data on GDP and the IMF for world GDP; for GDP forecasts, IMF, *World Economic Outlook*, October 2022; for world trade, Bank of Italy calculations based on national accounts and customs data.
(1) Percentage points; revisions compared with IMF, *World Economic Outlook Update*, July 2022 and, for world trade, compared with the Bank of Italy's *Economic Bulletin*, 3, 2022. – (2) Quarterly data; for the advanced countries, annualized and seasonally adjusted percentage changes on the previous quarter; for the emerging countries, year-on-year percentage changes. – (3) The actual data for 2021 and the forecasts refer to the fiscal year starting in April.

A marked slowdown was recorded in the United Kingdom, mostly owing to a reduction in investment. GDP growth in Japan instead accelerated, driven by the recovery in both household consumption – boosted by an easing in pandemic response measures – and capital accumulation.

Economic trends differed among the emerging economies. China's economic activity was weakened abruptly by the lockdowns imposed from March through most of the spring in some of the main production centres, and by the unfavourable developments in the real estate sector. GDP contracted significantly in Russia due to the war and the sanctions imposed by the international community on foreign trade and the financial system (see the box 'Exports of goods to Russia since the beginning of the conflict'). However, the contraction was smaller than expected at the start of the conflict, thanks to the resilience of its energy exports.

EXPORTS OF GOODS TO RUSSIA SINCE THE BEGINNING OF THE CONFLICT

A timely assessment of the impact on the Russian economy of the war on Ukraine and the ensuing sanctions is made very complicated by the interruption in Russia's release of some important official statistics, such as the monthly data on bilateral foreign trade.[1] The recent forecasts by the International Monetary Fund have scaled back the expected decline in Russian GDP in 2022 (from -6.0 per cent in July to -3.4 per cent in October), owing to high commodity prices that have boosted the value of exports and led to a build-up of large current account surpluses. Nevertheless, imports are the most important factor for assessing the country's growth prospects in the medium and long term, both because the availability of goods purchased from abroad influences consumer well-being, and because domestic production in many key sectors relies on the external supply of intermediate and capital goods.

Owing to the lack of official statistics, data published by countries that have trade relations with Russia were used to build a counterfactual scenario that would have been observed in the absence of conflict. Specifically, exports of goods that the main trading partners would have sent to the Russian market if the invasion of Ukraine had not taken place were estimated based on exports to a 'control' group of countries. For each of Russia's trading partners, these countries were selected by considering the economies where, prior to the conflict, exports were similar to those vis-à-vis Russia.

The trend for the counterfactual series, constructed by adding up those obtained for each partner (the red dashed line in panel (a) of the figure), shows that exports to Russia would have increased significantly in the absence of the war and the ensuing sanctions. Instead, the actual flows have declined considerably since the start of the conflict (by around one quarter in July). Compared with the counterfactual scenario, the leading trading partners' sales to Russia were 45 per cent lower overall between March and July, amounting to around $46 billion.[2]

The fall in exports to Russia varied across countries, being more marked for those who had imposed sanctions (-56 per cent over the period as a whole; see panel (b) of the figure); it was less so for those that had not, but still a very significant drop (-32 per cent). These estimates show that the war is having a highly negative impact on the Russian economy, in contrast to modest consequences for the

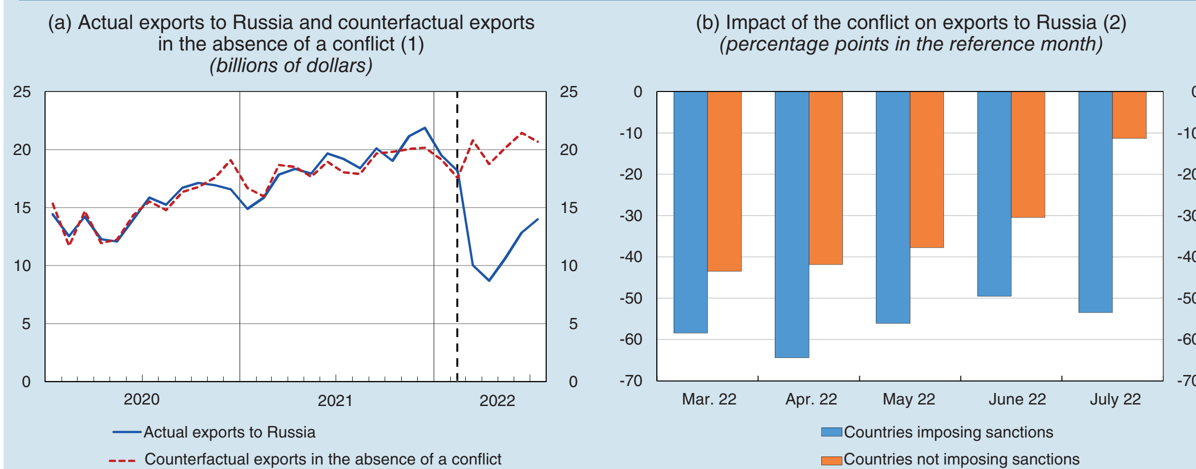
[1] For a description of the sanctions, see the box 'The invasion of Ukraine: sanctions on Russia and the impact on global financial markets and international trade', *Economic Bulletin*, 2, 2022. For an analysis of the impact at global level, see A. Borin, F.P. Conteduca, E. Di Stefano, V. Gunnella, M. Mancini and L. Panon, 'Quantitative assessment of the economic impact of the trade disruptions following the Russian invasion of Ukraine', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 700, 2022.

[2] This estimate does not take account of the indirect effects on trade between third countries.

supplier countries, given Russia's reduced share of their total goods exports (1.2 per cent for countries imposing sanctions and 1.5 per cent for the remaining ones).

Figure

The effect of the war and of the sanctions on exports to Russia
(monthly data)



Sources: Based on data from Trade Data Monitor and International Trade and Production Database for Estimation.
(1) The figure shows the trend in exports to Russia, aggregated starting with the flows from a sample of 39 exporting countries, and the counterfactual trends in exports in the absence of a conflict, obtained for each sample country as the weighted average of exports to trade partners other than Russia. The dashed vertical line represents the date that the conflict began. – (2) Percentage difference by group of countries for exports to Russia and for the relative counterfactual scenario in the reference month. The group of countries imposing sanctions comprises: EU countries, Australia, Canada, Japan, New Zealand, Norway, Singapore, South Korea, Switzerland, the United Kingdom and the United States; countries not imposing sanctions are the remaining ones for which bilateral flows with Russia are available.

There was a partial recovery in exports to Russia between May and July, which probably reflects a reorganization of logistics and supply chains, as well as of the payment system. The recovery is partly attributable to Russia's policy of actively looking for new trading partners: while the exports of countries imposing sanctions show a very limited recovery, there is a more visible one for exports from economies not imposing them (the monthly gap between actual exports and those estimated in the absence of a conflict went from -44 per cent in March to -11 per cent in July).

Sectoral data make possible a more accurate picture of the impact that the war and the ensuing sanctions have had on the Russian economy, including the decision of many multinational companies to leave the market, among which those active in the transport and logistics sectors. In the period from March to July, the strongest decline compared with the counterfactual scenario was in exports to Russia from the motor-vehicle and electronics sectors (by 64 and 59 per cent respectively), followed by mechanical engineering exports. The contraction in Russian imports of goods from these sectors, which account for around half of total foreign purchases, not only damages Russia's economy in the short term, but also reduces its growth potential in the medium and long term. These goods are highly technological and are difficult to replace by turning to local production, especially in the short term.[3]

[3] Russia is heavily dependent on foreign imports for these goods: around 63 per cent of final demand is met by imported products and components, compared with an average of 35 per cent in the rest of the manufacturing sector.

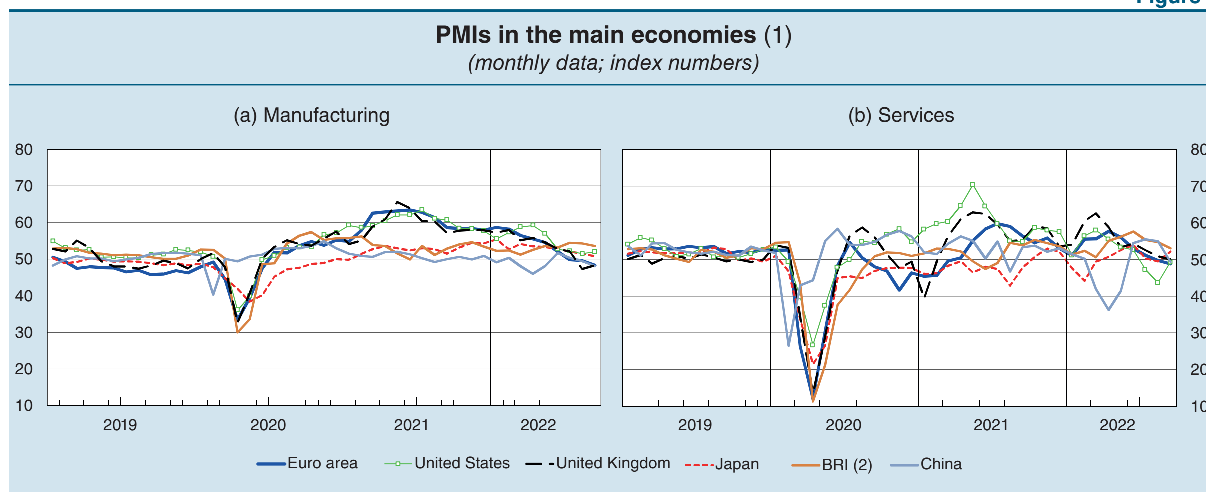
... and through the third quarter, according to qualitative indicators

In the summer months, the PMIs of the advanced economies declined further on average (Figure 1). In the United States, the contraction was particularly sharp in services. In the UK, falling demand and shortages of labour and intermediate

goods both played a role in the decline in manufacturing activity. Economic activity also weakened in the main emerging economies over the third quarter, especially in China, as a result of the electricity rationing in some provinces due to the drought, the pandemic containment measures and the heightened real estate crisis.

Figure 1

PMIs in the main economies (1)
(monthly data; index numbers)



Sources: Markit and Refinitiv.
(1) Diffusion indices of economic activity in the manufacturing and service sectors based on purchasing managers' assessments (PMIs). Each index is obtained by adding half of the percentage of replies of 'stable' to the percentage of replies of 'increasing'. The value of 50 is the threshold compatible with expansion in the sector. – (2) Average of the forecasts for Brazil, Russia and India (BRI), weighted on the basis of each country's GDP in 2021.

Trade slows, especially in the summer

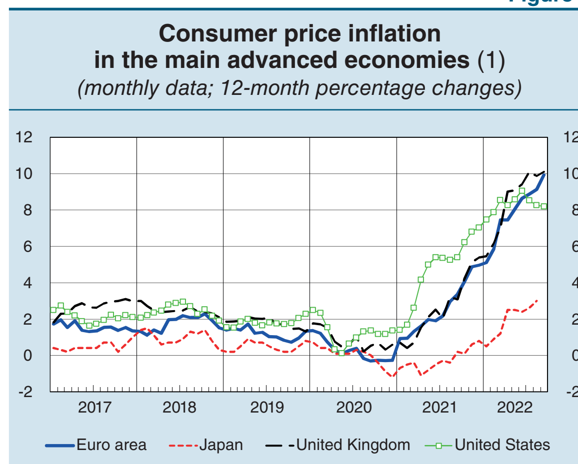
In the second quarter, global trade slowed (from 1.6 per cent in the previous quarter to 0.9 per cent; see Table 1). The widespread deterioration in the summer of the PMIs for foreign orders points to a new, pronounced weakening of global demand. This, however, likely helped to reduce suppliers' delivery times and to alleviate conditions in the sea freight market, which had already been easing since the spring.

Inflation remains exceptionally high

Inflation in the United States fell moderately to 8.2 per cent in September (from 9.1 per cent in June; Figure 2), although the core component rose (to 6.6 per cent). In the United Kingdom, inflation has stood at around 10 per cent since July. In Japan, consumer price inflation reached 3.0 per cent in August, the highest level since 2014, but remains very weak net of food and energy products. Price increases in Japan are limited due to the structural weakness of wage growth and to the subsidies for national fuel distributors introduced to contain the impact of higher imported energy prices on final consumers.

Figure 2

Consumer price inflation in the main advanced economies (1)
(monthly data; 12-month percentage changes)



Source: Refinitiv.
(1) For the euro area and the United Kingdom, harmonized consumer prices.

Several downside risks weigh on the global economic outlook

In October, the International Monetary Fund confirmed its July forecast for world GDP growth in 2022 at 3.2 per cent in its baseline scenario (see Table 1), while it revised its estimate

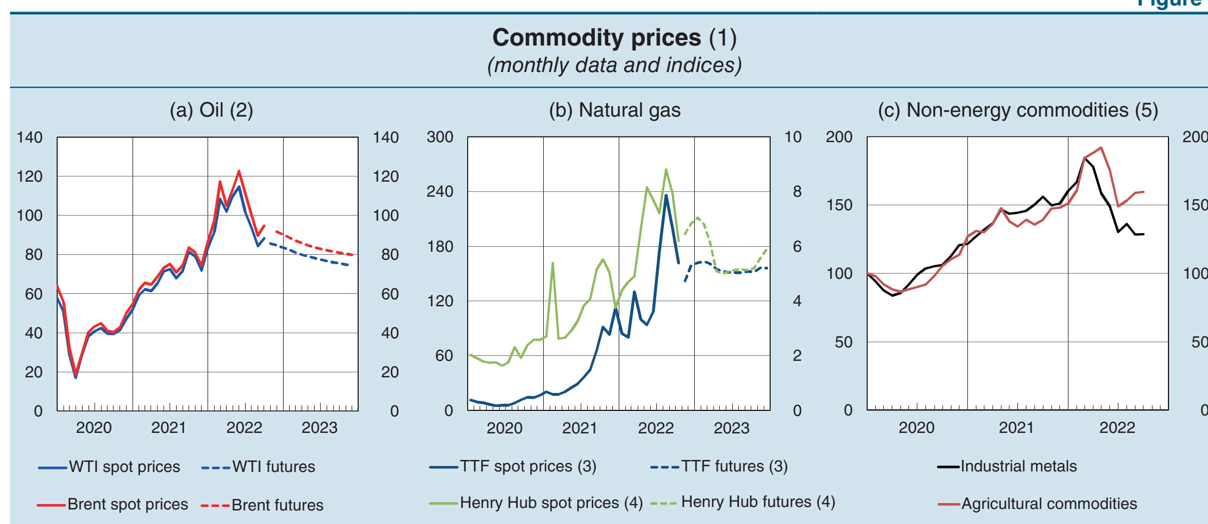
for next year downwards to 2.7 per cent. Several downside risks weigh on this outlook, linked to the escalation of geopolitical tensions (which could also lead to a complete interruption of Russian gas flows to Europe), persistently high levels of inflation, the possible adoption of overly restrictive and uncoordinated monetary policies, and the sharp slowdown in the Chinese economy.

The weakening economic activity is reflected in the price of oil ...

The price of a barrel of Brent oil dropped to about $90 on average in September (Figure 3.a), its lowest since the beginning of the war in Ukraine, mainly owing to the worsening outlook in the main economies and the slowdown in demand from China. On 2 September, the G7 countries announced that an agreement had been reached, the details of which have yet to be defined, to set a price cap on Russian crude oil. Prices increased moderately in the first half of October after OPEC+ announced further production cuts, whilst remaining below the early summer levels. The futures' curve signals expectations of further falls in the next twelve months.

Figure 3

Commodity prices (1)
(monthly data and indices)



Sources: Refinitiv for oil and natural gas prices and Standard & Poor's for non-energy commodities.
(1) For the spot prices, monthly averages up to October 2022; the latest data refer to the average of the daily data from 1 to 14 October 2022. For futures, the data refer to the price on 14 October 2022. – (2) Dollars per barrel. – (3) Euros per megawatt hour. – (4) Dollars per millions of British thermal units (BTUs). Price of gas distributed via the Henry Hub in Louisiana (USA). Right-hand scale. – (5) Indices: January 2020=100.

... while natural gas prices in Europe are mainly affected by stockpiling activities

The price of natural gas traded on the Dutch Title Transfer Facility (TTF) market came close to €340 per megawatt-hour at the end of August (Figure 3.b), driven by the rapid stockpiling by European countries and by other factors, such as the fears (which materialized on 2 September) of a total and indefinite interruption of gas flows from Russia via the Nord Stream 1 pipeline and the sustained demand for energy due to the exceptionally high temperatures in Europe. The price subsequently fell to just over €110 on 18 October. Contributory factors to this fall were the slowdown in purchases, following the achievement of the 80 per cent storage target suggested by the European Commission, and a decline in consumption. On 18 October, the Commission proposed new measures to contain price increases.[1] Futures contracts indicate that the price of natural gas will remain very high throughout next year, partly due to the risks weighing on the security of supply.

[1] The measures include the joint purchase of gas at European level, the introduction of a price correction mechanism on the TTF gas exchange and a temporary collar to prevent extreme price spikes on the derivatives market, solidarity rules between Member States in the event of supply shortages, and rules designed to support the liquidity of energy companies on the derivatives market.

The drought and the protracted conflict contribute to the further hike in agricultural prices

During the summer, agricultural commodity prices rose due to the drought in Europe and to the effects of the protracted war in Ukraine on fertilizer prices and supply chains, but remained well below the peaks reached in the spring (Figure 3.c). At the end of September, the International Monetary Fund introduced a new facility to finance the urgent needs of countries showing food security risks. Conversely, industrial metal prices have recorded a further slight decline since the beginning of July.

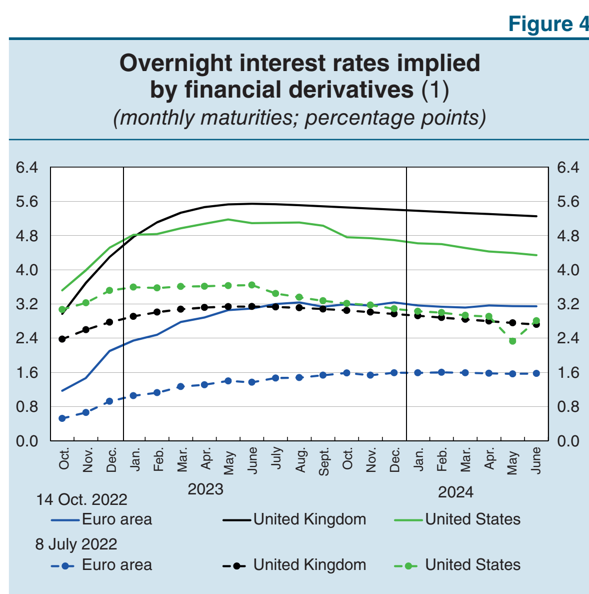
The Federal Reserve's monetary policy becomes more restrictive and the Bank of England intervenes to prevent financial stability risks

At its July and September meetings, the Federal Reserve further increased the target range for the federal funds rate – on both occasions by 75 basis points – to between 3.0 and 3.25 per cent. During the last meeting, the Chair of the Federal Reserve confirmed the need to maintain a firmly restrictive monetary policy stance until inflation is brought back in line with the target, even if this may weaken economic growth. In both August and September, the Bank of England raised its reference rate by 50 basis points, reaching 2.25 per cent. Furthermore, it set out a strategy to downsize its budget by £80 billion, via maturing securities and sales, within a year starting from October. However, the government's announcement on 23 September 2022 of a fiscal package of exceptional magnitude raised concerns in financial markets over the sustainability of public debt. This resulted in a loss of confidence in the pound sterling, which depreciated sharply, and a marked increase in government bond yields. Market volatility was amplified by liquidity problems for liability-driven funds linked to pension funds.[2] To prevent risks to financial stability, the Bank of England purchased long-term UK government bonds between 28 September and 14 October. Furthermore, it postponed the start of the planned sale of bonds.[3] Bond yields immediately dropped by over 100 basis points. As of 10 October, the Bank of England has taken further temporary measures to counter the renewed financial tensions, including a new repo facility to ease credit to liability-driven investment funds until 10 November.[4]

Figure 4

Overnight interest rates implied by financial derivatives (1)

(monthly maturities; percentage points)



Source: Based on Refinitiv data.
(1) Expected interest rate implied by overnight indexed swap (OIS) prices.

Since the beginning of July, several other central banks in advanced economies have raised their key interest rates. The financial markets expect

[2] These funds are used by defined-benefit pension funds to achieve exposure to long-term government bonds, including via the use of derivatives, in order to balance the performance of their asset yields with the expected pension payments. They are financed by a combination of capital, provided by pension funds, and repos. The sudden rise in yields led to an erosion of capital, a subsequent increased risk of insolvency, and a concomitant demand for additional collateral (margins), which the funds would have had to cope with by selling large numbers of government bonds and other liquid assets (such as money market fund shares), in already unfavourable market liquidity conditions, thereby posing significant risks to financial stability.

[3] The upper limit on gilt purchases was set at £65 billion, with a daily cap of £5 billion. Sales were initially delayed until the end of October; on 18 October, the Bank of England postponed them to 1 November 2022 to prevent them from coinciding with the new fiscal policy announcements scheduled for 31 October. At the same time, it decided that sales for the remainder of 2022 would only involve short- and medium-term securities.

[4] The Bank of England also increased the upper limit of daily gilt purchases to £10 billion through 14 October and widened the scope of its operations to include index-linked gilts.

further rate increases, especially in the United Kingdom (Figure 4). By contrast, the Bank of Japan reiterated its expansionary monetary policy stance, as inflation is expected to remain only temporarily above the target. Monetary policy stances remained varied across the emerging economies. Brazil and India raised their official interest rates again to cope with persistently high inflation, while China eased them to support demand. Russia reduced its key interest rate in July and September, by 200 basis points overall.

1.2 THE EURO AREA

After growing in the first half of the year, economic activity in the euro area likely stagnated over the summer, mostly as a consequence of the further spikes in the prices of energy commodities and the heightened uncertainty over the ongoing war in Ukraine. Consumer price inflation reached 9.9 per cent in September, again driven mainly by the most volatile components. The ECB Governing Council started raising key interest rates with two consecutive measures taken at the July and September meetings. At the July meeting, it introduced the new Transmission Protection Instrument (TPI).

Table 2

Euro-area GDP growth and inflation
(percentage changes)

	GDP growth			Inflation
	2021	2022 Q1 (1)	2022 Q2 (1)	2022 September (2)
France	6,8	-0,2	0,5	6,2
Germany	2,6	0,8	0,1	10,9
Italy	6,7	0,1	1,1	9,4
Spain	5,5	-0,2	1,5	9,0
Euro area	5,3	0,6	0,8	9,9

Sources: Based on national statistics and Eurostat data.
(1) Quarterly data adjusted for seasonal and calendar effects; percentage changes on previous period. – (2) Monthly data; year-on-year percentage changes in the harmonized index of consumer prices (HICP).

GDP grows in the second quarter ...

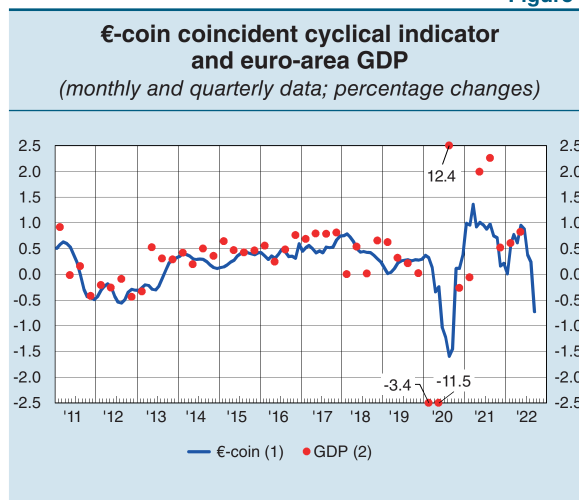
In the second quarter, euro-area GDP expanded by 0.8 per cent compared with the previous period (Table 2), driven by the recovery in investment and in household consumption, both of which grew more than was expected by the main forecasters. The contribution of net foreign demand was barely positive. Value added was mainly supported by the upswing in services and, to a lesser extent, in industry excluding construction. Economic activity expanded in all the main economies, more markedly in Spain and Italy (where it was boosted by the tourism and leisure sectors) and more moderately in France and Germany.

... but then likely stagnates in the third

The latest economic indicators suggest that euro-area GDP stagnated in the third quarter. In July, industrial output decreased significantly before picking up moderately in August. The manufacturing PMI declined on average in the third quarter to levels compatible with a contraction in production.

Figure 5

€-coin coincident cyclical indicator and euro-area GDP
(monthly and quarterly data; percentage changes)



Sources: Bank of Italy and Eurostat.
(1) For €-coin, monthly estimates of changes in GDP on the previous quarter, net of the most erratic components. For the methodology used to construct the indicator and the subsequent modifications, see the box 'The €-coin indicator and the economic situation in the euro area', in *Economic Bulletin*, July, 2009. The latest data for the indicator are available on the Bank of Italy's website: '€-coin: September 2022'. – (2) For GDP, quarterly data; percentage changes on previous quarter.

Activity in services likely slowed down, in line with the performance of the relative PMI. The €-coin indicator, which measures GDP growth net of the most erratic components, remained broadly unchanged in the third quarter on average; however, it was affected by an abrupt worsening in September (Figure 5), which may point to a deterioration in the economic outlook in the autumn months.

GDP estimates are revised upwards for 2022 and downwards for 2023 and 2024

The ECB staff projections released in September[5] indicate that GDP will grow by 3.1 per cent this year, by 0.9 per cent in 2023, and by 1.9 per cent in 2024. Compared with June, estimates have been revised upwards for 2022, against the backdrop of more favourable than expected activity in the first part of the year, and downwards for the following two years, mainly on account of energy supply tensions, prolonged price increases and a deterioration in confidence. In an adverse scenario, in which gas flows from Russia are completely interrupted, average GDP would contract on average in 2023.

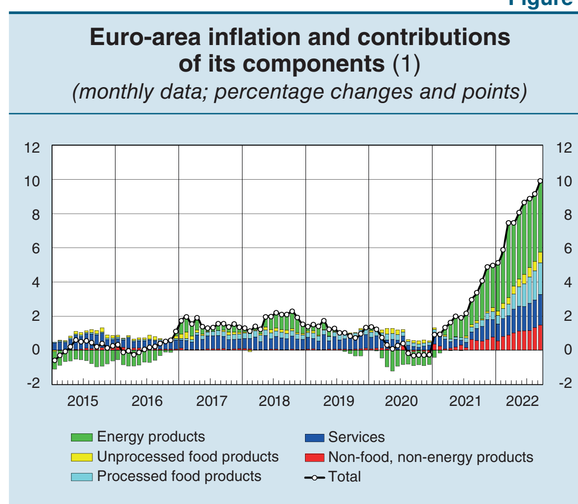
Energy commodities continue to drive up inflation

Consumer price inflation reached 9.9 per cent on a twelve-month basis in September (Figure 6), mostly due to the exceptional rise in energy prices (40.7 per cent). Core inflation reached 4.8 per cent, driven by the increase in the prices of services and non-energy industrial goods; this was affected by the persistent supply bottlenecks and the pass-through of higher energy prices. According to our estimates, the increase in energy prices accounts for just under one third of core inflation in September.

Figure 6

Euro-area inflation and contributions of its components (1)

(monthly data; percentage changes and points)



Sources: Based on Eurostat and ECB data.
(1) 12-month percentage change in the HICP.

Growth in contractual wages remains moderate

In the second quarter, euro-area contractual wages increased by 2.4 per cent compared with the same period of 2021 (from 3.0 per cent in the first quarter). This figure includes one-off payments that, because they are temporary, boost workers' income without having a direct impact on medium-term labour cost trends. Net of these components, wages accelerated slightly compared with the previous quarter, although they grew at a moderate pace. Wage growth could intensify in the final part of the year, partly owing to the minimum wage increase introduced by Germany on 1 October. However, at a time when the economic cycle is weakening, the small share of inflation-indexed wages reduces the risks of a price-wage spiral (see the box 'Wage negotiations in the main euro-area countries', in *Economic Bulletin*, 3, 2022).

Inflation is revised upwards for the three years 2022-24

According to the ECB staff projections published in September, euro-area price growth will reach 8.1 per cent on average in 2022, to then gradually decrease during 2023 and converge towards a level slightly above the inflation target in the second half of 2024. Compared with the June estimates, these projections have been revised upwards, mainly following the significant rise in energy prices.

[5] For more information, see the ECB's website: 'ECB staff macroeconomic projections for the euro area', September 2022.

Inflation expectations of firms and households increase over the short term but stabilize in the medium term ...

According to European Commission surveys, households' expectations for changes in consumer prices over the following twelve months and those of firms for their selling prices over the following three months rose again in September, but remained below the peaks reached in spring. According to the ECB's Consumer Expectations Survey, the inflation expectations of households three years ahead stabilized at a median value of 3 per cent in August.

... while longer-term inflation expectations derived from financial indicators remain close to 2 per cent

In mid-October, the medium-term inflation expectations implied by inflation-linked swaps (ILS) equalled 3.4 per cent over the two-year horizon and 2.7 per cent over the five-year horizon (from 4.3 and 2.8 per cent respectively in early July). The five-year, five years forward expectations stayed at values slightly above 2 per cent (Figure 7.a). Experts participating in September's Survey of Monetary Analysts, conducted by the ECB between 22 and 25 August, expect inflation to return to values in line with the definition of price stability in 2024 (Figure 7.b), while the more recent one-year-ahead expectations derived from the ILSs bring it forward to the end of 2023. Based on options prices, the probability of inflation being lower than or equal to 2 per cent on average in the years 2022-26 has risen to 33 per cent (from 18 per cent in early July; Figure 7.c).

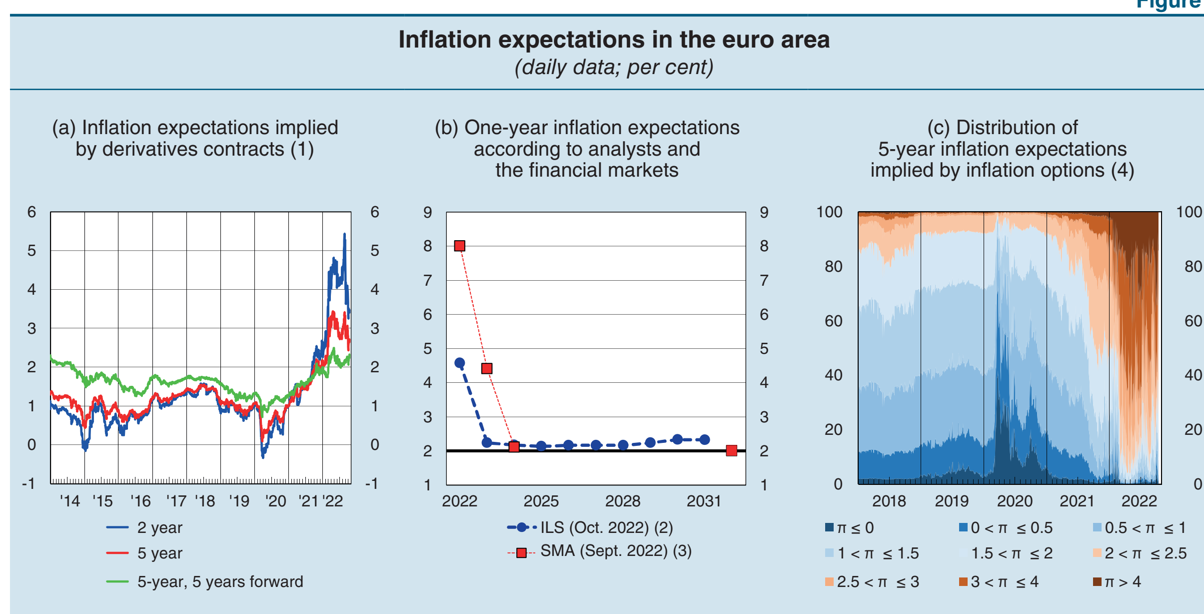


Figure 7

Inflation expectations in the euro area

(daily data; per cent)

Sources: Based on Bloomberg and ECB data.
(1) Expected inflation rates implied by 2-year, 5-year, and 5-year, 5 years forward inflation swaps (ILSs). – (2) One-year expected inflation rates implied by ILSs at various maturities. – (3) Median of the expectations of the respondents polled as part of the September Survey of Monetary Analysts (SMA), conducted by the ECB from 22 to 25 August 2022. – (4) The distribution of expected inflation (π) is estimated based on the prices of zero-coupon inflation options in the euro area over a 5-year horizon. The underlying inflation rate is calculated based on the harmonized index of consumer prices excluding tobacco.

The ECB has started raising rates and has introduced a new tool to counter fragmentation risks

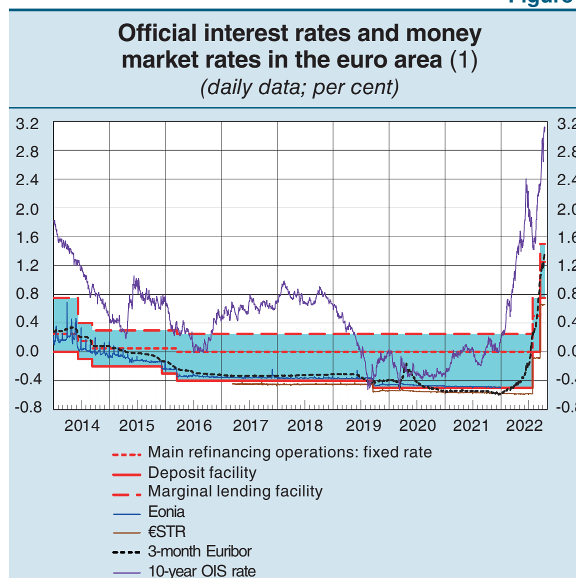
In order to contain rising inflationary pressures, the ECB Governing Council has started to raise official interest rates in recent months towards levels that would ensure a return of inflation to values in line with the medium-term price stability target. It therefore decided to increase the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility by 50 basis points in July and by 75 basis points in September,

bringing them to 1.25, 1.50 and 0.75 per cent respectively (Figure 8). Furthermore, the Council stated that it expected further increases at its next meetings at a pace and up to a level that shall be determined on the basis of new data and revised inflation and growth prospects. It reiterated that it will continue reinvesting in full the principal payments from maturing securities purchased under the asset purchase programme (APP) for an extended period of time. The Council also confirmed that the reinvestment of maturing securities under the pandemic emergency purchase programme (PEPP) will continue at least until the end of 2024 and will be carried out flexibly to counter fragmentation risks in the financial markets. In July, the Council introduced a new tool to safeguard the smooth transmission of the monetary policy across all euro-area countries (see the box 'The Transmission Protection Instrument: the ECB's new monetary policy tool').

Figure 8

Official interest rates and money market rates in the euro area (1)

(daily data; per cent)



Sources: ECB and Refinitiv.
(1) As of 1 October 2019, the €STR is a new overnight benchmark rate for the euro-area money market. For the period prior to 1 October, the figure shows the pre-€STR. Starting on 1 October and until its discontinuation at the end of 2021, the Eonia is calculated as the €STR plus a fixed spread of 8.5 basis points.

THE TRANSMISSION PROTECTION INSTRUMENT: THE ECB'S NEW MONETARY POLICY TOOL

Against the background of sharp increases in the spreads of some euro-area sovereign bonds and the risks for the effective functioning of the monetary transmission mechanism, in a context of increasing inflationary pressures and worsening global growth prospects, the Governing Council of the European Central Bank announced on 15 June the application of flexibility in reinvesting redemptions coming due under the pandemic emergency purchase programme (PEPP) and an acceleration in creating a new measure to counter an unjustified fragmentation of the capital markets (see the box 'The recent performance of the spread on 10-year Italian government bonds', *Economic Bulletin*, 3, 2022). At its meeting on 21 July 2022, the Governing Council approved the new monetary policy transmission protection instrument (TPI), which could be activated in the event of unwarranted tensions in financial markets. In the current phase of normalization initiated by the ECB, the TPI aims to ensure that changes in the monetary policy stance are transmitted smoothly across all euro-area countries. This is a precondition for the Governing Council to be able to deliver on its price stability mandate.

Under the TPI, the Eurosystem will be able to make secondary market purchases of public-sector securities, with a residual maturity of between one and ten years, issued in jurisdictions experiencing a deterioration in financing conditions not warranted by their macroeconomic fundamentals. Purchases could also be extended to private-sector securities, if necessary. Neither time limits nor quantitative ones are set ex ante on the size of purchases, which will depend on the Governing Council's judgement on the severity of the risks to the transmission of monetary policy. However, the purchases will be conducted in such a way as not to have a persistent impact on the consolidated balance sheet of the Eurosystem and hence on the monetary policy stance.

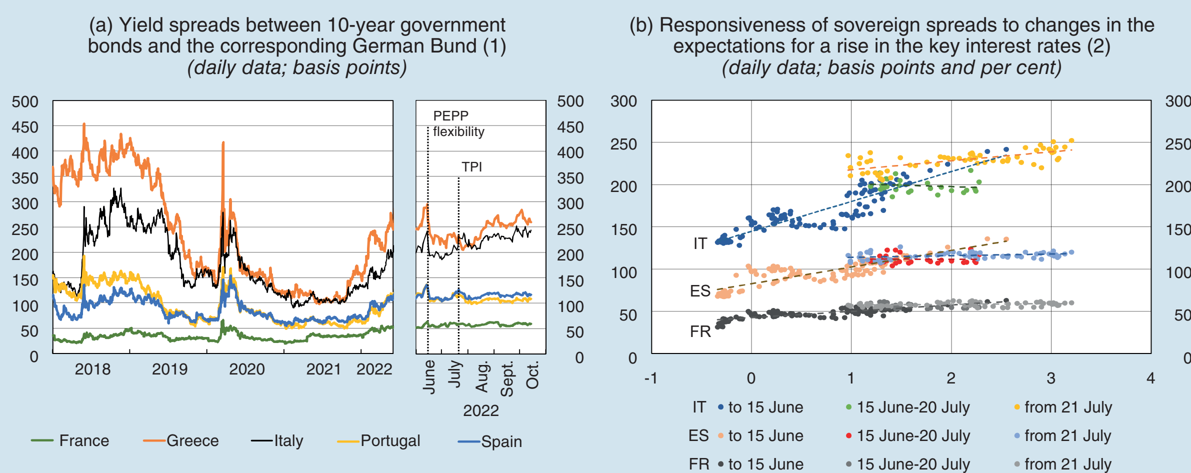
Decisions on the activation, continuation and suspension of the TPI are at the full discretion of the Governing Council, to the extent deemed proportionate to the achievement of the primary objective of price stability over the medium term. They will be based on an overall assessment of market indicators

and of four specific criteria to determine whether the countries concerned pursue sound and sustainable fiscal and macroeconomic policies: (a) compliance with the EU fiscal framework; (b) the absence of severe macroeconomic imbalances; (c) the sustainability of public debt, for which the Governing Council will take into account, where available, the analyses of the European Commission, the International Monetary Fund and other institutions, together with the ECB's internal analysis; and (d) the adoption of prudent and credible policies, complying with the commitments submitted in the national recovery and resilience plans and with the European Commission's country-specific recommendations under the European Semester. Purchases under the TPI would be terminated either upon a durable improvement in transmission, or based on the Governing Council's assessment that persistent tensions are due to country fundamentals.[1]

The TPI complements the set of monetary policy instruments already available to the Governing Council to counter disruptions to the transmission of monetary policy. Of these, flexibility in the reinvestment of redemptions coming due under the PEPP is the first line of defence against fragmentation risks stemming from the ongoing consequences of the pandemic crisis.[2] In the period from June to September, these reinvestments were mainly concentrated in southern European jurisdictions: the net purchases of Italian, Spanish and Greek government bonds totalled €14 billion.

Figure

Effect of the announcement of the ECB measures against fragmentation risk



Sources: Panel (a): Based on Refinitiv and Bloomberg data; Panel (b): see I. Schnabel, 'Inflation in the euro area: causes and outlook', speech at the Luxembourg-Frankfurt Financial Professionals Network, Luxembourg, 22 September 2022.
(1) The two vertical lines indicate the situation on 15 June 2022 (the date of the announcement of the application of flexibility in reinvesting redemptions coming due in the PEPP portfolio and the acceleration in the creation of a new measure to counter fragmentation), and 21 July 2022 (the date of the approval of the TPI). – (2) The y-axis shows the yield spreads between 10-year government bonds and the corresponding German Bund (basis points); the x-axis shows the expected value of the €STR rate implied by the overnight indexed swap forward contract at end-2023 (per cent). For the country codes, see the European Union's *Interinstitutional Style Guide*. The most recent observations are in reference to 14 October 2022.

[1] For more details on the characteristics of the TPI, see the ECB's 'Monetary Policy Decisions' and the 'Transmission Protection Instrument', press releases, 21 July 2022.

[2] The TPI differs from the PEPP's flexibility in reinvestment in terms of some important features that make it more effective, including its unlimited scope ex ante, its permanent nature and the activation conditions (which include any type of shock that causes unwarranted market fragmentation).

The adoption of the new measures against the risk of fragmentation has been instrumental in helping to reduce tensions on the sovereign debt markets. Coinciding with the decisions of 15 June and 21 July, the spreads between the government bond yields of the countries most exposed to the tensions and the German Bund narrowed, interrupting the upward trend underway since the start of the year (see panel (a) of the figure). Subsequently, the measures helped to contain the tensions associated with growing risk aversion on the markets and, in Italy's case, with the political uncertainty caused by the fall of the Government in mid-July (see Section 2.8). At the same time, the responsiveness of sovereign spreads to changes in the expectations of rises in key interest rates declined (reflected in the slope of the dashed lines in panel (b) of the figure).

The total funds disbursed with the third series of targeted longer-term refinancing operations (TLTRO III) fell to €2,113 billion for the euro area and to €430 billion for Italy, following the voluntary repayments carried out on 28 September and the simultaneous maturity of the first operation of the programme. The Governing Council will continue to monitor bank funding conditions and to ensure that the maturing of TLTRO III operations does not hamper the smooth transmission of monetary policy.

Growth in bank lending to firms strengthens and the cost of loans increases

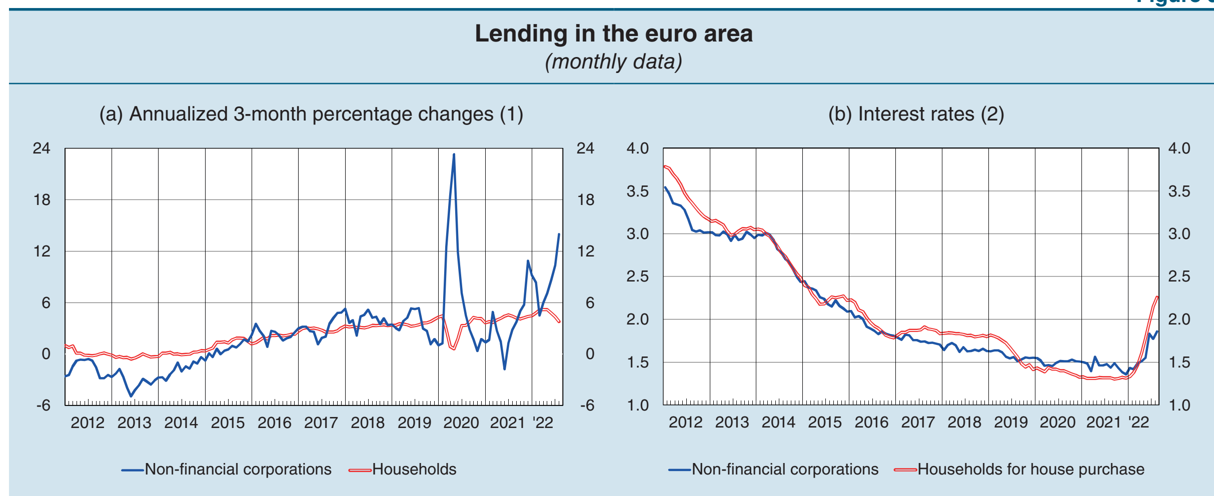
Over the summer months, bank lending to non-financial corporations in the euro area reached 14.0 per cent in August, from a three-month rate on an annualized basis of 7.1 per cent in May (adjusted for seasonal factors and the accounting effect of securitizations; Figure 9.a). This growth was driven by an increase in working capital needs relating to higher input costs, still buoyant investment demand, and, in part, reduced recourse to bond financing. The growth rate increased in all the main countries, reaching 22.2 per cent in Germany, 10.8 per cent in France, 7.1 per cent in Italy (see Section 2.7) and 6.8 per cent in Spain. The growth in lending to households, while diminishing slightly, remained robust in the euro area (3.8 per cent).

The cost of credit to firms and households rose, reflecting the increase in key interest rates recorded in July. Between May and August, the interest rate on new loans to non-financial corporations

Figure 9

Lending in the euro area

(monthly data)



Source: ECB.
(1) Includes bad debts, repos and loans not reported in banks' balance sheets because they have been securitized. The percentage change is net of reclassifications, exchange rate variations, value adjustments, and other variations not due to transactions. Data are seasonally adjusted. – (2) Average of interest rates on new short-term and medium-and long-term loans weighted using the 24-month moving average of new loan disbursements; for non-financial corporations, includes overdrafts.

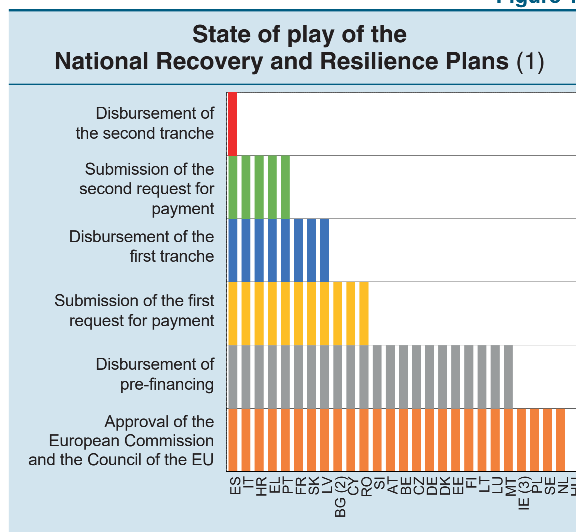
grew by around 30 basis points to 1.9 per cent; the cost of new loans to households for house purchases increased by around 50 points to 2.3 per cent (Figure 9.b).

Funds allocated under the Recovery and Resilience Facility have almost reached €113 billion

Under the Recovery and Resilience Facility (RRF), the European Commission is continuing its assessments of the achievement of the milestones and targets set by the national plans. Since the beginning of July, the countries receiving the first tranche have increased from six to eight (Figure 10).[6] A further €12 billion was disbursed to Spain in the form of grants, the first country to receive the second tranche of the planned funds.[7] The allocated funds have almost reached €113 billion in total, of which around half in the form of pre-financing. In addition to these disbursements, the Commission issued securities worth over €230 billion (€162 billion as long-term securities), of which around €180 billion have not matured yet.

Figure 10

State of play of the National Recovery and Resilience Plans (1)



Sources: Based on official documents from the Council of the EU and the European Commission.
(1) Updated to 14 October 2022. Countries on the x-axis are ordered according to the dates of the submission of the requests for payment and of the disbursement of the relative funds, on the disbursement of the pre-financing or, if funds have not yet been disbursed, based on the date of the plan's approval or submission. For the country codes, see the European Union's Interinstitutional Style Guide. – (2) Bulgaria's plan was approved after the deadline for the request for pre-financing of the funds allocated. – (3) Ireland did not request pre-financing.

1.3 GLOBAL FINANCIAL MARKETS

Since the beginning of July, global financial conditions have tightened overall, reflecting high inflation, the acceleration of monetary policy normalization across the leading central banks, and downside risks for the international outlook. Government bond yields have risen, especially for shorter maturities, and equity prices have dropped. The US dollar has continued to appreciate against the main international currencies.

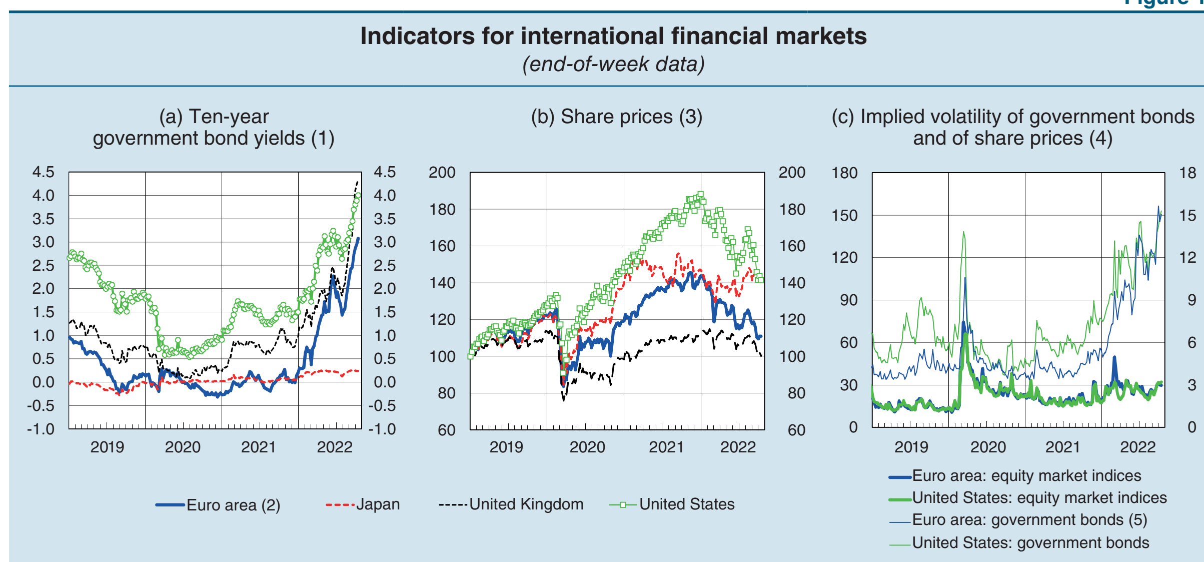
Public sector bond yields rise and equity prices fall

After a moderate contraction in July, government bond yields in the main advanced economies have returned to growth since August for all maturities. In the United States and the euro area, the increase has been more pronounced for short maturities; this has been strongly influenced by the tightening of monetary policy, contributing in particular to an inversion of the yield curve in the United States. Only the Japanese ten-year bond yield has remained broadly unchanged, close to the peak value of 0.25 per cent set by the national central bank (Figure 11.a). Government bond volatility remains very high in Europe and in the United States (Figure 11.c); European bond volatility stands well above the levels recorded in the first phase of the pandemic.

Equity prices have declined overall from July onwards in Europe and, more markedly, in the United States (Figure 11.b). Volatility is growing but remains significantly lower than in early 2020.

[6] Slovakia and Latvia received €0.4 billion and €0.2 billion in grants, respectively.
[7] For the disbursement of the second RRF tranche to Italy, see Section 2.9.

Figure 11

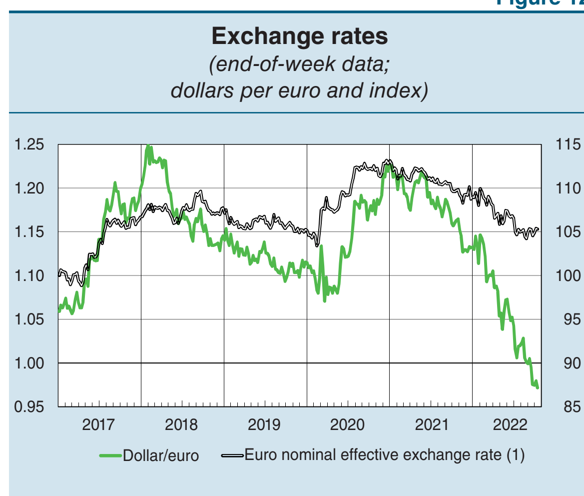


Source: Refinitiv.
(1) Per cent. – (2) For the yields on 10-year government bonds: average yields, weighted by 2021 GDP at chain-linked prices, of the 10-year benchmark government securities of the euro-area countries (excluding Cyprus, Estonia, Greece, Latvia, Lithuania, Luxembourg, Malta, Slovakia and Slovenia). – (3) Indices: Dow Jones Euro Stoxx for the euro area, Nikkei 225 for Japan, FTSE All Share for the United Kingdom and Standard & Poor's 500 for the United States. Index: 1st week of January 2019=100. – (4) Percentage points. Equity indices: VSTOXX for the euro area and VIX for the United States. Government bonds: volatility implied by the prices of options on futures on the German Bund for the euro area and on the Treasury Note for the United States (MOVE index). – (5) Right-hand scale.

The dollar continues to appreciate against the main currencies

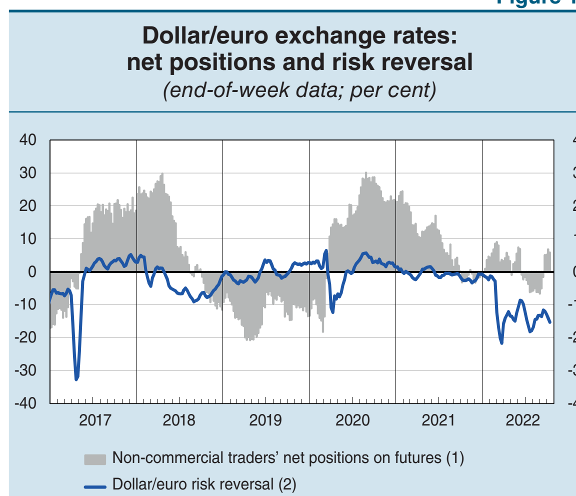
Given the faster monetary policy normalization by the Federal Reserve and the reduced risk tolerance in financial markets, the US dollar has continued to appreciate against the leading international currencies since early July. The euro-dollar exchange rate is also affected by increased downside risks to economic activity in the euro area linked to the energy crisis (see Section 1.2). Unlike the bilateral

Figure 12



Sources: ECB, Bloomberg and Refinitiv.
(1) Index: 1st week of January 2017=100. Right-hand scale. An increase in the index corresponds to an appreciation of the euro.

Figure 13



Sources: ECB, Bloomberg and Refinitiv.
(1) Difference between non-commercial traders' long and short positions in euros on dollar/euro FX futures as a percentage of total outstanding positions. – (2) One-month risk reversal indicator (20-day moving average), which measures the skewness of the distribution of expectations for the dollar/euro exchange rate. Negative (positive) values indicate a greater risk of a depreciation (appreciation) of the euro. Right-hand scale.

exchange rate, which has depreciated by about 4 percentage points, the nominal effective exchange rate of the euro has remained almost unchanged (Figure 12). The cost of hedging against a considerable depreciation of the euro against the US dollar, as measured by the risk reversal indicator, remains higher than that of the opposite situation (Figure 13). However, long positions in euros have been prevailing among non-commercial traders in recent weeks.

The depreciation of the pound sterling against the US dollar intensified in late September following the announcement of the UK government's new fiscal plan. The exchange rate then returned to its pre-announcement levels after the Bank of England's interventions and the withdrawal of various announced fiscal measures. On 22 September, the Central Bank of Japan intervened in the foreign exchange market to counter the depreciation of the yen.

2 THE ITALIAN ECONOMY

2.1 CYCLICAL DEVELOPMENTS

In Italy, GDP growth strengthened in the second quarter, as the pandemic situation improved. Conversely, according to the central value of our estimates, economic activity appears to have declined marginally in the third quarter, as a result of the further rises in energy prices, firms' persistent difficulties in sourcing production inputs and the heightened uncertainty over the developments in the war in Ukraine.

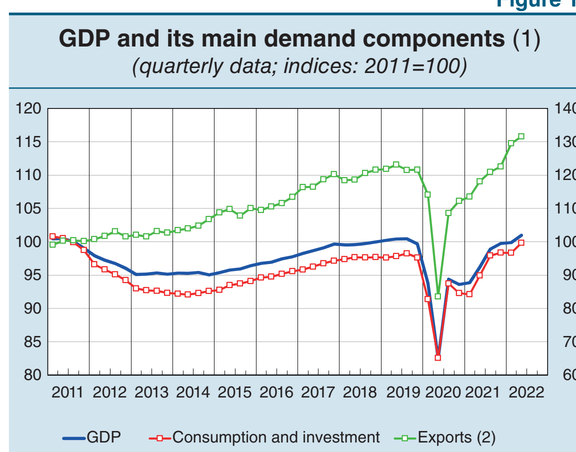
GDP rises sharply in the spring ...

In the second quarter, Italy's GDP expanded by a quarterly 1.1 per cent (Figure 14 and Table 3), driven by a return to growth in household consumption, in part thanks to the improved epidemiological situation, and by an increase in investment. Despite a further

Figure 14

GDP and its main demand components (1)

(quarterly data; indices: 2011=100)



Source: Based on Istat data.
(1) Chain-linked volumes; data adjusted for seasonal and calendar effects. – (2) Right-hand scale.

Table 3

GDP and its main components (1)

(percentage change on previous period and percentage points)

	2021	2021		2022	
		Q3	Q4	Q1	Q2
GDP	6.7	2.8	0.8	0.1	1.1
Imports of goods and services	14.7	4.5	4.5	5.0	2.0
National demand (2)	6.8	3.4	1.7	-0.1	1.2
National consumption	4.2	3.3	-0.1	-1.1	1.6
Household spending (3)	5.2	4.3	-0.4	-1.5	2.6
General government spending	1.5	0.3	0.6	0.1	-1.1
Gross fixed investment	16.5	2.7	2.7	3.9	1.1
Construction	21.8	4.3	3.5	4.5	0.7
Capital goods (4)	12.1	1.4	1.9	3.2	1.5
Change in stocks (5)	0.3	0.2	1.2	0.0	-0.3
Exports of goods and services	13.4	2.4	1.3	5.7	1.6
Net exports (6)	0.2	-0.5	-0.8	0.3	-0.1

Sources: Istat.
(1) Chain-linked volumes; the quarterly data are adjusted for seasonal and calendar effects. – (2) Includes the change in stocks and valuables. – (3) Includes non-profit institutions serving households. – (4) Include, as well as investment in plants, machinery and arms (which also include transport equipment), cultivated biological resources and intellectual property. – (5) Includes valuables; contributions to GDP growth on previous period; percentage points. – (6) Difference between exports and imports; contributions to GDP growth on previous period; percentage points.

increase in exports (see Section 2.4), net exports were slightly negative. On the supply side, value added rose in all the main sectors except agriculture.

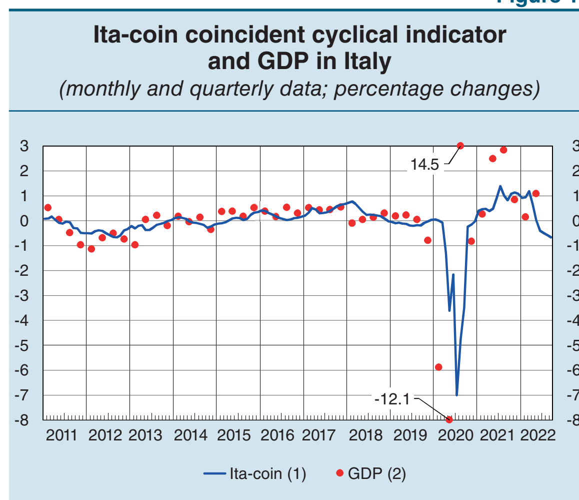
... but appears to decrease slightly in the third quarter

Based on the central value derived from the set of models used by the Bank of Italy, it is estimated that GDP declined marginally quarter-on-quarter, despite service value added holding firm. This is likely attributable to further increases in energy costs, continued sourcing disruptions in global value chains – though somewhat abated compared with the spring months (see Section 2.2) – and continued uncertainty about the course and effects of the war in Ukraine. Over the same period, the Ita-coin indicator, which measures GDP growth net of the most erratic components, also decreased to negative values for the first time since the end of 2020 (Figure 15). According to our latest projections, GDP will grow by just over 3 per cent in 2022 as a whole (see the box 'Updated forecasts for the Italian economy').

Figure 15

Ita-coin coincident cyclical indicator and GDP in Italy

(monthly and quarterly data; percentage changes)



Sources: Bank of Italy and Istat.
(1) Monthly estimates of changes in GDP on the previous quarter, net of the most erratic components. Further details are available on the Bank of Italy's website: 'Ita-coin coincident cyclical indicator'. – (2) Quarterly data; percentage changes on previous quarter.

UPDATED FORECASTS FOR THE ITALIAN ECONOMY

On 13 October 2022, the Bank of Italy published a projections update for the Italian economy in connection with major developments in the global economy since the July forecasts.[1] GDP and inflation estimates are merely indicative and must be read in view of the ongoing heightened uncertainty in terms of price changes and the availability of commodities, factors which are largely dependent on geopolitical developments. In light of this uncertainty, we have drawn a baseline and an adverse scenario.

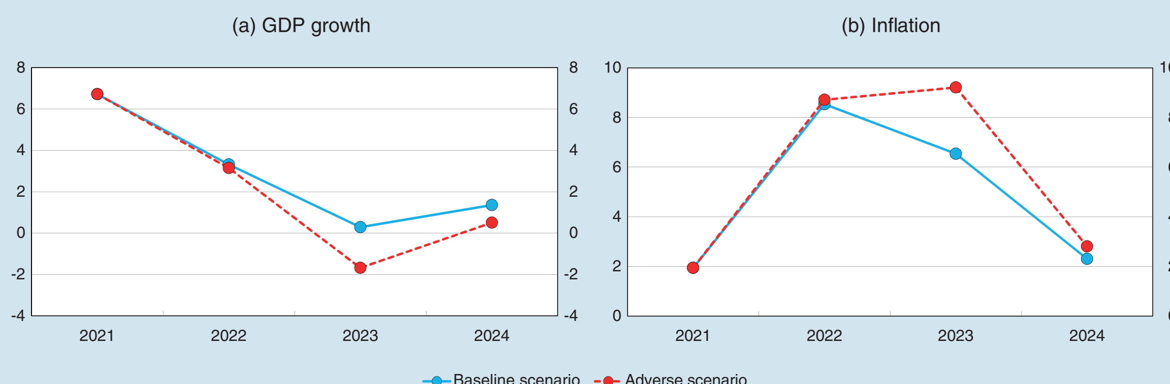
The baseline scenario assumes that the flows of gas from Russia to our country will remain at the levels observed in recent months and that commodity prices will be consistent with those implied by recent futures contracts. GDP is expected to increase by 3.3 per cent in 2022, 0.3 per cent in 2023, and 1.4 per cent in 2024 (see the figure). These estimates are broadly in line with those of the other leading forecasters (see the table).

Consumer price inflation is likely to be 8.5 per cent on average this year and to remain high in 2023, at 6.5 per cent, before falling substantially in 2024, to just over 2 per cent.[2] These estimates are higher than those of the other leading institutional forecasters for the current year and especially for 2023. The difference primarily reflects the inclusion of more updated underlying data in our projections.[3]

[1] Bank of Italy, 'Macroeconomic Projections for the Italian Economy', 13 October 2022.
[2] Consumer price inflation is measured as the percentage change in the Harmonized Index of Consumer Prices (HICP).
[3] Compared with the estimates included in the Update to the 2022 Economic and Financial Document (DEF), which refer to the consumption deflator, these are also influenced by a large discrepancy between the latter and HICP inflation recorded in the current year, in the order of over 1 percentage point, which we assume will continue next year.

Figure

GDP growth and inflation: baseline scenario and adverse scenario
(changes in percentage points)



Source: Based on Bank of Italy and Istat data.

In an adverse scenario, which assumes a disruption in Russian gas supply starting from the last quarter of 2022, further energy price increases and a worse slowdown in world trade, GDP is expected to grow by 3 per cent this year, to contract by over 1.5 per cent in 2023 and to turn moderately upwards in 2024 (see the figure). Inflation, slightly higher this year compared with the baseline scenario, is projected to continue to rise next year too, to over 9 per cent, and then fall sharply in 2024.

Table

GDP growth and inflation forecast comparisons
(percentage changes on previous year)

		GDP growth			Inflation		
		2022	2023	2024	2022	2023	2024
Bank of Italy	October	3.3	0.3	1.4	8.5	6.5	2.3
IMF	October	3.2	-0.2	1.3	8.7	5.2	1.7
OECD	September	3.4	0.4	–	7.8	4.7	–
Consensus Economics	October	3.3	-0.1	1.3	7.6	5.0	1.6
Update to the DEF (1)	September	3.3	0.6	1.8	6.6	4.5	2.3

Sources: Bank of Italy, 'Macroeconomic projections for the Italian economy', 13 October 2022, baseline scenario; IMF, *World Economic Outlook*, October; OECD, *OECD Economic Outlook, Interim Report*, September 2022; Consensus Economics, *Consensus Forecasts*, October 2022; Update to the 2022 Economic and Financial Document, September 2022.
(1) Estimates under the current legislation scenario are reported since no policy scenario is available; for inflation, percentage changes in the consumption deflator are reported.

These scenarios are based on policy measures that have already been enacted. However, the outlook for Italy will depend to a large extent on any new national and European policies that may be outlined to counter recession forces and price pressures.

2.2 FIRMS

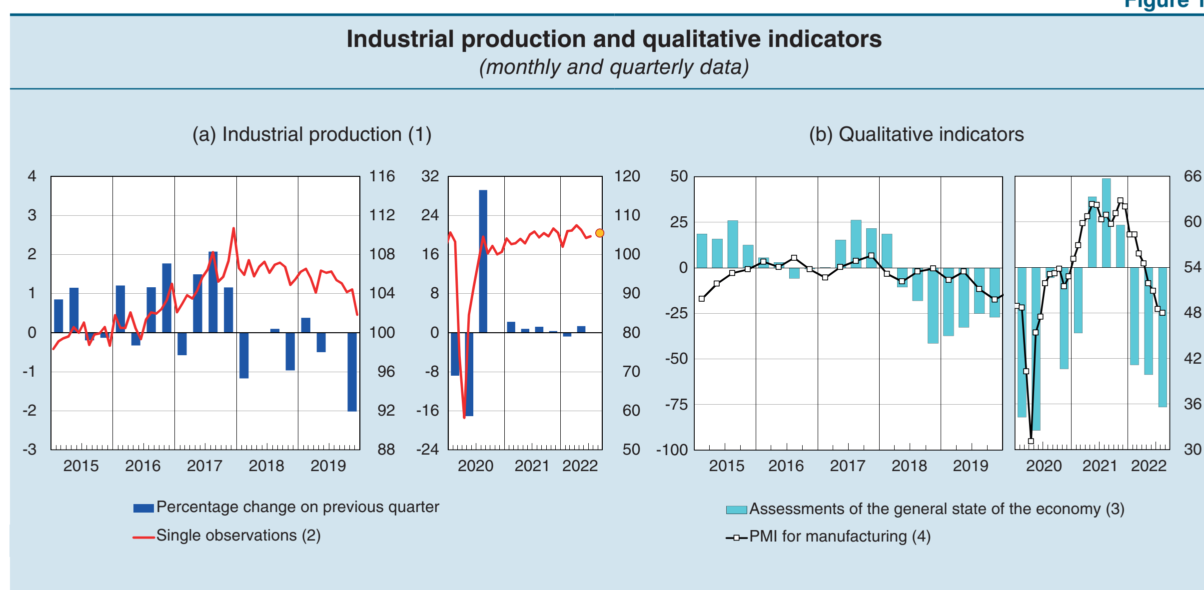
According to our estimates, industrial production decreased mildly in the third quarter on average compared with the previous quarter, while activity stabilized in the service sector. According to a recent survey conducted by the Bank of Italy, almost two thirds of manufacturing firms and more than two fifths of service firms reported similar or greater difficulties connected to energy costs compared with the spring months. Uncertainty about the continuation of the war in Ukraine is also discouraging investment spending and having a negative impact on the real estate market.

Industrial production likely declines slightly in the third quarter

Based on our estimates – which incorporate high-frequency data on electricity and gas consumption and on motorway traffic as well as qualitative indicators for September – production appeared to have shrunk slightly in the third quarter as a whole, after growing by 1.1 per cent in the second quarter (Figure 16).

Figure 16

Industrial production and qualitative indicators
(monthly and quarterly data)



Sources: Based on data from the Bank of Italy, Istat, Markit and Terna.
(1) Data seasonally and calendar adjusted. For graphic design reasons, the scale used for plotting the data for the years following 2020 is different from that used for the preceding years. – (2) Monthly data. Index: 2015=100. The yellow dot represents the estimate for September 2022. Right-hand scale. – (3) Quarterly data. Balance, in percentage points, of the responses 'better' and 'worse' to the question on the general state of the economy (see 'Survey on Inflation and Growth Expectations', Banca d'Italia, Statistics Series, 10 October 2022). – (4) Average quarterly data (left-hand panel) and monthly data (right-hand panel). Diffusion indices of economic activity in the manufacturing sector based on purchasing managers' assessments (PMI). The index is obtained by adding half of the percentage of replies of 'stable' to the percentage of replies of 'increasing'. Right-hand scale.

Rising energy prices and sourcing difficulties hold back firms' business

The developments in the conflict and the resulting energy commodity price hikes have led to a further worsening in the assessments reported by industrial firms in the third quarter on average, as signalled by both Istat's confidence indicator and the sectoral PMI, the latter pointing to a contraction in economic activity. Expectations for orders and production deteriorated above all in the sectors where energy accounts for a large share of firms' production inputs. Signs of weakening have emerged in the construction sector, where production declined further in July, partly as a result of increasing difficulties in recruiting labour. In services, Istat's surveys report that confidence held stable. The indicator remained at high levels in the tourism and leisure sectors, in line with the increase in spending suggested by Confcommercio's consumption indicator.

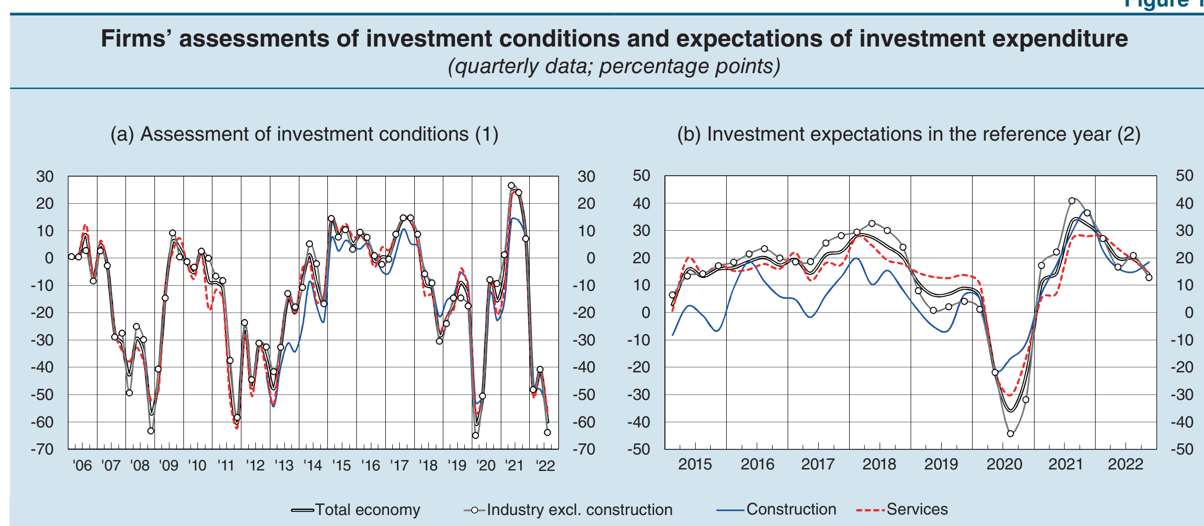
The Bank of Italy's surveys indicate that firms' pessimism about their business situation has intensified.[1] Almost two thirds of manufacturing firms and more than two fifths of service firms reported similar or greater difficulties connected to energy costs compared with the second quarter. Looking at the possible strategies to be implemented in the coming months[2] to counter the impact of higher energy prices on their total expenditure for goods and services, nearly half of the manufacturing firms reported they are likely to raise their selling prices; similarly, around 50 per cent of firms are likely to implement strategies to increase energy efficiency or upgrade plant and machinery to run on alternative energy sources or intensify their autoproduction of electricity. Finally, about 15 per cent of firms reported they expect to reduce production.[3] In the third quarter, difficulties in sourcing commodities and intermediate inputs have affected around 60 per cent of firms in industry excluding construction and in services, and around 85 per cent of firms in construction. In the first two sectors, the boost from demand – which had supported economic activity in recent quarters – has faded and firms do not anticipate a recovery in the near future.

Investment appears to slow further in the third quarter

In spring, investment − driven by spending on plant and machinery and on buildings − continued to grow (1.1 per cent quarterly), albeit at a lower rate than in the first quarter. According to our estimates – which include data on the value of lease financing contracts for industrial vehicles and capital goods from Assilea, the Italian leasing association, which indicate a downward trend – firms' spending on capital goods decelerated further in the third quarter. In September, the business confidence of firms involved in the production of capital goods, which has been deteriorating since May 2022, continued to decline. Based on the assessments of the firms interviewed for the Bank of Italy's surveys, pessimism about investment conditions heightened, returning to the levels observed at the beginning of 2020 (Figure 17). According to opinions gathered by the Bank of Italy's branches through informal contacts with firms, this seems attributable to higher capital goods prices, greater uncertainty, and worse credit access conditions. Despite this, the share of firms planning to expand investment in the current year as a whole continues to exceed that of firms expecting to reduce it.

Figure 17

Firms' assessments of investment conditions and expectations of investment expenditure
(quarterly data; percentage points)



Sources: 'Survey on Inflation and Growth Expectations', Banca d'Italia, Statistics Series, 10 October 2022.
(1) Balance of opinion between positive and negative assessments compared with the previous quarter. Construction firms are included in 'Total economy' starting from 2013 Q1. – (2) Balance between expectations of an increase and of a decrease compared with the previous year. The first expectations for the reference year are surveyed in the last quarter of the preceding year.

1 For more details, see 'Survey on Inflation and Growth Expectations', Banca d'Italia, Statistics Series, 10 October 2022.
2 The questionnaire allowed firms to indicate up to two possible strategies.
3 'Business Outlook Survey of Industrial and Service Firms', Banca d'Italia, Statistics Series, forthcoming.

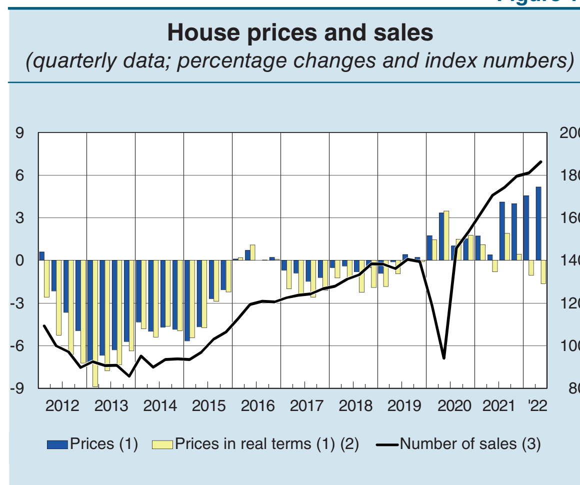
Uncertainty weighs on the real estate market outlook

House sales strengthened in the second quarter (growing by 2.9 per cent on the previous quarter; Figure 18), a trend underway since mid-2020. Prices rose by 5.2 per cent year-on-year (up from 4.5 per cent in the first quarter), reflecting the strong acceleration in prices for new housing. However, the real estate agents interviewed for the Italian Housing Market Survey between June and July expected house price developments to abate over the summer months, both with respect to agents' own market and to the overall national market. These assessments reflect expectations of weak demand in an environment of high uncertainty in connection with the war in Ukraine and the recent increases in inflation. Signs of a slowdown in the real estate market can also be inferred from the listings posted on the Immobiliare.it online platform in July and August.

Figure 18

House prices and sales

(quarterly data; percentage changes and index numbers)



Sources: Based on data from the Italian Revenue Agency's Osservatorio del Mercato Immobiliare (OMI), the Bank of Italy, Istat and Consulente Immobiliare.
(1) Year-on-year percentage changes. – (2) House prices deflated by the consumer price index. (3) Adjusted for seasonal and calendar effects. Indices: 2015=100. Right-hand scale.

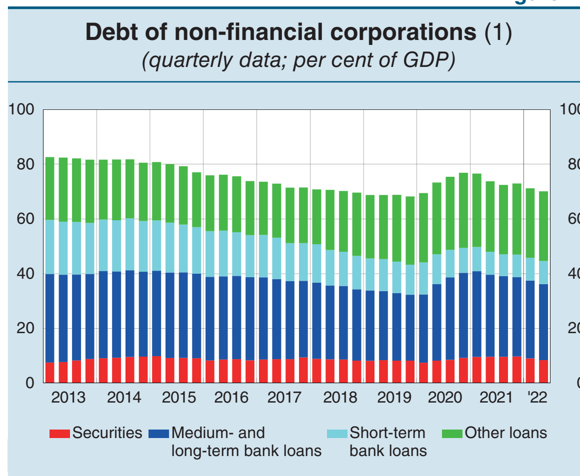
Firms' debt as a share of GDP declines further

In the second quarter, the total debt of non-financial corporations as a percentage of GDP came down to 70.1 per cent, from 71.2 per cent at the end of March (Figure 19), far below the euro-area average (107.9 per cent). The amount of liquidity held by firms in their deposit and current accounts increased slightly, thus remaining at historically high levels.

Figure 19

Debt of non-financial corporations (1)

(quarterly data; per cent of GDP)



Sources: Based on Bank of Italy and Istat data.
(1) End-of-quarter stocks for debt (including securitized loans); 4-quarter cumulative flows for income. The data for the last quarter are provisional.

2.3 HOUSEHOLDS

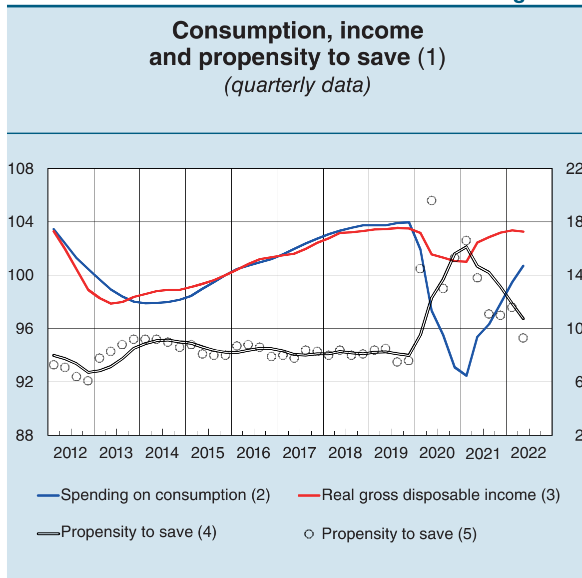
Following the sharp increase recorded in the second quarter, household spending likely turned downwards in the third quarter, held back by the loss of purchasing power. According to a pilot survey on Italian households carried out by the Bank of Italy, in the coming months households expect an increase in spending on food and essential goods and, most significantly, on utility bills and transport.

Consumption picks up sharply in the second quarter ...

Household spending turned upwards again in the spring months, driven by purchases of services and, to a lesser extent, goods. More specifically, purchases for goods remained well above pre-pandemic levels, whereas for services, the gap – which is still negative – nearly halved to -4.4 per cent. Over the same period, households' disposable income in real terms was practically stable compared with the previous quarter. The propensity to save diminished to around 9.3 per cent (Figure 20), though it is still above pre-pandemic levels.

Figure 20

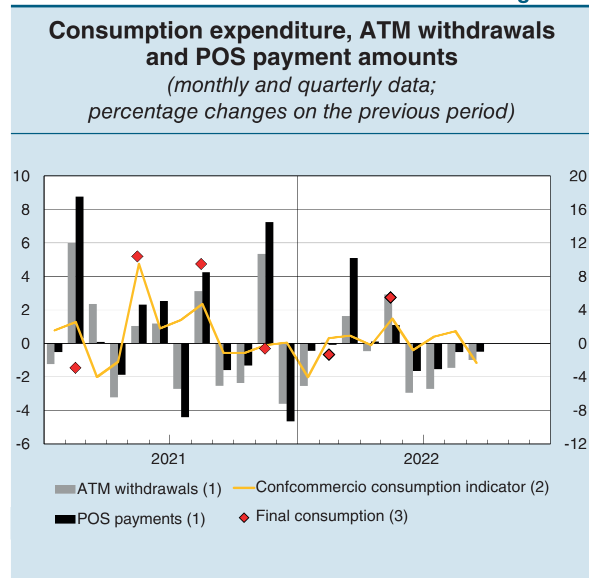
Consumption, income and propensity to save (1)
(quarterly data)



Source: Based on Istat data.
(1) Seasonally adjusted data. – (2) Chain-linked volumes; index: 2015=100; 4-term moving average. – (3) Net of the variation in the final consumption expenditure deflator for resident households; index: 2015=100; 4-term moving average. – (4) Consumer households' savings as a percentage of gross disposable income; per cent; 4-term moving average; right-hand scale. – (5) Consumer households' savings as a percentage of gross disposable income; per cent; right-hand scale.

Figure 21

Consumption expenditure, ATM withdrawals and POS payment amounts
(monthly and quarterly data; percentage changes on the previous period)



Sources: Based on data from the Bank of Italy, Confcommercio and Istat.
(1) Data obtained from the BI-COMP multilateral clearing system and deflated based on the harmonized index of consumer prices (HICP), net of energy products and seasonally adjusted; right-hand scale (for more details, see the Bank of Italy's website, 'BI-COMP and CABI: retail payments systems'). – (2) Data seasonally adjusted; right-hand scale. – (3) Final consumption expenditure of resident and non-resident households on the economic territory; chain-linked volumes; data adjusted for seasonal and calendar effects.

... then likely weakens in the third quarter

High-frequency data on cash withdrawals and electronic payments suggest that spending slowed in the third quarter (Figure 21). Confcommercio's consumption indicator also recorded a modest increase in the three-month average, dampened by lower spending on goods, while spending on services rose considerably, especially for tourism and leisure activities. Consumer confidence continued to deteriorate, undermined by the worsening opinions on personal financial conditions and the general state of the economy (Figure 22).

Rising energy prices continue to weigh on households' financial position

According to a pilot survey conducted by the Bank of Italy on around 1,700 households between June and July, in the coming months households expect to face higher costs for food and essential goods and, even more so, for transport and utility bills, which account for a significant portion of consumption, especially for poorer households.

Figure 22

Consumer confidence (1)
(monthly data; indices: 2010=100; percentage points)

Source: Based on Istat data.
(1) Seasonally adjusted data. In the absence of the figure for April 2020, which was not recorded owing to the pandemic emergency, the moving average for April, May and June 2020 is constructed on the basis of the only two observations available. – (2) Balance between the percentages of replies indicating 'an increase' and those indicating 'a decrease'. A rise in the balance signals a deterioration in the expectations regarding the unemployment rate. Right-hand scale.

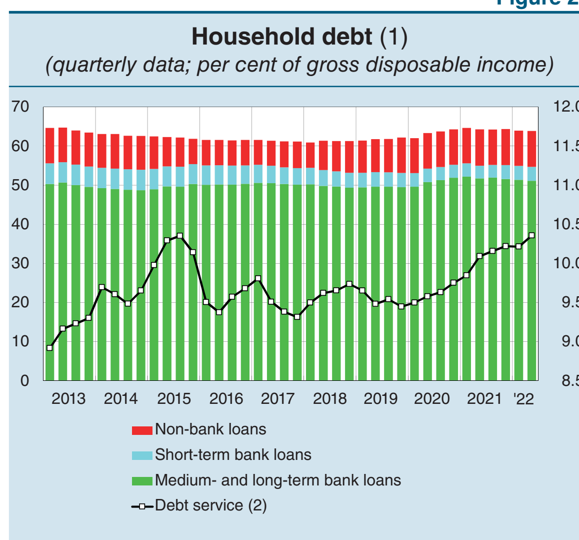
Debt servicing costs rise

In the second quarter, household debt as a percentage of disposable income remained stable compared with the previous period, at 63.8 per cent (Figure 23), but it is still well below the euro-area average (96.2 per cent). Debt servicing costs (interest plus repayment of principal) rose to 10.4 per cent. As a share of GDP, household debt declined slightly to 42.8 per cent (against 58.7 per cent in the euro area).

Figure 23

Household debt (1)

(quarterly data; per cent of gross disposable income)



Sources: Based on Bank of Italy and Istat data.
(1) End-of-quarter stocks for debt; 4-quarter cumulative flows for income. The data for the last quarter are provisional. Debt includes securitized loans. – (2) Estimated cost of debt service (interest plus repayment of principal) for consumer households only. Right-hand scale.

2.4 FOREIGN TRADE AND THE BALANCE OF PAYMENTS

In the second quarter, Italian exports in volume increased again, driven by both the goods and, especially, the service component. Foreign sales of goods slowed slightly in July and August. The steep deterioration of the current account balance, underway since the second half of 2021, continued owing to the widening in the energy balance. In recent months, disinvestments of Italian government bonds by foreign investors slowed. Although it has narrowed slightly compared with end-June of 2022, Italy's positive net international investment position has remained solid.

Exports continue to expand in the second quarter ...

In the spring months, exports continued to expand, though at a slower pace compared with the previous period (Table 4). More specifically, after the strong growth recorded in the first quarter, the volume of exports of goods increased by 1.5 per cent in the second quarter. The growth was recorded mainly in euro-area markets and across most segments, especially refined petroleum products and pharmaceuticals. Exports of services expanded, mainly as a result of the recovery in international tourism.

Table 4

Italy's imports and exports (1)

(percentage changes on previous period)

	2021	2021		2022	
		Q3	Q4	Q1	Q2
Exports	**13.4**	**2.4**	**1.3**	**5.7**	**1.6**
Goods	13.0	0.5	0.6	4.4	1.5
to non-euro area markets	14.9	1.1	2.3	3.1	3.1
to non-euro area markets (2)	11.7	..	-0.7	5.4	0.4
Services	15.6	13.4	5.3	12.4	1.8
Imports	**14.7**	**4.5**	**4.5**	**5.0**	**2.0**
Goods	13.8	2.9	4.0	5.5	1.3
from euro-area markets	14.9	1.4	2.3	4.5	0.7
from non-euro area markets (2)	13.0	4.2	5.5	6.3	1.9
Services	18.5	11.4	6.3	3.5	4.7

Sources: Based on Istat's national accounts and foreign trade data.
(1) Chain-linked volumes; raw annual data; quarterly data adjusted for seasonal and calendar effects. – (2) Includes unallocated countries and territories and, for exports, goods procured in Italian ports by foreign carriers.

Imports in volume increased again. Goods imports were boosted especially by mining, pharmaceuticals and clothing, against the background of a moderate easing in supply chain problems. Import prices continued to rise sharply, especially for energy products (17.3 per cent higher than the previous quarter). As for services, imports continued to grow at a fast pace.

... but goods exports slow down slightly in the summer

In July and August, goods exports, deflated on the basis of the production prices of the goods sold in the foreign markets, grew, though slightly less than in the previous quarter on average. The purchasing managers' index (PMI) for foreign orders and the corresponding index relating to Istat's manufacturing survey continued to decline throughout the summer (Figure 24), confirming the indications of a marked weakening of demand against a backdrop of heightened uncertainty.

Russia's share in total imports of energy products lessens, especially for natural gas

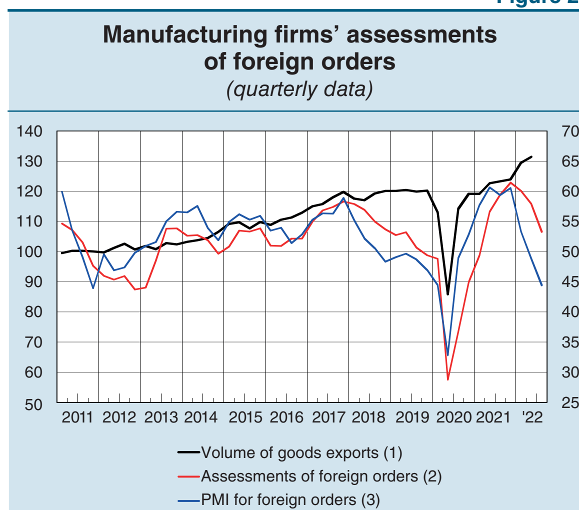
Based on our seasonally-adjusted estimates, the value of Italy's exports of goods to Russia diminished significantly in the two months following the military aggression towards Ukraine, and then recovered partially, in line with developments in foreign trade with Russia (see the box 'Exports of goods to Russia since the beginning of the conflict' in Chapter 1). Conversely, between March and August, Italy's imports from Russia, in value terms and on a seasonally adjusted basis, grew continuously (by more than one fifth compared with the previous six months) driven by rising energy prices. Nonetheless, Russia's share of Italy's total energy imports fell to 18.7 per cent in July, from 22.1 per cent in the previous year as a whole, in favour of imports from the United States, Norway, Azerbaijan and Algeria. Based on Snam data on imported quantities of natural gas, purchases from Russia decreased by 58 per cent year-on-year between March and mid-October, whereas imports of liquefied natural gas from other suppliers increased by more than one quarter.

The current account balance deteriorates sharply, reflecting the widening in the energy deficit

Owing to exceptional increases in the price of commodities, especially energy, the deterioration of the current account, underway since the second half of 2021, continued (Figure 25). In the first

Figure 24

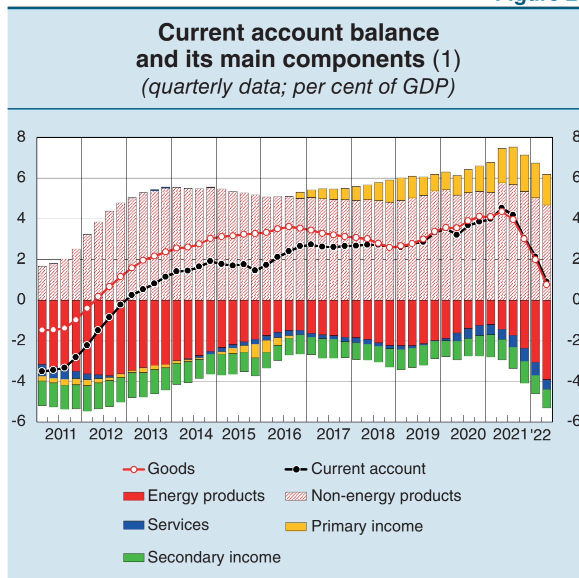
Manufacturing firms' assessments of foreign orders
(quarterly data)



Sources: Istat, Markit and Refinitiv.
(1) National accounts data. Chain-linked volumes; the data are adjusted for seasonal and calendar effects. Indices: 2011=100. – (2) Quarterly average based on Istat's monthly survey of firms; percentage balance of replies of 'increasing' or 'decreasing' foreign orders, minus the average since the start of the time series (January 2000) plus 100. Q2 2020 is the average of only two months; no data was gathered in April due to the pandemic emergency. Seasonally adjusted data. – (3) Diffusion indices, quarterly averages. The index is obtained by adding half of the percentage of replies of 'stable' to the percentage of replies of 'increasing'. Seasonally adjusted data. Right-hand scale.

Figure 25

Current account balance and its main components (1)
(quarterly data; per cent of GDP)



Source: For GDP, Istat. For the breakdown between energy and non-energy products, based on Istat foreign trade data.
(1) 4-quarter moving averages.

eight months of 2022, the balance turned negative by €12.9 billion, against a surplus of €43.5 billion in the same period of 2021 (Table 5). The energy balance deficit nearly tripled compared with that recorded a year earlier. The merchandise trade surplus net of energy goods also narrowed, though it remains at historically high levels. The service deficit improved, thanks to the sharp increase in the tourism balance surplus (€12.7 billion, from €4.2 billion in the same period of 2021), which more than offset the larger deficit in transport services.

Table 5

Balance of payments (1)
(balances; billions of euros)

	2020	2021	Jan.-Aug. 2021	Jan.-Aug. 2022
Current account	**64.0**	**54.4**	**43.5**	**-12.9**
Memorandum item: % of GDP	3.9	3.1		
Goods	68.3	53.6	44.7	-12.1
Non-energy products (2)	88.8	95.4	66.0	54.1
Energy products (2)	-20.5	-41.8	-21.3	-66.2
Services	-8.4	-11.7	-7.9	-5.6
Primary income	20.7	31.9	20.3	16.1
Secondary income	-16.6	-19.4	-13.6	-11.3
Capital account	**0.9**	**-1.9**	**-1.9**	**-1.1**
Financial account	**63.5**	**55.4**	**52.5**	**-18.7**
Direct investment	19.1	31.5	25.0	-9.1
Portfolio investment	109.3	124.3	30.9	116.7
Financial derivatives	-2.9	..	-0.8	-1.0
Other investment (3)	-65.9	-121.1	-22.2	-125.9
Changes in official reserves (4)	4.0	20.7	19.6	0.7
Errors and omissions	**-1.5**	**2.8**	**10.8**	**-4.8**

(1) Based on the international standards set out in the IMF's *Balance of Payments and International Investment Position Manual*, Sixth Edition (BPM6), 2009. For July and August 2022, provisional data. – (2) Based on Istat's foreign trade data. – (3) Includes change in TARGET2 balance. – (4) Includes the allocation of new Special Drawing Rights (SDRs) approved by the IMF in August 2021; the increase in official reserves did not affect the financial account, as it was offset by an equal increase in liabilities due to 'other investment' by the Bank of Italy.

Foreign investors continue to dispose of Italian securities, albeit at a slower pace

Foreign investors reduced their exposure to Italian securities further, a trend underway since the summer of 2021, albeit to a lesser extent in recent months. Net sales amounted to €61.6 billion between January and August (of which €45.5 in government securities). The disposal of Italian private sector securities by foreign investors mainly concerned securities issued by the banking sector. Data from Emerging Portfolio Fund Research for a sample of international investment funds suggest that the net inflow of foreign savings

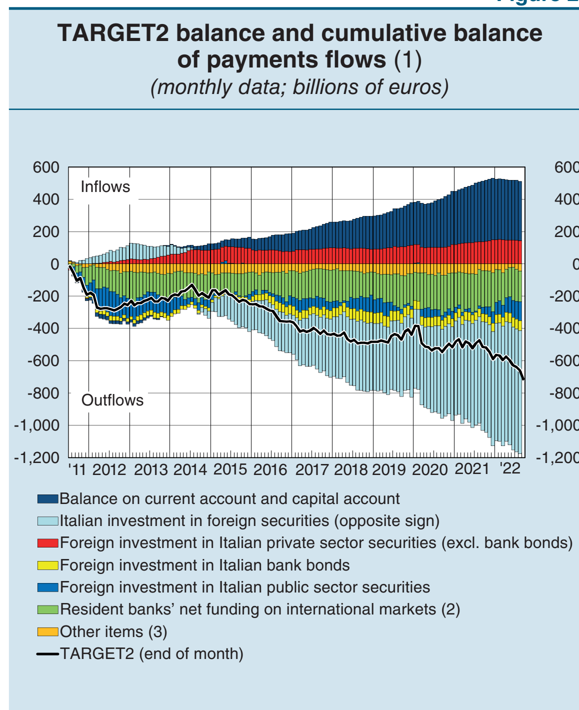
directed towards Italian financial assets has decreased slightly between July and early October, both for the equity and the bond segments.

Between January and August, residents' net investments in foreign portfolio securities totalled €55.1 billion, mainly by banks and insurance companies, with a confirmed preference for purchases of debt securities. These outflows were only partially offset by an increase in Italian banks' net funding on international markets via loans and deposits and the disbursement by the European Commission of the first instalment of the Recovery and Resilience Facility in April (€21.0 billion). The Bank of Italy's negative balance on the TARGET2 European payment system reached €715 billion at the end of September, from €590 billion at the end of last year (Figure 26).

Figure 26

TARGET2 balance and cumulative balance of payments flows (1)

(monthly data; billions of euros)



(1) Using the balance of payments accounting identity, an improvement in the Bank of Italy's negative balance vis-à-vis the ECB in the TARGET2 payment system may reflect investment in Italy by non-residents (greater liabilities), residents' disposals of foreign assets (fewer assets) or a current account and capital account surplus. Cumulative capital flows since July 2011. – (2) Net bank funding in the form of loans, deposits and other investments by the banking sector, including those intermediated by resident central counterparties. – (3) Direct investment, derivatives, residual items in other investment, official reserves, errors and omissions.

Italy's positive net international investment position narrows but remains solid

At the end of June, Italy's net international investment position was positive by €104.6 billion, equal to 5.7 per cent of GDP – €21.1 billion less than at the end of March, largely owing to negative price adjustments in portfolio assets linked to lower international share prices, which more than offset the exchange rate adjustments, which were positive owing to the appreciation of the dollar (see Section 1.3).

2.5 THE LABOUR MARKET

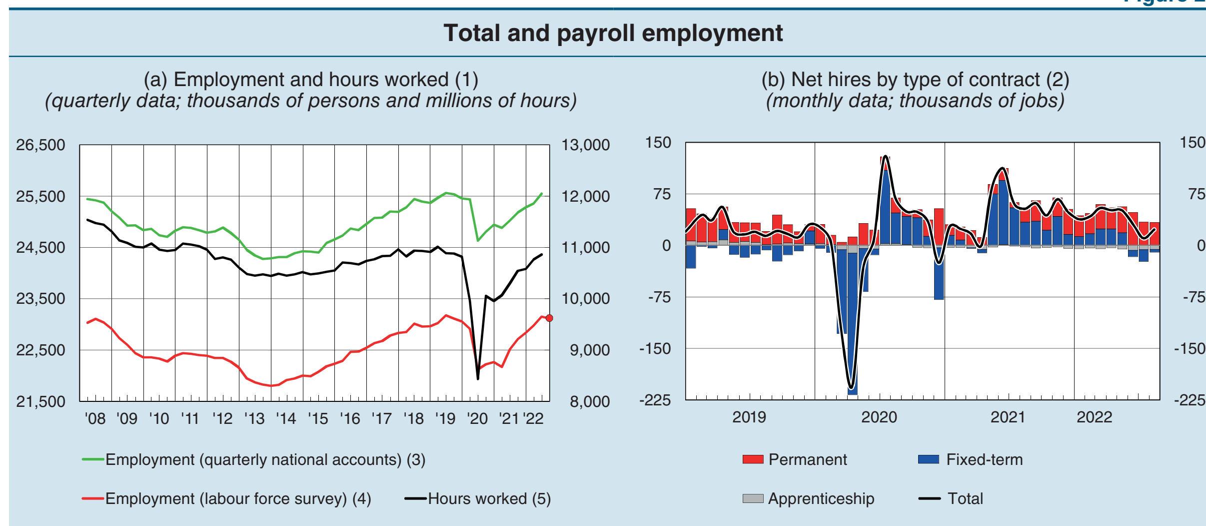
The number of persons in employment and hours worked continued to grow in the second quarter. However, employment growth slowed in the summer months and firms' expectations, while still consistent with an expansion in labour demand, deteriorated. By 2026, a positive contribution to employment could come from the implementation of the National Recovery and Resilience Plan (NRRP), provided it is completed as scheduled. The growth in contractual wages remained moderate overall, as the most recent renewals have provided wage increases over the contract period in line with inflation net of imported energy; the share of employees awaiting renewals remains high in the sectors most affected by the pandemic.

Employment continues to grow in the second quarter ...

In the spring months, the number of hours worked rose by 0.9 per cent compared with the previous period (Figure 27.a). This increase was broadly based across the main sectors, with the exception of manufacturing, which recorded a reduction of half a percentage point. Total hours increased by 2.4 per cent in construction, and by 1.4 per cent in private services, driven by retail trade and tourism, where labour input, however, is still below pre-pandemic levels. Hours worked per capita remained

Figure 27

Total and payroll employment

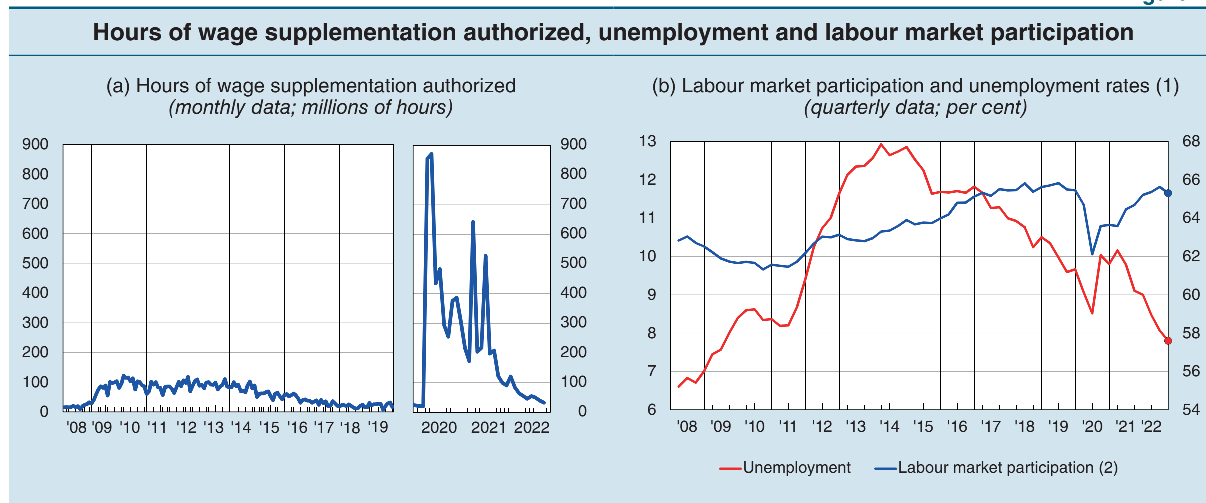


Sources: Istat's quarterly national accounts for employment and hours worked; Istat's labour force survey for employment; based on data from the Ministry of Labour and Social Policies (mandatory reporting) for net hires.
(1) Seasonally adjusted data. The point corresponding to Q3 2022 indicates the average value for the two-month period July-August, as the figure for September is not yet available. – (2) Seasonally adjusted monthly data. Net hires are calculated as the difference between total hires and total terminations in a given month. The following types of contract were analysed: permanent, fixed-term, and apprenticeships in the non-farm private sector. – (3) Includes all persons engaged in production activity in the economic territory of the country. – (4) Includes all resident employed persons, excluding workers living permanently in an institution and military personnel. – (5) Right-hand scale.

broadly stable in the economy overall. The use of wage supplementation schemes continued to decline in the second quarter (Figure 28.a), though the drop was less pronounced in energy-intensive sectors.[4] The number of persons in employment rose by 0.8 per cent, driven by payroll employment; self-employment grew at a slower rate (0.2 per cent), and it is still around 5 per cent lower than at the end of 2019.

Figure 28

Hours of wage supplementation authorized, unemployment and labour market participation



Sources: Based on INPS data for wage supplementation schemes; Istat's labour force survey for the labour market participation and unemployment rates.
(1) Seasonally adjusted data. The points corresponding to Q3 2022 indicate the average value for the two-month period July-August, as the figure for September is not yet available. – (2) Right-hand scale.

[4] Energy-intensive sectors are defined based on an energy-intensity indicator, which is equal to the ratio of energy consumption to value added: both parameters are surveyed by Istat in the physical energy flow accounts and the national accounts, respectively.

... but signs of a slowdown emerge over the summer months

According to the labour force survey, employment declined in July and August. Based on the data from firms' mandatory reporting,[5] labour demand weakened, particularly in construction and in the manufacturing sectors most exposed to higher energy and commodity prices. Following a strong expansion in the second quarter, after pandemic-related restrictions were loosened, employment slowed in the retail trade and tourism sectors. Permanent contracts continued to grow at a robust pace, while fixed-term contracts, which are more affected by cyclical conditions, declined (Figure 27.b). The European Commission's business surveys also showed signs of a slowdown: over the summer, the indicator of three-month-forward employment expectations for Italian firms, though still in line with an expansion in labour demand, fell markedly compared with the average for the second quarter, reaching in September its lowest level since October 2021. The NRRP could make a significant contribution to employment over the next few years, provided it is completed as scheduled (see the box 'The employment activated by the National Recovery and Resilience Plan').

THE EMPLOYMENT ACTIVATED BY THE NATIONAL RECOVERY AND RESILIENCE PLAN

Under the National Recovery and Resilience Plan (NRRP), and provided that the planned reforms and investments are completed, Italy will receive resources amounting to more than 10 per cent of its GDP by 2026.[1] The implementation of the plan, which began in 2021 and is to be completed in accordance with the timing and procedures agreed with the European Commission, could lead to a sizeable increase in labour demand in several sectors of economic activity.

A study was carried out to quantify such increase under the assumption that it is done in full and within the scheduled time frame.[2] The analysis only considered projects financed through the Recovery and Resilience Facility (RRF) and that were in addition to those whose financial planning pre-dated the NRRP. These additional projects amount to €124.5 billion (65 per cent of the total funding made available under the RRF).[3] The study attributed the resources to the sectors benefiting from the projects and, for each of them, it calculated the value added generated through domestic production alone,[4] both directly and through supply chain links between sectors.

The increase in value added would be particularly large for some high-tech sectors such as research and development or the production of computers and electronic devices. These sectors are small but play a key role in NRRP projects. In construction, to which more than one third

1 For more details on the financial resources available under the NRRP and on the estimated macroeconomic impact on growth, see the box 'The National Recovery and Resilience Plan', Chapter 4, *Annual Report for 2020*, 2021.

2 For more details, see G. Basso, L. Guiso, M. Paradisi and A. Petrella, 'L'occupazione attivata dal Piano nazionale di ripresa e resilienza e le sue caratteristiche', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

3 The remaining €67 billion are ascribable to a number of projects already underway, whose impact on employment were in part incorporated in the macroeconomic projections prepared before the NRRP was approved. The most significant measures relate to high-speed railways lines, land development, securing and upgrading school buildings, urban regeneration, and boosting the 'Superbonus' (energy efficiency tax incentive) and the 'Sismabonus' (earthquake-proofing tax incentive). The last line of action includes additional funding amounting to €3.7 billion, which are therefore considered in the analysis presented here.

4 The demand generated by the NRRP would be also met through an increase in imports totalling almost €25 billion. The increase would likely be unevenly distributed across sectors. The strongest growth in imports (more than €5 billion) would be recorded in the computers and electrical and optical equipment segment, where domestic production would meet just over half of the demand.

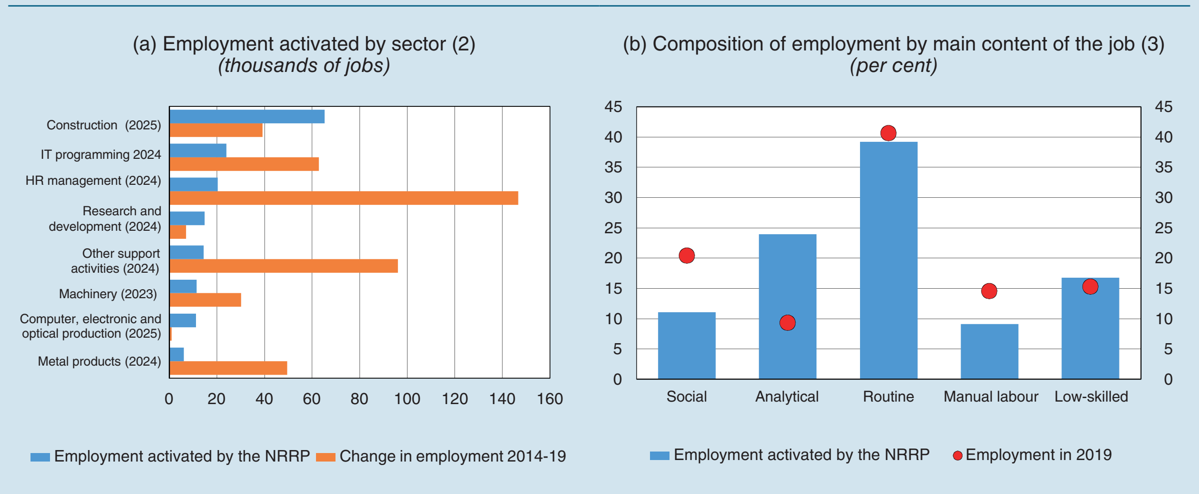
5 Ministry of Labour and Social Policies, Banca d'Italia and ANPAL, 'The labour market: data and analysis', September 2022.

of the funding for the additional projects is allocated, value added would be 4 per cent higher than in 2019 on average in each year that the NRRP is implemented.

On the basis of the wages and share of labour of each sector obtained from the national accounts data for 2019, the study calculated the number of workers required to meet the production needs generated by the NRRP. Looking at all sectors except households in their capacity as employers, the additional employment in 2024 – the year in which spending will peak – is estimated at around 300,000 workers (accounting for 1.7 per cent of payroll employees in 2019). Four fifths of the increase are attributable to predominantly private sector entities.[5] Only for the latter sectors, the heterogeneity of the effects is large and depends on their size relative to the spending planned under the NRRP, on the intensity of labour utilization, and on cross-sectoral economic relationships (see panel (a) of the figure). Construction, which includes both construction proper and specialized engineering, would record the biggest change in employment in absolute terms, at around 65,000 in the peak year (6.8 per cent of the 2019 level). Compared with the modest growth observed in the six years prior to the pandemic, the labour demand activated by the NRRP in this sector would be substantial.[6] Growth in the other sectors would be smaller in absolute terms but would represent a marked turnabout in computer, electronic and optical production and in research and development compared with the trend observed between 2014 and 2019.

Figure

Employment activated by the NRRP and its composition (1)



Source: Based on Istat's national account data and State Accounting Office data.
(1) All sectors except those between codes 84 and 88 and between codes 97 and 98 of the ATECO 2007 two-digit classification. – (2) Top eight sectors in terms of jobs activated in the peak year for employment (indicated in parentheses). – (3) The definition of main content for each job is obtained using the methodology presented in D.J. Deming, 'The growing importance of social skills in the labor market', *The Quarterly Journal of Economics*, 132, 4, 2017, pp. 1593-1640. The content of the tasks that make up each job was calculated based on data from the US Department of Labor's Occupational Information Network (O*NET). The exercise was replicated using Istat's labour force survey for 2019 and mapping the US Standard Occupational Classification (SOC) codes to the European International Standard Classification of Occupations (ISCO) three-digit codes for each job considered. For more details, see G. Basso, L. Guiso, M. Paradisi and A. Petrella, forthcoming, op.cit.

[5] This subset was obtained by excluding the sectors comprised between codes 84 and 88 of the ATECO 2007 two-digit classification. The remainder of the analysis, therefore, does not consider jobs ascribable to general government, whose hiring follows more rigid planning cycles and for which the uncertainty associated with the estimates is greater.

[6] The number of workers in construction in 2021, equal to 1,077,500 people, was already well above the 2019 level, marking an increase of 122,500 (or 12.8 per cent), and continued to expand in 2022. Part of this increase may already be attributed to the implementation of the NRRP, as well as to additional tax incentives for building restoration.

It is useful to emphasize that the model used for these estimates is a static one, i.e. it does not take into account the additional positive effects on growth that could result from the complementarity of public spending with private demand, as well as from the stimulus to total factor productivity. If these components were considered, the effect on GDP would be greater,[7] increasing employment to levels largely compatible with the Government's estimates – which are higher.[8] The exercise therefore offers a more accurate representation of the employment activated in the initial years of the implementation of the NRRP, but could underestimate the overall long-term effect.

In terms of composition, the skills required in the jobs activated by the NRRP appear to be highly heterogeneous. The main activities of each profession have been broken down according to the frequency of social interactions ('social content'), the use of analytical and cognitive skills ('analytical content'), the performance of routine and repetitive tasks ('routine content') or of hands-on caregiving activities ('manual labour content'); a residual category including job qualifications with low specialization ('low-skilled') was also identified. According to this classification, the distribution of skills activated by the NRRP would be similar to that observed in 2019 for the economy as a whole (see panel (b) of the figure), but with a larger share of highly analytical jobs, owing to the growth in the sectors offering high-skilled employment and the highly specialized nature of several infrastructure investments.

The increase in demand for this type of jobs could be met by measures in the field of higher education or by adopting policies aimed at attracting people with high educational attainment levels from abroad.[9] Strengthening the measures to increase labour market participation and facilitate the relocation of the unemployed to the expanding sectors might be sufficient to activate the labour supply needed for low-skilled and routine occupations, which account for more than half of the job positions potentially required.

[7] The estimated effect on the level of GDP is between around 3 and 6 percentage points over a ten-year horizon; see the box 'The National Recovery and Resilience Plan', Chapter 4, *Annual Report for 2020*, 2021.

[8] The Government's estimates – which, besides incorporating these additional positive effects, refer to a broader set of financial resources than that analysed here – forecast a deviation of employment from the baseline scenario of about 3.2 percentage points on average over the three-year period 2024-26 (see the Italia Domani website, 'The National Recovery and Resilience Plan').

[9] The NRRP itself provides for substantial investment in schools and vocational training, earmarking almost €20 billion for the first component of Mission 4 'Education and Research'. These measures could increase the supply of skilled labour in the long term.

The unemployment rate continues to decline

In the second quarter, the unemployment rate stood at 8.1 per cent, down by around half a percentage point compared with the previous period and by almost 2 percentage points compared with the fourth quarter of 2019 (Figure 28.b). The participation rate rose to 65.6 per cent, slightly above pre-pandemic levels, despite a negative contribution from an older working-age population (-0.4 percentage points);[6] among women, it reached 56.5 per cent, which is close to the highest level since the beginning of the time series, though still below the euro-area average of 70.1 per cent. In July and August the unemployment rate declined further by 0.2 percentage points, reflecting a decline in the participation rate.

[6] The contribution of population ageing is calculated as the difference between the actual participation rate and that obtained as the weighted average of participation rates by age group, by setting the distribution of the population by age to the fourth quarter of 2019.

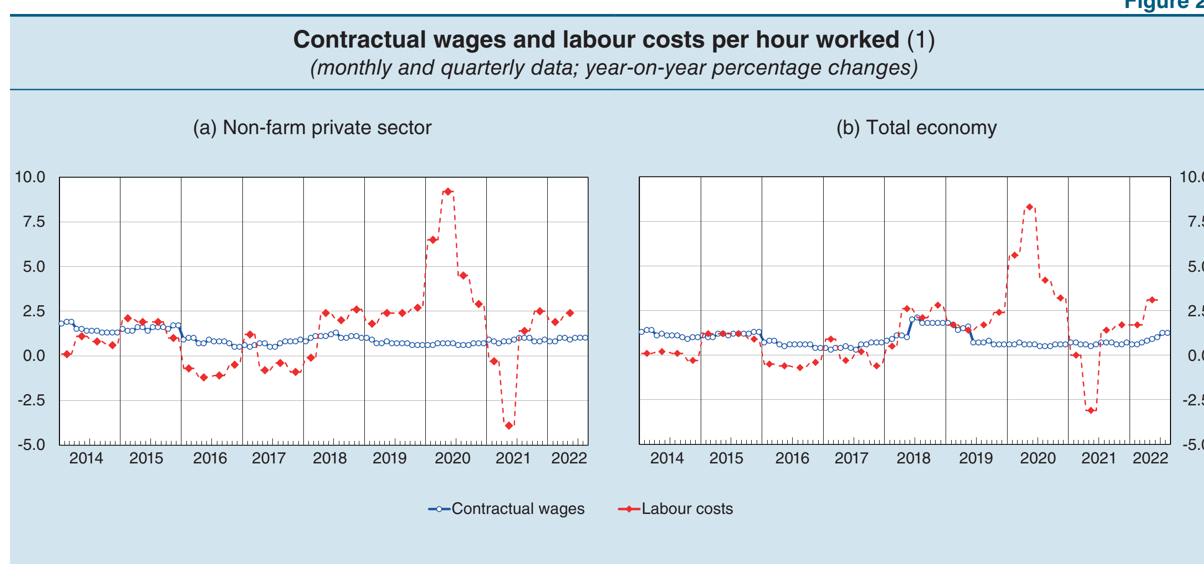
The growth in contractual wages accelerates slightly

In the second quarter, contractual wages grew by 0.9 per cent in the economy as a whole, 0.3 percentage points more than earlier this year (Figure 29). This acceleration was due to renewals of public sector collective bargaining agreements; in the non-farm private sector, the growth rate remained unchanged at below 1 per cent. The agreements signed in the municipal transport, chemical, electricity, gas and water sectors over the summer set average increases of between 2 and 3 per cent per annum over the contract period, broadly in line with the projected trend of the harmonised index of consumer prices excluding imported energy. Contractual wage growth is expected to remain subdued in the last few months of 2022, given the still high share of employees awaiting renewals (36.5 per cent in August), mostly in the sectors that were hit hardest by the pandemic crisis (retail trade, food, accommodation).

Figure 29

Contractual wages and labour costs per hour worked (1)

(monthly and quarterly data; year-on-year percentage changes)



Sources: Istat's quarterly national accounts and Survey of Contractual Wages and Salaries.
(1) Raw monthly data for contractual wages; seasonally adjusted quarterly data for labour costs.

In the second quarter, growth in actual hourly wages accelerated to 2.8 per cent year-on-year in the non-farm private sector (up from 2.3 per cent in the first quarter), slightly above pre-pandemic levels in manufacturing and private services. This acceleration was driven by the wage drift,[7] which in turn responds to productivity trends and labour market cyclical conditions. However, this is likely to be temporary, as in the next few months, with negotiated wage growth broadly stable, weaker labour demand may contribute to a gradual decline in actual wages.

2.6 PRICE DEVELOPMENTS

In the third quarter, inflation in Italy rose further, driven by exceptional energy price increases, which fed into the prices of other goods and of services. The expectations of firms and households for inflation one year forward have gone up, though household expectations over longer horizons have decreased.

[7] Wage drift refers to the non-contractual wage components.

Inflation rises further, curbed in part by Government measures

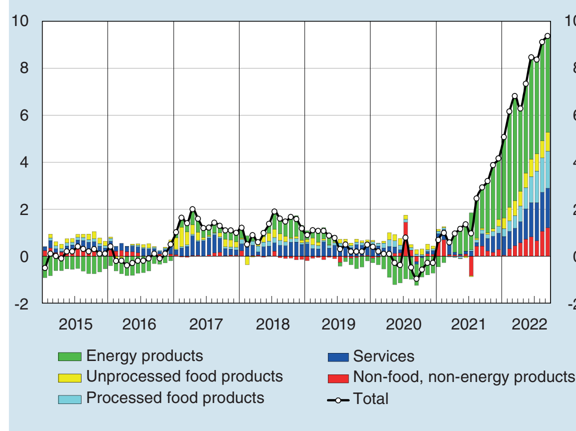
The twelve-month change in the harmonized index of consumer prices went to 9.4 per cent in September (Figure 30 and Table 6), driven primarily by the energy component (45.0 per cent). The fall in petrol prices, mainly due to lower oil prices, only partly offset the strong increases in gas and electricity prices recorded in August and remained broadly stable in the following month.

In recent months, the Government has continued its efforts to mitigate the impact of higher energy prices on households and firms' budgets, with some of the earlier measures being extended (see Section 2.9). These measures allowed the Italian Regulatory Authority for Energy, Networks and the Environment (ARERA) to keep gas and electricity tariffs broadly unchanged on the 'protected market' (*mercato*

Figure 30

Consumer price inflation in Italy and contributions of its components (1)

(monthly data; per cent and percentage points)



Source: Based on Eurostat data.
(1) Twelve-month change in the HICP.

Table 6

Indicators of inflation

(year-on-year percentage changes, unless otherwise specified)

	HICP (1)		CPI (2)			PPI (3)	GDP deflator
	Overall index	Excl. energy and food	Overall index		Excl. energy and food	Overall index	
				at 1 month (4)			
2019	0.6	0.5	0.6	–	0.5	0.3	0.9
2020	-0.1	0.5	-0.2	–	0.4	-4.4	1.6
2021	1.9	0.8	1.9	–	0.8	12.9	0.5
2022 – Jan.	5.1	1.3	4.8	1.5	1.5	41.8	–
Feb.	6.2	1.7	5.7	0.9	1.5	41.3	–
Mar.	6.8	1.8	6.5	1.0	1.7	46.6	–
Apr.	6.3	2.2	6.0	-0.3	2.0	44.1	–
May	7.3	3.0	6.8	0.8	2.7	42.7	–
June	8.5	3.4	8.0	1.2	3.1	41.9	–
July	8.4	3.4	7.9	0.5	3.4	45.9	–
Aug.	9.1	4.1	8.4	0.6	3.6	50.5	–
Sept.	9.4	4.4	8.9	0.6	3.9	….	–

Sources: Based on Istat and Eurostat data.
(1) Harmonized index of consumer prices. – (2) Consumer price index for the entire resident population; this differs from the HICP principally because of the different method for recording the prices of pharmaceutical products and promotional sales. – (3) Producer price index for industrial products sold on the domestic market. – (4) One-month percentage change, seasonally adjusted.

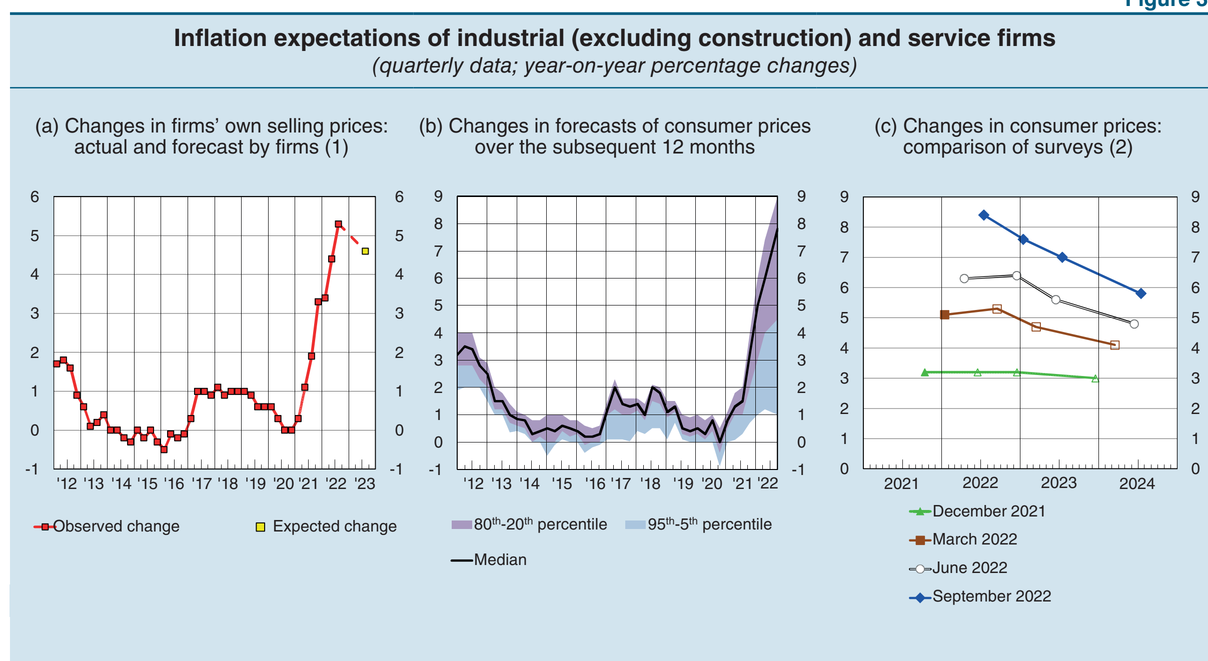
tutelato) in the summer, sterilizing the strong upward pressure from energy commodity price trends, while free-market prices increased strongly. Considering only government measures that have a direct effect on the consumer price index,[8] the drag on inflation would have been around 2 percentage points on average in the third quarter, in line with the previous period (see *Economic Bulletin*, 3, 2022).

For the current quarter, ARERA announced a 59 per cent increase in electricity tariffs on the protected market, due entirely to higher raw material prices. It stated that, in the absence of government measures to control the other components, electricity tariffs would have risen by around 100 per cent. From October onwards, the price of gas on the protected market will be updated monthly in the first few days of the month following the reference month, based on the average of actual prices on the Italian wholesale market. Again with reference to the current quarter, we estimate that the Government's decision to extend the electricity and gas zero system charges and 'social bonus' schemes until the end of the year, as well as the cut in excise duties on petrol until 18 November 2022, will drive down inflation by at least one percentage point, on average, over the quarter.

In September, increased costs along the value chain, particularly energy costs, pushed up food prices by up to 10.2 per cent. Core inflation rose to 4.4 per cent, driven by the acceleration of the prices for non-energy industrial goods and services.

Figure 31

Inflation expectations of industrial (excluding construction) and service firms
(quarterly data; year-on-year percentage changes)



Source: Based on the findings of the Bank of Italy's quarterly 'Survey on Inflation and Growth Expectations'. Up to October 2018, the survey was conducted jointly with *Il Sole 24 Ore*.
(1) Robust average of responses to questions on the observed percentage change in firms' own prices over the past 12 months and the change expected over the subsequent 12 months. – (2) The key below indicates the month in which the survey was carried out. The first point of each curve is the definitive figure for inflation available at the time of the survey, which is provided to respondents in the questionnaire to use as the basis for formulating their expectations; the second point is the average of the forecasts (for the 12-month change in prices) for the 6 months following the survey date; the third point is the average of the forecasts for the 12 months following; and the fourth point is the average of the forecasts for the 24 months following.

[8] These include zero system charges on electricity and gas, a reduction in excise duties on petrol and an increase in the 'social bonus' for electricity and gas for financially disadvantaged households.

Rising energy costs and supply problems drive up producer prices

In August, producer prices for industrial products sold on the domestic market grew further (by 50.5 per cent on a 12-month basis). Energy commodity prices, which make up two fifths of the total index, more than doubled compared with last year; consumer goods rose by 10.4 per cent. Difficulties in procuring raw materials and intermediate inputs, along with high transport costs, as shown by PMI indicators, also continue to weigh on production costs, albeit to a lesser extent than in the previous quarter.

Wage pressures remain moderate

Wage pressures on prices remain muted overall (see Section 2.5). In the second quarter, unit labour costs in the non-farm private sector rose by 3.8 per cent compared with the year-earlier period (from 3.7 per cent in the first quarter), as a mild acceleration in wages was virtually offset by productivity growth. Firms' profits (calculated as the four-term moving average of the ratio of gross operating profit to value added) remained broadly stable in the second quarter in industry excluding construction, while they slightly improved for companies in the service sector.

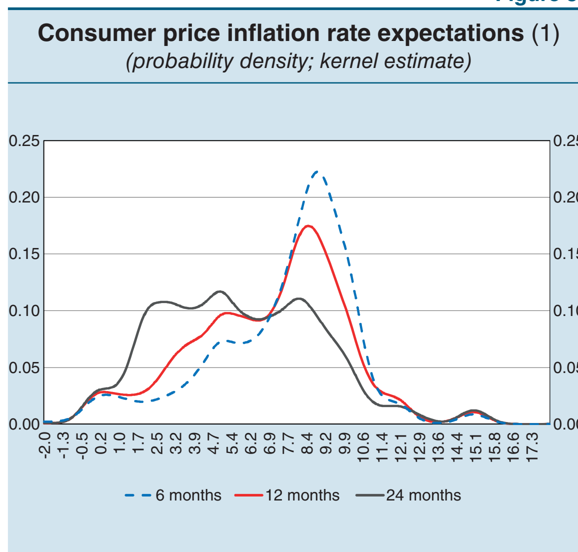
Firms and households raise their inflation expectations one year ahead

In the Bank of Italy's Survey on Inflation and Growth Expectations conducted between August and September, firms reported another increase in consumer price inflation expectations across all the forecasting horizons (Figure 31). Firms' selling prices are expected to continue to grow at a fast pace (4.6 per cent) over the next twelve months; the expected increase is higher in construction and in industry excluding construction, which are more exposed to rising prices for energy commodities and other intermediate inputs. However, firms' selling prices expectations are still below consumer price inflation expectations, whose dispersion remains high, especially the expectations over a two-year horizon (Figure 32). In September, Istat surveys point to higher household consumer price inflation expectations over the next twelve months. Over longer horizons, according to the ECB's Consumer Expectations Survey, the expectations of households for inflation three years ahead turned downwards, reaching a median value of 3.2 per cent in August.

Figure 32

Consumer price inflation rate expectations (1)

(probability density; kernel estimate)



Source: Based on the findings of the Bank of Italy's quarterly 'Survey on Inflation and Growth Expectations'. Up to October 2018, the survey was conducted jointly with *Il Sole 24 Ore*.
(1) Distribution of firms' expectations for the consumer price inflation rate (12-month change in prices) for different time horizons (at 6, 12 and 24 months) following the survey conducted between August and September 2022.

2.7 BANKS

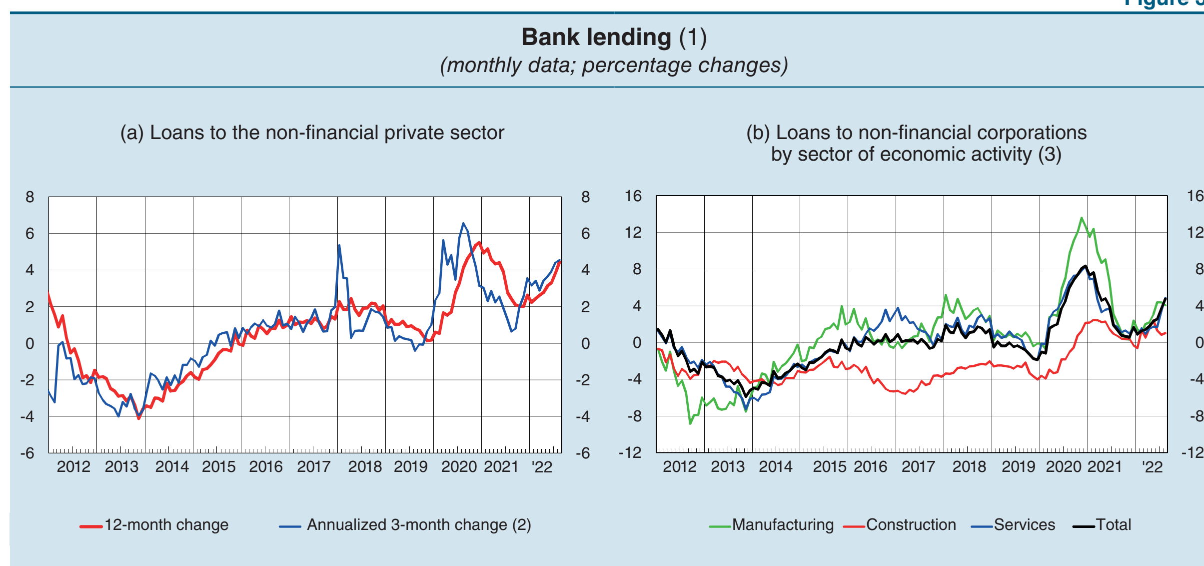
Growth in bank lending to non-financial corporations accelerated in August, partly as a result of higher working capital requirements. The surveys of banks show a tightening in credit supply policies, confirmed by the deterioration in credit access conditions reported by firms. The cost of loans to firms and households rose slightly. The new non-performing loan rates remained low and the profitability of significant banking groups increased.

Lending to firms accelerates

Against the background of high inflation, in August the growth in lending to the non-financial private sector rose by 4.5 per cent on the previous quarter (from 3.7 per cent in May, in nominal terms, on a seasonally-adjusted and annualized basis, and adjusting for securitizations; Figure 33.a). Lending to firms also increased on the previous quarter (to 7.1 per cent, from 4.8 per cent), reflecting higher working capital requirements (due to higher input costs) and lower corporate bond issues (see Section 2.8). In year-on-year terms, credit growth strengthened in manufacturing and services, while it moderated in construction (Figure 33.b). Lending to households continued to increase at a robust pace, particularly for house mortgages (5.3 per cent year-on-year); consumer credit growth accelerated slightly.

Figure 33

Bank lending (1)
(monthly data; percentage changes)



Source: Supervisory reports.
(1) Includes bad debts, repos and loans not reported in banks' balance sheets because they have been securitized. The percentage change is net of reclassifications, exchange rate variations, value adjustments, and other variations not due to transactions. – (2) The data are seasonally adjusted using a methodology that conforms with the guidelines of the European Statistical System. – (3) Twelve-month changes; until December 2013, the data for each sector are not corrected for value adjustments.

Bank funding weakens

Italian bank funding slowed further between May and August, reflecting the reduction in liabilities to the Eurosystem (-6.7 per cent year-on-year, from +1.2 per cent; Table 7) as a result of the voluntary repayments of TLTRO III funds in June (see Section 1.2). The pace of growth in residents' deposits slowed (to 2.7 per cent, from 4.4 per cent). The cost of funding increased, mainly as a result of higher bank bond yields (see Section 2.8).

The cost of loans to firms and households increases slightly

The increase in policy rates in July was only partly passed on to the cost of borrowing for firms and households, which remains low overall. In August, the average interest rate on new bank loans to firms rose by almost 30 basis points compared with May (to 1.4 per cent), in line with the average increase in the euro area (Figure 34). The rate on new mortgage loans to households inched up by almost 20 basis points to 2.1 per cent, close to end-2017 levels. Mortgage costs went up for both fixed-rate loans (from 2.1 to 2.4 per cent) and variable-rate loans (from 1.3 to 1.7 per cent).

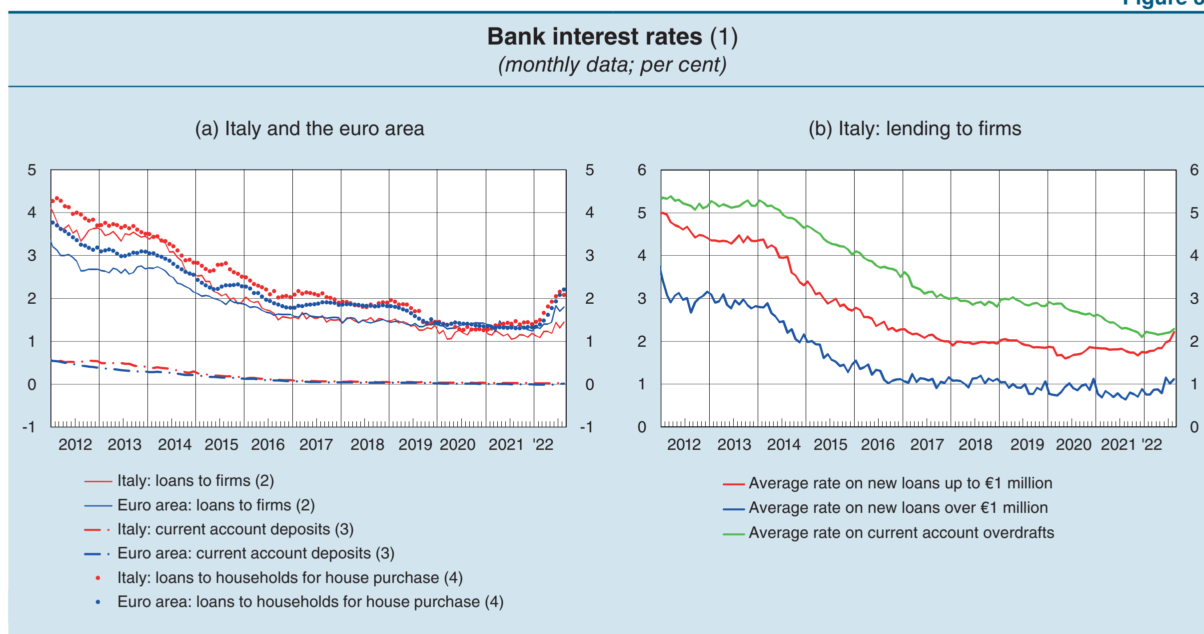
The euro area bank lending survey (BLS) on the second quarter of the year points to more stringent credit supply policies for firms and households in Italy, with a further tightening in the summer months (see the box 'Credit supply and demand').

Table 7

Main assets and liabilities of Italian banks (1)
(billions of euros and percentage changes)

	End-of-month stocks		12-month percentage changes (2)	
	May 2022	August 2022	May 2022	August 2022
Assets				
Loans to Italian residents (3)	1,743	1,756	1.3	2.6
of which: firms (4)	670	678	2.3	4.8
households (5)	673	677	4.0	4.1
Claims on central counterparties (6)	37	33	10.8	6.1
Debt securities excluding bonds of resident MFIs (7)	564	543	2.1	1.4
of which: securities of Italian general government entities	417	403	2.9	2.3
Claims on the Eurosystem (8)	402	336	-0.1	-19.6
External assets (9)	507	513	10.7	8.9
Other assets (10)	823	856	13.0	15.5
Total assets	**4,076**	**4,038**	**4.6**	**3.3**
Liabilities				
Deposits of Italian residents (3) (11) (12)	1,887	1,883	4.4	2.7
Deposits of non-residents (9)	321	325	5.1	6.2
Liabilities towards central counterparties (6)	121	107	26.4	25.3
Bonds (12)	197	201	-8.0	-8.6
Liabilities towards the Eurosystem (8)	453	432	1.2	-6.7
Liabilities connected with transfers of claims	121	116	-3.1	-3.8
Capital and reserves	340	339	-1.4	-2.8
Other liabilities (13)	635	637	14.3	18.0
Total liabilities	**4,076**	**4,038**	**4.6**	**3.3**

Source: Supervisory reports.
(1) Data updated in August. – (2) Adjusted for reclassifications, value adjustments and exchange rate movements. Changes in loans to firms and households are adjusted for securitizations. – (3) Excludes transactions with central counterparties. – (4) Harmonized definition, excludes producer households. – (5) Harmonized definition, includes producer households, non-profit institutions serving households and households not classified elsewhere. – (6) Only repos. – (7) Excludes bonds of resident MFIs, i.e. banks and money market funds. – (8) Includes the accounts with the Eurosystem for monetary policy operations; see Tables 3.3a and 3.3b in 'Banks and Money: National Data', Banca d'Italia, Statistics Series. – (9) In the period considered these refer mainly to interbank transactions. – (10) Includes bonds issued by resident MFIs; loans to resident MFIs; shares and other equity of resident companies; cash; money market fund units; derivatives; movable and immovable property; other minor items. – (11) Excludes liabilities connected with transfers of claims. – (12) Excludes liabilities towards resident MFIs. – (13) Includes bonds held by resident MFIs; deposits of resident MFIs; derivatives; other minor items.



Sources: Bank of Italy and ECB.
(1) Averages. The data on lending and deposit rates refer to transactions in euros and are gathered and processed using the Eurosystem's harmonized method. – (2) Rate on new loans to firms. – (3) Rate on current account deposits of households and firms. – (4) Rate on new loans to households for home purchase.

CREDIT SUPPLY AND DEMAND

The Italian banks that took part in the euro area bank lending survey (BLS)[1] in June reported that the credit standards applied to new business loans were tightened in the second quarter, mainly due to a heightened perception of and greater aversion to risk (Figure A). The general terms and conditions applied to loans were also stricter, with an increase in margins in particular. Banks had expected to tighten their credit standards further in the summer months.

Credit standards for new loans to households also tightened slightly in the second quarter. The terms and conditions became much stricter, reflecting higher market interest rates. Italian banks expected credit supply conditions to remain essentially stable in the third quarter.

The banks reported that in the second quarter firms' demand for credit remained broadly unchanged: the expansionary effect of lending for inventories and working capital was offset by the negative contribution of the slowdown in fixed investment. Consumer credit demand by households continued to increase, while that for new loans for house purchase fell slightly as a result of the deterioration in consumer confidence and higher interest rates. Based on banks' expectations, in the third quarter demand for loans from firms is likely to have remained unchanged overall, while that from households will probably have risen for consumer credit.

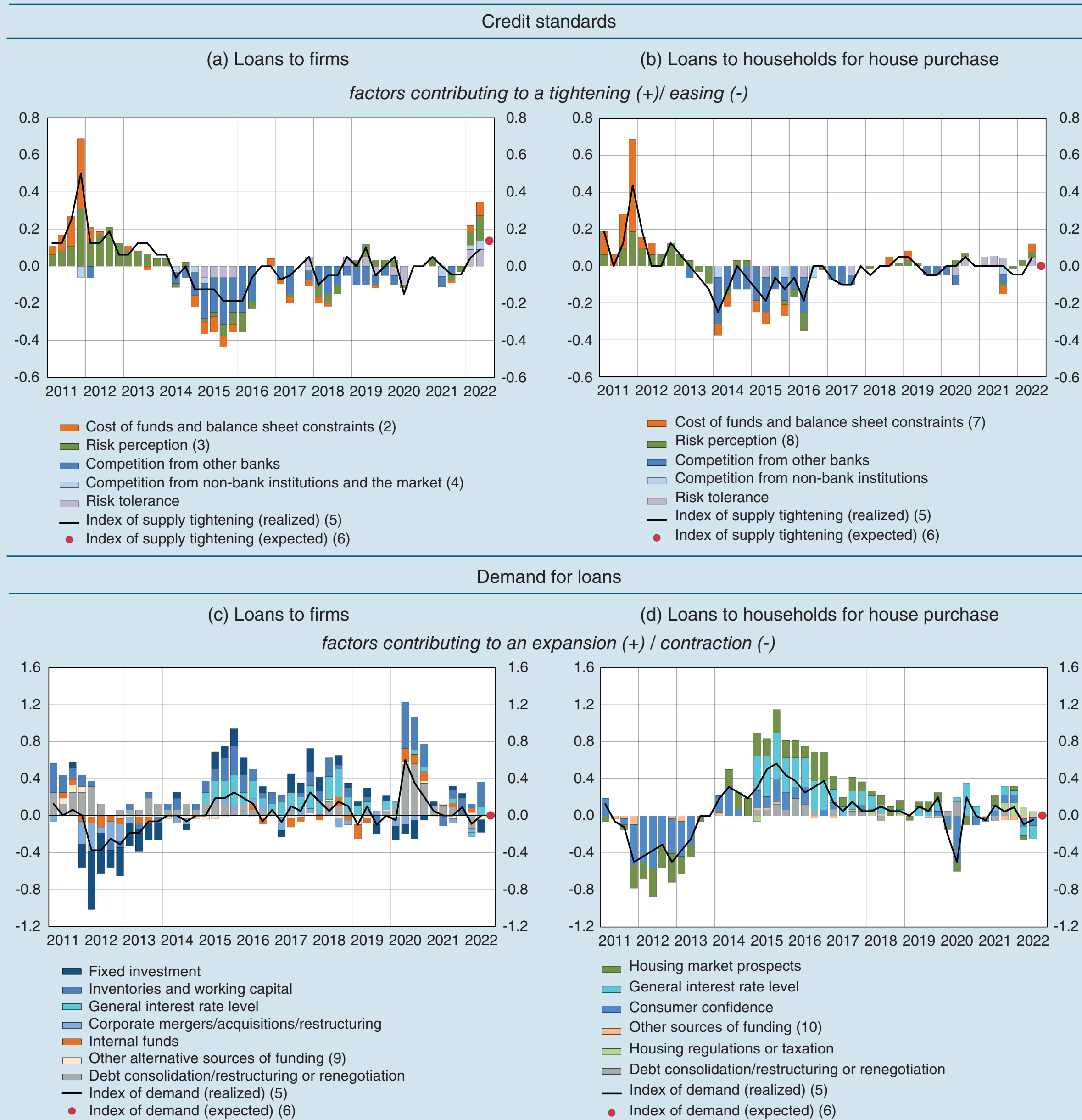
The euro area has seen similar results. In the spring, credit supply policies for firms and households worsened; according to the banks, the tightening continued over the following three months.

[1] Thirteen of the main Italian banking groups took part in the survey. The results for Italy are available on the Bank of Italy's website: 'Bank Lending Survey (BLS)'. For those relating to the euro area, see the ECB's website, 'July 2022 euro area bank lending survey', press release, 19 July 2022.

Figure A

Credit standards and demand for loans in Italy (1)

(quarterly data; diffusion indices)



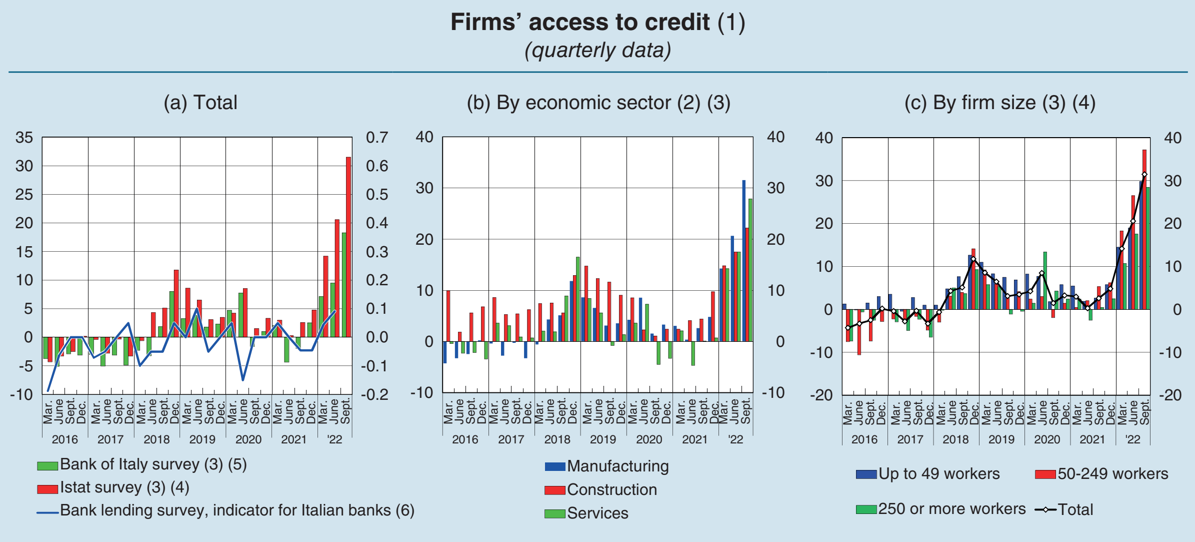
Source: BLS.
(1) For the general indices, positive values indicate supply tightening/demand expanding compared with the previous quarter; for the factors, positive values indicate a contribution to supply tightening/demand expanding compared with the previous quarter. The diffusion indices are constructed on the basis of the following weighting scheme: for supply conditions, 1=tightened considerably, 0.5=tightened moderately, 0=basically stable, -0.5=eased moderately, -1=eased considerably; for demand, 1=increased considerably, 0.5=increased moderately, 0=basically stable, -0.5=decreased moderately, -1=decreased considerably. The range of variation of the index is from -1 to 1. – (2) Average of the following factors: bank's capital position; bank's ability to obtain funds on the marked; bank's liquidity position. – (3) Average of the following factors: general economic situation and outlook; industry- or firm-specific situation and outlook; risks associated with collateral. – (4) Average of the following factors: competition from non-banks and competition from other sources. – (5) For the quarter ending at the time of the survey. – (6) Forecasts prepared in the previous quarter. – (7) From April 2022, average of the following factors: bank's capital position; bank's ability to obtain funds on the market; bank's liquidity position. – (8) Average of the following factors: general economic situation and outlook; housing market prospects; borrower's creditworthiness. – (9) Average of the following factors: loans granted by other banks; loans from non-banks; issuance/redemptions of debt securities; issuance/redemptions of equity. – (10) Average of the following factors: self-financing of house purchase with savings; loans from other banks; other sources of external funding.

Demand for credit by firms has risen: for the euro area as a whole, greater need for working capital more than offset the negative contribution of fixed investment expenditure. Households' demand for mortgage loans fell, reflecting higher interest rates and lower consumer confidence.

The most recent surveys of firms conducted by the Bank of Italy and Istat point to a further deterioration in credit access conditions in the third quarter (Figure B). The deterioration was especially pronounced on an historical basis and affected all firm size classes and all sectors of economic activity.

Figure B

Firms' access to credit (1)
(quarterly data)



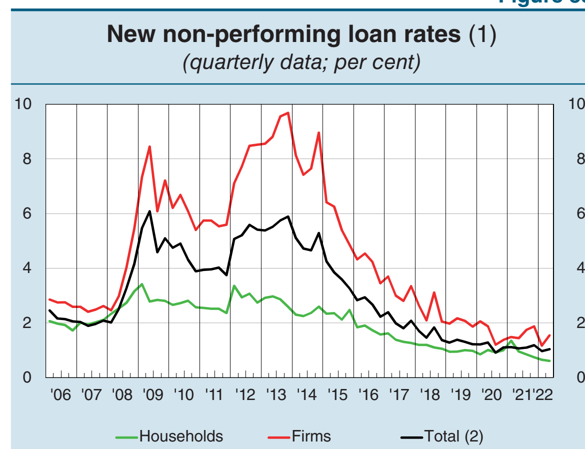
(1) The Bank of Italy's Survey on Inflation and Growth Expectations (in collaboration with *Il Sole 24 Ore* until October 2018) is conducted quarterly on a sample if medium-sized and large firms (with at least 50 employees) in industry (excluding construction) and services. The Istat business confidence surveys are conducted on samples of manufacturing and service firms (excluding retail and wholesale trade) and construction companies. The data for the Istat survey are taken from the end-of-quarter observations. For the BLS, see Figure A. – (2) Istat, business confidence surveys. – (3) Net percentage of firms reporting difficulty in obtaining credit, calculated as the difference between the percentage of replies indicating a worsening of credit access conditions and the percentage of those indicating an improvement. – (4) Istat, business confidence survey in the manufacturing sector. – (5) 'Survey on Inflation and Growth Expectations', Banca d'Italia, Statistics Series. – (6) Right-hand scale.

New non-performing loans continue to be low

In the second quarter, the new non-performing loan rate, measured by the flow of new non-performing loans as a share of total loans, held stable at 1.0 per cent, on a seasonally adjusted and annualized basis (Figure 35). Compared with the previous three months, the indicator grew for loans to firms (to 1.5 per cent), reflecting the increase for services and construction companies, while it remained low for loans to households (0.6 per cent).

Figure 35

New non-performing loan rates (1)
(quarterly data; per cent)



Source: Central Credit Register.
(1) Annualized quarterly flows of adjusted NPLs in relation to the stock of loans at the end of the previous quarter net of adjusted NPLs. Data seasonally adjusted where necessary. – (2) The total includes households, firms, financial corporations, foreign trade, general government and non-profit institutions.

The NPL ratio for the significant banking groups continued to decline, both gross and net of writedowns. The corresponding coverage ratio decreased, primarily as a result of the sale of assets that had already been largely written down (Table 8).

Table 8

Main indicators for significant Italian banks (1)
(per cent)

	March 2022	June 2022
Non-performing loans (NPLs) (2)		
Gross NPL ratio	3.0	2.6
Net NPL ratio	1.4	1.2
Coverage ratio (3)	55.1	52.7
Regulatory capital		
Common equity tier 1 (CET1) ratio	14.6	14.9
	H1 2021	H1 2022
Profitability		
Return on equity (ROE) (4)	8.5	9.2
Net interest income (5)	-3.4	8.5
Gross income (5)	6.8	1.8
Operating expenses (5)	-3.9	-3.1
Operating profit (5)	33.8	10.6
Loan loss provisions (5)	-49.5	2.2

Source: Consolidated supervisory reports.
(1) Provisional data. Significant banks are those directly supervised by the ECB. In 2022 significant groups expanded by two units following the entry of Mediolanum and Fineco. The data prior to that date were pro forma recalculated as if the two banks were significant also in the previous periods. – (2) End-of-month data. Includes loans to customers, credit institutions and central banks. The NPL ratio is reported gross and net of loan loss provisions. – (3) The coverage ratio is measured as the ratio of loan loss provisions to the corresponding gross exposure. – (4) Net of extraordinary components. – (5) Percentage changes with respect to the year-earlier period.

The profitability of significant banking groups increases

In the first half of 2022, the profitability of the significant banking groups was up on the same period of last year. Net of extraordinary components, the improvement in the annualized return on equity (ROE) primarily reflected net interest income growth, which more than offset the decline in trading revenues. Operating expenses declined; loan loss provisions held broadly stable.

In the second quarter of this year, the capital ratios for the significant groups increased slightly, partially offsetting the contraction recorded in the previous quarter. This improvement reflects both the rise in common equity tier 1 (CET1) and, to a larger extent, the decline in risk-weighted assets.

2.8 THE FINANCIAL MARKETS

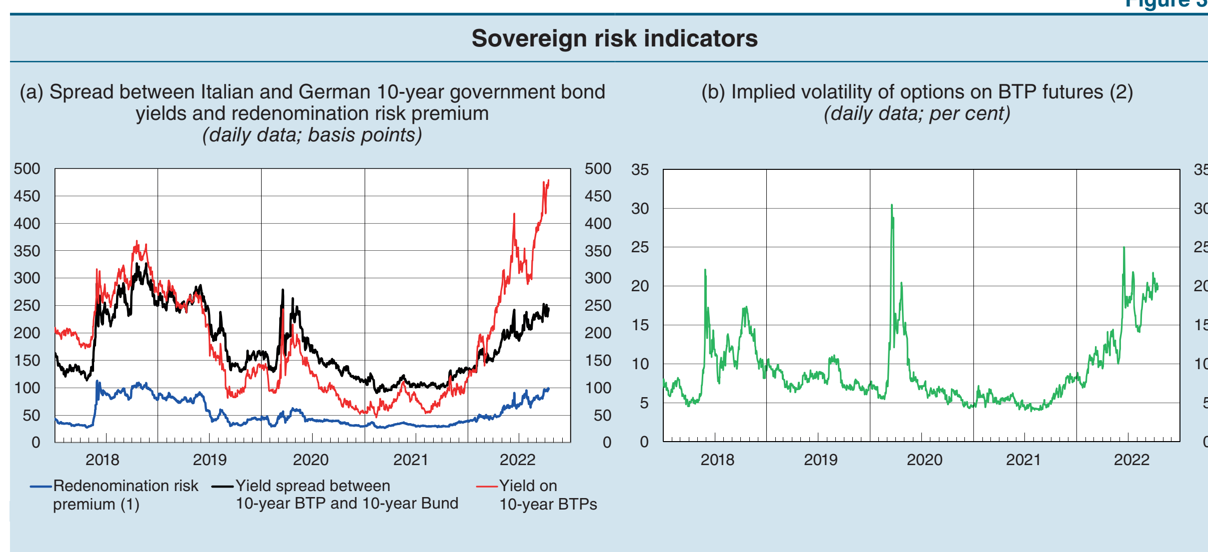
Since early July financial market conditions have worsened overall, amid persistent inflationary pressures and fears of a deteriorating business cycle. Higher policy rates and expectations of further rate hikes resulted in a sharp increase in government bond yields, especially on short maturities. In this highly uncertain environment, the spread of Italian sovereign bond yields vis-à-vis German Bunds widened, share prices fell and funding costs for firms and banks increased.

Government bond yields and sovereign risk premiums rise

Between early July and mid-October, Italian ten-year government bond yields rose by 150 basis points to 4.79 per cent (Figure 36.a); the rates on shorter maturities increased even more strongly. Developments in bond yields mainly reflected the normalization of the ECB's monetary policy (see Section 1.2). The sovereign risk premium, measured by the spread between Italian and German government bond yields, rose by 50 basis points overall, reflecting both the political uncertainty in the aftermath of the Government's collapse in mid-July and higher risk aversion on markets. In mid-October, it stood at 244 basis points. The increase in yield spreads was countered by the ECB's flexibility in reinvesting the principal payments from maturing securities under the pandemic emergency purchase programme (PEPP), as well as by the new tool introduced to ensure monetary policy transmission (see the box 'The Transmission Protection Instrument: the ECB's new monetary policy tool' in Chapter 1). The premium demanded by investors against the risk of government bonds being redenominated in non-euro currencies rose (to 98 basis points). There was also an increase in volatility implied by derivatives on Italian ten-year government bonds (Figure 36.b).

Figure 36

Sovereign risk indicators



Sources: Based on Bloomberg, ICE CMA and Refinitv data.
(1) Spread between the premiums on Italian sovereign CDS ISDA-2014 and ISDA-2003 contracts with 5-year maturities. Compared with ISDA-2003, ISDA-2014 contracts offer greater protection against a redenomination of the underlying debt. – (2) Implied volatility of at-the-money options with a 1-month maturity on 10-year BTP futures traded on the Eurex.

Share prices fall

Since the beginning of July, the Italian stock market index has lost almost 4 per cent (Figure 37), though with mixed sector performances. The stocks of public utility companies, which are more exposed to the energy crisis, slumped (-20 per cent ca.), whereas those of credit institutions gained (+3.8 per cent). While vulnerable to the risks stemming from a deteriorating economic outlook, the latter were buoyed by the improvement in profitability associated with interest rate hikes.

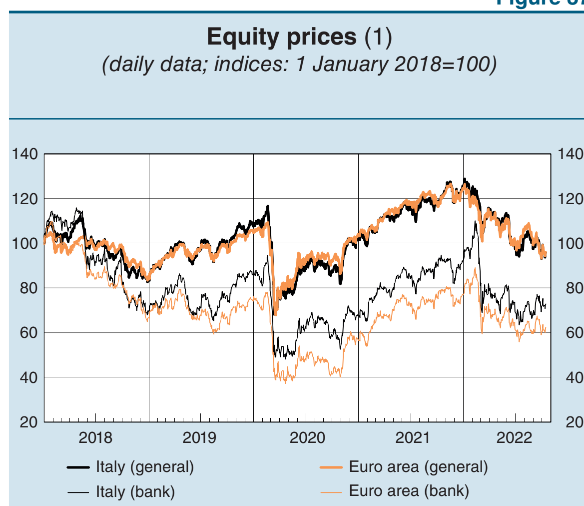
Corporate bond yields increase

Since the start of July, non-financial bond yields have risen by 152 basis points, slightly more than the euro-area average (Figure 38). Bank bond yields have increased by 160 basis points.

In the second quarter, non-financial corporations made net bond redemptions totalling approximately €1 billion; net issues by banks were also negative (€-4.3 billion). Preliminary data from Bloomberg suggest that net bond issues from firms and credit institutions remained negative in the third quarter.

Figure 37

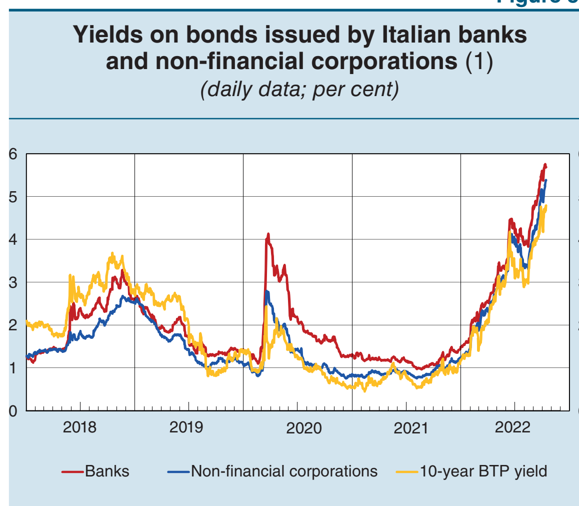
Equity prices (1)
(daily data; indices: 1 January 2018=100)



Source: Based on Refinitiv data.
(1) General and bank indices: FTSE MIB for Italy; Dow Jones Euro STOXX for the euro area.

Figure 38

Yields on bonds issued by Italian banks and non-financial corporations (1)
(daily data; per cent)



Sources: Based on Bloomberg and ICE BofAML data.
(1) The data refer to the average yields (to maturity) of a basket of euro-denominated bonds issued by Italian banks and non-financial corporations and traded on the secondary market. Even if the basket contains bonds with different maturities, selected on the basis of an adequate level of liquidity, the figure shows, for comparison purposes, the 10-year BTP yields, which are especially representative of the yields offered on Italian government bonds.

The net inflow of savings into bond funds turns positive in July and August

Based on Assogestioni data, the net inflow of savings into open-end investment funds was negative in the second quarter (€-0.9 billion), as positive inflows into equity (€6.4 billion) and monetary (€1.8 billion) funds were offset by huge outflows (approximately €10 billion) from bond funds. In July and August flexible funds recorded overall net outflows (approximately €1 billion), while bond and equity funds had positive net inflows (€1.5 billion and €2.4 billion, respectively). Total inflows into open-end investment funds increased by €2.3 billion.

2.9 THE PUBLIC FINANCES

At the end of September, the Government updated its estimates for the public accounts in the current year and over 2023-25, as well as for the programmes set out in the NRRP. Net borrowing is estimated at 5.1 per cent of GDP in 2022, around 0.5 percentage points below the April forecast; the debt-to-GDP ratio too should decline more than expected last spring. In line with the budget variances authorized by Parliament in July and September, in the last few months the Government enacted new measures to soften the impact of rising energy commodity prices on households and firms' budgets.

Public accounts continue to improve

In its update to the 2022 Economic and Financial Document (DEF), published at the end of September, the Government estimates general government net borrowing of 5.1 per cent of GDP in 2022 (Table 9), versus 7.2 per cent in 2021, and just over 3 per cent in the following years (Table 10). Issued before the new Government is sworn in, this update does not provide a national planning policy framework.[9] Interest payments are expected

[9] The 2023 Draft Budgetary Plan, which was also presented before a new government is appointed, confirms the current legislation scenario included in the update to the DEF.

to increase by almost half a percentage point of GDP in the current year, to 4 per cent, and to remain close to this level in 2023-25. The debt-to-GDP ratio is forecast at 145.4 per cent in 2022, almost 5 percentage points lower than in 2021. It should continue to fall over the next three years, though at a more moderate pace, reaching 139.3 per cent in 2025. Over the forecast period as a whole, this trend should be almost entirely driven by an improving gap between nominal GDP growth (6.4 per cent in 2022 and around 4 per cent on average thereafter) and the average cost of debt (2.8 per cent per year).

Table 9

Public finance estimates for 2022
(per cent of GDP)

	General government			*Memorandum items:*		
	Net borrowing	Structural net borrowing	Primary surplus	Change in debt (1)	Real GDP growth rate	Nominal GDP growth rate
April 2022 (2)	5.6	5.9	-2.1	-3.8	3.1	6.3
September 2022 (3)	5.1	5.5	-1.1	-4.9	3.3	6.4

(1) Change in the debt-to-GDP ratio compared with the previous year. – (2) 2022 Economic and Financial Document. (3) Update to the 2022 Economic and Financial Document; only the estimates under the current legislation scenario are reported since no policy scenario is available.

Table 10

Outturns and official targetsof the main public finance indicators (1)
(per cent of GDP)

	2021	2022	2023	2024	2025
Net borrowing	7.2	5.1	3.4	3.5	3.2
Primary surplus	-3.7	-1.1	0.5	0.2	0.7
Interest expenditure	3.6	4.0	3.9	3.8	3.9
Structural net borrowing	6.4	5.5	3.6	3.9	3.7
Debt (2)	150.3	145.4	143.2	140.9	139.3

Source: Update to the 2022 Economic and Financial Document.
(1) Outturns for 2021 and official targets for 2022-25. Rounding of decimal points may cause discrepancies in totals. – (2) Gross of financial support to EMU countries.

Despite the increase in interest payments, 2022 trends are more favourable than forecast by the Government in April in its 2022 Economic and Financial Document (DEF) in terms of both deficit (by about half a percentage point of GDP) and debt (by more than 1 point). The improved deficit reflects the developments in revenue growth, which is very strong partly as a result of high inflation, and in primary expenditure. The more marked reduction in the debt-to-GDP ratio is equally explained by the lower deficit and the downward revision of the estimates of the other factors affecting only financial liabilities. Compared with Government plans and April estimates, the deficit is projected to be smaller next year and larger in the following two years, owing to higher interest payments.

The Government adopts new support measures for households and firms

In August and September, the Government adopted new temporary measures broadly in line with first-half provisions,[10] to offset the effects of rising energy commodity prices on firms and households' budgets (Table 11).[11] These include

[10] These measures are laid out in Decree Law 38/2022 (which was incorporated, with no amendments, into Law 51/2022 converting Decree Law 21/2022), in Decree Laws 50/2022 and 80/2022, and in the decree of the Ministry of Economy and Finance (MEF) dated 24 June 2022 (for the first measure and the related conversion law, see Chapter 11: 'Public Finance' in the *Annual Report for 2021*; for subsequent measures, see *Economic Bulletin*, 3, 2022).

[11] Decree Laws 115/2022 (as converted by Law 142/2022) and 144/2022, and MEF decrees dated 30 August and 13 September 2022.

Table 11

Overall impact on the general government profit and loss account of the measures contained in Law 142/2022, Decree Law 144/2022 and MEF decrees of 30 August and 13 September 2022
(millions of euros)

	2022	2023	2024	2025
USE OF FUNDS (C=A+B+C)	**30,110**	**762**	**393**	**287**
Measures regarding energy (A)	**29,337**	**-176**	**-1**	**0**
Tax credits for companies:	13,337	0	0	0
to offset extra costs of energy-intensive (electricity and gas) companies	7,177	0	0	0
for electricity and gas purchases	5,782	0	0	0
for the agricultural sector	378	0	0	0
Measures to limit the costs of utility bills:	5,007	0	0	0
reduction in VAT rate and in general system charges in the natural gas sector	2,627	0	0	0
revision of the subsidies for the ‘social bonus’ for electricity and gas bills	1,280	0	0	0
elimination of general system charges in the electricity sector	1,100	0	0	0
One-time bonus for (1):	3,078	348	0	0
pensioners	1,255	0	0	0
employees	1,013	0	0	0
unemployed persons, minimum income scheme recipients and other categories of workers	710	348	0	0
fund for self-employed workers	100	0	0	0
Reduction in excise duty rates on fuels (including the effect on VAT revenues)	2,503	0	0	0
Advance reconciliation payment for cost-of-living adjustments to pensions and increase in pension payments	1,965	-585	0	0
Increased relief on social security contributions for payroll employees (2)	1,654	54	0	0
Fund to help local governments ensure continuity of services	600	0	0	0
Increase in national health system standard funding to cover higher costs	400	0	0	0
Public transport and rental housing subsidies for households	111	0	0	0
Other energy-related measures	681	8	-1	0
Other (B)	**773**	**938**	**394**	**287**
Increase in the national solidarity fund for subsidies to companies that suffered harm due to drought conditions	200	0	0	0
Funds for public works (repricing of materials and continuation of works)	180	240	245	195
Other (net effect)	393	698	149	92
SOURCE OF FUNDS (F=D-E)	**9,624**	**805**	**404**	**292**
Higher revenue (D)	**5,723**	**-9**	**-69**	**0**
Revenues from the offset mechanism on the price of electricity produced from renewable sources	3,739	0	0	0
Indirect effects of the measures	1,015	-9	-69	0
Higher VAT revenue on fuel (1 July - 31 August 2022) (3)	969	0	0	0
Lower expenditure (E)	**-3,902**	**-815**	**-474**	**-292**
Reduction in appropriations in MEF budget programmes (net effect)	-1,971	-280	0	0
Reduction in funds and budget appropriations	-807	-387	-474	-292
Reduced allocation for universal single allowance for children	-630	0	0	0
Other	-493	-148	0	0
Change in net borrowing (G=C-F)	**20,485.9**	**-43.7**	**-11.1**	**-4.8**
Per cent of GDP (4)	1.1	0.0	0.0	0.0

Source: Based on the official assessments contained in Annex 3 of Law 142/2022 (converting Decree Law 115/2022), Decree Law 144/2022 and in the Ministry of Economy and Finance (MEF) decrees of 30 August and 13 September 2022.
(1) Includes amounts to extend the range of recipients of the €200 bonus (introduced by Decree Law 50/2022) and for the additional €150 lump sum. – (2) The 0.8 per cent exemption envisaged under the 2022 Budget Law for payroll employees with an annual taxable income for IRPEF purposes of less than €35,000 was increased to 2 per cent from July to December 2022. – (3) The increase in revenue is calculated in accordance with Article 1, paragraph 291, of Law 244/2007. – (4) Based on the nominal GDP in the policy scenario reported in the update to the 2022 Economic and Financial Document.

an extension of tax credits to partially offset the increase in energy costs incurred by firms, until November, and of measures to control system charges in electricity bills for all users, until the end of the year. In order to support pensioners and workers, the adjustment for the difference between the inflation rate recorded for 2021 and that applied since January 2022 (0.2 per cent) has been brought forward from 2023 to 2022, and pension allowances have been increased by 2 percentage points on a one-off basis.[12] The tax wedge on labour has been cut further, following the first reduction under the 2022 Budget Law; the number of recipients of the one-off €200 bonus has increased, and an additional €150 lump sum has been granted to a narrower base of recipients. The reduction in excise duties on fuels has been extended.

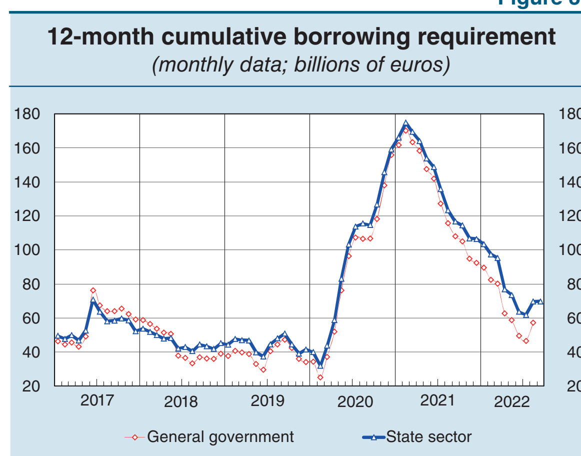
The Government has identified partial funding sources, including revenues from the offset mechanism on the price of electricity produced from renewable sources, higher VAT revenues on fuels and a reduction in some budget appropriations. Overall, according to official assessments, the measures enacted over the past few months will increase net borrowing by €20.5 billion in 2022 (1.1 per cent of GDP), in line with the budget variances authorized by Parliament in July and September. According to the Government's assessments, included in the update to the DEF, over €57 billion has been earmarked for energy measures in the current year through the budget law and extraordinary provisions issued year to date (versus €5.5 billion in 2021; see *Economic Bulletin*, 2, 2022 for information on the measures adopted last year and in the first quarter of 2022).[13]

Cash flow data continue to be positive

In the first nine months of 2022, the state sector borrowing requirement was €49.2 billion, down by €36.7 billion compared with the corresponding period of 2021. With reference to the totality of general government, for which the data on the first eight months of the year are available, the borrowing requirement came to €25.5 billion, €35.4 billion less than in the corresponding period of 2021 (Figure 39).

Figure 39

12-month cumulative borrowing requirement
(monthly data; billions of euros)



Source: For the state sector, Ministry of Economy and Finance (MEF).

Cash flow was driven by the strong tax revenue growth recorded in the State's budget (over €36 billion more than in the same period of 2021; up by 11 per cent), excluding lotteries. This increase was mainly due to indirect tax revenues (mostly VAT) and direct tax revenues, up by 12 and 11 per cent, respectively, and was partly the result of high inflation.

In August, general government debt stood at €2,758 billion, €80 billion higher than in 2021. This increase reflects the borrowing requirement as well as an expansion in the Treasury's liquid balance (over €32 billion) and a further appreciation of inflation-linked securities (almost €18 billion).

The average cost of debt (2.5 per cent at the end of June) and its average residual maturity (7.6 years in August; Figure 40) are in line with end-2021 figures.

[12] For the last quarter of 2022, for monthly allowances up to €2,692.

[13] The total amount is in the order of €60 billion if provisions made for the same purposes are included. These assessments do not include the further extension of some reductions in excise duties and VAT (from 1 to 18 November) that was approved by the Council of Ministries on 19 October, for which no official estimates are available at the moment.

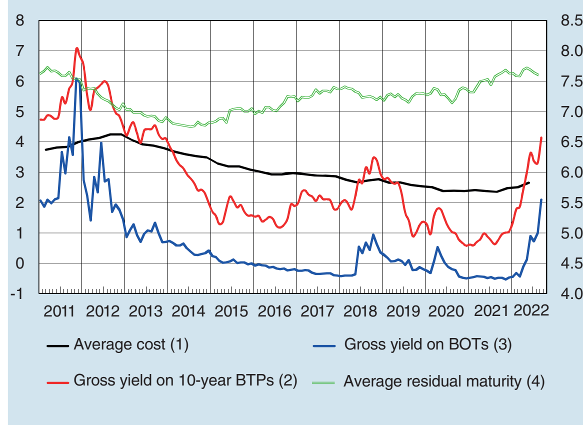
Italy meets the milestones and targets required for the second disbursement under the RRF ...

As all the milestones and targets set by the NRRP for the first half of 2022 have been achieved, in late September the European Commission gave a favourable opinion for the disbursement of the second tranche of RRF funds to Italy.[14] At the beginning of October, the Government submitted to the Parliament the second NRRP update report, which provides a positive assessment of progress made so far in laying out and approving reforms, as well as in the early stages prior to investment.

Figure 40

Gross yields on BOTs and 10-year BTPs, average cost and average residual maturity of the debt

(monthly and quarterly data; per cent and years)



Source: Istat, for interest payments.
(1) Ratio between interest payments in the 4 quarters ending in the reference quarter and the stock of the debt at the end of the corresponding year-earlier quarter. – (2) Average monthly yield at maturity of the benchmark traded on the online government securities market. – (3) The yield at issue is the average, weighted by the issue amounts allotted, of the compound allotment rates at the auctions settled during the month. – (4) Right-hand scale.

... and the Government adjusts its spending forecasts

The Government updated its official projections for public spending funded by the Recovery and Resilience Facility (RRF) in its update to the DEF, noting that by the end of this year, around €15 billion will be used, just over a half of last spring's estimate. The downward revision of spending forecasts until 2024 points to a shift in disbursements towards the final years of the NRRP, largely in 2026, also due to the timing of the calls for tenders. According to official forecasts, RRF-funded investment will reach 1.7 per cent of GDP as of 2024, around half of public investment expected that year.

[14] The evaluation was submitted to the Council of the European Union for approval. The second tranche, worth €21 billion, will be disbursed by November.