

MACROECONOMIC PROJECTIONS FOR THE SPANISH ECONOMY (2021-2023)

This box describes the key features of the most recent update to the Banco de España's macroeconomic projections for the Spanish economy. In comparison with the previous ones published on 14 June,¹ the current projections incorporate the new information that has become available since then, including the preliminary Quarterly National Accounts (QNA) estimates for 2021 Q2 and the changes in the technical assumptions underlying the performance of the different variables (see Table A.1).²

The progress made over the year in vaccinating the population against COVID-19 has helped check the spread of infection and, above all, reduce the severity of the disease and, therefore, hospitalisation and mortality rates. This has enabled a gradual easing of the pandemic containment measures. As a result, since early spring economic activity has become more dynamic.

This translated into an increase in GDP of 2.8% in quarter-on-quarter terms in Q2, following the decline of 0.4% in Q1. This dynamism which, in accordance with the pattern observed in the euro area overall, was notably more marked than was anticipated in the baseline scenario of the June projections, led to a narrowing of the gap between the current and the pre-pandemic GDP levels. In Q2 it stood at 6.8 percentage points (pp), still exceeding the corresponding gap for the euro area overall (which stood at 2.5 pp).

GDP growth in Q2 was underpinned by the strength of domestic demand and, in particular, of private consumption, which appears to have increased very substantially in quarter-on-quarter terms – by 6.5% –, well above the 2.9% rise considered in the June projections. Within this latter aggregate, there was a particularly marked increase in spending on services which, as they require closer social contact, benefitted from the easing of the pandemic containment measures. The end of the state of alert in May 2021 was a milestone in this respect.

On the indicators available, economic activity appears to have remained highly dynamic in Q3. This has been

achieved in a setting in which the ongoing lifting of restrictions was barely affected by the increased incidence of the pandemic up to the end of July. This is because, as indicated above, the health consequences have been less severe than in previous waves, owing to the vaccination progress.

Various data inform the view that economic growth has been high again in Q3, notably the data on changes in effective social security registrations (i.e. registrations excluding furloughed workers). In addition, the results of the latest edition of the Banco de España's Business Activity Survey (EBAE, by its Spanish initials) show that firms perceive an improvement in their turnover for Q3 similar to that perceived three months ago for Q2.³

As in the spring, output growth seems to have been comparatively more pronounced in those services activities that are still further from their pre-pandemic activity levels. The improvement in branches of activity linked to tourism is particularly notable, driven essentially by demand from residents which in July exceeded the 2019 figures. By contrast, the present situation continues to be less favourable for non-resident tourism, given that there are still some – albeit increasingly less stringent – restrictions in place on international travel. Despite these restrictions, the gradual recovery in inbound tourism has continued, although it is still well below its pre-pandemic levels. Specifically, inbound tourism spending in July was less than half that recorded in July 2019.⁴

Compared with these developments in the services sector, the recent performance of some industrial sectors – whose activity has been affected by the shortage of certain goods used in the production process, such as semiconductors and plastics – has been somewhat less favourable. These supply difficulties have begun to affect production processes in some key branches of Spanish industry (in particular, the car industry).⁵

Analysis of all the available data suggests that GDP growth in Q3 could be similar to that observed in Q2.

1 See *Macroeconomic projections for the Spanish economy (2021-2023): the Banco de España's contribution to the Eurosystem's June 2021 joint forecasting exercise*.

2 By contrast, the revised QNA series for previous years, released by the INE on 16 September, have not been included, since the INE has not released the quarterly series consistent with the annual ones. The Banco de España's projections are based on quarterly series.

3 M. Izquierdo (2021), *Encuesta a las empresas españolas sobre la evolución de su actividad: septiembre de 2021*, Notas Económicas, Banco de España.

4 See Box 6, "Recent developments in inbound tourism in Spain".

5 See Box 3, "Euro area manufacturing bottlenecks".

Specifically, it is estimated that GDP may have risen by 2.7% in quarter-on-quarter terms. However, the uncertainty surrounding this estimation is very high, since there are still relatively few quantitative data available for the summer months. There are also doubts regarding the size of the contribution to economic growth made by the projects linked to the Next Generation EU (NGEU) programme, given the limited information available in this respect.

Beyond the current quarter, the projections are based on the assumption that the epidemiological situation will continue to improve, in Spain and internationally. In particular, it is assumed that the proportion of the population that is vaccinated will continue to grow, with no significant new setbacks relating to the appearance of more contagious or more vaccine-resistant strains of the virus.

In this scenario, a further gradual normalisation of economic activity is expected, which will also be driven by other factors. These notably include the expansionary behaviour of imports in the developed economies, with which Spain has close trade relations, and the continued support for economic activity provided by demand policies, which will tend to limit the scarring the crisis may leave on the productive system (in terms of destruction of firms and higher structural unemployment). In particular, the ECB's monetary policy will continue to provide important support for private agents' spending through the maintenance of favourable financing conditions. In turn, the roll-out of the projects associated with the European NGEU programme will support the recovery in activity and will tend to boost the economy's potential output.

All the above is expected to translate into continued GDP growth. It is estimated that the quarterly growth rates will be particularly pronounced in the period up to mid-2022, as this is when the increases in expenditure associated with the NGEU programme are expected to be highest.

On the demand side, GDP growth will be underpinned, especially in the short run, by domestic spending by resident agents. Private consumption is expected to continue to be a fundamental growth driver in the coming quarters, although as it gradually converges towards

levels in accordance with its long-term determinants, its growth rate can be expected to moderate from the unexpectedly high levels recently observed. This is compatible with a gradual reduction in the household saving rate, which was very high throughout 2020 and in early 2021. Nevertheless, household saving is still expected to be somewhat above its pre-pandemic level in 2023. Also projected is a notable increase in private productive investment, in a setting of recovery in demand and maintenance of favourable financing conditions and in which the projects associated with the NGEU programme will represent an important stimulus for this aggregate. Finally, net external demand is expected to make a positive contribution to output growth beyond the short term, largely associated with the gradual normalisation of cross-border tourism flows.

On the estimates made, GDP is expected to grow by 6.3% in 2021 overall (see Chart 1 and Table 1). The strong dynamism of the economy since 2021 Q2 will give rise to a significant carry-over effect on the average rate of change of GDP in 2022.⁶ In consequence, GDP growth is also expected to be very high – 5.9% – in 2022, despite the significant moderation in growth rates expected throughout the year. Lastly, GDP is projected to grow by 2% in 2023. As a result of all the above, it is estimated that GDP will recover its pre-pandemic level by mid-2022 and that, by the end of the projection horizon, it will be 2.5 pp above that level (see Chart 2).

These projections represent a slight upward revision of GDP growth of 0.1 pp in 2021 and 2022 and of 0.2 pp in 2023. Comparing these projections with those presented in the baseline scenario in June, numerous factors of different signs converge, related to new historical data released, the revision of the short-term outlook and the changes made to the assumptions on which the projections are based.

The publication of the Q2 QNA data means, as compared with the June baseline scenario, that the starting point of the level of activity on which the current projections are based is more favourable, from the standpoint of the average annual growth rates in 2021 and 2022.⁷ By contrast, the short-term outlook of reduced dynamism as

6 See J. González Mínguez and C. Martínez Carrascal (2019), "The relationship between average annual and quarter-on-quarter GDP growth rates: implications for projections and macroeconomic analysis", Analytical Articles, *Economic Bulletin* 3/2019, Banco de España.

7 In accordance with the INE's flash estimates, the quarter-on-quarter increase in GDP in Q2 was 0.6 pp higher than that projected in the June baseline scenario.

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compared with the June baseline scenario would lead, in the absence of other changes, to a downward revision of the projected GDP growth for this year and the next. Indeed, in comparison with the June projections, activity in H2 is, for several reasons, now expected to be somewhat less dynamic. First, the admittedly scant information available on implementation of the NGEU programme appears to indicate something of a delay in the execution of the expenditure relative to the schedule considered in the June projections (see Annex 1). Further, the sharp rise in private consumption in Q2 (significantly larger than projected in June) may mean this aggregate is converging more swiftly towards pre-pandemic levels. In

addition, the growth outlook for consumption has also been adversely affected by the impact of the current upturn in inflation on real household income. Lastly, there have been signs that the recent intensification of strains associated with the scarcity of certain intermediate goods, which has been observed over the course of the year, has begun to adversely affect production in some key industrial sectors; moreover, these supply problems will foreseeably take months to disappear.

Regarding the changes to the external assumptions, as compared with those used for the baseline scenario of the June projections, their overall impact on GDP growth is

Chart 1
REAL GDP. RATE OF CHANGE

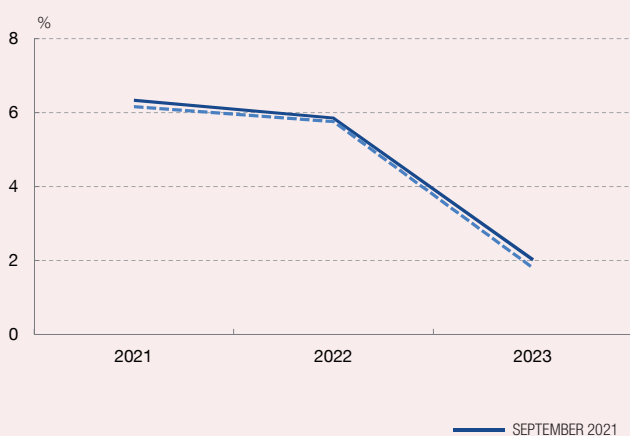


Chart 2
REAL GDP. LEVEL (2019 Q4 = 100)



SOURCES: Banco de España and INE.

Table 1
MACROECONOMIC PROJECTIONS FOR THE SPANISH ECONOMY (a)

Annual rate of change

	GDP				Harmonised index of consumer prices (HICP)				HICP excluding energy and food				Unemployment rate (% of labour force) (b)			
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
September 2021	-10.8	6.3	5.9	2.0	-0.3	2.1	1.7	1.3	0.5	0.3	1.0	1.4	15.5	15.1	14.3	13.3
June 2021 (baseline scenario)	-10.8	6.2	5.8	1.8	-0.3	1.9	1.2	1.2	0.5	0.3	1.0	1.1	15.5	15.6	14.7	13.7

SOURCES: Banco de España and INE.

NOTE: Latest QNA figure published: 2021 Q2.

a Projections cut-off date: 14 September 2021.

b Annual average.

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negative in 2021 and 2022 and positive in 2023, albeit relatively modest in all cases (see Annex 1).

Specifically, in the first two years of the projection horizon, the adverse impact on economic output stemming from higher prices of oil and other commodities and lower growth rates in export markets would more than offset the favourable impact of lower interest rates and the lower relative cost of domestic production relative to competitors. However, in 2023 these latter factors, together with the upward revision in the pace of the global market recovery, would drive growth higher than forecast three months ago. Further, the assumption that projects associated with the NGEU programme will be implemented with something of a lag vis-à-vis the June projections

would entail a somewhat larger estimated growth impact in 2022 and 2023, at the expense of a lower impact in 2021.

Developments in the main macroeconomic aggregates

From the standpoint of the breakdown of aggregate demand, the projected recovery will rely mainly on the domestic component. However, beyond the short term the external sector is also expected to contribute positively to GDP growth.

All components of private domestic demand will rebound very sharply this year, following their marked declines in 2020 (see Table 2 and Chart 3). Private consumption appears to have slowed significantly over the summer

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

Annual rate of change in volume terms and % of GDP

	2020 (b)	2020	September 2021 projections			June 2021 projections		
			2021	2022	2023	Baseline scenario		
						2021	2022	2023
GDP	-10.8	-10.8	6.3	5.9	2.0	6.2	5.8	1.8
Private consumption	-12.0	-12.1	9.6	4.3	1.3	7.1	5.7	1.7
Government consumption	3.3	3.8	2.2	0.2	0.9	1.9	0.3	0.9
Gross fixed capital formation	-9.5	-11.4	5.8	10.5	3.0	8.1	9.3	1.6
Exports of goods and services	-20.1	-20.2	8.7	11.1	4.5	11.9	9.5	4.3
Imports of goods and services	-15.2	-15.8	11.5	7.5	3.3	11.6	8.3	3.4
Domestic demand (contribution to growth)	-8.6	-8.8	7.0	4.7	1.6	5.9	5.3	1.4
Net external demand (contribution to growth)	-2.2	-2.0	-0.7	1.2	0.4	0.3	0.5	0.4
Nominal GDP	-9.8	-9.9	7.6	7.7	3.6	7.2	7.1	3.4
GDP deflator	1.1	1.1	1.2	1.8	1.6	1.0	1.3	1.6
Harmonised index of consumer prices (HICP)	-0.3	-0.3	2.1	1.7	1.3	1.9	1.2	1.2
HICP excluding energy and food	0.5	0.5	0.3	1.0	1.4	0.3	1.0	1.1
Employment (hours)	-10.6	-10.4	8.1	5.6	1.7	6.7	5.4	1.8
Unemployment rate (% of labour force). Annual average	15.5	15.5	15.1	14.3	13.3	15.6	14.7	13.7
Net lending (+)/net borrowing (-) of the nation (% of GDP)	—	1.1	0.1	3.1	3.4	1.5	3.1	3.1
General government net lending (+)/net borrowing (-) (% of GDP)	—	-11.0	-7.6	-4.3	-3.5	-8.2	-4.9	-4.3
General government debt (% of GDP)	119.9	119.9	117.9	114.3	114.3	120.1	117.9	118.0

SOURCES: Banco de España and INE.

NOTE: Latest QNA figure published: 2021 Q2.

a Projections cut-off date: 14 September 2021.

b The rates of change for 2020 referring to the National Accounts series have been updated to include the review of Annual National Accounts for the years 2018-2020, published by the INE on 16 September. The new net lending/net borrowing figures for the nation and for general government will be published on 30 September.

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months, after the positive surprise of Q2, albeit maintaining notable momentum. The pace of growth in this aggregate is likely to diminish further in the final stretch of the year, as a consequence of the pressure on household income exerted by the current upturn in inflation. As a result, the recent decline in the saving rate is expected to continue in H2, which could see this variable drop from close to 15% in 2020 to around 7%, somewhat higher than the pre-crisis level (see Chart 4).

The easing of consumption growth rates is set to extend into next year, owing to household spending gradually returning to normal levels. However, the dynamism of this aggregate will remain relatively high, despite the (foreseeably temporary) dampening effect of rising inflation. This against a background in which spending will remain underpinned by a sustained recovery in the labour market and, consequently, in disposable income, and financial conditions will continue to be favourable. In addition, the declining uncertainty regarding the health and economic situation will help reduce the precautionary component of saving. In any event, as discussed further on, there is considerable uncertainty as to the dynamism of this spending component, inasmuch as it is difficult to determine the proportion of the saving built up during the pandemic that households will put towards spending.

Among the components of gross capital formation, residential investment is expected to take on greater dynamism over the coming quarters. In that direction, the

recovery in building permits reflected in the most recent information suggests higher growth in the execution of construction over the medium term. This positive outlook is fuelled also by declining uncertainty and favourable labour market developments, which have strengthened future household income expectations. Lastly, growth in this aggregate over the projection horizon will additionally benefit from implementation of the NGEU programme. Specifically, according to the Recovery, Transformation and Resilience Plan (RTRP), Spain will earmark a significant proportion of the grants it receives from the European Recovery and Resilience Facility (RRF) to housing renovation.

In addition, investment by non-financial corporations will foreseeably be particularly buoyant over the projection horizon, owing to a combination of various factors. These include a recovery in final demand (leading to increased plant capacity utilisation), the gradual decline in uncertainty and the need, heightened by the pandemic, for digitalisation processes.

Further, corporate financing conditions will continue to be favourable, against a backdrop in which the ECB's monetary policy stance is expected to remain expansionary, following the recent strategy review and the latest forward guidance on the path of interest rates and the duration of asset purchase programmes. Lastly, one factor that will particularly spur this component of aggregate demand is the implementation of projects

Chart 3
GDP GROWTH AND CONTRIBUTIONS OF MAIN COMPONENTS

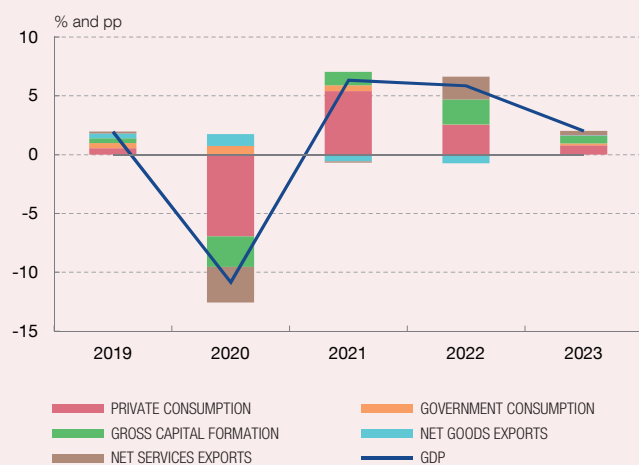


Chart 4
HOUSEHOLD SAVING RATE



SOURCES: Banco de España and INE.

associated with the NGEU programme, which should result in high rates of business investment growth in 2022 H1. As compared with the June projections, the current forecasts for growth in investment in capital goods represent a downward revision for 2021 and upward for 2022 and 2023. These revisions owe precisely to the delay (according to the information available) in implementation of the NGEU programme; in these projections, this has resulted in part of the investment flow associated with the European funds shifting from 2021 to 2022 and 2023.

In any event, developments in private productive investment will foreseeably be uneven across sectors of activity, depending on the particular impact of the crisis on each and the potentially enduring changes in demand for different goods and services.

As regards trade with the rest of the world, the interruption of the movement of goods following the outbreak of the pandemic was largely temporary, limited primarily to the spring of 2020. By contrast, the prolonged duration of restrictions on the international movement of people is having a very lasting impact on tourist flows. Over the projection horizon, goods exports are expected to rise, particularly in 2021 and 2022, in step with the strengthening of activity in Spain's main trading partners, which, broadly speaking, belong to the group of advanced economies, where vaccination rates are high (comparable with that of Spain). Likewise, headway in the vaccination campaigns in Spain and the main tourism generating markets is helping to sustain the recovery in exports of tourist services. However, it will still take some time for this aggregate to recover pre-pandemic levels. Imports are also expected to grow considerably, in keeping with the recovery in final demand. In any event, firms in some industries are facing supply difficulties for certain intermediate goods, leading to delays in the delivery of import orders in certain sectors that account for a large proportion of sales to the rest of the world, thus stifling both sides of foreign trade. This is particularly true of the automotive industry, whose exports represented 11% of the total in 2019 and 2020.

The degree of labour utilisation will move on an upward path, in step with developments in activity. Specifically, hours worked are projected to grow by 8.1% in 2021,

before moderating to 5.6% and 1.7% in 2022 and 2023, respectively. Despite the slight increase in the labour force, this employment growth will keep the unemployment rate on a downward path throughout the projection horizon, falling below pre-pandemic levels from mid-2022.

The general government budget balance is expected to improve substantially over the projection horizon, after the acute deterioration in 2020. This reduction in the budget deficit will owe to the temporary nature of some of the discretionary measures adopted to contend with the fallout from the pandemic and to the cyclical improvement. However, the imbalance of public finances is set to remain at very high levels at the end of the projection horizon. As a result of these projected trajectories for the general government budget balance and for nominal GDP, the government debt-to-GDP ratio, which in 2020 surged to 120%, would barely decline by 5 pp over the horizon considered.

Prices and costs

Underlying inflation, as measured by the HICP excluding energy and food, remained at very low levels, of around 0%, in 2021 H1, largely as a result of the negative base effect derived from the decline recorded less than a year earlier in the prices of certain services – such as tourism and leisure – whose consumption had been especially hard hit by the pandemic. The disappearance of these base effects, together with the gradual recovery in demand for consumer goods and services, primarily in precisely those sectors most affected by the containment measures, caused underlying inflation to increase in the summer, to 0.6% in August.

The rise in inflation is notably more marked in terms of the headline HICP. The upward trend in this indicator mainly reflects the energy component, which was strongly affected not only by the base effects of the slump in oil prices during the initial stage of the pandemic, but also by the subsequent increase in oil prices, and by the surge in electricity prices. The rising electricity prices are explained, above all, by the impact of the increase in the price of gas and, to a lesser extent, of CO₂ emission allowances on the prices set in the wholesale market.⁸

⁸ See Pacce, Sánchez and Suárez-Varela (2021), "Recent developments in Spanish retail electricity prices: the role played by the cost of CO₂ emission allowances and higher gas prices", Occasional Paper No 2120, Banco de España.

In principle, these energy price rises are likely explained by predominantly transitory factors, relating to certain difficulties in the supply of some raw materials, which are especially important in the gas market, and the sharp increase in global demand following the re-opening of economies after the most stringent pandemic containment measures had been lifted. In any event, these energy price rises not only have a direct impact on the cost of the household consumption basket, but also represent an increase in firms' production costs, in addition to the increase stemming from diverse commodity price rises.⁹ Historical evidence points to a limited pass-through of these cost increases to final product prices, but depending on the degree of persistence of the increases, an eventually greater pass-through cannot be ruled out.

For these projections it was assumed that both these effects and those that will arise if workers incorporate the recent rise in inflation into their wage demands (known in the literature as second-round effects) will be limited, so that the recent increases in the price of energy, and of commodities in general, will only have a temporary effect on consumer price inflation.

In these circumstances, the pressure exerted on headline HICP by the factors mentioned above will peak in 2021 Q3, their impact on inflation progressively declining thereafter. In parallel, the gradual decline in the degree of cyclical slack will prompt a modest sustained increase in underlying inflation over the projection horizon. In 2022 as a whole, the slowdown in energy prices is expected to comfortably offset the increase in the prices of services and non-energy industrial goods, so that headline HICP will moderate, from 2.1% in 2021 to 1.7% in 2022 (see Chart 6). In 2023, it is expected to fall further (to 1.3%), reflecting the behaviour of non-energy components. Underlying inflation, despite its expected increase, is projected to remain at moderate levels throughout the projection horizon and to stand at 1.4% on average in 2023.

The sources of uncertainty surrounding the baseline scenario and the risk analysis

Since the start of the pandemic, the Banco de España has chosen – given the heightened uncertainty surrounding the epidemiological and macroeconomic outlooks – to

publish alternative scenarios that differ in various dimensions, including notably the assumptions regarding the course of the health crisis and the measures introduced to fight it. The immunisation progress in Spain and the other European economies has allayed the uncertainties of a purely epidemiological nature. Although these uncertainties have not been fully dispelled, their significant reduction has prompted the decision to present a single scenario, which is assigned a significantly higher probability of materialisation than the baseline ones included in the sets of scenarios published by the Banco de España in previous quarters.

These projections are based on the assumption that the immunisation of the population and the continued effectiveness of the vaccines will ensure that the impact of the pandemic on economic activity will continue to moderate in the coming months, until it becomes practically unnecessary to keep containment measures in place. That said, more adverse epidemiological developments than those assumed in the current projections cannot be entirely ruled out. These would involve more serious bouts of infection, linked to a potential spread of variants of the virus that are more infectious and, in the worst-case scenario, vaccine-resistant, that would require the reintroduction of containment measures.

Also, as in the June scenarios, there is notable uncertainty regarding household spending decisions, which affect two components of demand. First, as regards private consumption, households accumulated a large stock of savings during the pandemic, as a consequence of the restrictions on certain types of spending entailed by the containment measures and more cautious behaviour on the part of these agents. For these projections it is assumed that households will resort to only part of this large volume of accumulated savings to finance current spending.

There are various reasons for making this assumption. First, a significant part of the spending that has not been possible since the start of the pandemic owing to the restrictions in place is not easily postponed; it related mainly to services such as dining and leisure and it is unlikely that the amount not spent during the health crisis

⁹ See Box 7, "The factors underlying the recent increase in inflation in Spain".

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can be fully added on to the regular spending on these items. Second, the households that have most reduced their consumption (or most increased their saving) with respect to the pre-pandemic period have been those with the highest incomes, whose propensity to consume is normally lower (see Chart 5). Lastly, although the evidence available on the existence of this channel is not conclusive, it is often argued that households, anticipating that the high volume of government debt built up during the crisis will lead to future tax increases, may decide to limit their spending.

Taking these arguments into account, it is assumed that households will not use more than part of the resources accumulated during the pandemic to finance consumption; thus, although the saving rate will decline over the projection horizon, it will still stand, on average, at somewhat above its pre-crisis level in 2023. However, the possible transfer of a larger proportion of these savings to consumption is an upside risk for the growth projections.

The second demand component which continues to be subject to a high degree of uncertainty as a result of the

behaviour of households (in this case, non-resident ones) is tourism exports. Under the current projections, although inbound tourism flows will follow a recovery path over the projection horizon, they will not come close to their normal levels until 2022, and will not regain their pre-crisis levels until the end of 2023. Since the projections incorporate the assumption that restrictions on activity will have become unnecessary by around the beginning of 2022, it is possible that the consequent reduction in uncertainty may lead to a more rapid recovery in holiday travel.¹⁰

There is also considerable uncertainty about the scarring of the economy caused by the health crisis that will remain once it has been resolved. The projections presented assume that the policies deployed since the start of the crisis will, on aggregate, ensure that the damage it has caused to the productive system and employment, through the destruction of firms and the increase in long-term unemployment, will have a relatively limited effect on the economy. These expectations are in line with the gradual correction expected over the projection horizon in the proportion of vulnerable companies,¹¹ which has risen as a result of the pandemic.

Chart 5
CONTRIBUTIONS TO THE GROWTH OF NOMINAL AVERAGE CONSUMPTION PER HOUSEHOLD. BREAKDOWN BY SPENDING ITEM

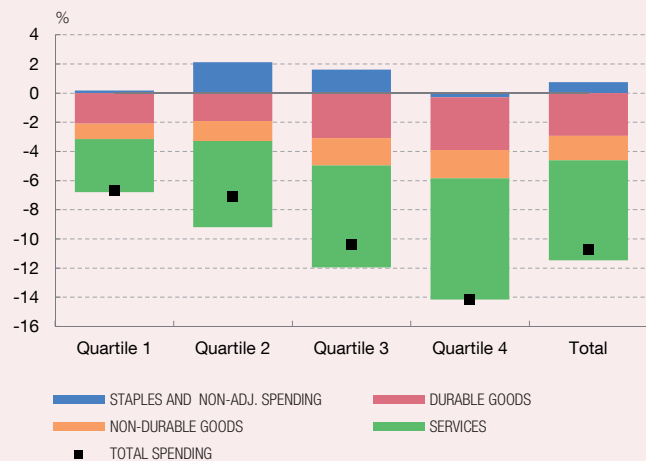
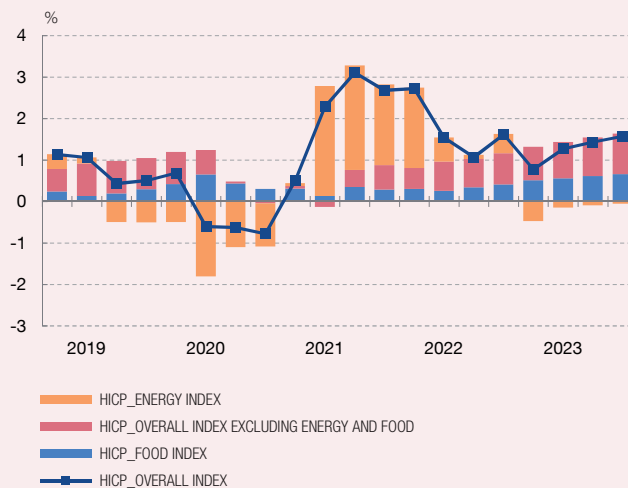


Chart 6
CONTRIBUTIONS TO THE GROWTH OF THE HARMONISED INDEX OF CONSUMER PRICES



SOURCES: Banco de España and INE.

10 In the case of business travel, however, it is likely that the pandemic will cause more persistent changes of habit.

11 See the results of the simulations presented in R. Blanco, S. Mayordomo, A. Menéndez and M. Mulino (2021), *Impact of the COVID-19 crisis on Spanish firms' financial vulnerability*, Occasional Paper No 2119, Banco de España.

In fact, the dynamism with which the economy is reacting to the lifting of restrictions seems to confirm that the magnitude of the persistent damage to the productive system caused by the crisis is relatively modest. That said, it is still early to assess the likelihood of more lasting scarring.

Moreover, various aspects of the NGEU programme implementation are sources of uncertainty for economic activity. On one hand, the current projections incorporate, as already mentioned, on the basis of the information available, a somewhat longer delay in the implementation of these projects than was anticipated three months ago. However, the timing of the spending is still very uncertain. On the other hand, the size of the multiplier effect on activity is, in practice, specific to each individual project, so that the aggregate elasticities used for the projections only give an imperfect approximation of the actual effect.

Also, in the preparation of the projections, the impact on aggregate activity of the disruption to global supply chains for some materials was considered to be temporary and relatively limited. However, should these supply problems prove to be more persistent, the possibility that more severe production limitations in the hardest-hit sectors (and, thus, lower domestic sales and exports) weigh on the recovery cannot be ruled out.

Lastly, in the emerging market economies, where there has been comparatively less vaccination progress than in the advanced countries, a possible intensification of the recent outbreaks of the disease and of the restrictions imposed to contain them would hit activity in these economies, with consequent negative effects on Spanish exports.

The net result of this multiplicity of risks of both signs is considered balanced for the projections of the economy's output growth.

Consumer prices are currently subject to a much higher degree of uncertainty than they have been in recent years, since the present rise in inflationary pressures could be more persistent than has been assumed in these projections. Whether this eventually happens will depend, first, on whether commodity prices show greater upward inertia than is reflected in the assumptions incorporated in the projection exercise and, second, on whether the pass-through to final prices and wages of the increases already observed in these prices is greater than that considered in these projections, which, as already mentioned, is based on historically observed empirical regularities.

The transmission of the increases in the prices of some inputs to final prices could be greater than in the past if the recent supply problems in certain industries persist. The assumption that the transmission of the pick-up in inflation to wage growth will be limited is based on the multi-year nature of collective bargaining (which means that inflation developments in a particular period can only influence wage settlements in approximately one third of agreements) and the limited presence of indexation clauses. In contrast, the more or less formal indexation mechanisms that exist for public sector pensions and wages may have a certain imitation effect on private sector wages.

ANNEX 1 Projection assumptions

The construction of projections is conditional upon the hypothetical 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 commodities markets, and fiscal policy. The assumptions regarding Spain's export markets and competitors' prices in domestic currencies were taken from the "ECB staff macroeconomic projections for the euro area, September 2021", which use information up to 16 August. For 2021, current projected growth for Spain's export markets is now slightly higher than in June. However, this revision in terms of annual average reflects a more positive performance in the most recent period than what was projected three months ago. Conversely, prospects for the second half of the year have now become slightly less favourable. For 2022-2023 there are few changes in the external demand outlook for goods and services produced in Spain.

The assumptions regarding the paths of interest rates, exchange rates, and oil and other commodity prices are based on the average prices observed in the respective markets in the ten working days prior to the cut-off date for each projection year (in this case, 14 September). In the specific case of exchange rates, the assumption used for the entire 2021-2023 period is the spot market rate. For the other variables, the values observed in the futures markets at any time over the projection horizon are considered.

Broadly speaking, compared with the June projections, the changes in these assumptions are relatively slight. Oil prices on spot markets have risen in recent months.

MACROECONOMIC PROJECTIONS FOR THE SPANISH ECONOMY (2021-2023) (cont'd)

Based on futures market prices for the rest of the year, the average of this variable in 2021 would now be \$68.7 per barrel, an upward revision to the June assumption of 2.9%. Futures markets also indicate that oil prices will decline moderately to \$65.3 in 2023 (a level 3.4% higher than in the June projections exercise).

Yields on securities traded on 10-year sovereign bond markets prior to the cut-off date for these projections are now lower than in June for the three-year projection horizon. Specifically, this variable would stand, on average, at 0.3%, 0.5% and 0.7% in 2021, 2022 and 2023, respectively. The slightly upward path projected by the financial markets for short-term interest rates has also been revised, although less markedly. Specifically, the 3-month Euribor would increase from -0.5% in 2021 to -0.4% in 2023. The euro exchange rate has depreciated slightly in the last three months on the spot markets,

somewhat more markedly against the dollar than in nominal effective terms.

These changes in the external assumptions, compared with those used in June, are relatively small, and the signs of their effects on activity and prices do not always go in the same direction; accordingly, their impact on the projections is, overall, limited. Also, explicit assumptions on electricity prices have been used in these projections, 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. Since there is less information on market prices at different points in time for 2023, a relatively neutral assumption, based on month-on-month price increases equal to the average observed in recent years, has been used.

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

Annual rate of change, unless otherwise indicated

	2020	September 2021 projections			Difference between the current projections and those under the June 2021 baseline scenario (b)		
		2021	2022	2023	2021	2022	2023
International environment							
Spain's exports markets (c)	-10.9	9.3	6.4	3.7	0.7	0.0	0.3
Oil price in dollars/barrel (level)	42.3	68.7	69.1	65.3	2.9	4.6	3.4
Monetary and financial conditions							
Dollar/euro exchange rate (level)	1.14	1.19	1.18	1.18	-0.01	-0.03	-0.03
Nominal effective exchange rate against the non-euro area (d) (2000 = 100)	117.8	121.5	120.8	120.8	-1.2	-2.2	-2.2
Short-term interest rates (3-month Euribor) (e)	-0.4	-0.5	-0.5	-0.4	0.0	0.0	-0.1
Long-term interest rates (10-year Spanish government bond yield) (e)	0.4	0.3	0.5	0.7	-0.2	-0.4	-0.4

SOURCES: Banco de España and ECB.

- a** Cut-off date for assumptions: 14 September 2021. Figures expressed as levels are annual averages; the figures expressed as rates are calculated on the basis of the related annual averages.
- b** The differences are in rates for export markets, in levels for oil prices and the dollar/euro exchange rate, in percentages for the nominal effective exchange rate and in percentage points for interest rates.
- c** The assumptions regarding the behaviour of Spain's export markets presented in the table are obtained from the September 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.

Lastly, the fiscal policy assumptions include several measures approved since the June projections. First, the different actions aiming to moderate the above-mentioned electricity price hike have been included. These measures were adopted at two different points in time.¹² Second, the mechanism for offsetting the loss of pension purchasing power, reflected in the Draft Law currently before Parliament, has been introduced. This postpones to 2022 the expected budgetary impact of such offsetting owing to the rise in inflation observed this year.¹³ Lastly, the current projections include an additional extension of the furlough schemes to 31 December. This is pending approval, but is supported by the different social agents.¹⁴ An additional source of changes in the fiscal outlook for this year relates to budget outturn which, according to the data published by the National Audit Office (IGAE), has improved relative to the June projections.

Additionally, the fiscal projections incorporate the final approval by Ecofin on 13 July 2021 of the Spanish Recovery, Transformation and Resilience Plan (RTRP). The detail of the Plan includes the projected payment amounts and dates, and the milestones and objectives which these disbursements are conditional upon.

The most recent information available suggests that the absorption of RTRP funds appears to have been relatively modest to date. This, together with the common delays between the approval of procurement tenders and the actual expenditure, points to the need to revise the absorption schedule; accordingly, it is now assumed that part of the absorption takes place slightly later. Specifically, spending included in the projections for 2021 would have an expected impact on GDP this year of 0.6 pp, 0.4 pp less

than that considered in the previous projections. The estimated effects on the economy's output over the rest of the projection horizon would increase by the same amount. In addition, based on the latest information available, the assumption that spending funded by the REACT-EU¹⁵ programme is deficit-neutral year to year has been dropped. Specifically, such spending would have a moderate amplifying effect on the deficit in the short term, which would be offset by an effect of the opposite sign from 2023.

Aside from the assumptions regarding European funds, the forecasts for the period 2022-2023 are based on the usual technical assumptions. In particular, it is assumed that items subject to greater discretionality – such as public investment and procurement, given their volume – will grow in line with the growth potential of the Spanish economy. Also, in the absence of specific measures, the trajectory of the remaining items of the general government accounts is assumed to be governed by their usual determinants.¹⁶

Based on the changes in the various budgetary variables, which are the result of the related assumptions prepared, together with the output gap estimated in a manner consistent with the other macroeconomic projections, it is possible to estimate the fiscal policy stance, measured as the change in the primary structural balance, net of European funds.¹⁷ According to this procedure, the fiscal policy stance, as occurred in 2020, is expected to be notably expansionary in 2021 and 2022 (1.3 pp and 1.5 pp of GDP, respectively). However, it would become contractionary in 2023 (by 0.6 pp) as a result of the estimated reduction of the stimulus from the European funds, which is expected to peak in 2022.

12 Specifically, Royal Decree-Law 12/2021 (approved on 24 June 2021) reduces VAT on electricity from 21% to 10% until end-2021 for consumers with less than 10kW of contracted power, provided the arithmetic average price in the wholesale electricity market remains above €45 per MWh, and suspends the tax on electricity generation between July and September. Subsequently, Royal Decree-Law 17/2021, approved on 14 September 2021, extended to Q4 the suspension of the tax on electricity generation and lowered the excise duty on electricity generation from 5.1% to 0.5% until end-2021.

13 Draft Law on the guarantee of pension purchasing power and other measures to strengthen the financial and social sustainability of the public pension system, indexing each year's pension rises to the inflation recorded during the 12 months prior to December of the previous year.

14 The information available points to the possibility of a further extension to 31 January 2022.

15 Acronym for Recovery Assistance for Cohesion and the Territories of Europe. This and the Recovery and Resilience Facility (RRF) are the two key components of NGEU.

16 Specifically, it is assumed that government revenue will grow in line with tax bases, which mainly depend on the macroeconomic context. A similar criterion is applied in the case of pension expenditure (determined by demographic trends and the expected indexation of its amount to the CPI), spending on unemployment benefits (which depends mainly on developments in unemployment) and interest expense (the changes in which reflect developments in public debt and interest rates).

17 The European NGEU funds to be received entail a smaller structural deficit, but not a more contractionary fiscal policy stance, as they do not result 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.

MACROECONOMIC PROJECTIONS FOR THE SPANISH ECONOMY (2021-2023) (cont'd)

Figure 1
SYNTHESIS OF THE MACROECONOMIC PROJECTIONS FOR THE SPANISH ECONOMY, 2021-2023

	2021	2022	2023	MAIN REASONS FOR THE REVISION (compared with the June baseline scenario)
GDP	6.3% ↑ 0.1 pp	5.9% ↑ 0.1 pp	2% ↑ 0.2 pp	<ul style="list-style-type: none"> – Strong growth in activity in Q2 (+2.8 % q-o-q), especially in private consumption – The latest information available also points to a high level of dynamism in Q3 (+2.7 % q-o-q) – The use of part of the NGEU funds has been shifted from 2021 to 2022-2023 – Recent significant rises in energy prices and the prices of some services – Bottlenecks in global supply chains and changes in the global growth outlook
Inflation	2.1% ↑ 0.2 pp	1.7% ↑ 0.5 pp	1.3% ↑ 0.1 pp	MAIN SOURCES OF UNCERTAINTY <ul style="list-style-type: none"> – The global environment and the course of the pandemic – Private consumption dynamism going forward (rate of use of stock of savings accumulated and possible adverse effects of uptick in inflation on real household income) – Persistence and/or intensification of bottlenecks – Indirect and second-round effects that could mean the current inflationary path may last longer

SOURCE: Banco de España.