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Research Report

Inflation and counter-inflationary policy measures: The case of Spain

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INFLATION AND COUNTER-INFLATIONARY POLICY MEASURES:

THE CASE OF SPAIN

Jorge Uxó¹

ABSTRACT

Like in other European countries, several supply shocks (bottlenecks related to the end of the pandemic, tensions in international gas and oil prices, and war in Ukraine) have led to a rise in the inflation rate in Spain since March 2021. This has been amplified by the functioning of energy markets, especially electricity, and price increases have spread progressively to other sectors. As a result, the forecast average inflation in 2022 is 8.5%, similar to the Eurozone average. Until August 2022, Spain had a year-on-year inflation rate above this average, but the trend has changed: in October, inflation fell by 3.4 pp in Spain, while it had risen by 1.6 pp in the monetary union. Spain was the economy with the second lowest inflation. The authorities have adopted significant measures to reduce inflation, especially in energy (capping gas in the electricity market, limiting the gas price for consumers in the regulated tariff, lowering indirect taxes, or discounts for vulnerable households) and public transport and housing rents. Other measures include transfers to the most affected households and economic sectors to offset the effects of inflation. Despite this, weak nominal wage growth and the pass-through by firms of higher costs to their prices (maintaining or increasing profit margins) are leading to an unequal distribution of the effects of inflation, which wage earners mainly bear. Changing this situation should be the focus of economic policy from now on.

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INFLATION AND COUNTER-INFLATIONARY POLICY MEASURES: THE CASE OF SPAIN

Jorge Uxó¹

Abstract

Like in other European countries, several supply shocks (bottlenecks related to the end of the pandemic, tensions in international gas and oil prices, and war in Ukraine) have led to a rise in the inflation rate in Spain since March 2021. This has been amplified by the functioning of energy markets, especially electricity, and price increases have spread progressively to other sectors. As a result, the forecast average inflation in 2022 is 8.5%, similar to the Eurozone average. Until August 2022, Spain had a year-on-year inflation rate above this average, but the trend has changed: in October, inflation fell by 3.4 pp in Spain, while it had risen by 1.6 pp in the monetary union. Spain was the economy with the second lowest inflation. The authorities have adopted significant measures to reduce inflation, especially in energy (capping gas in the electricity market, limiting the gas price for consumers in the regulated tariff, lowering indirect taxes, or discounts for vulnerable households) and public transport and housing rents. Other measures include transfers to the most affected households and economic sectors to offset the effects of inflation. Despite this, weak nominal wage growth and the pass-through by firms of higher costs to their prices (maintaining or increasing profit margins) are leading to an unequal distribution of the effects of inflation, which wage earners mainly bear. Changing this situation should be the focus of economic policy from now on.

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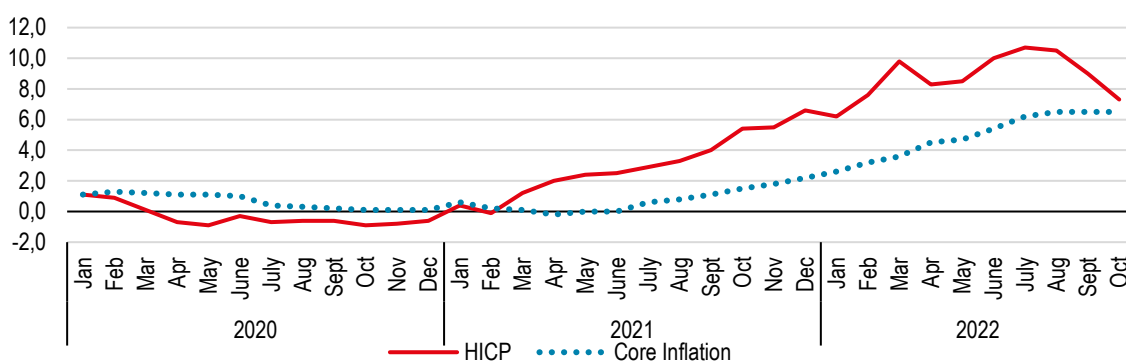
Editorial responsibility for this report: AK Wien.

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Recent developments in inflation in Spain

The Spanish inflation rate, measured by the annual change in the Harmonised Index of Consumer Prices (HICP), reached 10.7% in July 2022, its highest value since the beginning of 2021. Since then, however, it has been on a downward path, and according to the October leading indicator, this rate has fallen to 7.3%, a reduction of 3.4 percentage points. (Figure 1)². Moreover, if we look at the monthly changes in the price level, we see that it has remained almost constant since June this year (Figures 2 and 3). This trend contrasts with the Eurozone average, where the annual inflation rate has risen from 8.9% in July to 10.7% in October. Spain was the eighth country with the highest inflation rate in the Eurozone in July but the 18th in September.

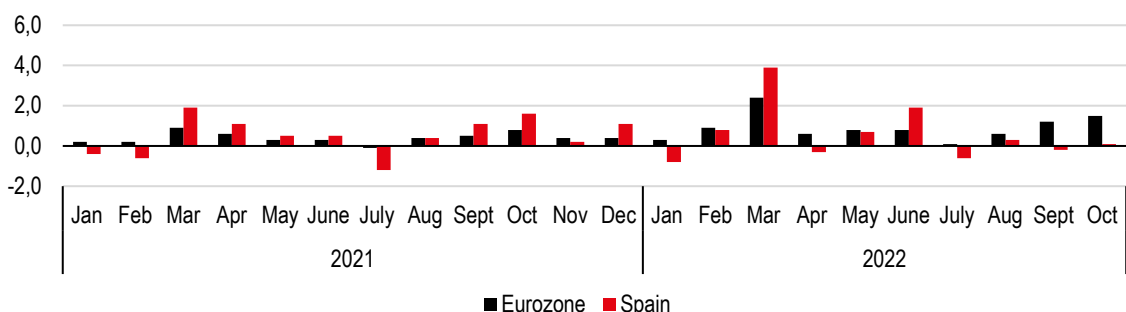
Figure 1: Annual inflation rate



Source: Eurostat.

The Spanish inflation rate was already above 2% in April 2021, reaching 4% in September and 6% in December. Although this rapid rise in inflation was initially explained to a large extent by energy prices (up to October 2021, they accounted for more than 75% of the total increase in the index), it has also spread to core inflation (excluding energy and unprocessed food). Core inflation has been above 2% since December 2021, rose to 4% in April, and is beyond 6% since July (Figure 1). Looking at its average over the last 12 months, it was 4.5% in October 2022, the highest rate since the beginning of 2021.

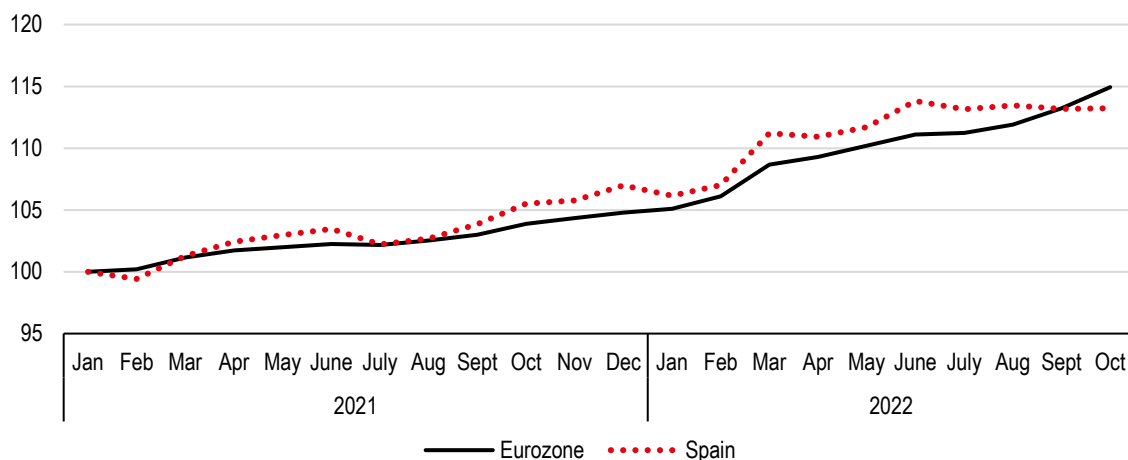
Figure 2: Monthly inflation rate



Source: Eurostat.

² Unless otherwise stated, the source of data is Eurostat.

Figure 3: Harmonised Index of Consumer Prices
(January 2021 = 100)



Source: Eurostat.

Table 1 shows the average inflation rate forecast for 2022 and 2023 by the Bank of Spain, the European Commission, and the OECD. It takes values between 8.5% and 9% this year and between 5% and 5.5% the next. For the Eurozone, Commission's forecasts are 8.5% in 2022 and 6.1% in 2023, and the OECD forecasts 8.1% in 2022 and 6.2% in 2023. Therefore, both institutions expect Spain to register a similar average inflation rate to the monetary union this year but lower in 2023.

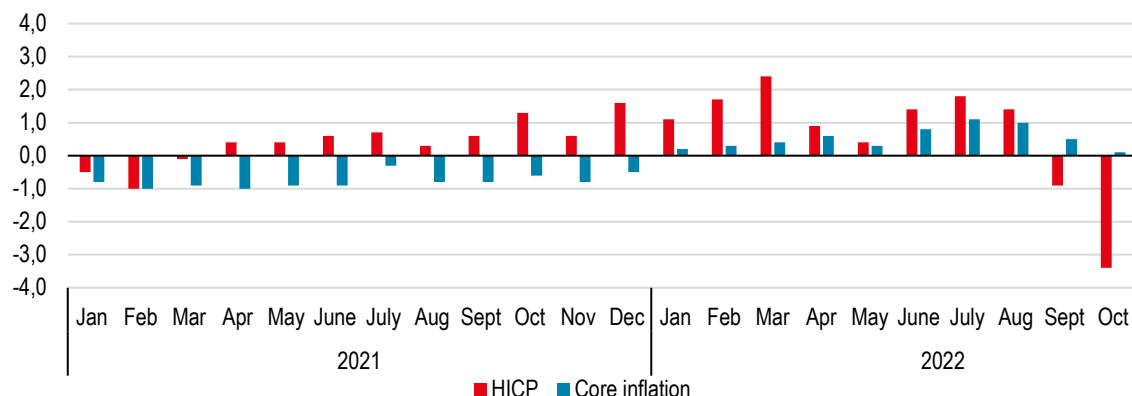
Table 1:

	2022	2023
Banco de España (October)	8.7	5.6
European Commission (November)	8.5	4.8
OECD (September)	9.1	5.0

Sources: Banco de España, European Commission and OECD.

As mentioned before, the year-on-year inflation rate of the Spanish economy has been above the Eurozone average every month from April 2021 to August 2022, but this situation has reversed since September (Figure 4). On average, the difference in the year-on-year rates for each month between Spain and the Eurozone has been 0.7% since April 2021 and peaked in March 2022, when Spanish inflation was 9.8%, and the average for the monetary union was 7.4% (2.4 points difference). In October, the Spanish inflation rate was 3.4% lower than the Eurozone average.

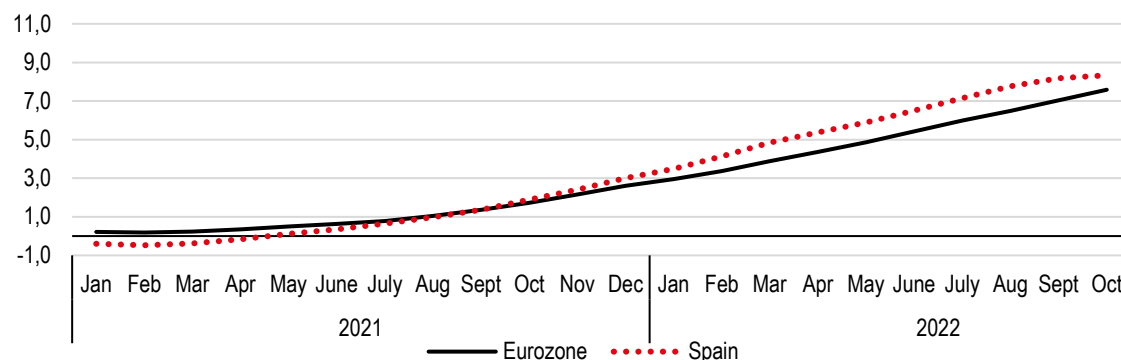
Figure 4: Differences in the annual inflation rate
Spain vs Eurozone



Source: Eurostat.

Comparing now the moving averages of the last 12 months (Figure 5), Spain records a higher value than the Eurozone since October 2021, and this difference peaked in August 2022 (1.3 percentage points). In October, the inflation rate over the last 12 months is 8.3% in Spain, compared to 7.6% in the Eurozone.

Figure 5: Inflation rate
average 12 months



Source: Eurostat.

It is interesting to note that throughout 2021, core inflation in Spain was below the Eurozone average. That means that the increase in energy prices initially had a stronger impact on the HICP in Spain than in the Euro area, but it took longer for it to spread to the other components of the index. So far this year, however, average core inflation in Spain is 0.5 percentage points higher than in the Euro area (in October, the difference is 0.1 percentage points).

On the other hand, if we take the real effective exchange rate (REER) of Spain compared to the rest of the monetary union as an indicator of price competitiveness, the changes are very moderate. Between the second quarter of 2022 and the first quarter of 2021,

there has been a real appreciation of 1% when using export prices as a deflator, but hardly any change in the REER measured with the GDP deflator or unit labour costs³.

If we compare the evolution of the GDP deflator, which reflects the evolution of all the prices of goods and services produced within each country, we observe lower growth in Spain than in the Eurozone (3.7% versus 4.3% between the second quarter of 2022 and the second quarter of 2021).

Table 2 shows the average inflation rate over the last 12 months (up to September⁴) for each of the 12 groups that make up the HICP (separating the energy component from groups 04 and 07) and energy as a separate category. Figure 6, on the other hand, shows their contribution to average inflation over the last 12 months, considering their weight in the index. In Spain and the Eurozone, the direct contribution of energy to the index explains more than half of price growth (53% and 52%, respectively). Adding the categories of food (23% of inflation) and hotels and restaurants (10%), we can explain 86% of Spanish inflation. In the case of the Euro area, we reach the same percentage of the index when we add food (16%), transport (8%), hotels and restaurants (6%), and household equipment (4%) to energy.

Table 2: Inflation rate
av. last 12 months, Sept 2022

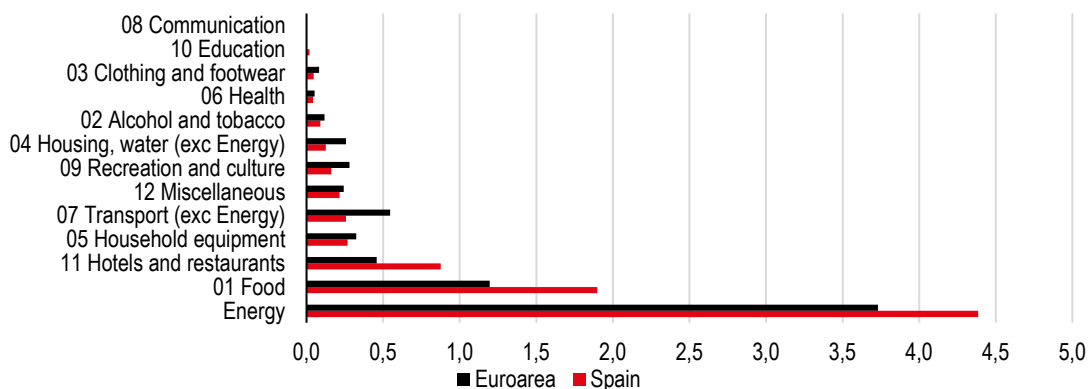
HICP Groups	Spain	Eurozone
01 Food	8.6	7.2
02 Alcohol and tobacco	2.9	2.7
03 Clothing and footwear	0.8	1.6
04 Housing, water (exc. Energy)	1.5	2.2
05 Household equipment	4.7	4.8
06 Health	1.0	1.1
07 Transport (exc. Energy)	3.4	5.4
08 Communication	-0.9	-0.1
09 Recreation and culture	3.1	3.6
10 Education	1.2	-0.5
11 Hotels and restaurants	5.5	5.8
12 Miscellaneous	2.9	2.5
Energy	38.3	35.0
Total HICP	8.2	7.0

Sources: Eurostat and own elaboration.

³ European Commission. https://economy-finance.ec.europa.eu/economic-research-and-databases/economic-databases/price-and-cost-competitiveness/price-and-cost-competitiveness-data-section_en.

⁴ Latest monthly data available at the time of writing this report.

Figure 6: Contribution to inflation
average last 12 months



Source: Eurostat and own elaboration.

Looking at these five main components of inflation, Spain has higher inflation rates and contributions than the Eurozone for energy, food and hotels and restaurants, but lower rates for transport (excluding the energy component) and household equipment.

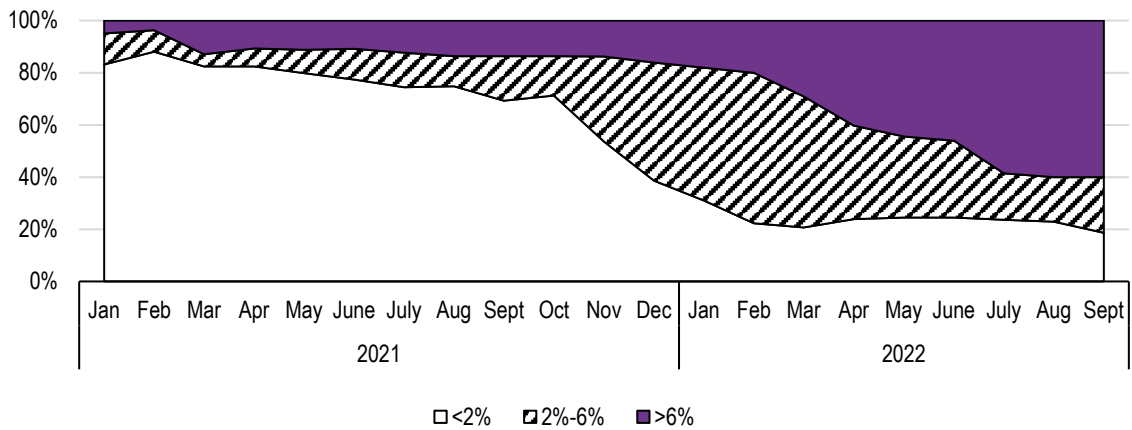
The fall in inflation between July and September in Spain is entirely explained by the contribution of energy (-2.2 points), particularly electricity (-1.2) and fuels (-0.8). These two components lowered their prices in September and October this year, while they rose significantly in September and October 2021. Gas has also contributed to the fall in inflation in Spain, although its impact has been less significant.

Figures 7, 8, and 9 clearly illustrate, on the other hand, the energy origin of the inflationary process and how it is progressively spreading to other products:

- ✓ Until February 2021, energy prices were falling, and 85% of the HICP categories⁵ registered inflation rates below 2%.
- ✓ From March 2021 onwards, higher oil and gas prices on international markets, and consequently higher wholesale electricity markets, rapidly spread to retail electricity prices and the other energy components of the HICP. Between March and October 2021, the average rate of increase in energy prices was above 24%, accounting for more than 75% of the whole index growth rate.
- ✓ From October 2021 onwards, the percentage of index categories with inflation rates above 2% starts to grow significantly, and by February 2022, those growing below 2% accounted for only 22% of the entire index. Since then, additionally, categories with inflation rates above 6% started to grow, and by September 2022, they already accounted for 60% of the index. 21% of all categories register inflation rates between 2% and 4%, and items with price increases lower than 2% only represent 19% of the index.
- ✓ Until October 2021, the energy component accounted for 77% of inflation, but this percentage fell to 29% in September 2022. In contrast, food currently accounts for 34% of inflation, while its contribution to total inflation was only 5% in October 2021. The other components account for the remaining 37% (up to October 2021, 17%). The contagion process from energy prices to the rest of the categories in the index is evident.

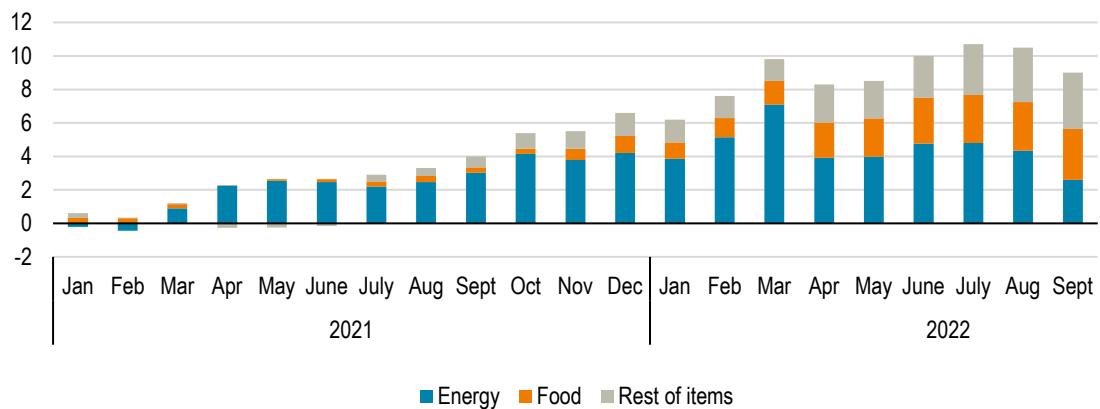
⁵ Four-digit categories, considering the weight of each one in the total index.

Figure 7: Distribution of HICP classes by inflation ranges
Spain



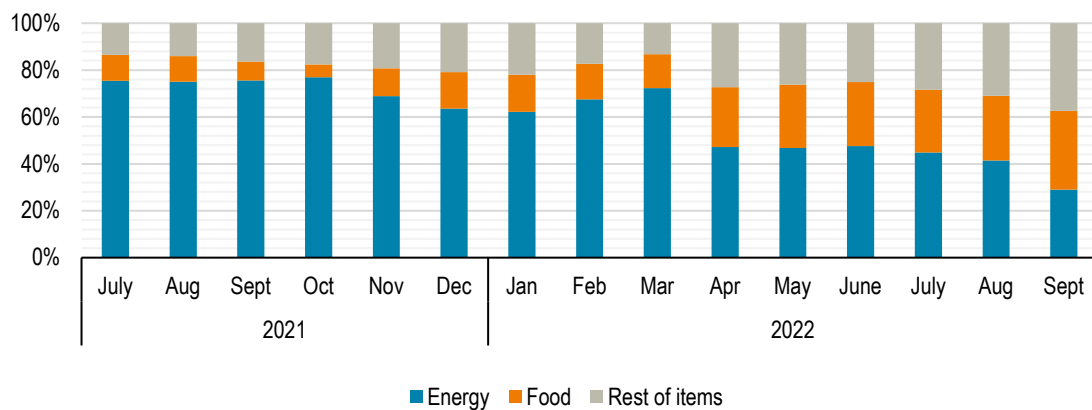
Source: Eurostat and own elaboration.

Figure 8: Contributions to total inflation
percentage points, Spain



Source: Eurostat and own elaboration.

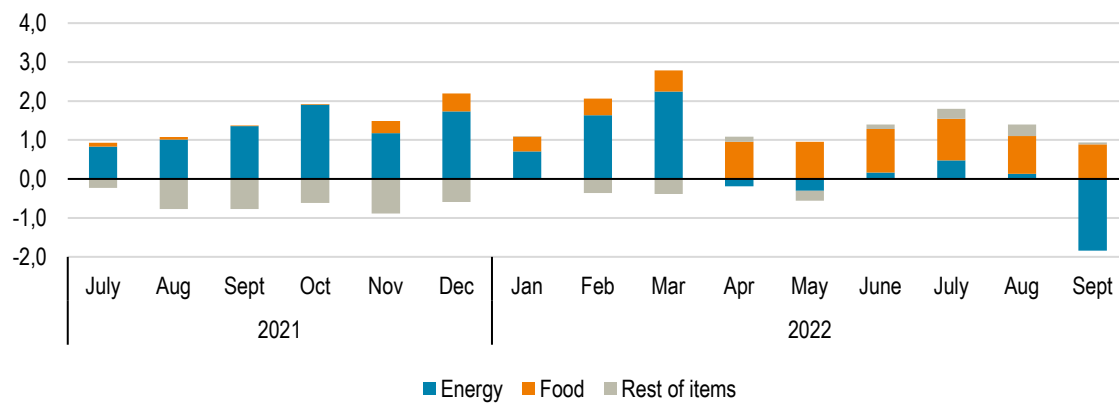
Figure 9: Contributions to total inflation
in % of index, Spain



Source: Eurostat and own elaboration.

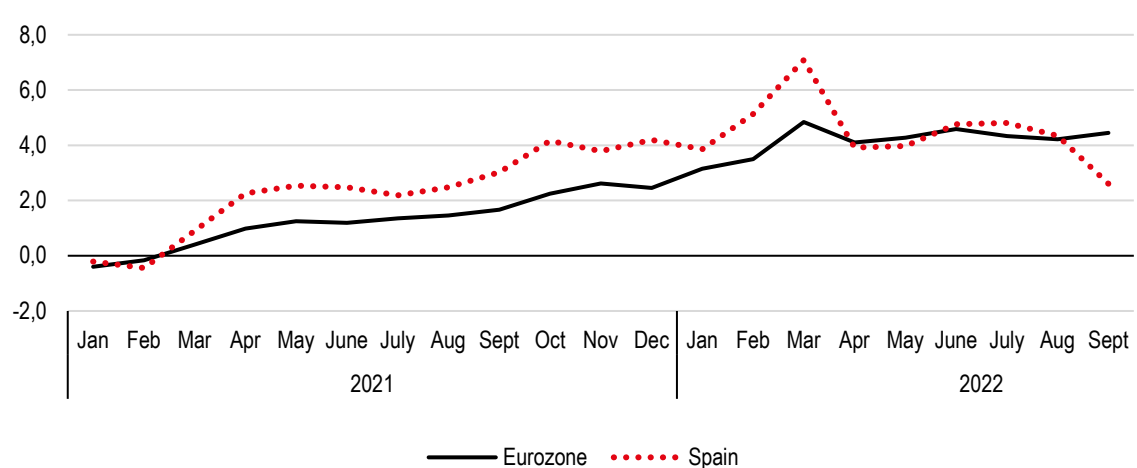
Figure 10 elaborates on this issue. It shows the source of the differences between Spain and the Euro area, measured in percentage points of growth of HICP. The stronger increase in energy prices in Spain explained all the difference until the end of 2021, and it still accounted for 85% of the difference in the first quarter of 2022. In the last six months, however, the contribution of energy to the inflation rate has been lower in Spain than in the Eurozone, especially in September (-1.8 percentage points). Finally, Figure 11 shows that this reduction in the difference is due to a fall in the energy contribution to the inflation rate in Spain, which is currently lower than the European average. On the contrary, the worse performance of food prices explains almost all the difference during these last six months.

Figure 10: Differences in the inflation rate
Spain vs Eurozone



Source: Eurostat and own elaboration.

Figure 11: Contribution of Energy to the rate of inflation
in percentage points

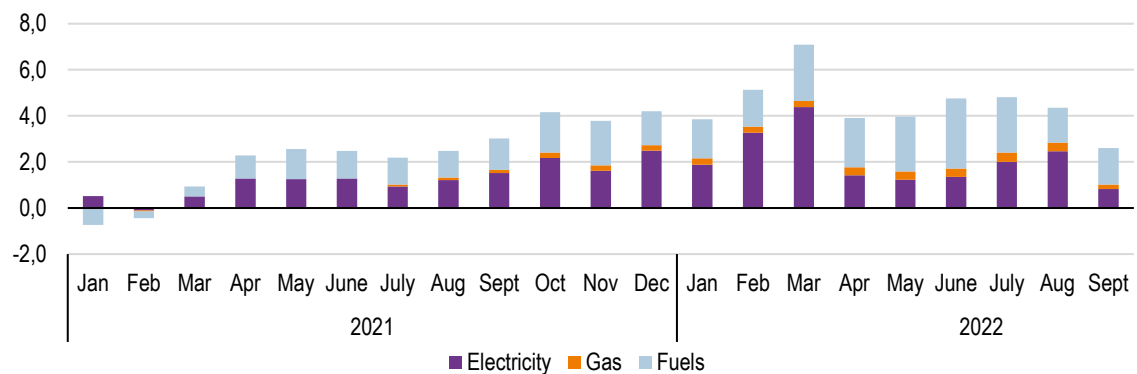


Source: Eurostat and own elaboration.

In spite of this lower direct contribution of the energy component to explaining the behaviour of the inflation rate in Spain and its differences with the Euro area average, it seems clear that the origin of the inflationary shock is undoubtedly in the energy prices increase, which has then spread to the rest of the sectors.

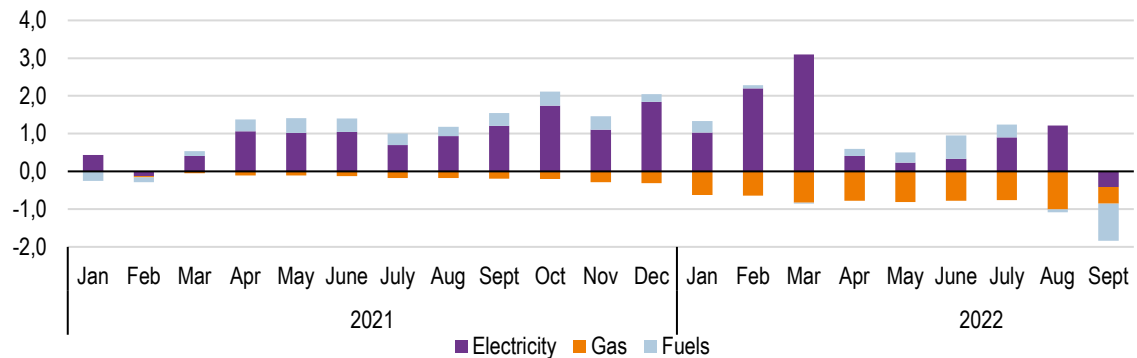
On the other hand, Figure 12 shows that about 48% of the direct contribution of energy prices to the rise in the overall price index since March 2021 is due to electricity prices. Another 46% is due to fuel prices, and only around 6% is due to the direct effect of higher gas prices. This is a significant difference from the Eurozone, where gas directly explains 18% of the energy contribution to inflation and electricity only 19%⁶. That is, the explanation for the higher energy inflation in Spain than in the Eurozone is mainly related to electricity prices, while the direct impact of gas associated with its consumption has had the opposite effect, and the differences in the impact of fuels do not appear relevant (Figure 13).

Figure 12: Contributions to the rate of inflation



Source: Eurostat and own elaboration.

**Figure 13: Differences in the contribution to inflation
Spain vs Eurozone**



Source: Eurostat and own elaboration.

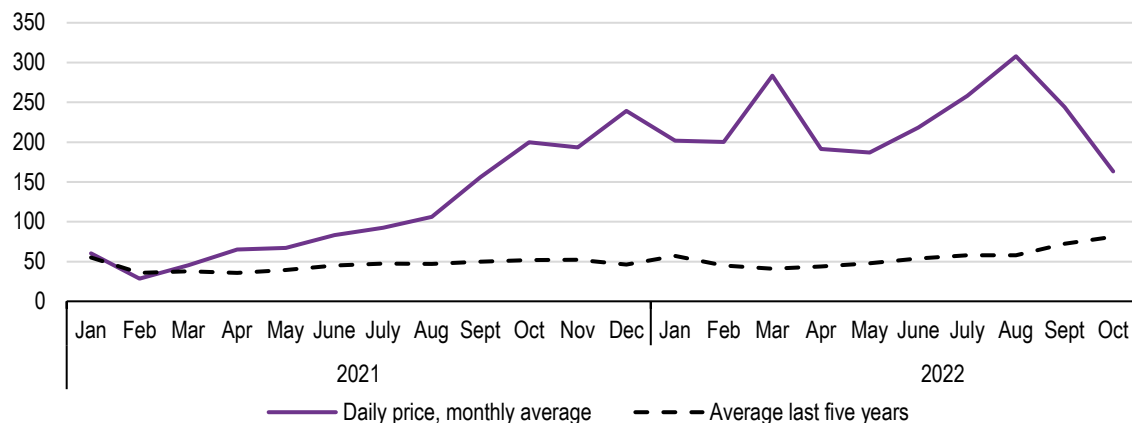
This does not mean that the rise in international gas prices is not a decisive factor in the inflation pressures in Spain and in the differences that it has been registering with the European average. Nevertheless, this effect has occurred indirectly and mainly through the electricity market.

⁶ This is due to two reasons. On the one hand, the increase in the prices of this component has been lower in Spain than in the Eurozone, probably due to a stricter regulation of retail gas price in Spain. The average from March 2021 to September 2022 is 14% and 33%, respectively. On the other hand, the weight of the gas consumption in the index is also lower in Spain (1.5%) than in the Eurozone (2%).

In January and February 2021, wholesale electricity market prices were around the average of the previous five years. However, from March onwards, these prices began to rise, mainly due to two international causes: the increases in the prices of CO2 emission rights and of natural gas. The marginalist nature of the wholesale electricity market provoked that these cost increases experienced by technologies using fossil fuels were passed on to the prices of all technologies, although they were not directly affected. Even with significant growth in the percentage of electricity generated with renewable energies, the recovery in demand began to require higher use of gas-fired combined cycle plants in electricity generation, and the price increase in March 2021 compared to March 2020 was 64% (117% in France and 90% in Germany).

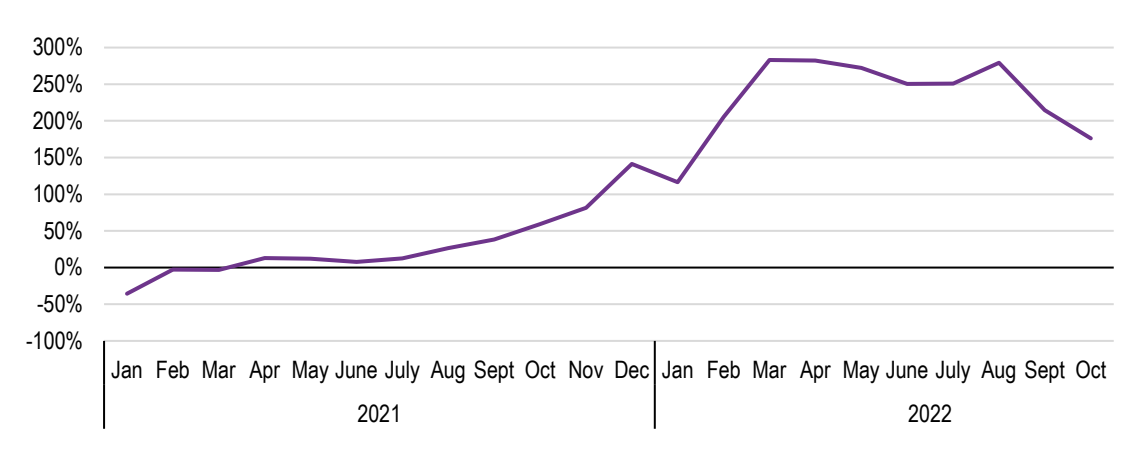
This increase partly reflects a base effect because we are comparing these prices with the months of confinement due to the pandemic. However, the March 2021 wholesale market price was already 21% above the moving average of the last five years. Since then, it has been consistently above this historical average and has followed a clear upward trend (Figures 14 and 15). August 2022 registered the maximum historical price (308 €/MWh after including the compensation mechanism for the gas cap, which we will explain below).

Figure 14: Wholesale electricity market price
Spain vs Eurozone



Source: OMIE and own elaboration.

Figure 15: Increase in the wholesale electricity market price
average last 12 months vs average last 5 years



Source: Eurostat and own elaboration.

Pacce, Sánchez and Suárez-Varela (2021) analyse wholesale electricity prices in Spain during the first half of 2021. They conclude that higher costs of CO2 emission rights explain approximately 20% of the increase in electricity prices, while the rise in natural gas prices accounts for another 50%. They also point out that the evolution of wholesale prices in Spain is similar to that of other European markets during these months, but they were transferred more quickly and intensely to retail prices and the HICP. We can point to three main factors to explain this:

- Firstly, there is a higher percentage of consumers whose electricity tariff is immediately linked to wholesale prices in Spain (around 40%). Therefore, the rise in wholesale prices is very quickly passed on to retail prices.
- Secondly, the Spanish National Statistics Institute only considers consumers covered by this tariff to compile data on the electricity component of the inflation rate, which probably leads to an upward bias in its estimate.
- Finally, the weight of electricity in the HICP is higher in Spain (3.5% in 2021 and 4.1% in 2022) than in the Eurozone average (2.9% and 3.1%, respectively).

Natural gas prices have gone on rising, especially after the invasion of Ukraine. In September 2022, they had doubled since January 2022 and risen ninefold since early 2021⁷. López, Párraga, and Santabárbara (2022) estimate the direct and indirect impact that this rise in gas prices has provoked in the inflation rate of Spain and the Eurozone. The direct effect stems from the higher prices that households pay for their consumption of gas. Indirect effects derive from the increase in the price of other products that use natural gas in their production processes (mainly electricity and other industrial goods). Their results confirm the greater importance in Spain of the indirect effects of gas price increases on inflation via electricity prices and the lesser impact of the direct effects. Indirect effects via other goods are similar in both cases.

Nominal wage growth and inflation

All available data confirm that nominal wages are hardly contributing to inflation developments. On the contrary, wage earners are experiencing intense losses in purchasing power.

According to the Statistics on Collective Labour Agreements provided by the Ministry of Labour and Social Economy⁸, there are 7.6 million workers with their working conditions set through a collective agreement this year. This number includes both new agreements signed during 2022 (affecting 1.6 million workers) and those signed earlier but with economic effects in 2022.

The agreed average nominal wage growth is 2.6%⁹. Therefore, if the yearly inflation is around 8.5%, as forecasted, the average loss of purchasing power could be six percentage points. Moreover, almost 60% of workers (4.3 million) have signed a wage growth

⁷ Nevertheless, the "gas cap" mechanism introduced in mid-June in Spain and Portugal has decoupled their wholesale price of electricity from the international gas markets and partially the retail price as well.

⁸ <https://www.mites.gob.es/estadisticas/cct/welcome.htm>. These data include collective agreements registered until September 2022.

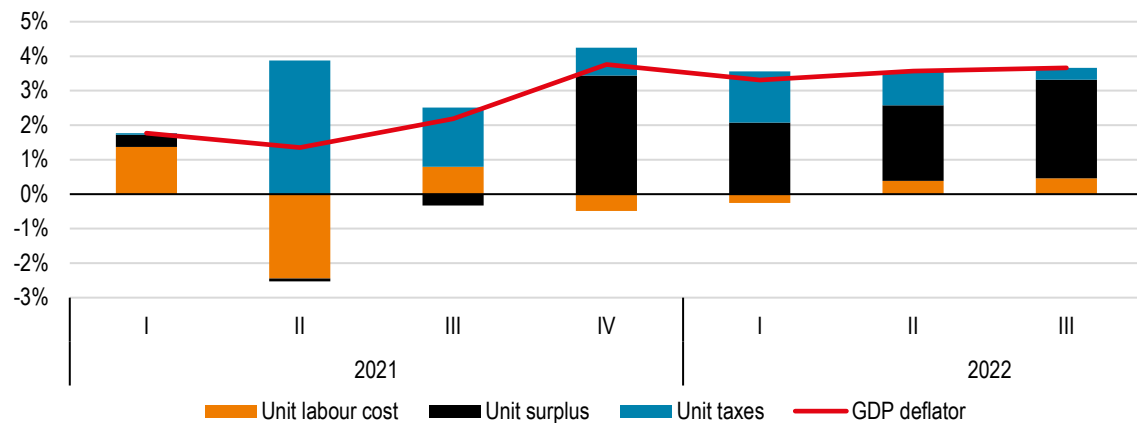
⁹ The average increase in the new agreements is 2.9%, compared to 2.5% for agreements negotiated before 2022, but with economic effects this year.

below 2%, compared to only 1.9 million with wage increases above 3%¹⁰. This loss of purchasing power would add to lower the nominal wage growth even more than the inflation rate already registered in 2021 (1.5% versus 3%).

Only 25% of employees are covered by an indexation clause¹¹. This percentage is higher than the average for 2014-2021 (17%). Nevertheless, at the beginning of 2022 this percentage was 30%. Despite the inflationary context, then, the new agreements signed this year incorporate these clauses to a decreasing extent. Moreover, of the employees covered, only half have a clause with a retroactive effect; the other half will only see their wage tables updated with the inflation of 2022 (or part of it) as of 2023. Lastly, the indexation clauses incorporate some kind of cap for the 75% of workers benefiting. The wage revision resulting from its application would not imply a total transfer of the difference between the observed inflation and the initially agreed wage increase.

Banco de España (2022) confirms that the response of nominal wages to inflation pressures has been moderate, and it does not expect an acceleration of their growth rate, disregarding, therefore, second-round effects due to higher labour costs. And the National Accounts data also endorses this lack of relationship between wage growth and price increases. During 2022, the average quarter-on-quarter growth rate of unit labour costs has been 0.4%, while gross operating surplus (including mixed income) per unit of output grew by 5.4% in the same period. Figure 16 translates these changes in ULCs and unit profits into contributions to GDP deflator growth. In 2022, the increase in ULCs only explains 5% of price growth, while the gross operating surplus explains 65.7%.

Figure 16: Contributions to GDP deflator growth rate



Source: Eurostat and own elaboration.

Regarding corporate profits, on the contrary, the quarterly data from the Central Balance Sheet Data Office of the Banco de España¹² show that they have grown at a high rate in

¹⁰ Wage bargaining for public employees (2.7 million), signed at the beginning of October, includes a retroactive upward revision of wage growth for 2022 from the initially agreed 2% to 3.5%.

¹¹ Such clauses include adjustments to wages if inflation exceeds some figure included in the collective agreement, compensating workers, fully or partially, for their loss in purchasing power. See Izquierdo and Herrera (2022) for a brief description of the characteristics of these clauses in collective agreements signed in 2022.

¹² <https://www.bde.es/bde/en/secciones/informes/informacion-estadistica/central-de-balances/>.

the first six months of this year, and average profitability levels are close to those before the pandemic. Using the same data, Blanco, Menéndez and Mulino (2022) analyse the evolution of firms' margins in more detail and conclude that, on average, Spanish companies have kept their margins constant during this period of strong growth in energy costs. In other words, they have at least fully passed on the increase in energy costs to their prices¹³. Furthermore, more recent fiscal data¹⁴ regarding more than 1 million companies even point to a generalised increase in profit margins in almost all the economic sectors, which would be above their pre-pandemic values. The contrast with the loss of purchasing power by employees is crystal-clear.

Incomes policy

Employer organizations and trade unions began a dialogue in January 2022 to reach a national guideline for wage increases¹⁵ that should serve as a framework for all sectoral collective agreements. However, negotiations broke down in May without accord and have not been formally resumed since then.

At that time, the Bank of Spain's forecast for average inflation in 2022 was 7.5% (2% for 2023 and 1.6% for 2024), and the unions asked for wage increases of 3.5% for 2022, 2.5% for 2023, and 2% for 2024. In other words, the unions proposed wage increases below the expected inflation this year (to avoid second-round effects) but accompanied by slightly higher than forecast inflation in the following years. In addition, they proposed the inclusion of progressive wage revision clauses for the difference between actual inflation each year and the agreed wage increase (to ensure the maintenance of purchasing power at the end of the period). That is, they proposed to defer over time the adaptation of nominal wages to the sharp rise in prices in 2022.

The refusal of companies to incorporate these clauses seem to have been the main obstacle to signing the agreement, rather than the specific wage increase asked for in 2022 (as mentioned above, the wage growth in the new agreements signed between January and August is 2,9%). At the time of the breakdown of the negotiations, employers argued that the deteriorating economic context and increased uncertainty required wage growth moderation to preserve jobs and competitiveness. They explicitly recommended to their companies not to link wage increases to inflation and, if clauses are unavoidable, to set limits or ceilings and that wage revisions should not be retroactive.

The government has repeatedly expressed its support for an income pact to moderate inflationary pressures but ensure, simultaneously, a fairer distribution of the cost of inflation (which, as we saw above, is falling almost entirely on real wages). At the same time, it has also expressed its respect for the autonomy of the social partners in wage bargaining. Despite this, it has convened two tripartite meetings (in June and September 2022) without any progress. Recently, trade unions have announced public demonstrations and protests to reach wage increases under the expression "Wage or Conflict".

¹³ They also point out that there is significant heterogeneity across sectors.

¹⁴ https://sede.agenciatributaria.gob.es/Sede/datosabiertos/catalogo/hacienda/Informe_Ventas_Empleo_y_Salarios_en_Grandes_Empresas_y_Pymes.shtml.

¹⁵ V Acuerdo Estatal para la Negociación Colectiva (AENC). The IV AENC expired in 2020.

Beyond these meetings, the government can favour a more balanced distribution of the costs of inflation between wages and profits in different ways¹⁶:

- The government has announced its intention to raise the minimum wage again by 2023. This wage has risen by 36% since 2018, and there is a commitment to reach 60% of the average wage next year.
- On 3 October, the government and trade unions reached a multi-year agreement on the growth of public employees' salaries and the improvement of other labour conditions. To compensate for higher-than-expected inflation, this agreement incorporates a retroactive increase of 1.5% to be disbursed in a one-off payment before the end of this year. Therefore, wage growth will be 3.5% in 2022. For the next two years, the agreed wage increase is 2.5% and 2%, but with some clauses, linked to inflation and GDP growth, that could raise it to 3.5% and 2.5%, respectively¹⁷.
- The authorities are adopting economic measures (transfers, reductions of some taxes, discounts on electricity bills, free transport, or updating of public benefits) that can impact positively households' disposable income and partially offset the reduction in real wages. We present the most important in the next section. Regarding this, trade unions insist that any "social pact" should not treat only the question of wage increases but other topics such as taxes to contain the margins of companies benefiting from inflation, limits on the prices of some goods, or measures to support families whose mortgages are soaring due to the rise in interest rates.

Main measures adopted in 2021 and 2022 to reduce inflation or cushion their effects

Since June 2021, the Spanish government has been adopting numerous measures to curb price increases and mitigate their consequences on the most affected productive sectors, households, and vulnerable groups.

These measures have been progressively deployed in several "packages", which we can order as follows¹⁸:

1. Measures aimed at reducing some components of the electricity bill of final consumers on which the authorities can have a direct impact (regulated components of the bill, indirect taxes, discounts for different types of consumers) or at limiting the increase in final prices of natural gas for final consumers. The authorities adopted most of these measures in the second half of 2021, with some important extensions in 2022.

¹⁶ Last 21st September, the Vice-President and Ministry of Economy said explicitly that the increase in the minimum wage and the agreement on public employees' salaries should be considered part of the "social pact" that the government is promoting.

¹⁷ In 2023, if the sum of the 2022 HICP and the September 2023 HICP exceeds 6%, public wages will rise by an additional 0.5%. If nominal GDP equals or exceeds the one included in the macroeconomic table of the Budget Law, they will go up by an additional 0.5%. In 2024, wages would rise by an additional 0.5% if the sum of the HICP registered in 2022, 2023 and 2024 exceeds 8%. All these clauses would be retroactive (from 1 January of each year).

¹⁸ In general, the authorities described these measures as extraordinary and temporary. Unless otherwise indicated, however, they have been extended until 31 December 2022.

2. Reform of the functioning of the wholesale electricity market by introducing a cap on gas prices from June 2022 ("Iberian Island"). The main objective is to decouple this market price from increases in the international gas market price.
3. Measures to address the effects of the price rises on households and economic sectors more affected by energy price increases. Most of them have been adopted in the framework of a National Response Plan to the economic and social consequences of the invasion of Ukraine. The first package of measures was adopted in March 2022 and was renewed and subsequently extended in June and August 2022.
4. Tax changes to increase the contribution of high-income households and wealth owners and high-profit companies, and mechanisms to reduce windfall profits generated in the electricity market. These funds will be used to finance transfers or support measures for companies in difficulty and lower-income households, whose taxes are also reduced. Some of these measures have been announced very recently and are pending development.

Besides these actions, Spain adopted an energy-saving plan last August and has taken different measures throughout the period to promote the energy transition. We do not analyse them in this report.

Measures to reduce consumers' electricity and natural gas prices

The electricity bill of final consumers has three main components: the cost of the energy consumed; a regulated part made up of "tolls" and "charges"¹⁹; and indirect taxes. Regarding the part of the cost of electricity, there are two basic types of tariffs in Spain. The first is a regulated tariff (called the Voluntary Price for the Small Consumer, or PVPC), in which the price is adjusted daily to the evolution of the wholesale market. The second is a free tariff, where each company agrees directly with its final consumers on the price of the energy consumed. Approximately 40% of consumers (around 10 million) have the PVPC tariff. Until last year, this tariff was characterised by lower but more volatile average prices, as free market tariffs usually maintain stable prices for a year.

In 2021, the Spanish government approved and sent to the Parliament two Laws to reduce the part of the electricity bill destined to cover the above-mentioned "charges". One of them provides for the distribution of the costs of policies to promote renewables, high-efficiency cogeneration, and energy recovery from waste (RECORE) among all energy sectors. They are currently borne by the electricity sector exclusively. This will be done through the so-called Fund for the Sustainability of the Electricity System, whose objectives are to promote the electrification of the economy and the replacement of fossil-based electricity generation with renewable energies. The second law is aimed at capturing part of the extraordinary profits obtained by generation plants that do not emit CO₂ and predate the birth of the European carbon market. To this end, a mechanism will reduce the profits obtained by these plants when the cost of CO₂ emission rights, which they do not bear, is passed on in electricity prices. These funds will also finance "charges" -reducing the consumers' electricity bills- and the fight against energy poverty.

¹⁹ Tolls cover network costs and remuneration to distribution companies for their investments and are set by the National Markets and Competition Commission (CNMC). The charges are set by the government and help to defray costs arising from energy policy (covering renewable energy premiums, half of the additional costs of the electricity systems of the Canary Islands, Balearic Islands, Ceuta and Melilla, and the electricity system's tariff deficit).

According to the government's forecasts, when both rules are in place, they could save around 15% on the electricity bill of an average household or SME.

However, these rules require a lengthy parliamentary process. Therefore, throughout the second half of 2021, the government adopted various additional measures in response to the rise in the price of wholesale electricity markets, aimed at limiting its pass-through to retail prices²⁰:

1. Cuts in indirect taxes: reduction in the rate of Value Added Tax²¹ on all components of the electricity bill, first from 21% to 10%, and afterward to 5%²²; exemption from the Tax on the value of electricity production for installations that produce electricity and incorporate it into the electricity system, whose tax rate was 7%²³; and reduction in the rate of the Special Tax on Electricity, from 5.1% to 0.5%²⁴. Given the characteristics of this sector, these tax reductions are directly reflected in the bills of consumers and moderate the rise in inflation.
2. A 96% reduction in "charges" levied on consumers' electricity bills until December 2021. From January 2022 on, the discount is 33%.
3. Increase in discounts associated with the "Bono Social Eléctrico". There are currently more than one million households in Spain that, because they are large families or are in a situation of vulnerability or at risk of social exclusion, are beneficiaries of the discounts on their electricity bills known as Bono Social. To be eligible, however, these consumers must be on the regulated tariff (PVPC), whose evolution is linked daily to the wholesale market price. As a result, those consumers in a situation of energy vulnerability were being precisely the group most affected by the price rises in this market. For this reason, the authorities decided in October 2021 to raise these discounts from 40% to 70% for severely vulnerable consumers, and from 25% to 60% for vulnerable consumers and large families. In October 2022, these discounts were risen again up to 65% and 80%. Additionally, the annual limit of energy consumption eligible for the social discount is increased by 15%, and a new category of low-income workers eligible for a 40% discount appears (including 1,5 million people more).

In addition to these measures directly related to the electricity bill, the government also adopted additional measures to control gas natural prices:

4. Limitation of increases in the Tariff of Last Resort (TUR) for natural gas. Consumers with an annual volume of gas consumption lower than 50.000kWh can

²⁰ These measures were adopted mainly through the approval of three regulations: Royal Decree-Law 12/2021, of 24 June, adopting urgent measures in the field of energy taxation and energy generation, and on the management of the regulation levy and the water use tariff; Royal Decree-Law 17/2021, of 14 September, on urgent measures to mitigate the impact of rising natural gas prices on the retail gas and electricity markets; and Royal Decree-Law 23/2021, of 26 October, on urgent energy measures to protect consumers and introduce transparency in the wholesale and retail electricity and natural gas markets.

²¹ For this discount to remain in force, the wholesale market price must be above 45 €/MWh. It applies to all electricity contracts whose fixed power term does not exceed 10 kW (practically all households and many self-employed workers).

²² Royal Decree-Law 11/2022 of 25 June, once the European Commission authorised this possibility by Council Directive (EU) 2022/542 of 5 April 2022.

²³ This is a tax that electricity companies pass on to consumers' bills, so the aim is to reduce the price they pay.

²⁴ Bearing in mind that, according to Directive 2003/96/EC, the minimum levels of taxation cannot be less than 0.5 euro per megawatt-hour if such electricity is used for professional purposes or 1 euro per megawatt-hour in all other cases.

benefit from a regulated tariff, whose prices are periodically updated by the government. There are currently around 1.5 million consumers (households and SMEs) covered by this tariff²⁵. The applicable price is revised quarterly according to a methodology that includes the cost of raw materials. The government has introduced two main changes to reduce the burden of gas consumption on consumers. On the one hand, it estimated that the increase in the price of natural gas on international markets would imply a 30-40 % increase in the review that should be carried out on 1 October 2021 compared to the last update, carried out in July 2021. For this reason, it introduced an exceptional and temporary²⁶ limitation on the increase in the cost of the raw material that can be transferred to the TUR, capping their price for these consumers²⁷. On the other hand, the Royal Decree-Law 18/2022, of 18 October, allows homeowners' communities with collective gas boilers to benefit from this regulated tariff. Until now, this was not possible because they were treated as large consumers. According to official data, this could benefit 1.7 million homes, which could be reduced their gas bills by 50%.

5. Reduction of VAT from 21% to 5% on supplies of natural gas, pellets, briquettes, and firewood, from October to December 2022. The government estimates that, in these three months, the consumers' savings could amount to 210 million euros²⁸.

Reform of the functioning of the wholesale electricity market by introducing a cap on gas prices

On 15 June, the mechanism known as the "gas cap" or "Iberian Exception" came into force in the Spanish and Portuguese electricity markets²⁹. Its main objective is to reduce the price of electricity paid by consumers, establishing a limit on the price charged in the wholesale market (and therefore the extraordinary profits obtained) by "infra-marginal" technologies (solar, wind, hydroelectric, nuclear). In short, this cap decouples wholesale electricity market prices from the rise in international gas prices, modifying the marginalist operation that characterises this market. The most expensive technology continues to determine the price of all electricity generated, but with the limit set by the reference price. The issue of "windfall profits" is corrected, albeit only partially.

Specifically, the effect of this mechanism on what final consumers pay is articulated through two procedures:

²⁵ Recently, the government has changed the requirements on the information companies must provide to consumers on this tariff and on the procedures for contracting it to increase access to the TUR for more people.

²⁶ Initially for two quarters, but this was later extended until the end of 2023.

²⁷ Until October 2022, this part of the increase in the cost of gas not passed on to consumers' bills accumulated in what is known as the "tariff deficit." This amount will subsequently be passed on more progressively to the price of gas that consumers pay to the companies. From November 2022, however, public budgets will fully assume this difference, both in the case of individual consumers and neighbourhood communities, compensating the companies.

²⁸ Royal Decree-Law 17/2022 of 20 September adopting urgent measures in the field of energy, in the application of the remuneration system for cogeneration installations and temporarily reducing the rate of Value Added Tax applicable to the delivery, import and intra-Community acquisition of certain fuels.

²⁹ Regulated by Royal Decree-Law 10/2022 of 13 May, which temporarily establishes a production cost adjustment mechanism to reduce the price of electricity in the wholesale market.

- Firstly, a maximum price is set for natural gas used by combined cycle and co-generation plants: 40 €/MWh for the first six months after its implementation, which will then increase by 5 €/MWh per month until it reaches 70 €/MWh in May 2023 (the date foreseen for its completion). This implicitly establishes a cap on the resulting wholesale electricity market price when it is necessary to use this technology to meet demand.
- In addition, natural gas combined cycle plants, coal-fired thermal plants and some cogeneration facilities receive a compensation for the difference between the actual cost of the natural gas used for electricity generation (taking the Iberian Gas Market, MIBGAS, as a benchmark) and the reference price. Part of this compensation is passed on in the bills of consumers benefiting from the existence of the gas cap³⁰:
 - Consumers on the regulated PVPC tariff, as the price they pay is directly referenced to the wholesale market price, which is lower with this mechanism.
 - Consumers on the free tariff who renew their contracts after the implementation of the mechanism, as the price of these new contracts will also be lower than what they would have had to pay in the absence of the gas cap.

This compensation is always lower than the price reduction generated by the mechanism (because it is received exclusively by technologies using natural gas, but not by the rest). Therefore, given a gas price, the higher the percentage of electricity generated by renewables, hydroelectric or nuclear installations, the higher the savings for consumers.

The first months of application of the mechanism have coincided with a very significant rise in the price of natural gas (the MIBGAS index has multiplied by 3), and the price of the wholesale electricity market has been completely detached from this trend: while in Spain it has stabilised, it has experienced very significant rises in France, Italy, and Germany. In these months, specifically, the wholesale price in Spain has been 70% lower than in these countries, even though the weight of technologies that use gas to produce electricity has increased (31% on average from June to August, compared to 18% between January and May).

To know the final savings for consumers, however, it is necessary to consider not only what the wholesale market price would have been in the absence of the Iberian exception, but also include the compensation paid to technologies that use gas. A study by Hidalgo, Mateo, Collado and Galindo (2022) estimates that the gas cap has allowed electricity prices for consumers on the regulated tariff to be 24% lower on average between 15 June and 31 August. This figure is particularly relevant, as the price used to calculate the evolution of the electricity component in the HICP is precisely that of the regulated tariff.

This would mean a cumulative saving during this period of 69 euros for an average household, or 690 million euros for the 10 million consumers covered by this tariff. And we should add to this figure the savings that consumers in the free market who are renewing their contracts would benefit from, insofar as they will probably do so at lower prices than without the gas cap.

³⁰ Other part is financed with the income obtained by the Spanish Transmission System Operator as a result of cross-border electricity trade between France and Spain.

Banco de España (2022) estimates that the overall measures adopted to limit the direct and indirect effects of natural gas on the inflation rate have contributed to reducing the HICP growth by 2 percentage points in August 2022. One out of these two points is attributed to the gas price cap. Regarding the average inflation rate of 2022, the gas price cap could reduce it by 0.6 percentage points.

One of the conditions demanded by the European Commission to Spain to authorise the gas cap was the reform of the current system for calculating the price of the regulated electricity tariff (PVPC), to stabilise it. This proposal is due to be presented in October, to begin to be progressively implemented between 2023 and 2025. The option that the Spanish authorities have announced will consist of ceasing to use exclusively the daily and intraday wholesale market price as a reference and including a basket of products from futures markets -annual, quarterly, and monthly-, with a weight of more than 50% for annual prices.

Measures to address the effects of the price rises on households and economic sectors more affected by energy price increases

The two previous sections refer to decisions aimed mainly at lowering energy prices, thereby reducing inflationary pressures. In addition to these actions, the government has also implemented other measures to protect households and particularly affected economic sectors (electricity- and gas-intensive industries, transport, agriculture, and fisheries) from the consequences of higher prices.

Although the measures approved in 2021 focused mainly on lowering the price of electricity, they already included some actions to support the most vulnerable sector, such as the creation of a Minimum Vital Supply. Spanish legislation establishes a period of four months for vulnerable consumers to pay their electricity bill without their supply being interrupted. In addition, this new norm sets that during the six months following this period, they will continue to be entitled to at least sufficient power to guarantee minimum conditions of comfort for all households (3,5 kW, known as Minimum Vital Supply). Additionally, the amount correspondent to the Bono Social Térmico (an annual direct aid to vulnerable families to help them heat their houses) was increased to an average of 90 € (35€ in the hottest regions of the country and 124€ in the coldest). Since October 2022, the minimum amount for each beneficiary is 40€.

Russia's invasion of Ukraine aggravated the supply shock that the European economy is suffering, with direct implications for the inflation rate, as well as causing a high degree of uncertainty about the economic outlook. For this reason, the authorities approved in March a National Response Plan that includes a significant number of measures to support the most affected sectors and vulnerable groups, as well as to reinforce price stability³¹. In total, 6 billion euros are expected to be mobilised in direct aid and tax cuts, plus a further 10 billion through a line of guarantees managed through the Official Credit Institute to reinforce companies' liquidity.

³¹ Royal Decree-Law 6/2022 of 29 March adopting urgent measures within the framework of the National Plan to respond to the economic and social consequences of the war in Ukraine. Most of these measures were extended and extended by Royal Decree-Law 11/2022 of 25 June, adopting and extending certain measures to respond to the economic and social consequences of the war in Ukraine, to address situations of social and economic vulnerability, and for the economic and social recovery of the island of La Palma.

We can group the measures that make up the Plan into four blocks:

1. Measures to support workers and vulnerable groups. The Royal Decree-Law of 29 March introduced three main provisions.
 - Firstly, some restrictions on the possibility of carrying out dismissals. Companies that are receiving public aid will not be allowed to justify objective redundancies based on increased energy costs. Similarly, companies that benefit from the schemes to reduce working hours or suspend contracts for reasons related to the invasion of Ukraine cannot justify redundancies using these same reasons.
 - Secondly, the amount received by beneficiaries of the Minimum Living Income (MLI)³² was increased by 15%.
 - Thirdly, the government established a limitation on the updating of housing rents. These are usually indexed to inflation, but during this year cannot be higher than the annual variation of the so-called Competitiveness Guarantee Index (which is capped at 2%).

The Royal Decree-Law of 25 June extended the validity of the previous measures until the end of the year, and introduced other two important decisions to protect the poorest families:

- An extraordinary increase, also of 15%, in non-contributory retirement and disability pensions.
- A one-off payment of 200€ to employees, self-employed or unemployed with low incomes and assets³³. This transfer focus on people who have not benefited from the previous measures (increase in the MLI or non-contributory pensions) or who do not receive a contributory pension (which is updated in line with inflation, according to a new Law passed in 2021).

The Royal Decree-Law of 1 August completes these measures with an increase of 100€ per month from September to December 2022 (400€ in total) for scholarships, grants, and subsidies received by students over the age of 16. The purpose of this improvement in grants is to guarantee equal opportunities in access to education, preventing the most vulnerable people of working age from being forced to abandon their studies due to the worsening economic situation.

Finally, we can mention one last measure also included in the Royal Decree-Law of the 25th of June, which was extended on the 1st of August. This is a significant discount on public transport fares which not only aims to protect household income but can also lead to significant savings in energy consumption:

³² Non-contributory benefit that guarantees a minimum income for households in severe poverty.

³³ The following conditions must be met to benefit from this measure: 1) Have a legal and effective residence in Spain and have had it continuously and uninterruptedly during the immediately preceding year. 2) To carry out an activity as a self-employed or employed person, being registered in the corresponding Social Security or mutual insurance scheme, or to be registered as unemployed at the employment office, whether or not receiving unemployment benefits or subsidy. 3) The income obtained in 2021, including that received by cohabitants, must be less than 14,000 euros, and the assets, excluding the usual residence, must not exceed 43,196.40 euros.

- A 30% subsidy on all currently existing multi-journey tickets for collective land public transport services, whether they are state, regional or local, between 1 September 2022 and 31 December 2022. This price reduction will be voluntary for the administrations managing the different services and is articulated through a transfer from the General State Administration to the Autonomous Communities and City Councils that habitually provide regular urban or interurban public transport services.
- The reduction in fares for multi-journey tickets in services corresponding to Public Service Obligations provided by Renfe (public railway company) and in regular bus passenger transport concessions under the jurisdiction of the General State Administration. Concerning train journeys, a 50% discount was initially established, but this was finally extended to 100% (and it has been announced that it will be maintained throughout 2023). In the case of regular road passenger transport, the discount is 50% for all multi-journey tickets for more than two journeys.

2. Measures in the field of energy, including two main measures:

- On the one hand, electro-intensive industries will have 80% of the costs corresponding to access tolls to electricity transmission and distribution networks reduced throughout 2022, and the gas-intensive industry will receive 125 million euros of direct aid, with a limit of 400,000 euros for each company.
- On the other hand, the government approved a rebate of at least 20 cents per litre of gasoline and diesel bought at petrol stations, as a discount applicable at the pump on the retail price. Of this discount, the public budget will cover 15 cents, and large distribution companies will contribute the rest. This measure does not directly reduce the inflation rate but is a transfer to fuel consumers. Therefore, this measure mainly benefits the transport sector and those households that consume a higher volume of fuel.

3. Measures to support the transport sector.

Throughout 2022, authorities have adopted various measures to ensure the economic sustainability of this sector, severely affected both by the restrictions on economic activity introduced during the pandemic and by the rise in fuel prices. This is a highly fragmented sector (more than half of the companies with heavy goods vehicles have only one), which makes it difficult to adapt to these cost increases. In the Royal Decree-Law approved in March, the most important measures were the following:

- Reduction of port taxes in Ceuta, Melilla, the Canary Islands, and the Balearic Islands. The objective is to maintain the quality and frequency of services connecting with the mainland and guarantee security in the supply chain for the population and the economic fabric of these territories.
- Authorisation for Port Authorities to reduce or eliminate, when necessary, the minimum traffic requirements for 2022.

- Direct aid to guarantee the companies' liquidity in all modes of road transport and compensate them for the extraordinary costs they are bearing. There are also direct aids to private companies whose main activity is goods transport by rail.
- Companies operating in the urban and road transport sector can request a deferment in social security contributions, both for employees and self-employed workers. This deferral will have more favourable conditions than those provided in general.

Apart from the extension of the above measures and the renovation of the direct aid to the road transport sector and to rail freight transport companies, the Royal Decree-Law 11/2022, of 25 June, and the Royal Decree-Law 14/2022, of 1 August, reinforce the guarantees to ensure that the price of transport is higher than the actual costs incurred by the haulier. It also establishes a new line of direct aid to public sector companies owning urban buses.

4. Measures to support companies and productive sectors.

- Firstly, a new line of guarantees on behalf of the State for companies and the self-employed to ensure liquidity. The total amount is 10 billion euros.
- Secondly, to support the agricultural, livestock and fishing sectors, the National Plan includes various direct aid measures: for milk production by cattle, sheep and goat farms; to ensure the viability and operation of farms in the face of possible severe distortions in the supply of raw materials caused by fluctuations in the world market; to cover the increase in production costs of fishing and aquaculture companies; subsidised credits for fishing activities; various exceptions and reductions in taxes and fees.
- To increase both food and feed production several derogations are allowed for crop diversification obligations and the establishment of ecological focus areas.

Fiscal measures and mechanisms to reduce extraordinary profits generated in the electricity market

To raise funds to finance the measures taken to compensate for the consequences of the price increases, different tax measures have been approved during 2022 that increase the contribution of companies that are making extraordinary profits or owners of large fortunes. At the same time, tax reductions on lower incomes have been included in the Draft Budget for 2023.

Firstly, since September 2021, the government has tried to tackle the problem of "windfall profits" through a mechanism to reduce the excess remuneration that certain installations³⁴, which do not emit CO₂, receive because of the rise in the price of gas and the marginalist operation of the market. According to Royal Decree-Law 17/2021, these companies must pay a percentage of the difference between the price of natural gas and a reference of €20/MWh. These payments will contribute to paying the functioning cost of the electrical system, reducing the contribution made by consumers. Subsequently, in both October and March, modifications were introduced to the treatment of fixed-price bilateral contracts.

³⁴ Installations receiving a specific remuneration scheme (renewables, cogeneration, and waste) and those of small size (<10 MW, given their high fixed costs) are excluded.

Royal Decree-Law 6/2022 of 29 March also includes measures to update the specific remuneration regime for electricity production from renewable energy sources, high-efficiency cogeneration, and waste, which had been excluded from the previous mechanism. It is recognised that the increase in the wholesale market price means extraordinary income for them. These installations receive, on the one hand, revenues for selling their electricity on the markets, and, additionally, they receive other revenues from the specific remuneration system, that ensures them "reasonable profitability" for their investments. However, the parameters calculated before the rise in gas prices now resulted in a total remuneration well above this reasonable minimum. It was therefore decided to update them and reduce this specific remuneration.

On 13 September, the Congress of Deputies began processing two extraordinary taxes. The first one will tax 4.8% of the net margin obtained from commissions and interests in 2022 and 2023 by financial institutions³⁵. The second one establishes a temporary tax of 1.2% on the total income of electricity, gas and oil companies that the National Markets and Competition Commission (CNMC) considers "main operators" (all of them Spanish)³⁶. The government expects to collect €3.5 billion per year in 2023 and 2024.

Regarding the tax measures included in the 2023 Budget Bill (which still has to be approved by Parliament), they include, on the one hand, a Solidarity Tax on Large Fortunes (which will be in force in 2023 and 2024 and will affect net wealth above 3 million euros), measures to ensure that the effective rate for large companies is close to the effective rate of 15% on effective profits, and a rise in the tax rate on capital gains³⁷. This would raise public revenues. At the same time, a tax cut on incomes below 21,000 euros per year (the median wage in Spain) and a cut in the corporate tax rate for smaller companies are approved. The net balance estimated by the government for the tax cuts and rises is an increase in revenue of 3.1 billion euros.

³⁵ Specifically, those financial companies that earned at least 800 million euros in these concepts in 2019.

³⁶ These companies must also have had revenues of more than €1 billion per year in 2019 and their main activity must be energy.

³⁷ One point increase in the taxation of capital income over 200,000 € and two points for income over 300,000 €.

Table 3: Summary table of measures

Measures	Yes/No	Remark
Energy tax cut	☑	In 2021 and 2022, reduction in especial taxes on electricity.
Gasoline tax cut	✗	
VAT tax cut	☑	2021 and 2022 electricity, 2022 gas.
Retail price control	☑	Hosing rentals updating cannot be higher than 2% in 2022. Limits to the gas price increase in the regulated tariff for domestic consumers in 2021 and 2022. Reduction in “charges” levied on consumers' electricity bills in 2022 and 2022. Discount of at least 20 cents per litre of gasoline and diesel bought at petrol stations.
Wholesale price control	☑	Gas price cap in electricity market ("Iberian Exception"), one year sin June 2022.
State-owned company mandate	✗	
Windfall profits tax	☑	Electricity producing technologies not affected by the increase in CO2 fossil fuels. An extraordinary tax on energy companies will be introduced in 2022 and 2023.
Transfers to vulnerable households	☑	200€ for low-income households, 400€ for people older than 16 studying with a grant, increases in Minimum Living Income, and non-contributory pensions. All of them in 2022. Discounts in electricity bills to vulnerable groups ("Bono Social Eléctrico") in 2021 and 2022.
Transfers to vulnerable firms	☑	Direct aids to gas-intensive firms, transport firms, and primary-sector firms; discounts to electro-intensive firms. Line of guarantees to reinforce companies' liquidity. All of them in 2022.
Unilateral wage policy/guideline	☑	Agreement signed between the Government and public employees for 3 years. Increase in the Minimum Wage.
Bi- or tripartite agreement social pact	✗	There have been attempts at a bipartite agreement, with government impetus, but without reaching an agreement.
Other measures	☑	Restrictions on the possibility of carrying out dismissals. Reduction in public transport price. Extraordinary taxes on financial institutions and wealth owners.

Source: author's own summary.

Main findings

Like in other European countries, several supply shocks (bottlenecks related to the end of the pandemic, tensions in international gas and oil prices, and war in Ukraine) have led to a rise in the inflation rate in Spain since March 2021. As a result, the forecast average inflation in 2022 is 8.5%, similar to the Eurozone average. Nevertheless, the HICP flash estimate for October (7.3%) confirms a strong decline in the annual growth of prices compared to last July, when it reached its highest value (10.7%). Moreover, prices have stabilized since June, with monthly inflation rates near zero. This trend contrasts with the Eurozone average, where the annual inflation rate has risen from 8.9% in July to 10.7% in October. This month, Spain was the country with the second-lowest inflation rate in the Eurozone.

Differences between Spanish and Eurozone inflation rates can be explained above all by the energy component, mainly electricity. More recently, however, differences in food price growth have been gaining importance. In September, on the other hand, prices in 60% of the HICP categories rose by more than 6% (they were only 18% in January). This figure highlights the widespread nature of inflationary pressures, which have also reached core inflation (6.5%).

The origin of the rise in electricity prices in wholesale markets is international (rising costs associated with CO₂ emission rights and gas prices, as well as the marginalist functioning of the market). However, some specific characteristics of the Spanish economy explained the stronger reflection in retail electricity prices and the general inflation rate: 40% of consumers have their electricity tariff directly linked to the daily variation of the wholesale market; these are the only prices used to calculate the evolution of electricity prices; the weight of electricity in the index is greater in Spain.

Profit margins have at least remained stable over the last year, with some information pointing even to an increase above their pre-pandemic values. In other words, firms have fully passed through the increase in costs to their selling prices, protecting their profits. In contrast, wages have grown below inflation (up to September, the average wage growth for all workers covered by collective agreements is 2.6%, while the average inflation forecast for this year is around 8.5%; moreover, only 1 in 4 workers is covered by a safeguard clause). All indicators confirm that nominal wages have not contributed significantly to inflation (no second-round effects) and that the costs of imported inflation have been borne mainly by real wages and, thus, by households' primary income.

Although the authorities have called for the signing of a social pact, negotiations between employers' organisations and trade unions broke down in May and there is no prospect of a resumption. The main difficulty is the refusal of companies to incorporate safeguard clauses to revise wage growth in line with inflation.

The government has promoted a wide range of measures, both to reduce inflation and to alleviate its consequences on the disposable income of households, especially the most vulnerable, and on the viability of companies in the most affected sectors.

Measures to reduce inflation have focused on energy markets, mainly on electricity prices: lowering indirect taxes to the legally possible minimum; reducing the regulated part of the bill ("charges") and discounts for vulnerable consumers. Action has also been taken on the regulated natural gas tariff, limiting the pass-through of the rise in international gas prices to consumers, and since October VAT has been reduced from 21% to 5%. The most important decision has undoubtedly been the introduction of a cap on the

price of gas in the wholesale electricity market ("Iberian Exception"), which has allowed the decoupling of its price from the evolution of the international gas market price. According to initial estimates, this could have led to a reduction of more than 20% in the retail price of electricity in its first three months of operation. Other measures aimed at lowering inflation are the cap on the updating of housing rents (2%) or the reduction in collective transport prices.

Recent data confirm the success of these measures in curbing inflation increases. The Bank of Spain estimates that these measures have allowed the August inflation rate to be 2 points lower, and half of this effect is due to the "gas price cap". Nevertheless, the government has not adopted measures directly aimed at reducing price growth in other inflationary sectors, such as food³⁸ or fuel distribution. While this may have been justified by the energy origin of the inflationary crisis, the pass-through of price increases to most sectors suggest that actions to curb price rises should be extended to other sectors, with a special focus on profit margins.

Measures to compensate households for the costs of inflation have also been very numerous: a 15% increase in the amounts of social benefits such as the MLI or non-contributory pensions³⁹; discounts on urban and rail transport; 200€ on-off aid for vulnerable families; 400€ payment to over-16s with study grants; a limit in the growth of housing rents; discount of 20 cents per litre of fuel. The 2023 draft budget also includes direct tax cuts for lower-income households (below the median salary), small businesses and the self-employed. Although there has been considerable debate about the 20 cents discount on fuel (it removes the price signal on demand, may be partially captured by distribution companies and may be regressive), the fact is that most of these measures are targeted at particularly vulnerable sectors, or impact them to a greater extent. The same can be said of direct aid to companies, which has been concentrated in the transport sector, the agricultural, livestock and fisheries sectors, and in the electro-intensive and gas-intensive industries.

Despite this, weak nominal wage growth and the pass-through by firms of higher costs to their prices (maintaining or increasing profit margins) are leading to an unequal distribution of the effects of inflation, which wage earners mainly bear. Changing this situation should be the focus of economic policy now.

According to the estimates of the "Quarterly report on the Spanish economy" published in October by the Bank of Spain, these measures would have a budgetary impact in 2022 equivalent to 1.3 GDP points. Despite this, no deterioration in the public accounts is expected: the public deficit forecast by the Bank of Spain for this year is 4.3%⁴⁰, compared with 6.9% in 2021. This would be mainly due to a better-than-expected performance of public revenue, due both to the dynamism of activity and employment and to the rise in prices themselves. For 2023 and 2024, on the other hand, the government is going to promote new measures to increase tax collection among large companies that are obtaining extraordinary profits and owners of large fortunes.

³⁸ The Second Vice-President and Minister of Labour and Social Economy is holding meetings with food distribution companies to promote a "basic basket" of products at affordable and stable prices, but so far this has not materialised into concrete action.

³⁹ Contributory pensions will be updated in January according to average inflation in 2022, according to a new law passed this year.

⁴⁰ In the Stability Programme presented in April, the government had forecast 5%.

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