Box 1

MACROECONOMIC PROJECTIONS FOR THE SPANISH ECONOMY (2021-2024): THE BANCO DE ESPAÑA'S CONTRIBUTION TO THE EUROSYSTEM'S DECEMBER 2021 JOINT FORECASTING EXERCISE

This box describes the most notable features of the latest update to the Banco de España's macroeconomic projections for the Spanish economy. Compared with the previous projections published on 21 September,[1] the current projections incorporate the new information that has become available since then, including the revised Quarterly National Accounts (QNA) estimates up to 2021 Q2, the preliminary estimates for Q3 and the changes in the technical assumptions underlying the performance of the different variables (see Table A.1).[2]

Since the spring, the headway made in the vaccination process has helped to contain the spread of the virus and, above all, to reduce the number of more severe cases. This has allowed a gradual easing of pandemic containment measures and a progressive return to normal activity, particularly in sectors requiring more social interaction. Thus, after growing by 1.1% between April and June, GDP gained momentum in Q3, growing by 2% quarter-on-quarter, according to the National Statistics Institute's (INE) preliminary estimates. This increase is less marked than anticipated in the baseline scenario of the September projections (2.7%). Coupled with the downward revisions to growth in previous quarters,[3] this has led to a more unfavourable starting point for the current projection exercise than anticipated in September.

The pick-up in activity and employment has continued throughout Q4, drawing on the information available. The continued buoyancy of the job market has enabled effective social security registrations (i.e. social security registrations excluding furloughed workers) to return to pre-pandemic levels in November, in seasonally adjusted terms. This development confirms a key feature of recent economic events, namely that employment is recovering faster and more robustly than GDP.

In any event, available indicators suggest that the pace of economic growth has moderated somewhat in Q4 compared with the previous months. From the productive sector standpoint, the weakness is somewhat more marked in the case of manufacturing, as borne out, for example, by the sectoral PMI, which has continued to reflect a gradual loss of momentum in the output of these sectors since August, albeit still at levels consistent with growth in the sector's value added. The results of the most recent round of the Banco de España Business Activity Survey (EBAE) tend to confirm that turnover and employment at industrial firms have fared somewhat less favourably compared to other sectors.[4]

There are various factors behind this slight moderation in the buoyancy of activity. First, the increase in demand for certain products since the onset of the pandemic has led to a global shortage of supplies of some intermediate goods whose production is relatively inelastic in the short term (e.g. microchips). This shortage, which has mainly affected industrial sectors and is, therefore, consistent with their relatively lower strength, has led to a significant increase in order delivery times and, in some cases, such as in the automotive sector, the need to slow down production. Second, there has been a rise in the price of certain products, such as energy products and some of those experiencing supply shortages owing to the aforementioned supply problems. This is dampening real income growth for firms and households. A third factor has emerged in recent weeks: COVID-19 contagion figures have been on the rise, first in other European countries and then in Spain. This has led to the reintroduction of certain pandemic containment measures. These epidemiological developments probably explain why the recovery of some high-frequency indicators related to tourism, such as air traffic, has slowed down over Q4.

Drawing on the information available, it is estimated that GDP growth in 2021 Q4 could have amounted to 1.6% quarter-on-quarter, leading to average annual growth of 4.5% in 2021. However, there is considerable uncertainty surrounding this estimation, as the quantitative data

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1 See Macroeconomic projections for the Spanish economy (2021-2023).

2 The current projections also include information on the institutional sectors' non-financial accounts for 2021 Q2 and take into account the revised annual National Accounts series of previous years. Although this last revision was released by the INE on 16 September, it could not be incorporated in the previous projections, as no quarterly series consistent with these annual series were published at that time (which is the data frequency required to prepare the Banco de España projections).

3 The INE revised the previous quarter-on-quarter GDP growth estimate for 2021 Q2 from 2.8% down to 1.1% and also made smaller changes in the previous quarters.

4 See M. Izquierdo (2021), "Encuesta a las empresas españolas sobre la evolución de su actividad: noviembre de 2021", Notas Económicas, *Boletín Económico,* 4/2021, Banco de España.

available for this period are still limited. Additionally, the information on the execution of projects under the Next Generation EU (NGEU) programme is incomplete, making it difficult to accurately estimate their contribution to growth.

Looking beyond the current quarter, developments in activity in the short term (especially during the first half of 2022) will continue to be influenced by the factors that have constrained GDP growth over the most recent period. In particular, disruptions in global supply chains are proving more persistent than anticipated three months ago. An example is the significant increase between 2020 Q4 and 2021 Q4, according to the latest round of the EBAE, in the share of firms reporting supply difficulties (from 13% to 31% for the sample overall and from 14% to 51% in the case of industry). These disruptions will foreseeably ease throughout the second half of 2022. However, over the year as a whole, they are expected to have a noticeable impact on output growth, higher than in 2021.[5] Additionally, the information available points to inflationary pressures remaining at around current levels until spring, approximately. This factor will therefore continue to squeeze agents' income and, with it, their spending power. Finally, the recent surge in COVID-19 case numbers in Europe somewhat delays the prospect of a return to normal activity, particularly as regards international tourism flows.

These factors will be partially offset by other developments, such as the faster pace of execution of the projects financed under the NGEU programme and the maintenance of favourable financing conditions, which will continue to provide support for agents' spending. Underpinned by these factors, growth in activity will pick up from mid-2022 onwards, as global supply chain disruptions recede, price and cost rises begin to ease and uncertainties linked to epidemiological developments are dispelled. In addition, export market growth will help further boost sales of goods to the rest of the world.

As a result, activity is expected to remain remarkably buoyant between mid-2022 and early 2023, before moderating somewhat thereafter. In annual average terms, GDP growth would stand at 5.4%, 3.9% and 1.8%, respectively, in 2022, 2023 and 2024 (see Chart 1 and Table 1). Under the projected trajectory, economic output would return to pre-pandemic levels in late 2022 or early 2023 (see Chart 2).

Chart 1
REAL GDP. RATE OF CHANGE

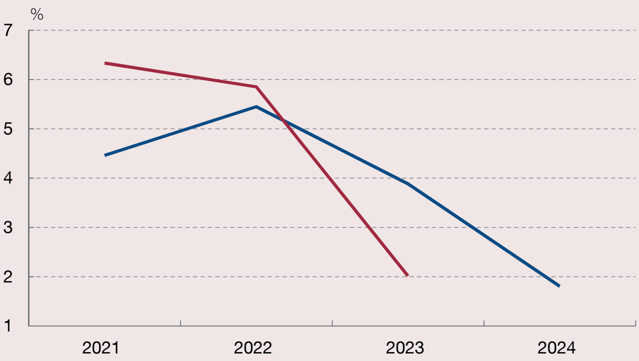
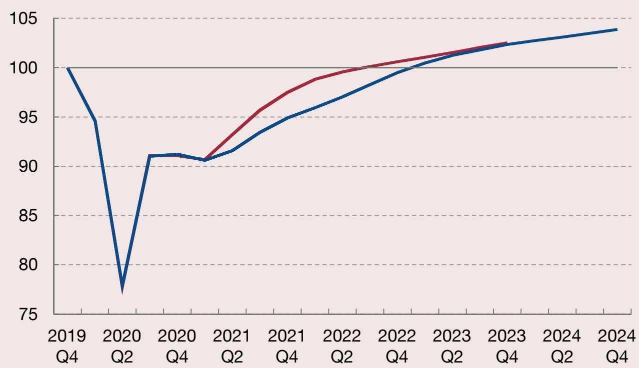


Chart 2
REAL GDP. LEVEL (2019 Q4 = 100)



DECEMBER 2021
SEPTEMBER 2021

SOURCES: Banco de España and INE.

5 Specifically, according to estimates, these disruptions could give rise to a reduction in the Spanish GDP growth rate of between 0.2 pp and 0.3 pp in 2021, and between 0.5 pp and 0.9 pp in 2022. See Box 5 of this Report, "The potential impact of global supply chain bottlenecks on the Spanish economy in coming quarters".

Compared with the September projections, these figures mean that GDP growth in 2021 and 2022 is revised down by 1.9 pp and 0.4 pp, respectively, while in 2023 it is revised up by 1.9 pp.[6] The changes in the first two years of the projection horizon are, above all, the result of the new QNA figures and, to a lesser degree, of the slight worsening of the short-term outlook, higher energy prices and supply bottlenecks, whereas the changes in the technical assumptions compared with those used in the September projections have approximately zero impact. The upward revision in 2023 is explained by the reversal of the effects of the supply disruptions and the different timing of the impact assumed for the execution of NGEU projects.

Developments since the summer of 2020 point to activity recovering more slowly in Spain than in the euro area, despite the pandemic-induced contraction in output also being sharper in our country. Specifically, in Q3 the gap compared with the pre-crisis GDP level was 6.6 pp in Spain and 0.3 pp in the euro area. The less favourable performance of activity compared with our peers' economies is partly due to the greater share of international tourism, a demand component that has been hit hard by the pandemic. However, domestic demand is also displaying less momentum in Spain.

Developments in the main macroeconomic aggregates

From the standpoint of the composition of aggregate demand, the projected recovery will rely mainly on the domestic component. The external sector will also contribute positively to GDP growth in 2021 and, above all, in 2022. However, it will make virtually no contribution to GDP growth in the subsequent two-year period.

Within private domestic demand, household consumption is expected to be highly buoyant over the projection horizon (see Table 2). In 2021 Q3, this demand component displayed a notable lack of momentum, the net result of two developments operating in opposite directions. On the one hand, supply chain disruptions hindered consumers' acquisition of some durables. However, on the other, the ongoing lifting of the restrictions imposed to combat the pandemic prompted a surge in spending on domestic tourism-related services. Over the projection horizon, the sustained recovery in the labour market and the maintenance of favourable financing conditions will continue to underpin household spending.

In the short term, however, certain factors that will tend to dampen private consumption will persist. These include, first, the rising incidence of the pandemic, that may affect the consumption of some services, insofar as it requires containment measures to be reintroduced, and may lead to greater precautionary saving. Second, high inflation may limit spending possibilities, particularly in the case of lower income households that earmark a greater proportion of their income to the consumption of energy goods, whose prices have risen the most. Lastly, global supply chain disruptions will continue to affect the availability of certain consumer goods.

Table 1
MACROECONOMIC PROJECTIONS FOR THE SPANISH ECONOMY (a)

Annual rate of change

	GDP				HICP				HICP excluding energy and food				Unemployment rate (% of labour force) (b)			
	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
December 2021	4.5	5.4	3.9	1.8	3.0	3.7	1.2	1.5	0.5	1.8	1.4	1.6	15.0	14.2	12.9	12.4
September 2021	6.3	5.9	2.0	—	2.1	1.7	1.3	—	0.3	1.0	1.4	—	15.1	14.3	13.3	—

SOURCES: Banco de España and INE.
NOTE: Latest QNA figure published: 2021 Q3.

a Projections cut-off date: 28 November 2021.
b Annual average.

6 The differences between the current and the September projections are calculated taking figures that include all their decimal places.

Over the course of 2022 household spending on consumer goods and services will gain greater momentum as the production bottlenecks affecting some goods – such as vehicles – that are preventing demand from being met in full fade away and, at the end of the year, due to the expected steep drop in the inflation rate.

As a result of all the above, the contribution of private consumption to GDP growth in the middle years of the projection horizon will increase significantly (see Chart 3). In any event, high uncertainty surrounds the degree of momentum of this aggregate, insofar as it is difficult to discern what proportion of the sizeable extraordinary savings households have amassed during the pandemic will be earmarked for their consumption decisions.

Among the components of gross capital formation, the momentum of residential investment will be boosted by the continued favourable performance of the labour market, which is bolstering households' future income expectations. In the nearer term, the growth of this aggregate may be limited by the signs of construction materials shortages. Also, the deployment of NGEU funds will give further momentum to residential investment, in light of the allocation to housing rehabilitation, under the Recovery, Transformation and Resilience Plan (RTRP), of a significant proportion of the grants received from the European Recovery and Resilience Facility.

Investment by non-financial corporations will be driven by a series of factors over the projection horizon. Against a background of gradually subsiding uncertainty, these include increased use of installed capacity (which in various economic sectors already exceeds pre-health crisis levels) as a result of the recovery in final demand.

Table 2
PROJECTIONS FOR THE MAIN MACROECONOMIC AGGREGATES OF THE SPANISH ECONOMY (a)

Annual rate of change in volume terms and % of GDP

		December 2021 projections				September 2021 projections		
	2020	2021	2022	2023	2024	2021	2022	2023
GDP	-10.8	4.5	5.4	3.9	1.8	6.3	5.9	2.0
Private consumption	-12.0	4.3	5.1	5.2	2.2	9.6	4.3	1.3
Government consumption	3.3	3.0	-0.2	0.7	1.5	2.2	0.2	0.9
Gross fixed capital formation	-9.5	3.9	7.8	3.7	2.1	5.8	10.5	3.0
Exports of goods and services	-20.1	11.9	9.1	4.6	3.1	8.7	11.1	4.5
Imports of goods and services	-15.2	11.3	6.5	4.8	3.7	11.5	7.5	3.3
Domestic demand (contribution to growth)	-8.6	4.2	4.4	3.9	1.9	7.0	4.7	1.6
Net external demand (contribution to growth)	-2.2	0.3	1.0	0.0	-0.1	-0.7	1.2	0.4
Nominal GDP	-9.8	6.1	8.1	5.6	3.6	7.6	7.7	3.6
GDP deflator	1.1	1.6	2.5	1.7	1.7	1.2	1.8	1.6
HICP	-0.3	3.0	3.7	1.2	1.5	2.1	1.7	1.3
HICP excluding energy and food	0.5	0.5	1.8	1.4	1.6	0.3	1.0	1.4
Employment (hours)	-10.6	7.4	3.8	2.8	1.3	8.1	5.6	1.7
Unemployment rate (% of labour force). Annual average	15.5	15.0	14.2	12.9	12.4	15.1	14.3	13.3
Net lending (+)/net borrowing (-) of the nation (% of GDP)	1.2	1.2	2.9	2.7	2.1	0.1	3.1	3.4
General government net lending (+)/net borrowing (-) (% of GDP)	-11.0	-7.5	-4.8	-4.0	-3.4	-7.6	-4.3	-3.5
General government debt (% of GDP)	120.0	120.4	115.7	113.7	113.5	117.9	114.3	114.3

SOURCES: Banco de España and INE.
NOTE: Latest QNA figure published: 2021 Q3.

a Projections cut-off date: 28 November 2021.

Furthermore, business investment will be boosted by the momentum from the NGEU projects and by digitalisation needs, which have been heightened by the pandemic. In the short term, the momentum currently projected for this aggregate is somewhat smaller than three months ago. This is due to two reasons. First, the later implementation of the NGEU projects, which means that some of the momentum contributed by this factor to investment growth is pushed back to mid-2022. And second, this aggregate being held back in the short term by persisting supply chain disruptions and the adverse impact of higher production costs on profit margins.

With regard to trade with the rest of the world, in the short term the growth of exports of goods will tend to be checked by the supply problems facing some inputs, which are leading to delayed deliveries of orders for final goods, and by the signs of a slowdown in activity in our peers' economies. Exports will gain momentum throughout 2022 as these factors unwind. They will also be driven by a lower exchange rate than the 2021 average. The continuation of the recovery in tourism flows will be hampered in the short term by the recent resurgence of the pandemic in Europe, which has prompted the reintroduction of some restrictions on international travel.

The current projections still envisage a marked recovery in exports of travel services over the projection horizon, after it was estimated that in 2021 they would barely reach 35% of the 2019 level. In any event, in annual average terms, this aggregate will recover somewhat later than was expected in the September projections (see Chart 4).

Imports of goods and services will also follow an upward path in the three-year period from 2022 to 2024, in keeping with the recovery in final demand. As in the case of exports, growth of purchases of goods abroad will be constrained, in the short term, by the global supply problems. Consequently, in net terms, these difficulties will have a low impact on the contribution of foreign trade in goods to GDP growth.

In the labour market, the upward path of the number of hours worked and the employed will continue over the projection horizon. After reaching 7.4% in 2021, the growth rate of hours worked will gradually moderate over the subsequent three-year period to stand at 1.3% in 2024. In step with the recovery in employment, the unemployment rate will continue to fall over the projection horizon. It will be below the pre-pandemic level as of 2022 H2.

The general government budget balance will improve over the projection horizon. The reduction in the budget deficit as a percentage of GDP will owe to the temporary nature of some of the discretionary measures adopted to contend

Chart 3
GDP GROWTH AND CONTRIBUTIONS OF THE MAIN COMPONENTS

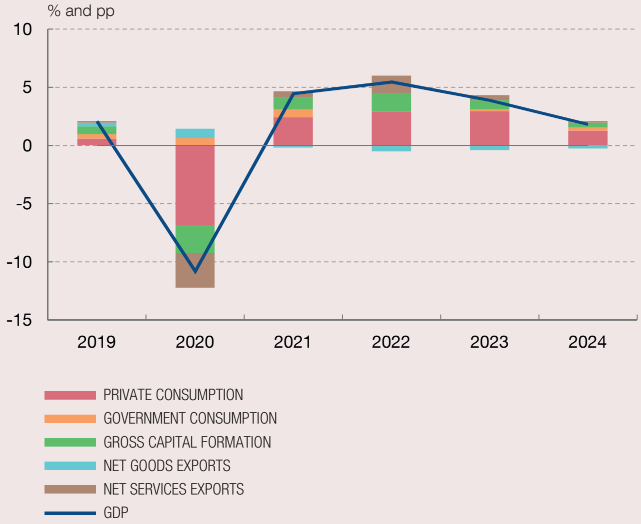
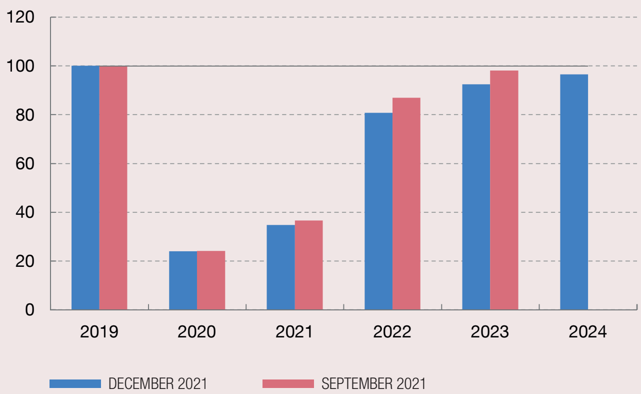


Chart 4
TOURISM EXPORTS (2019 = 100)



SOURCES: Banco de España and INE.

with the fallout from the pandemic and to the cyclical improvement. Nevertheless, the public finances shortfall is set to remain at very high levels at the end of the projection horizon. Based on the paths projected for the general government budget balance and for nominal GDP, the government debt-to-GDP ratio will fall moderately over the envisaged horizon, remaining at very high levels in 2024 (113.5% of GDP, around 6 pp below the 2020 level).

Prices and costs

As indicated above, one of the constraints on the growth of demand in the final stretch of the year has been the marked rise in inflation rates, which has proven to be much stronger than anticipated in the recent projections of the Banco de España and other institutions. Annual consumer price inflation, measured via the HICP, has risen from -0.6% in December 2020 to 5.5% in November 2021, its highest level since September 1992. This upsurge has mainly been attributable to the sharp rise in energy prices (and, especially, electricity prices) and, to a lesser degree, higher services prices.[7]

In any event, the factors that have had the most influence on inflation throughout 2021 are, in principle, predominantly transitory. The first of these factors, statistical in nature, is related to the sharp slowdown in the prices of some components of the consumption basket between the onset of the pandemic and the summer of 2020. This deceleration caused substantial base effects that have notably pushed up headline inflation since spring 2021 (see the blue bars in Chart 5).[8]

Second, the recovery in demand following the gradual easing of the restrictions imposed in response to the pandemic has prompted price levels in numerous HICP headings (especially in some services) to normalise

Chart 5
CONTRIBUTIONS TO HICP GROWTH. BASE AND CURRENT EFFECTS (a)

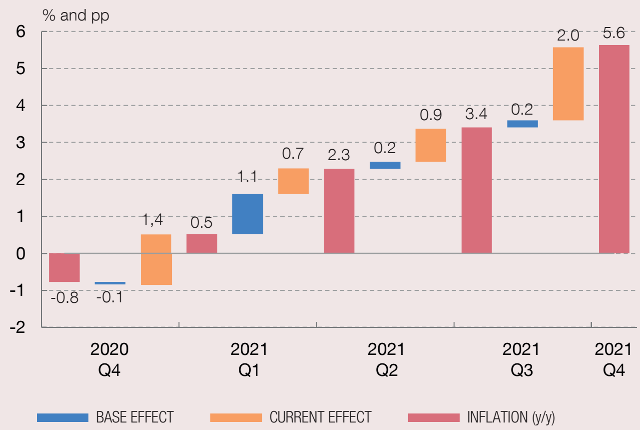
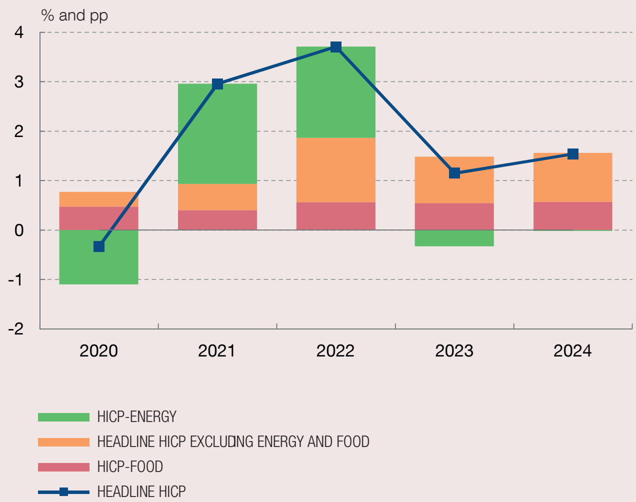


Chart 6
CONTRIBUTIONS TO HICP GROWTH BY COMPONENT



SOURCES: Banco de España and INE.

a The current effect is the difference between the change in the quarter-on-quarter rate in one quarter and the average quarter-on-quarter change in that quarter between 2014 and 2018. The base effect is the current effect of the previous year, changing the sign.

7 In any event, a more granular breakdown shows that the rise has been sharper among non-energy industrial goods. For a detailed analysis of recent inflation developments in Spain and in the euro area overall, see P. Hernández de Cos (2021), "Inflation: recent developments, outlook and monetary policy implications", XII Encuentro Sector Financiero Expansión-KPMG.

8 Base effect is the name given to the purely statistical effect that arises because the year-on-year rate of change in a given month is affected by the month-on-month changes, be they abnormally low or high, observed in the same month a year earlier. For a more detailed explanation of base effects, see "The recent rise in inflation in Spain and the short-term outlook", Box 3, «Quarterly report on the Spanish economy», *Economic Bulletin* 12/2016, Banco de España.

somewhat. A third factor that has played an important role in developments in headline inflation in Spain has been the increase in electricity prices, which in turn is mainly explained by the sharp surge in natural gas prices on the European markets.

Lastly, as indicated above, the gradual reopening of economies following the lifting of the initial stringent restrictions imposed in response to the pandemic has not led to an immediate normalisation of activity. On the contrary, the emergence of production bottlenecks, combined with the higher cost of global maritime transport,[9] has sharply driven up the prices of numerous commodities and intermediate goods. This increase in production costs has been most pronounced in the sectors that have faced greater supply difficulties.[10]

Firms have started to pass through these cost increases to the selling prices of their products. This could continue in the coming months, since the historical evidence suggests that production price increases are passed through to the HICP (albeit, in any event, only very partially) with a certain time lag.

Over the course of 2022, the factors that have fuelled the increase in inflation throughout 2021 are expected to be dispelled. First, the pandemic-related positive base effects will gradually ease in the coming months, disappearing completely as from spring 2022. Second, by mid-2022 the production chain disruption is expected to start to gradually ease; if confirmed, this will help correct the growth in intermediate production prices. Lastly, based on electricity prices on the futures markets, a considerable portion of the increase in wholesale electricity market prices should be expected to reverse from spring 2022.

In this setting, the year-on-year rate of change of headline HICP will peak between 2021 Q4 and 2022 Q1 and will then gradually fall back. Nevertheless, in terms of annual average rates, the HICP is expected to accelerate from 3% in 2021 to 3.7% in 2022 (see Chart 6). As a result of the disappearance of the temporary effects mentioned above, the annual rate will fall sharply in 2023 (to 1.2%). This will be followed by a minor increase, to 1.5%, in 2024, as a result of the performance of the non-energy components. Underlying inflation will peak several months later than headline inflation, and will then decline between late 2022 and early 2023 as the bottlenecks disappear. Over the last two years of the projection horizon, the gradual decrease in cyclical slack will give rise to a moderate but sustained increase in the underlying inflation rate, to reach an average of 1.6% in 2024.

Compared with the September projections exercise, the increase in the starting point, combined with the higher growth expected in energy prices, results in an upward revision of our inflation forecasts for 2021 and 2022. The inflation forecasts for 2023 remain virtually unchanged. The underlying inflation forecasts have also been revised up, albeit to a lesser extent.

Sources of uncertainty surrounding the baseline scenario

The macroeconomic outlook remains subject to a high level of uncertainty. First, the projections assume that the impact of the pandemic on economic activity will continue to fade in the coming quarters, before eventually disappearing. However, in view of the recent pick-up in the incidence of the virus (despite the major progress made in the vaccination campaign) and the emergence of the Omicron variant, other more adverse epidemiological scenarios – linked to a potential spread of more infectious and, in the worst case scenario, vaccine-resistant variants of the virus – that would require the reimposition of more stringent containment measures cannot be ruled out. In principle, the impact of these measures on activity will be more moderate than in the initial stages of the health crisis, in a setting in which economies' adaptation to the pandemic has improved with each successive wave.

A series of additional sources of uncertainty, already present in the previous projection exercises, also remain. These include the doubts surrounding the degree of persistence of the current increase in inflation and

9 The surge in global demand gave rise to increased demand for goods transport. At the same time, the pandemic containment measures created shipping disruptions. See Attinasi et al. (2021), "The semiconductor shortage and its implication for euro area trade, production and prices", Box 6, *Economic Bulletin,* Issue 4/2021, ECB.

10 See M. Izquierdo (2021), "Encuesta a las empresas españolas sobre la evolución de su actividad: noviembre de 2021", Notas Económicas, *Boletín Económico,* 4/2021, Banco de España.

production bottlenecks, the use that consumers may make of the savings accumulated since the start of the pandemic, the speed of the recovery in foreign tourism, the rate of execution of the NGEU programme (and the characteristics of the projects funded by it) and the possible scarring effects of the crisis on the business sector.

As indicated above, the baseline scenario assumes that the current uptick in energy and many intermediate goods prices will be transitory. But the longer this episode of higher prices and costs continues, the greater the likelihood that it will filter through more generally to final prices, and to wage demands, generating more persistent inflationary patterns. Thus, first, if geopolitical tensions were to intensify, gas prices could come under renewed pressure in Europe. Second, although the pass-through to final prices of the higher cost of some inputs has been limited so far, it could become more intense if the recent supply problems were to persist.

The pass-through of increases in inflation to wage demands is the starting point of what are generally known as second-round effects, whereby increases in wage costs and prices feed through to each other. The assumption under the baseline scenario that this pass-through will be limited is based on two factors. First, the multi-year nature of collective bargaining, which in practice means that changes in inflation and, in general, in economic conditions at a given point in time have a limited capacity to immediately affect the outcome of collective bargaining processes, since collective agreements are renegotiated on average every two or three years. And second, the low proportion of collective agreements that include indexation clauses, which link wage increases to inflation. In addition, in the short term, the degree of slack still in the economy will foreseeably be a further source of containment of wage increase demands, at least in the sectors that are lagging behind in terms of recovery.

So far, the assumption that there will be a limited pass-through of the increase in inflation to wages is being confirmed in practice, although the available information to November still essentially reflects the wage settlements agreed in months when inflation rates were lower.[11] The possibility that the current increases in prices and intermediate costs will prove to be more persistent and will give rise to a greater pass-through to labour costs cannot be ruled out.

The projections assume that households will use only part of their large stock of savings accumulated during the crisis to consume. This assumption is based on the fact that the bulk of these savings are concentrated among high income households (with a lower marginal propensity to consume) and that most of the expenditure that did not materialise during the pandemic (on services such as dining out and leisure) owing to the restrictions in place cannot be easily deferred. Nevertheless, despite these mitigating factors, the possibility that the savings accumulated during the crisis may be spent on consumer goods and services in a higher proportion than that considered in the baseline scenario cannot be ruled out.

It is also possible that, should a definitive solution to the health crisis emerge, tourist flows from the rest of the world may recover more rapidly. Or on the downside, that the pandemic could lead to more lasting changes in business travel that would stall the recovery, although this effect would be limited, given that tourism exports of this kind account for a low share of the total.

A further factor of uncertainty is associated with the multiplier effect on activity of the NGEU projects and with their distribution over time (which has a significant impact on the GDP growth profile).

Lastly, high uncertainty also remains as to the scale of the long-lasting scarring that COVID-19 may have left in terms of structural unemployment and destruction of the productive system. So far, the perceived effectiveness of the policies deployed to prevent these effects underpins the assumption made in these projections that, on aggregate, the scarring effect will be limited. Some signs of deterioration of firms' solvency have been detected, concentrated essentially in the sectors most affected by the pandemic, such as some deterioration of credit quality in some bank loan portfolios and an increase in the number of firms subject to insolvency proceedings. However, by contrast, the latest data reflect a moderation of these trends.

11 Specifically, to November, the average increase agreed for 2021 was 1.5%, 0.3 pp lower than that agreed for 2020. However, the latest collective agreements signed reflect an increase from 1.1% in 2020 to 1.5% in 2021.

ANNEX 1
Assumptions underlying the projections

The construction of projections is based on the fulfilment of certain assumptions about the trajectory of a set of variables relating to the Spanish economy's external markets for goods and services, prices in the financial and commodity markets and fiscal policy. The assumptions regarding Spain's export markets and competitors' prices in domestic currencies, based on information up to 25 November, were taken from the Eurosystem staff macroeconomic projections for the euro area, December 2021. The assumptions regarding the paths of interest rates, exchange rates and oil and other commodity prices are based on the prices observed in the respective markets in the 10 working days prior to the cut-off date for each year's projections (in this case, 28 November). In the specific case of exchange rates, the spot market rate is used. For the other variables, the values observed in the futures markets for each point in time of the projection horizon are considered.

In comparison with the September projections, some notable changes to the assumptions used for the baseline scenario have been made. First, the projected evolution for export markets in 2021 and 2022 is now somewhat less favourable than had been anticipated three months ago, with growth rates revised downwards by around 1 pp in both years. In contrast, higher growth is now expected in 2023 (1.7 pp). These revisions in terms of annual averages reflect less positive developments in the most recent period than had been anticipated three months ago. Meanwhile, the outlook for the period running from mid-2022 to mid-2023 is somewhat more encouraging, and has barely changed in the second half of this past year.

Chart A.1
INTERNATIONAL ENVIRONMENT AND MONETARY AND FINANCIAL CONDITIONS (a)

Annual rate of change, unless otherwise indicated

		December 2021 projections				Difference between the current projections and those at September 2021 (b)		
	2020	2021	2022	2023	2024	2021	2022	2023
Spain's export markets (c)	-10.7	8.3	5.3	5.5	3.2	-0.9	-1.1	1.7
Oil price in dollars/barrel (level)	41.5	71.8	77.5	72.3	69.4	3.0	8.4	7.0
Monetary and financial conditions								
Dollar/euro exchange rate (level)	1.14	1.18	1.13	1.13	1.13	-0.01	-0.05	-0.05
Nominal effective exchange rate against non-euro area (d) (2000 = 100)	117.8	120.7	116.7	116.7	116.7	-0.8	-4.1	-4.1
Short-term interest rates (3-month EURIBOR) (e)	-0.4	-0.5	-0.5	-0.2	0.0	0.0	0.0	0.2
Long-term interest rates (10-year Spanish government bond yield) (e)	0.4	0.4	0.6	0.8	1.1	0.0	0.1	0.1

SOURCES: Banco de España and ECB.

a Cut-off date for assumptions: 25 November 2021 for Spain's export markets and 28 November 2021 for all other variables. Figures expressed as levels are annual averages; figures expressed as rates are calculated on the basis of the related annual averages.
b The differences are in rates for export markets, levels for oil prices and the dollar/euro exchange rate, percentages for the nominal effective exchange rate and percentage points for interest rates.
c The assumptions regarding the behaviour of Spain's export markets presented in the table are obtained from the *December 2021 ECB staff macroeconomic projections for the euro area.*
d A positive percentage change in the nominal effective exchange rate denotes an appreciation of the euro.
e For the projection period, the figures in the table are technical assumptions, prepared following the Eurosystem's methodology. These assumptions are based on futures market prices or on proxies thereof and should not be interpreted as a Eurosystem prediction as to the course of these variables.

Second, oil prices are now higher than anticipated in September. On average, after reaching $72 this year, the price of a barrel of crude oil is expected to stand at $77.5 in 2022 before falling to $72.3 in 2023 (representing upward revisions of 12% and 11%, respectively, with respect to the assumption used in September). In 2024, it is expected to stand at $69.4. Meanwhile, the euro exchange rate has depreciated in the last three months on the spot markets (by around 5% both against the dollar and in nominal effective terms).

The other changes to the external assumptions used in September are more modest and, consequently, have a smaller impact on the projections. In particular, the yields on 10-year bonds traded on sovereign debt markets prior to the cut-off date for these projections are similar to those in September for the projection horizon overall. Specifically, this variable is expected to stand, on average, at 0.4%, 0.6%, 0.8% and 1.1% in 2021, 2022, 2023 and 2024, respectively. Moreover, the slightly upward path projected by the financial markets for short-term interest rates is now somewhat steeper than three months ago. Specifically, the 3-month EURIBOR is expected to increase from -0.5% in 2021 to -0.2% in 2023, before rising to 0% in 2024.

Also, explicit assumptions on electricity prices have been used, since the scale of their recent increase has implications of some significance for the macroeconomic outlook. Specifically, the assumptions prepared have taken into consideration prices on the futures wholesale markets until end-2022. However, since information on such market prices for 2023 and 2024 is in short supply, a relatively neutral assumption has been used (as in September), based on month-on-month price increases equal to the average observed in pre-pandemic years.

On the fiscal policy front, the main new developments with respect to September come from the draft 2022 State Budget, currently before the Senate, and the 2022 draft budgetary plan, sent to Brussels in October.

In particular, the State Budget includes provision for a compensatory pension payment, to be calculated based on the positive difference between the average inflation for the twelve-month period running from December 2020 through November 2021 and the 0.9% increase approved at the start of the year. This payment would come on top of the 2022 increase under the new mechanism envisaged in the Law guaranteeing the purchasing power of pensions (currently before Parliament), which provides that pensions will increase annually in line with the average inflation rate for the twelve-month period ending in November of the preceding year. According to the inflation figures available up to November, the 2021 compensation will account for an additional amount of 1.6% and a spending increase of 0.2 pp of GDP, payable in 2022 but impacting on the National Accounts in 2021.

The projections for this year also include the latest available budget outturn information published by the National Audit Office. Worth noting in this regard is the notable increase in revenue (and, in particular, in tax take), leading to an upward revision of their estimated growth for the year.

Overall, the updated information on revenue and expenditure yields a slightly lower general government budget deficit in 2021 than was expected in September. In addition, the assumption regarding the impact of NGEU expenditure for REACT-EU on the budget balance for this year has changed. According to the latest information available, the impact will ultimately be zero.[12] This represents an improvement of 0.2 pp in the 2021 general government balance. Conversely, the downward revision to nominal GDP forecast for this year raises the budget deficit as a percentage of GDP by 0.1 pp.

The increases envisaged in the Stage Budget (2% to the public sector wage bill and 3% to minimum pensions[13]) have been included for 2022. On the revenue side, the changes have little relevance in quantitative terms. In any event, it is assumed that a large part of the exceptional rise in the revenue-to-GDP ratio recorded in 2021 will be reversed in 2022 and 2023.

12 The information available in September suggested that the portion of NGEU corresponding to the REACT-EU programme would be accounted for in the same way as EU structural funds, which, while not affecting the long-term deficit, do have an impact in specific years, owing to the lag between the recognition of expenditure and revenue. This was the assumption made in September, in line with the Independent Authority for Fiscal Responsibility and the information from regional governments. However, the National Audit Office has recently announced that the criteria to be applied to REACT-EU will be the same as that for NGEU overall. The relevant revenue and expenditure will therefore be booked in such a way as to have no impact on the National Accounts deficit in any year, as per the Eurostat guidelines.

13 As opposed to the 2.5% general increase to pensions, based on average inflation up to November 2021, as noted above.

Meanwhile, in terms of the projects to be financed using NGEU funds, expenditure in 2021, 2022 and 2023 has been revised downwards somewhat and pushed back to 2024. Given the scarcity (at this point in time) of official figures on the implementation of such projects, information on the calls for applications arranged, as detailed on the Recovery, Transformation and Resilience Plan (RTRP) website, has been taken into account, together with certain assumptions made regarding the implementation schedule. Based on current assumptions, NGEU is expected to have a 1.6 pp impact on the estimated GDP growth rate for 2022 (0.3 pp in 2021).

For the other variables and years, the projections are based on the standard technical assumptions. Thus, items subject to greater discretionality (such as procurement) are expected to evolve in line with the growth potential of the Spanish economy. Government investment and the capital transfers paid are essentially determined by the assumptions made with respect to NGEU, while government revenue, pension expenditure, unemployment benefits and interest payments will be shaped by the usual determinants.[14]

In light of these assumptions and forecasts for the fiscal variables, and given the output gap estimated in a manner consistent with the other macroeconomic projections, the fiscal policy stance, measured as the change in the primary structural balance, net of European funds,[15] is expected to be expansionary in 2021 and 2022 (1.1 pp of GDP for the two years overall), before becoming contractionary in 2023 and, in particular, in 2024, as a result of lower NGEU-financed expenditure.

14 Specifically, it is assumed that government revenue will grow in line with tax bases, which mainly depend on the macroeconomic context. Nonetheless, a correction of the exceptional rise in the 2021 ratio of revenue-to-GDP has been included for 2022 and 2023. Expenditure on pensions in 2023 and 2024 is determined by demographic trends and the planned indexation of pensions to the CPI, unemployment benefits mainly depend on how unemployment behaves and interest payments reflect government debt levels and interest rates.

15 While the European NGEU funds do not affect the deficit in accounting terms, they do impact the fiscal policy stance, since they entail a rise in public expenditure, albeit not resulting from taxes collected from resident agents. Consequently, to correctly measure the fiscal policy stance, the change in the primary structural balance must be adjusted for this effect by subtracting the change in the net balance of funds from the European Union.

Box 1

MACROECONOMIC PROJECTIONS FOR THE SPANISH ECONOMY (2021-2024): THE BANCO DE ESPAÑA'S CONTRIBUTION TO THE EUROSYSTEM'S DECEMBER 2021 JOINT FORECASTING EXERCISE (cont'd)

Figure 1
SUMMARY OF THE MACROECONOMIC PROJECTIONS FOR THE SPANISH ECONOMY (2021-2024)

	2021	2022	2023	2024
GDP	4.5% ↓ 1.9 pp	5.4% ↓ 0.4 pp	3.9% ↑ 1.9 pp	1.8%
Inflation	3% ↑ 0.8 pp	3.7% ↑ 1.9 pp	1.2% ↓ 0.1 pp	1.5%

MAIN REASONS FOR THE REVISION
(compared with the September projections)

— Downward surprises in the economic growth figures for Q2 and Q3

— On the latest available indicators, in Q4 to date activity has been less buoyant

— Bottlenecks and higher energy prices persisting longer than expected

— Delays in the implementation of the NGEU projects

MAIN SOURCES OF UNCERTAINTY

— The course of the pandemic after its resurgence in recent weeks

— Persistence of the current global supply chain disruptions and potential spread beyond manufacturing

— Duration of the current episode of strong inflationary pressures, the possibility of second-round effects and direct/indirect impacts on activity

— Execution of the NGEU programme and the path of the recovery in household consumption and in international tourism flows

SOURCE: Banco de España.