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THE SPANISH ECONOMY'S RESILIENCE AMID ADVERSITY AND UNCERTAINTY

1 Introduction

The global economy is suffering the consequences of the biggest rise in inflation in half a century. The present high inflation episode was initially a response to the intensity of the post-pandemic recovery and the disruptions in global production chains. However, its main cause in Europe has been the increase in energy and food prices stemming from the geopolitical tensions that culminated in the war in Ukraine, although demand factors have been gaining weight.¹

Overall, these developments exerted downward pressure on economic activity in 2022. The loss of income stemming from the increase in the relative price of imported energy goods in Europe affected households' and firms' consumption and investment decisions, in a setting marked, moreover, by high global uncertainty which even called into question the security of energy supplies during the winter months.

In response to the inflationary shock, the main central banks have tightened their monetary policy swiftly and sharply, impacting financial conditions. Central banks have raised monetary policy interest rates significantly, at an unprecedented rate in the case of the euro area, and have begun to reduce the size of their balance sheets.

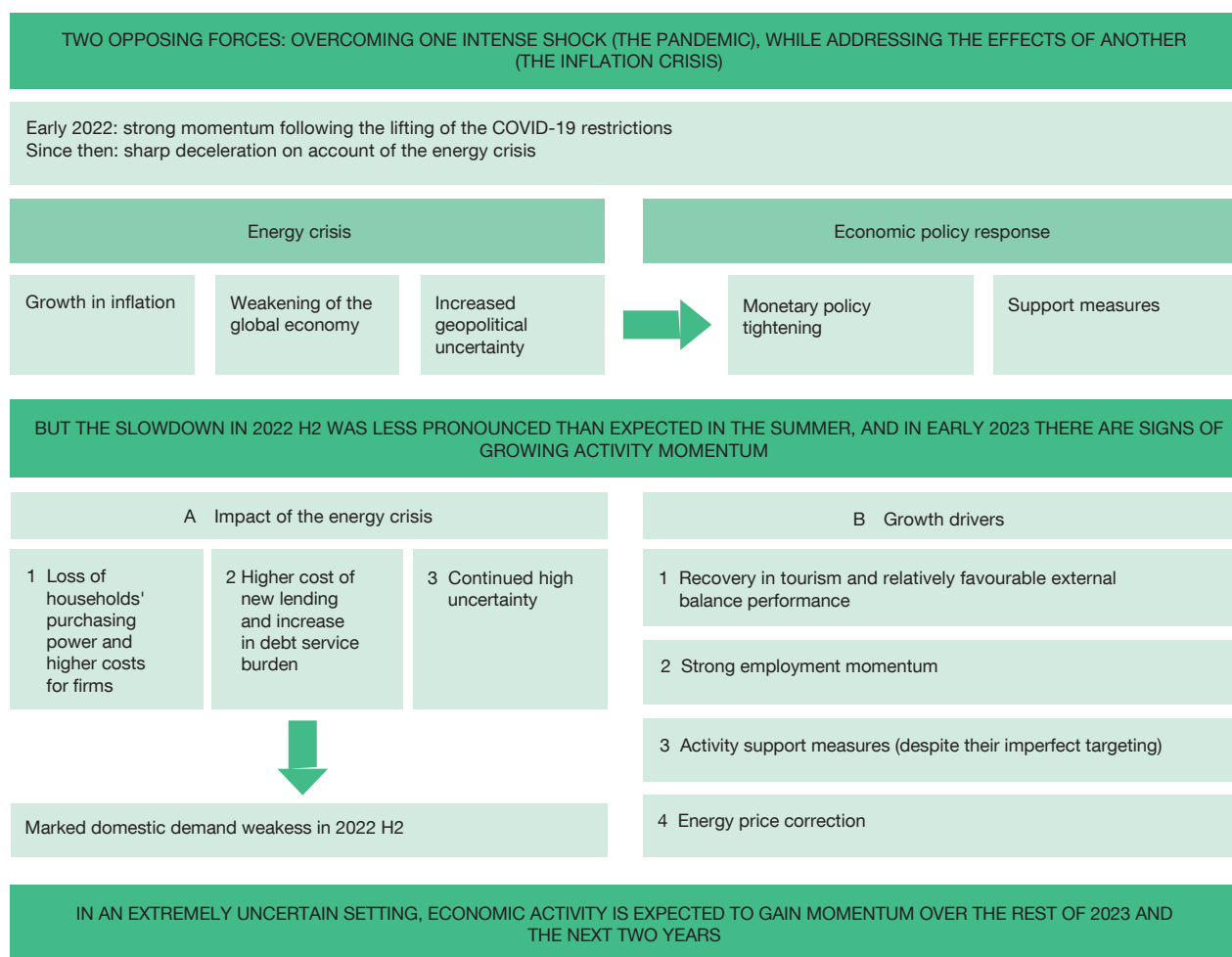
The tightening of financial conditions is also gradually affecting economic activity. The higher cost of new lending has begun to affect loan demand, while some agents are experiencing more difficulties accessing credit. The debt service burden has also increased for agents that have variable rate debt or that have had to refinance their debts at maturity, which increases their financial vulnerability.

In this adverse environment, economic activity was more resilient than expected in Spain in 2022. During the first half of the year, GDP growth received a significant boost from the lifting of the remaining pandemic-related restrictions and the strength of tourism, as a consequence of the recovery in inflows of foreign tourists, which also helped underpin the current account balance (see Figure 1.1). Yet the energy crisis drove imported inflation to very high levels, undermining Spanish households' and firms' purchasing power. Accordingly, consumption and investment expenditure were significantly weaker in the second half of the year. In any event, during that period, output growth was somewhat stronger than expected, in part because the energy crisis also eased and the most pessimistic scenarios, under which Europe could have faced a winter of energy supply

¹ For a more detailed explanation of the factors underpinning this inflationary episode, see [Banco de España \(2022a\)](#).

Figure 1.1

THE RESILIENCE OF THE SPANISH ECONOMY AMID ADVERSITY AND UNCERTAINTY



SOURCE: Banco de España.

disruptions of some kind, failed to materialise. The early months of 2023 have seen growing activity momentum, with quarterly GDP growth of 0.5% in Q1 (0.1% in the euro area).

The actions taken at the national level to ease the consequences of the energy crisis have helped sustain activity (see Box 1.1). However, these actions must be more targeted, so as to protect the more vulnerable agents, and must go hand in hand with the start, in 2023, of a gradual fiscal consolidation process that will entail a reduction in the Spanish structural deficit this year (see Chapter 2 of this report).

The forecasts for activity growth for 2023-2025 are favourable, although uncertainty remains very high. Activity is expected to be underpinned by declining inflationary pressures, which will help restore households' and firms' real income levels, and by the increased deployment of funds under the Next Generation EU (NGEU) programme. But various risks persist, notably including the possible emergence of fresh episodes of geopolitical instability

worldwide, which could drive up energy prices. Moreover, the rate of decline of underlying inflation is highly uncertain, linked to factors such as demand strength and the possible appearance of second-round effects on margins or wages. In addition, if euro area inflation were to prove more persistent than expected, this would give rise to further monetary policy tightening, which would exert downward pressure on both consumption and investment.

2 Inflation and uncertainty have weakened economic activity worldwide

The world economy has been marked by persistent inflationary pressures and monetary policy tightening (for more details, see Chapter 3 of this report). Rising inflation rates, which have been widespread across the different geographical areas, have surprised on account of their intensity and persistence. These inflationary pressures were essentially in response to global factors, including the recovery in demand associated with the reopening of economies following the health crisis, rising (energy and non-energy) commodity prices and disruptions in global logistics and production chains.²

Inflation has begun to ease thanks to the drop in energy commodity prices since summer 2022. The deceleration in these prices has been pronounced (see Chart 1.1.1) and this, together with significant negative base effects, explains the decline in euro area headline inflation from a peak of 10.6% in October 2022 to 6.9% in March 2023.^{3, 4}

Yet inflationary pressures remain high, after having spread to the entire consumption basket. The growth in the cost of energy and other commodities has had significant indirect effects on non-energy inflation and accounts for a very large part of the increase in prices of the other goods and services in the consumption basket. Specifically, both food and underlying (non-energy industrial goods and services) inflation rates continued to rise in the euro area up to March 2023, when they stood at 15.4% and 5.7%, respectively.⁵

Global economic growth slowed significantly over the course of 2022. In many countries, the average growth rate was high in the year, owing to the boost provided by the post-pandemic reopening in the first half, which benefited service industries in particular. Yet as the year progressed, high inflation undermined global growth. The more energy-intensive productive sectors were particularly affected by rising costs. Moreover, the decline in households' and firms' purchasing power weakened their consumption and investment expenditure. Economic momentum was also hampered by the uncertainty associated with the war in Ukraine and, increasingly, by the tightening of financial conditions (see Chart 1.1.2). In 2022 overall, global

2 Banco de España (2022a).

3 Changes in the year-on-year inflation rate between two consecutive months depend not only on the change in prices between those two months but also on the change between the same two months of the previous year. In general, base effects reflect the change in the inflation rate owing to changes in prices a year earlier.

4 According to the harmonised index of consumer prices (HICP) flash estimate, published after the cut-off date for this chapter, euro area inflation stood at 7% in April.

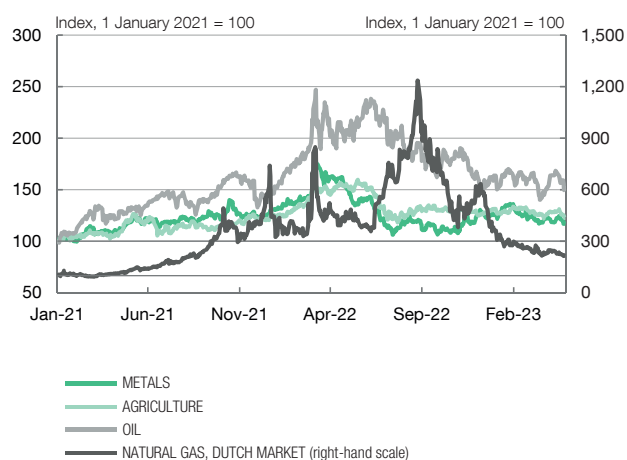
5 In April, euro area food and underlying inflation rates remained very high, at 13.6% and 5.6%, respectively.

Chart 1.1

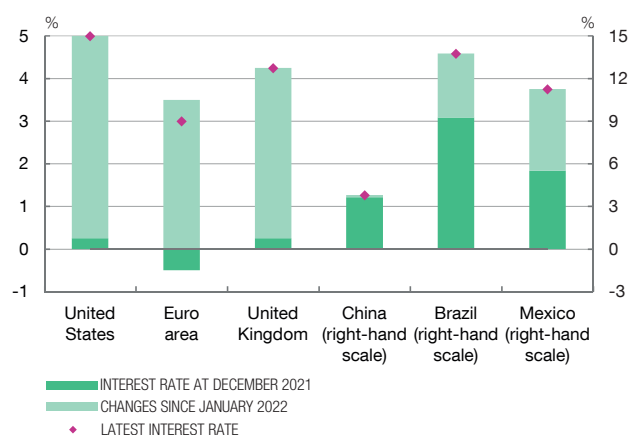
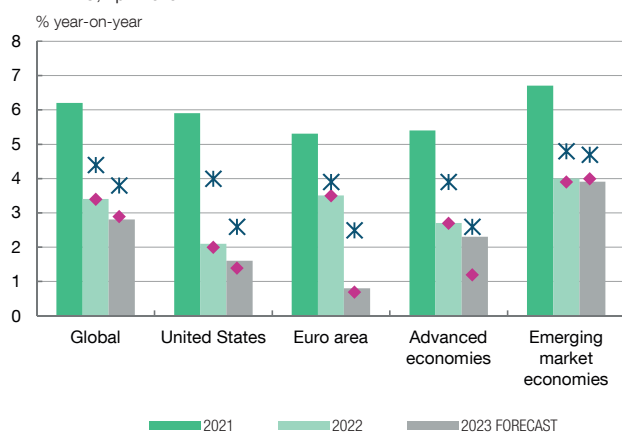
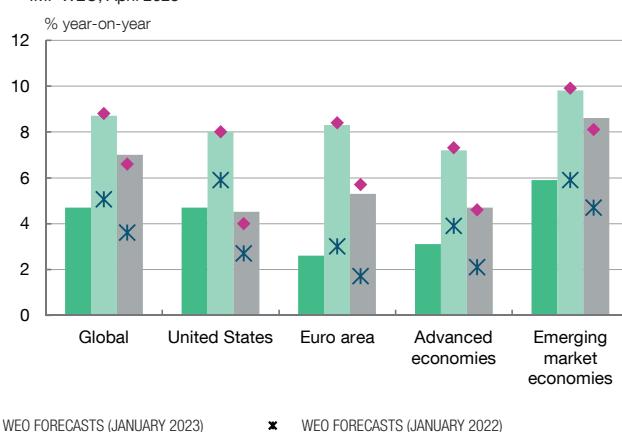
THE WORLD ECONOMY SLOWED DOWN IN 2022

The world economy decelerated in 2022, against a backdrop marked by greater uncertainty in the wake of Russia's invasion of Ukraine, high inflation and tighter monetary policy stances. Inflation rates are expected to fall in 2023, accompanied by moderate activity growth.

1 COMMODITY PRICES



2 INTEREST RATES

3 GDP GROWTH OUTLOOK
IMF WEO, April 20234 INFLATION OUTLOOK
IMF WEO, April 2023

SOURCES: IMF (World Economic Outlook) and Refinitiv.



GDP grew by 3.4%, which was less than expected at the start of the year (see Chart 1.1.3). The differences across the different geographical areas can be explained by factors such as the level of dependence on imported commodities, the timing of the lifting of the pandemic-related restrictions, and the aggregate demand policy stance.

Most recently, the global economy has shown some signs of greater dynamism. In the last stretch of 2022, global activity was more resilient than had been expected mid-year, thanks to the gradual normalisation of global supply chains and the progressive moderation of energy prices. In the opening months of 2023, economic activity looks to have picked up somewhat, underpinned by the continuation of the above-mentioned factors and China's decision to abandon its zero-

COVID policy. But the global financial turbulence in March has revived the uncertainty. In terms of annual average rates, the latest projections point to a slowdown in GDP in 2023, both in the advanced and the emerging market economies, as a result of the weakness in activity in 2022 H2, persistently high inflation and monetary policy tightening (see Charts 1.1.3 and 1.1.4).

Euro area activity has been relatively resilient in an adverse environment. Following the momentum in 2022 H1 stemming from the effects of the post-pandemic reopening, and as in other advanced economies, activity subsequently weakened. In any event, the euro area economy has also proved fairly resilient, as the slowdown in 2022 H2 was less pronounced than had been expected at the end of the summer. Moreover, economic activity is recovering modestly in early 2023, underpinned by the strength of the labour market. Looking forward, the relief provided by the decline in energy prices and the improvement in external demand will help to further strengthen euro area GDP, although this effect will be tempered by the impact of the necessary process of monetary policy tightening on the real economy.⁶

3 Spain: from the reopening momentum to resilience in the face of the energy crisis

Spain's high GDP growth in 2022 overall (5.5%) was the combination of two very different half-years. After a slow start to the year, the lifting of the pandemic-related restrictions prompted a sharp recovery in activity in the spring. However, the economy slowed markedly in the second half of the year, as the expansionary momentum of the economic reopening began to wane, giving way to the negative effects linked to the heightened inflationary pressures, increased uncertainty, the worsening outlook for external markets and the gradual tightening of agents' financing conditions. The impact of all these adverse factors was, however, cushioned by the strength of the labour market and the budgetary support measures.

The lifting of the health restrictions and the effects of the inflationary crisis conditioned supply-side developments. The sharp rebound in services, which were the sectors most affected by the restrictions, was the driving force, especially in the first half of the year. This reopening of services was reflected in high growth of private consumption and tourism exports, which benefited greatly from the gradual normalisation of foreign tourism inflows. By contrast, the manufacturing sectors performed less well as the year progressed, on account of opposing forces. Global logistics and production chain disruptions eased, which bolstered manufacturing sectors' activity. But this was countered by the prolonged and sharp increase in the cost of energy and other intermediate goods that had begun in 2021 and curbed activity in some manufacturing sectors. Indeed, in the most energy-intensive sectors, production was curtailed by rising costs (see Chart 1.2.1).⁷ More recently, the sharp fall in gas and electricity prices has eased some of these difficulties, although gas prices are still much higher than they were in spring 2021.⁸

⁶ ECB (2023).

⁷ Fernández-Cerezo and Prades (2022).

⁸ Specifically, on the Iberian gas market (MIBGAS), the price was around €40 per MWh in April 2023, compared with €17.5 per MWh in March 2021 and after reaching levels of €125 per MWh in March 2022.

In 2022 H2 and early 2023 the Spanish economy performed better than expected. In particular, the loss of momentum was less pronounced than had been suggested by the confidence indicators (see Chart 1.2.2). In any event, private consumption and investment demand weakened markedly in the last stretch of the year, as explained in more detail in Section 1.5 below. Activity has improved somewhat – also ahead of expectations – in the early months of 2023, with GDP growth of 0.5% in quarterly terms, compared with growth of 0.1% in the euro area as a whole in the same period.

Overall, Spanish GDP is 0.2% below its pre-pandemic level. Euro area GDP is already 2.5 pp over that level. The recovery in GDP has been uneven across demand components and economic sectors. Private consumption and, especially, investment (particularly residential investment) are still below their pre-pandemic levels, unlike imports and exports which have risen above theirs (see Chart 1.2.3). By productive sectors, agriculture and services have recovered their pre-COVID levels, whereas industry and construction have still not done so (see Chart 1.2.4).⁹

The inflationary crisis is having an uneven impact on different groups of economic agents (for more details, see Chapter 4 of this report). The higher price of imported energy goods compared with domestic energy production entails a loss of income. For households, the impact on their cost of living depends, among other factors, on their consumption patterns and the public policy response. This second aspect is analysed in the last section of this chapter. As regards households' consumption patterns, the amount that each spends on food and energy (the consumer goods whose prices have increased the most) as a proportion of their total expenditure is a crucial factor.¹⁰ For firms, the effects depend on their level of energy consumption, the flexibility of their production processes and their market power. The impact has been especially marked in energy-intensive manufacturing sectors, whose gas and electricity rates have been swiftly revised in line with wholesale prices, and whose options for reducing their energy consumption or replacing their energy sources with others whose prices have risen less are more limited.¹¹ There are also differences across firms as regards the extent to which they can pass cost increases through to selling prices, which in turn is related to demand and to the competitive environment in which they operate.¹²

9 Developments in recent quarters have meant that the services sectors that were most severely affected by the health crisis (retail trade, transportation and hospitality, professional, scientific and administrative activities, and arts and recreation) have now exceeded their pre-crisis levels by a wider margin than those that were less affected (information and communications, financial activities and insurance, and real estate activities).

10 As is explained in more detail in Section 1.7 below, food accounts for a larger proportion of lower income households' expenditure, whereas among medium to low income households energy expenditure is higher (García-Miralles, 2023). In addition, in the case of Spain, the type of gas and electricity contracts has also been key, as the income of households with utility rates that change rapidly according to changes in the corresponding wholesale markets has borne a larger impact. Meanwhile, Basso, Dimakou and Pidkuyko show that larger, lower income households whose head is male, less educated and old experience higher inflation.

11 Fernández-Cerezo and Prades (2022) show how, in 2022, the heterogeneity in manufacturing sector productivity in Spain is partly explained by the differences in energy consumption, in the degree of exposure to the post-pandemic recovery in contact-intensive activities and in the severity of supply shortages.

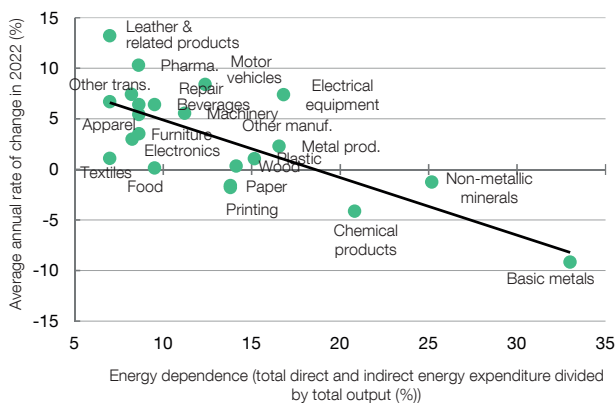
12 Menéndez and Mulino (2022) show that profits have fallen at firms that have a greater propensity to export, that are more exposed to particularly competitive environments.

Chart 1.2

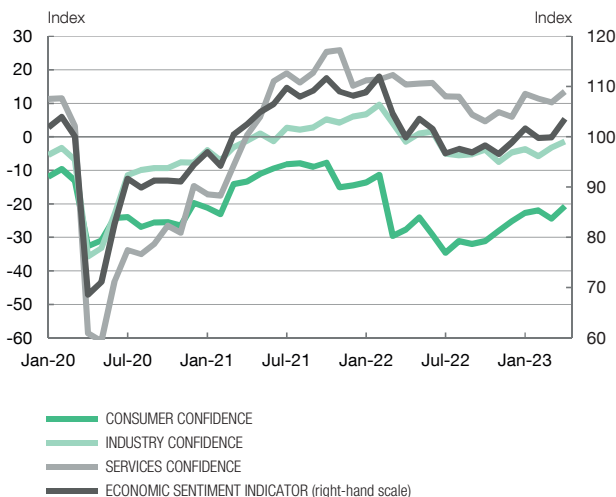
IN SPAIN ACTIVITY IS PERFORMING UNEVENLY ACROSS DEMAND COMPONENTS AND, ABOVE ALL, ACROSS SECTORS

The reopening of the economy boosted the contact-intensive sectors in 2022 H1, while higher energy costs have weighed on energy-intensive manufacturing sectors. Uncertainty linked to the war in Ukraine, higher prices and, more recently, higher borrowing costs dented household confidence. Spanish GDP has practically returned to its pre-pandemic level.

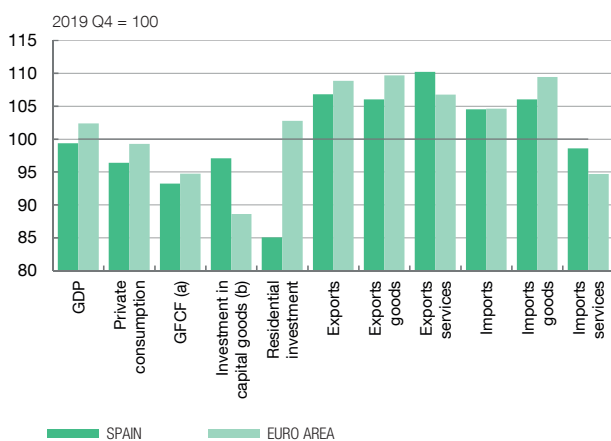
1 INDUSTRIAL OUTPUT IN 2022 AND ENERGY DEPENDENCE, BY SECTOR



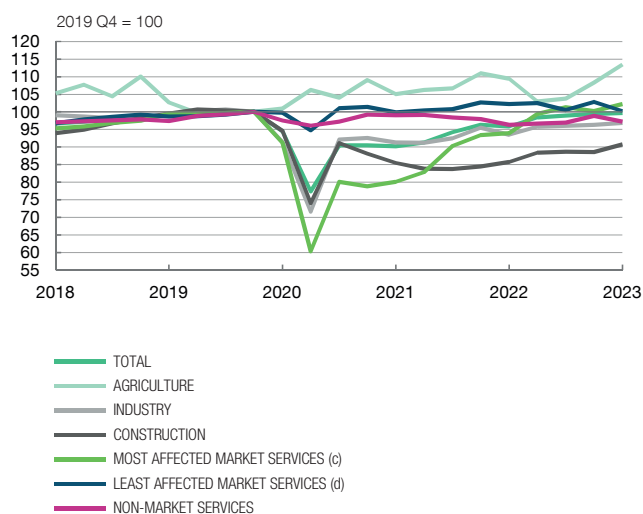
2 CONFIDENCE INDICATORS



3 GDP AND DEMAND COMPONENTS IN 2022 Q4



4 GVA, BY SECTOR OF ACTIVITY



SOURCES: Banco de España, European Commission, Eurostat, INE and Inter-Country Input-Output tables (ICIO-2018 OECD).

- a Gross fixed capital formation.
- b Includes cultivated biological assets and intangible assets.
- c Wholesale and retail trade, transportation and accommodation and food service activities, professional, scientific and administrative activities and arts and recreation services.
- d Information and communication, financial and insurance activities and real estate activities.



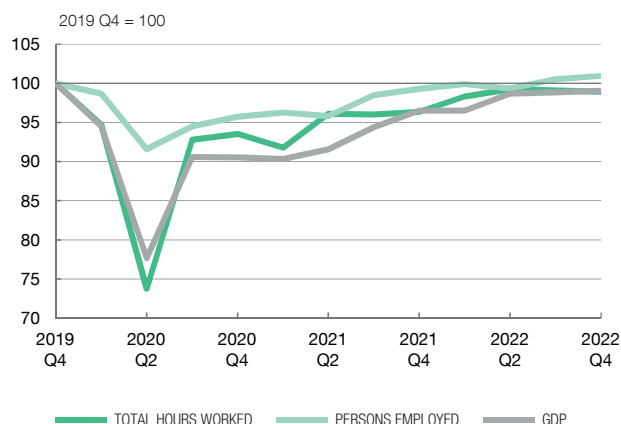
The relatively positive performance of the external sector, the strength of employment and fiscal momentum have all underpinned activity. Developments in foreign trade are analysed in Section 6 of this chapter, which underlines that the current account balance has fared fairly well, despite the surge in imported energy prices, thanks to the strong recovery in

Chart 1.3

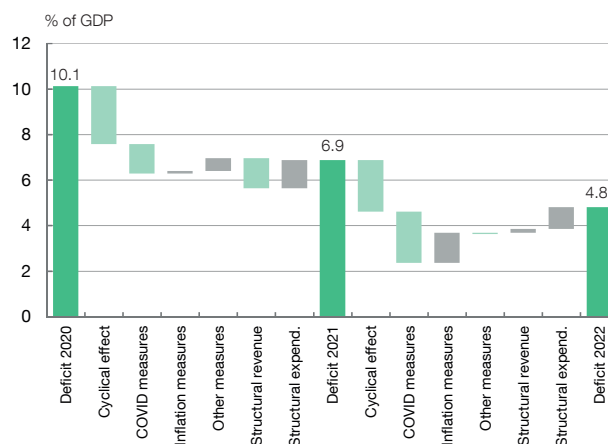
STRONG EMPLOYMENT AND FISCAL MOMENTUM HAVE UNDERPINNED ECONOMIC ACTIVITY

Employment momentum remains strong. Fiscal actions have boosted activity momentum, through the measures adopted to mitigate the effects of the inflation crisis. Meanwhile, the favourable economic cycle position and the lifting of the COVID-19 related measures have permitted a partial deficit correction.

1 EMPLOYMENT AND GDP GROWTH SINCE 2019



2 SPANISH GENERAL GOVERNMENT DEFICIT (a)



SOURCES: Banco de España, IGAE and INE.

a Decomposition of the change in the deficit between the cyclical effect, the fiscal cost of the COVID-19 measures, the fiscal cost of the energy crisis support measures ("inflation measures"), the cost of other temporary measures, and cyclically-adjusted revenue and expenditure (structural expenditure also includes interest expense). The light green bars denote an improvement, and the grey bars a deterioration, in the budget deficit.



international tourism and the growth in exports of non-travel services. Employment, measured in terms of hours worked, has converged towards pre-pandemic levels, supported by wage moderation (see Chart 1.3.1).¹³ In 2022 the total number of hours worked rose by 4.1%, followed by another sharp increase, in quarterly terms, in 2023 Q1.

The cumulative growth in the number of persons employed compared with the pre-pandemic period has risen faster than economic activity. In 2023 Q1 the number of persons employed was 2.3% higher than the pre-pandemic total.¹⁴ Moreover, this increase has outpaced the increase in total hours worked, such that the average working day has shortened. There are various reasons for this, some of which are specific to the recent period, such as the significant increase in employment observed since late 2019 in non-market services (essentially, the public sector), where the average number of hours worked is lower than in the rest of the economy, or the persistently high number of persons on sick leave in 2022.¹⁵ Other factors have to do with longer-term trends, for instance the decline over recent decades in the average working day, which is related to factors such as the growth in the

¹³ See Chapter 2 of this report.

¹⁴ On Quarterly National Accounts (QNA) data. The seasonally adjusted Spanish Labour Force Survey (EPA) figures set this positive gap at 3.7%.

¹⁵ Hurtado and Izquierdo (2023).

share of the services sector in the Spanish economy, the increase in the part-time employment rate and the higher female labour market participation rate.¹⁶

Recently the unemployment rate has fallen significantly. The strength of employment, together with the more modest growth in the labour force, has led to a steady decline in the unemployment rate, which in 2023 Q1 stood at 13.3%. Also, since early 2022, there has been strong growth in permanent contracts, and a corresponding decline in the temporary employment rate, a development associated with the labour reform passed in late 2021 (for more details, see Chapter 2 of this report). By economic sector, the growth in employment has been concentrated in the private sector, which on data up to 2023 Q1 accounts for 85% of jobs created in the last year, although in cumulative terms since the start of the pandemic the public sector records the most job creation, accounting for 56% of the almost 500,000 jobs created since end-2019.

The fiscal momentum to address the energy crisis and high inflation amounted to 1.4% of GDP in 2022. However, the general government deficit fell by 2.1 pp of GDP in the year, to 4.8% (see Chart 1.3.2), as a result of the large-scale recovery in activity and prices and the reduction in the volume of temporary measures (as those adopted to mitigate the effects of the pandemic were quantitatively larger than those designed to ease the energy crisis). In any event, as described in detail in Chapter 2, public finances are still a considerable source of vulnerability for the Spanish economy.

The economic projections for 2023-2025 expect the post-pandemic gap between Spanish and euro area GDP levels to gradually close. Economic output will be driven by the expected easing of inflationary pressures (with the consequent recovery in agents' real income and confidence), an end to the disruptions that still trouble global supply chains, and further deployment of the NGEU funds.¹⁷ Yet this will be increasingly countered by the impact of monetary policy tightening.

In any event, the uncertainty is high and persistent and there is a risk that less positive scenarios might materialise. The main sources of uncertainty notably include the possibility of new episodes of global geopolitical instability, which may be accompanied by fresh energy price rises. There is also considerable uncertainty regarding the pace of decline of non-energy inflation, which will depend on aspects such as demand strength, the emergence of significant second-round effects on inflation (via margins or wages) and the degree of monetary policy tightening needed (which also has a highly uncertain impact on the financial vulnerability of households and firms, on their consumption and investment decisions and on aggregate demand overall). Any financial stress that may arise from the very rapid, intense and globally synchronised monetary policy tightening is a further source of uncertainty, especially after the financial turmoil experienced in March. Moreover, on the domestic front, uncertainties remain as to the possible contribution that households' savings accumulated during the pandemic

¹⁶ Cuadrado (2023).

¹⁷ Banco de España (2023a).

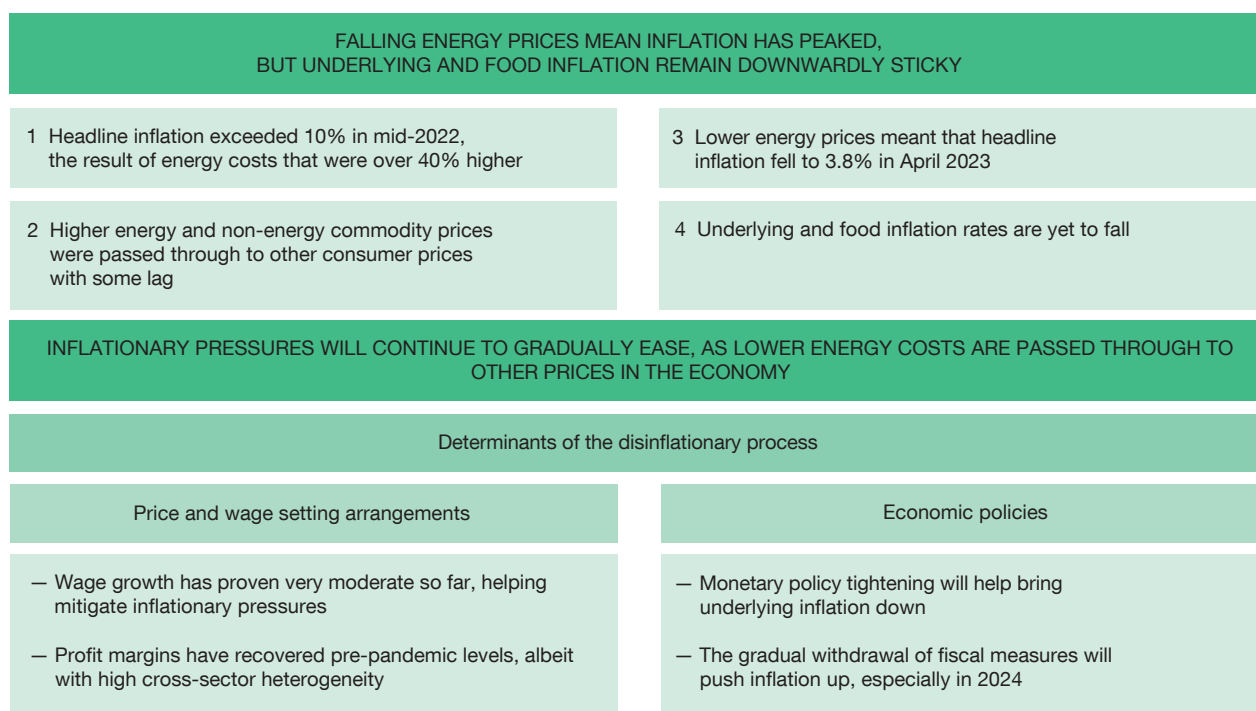
may make to private consumption, and regarding the pace of execution of the projects associated with the NGEU programme and their capacity to boost the potential growth of the economy.

4 Slowing energy prices in Spain have helped significantly lower headline inflation in recent months, but underlying inflation remains high

The rate of change of consumer prices peaked in summer 2022 and then started to fall (see Figure 1.2). The year-on-year growth rate of the HICP amounted to 10.7% in July 2022, its highest level since 1984; it declined sharply thereafter, to 3.1% in March 2023 (see Chart 1.4.1).¹⁸ Headline inflation was mainly driven by the energy component. The surge in this component had begun in spring 2021, but was exacerbated a year later by the consequences of the war in Ukraine. Of the energy goods, gas prices – which have a very significant influence over electricity prices – rose particularly sharply.¹⁹ However, lower gas and, to a lesser extent, lower oil prices meant that the rate of change of the energy component, which had amounted to 40.9% in July 2022, began to fall

Figure 1.2

THE RISE IN INFLATION IN 2022 AND THE SUBSEQUENT PRICE DECELERATION



SOURCE: Banco de España.

¹⁸ According to the flash estimate, the HICP rose to 3.8% in April.

¹⁹ Pacce, Sánchez and Suárez-Varela (2021).

quickly from mid-2022.²⁰ More recently, a considerable base effect has also contributed to the decline in year-on-year energy inflation (as current price levels have been compared with those of a year earlier, when energy prices had soared). As a result, energy inflation stood at -25.5% in March 2023. In addition, the depreciation of the euro in 2022 H1 (especially against the dollar, in which the bulk of global commodity transactions are conducted) made not only energy products but also all other imported consumer goods more expensive. Conversely, in recent months the appreciation of the euro has helped moderate the prices of imported goods.

The rise in inflation has been mitigated by the measures deployed by the authorities since mid-2021. As detailed in Section 1.7 and Box 1.1, these measures are estimated to have lowered the HICP growth rate by 0.8 pp and 2.3 pp in 2021 and 2022, respectively. In addition, the gradual withdrawal of the measures as currently envisaged will increase inflation rates in 2023 and 2024 by 0.3 pp and 1.6 pp, respectively. The measures that made the largest contribution to containing inflation in 2022 were the lower VAT rates on electricity and gas, the gas price cap for electricity generation and the fuel rebates.²¹ The measures expected to have a greater impact in 2023 are the public transport subsidies and the lower VAT on basic foodstuffs.²²

Both the initial rise in energy inflation and its subsequent decline have been considerably sharper in Spain than in the euro area. How wholesale electricity price shocks are passed through to retail consumer prices in Spain largely explains this different behaviour,²³ and meant that March 2022 saw the widest inflation differential between Spain and the euro area since records began and March 2023 the narrowest.

The initial rise in energy prices has been passed through to food consumer prices and non-energy industrial goods and services prices (i.e. the underlying component of the HICP). The pass-through has been somewhat lagged, but, on the basis of the available evidence, stronger than in previous episodes.²⁴ The war has also driven up the price of some agricultural commodities, as it has hindered their production and international trade. Other factors, such as low rainfall in various regions of the world, have also contributed to this rise (see Chart 1.4.2).²⁵ The increase in other input prices and some decoupling of supply and demand after the pandemic are also behind the rise in underlying inflation.²⁶

Unlike energy inflation, underlying and food inflation remain high. Overall, underlying inflation (excluding energy and food) amounted to 4.6% in March, after recording an all-time high of 5.2% in February. Services inflation is slightly below its summer 2022 peak. The full reopening of activity in these productive sectors initially prompted their prices to accelerate.

20 The decline in natural gas prices owed, among other factors, to the measures implemented by the European Union to save natural gas and the past winter's mild temperatures, as can be seen in European Commission (2022a, 2022b). These factors meant that in early 2023 stocks of this commodity were at their highest since 2017.

21 Pacce and Sánchez (2022).

22 Banco de España (2023a).

23 Pacce, Sánchez and Suárez-Varela (2021).

24 González-Mínguez, Hurtado, Leiva-León and Urtasun (2022).

25 Borrallo, Cuadro-Sáez, Pacce and Sánchez (2023) describe in more detail the various factors behind higher food prices.

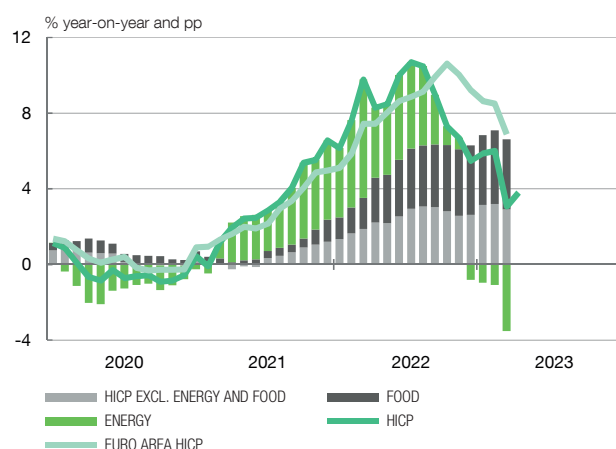
26 Pacce, del Río and Sánchez (2022).

Chart 1.4

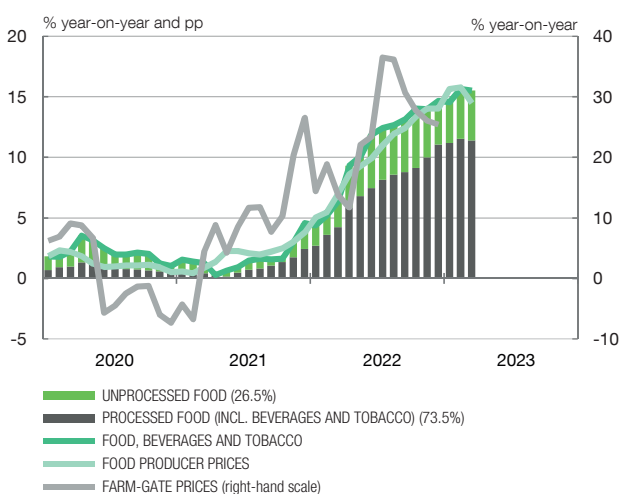
NON-ENERGY INFLATION REMAINS VERY HIGH, DESPITE THE FALL IN ENERGY PRICES

Among the HICP components, first energy prices, then food prices, started to rise, with inflationary pressures subsequently feeding through to underlying inflation. Since mid-2022, energy inflation has fallen swiftly, but the rates of the other components are proving sticky.

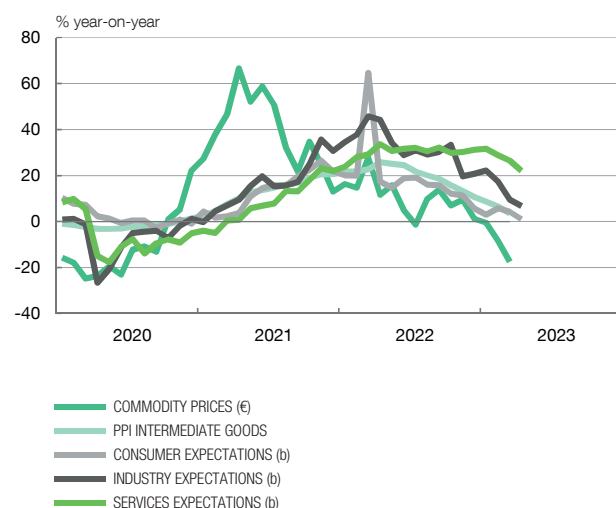
1 HICP AND CONTRIBUTIONS



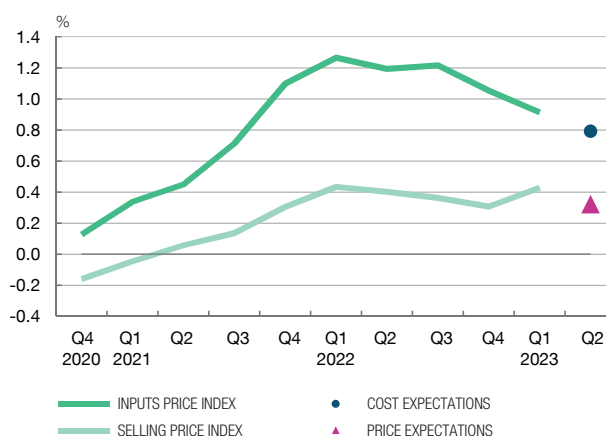
2 HICP-FOOD, BEVERAGES AND TOBACCO: RATES AND CONTRIBUTIONS (a)



3 COST PRESSURES AND PRICE EXPECTATIONS



4 FIRMS' PRICES AND COSTS (c)



SOURCES: Banco de España, European Commission, Eurostat, INE and Ministerio de Agricultura, Pesca y Alimentación.

a In brackets, the 2023 weight of each HICP-Food, beverages and tobacco component.

b European Commission business and consumer surveys.

c Results of the Banco de España Business Activity Survey (EBAE). The price and cost indices are constructed by assigning the following values to the firms' qualitative responses: significant increase = 2; slight increase = 1; unchanged = 0; slight decrease = -1; significant decrease = -2.



However, lower energy and transport prices and the moderate growth of unit labour costs (ULCs) have been conducive to their subsequent incipient deceleration.²⁷ Non-energy industrial goods inflation slowed in March 2023. This deceleration should be expected to bear out in the near future, given the normalisation of the composition of household demand (towards higher

²⁷ The moderate deceleration in services prices owes in part to the government measures subsidising public transport.

consumption of services at the expense of goods), fading bottlenecks and the decline in the prices of certain commodities. Some of these factors will also help slow food price growth. However, low rainfall and high average temperatures will very likely moderate these developments.

A very high proportion of products still have particularly elevated inflation rates. The percentage of the 129 HICP sub-indices excluding energy and food with inflation rates above 4% has tended to stabilise at 45% since July 2022, but has not yet started to fall.²⁸

There are some signs of price growth moderating in the initial stages of production processes. First, energy and non-energy commodity prices have moderated (see Chart 1.4.3). Second, the growth of industrial producer prices for non-energy intermediate goods has decelerated considerably (from above 25% in spring 2022 to 3.5% in March 2023). Third, the latest results of the Banco de España Business Activity Survey (EBAE) show that the proportion of firms reporting an increase in the prices of their inputs (see Chart 1.4.4) and of those expecting further increases in cost pressures in the future is falling.²⁹ Fourth, according to the European Commission's confidence surveys, since mid-2022 economic agents have revised down their expectations for future price developments considerably. Lastly, tighter financial conditions (including the recent euro appreciation) should be expected to increasingly help bring underlying inflation down.

The final demand deflator started to decelerate in 2022 Q4.³⁰ Between mid-2021 and 2022 Q3, the energy commodity price shock translated into a particularly sharp rise in external price pressures, measured by the import deflator. This explained most of the increase in the final demand deflator (see Chart 1.5.1). More recently, the deceleration in the final demand deflator is merely the result of the moderation of import deflator growth, due to lower energy prices, while the value added deflator has continued to accelerate.³¹

From a cost perspective, unit profits have of late contributed more to value added deflator growth than ULCs. The pace of growth of the value added deflator – which, as indicated in footnote 30, is a measure of the prices of goods and services produced in Spain – combines the growth of ULCs and unit profits (compensation of employees and gross operating surplus (GOS), respectively, per unit of output). The year-on-year growth rate of unit profits in 2022 and 2023 Q1 far outstripped that of ULCs. From a longer-term perspective, given that at the onset of the pandemic the opposite was true, the cumulative increase between end-2019 and 2023 Q1 in unit profits has only slightly exceeded that in ULCs (see Chart 1.5.2).

Profit margins, measured by the gross profit ratio (gross operating surplus divided by gross value added (GVA)) of non-financial corporations (NFCs), have continued to recover

28 Items with price growth above 4% accounted for 52% of the consumption basket in March 2023, far higher than the 17% recorded in January 2022.

29 Fernández-Cerezo and Izquierdo (2023).

30 This deflator distils the path of the prices of goods and services demanded for consumption and investment in Spain and those exported to the rest of the world. It is constructed by aggregating, with the corresponding weights, the prices of goods and services from the rest of the world and those produced in Spain (measured, respectively, using the import and value added deflators).

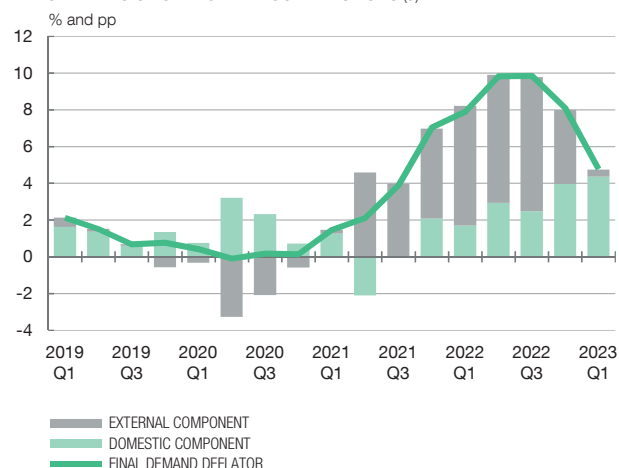
31 However, the price growth of goods and services acquired abroad remains higher than that of those produced in Spain.

Chart 1.5

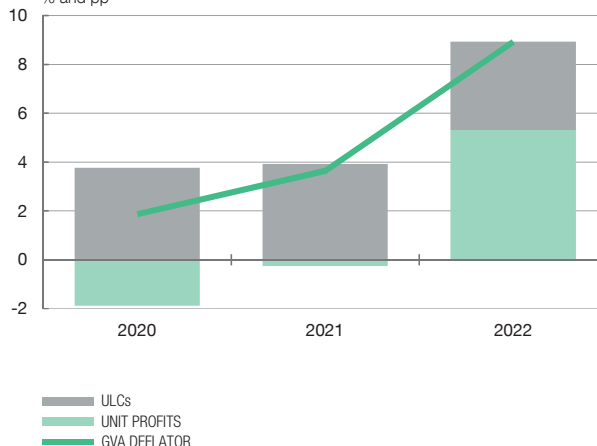
HIGH IMPORTED INFLATION HAS PROMPTED AN INCREASE IN DOMESTIC PRODUCTION INFLATION, BUT COSTS REMAIN CONTAINED

The rates of change of final demand prices remain very high, but, while the contribution of the import component is falling, that of domestic production is rising. From a cost perspective, ULCs and unit profits stand close to their pre-crisis levels.

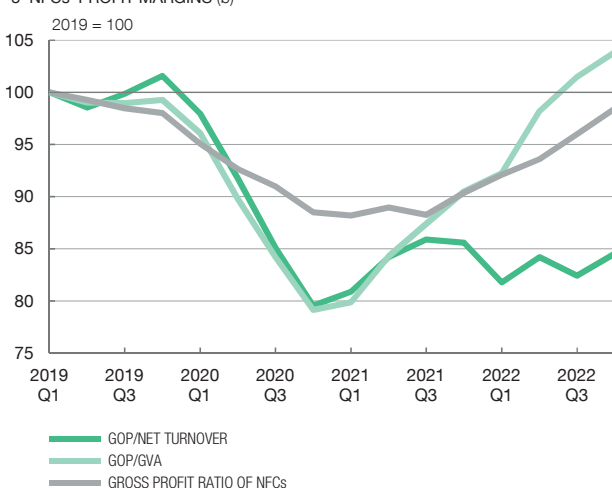
1 FINAL DEMAND DEFLATOR
Y-O-Y RATES OF CHANGE AND CONTRIBUTIONS (a)



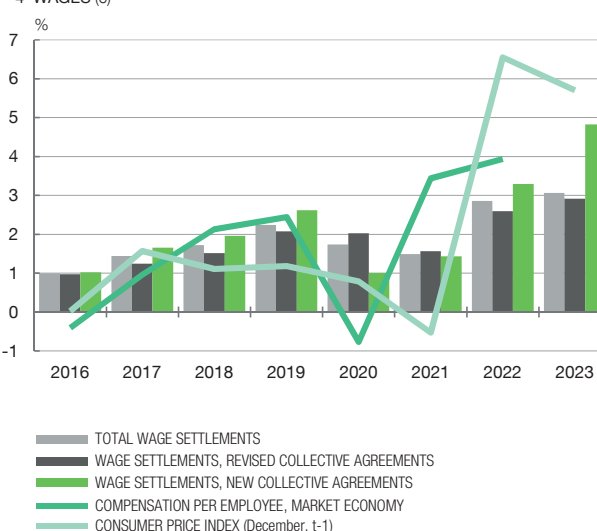
2 MARKET ECONOMY GVA DEFLATOR
CUMULATIVE GROWTH RATE SINCE 2019 AND CONTRIBUTIONS



3 NFCs' PROFIT MARGINS (b)



4 WAGES (c)



SOURCES: Banco de España, INE and Ministerio de Trabajo y Economía Social.

- a The contribution of the external and domestic component to the year-on-year growth of the final demand deflator is an approximation.
 b Data from the Banco de España CBQ are used for GOP/Net turnover and GOP/GVA. For the gross profit ratio of NFCs, data from the Non-Financial Accounts for the Institutional Sectors are used. Cumulative four-quarter data.
 c The data for 2023 refer to collective agreements registered to March.



in recent quarters, reaching levels similar to pre-pandemic levels. On information from the Non-Financial Accounts for the Institutional Sectors and the Banco de España Central Balance Sheet Data Office Quarterly Survey (CBQ), this ratio, which fell at the onset of the COVID-19 crisis, has risen steadily since then, exceeding its pre-pandemic level in 2022 (see Chart 1.5.3). However, there is considerable heterogeneity across sectors and firm types. The rise in the ratio of gross operating profit (GOP) to GVA in 2022 was compatible with a slight decrease, from 2021 Q4, in

the ratio of GOP to net turnover, keeping it clearly below its 2019 level. This indicator reflects that, in aggregate terms, costs are only partially being passed through to prices.

Despite the steep rise in consumer prices, wage settlements are proving moderate, which has resulted in a significant fall in real wages. Wage settlements amounted to 2.7% in 2022 (see Chart 1.5.4). Indexation clauses also had a limited impact last year (around 0.2 pp), essentially for two reasons: their modest prevalence in collective agreements (below 20%) and the existence of different conditions and thresholds for their application, which limit their impact on labour costs.³² Overall, compensation per employee grew by 3.2% in 2022, far below inflation. In the collective agreements already registered for 2023, wage settlements have increased, albeit moderately for the time being, to 3.1% in March. However, those negotiated for 2023 are significantly higher in the agreements reached so far this year (4.8%) than in those executed previously (2.9%).³³

Profit margin containment and labour cost moderation will be key to avoiding significant second-round effects on inflation. The emergence of a price-cost spiral would compound the current inflationary pressures, with adverse consequences for the economy's competitiveness, which would result in job losses and lower output. It would therefore be desirable for social partners to reach a national income pact that shares the loss of income triggered by higher imported commodity prices between firms and workers.³⁴ At the cut-off date for this report, Spain's social partners appear to have reached an initial agreement that could serve as the basis for defining this national income pact under the Employment and Collective Bargaining Agreement.

Non-energy inflation is expected to gradually decelerate over the period 2023-2025. This forecast is based on: the persisting global supply chain disruptions fading away; the gradual impact on demand of monetary policy tightening; the recent energy cost declines progressively passing through to the prices of other goods and services; and the effects of the appreciation of the euro since last autumn. In any event, these projections rest on two critical assumptions. First, that the pass-through of past cost increases is near completion, and that the pass-through of the recent declines will come to the fore over the coming months. Second, that in line with the evidence available to date, no significant second-round effects that might trigger feedback loops between the current inflationary pressures will emerge over the projection horizon.

5 Inflation and tighter financing conditions weakened consumption and investment in 2022 H2

The decline in household purchasing power and interest rate rises have held back growth in private consumption. These factors have adversely impacted the purchasing

³² [Herrera and Izquierdo \(2022\)](#).

³³ New collective agreements registered to March still only cover a relatively low number of workers (just over half a million).

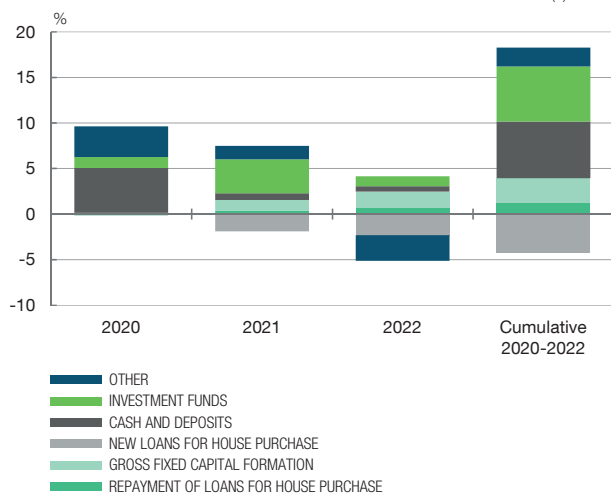
³⁴ [Hernández de Cos \(2022\)](#) describes in detail the general principles to take into account when designing the national income pact.

Chart 1.6

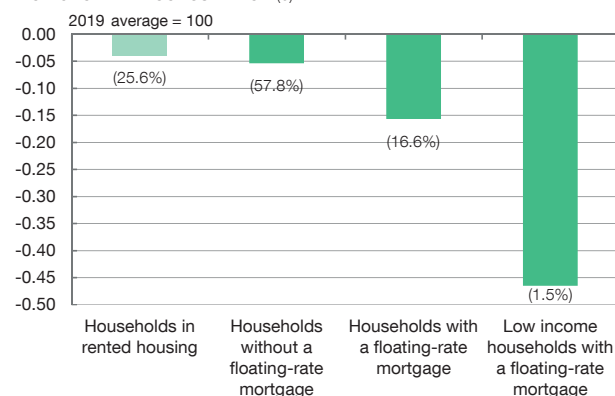
INFLATION AND TIGHTER FINANCING CONDITIONS HAVE WEIGHED ON GROWTH IN CONSUMPTION AND INVESTMENT

Higher prices and tighter financing conditions have adversely impacted consumption. In a highly adverse setting, the extraordinary savings built up by households during the pandemic have hardly given any impetus to this demand component.

1 SURPLUS SAVINGS BUILT UP DURING THE PANDEMIC AND SAVING AND INVESTMENT FLOWS IN EXCESS OF THEIR 2019 LEVELS (a)



2 EXPECTED IMPACT OF CHANGES IN MORTGAGE RATE EXPECTATIONS ON GROWTH IN CONSUMPTION (b)



SOURCES: Banco de España, Consumer Expectations Survey and INE.

- a Surplus saving is calculated as the flow of saving (as a percentage of gross disposable income) in excess of its 2019 level. Saving and investment flows also reflect the amount channelled towards different assets and liabilities above the 2019 level. "Other" comprises the flows channelled towards assets and liabilities not depicted in the chart, in addition to statistical discrepancies between the financial account and the capital account, net capital transfers and net acquisitions of non-produced assets.
- b Expected impact on consumption based on interest rate expectations. Expected changes in income level are controlled for in the estimation. Household fixed effects are also included. Standard errors clustered at household and time level. For households living in rented housing, the expected impact of changes in interest rates on the growth in consumption is estimated less accurately and is not significant. The figures in brackets denote the proportion of households in each of the groups depicted in the chart as a percentage of the total population.



power of households (especially those with floating-rate debt), which have lowered their saving ratio in recent months. In 2022 H2, the household saving ratio stood below its pre-pandemic level. However, the aggregate reduction in saving has proven insufficient to sustain consumption, which fell considerably in 2022 Q4 and has continued to decline in 2023 Q1.³⁵

Almost 45% of the burgeoning extraordinary savings built up during the pandemic are held in bank deposits, but these funds are unlikely to give a significant impetus to consumption. Since 2021 households have channelled a growing proportion of their surplus saving into non-financial assets (mainly housing) and, more recently, into repaying mortgage debt arranged earlier (see Chart 1.6.1). However, according to Banco de España estimates, almost half of the extraordinary savings built up during the pandemic are held in cash and

³⁵ While in early 2021 the real value of financial assets was 12% above end-2019 levels, by end-2022 this gap had narrowed to somewhat less than 4%.

deposits and, therefore, would be immediately on hand for spending.³⁶ Even so, these funds will likely only provide limited support to consumption in the future. This is because most of these extraordinary savings were accumulated by higher income households, which have a lower marginal propensity to consume and more headroom, via their current income, to soften the impact on consumption of higher prices and interest rates.^{37, 38}

Tighter financial conditions are having an uneven impact on the consumption of the different types of households. Specifically, according to the survey data presented in Chart 1.6.2, given the expectations for higher mortgage rates, households with floating-rate mortgage debt expect to reduce their consumption more than other groups. This is especially pronounced for low income indebted households, which also tend to have higher debt burdens and tighter liquidity constraints and to make more use of consumer credit.

Residential investment has also proven considerably weak recently (see Chart 1.7.1). This is due to the gradual loss of household purchasing power, the high uncertainty and the fact that bank lending has progressively become more expensive and difficult to access. House purchases and mortgage lending flows have declined since 2022 Q2, while housing starts currently remain at all-time lows. In keeping with these developments, house price growth has slowed since 2022 Q2. House prices are moderating less sharply than in other major European economies, where prices had grown more steeply in recent years. The shortage of specialised labour and higher construction material costs are simultaneously behind the sluggishness of new housebuilding and the downward stickiness of house prices.³⁹

Private productive investment has lost considerable momentum since spring 2022 (see Chart 1.7.1). Business investment has also been affected by this adverse setting.⁴⁰ Since mid-2022, this has resulted in a deceleration in external financing granted to firms and, in particular, in demand for credit for investment, which, as the Bank Lending Survey has shown in recent quarters, has been held back by the increase in interest rates. By contrast, credit for working capital has proven stronger, possibly because of the higher cost of commodities (see Chart 1.7.2). In any event, private investment has performed considerably better since the onset of the pandemic than during the global financial crisis.

Both investment in machinery and investment in transport equipment slowed from spring 2022. Nevertheless, investment in machinery remains above its pre-pandemic level and, furthermore, has regained momentum in early 2023. By contrast, investment in transport equipment stands well below its pre-health crisis level and in early 2023 continued to follow

36 Alves and Martínez-Carrascal (2023).

37 Specifically, the top two quintiles of the income distribution account for almost 70% of the increase in the aggregate saving ratio in 2020.

38 Furthermore, the increase in interest rates could encourage greater use of these funds to repay floating-rate loans and for financial investments, rather than for consumption.

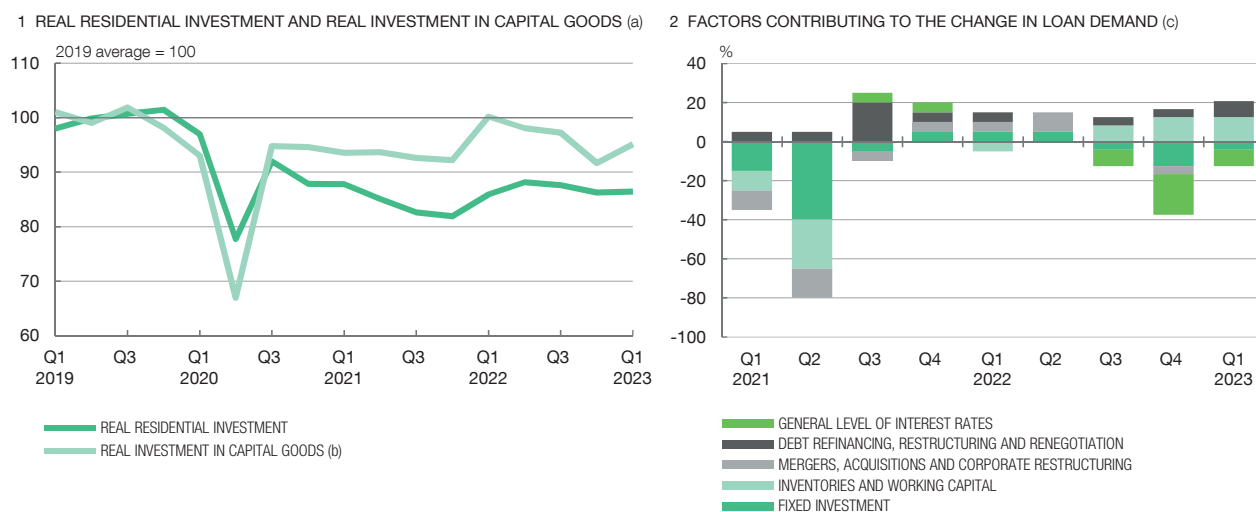
39 San Juan (2023).

40 Aguilar, Ghirelli and Jiménez-García (2023) provide evidence of the relative importance of these factors. In any event, the high uncertainty and deterioration in financing conditions have partially lagged effects that operate in 2023.

Chart 1.7

INVESTMENT, WHICH HAD SLOWED IN RECENT QUARTERS, REMAINS WEAK IN EARLY 2023

Residential investment has waned recently: house purchases have fallen since mid-2022 and supply remains at all-time low levels. Both residential and business investment, particularly investment in capital goods, have been dented by the rise in borrowing costs and the lower availability of financing.



SOURCES: Banco de España and INE.

a Seasonally and calendar-adjusted series.

b Gross fixed capital formation in capital goods, machinery and cultivated biological assets.

c Percentage of banks reporting that the factor has contributed considerably to increasing demand $\times 1$ + percentage of banks reporting that it has contributed somewhat to increasing demand $\times 1/2$ - percentage of banks reporting that it has contributed somewhat to reducing demand $\times 1/2$ - percentage of banks reporting that it has contributed considerably to reducing demand $\times 1$. Data from the Banco de España Bank Lending Survey (BLS).



the downward path of prior quarters. In addition, according to the EBAE, gross fixed capital formation has performed better at larger firms.

Lastly, although government spending under the NGEU programme increased in 2022, it did so relatively modestly and, therefore, its impact on the spending of final agents remains limited. Information from tenders and awards under the Recovery and Resilience Facility suggests that the volume awarded in 2022 amounted to approximately 0.8% of GDP. Looking ahead, the gradual roll-out of the Strategic Projects for the Economic Recovery and Transformation (PERTE by their Spanish initials) should be expected to further boost private investment in 2023.⁴¹

6 The external sector was key to sustaining output growth

The Spanish economy's external sector has performed fairly well recently. First, net external demand made a sizeable contribution (2.4 pp) to GDP growth in 2022, thanks in large

⁴¹ To date a total of 12 PERTEs have been authorised. Under these projects, public funds supplement private investment initiatives in strategic sectors.

part to robust services exports. Second, last year saw moderate gains in competitiveness, offsetting the losses incurred since the onset of the pandemic. Lastly, in terms of nominal trade, while the goods and services surplus shrank by 0.1% of GDP in 2022, this was set against the much sharper downturns observed in the other large euro area economies.

As far as real trade flows are concerned, services exports were notably buoyant, particularly in terms of international tourism. Tourism flows recovered remarkably well over the course of 2022, following the lifting of mobility restrictions. Nonetheless, in the opening months of 2023, total foreign visitor numbers remain slightly below the early 2019 figures. The post-pandemic recovery has brought with it some welcome changes in the composition of tourism flows, which has shifted somewhat towards segments with greater purchasing power, with higher-category accommodation now accounting for a bigger share of total overnight stays.⁴² This, combined with the fast price growth in the sector, has meant that revenues have continued growing (in nominal terms), standing well above their pre-pandemic levels at the start of 2023.

Exports of non-travel services are also seeing very fast growth. The recent performance of this demand component is further confirmation of one of the most striking features of the Spanish economy's performance since the global financial crisis. Particularly noteworthy, by type of activity, is the rise in exports of transport, business and telecommunications, and IT and information services. The factors behind this encouraging trend include the internationalisation and increasing digitalisation of Spain's business sector and, in the case of transport services, the return of foreign tourists (see Chart 1.8.1). Imports of both travel and non-travel services were also very robust in the year overall, albeit less markedly than in the case of exports.

Conversely, trade in goods has seen much more muted growth recently, above all in terms of exports. 2022 and the early months of 2023 saw a modest rise in sales of goods abroad, in keeping with the considerable weakness of global trade. While the overall mood was subdued, exports were stronger in some sectors, such as energy products and certain capital goods. By contrast, exports in other productive sectors faced headwinds owing to global supply chain disruptions, although they subsided as the year progressed. A case in point was the automotive sector, with the semiconductor shortage taking its toll on manufacturing and exports during much of the year. Nonetheless, this situation has reversed more recently, as the underlying causes of such shortages recede. Thus, in early 2023, vehicle exports (and indeed manufacturing) are on the rise.

Meanwhile, in real terms goods imports are growing faster than their usual main determinants (final demand and price competitiveness) would suggest. Three factors explain this strength.⁴³ First, the increased demand (possibly structural in nature) for certain goods produced by sectors with a high import content, such as the IT and telecommunications

⁴² [García, Gómez and Martín \(2023a\)](#).

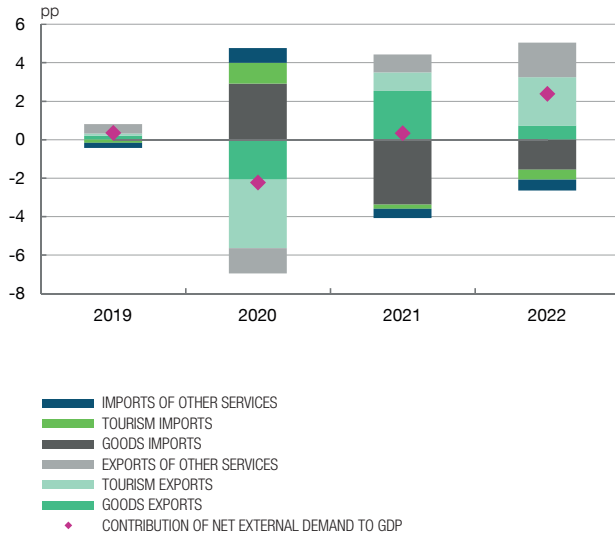
⁴³ [García, Gómez and Martín \(2023b\)](#) (only available in Spanish).

Chart 1.8

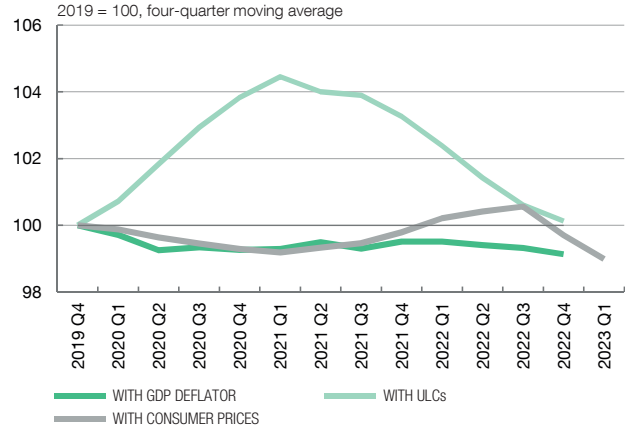
NET EXTERNAL DEMAND CONTRIBUTED SIGNIFICANTLY TO GDP GROWTH IN THE MOST RECENT PERIOD

Services exports have given a notable boost to the external sector's contribution to activity, thanks to the return of international tourism and the all-round strength of non-travel services. The rising cost of energy commodities has adversely impacted the real terms of trade.

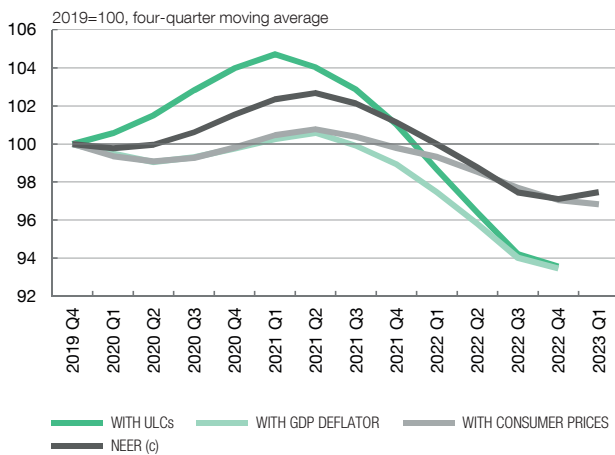
1 THE EXTERNAL SECTOR'S CONTRIBUTION TO CHANGE IN REAL GDP



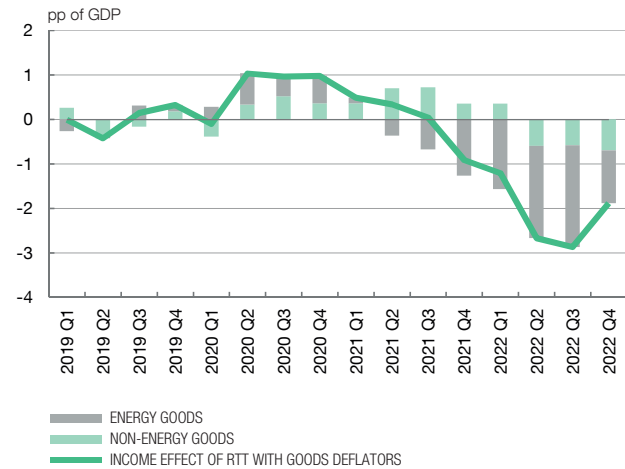
2 COMPETITIVENESS INDICATORS: SPAIN VIS-À-VIS THE OTHER EURO AREA COUNTRIES (a)



3 COMPETITIVENESS INDICATORS: SPAIN VIS-À-VIS A GROUP OF 18 NON-EURO AREA INDUSTRIALISED COUNTRIES (a) (b)



4 INCOME EFFECT OF REAL TERMS OF TRADE (WITH GOODS DEFLATORS). SPAIN (d)



SOURCES: ECB, INE and Ministerio de Asuntos Económicos y Transformación Digital.

- a Increases (decreases) in the indices reflect losses (gains) in competitiveness.
 b Vis-à-vis a group of 18 non-euro area trading partners, comprising Australia, Canada, Denmark, Hong Kong, Japan, Norway, Singapore, South Korea, Sweden, the United Kingdom, Switzerland, the United States, Bulgaria, China, the Czech Republic, Hungary, Poland and Romania.
 c Nominal effective exchange rate.
 d The disaggregation of deflators into energy and non-energy components is calculated based on the export and import UVIs (unit value indices of exports and imports).



sector. Second, the significant boost to energy imports. This can be attributed both to Spain's own exports of such goods (once reprocessed) to other economies more dependent on Russian oil and gas, and to the stockpiling strategies deployed in 2022 in the face of the threat of supply disruptions. Looking ahead, this increase in energy purchases looks likely to persist for as long

as the war in Ukraine lasts. The third factor has to do with the partial substitution of domestic production by imports from outside Europe in the case of the more energy-intensive manufacturing sectors (e.g. chemicals and basic metals), given the competitiveness lost due to the fact that the cost of these inputs has risen more on the continent.⁴⁴ This state of affairs, should it persist, could have adverse consequences in the long term, even if the underlying causes were to reverse, since the damage caused to the profit margins of these firms could deter them from deciding to invest or hire new staff in Europe.

Despite rising energy costs, the Spanish economy has proven more competitive in recent times. Compared with the euro area, in 2022 the ULC indicator returned to levels comparable to 2019 levels, reversing the overall loss of competitiveness seen during the pandemic (see Chart 1.8.2). Compared with the non-euro area industrialised countries, this trend was further bolstered by the depreciation of the nominal effective exchange rate (see Chart 1.8.3). Tourism exports were boosted by the improvements in competitiveness captured by the consumer price-based indicators, which proxy the overall competitiveness of an economy, including services.⁴⁵

The worsening of the real terms of trade as a result of rising energy prices was compounded in 2022. This deterioration was significant in the middle stretch of 2022, with an adverse impact on national income of around 3% of GDP (see Chart 1.8.4). This loss of income can largely be attributed to the soaring relative prices of energy imports, coinciding with most severe natural gas market turbulence. Nonetheless, since 2022 Q2, non-energy goods have also played a part in the worsening of the real terms of trade. More recently, in 2022 Q4, the downward correction to energy commodity prices went some way to reducing the deterioration in the real terms of trade.

Despite the sharp rise in energy prices, the contraction in the current account surplus was relatively small in 2022 (falling by 0.4 pp of GDP, to 0.6%). The goods deficit widened considerably in 2022, largely due to the impact of more expensive imported energy on the energy balance. Nonetheless, the non-energy balance also deteriorated, with the rising cost of other commodities and a depreciating euro playing a key role. Moreover, the aggregate primary and secondary income deficit grew somewhat, as rising interest rates were gradually passed through to the corresponding net payments. However, a large proportion of these developments was offset by the improvement in the services surplus, which, as noted above, was largely the result of the return of international tourism, although the increase in the non-travel services surplus also played a part.

44 A reliable supply of energy at a competitive price relative to other geographic regions is key to competing on international markets, particularly in the case of the more energy-intensive sectors. In this regard and despite the declines seen since summer 2022, gas remains more expensive than in other regions, putting Spain and its European neighbours at a competitive disadvantage and potentially leading to the delocalisation of production. Chapter 4 looks at this issue in more depth.

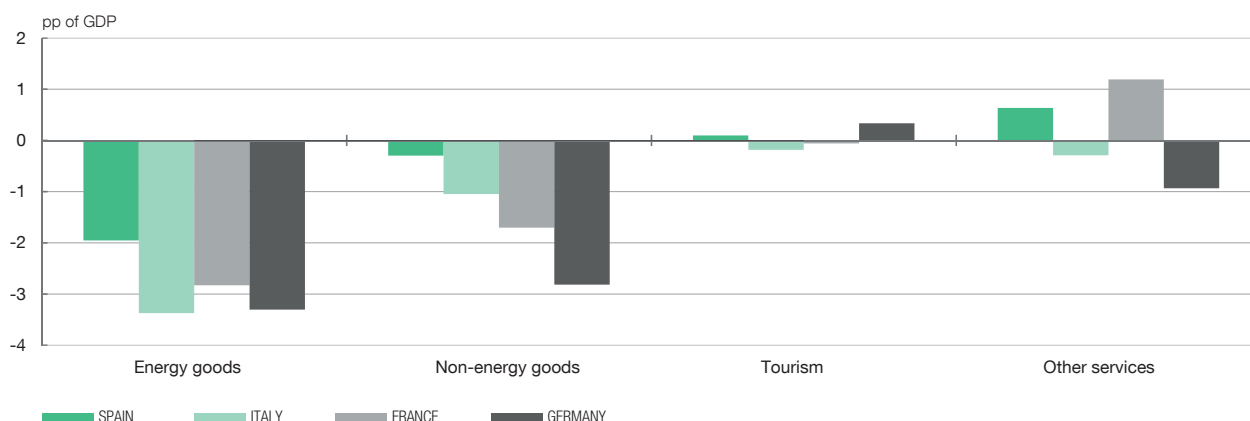
45 In terms of consumer prices, the inflation differential with the euro area deteriorated significantly during much of 2021 and in early 2022, immediately after the outbreak of war, owing to the faster pass-through of wholesale natural gas prices to electricity prices in Spain. Nonetheless, this trend reversed after the summer, due to the implementation of the Iberian mechanism and, in particular, to the slowdown in energy commodity prices.

Chart 1.9

THE DETERIORATION IN THE GOODS AND SERVICES BALANCE BETWEEN 2019 AND 2022 WAS MUCH MORE MODEST IN SPAIN THAN IN THE OTHER MAIN EURO AREA COUNTRIES

Energy re-exports mitigated the negative impact of rising energy costs on the energy goods balance. The non-energy goods balance has also improved significantly.

DIFFERENCES IN THE GOODS AND SERVICES BALANCES BETWEEN 2019 AND 2022 (a)



SOURCES: Banco de España, Eurostat and INE.

a The breakdown of the goods balance into its energy and non-energy components is estimated using the data on foreign trade in goods disaggregated by product (Eurostat and Customs Department).



The severe shocks since 2019 have so far led to a much more modest deterioration in Spain's goods and services balance than in the other main euro area countries. In Spain, this balance worsened by 1.5 pp of GDP between 2019 and 2022, versus 7.2 pp, 3.2 pp and 4.6 pp in Germany, France and Italy, respectively (see Chart 1.9). By component, it is worth noting that the energy deficit grew by 1.9 pp of GDP in Spain, whereas this figure ranged from 3.1 pp to 3.3 pp of GDP in the other three economies. As noted above, this can be attributed to the notable buoyancy of re-exports of energy goods (once processed in Spain), which include significant value added. Furthermore, while the non-energy goods balance has worsened in all four countries, it has done so to a lesser degree in Spain (0.3 pp of GDP) than in Germany, France and Italy (2.8 pp, 1.6 pp and 0.7 pp, respectively). Spain's tourism balance barely changed between 2019 and 2022, much like in France and Italy.⁴⁶ Lastly, France's non-travel services balance improved more than Spain's, though Italy and (above all) Germany saw declines.

7 Domestic and supranational European economic policy responses in recent quarters

The European authorities have responded resolutely to the Russian invasion of Ukraine and the challenges it has posed by implementing a wide range of measures in multiple areas.

⁴⁶ Though Germany is traditionally an exporter of tourists, its tourism balance has nonetheless improved compared with the pre-pandemic period, due to the fall in foreign travel.

For instance, different packages of sanctions and restrictions have been adopted over recent quarters, aimed essentially at increasing the cost of the war for Russia and its economy. In addition, to boost the EU Member States' responsiveness, in May 2022 the European Commission agreed to keep the general escape clause of the Stability and Growth Pact activated in 2023. The clause was activated at the onset of the pandemic and, before the outbreak of the war in Ukraine, was expected to be deactivated as of 2023. Lastly, the Commission approved a new State aid Temporary Framework, which relaxed the rules on grants and subsidised public loans for the sectors hardest hit by the energy crisis and aims to drive the transition to an emission-free economy.

In the energy domain, the launch of the Commission's REPowerEU programme stands out. This plan combines a series of initiatives aimed at diversifying the EU's fossil fuel supply sources, stepping up energy saving and speeding up the deployment of renewables. To achieve these goals, among other measures, Member States can use the remaining RRF loans – and new RRF grants funded by the auctioning of Emission Trading System allowances – to adopt further energy actions. Additional regulations were also established in the context of, for example, gas inventories, renewables targets and joint natural gas purchases. For further details on the European economies' response and adaptability to the energy crisis, from both a short and a medium and long-term perspective, see Chapter 4.

In late 2021 the ECB launched its monetary policy tightening process in response to the high and persistent inflationary pressures. Chapter 3 describes in detail how the ECB has been adjusting its monetary policy stance over recent quarters – leading, among other measures, to a rapid rise in the policy interest rates, totalling 375 bp between July 2022 and May 2023 – and how these monetary policy decisions are filtering through, via different channels, to economic activity as a whole.

The national authorities of the EU Member States have also adopted manifold initiatives in response to the surge in prices. These measures have essentially sought to limit the increase in domestic prices – energy prices above all, but also food prices, in some cases – and/or support economic agents' incomes amid the erosion of their purchasing power since 2021. Overall, these measures – which have mostly been blanket measures, rather than targeted at the most vulnerable groups – amount to around 2 pp of euro area GDP. In addition, persistent high inflation has meant that, in most cases, these measures have been extended to much of 2023.

It is estimated that the measures adopted in Spain since mid-2021 to mitigate the consequences of high inflation will have a budgetary impact of around €37 billion between 2021 and 2025 (see Box 1).⁴⁷ This cost is likely to be concentrated in 2022 and 2023, accounting for shares of 1.4% and 0.9% of GDP, respectively, slightly lower, therefore, than that estimated for the euro area overall.⁴⁸

⁴⁷ This cost has been calculated on the assumption that the measures rolled out will remain in force for the duration announced by the authorities. In any event, the exact cost of these initiatives cannot be estimated at this point in time, since the duration of such measures will depend on how prices themselves develop.

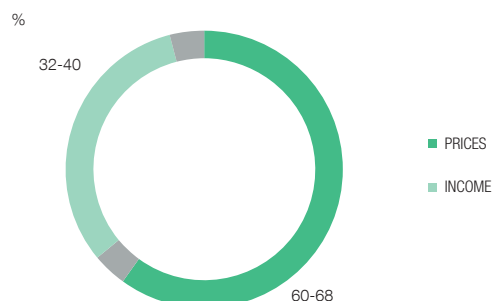
⁴⁸ According to Eurosystem estimates, overall these fiscal measures are estimated to amount to around 1.9% and 1.8% of the euro area's GDP in 2022 and 2023, respectively (Checherita-Westphal and Dorrucchi, 2023).

Chart 1.10

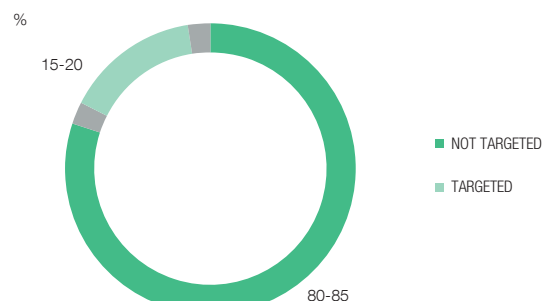
MOST OF THE ANTI-INFLATION MEASURES ADOPTED HAVE NOT TARGETED VULNERABLE COHORTS

In proportion to the total funds deployed, most of the measures adopted to combat inflation were not aimed at alleviating the situation of vulnerable cohorts and had a direct impact on prices (rather than supporting agents' income).

1 PROPORTION OF MEASURES AFFECTING PRICES OR INCOME



2 PROPORTION OF MEASURES TARGETING VULNERABLE COHORTS (a)



SOURCES: Banco de España, drawing on information from the Government of Spain, IGAE and AEAT.

a The colour grey indicates uncertainty as to the classification of the measures.



An initial taxonomy of the measures breaks them down into those aimed at easing the increases in the price of some of the goods whose price has risen the most and those that seek to prop up the income of certain groups of agents. On the available calculations, in terms of the total funds allocated, most of the measures adopted in Spain pertain to the first of these two categories. Specifically, between 60% and 68% (see Chart 1.10.1).

The first type of measure has sought to slow the rising cost of energy (and, more recently, food), generally in the form of tax reductions. In particular, the measures include cuts to the VAT on certain energy goods and foods and the excise duties on electricity and gas, rebates on the price of certain products (e.g. the subsidy for fuel consumed by households, in force until end-2022)⁴⁹ and modifications to the electricity price setting arrangements by temporarily capping the price of the gas used in electricity production. In general, the advantage of price-capping or tax-cutting initiatives is that they are relatively easy and quick to implement. Yet there are also two drawbacks. First, while such measures help to slow the inflation rates for some goods in the short term, they also skew price signals, thus reducing (in the specific case of energy goods) the incentives to curb consumption and encourage efficient usage. Moreover, given the temporary nature of these measures, they may simply serve to defer inflation, which could therefore re-emerge once such measures have been withdrawn. Further, given that these measures are largely general in scope, they could entail an excessive fiscal stimulus and come at a high budgetary cost, an aspect of particular importance in countries such as Spain that have limited fiscal headroom.

The second type of measure seeks to mitigate (in the form of transfers) the decline in households' and firms' real income brought about by rising prices. One advantage of

⁴⁹ The subsidy was universal up to 31 December 2022. As from 1 January 2023, households are no longer eligible, and it is now restricted to consumption for professional use.

actions of this sort is that they can, in principle, be designed to be means-tested, so that they only benefit those most vulnerable to the inflationary surge. The difficulty, however, lies in the fact that they are, in principle, harder to design, since the vulnerable cohorts must be identified, ensuring that the relief actually reaches them (which takes time). In Spain, measures targeting households include, e.g. personal income tax deductions, larger increases to minimum pensions and minimum living income than in the case of other welfare benefits, and direct transfers to vulnerable households, as defined by income and wealth (such as the €200 grant approved in late 2022). Measures targeting firms included subsidies for those operating in certain productive sectors.

Overall, the measures rolled out in Spain (and in the euro area) do not sufficiently target the hardest hit agents. On the available evidence,⁵⁰ the bulk of the public actions adopted since late 2021 to address the fallout from high inflation appear to have benefited Spanish households and firms across the board. Specifically, measures targeting the economic agents most vulnerable to the energy crisis and rising prices account for 15% to 20% of the estimated overall budgetary cost in the period running from 2021 to 2025 (see Chart 1.10.2).⁵¹ This group includes most of the initiatives in the form of transfers referred to above, but also the occasional price measure, such as reduced gas and electricity rates. The rest of the funds mobilised (between 80% and 85% of the fiscal cost envisaged) is associated with initiatives that have a fairly broad scope.

Measures better designed to target the most vulnerable agents would have been more effective, at a lower fiscal cost, in mitigating the impact of the inflationary crisis on such agents, while, in turn, minimising the potential inflationary impact of the measures themselves. The broad-based nature of the measures entails a very high budgetary cost, and the difficulties faced by the most vulnerable households and firms could therefore have been more adequately addressed with fewer resources.⁵² The failure to target the measures was particularly notable in the case of the subsidy on fuel for household consumption, since only a small portion of its budgetary cost was allocated to lower-income households, who benefited less in relative total expenditure terms than their higher-income counterparts. The elimination of this measure at the end of 2022 was an important step towards better targeting the domestic economic policy actions. Although slower to implement, an alternative design of the measures based on income transfers to the most vulnerable cohorts would yield levels of protection comparable to those obtained with the initiatives adopted, but at a lower budgetary cost and, at the same time, without distorting price signals or serving to prolong inflationary pressures.

Overall, the measures rolled out have reduced inflation and boosted activity. The available estimates suggest that, taken together, the raft of initiatives set in place reduced the

50 For a more detailed analysis of this breakdown and the distributional effects of the measures rolled out, see [García-Miralles \(2023\)](#).

51 [Checherita-Westphal and Dorrucchi \(2023\)](#) show that the measures adopted in the euro area as a whole have also been of an eminently general nature.

52 For more details, see [García-Miralles \(2023\)](#)

average inflation rate by 2.3 pp and contributed 1.1 pp to the GDP growth rate in 2022⁵³ (see Box 1). That said, given the temporary nature of the initiatives adopted and the fact that they are set to expire at some point this year, they are expected to have the opposite effect on GDP in 2024 and on inflation in 2023 and 2024. As a result of this partial reversal of the effects, the price level in 2024 is only likely to be around 1% lower than before the measures were introduced.

53 In late 2022, the authorities approved a Code of Good Practice for mortgages to mitigate the adverse effects of swift interest rate hikes on households (see [Royal Decree-Law 19/2022](#) of 24 November 2022, only available in Spanish). At a macroeconomic level, the direct relief for the financial pressure on vulnerable mortgagors thanks to the application of this new code is expected to act as a marginal short-term boost to GDP. For more details, see [Banco de España \(2023b\)](#).

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MACROECONOMIC IMPACT OF SUPPORT MEASURES TO ADDRESS THE SURGE IN INFLATION AND THE ENERGY CRISIS

The sharp rise in inflation since early 2021 has led to the deployment of various measures by euro area governments to alleviate its effects on the economy. This box presents an estimate of the aggregate impact on inflation and on Spain's economic activity of the actions taken by the Spanish Government.

As elsewhere, the design of the different measures deployed in Spain shows high heterogeneity across at least four different dimensions: (i) whether or not there are explicit budgetary costs, (ii) whether the measures are temporary or permanent, (iii) their impact on agents' incomes or on product prices, and (iv) whether or not they are available to all agents or targeted at the most vulnerable groups. As regards the first of these aspects, most of the support measures implemented, such as tax cuts and grants to vulnerable groups, involve a budgetary cost.¹ However, others, such as the mechanism to cap the price of gas on the Iberian market, do not have a direct effect on public finances. If only the measures with a direct budgetary impact are considered, the bulk of this cost is concentrated in 2022 and 2023 (1.4% and 0.9% of GDP, respectively) (see Table 1). For the period 2021-2025, the estimated budgetary impact stands at between 2.5% and 2.9% of GDP.

Against this backdrop, the channels of the impact of the different measures on inflation and economic activity depend on their characteristics. Thus, some measures have a direct effect on inflation by automatically reducing energy consumer prices (e.g. the reduction or elimination of access charges, lower energy taxes and the gas price cap). However, even though other measures do not directly affect price levels, they may indirectly affect them through their effect on agents' disposable income and demand (for instance, grants to vulnerable households or certain productive sectors).² In addition, measures with a direct impact on inflation may also have an indirect effect on agents' demand (and on economic activity) by affecting their real disposable income.

In view of these considerations, the aggregate impact of the different measures should be estimated within a methodological framework that allows both the direct and

indirect effects to be incorporated. In this box, the Quarterly Macroeconometric Model of the Banco de España (MTBE, by its Spanish abbreviation) is used for this purpose.³ The MTBE is a large-scale macroeconomic model used to prepare medium-term macroeconomic forecasts for the Spanish economy and to estimate counterfactual scenarios to simulate, for instance, risk scenarios or the effects of different types of economic policy measures. This model can be used to calculate the macroeconomic effects of the measures, considering the distinct nature of each one.

According to the simulations made with this model, the implementation of support measures to tackle the energy crisis in Spain had a significant effect, in terms of both boosting economic activity and containing inflationary pressures (see Chart 1). Specifically, the measures contributed 0.2 pp, 1.1 pp and 0.1 pp to GDP growth in 2021, 2022 and 2023, respectively. According to the information currently available, most of the measures will be withdrawn in 2023 and 2024, generating a negative contribution to the GDP growth rate of nearly -0.6 pp in 2024.⁴ In any event, it should be borne in mind that these effects are calculated under a counterfactual scenario which assumes that failure to introduce the measures has no adverse consequences, when in fact it could have led to perverse macroeconomic dynamics, given the particular impact of the crisis on the most vulnerable agents. Thus, the measures succeeded in mitigating the initial consequences of the inflationary surge (albeit at the cost of drawing out its effects over a longer period).

As regards inflation, the simulations suggest that the deployment of the different measures lowered the HICP growth rate by 0.8 pp and 2.3 pp in 2021 and 2022, respectively. However, as was foreseeable given their temporary nature, their progressive withdrawal in 2023 and 2024 is expected to raise the rate of change of consumer prices by 0.3 pp in 2023 and 1.6 pp in 2024.

The individual impact of each measure is greater in the case of those aiming to lower the cost of energy bills.

1 The analysis conducted in the box excludes measures with a budgetary impact which, although adopted in response to the inflationary crisis, cannot be considered as measures to directly support private agents. This is the case with taxes on energy utilities and financial institutions.

2 It is estimated that between 32% and 40% of measures with a budgetary impact directly affect agents' incomes, while the rest operate through the direct effect that tax cuts, rebates or subsidies have on effective product prices.

3 For further details, see [Arencibia, Ana, Samuel Hurtado, Mercedes de Luis and Eva Ortega](#). (2017). "New version of the Quarterly Macroeconomic Model of the Banco de España (MTBE)", *Occasional Paper* - Banco de España, 1709.

4 The reason why the withdrawal of measures in 2023 does not impact GDP until 2024 is that many of them affect the economy with a lag.

MACROECONOMIC IMPACT OF SUPPORT MEASURES TO ADDRESS THE SURGE IN INFLATION AND THE ENERGY CRISIS (cont'd)

Table 1

SUPPORT MEASURES FOR HOUSEHOLDS AND FIRMS IN RESPONSE TO THE ENERGY CRISIS AND INFLATION (a)

The authorities have implemented a broad raft of measures aiming to counter the effects of the rise in the prices of various goods and services on the incomes of households and firms. It is estimated that these measures will have a total budgetary cost of €34-€40 billion over the period 2021-2025 (2.5-2.9% of GDP).

	Applied as from	Expected expiry date	Targeted	Budgetary cost in period 2021-2025 (€m)
(1) Income measures				[-17,800, -15,200]
VAT: temporary reduction in rates on electricity and gas	01.07.2021 (b)	31.12.2023	No	[-6,300, -5,500]
Excise duty: temporary reduction in rate on electricity	01.09.2021	31.12.2023	No	[-3,300, -2,900]
VAT: temporary reduction in rate on food	01.01.2023	30.6.2023	No	[-700, -600]
Personal income tax: earned income deduction, reductions for self-employed and regional reductions	01.01.2023	Permanent (c)	No	[-7,500, -6,200]
(2) Spending measures				[19,120, 22,100]
Fuel rebate for households and professional drivers (d)	01.04.2022	30.06.2023	No	[5,300, 6,000]
Extension of fuel rebate for professional drivers	01.01.2023	30.06.2023	No	[400, 500]
Grant to firms affected by energy price increase	01.04.2022	31.12.2022	Yes	[2,100, 2,300]
Grants to productive sectors	01.04.2022	31.12.2023	Yes	[1,000, 1,200]
€200 cheque for vulnerable households (both packages)	01.07.2022	31.12.2023	Yes	[920, 1,500]
15% increase in non-contributory pensions (including minimum income scheme)	01.04.2022	31.12.2022	Yes	[650, 850]
Public transport subsidy (e)	01.09.2022	31.12.2023	No	[1,700, 2,000]
Student grant expansion	01.09.2022	31.12.2022	Yes	[350, 450]
Subsidies to the electricity/gas sector to reduce bills (f)	01.09.2022	31.12.2022	No	[6,500, 6,900]
Social rebate on heating	01.10.2022	Permanent	Yes	[600, 900]
(2-1) Total funds				[34,320, 39,900]
(3) Other measures with no direct budgetary cost				
Suspension of tax on electricity generation (g)	01.07.2021	31.12.2023		
Reduction in electricity charges	01.10.2021	31.12.2022		
Iberian exception	15.06.2022	31.12.2023		
Cap on rental increases	01.04.2022	31.12.2023		
Price cap for butane gas	01.07.2022	30.06.2023		

SOURCES: Banco de España, drawing on information from the Spanish government, IGAE, Agencia Tributaria, the Spanish Household Budget Survey and the Spanish Survey of Household Finances.

- a The estimated budgetary impact of these measures is subject to a high degree of uncertainty and is regularly revised in accordance with newly available data.
- b The reduction in VAT on electricity was applied from 01.07.2021 and on gas from 01.10.2022.
- c Including the reduction in personal income tax for the self-employed, due to expire on 31.12.2024.
- d It is estimated that around 50%-60% of this rebate is received by households. The extension from 01.01.2023 until 30.06.2023 for professional drivers is included.
- e Free local train services have been extended to the whole of the year. The subsidy for regional transport has been extended to 30.06.2023.
- f Including the extraordinary subsidy to the electricity sector (from 01.09.2022), assumption of the shortfall arising from the regulated rate for small natural gas consumers (from 01.10.2022) and making electricity and gas contracts more flexible (from 01.01.2023).
- g The temporary suspension of the tax on electricity generation (IVPEE by its Spanish initials) is not considered to have a direct budgetary impact as, by law, the receipts are used to cover the electricity sector's costs.

Thus, the reduced VAT rates on gas and electricity, the exemption from payment of charges in electricity bills and the cap on the increase in the regulated rate for small natural gas consumers would explain, as a whole,

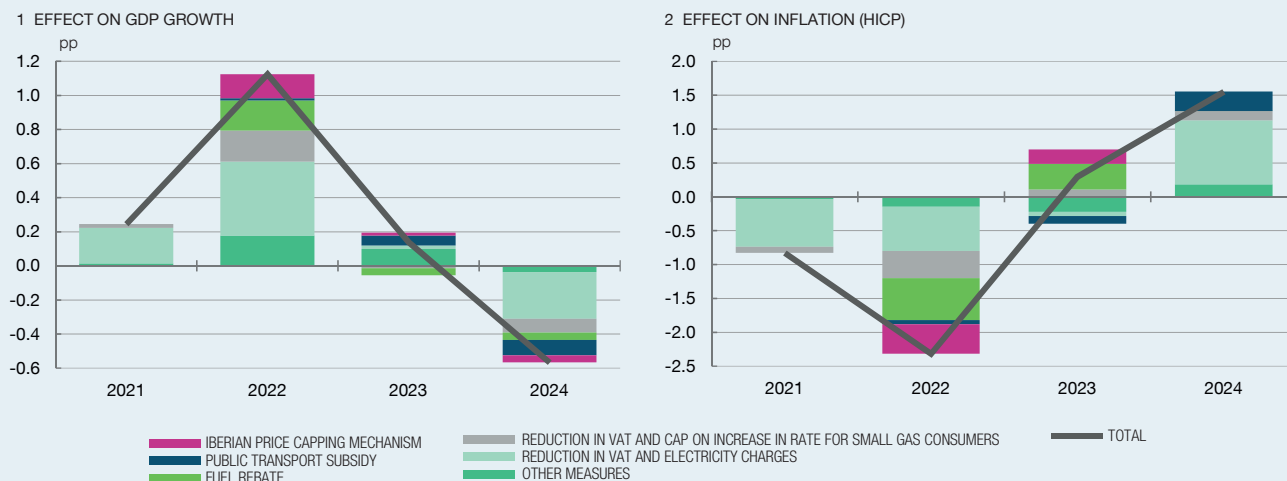
around one-half of the contribution of all the measures to the increase in GDP growth and the decline in inflation in 2022 (0.6 pp and -1.1 pp, respectively). Similarly, other measures aimed at reducing energy bills, such as the

MACROECONOMIC IMPACT OF SUPPORT MEASURES TO ADDRESS THE SURGE IN INFLATION AND THE ENERGY CRISIS (cont'd)

Chart 1

IMPACT OF THE SUPPORT MEASURES IN RESPONSE TO THE ENERGY CRISIS

The fiscal measures designed to support economic agents in the face of the energy crisis appear to have been key to invigorating economic activity and reducing price pressures in 2022.



SOURCES: INE and Banco de España.

cap on the price of gas for electricity generation⁵ and the fuel rebates appear also to have had a significant impact on inflation in 2022 (reducing it by 1.1 pp). However, their impact on GDP seems to have been more moderate.

It is also very important to note that, although the measures implemented have had a positive effect on economic growth and have helped to contain inflation in the short term, they have also entailed a high budgetary cost, at a time when fiscal space is limited in Spain.⁶ In addition, some of these actions have tended to distort price signals, hampering the efficient allocation of resources, which is an especially

important consideration in the current context of the green transition.⁷ For further details on the design of these government initiatives and on the fiscal policy challenges facing our economy in the coming years, see Section 7 of this chapter and Chapter 2 of this report, respectively.

Lastly, it should be noted that the estimates presented in this box are subject to a high degree of uncertainty, mainly stemming from the possibility that energy prices may diverge from their projected path, which would affect the estimated impact of the measures, probably giving rise to changes in their composition and duration.

5 For more details, see [Matías Pacce, and Isabel Sánchez](#). (2022). "Box 4. Impact on inflation of the mechanism to cap gas prices on the Iberian market". *Economic Bulletin* - Banco de España, 2/2022.

6 As stated in the Spain-specific recommendations of the Council of the European Union as part of the European Semester programme.

7 [Natalia Fabra, Karsten Neuhoff and Nicolas Berghmans](#). (2023). "European economists for an EU-level gas price cap and gas saving targets". CEPR-VoxEU.