

MACROECONOMIC PROJECTIONS FOR THE SPANISH ECONOMY (2020-2023): THE BANCO DE ESPAÑA'S CONTRIBUTION TO THE EUROSISTEM'S DECEMBER 2020 JOINT FORECASTING EXERCISE

Introduction and summary

The European Central Bank (ECB) has published its latest projections for the euro area as a whole following the meeting of its Governing Council on 10 December 2020.¹ This report aims to describe the macroeconomic projections for the Spanish economy, which are included in the aggregate projections for the euro area. The projections refer to the period 2020-2023 and incorporate the information that has come to light since the publication of the previous projections (on 16 September in the *Economic Bulletin* 3/2020) until 25 November.² They also include for the first time the year 2023 in the projection horizon and Spain's use of the European funds of the Next-Generation EU (NGEU) programme.

Completion in June of the gradual easing of the measures taken to contain the pandemic led to a strong rebound in Spain's GDP in Q3, after having recorded an unprecedented fall in H1. Specifically, in this period quarter-on-quarter GDP increased by 16.7%, virtually coinciding with the rate forecast under scenario 1 in the Banco de España September projections. However, this recovery was partial, as evidenced by the fact that in the period from July to September 2020 the level of GDP was still 9.1% lower than at end-2019, prior to the outbreak of COVID-19.

Also, the improvement in activity lost momentum as the quarter progressed, owing to the increase in the pace of infections over the summer. Specifically, this led to the progressive implementation by the authorities in numerous countries of measures discouraging their citizens from travelling to Spain, which had a significant adverse impact on tourism.

In Q4, the deterioration of the epidemiological situation both in Spain and, with a certain delay, in other European countries led to the implementation of new measures to contain infections. In comparison with those introduced in spring, these measures were more focused, aiming to restrict movement selectively and to limit activity in sectors involving a higher degree of social contact. In line with these measures, mobility indicators from mobile phone and road and air traffic networks available for Spain reflect a weakening in Q4 (albeit less intense than in other European economies). In addition, the conjunctural

1 See the Eurosystem staff macroeconomic projections for the euro area, December 2020.

2 Specifically, compared with the [Macroeconomic projections for Spain \(2020-2022\)](#), published as Box 1 of the "Quarterly report on the Spanish economy", *Economic Bulletin* 3/2020, the current projections include the changes observed between 10 September and 25 November in the technical assumptions, in the budgetary hypotheses and in the forecasts for the external setting of the Spanish economy. The projections further include the Quarterly National Accounts (QNA) preliminary estimates for 2020 Q3.

information available suggests a somewhat sharper year-on-year fall in GDP in Spain in the most recent period which, in principle, is not expected to be very pronounced, in keeping with the selective nature of the containment measures.

Beyond the current quarter, the economic outlook continues to be highly influenced by epidemiological developments. Recent experience has shown that for so long as an effective medical solution to the pandemic is not available, new outbreaks requiring the adoption of containment measures will likely arise. Also, the extension of these measures over a protracted period is being accompanied by an effort by agents to adapt their behaviour to the restrictions, with the aim of minimising the effects of these restrictions on their economic decisions. Estimating in quantitative terms the intensity of this adaptation or learning phenomenon poses, however, significant practical difficulties. Finally, the recent news regarding the development of several vaccinations have reduced the uncertainty about when an effective medical solution against the virus will be available. At the same time, these developments have brought about greater awareness of the magnitude of the challenge which the production and distribution of a vast number of doses required to vaccinate the population at large entail. As a result, although the progress made in obtaining vaccines has reduced these uncertainties significantly, others persist in connection with the time horizon required for a fully successful application of an effective medical solution to enable the health crisis to be completely overcome.

Acknowledging this high uncertainty, the Eurosystem has opted for presenting, together with the baseline scenario, two other scenarios, called “mild” and “severe”. The three scenarios differ on the basis of the assumptions made about the future course of the pandemic, the severity and duration of the containment measures applied, and the time required to successfully implement a medical solution to the disease. Other differentiating aspects of the scenarios are the depth of the consequences of COVID-19 on agents’ behaviour and the magnitude of the possible persistent damage to the productive system even after the pandemic is overcome.

The baseline scenario envisages the possibility of fresh outbreaks of the disease arising in the coming months, of similar intensity to the latest ones, thus requiring restrictions similar to those currently in place to contain it. Consequently, the impact on activity would, in principle, be relatively limited, directly restricted to sectors linked to leisure and hospitality, while the other sectors would only be indirectly affected through spillover effects. The distribution of an effective medical solution from early 2021 would permit a gradual reduction of the containment measures until their full phase-out in early 2022.

Under the mild scenario, a somewhat more favourable unfolding of the pandemic from 2021 Q1 and an earlier successful distribution of vaccines are expected, resulting in the impact of the possible containment measures not being so high in the coming months. This would help lower the uncertainty under which agents must

adopt their consumer and investment decisions. Also, in this scenario it is assumed that households and enterprises have adjusted their behaviour with respect to the containment measures more rapidly, which, for a given degree of these measures, leads to higher spending levels, even as early as in 2020 Q4. Lastly, this scenario entails less erosion of the productive system and, therefore, less adverse consequences on the economy's medium-term growth potential.

Finally, the severe scenario envisages the possibility of a resurgence of the disease in the short term, which would require implementing more stringent measures above the levels in place in the most recent period. These restrictions would not only cause greater harm to the services sectors with a high degree of social interaction, but they would also directly affect other productive sectors. Also, this scenario incorporates a lower degree of adaptation by agents to the pandemic, resulting in a more unfavourable trend in activity in the last few months of 2020. In addition, achieving the population's immunity later on would make the impact of the crisis on activity more persistent, with more serious adverse effects on the productive system, in part as a result of financial amplification phenomena through which the deterioration of the solvency of firms and households, on the one hand, and of financial institutions, on the other, would feed back into each other.

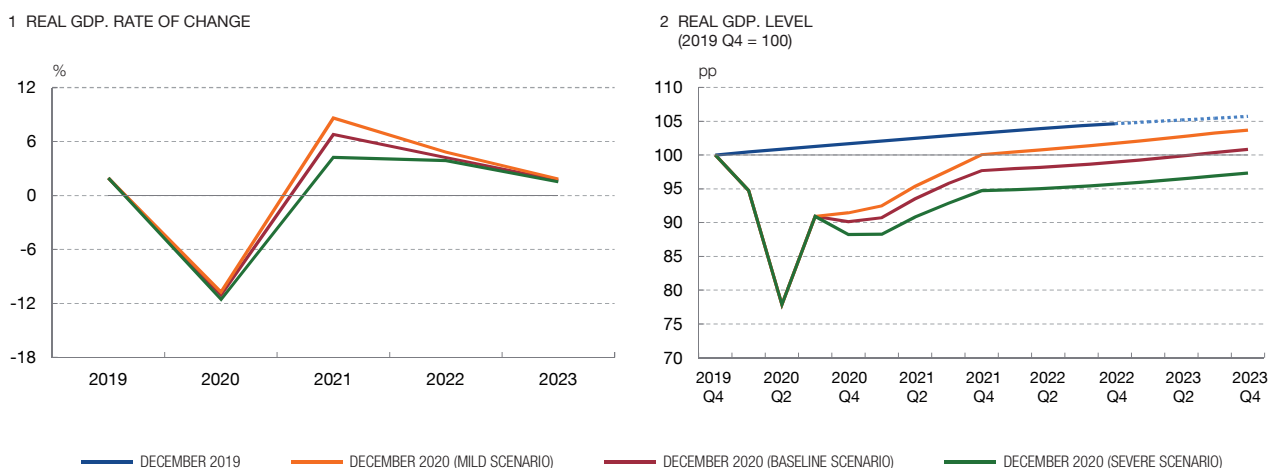
As noted earlier, the three scenarios incorporate the implementation of spending projects under the NGEU programme over the three years of the projection horizon. To date, the degree of uncertainty surrounding aspects such as the volume of effective execution of the programme or the multiplier effect on the economic activity of the projects carried out continues to be very high. Under the assumptions detailed in Box 2, the programme would contribute to GDP growth by 1.3 pp in 2021 and by 0.2 pp, on average, in each of the following two years. Also, Box 2 presents several alternative estimates of the impact of the NGEU programme after considering several alternative assumptions.

Under any of the three scenarios considered regarding the unfolding of the pandemic, the sharp contraction of GDP in 2020 would be followed by a relatively strong recovery in the following three years, although the crisis would have persistent effects on the levels of activity (see Chart 1.2). Specifically, in 2020 GDP would fall by 10.7%, 11.1% and 11.6% in the mild, baseline and severe scenarios, respectively (see Table 1 and Chart 1). In 2021 the economy's output would grow by 6.8% in the baseline scenario, rising to 8.6% in the mild scenario and dropping to 4.2% in the most adverse scenario. A substantial part of this difference is explained by the different vaccination periods for the population, which lead, inter alia, to an uneven pace of recovery for activities involving greater social interaction, in particular those related to tourism.

As a result of the persistent impact of the health crisis on activity, recovery of the pre-COVID-19 level of GDP would not take place until mid-2023 in the baseline scenario, while in the severe scenario the economy's output at the end of the

Chart 1

GDP UNDER THE DIFFERENT FORECASTING SCENARIOS



SOURCES: Banco de España and INE.

projection horizon would still be 2.8% below the level at end-2019. In the mild scenario, this level would be reached between end-2021 and early 2022, thanks to the swift resolution of the health crisis and the scant magnitude of the lasting damage to the economy’s productive capacity.

As regards the scenarios presented in September, the technical assumptions underlying the current projections are somewhat more favourable for economic growth, since they incorporate a downward revision of oil prices and slightly lower borrowing costs. The current euro exchange rate level is similar to that of September and, in terms of Spain’s export markets, the differences are, overall, minor.

Comparison of the current scenarios with those of September is not in any way immediate, given the convergence of numerous opposing factors. First, as regards the review of the historical data from the QNA, the 2020 Q2 GDP growth rate now estimated is 0.7 pp higher, mechanically leading to a revision of the average growth rates for both 2020 and 2021 (of 0.5 pp and 0.2 pp, respectively) in comparison with those projected in the September scenarios. Second, on QNA data for Q3, the growth rate was virtually the same as that of scenario 1 presented in September, which assumed less serious epidemiological developments and a lower impact of the containment measures on activity than scenario 2. Compared with the rates forecast for the latter scenario, this would automatically lead to an upward revision of 1.9 pp in average GDP growth in 2020 and of 1.6 pp in 2021.

Conversely, the worsening outlook for Q4 as a result of the most recent outbreak of the pandemic would, on its own, give rise to a downward revision of projected GDP growth in the September scenario 1 for 2020 and 2021 of 1.2 pp and 3.5 pp,

Table 1

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

Annual rate of change

	December and September 2020 projections															
	GDP				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
December 2020																
Mild scenario	-10.7	8.6	4.8	1.9	-0.3	0.7	1.3	1.4	0.5	0.6	1.1	1.3	15.7	17.1	14.0	12.4
Baseline scenario	-11.1	6.8	4.2	1.7	-0.3	0.6	1.2	1.3	0.5	0.5	0.9	1.1	15.8	18.3	15.6	14.3
Severe scenario	-11.6	4.2	3.9	1.5	-0.3	0.5	0.9	1.1	0.5	0.2	0.6	0.8	16.2	20.5	18.1	17.6
September 2020																
Scenario 1	-10.5	7.3	1.9	—	-0.2	1.0	1.2	—	0.7	0.8	1.0	—	17.1	19.4	18.2	—
Scenario 2	-12.6	4.1	3.3	—	-0.3	0.8	1.1	—	0.6	0.5	0.8	—	18.6	22.1	20.2	—

SOURCES: Banco de España and INE.

NOTE: Latest QNA figure published: 2020 Q3.

a Projections cut-off date: 25 November 2020.**b** Annual average.

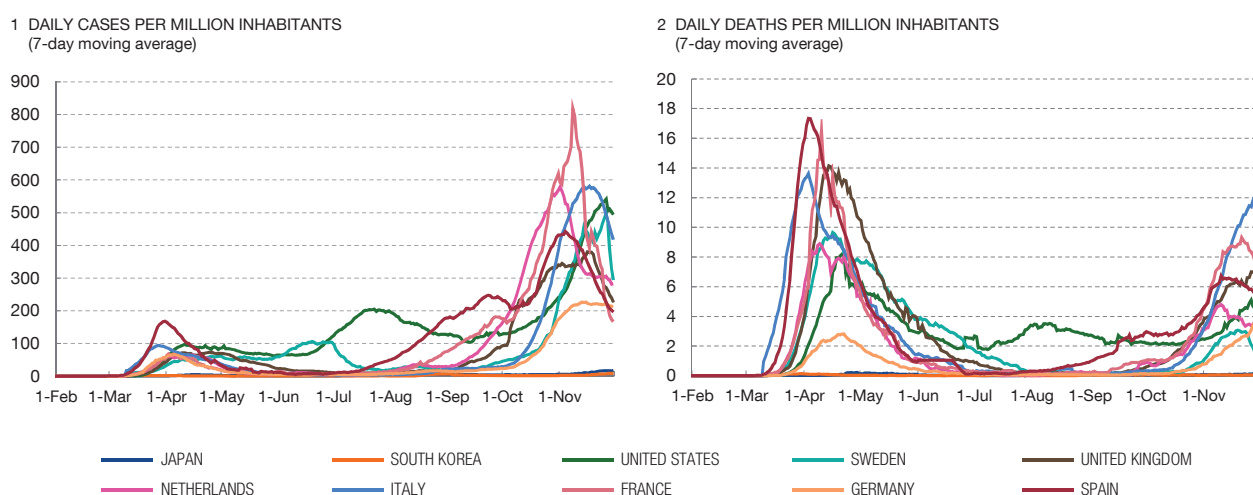
respectively (and of 0.5 pp and 1.4 pp in scenario 2). Finally, as pointed out, the inclusion in these projections of the projects carried out under the NGEU framework contributes to raising projected GDP growth in 2021 by 1.3 pp. The accumulation of all these factors makes it substantially more difficult to compare the current scenarios with the previous ones. In any event, the more recent scenarios involve, overall, some degree of improvement in the projected outlook of the Spanish economy's output in the medium term.

Calibration of the decrease in GDP in the short term

As has occurred since COVID-19 began to spread, recent changes in the economy have continued to be influenced by the unfolding of the pandemic, insofar as the fresh outbreaks have brought about declines in personal movement and activity in certain sectors, which is, in turn, a consequence of both the reintroduction of restrictive measures by the authorities and the voluntary adoption of precautionary actions by private agents. At the same time, the constraints applied by the authorities have tended to become more selective, limiting the establishment of restrictions to the spheres of activity and movement where contagion is most probable. Thus, for a given magnitude of the pandemic, the impact of the measures on the economy's output is smaller. Also, agents have adapted their patterns of behaviour in such a way that for a specific degree of severity of the containment measures, the impact on economic activity would also have tended to moderate.

Chart 2

EPIDEMIOLOGY OF COVID-19 IN SPAIN AND IN THE MAIN COUNTRIES AFFECTED



SOURCES: Ministerio de Sanidad and Banco de España.

Over the course of May and June the gradual reversion of the restrictions to movement and activity introduced to reduce the spread of the disease led to a strong rebound in economic activity. On the downside, the increase in social contact associated with the “new normal”, compared with the lockdown phase, gave rise to a gradual increase in the size of the pandemic from the start of summer. Specifically, the figures for new daily infections and deaths, which in terms of seven-day moving averages had declined at end-June to the lowest levels since March (6 and 0.1 persons, respectively, per million inhabitants), increased in the following months, especially from mid-August, peaking in early November (442 cases detected and 6.7 deaths per million inhabitants) (see Chart 2).

In most other European countries, the pandemic broadly remained under control until early October. Subsequently, however, the epidemiological situation worsened across the board. In some countries, such as Austria, France, Italy, the Netherlands and Portugal, the incidence of the pandemic was significantly higher in November than that observed in Spain.

The second wave of the virus has led to the adoption of new restrictions on mobility and on activity in certain sectors. This has, in recent weeks, enabled the incidence of the pandemic to be contained to some degree, as reflected by the widespread decline (albeit uneven by country and region), in the number of new cases detected. In Spain, the containment measures were reinstated earlier than in other neighbouring economies as the second outbreak emerged sooner, which also explains why the likely slowdown in economic activity in Q3 and Q4 is comparatively less marked than in the euro as a whole, where the quarter-on-

quarter contraction in GDP projected for Q4 under the baseline scenario is substantially higher (2.2%).³

The loss of momentum in activity in Spain is apparent in the results of the survey of a sample of firms conducted by the Banco de España.⁴ Almost half (48.5%) of the non-financial corporations surveyed reported that their turnover in 2020 Q4 was lower than in Q3, with firms in the services sector, particularly those engaging in hospitality and leisure activities, being by far the hardest hit. Turning to the economic indicators, this apparent weakening of activity would be more strongly reflected in qualitative, or certain high-frequency, indicators, such as payment card spending, than in the labour market indicators, which are looking more sustained. Moreover, the adoption of more severe restrictions in other European countries could have an adverse effect on their demand for Spanish products.

Aside from this short-term economic information, accurately assessing the changes in economic activity in Spain in Q4 is fairly complex, as it has been since the onset of the pandemic. In circumstances such as the present ones, the fact that the momentum of activity is so affected by the containment measures introduced by the authorities and by the voluntary restrictions and changes in the behaviour of private agents considerably undermines the usefulness of the short-term forecasting tools commonly used in normal conditions to estimate such developments.

Against this backdrop, the path of economic activity both in the current quarter and the immediately following quarters has been forecast resorting to a variety of alternative methods whose starting point are the assumptions about the course of the pandemic and the ensuing containment measures used in each of the three scenarios. Subsequently, these assumptions have been applied to economic activity in terms of cost, using the information available on regional and sectoral heterogeneity, the course of the pandemic, the containment measures and economic activity itself.

In an initial exercise, the measures implemented to curb the spread of infection are assessed against effective mobility and the latter, against activity. This exercise allows the fluctuations in activity observed at regional level to be broken down into the contribution of the mobility restrictions introduced by the authorities and the contribution of the mobility limitations voluntarily adopted by agents, plus a third residual component.⁵ The result is that developments in the monthly regional activity

3 See [Eurosystem staff macroeconomic projections for the euro area. December 2020](#).

4 See Box 3, “[Spanish business survey on activity and the impact of COVID-19](#)”.

5 The analysis is based on the construction of three variables with a monthly frequency. First, the containment measures indicator is constructed at the national and regional level using a database which analyses the frequency with which certain terms relating to the severity of the restrictions implemented at any given time (such as “lockdown” or “partial lockdown”) appear in press reports. Second, mobility is measured using the Google indicators which quantify changes compared with a “normal” period. Specifically, the variable used was built as the average of the indicators measuring mobility in workplaces, retail and food services, and in transit stations. Lastly, the regional activity variable is a simple average of several standard short-term economic indicators with a monthly frequency.

variables since the outbreak of the pandemic can be largely explained by the mobility restrictions imposed by the authorities. In addition, the voluntary limitations on mobility appear to have contributed to steepening the drop in GDP in Q2, while, conversely, the easing of self-imposed mobility restrictions seem to have helped boost growth in Q3. From Q4, the simulation of three alternative paths for the pandemic containment measures, in keeping with the epidemiological narrative behind each of the scenarios analysed, enables alternative trajectories to be obtained for the Spanish economy's output.

Another approximation is based on evidence that the containment measures adopted to address the health crisis are having markedly different effects by sector of activity, depending mainly on the degree of social interaction involved in each sector.⁶ An area in which data availability allows for a more accurate assessment of the pandemic's impact on activity by sector is the labour market, based on the monthly data published on Social Security registrations and furlough schemes (ERTEs, by their Spanish abbreviation).⁷ On the basis of this information, monthly effective employment ratios have been calculated for each sector since the onset of the pandemic, as the relationship between observed employment and the hypothetical employment figures that would have been posted in the absence of COVID-19.⁸ These effective employment ratios thus measure the impact of the COVID-19 pandemic on each sector by comparing the rate of employment observed each month with a hypothetical pandemic-free scenario.

Next, given the evidence that the restrictions adopted by the authorities in response to the pandemic have different impacts on each sector of activity, monthly estimates were made at sectoral level of the relationship between effective employment rates and the lockdown measures imposed since the outbreak of COVID-19. With these estimates, it is possible to obtain, given the assumptions regarding the future course of these measures under each of the three scenarios considered, projections for activity by sector. When aggregated, these provide GDP growth patterns for the projection horizon.⁹

6 See, for example, M. Fana, S. Tolan, S. Torrejón, C. Urzi Brancati and E. Fernández-Macías (2020). *The Covid confinement measures and EU labour markets*. Luxembourg: Publications Office of the European Union. This study analyses the impact of restrictions in Italy, Spain and Germany, distinguishing between five categories of sectors, according to how essential their activities are or their capacity to continue pursuing them without disruption.

7 This is a reliable source for monitoring activity in each sector, owing to the short time-lag with which the data is published (at the beginning of the month following the reference month) and the high sectoral granularity (NACE at 2 digits).

8 This is the methodology proposed, from a regional viewpoint, in Á. de la Fuente (2020), *El impacto de la crisis del Covid sobre el PIB de las CCAA en 2020: una primera aproximación*, Apuntes 2020/14, FEDEA and Instituto de Análisis Económico (CSIC). The counterfactual path is approximated by the year-on-year growth of employment in each sector in February 2020, the month before the onset of the pandemic.

9 Average monthly values from the Oxford COVID-19 stringency index referring to Spain were used to measure changes in the stringency of the restrictions between February and October 2020. Future changes in this index, which measures the severity of the social distancing measures, are projected for each of the three aforementioned scenarios. Two alternative exercises are then performed. The first exercise, which goes even further than the

The results of the exercises performed, together with the analysis of the changes in the available short-term indicators, provide year-on-year GDP growth in Q4 ranging from -8.6% to -11.8%. These two figures, which correspond, respectively, to quarter-on-quarter rates of 0.6% and -3%, are the GDP growth rates under the mild and severe scenarios. Under the baseline scenario, the year-on-year decline in GDP is -9.8%, corresponding to a quarter-on-quarter rate of -0.8%.

Macroeconomic developments beyond the short term

After the sharp drop this year, the Spanish economy's GDP will grow at a fast pace in 2021. However, there are very notable differences depending on the epidemiological scenario considered. The path of recovery lasting over the following two-year period would give rise to progressively more modest activity growth, which would enable, under the baseline scenario, the pre-pandemic GDP level to be reached by mid-2023, while, under the severe scenario, GDP would still be some distance from its pre-pandemic level at the end of the projection horizon (see Chart 1.2).

Consequently, the crisis will leave scars on economic activity even after the constraints on its normal course imposed as a result of the pandemic are finally removed. The economy's productive capacity will be undermined on account of the disappearance of a portion of the capital stock, insofar as the measures implemented to avoid business insolvencies may not be able to prevent, in some cases, and with varying intensity depending on the scenario considered, some bankruptcies from occurring. In addition, the crisis will have an adverse impact on the workforce. Despite the recourse to furlough schemes and the suspension of self-employment, there will be jobs that will not overcome the crisis, giving rise to a slight increase in long-term unemployment.

From an aggregate demand component standpoint, domestic demand will trim between 10.3 and 9.5 pp from growth in 2020 depending on the scenario (and, specifically, 9.6 pp under the baseline scenario), while external demand will reduce growth by 1.5 pp. In the following three-year period, the recovery will be underpinned largely by the domestic component, although the external sector's contribution to GDP growth will also be positive, albeit modest.

All components of private domestic demand will decline sharply in 2020 (see Table 2). The sharp contraction in private consumption, expected to stand at around 13% in

severe scenario's narrative since it rejects any possibility of agents adapting their behaviour, assumes that the restrictions will continue to have the same impact on each sector in the future as they have had in the past. The second exercise, which is probably more realistic, considers that the latest restrictions are more directly aimed at sectors where social interaction is higher (associated with those mentioned in the [Resolution of 16 June 2020 on the fifth tranche of the guarantee scheme for loans to SMEs](#)). Therefore, it is considered that in these sectors the impact of the restrictions will continue to match that estimated between February and October, while in the other sectors it is limited to the indirect effects resulting from the direct impact on the harder-hit sectors.

Table 2

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

Annual rate of change in volume terms and % of GDP

	2019	December 2020 projections											
		Mild scenario					Baseline scenario				Severe scenario		
		2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
GDP	2.0	-10.7	8.6	4.8	1.9	-11.1	6.8	4.2	1.7	-11.6	4.2	3.9	1.5
Private consumption	0.9	-12.3	10.3	5.2	1.6	-12.9	7.2	4.5	1.5	-13.7	3.8	4.5	1.5
Government consumption	2.3	4.6	0.6	-0.7	1.4	4.7	0.9	-1.0	1.4	4.8	1.4	-1.6	1.4
Gross fixed capital formation	2.7	-14.8	10.4	8.3	2.1	-14.9	10.2	7.9	1.8	-14.9	8.5	7.4	1.7
Exports of goods and services	2.3	-22.0	11.9	8.2	5.6	-22.1	10.9	7.8	5.3	-22.5	8.0	7.3	4.5
Imports of goods and services	0.7	-19.5	10.6	7.7	5.1	-19.7	9.8	7.4	4.8	-19.9	8.2	7.1	4.6
National demand (contribution to growth)	1.4	-9.2	8.0	4.5	1.6	-9.6	6.3	3.9	1.4	-10.1	4.1	3.7	1.4
Net external demand (contribution to growth)	0.6	-1.5	0.6	0.3	0.3	-1.5	0.5	0.3	0.3	-1.5	0.1	0.2	0.1
HICP	0.8	-0.3	0.7	1.3	1.4	-0.3	0.6	1.2	1.3	-0.3	0.5	0.9	1.1
HICP excluding energy and food	1.1	0.5	0.6	1.1	1.3	0.5	0.5	0.9	1.1	0.5	0.2	0.6	0.8
Employment (persons)	2.2	-4.4	-0.8	5.0	2.5	-4.5	-0.9	4.1	2.2	-5.0	-3.9	3.5	1.2
Employment (hours worked)	1.5	-10.4	8.6	4.7	2.2	-10.6	7.4	3.9	1.7	-11.4	5.0	3.3	0.9
Unemployment rate (% of labour force). Annual average	14.1	15.7	17.1	14.0	12.4	15.8	18.3	15.6	14.3	16.2	20.5	18.1	17.6
National net lending (+)/ net borrowing (-) (% of GDP)	2.5	1.7	2.9	2.9	3.0	1.7	2.8	2.8	2.9	1.7	2.5	2.3	2.1
General government net lending (+)/ net borrowing (-) (% of GDP)	-2.9	-10.3	-6.7	-4.0	-3.2	-10.5	-7.7	-5.2	-4.5	-10.9	-9.6	-7.1	-6.7
General government debt (% of GDP)	95.5	116.1	113.7	111.7	111.5	116.7	117.1	116.8	118.0	117.8	122.8	124.9	128.7

SOURCES: Banco de España and INE.

NOTE: Latest QNA figure published: 2020 Q3.

a Projections cut-off date: 25 November 2020.

the baseline scenario, is due to three factors. First, the unavoidable decline in spending on certain non-essentials as a result of the sectoral shutdowns during the first wave of the pandemic (and subsequently, to a lesser degree). Second, the heightened uncertainty over the economic outlook, which has led households to adopt a more cautious attitude in their spending decisions. The third and last factor is the fall in household income owing to the deterioration in the labour market which, nevertheless, has been cushioned by the fiscal support measures implemented during the pandemic.

Household spending is expected to gradually return to normal over the projection horizon. According to the latest QNA data, the level of spending on durable goods had already returned to pre-pandemic levels in Q3, following the sharp rise in the

purchase of cars and household appliances. Conversely, spending on other goods and services, encompassing those hardest hit by the social distancing measures, was still 15% below the figures posted at the end of 2019. This type of spending will gradually recover as the containment measures imposed on certain activities are eased, as the uncertainty over the course of the pandemic diminishes and as the purchasing power of the households most affected by the labour market downturn improves.

Private consumption is expected to return to its pre-pandemic level in early 2022 under the mild scenario, while foreseeably remaining slightly below that level at end-2023 under the baseline scenario. This gap is expected to widen to almost 5% under the severe scenario. The household saving rate will tend to remain relatively high until the end of the projection horizon, albeit considerably lower than that observed in 2020.

The sharp fall in residential investment in 2020 H1 was only partially offset by the rise in Q3, which was bolstered by the lifting of mobility restrictions and by the materialisation of certain purchase decisions that had been postponed as a result of the confinement. Furthermore, during Q3 this aggregate is estimated to have lost momentum, on the available indicators, which suggests that the improvement would have halted in the last stretch of the year. Aside from the restrictions on purchasing entailed by the confinement measures in force between March and June, increased uncertainty and, in particular, the unfavourable impact on household future income expectations arising from the downturn in the labour market, are estimated to have had a more lasting negative effect on demand for housing.

Residential investment is forecast in the future to recover as from early next year. Nevertheless, the improvement over the forecasting horizon will be incomplete, particularly while the health uncertainties persist. At end-2023, this aggregate will still stand between 5 pp and 11 pp below its pre-pandemic level.

Investment of non-financial corporations will post a very steep decline of around 16% in 2020, in keeping with the strong slide in final demand (which has prompted a notable decrease in current capacity utilisation) and uncertainty about how it will perform in future. In any event, these factors have had a very uneven effect on the different sectors. The high impact of the measures on the demand of firms operating in certain sectors triggered a highly significant reduction in their revenue and, consequently, in the funds they have available for new investments.

Furthermore, due to their limited revenue firms have been required to borrow, heavily in certain cases, to cover fixed costs, which has meant that the financial position of certain segments of non-financial corporations has weakened, potentially influencing the capacity for investment to recover over the forecasting horizon. An attenuating factor at aggregate level that needs to be considered is that a part of the increase in

gross debt has not been earmarked for covering the most immediate liquidity needs, but for building up assets to address hypothetical future obligations, given the climate of uncertainty.¹⁰ Lastly, a factor that will boost business investment is the traction of implementing public projects under the NGEU.

The pandemic has reduced the movement of goods and persons among different countries. The movement of goods was interrupted temporarily and was essentially limited to the period last spring when many countries adopted strict confinements. However, the limitations on the international movement of persons are much more persistent, with a very high impact on tourism flows, which is highly significant for Spain where this industry accounts for such a significant share of GDP. As a result, exports of goods and services as a whole will decline by approximately 22% in 2020. Travel services will fall by more than 70%.

Looking ahead, tourism flows can be expected to continue to be affected by resurgences of the pandemic and the consequent containment measures, both directly, through restrictions imposed by the authorities, and indirectly, insofar as potential tourists want to limit the potential health risk of large groups gathering and travelling on public transport. In this setting, inbound tourism is not likely to recover significantly until an effective medical solution has been deployed against COVID-19.

The recovery of overall sales to the rest of the world of goods and services will be limited by two additional factors. On the one hand, the appreciation of the euro exchange rate since the outbreak of the pandemic has had a negative impact on the competitiveness of exports to non-euro area countries. On the other, the projections include the assumption that a trade agreement will not be reached between the European Union (EU) and the United Kingdom before the Brexit transition period expires at end-2020.¹¹ Given all these conditioning factors, total Spanish exports to the rest of the world are not estimated to reach pre-pandemic levels over the projection horizon, except for in the mild scenario, when they would do so at end-2023.

The disruption to international trade flows of goods and services has also severely affected purchases from the rest of the world. In fact, in 2020 total imports will post a higher decline, of around 20%, than exports, in keeping with the comparatively more unfavourable performance of final demand in Spain than among its trading

10 See R. Blanco, S. Mayordomo, A. Menéndez and M. Mulino (2020) “The impact of the COVID-19 crisis on the financial position of non-financial corporations in 2020: CBSO-based evidence”, Analytical Articles, *Economic Bulletin* 4/2020, Banco de España.

11 If this assumption materialises, sales to the British economy could decrease significantly. It was the fifth largest importer of Spanish exports in 2019 (with a share of 7% for goods and 10% of total goods and services). For an analysis of the characteristics of firms exporting goods to the United Kingdom from a regional perspective, see E. Gutiérrez Chacón and C. Martín Machuca (2020). “Spanish companies exporting goods to the United Kingdom: stylised features and recent developments by region”, Analytical Articles, *Economic Bulletin* 3/2020, Banco de España.

partners, as a whole, and, in particular, in the rest of the euro area. The towering drop in Spanish imports is also a result of an especially heavy decline in those final demand components with a high import content, such as investment in capital goods and exports. In the future, purchases from the rest of the world are projected to recover from early 2021, in line with final demand. Similarly to exports, tourism of Spanish residents in the rest of the world will remain very weak for a relatively protracted period of time, weighed down by the health crisis.

Labour utilisation is being hit very hard by the pandemic. Additionally, the effects are enormously uneven by productive sector, in line with the marked differences in terms of the effects on the activity of each productive sector, which are much sharper in those sectors that have been affected more by social distancing measures. Job destruction has been attenuated by the widespread use of furlough schemes and the suspension of self-employment. For this reason, in this setting, total hours worked is a more appropriate variable than the number of persons in employment for analysing changes in how this factor of production is being used and for projecting future developments. In Q3, the hours worked increased more sharply than the number of persons in employment, as a growing proportion of furloughed workers gradually resumed normal work schedules.

In the closing months of the year, the moderation in activity will foreseeably be accompanied by a slight decline in hours worked, against a setting in which the worsening of the pandemic will have led to the reintroduction of containment measures and, consequently, to fresh increases in the figures of furloughed employees and self-employed individuals whose activity has been suspended. The average hours worked in 2020 will post a notable contraction of -10.6% in the baseline scenario and -10.4% and -11.4% in the mild and severe scenarios, respectively. As from early 2021, an increase is expected in the number of hours worked in line with the recovery of economic activity, which is stronger in the scenarios in which the evolution of the pandemic is more positive. As a result, the figure of hours worked would reach pre-COVID-19 levels by end-2022 in the baseline scenario and beyond the end of the projection horizon in the severe scenario.

In terms of actual employment numbers, calculated by subtracting both furloughed workers and self-employed individuals whose activity has been suspended from Social Security registrations, the improvement observed in summer has stalled since October, with the result that the year-on-year decline observed in November is somewhat stronger than that in September. Over the coming quarters, as a result of rising activity levels, that path of improvement will be resumed, which will be particularly robust in 2021 H2 and will progressively ease subsequently in line with projected GDP developments, with noticeable differences according to the scenario which materialises. Additionally, in terms of employment, the results will continue to be very uneven by productive sector.

Consequently, despite the forceful measures applied (both in terms of schemes to maintain employment in the short term and to provide liquidity to firms), the risk of hysteresis occurring in the labour market cannot be ruled out. The mild scenario assumes that the measures will effectively avoid the materialisation of this risk, unlike the other two scenarios. In the severe scenario, job losses would be more persistent, particularly in the sectors more exposed to social distancing and among groups of more vulnerable workers (in particular, those with a temporary contract).

The unemployment rate would increase more markedly this year to slightly below 16% in the baseline and mild scenarios and to slightly above this figure in the severe scenario. The decline in this variable beginning around 2021 H2 would not prevent the average unemployment rate of the following year from increasing with respect to 2020 in all the scenarios considered. At end-2023 the unemployment rate would still slightly exceed 14% in the baseline scenario, somewhat higher than its pre-pandemic levels, and would be 3 pp higher in the severe scenario.

The health crisis has also caused public finances to deteriorate very markedly. The measures implemented to counter the pandemic's impact on public health and economic activity combined with the automatic stabilisers will propel the general government deficit in 2020 to 10.5% of GDP in the baseline scenario. Over the projection horizon, the budget balance is expected to improve substantially, as a result both of the temporary nature of some of the discretionary measures adopted and of the cyclical improvement. Nevertheless, the government deficit will remain in 2023 at levels that are still very high (4.5% of GDP in the baseline scenario). Public debt will rise steeply in 2020 to around 120% of GDP in any of the three scenarios. Subsequently, the differences between the scenarios, in terms of GDP and the general government deficit, will give rise to uneven developments in the path of the debt ratio until 2023. Thus, whereas in the baseline scenario debt would tend to stabilise around this year's level, in the mild scenario it would decrease by around 5 pp and in the severe scenario it would rise by approximately a further 10 pp.

Prices and costs

The pandemic has led to a highly significant slowdown in consumer prices in Spain, affecting both the energy component (which is posting strongly negative rates as a result of the decline in oil prices triggered by the collapse of world demand) and the core component. Within the core component, services prices have eased more sharply than those of non-energy industrial goods, which is explained by the differences in the effect of containment measures on demand of the various sectors. This disinflation pressure, stemming from weak demand, has prevailed as the core determinant of consumer price developments in the pandemic, ahead of upward pressure on supply (which was temporarily evident in the period immediately after

the outbreak of COVID-19, in the form of an increase in the prices of certain goods, such as food) and ahead of the impact of higher costs associated with the public health measures adopted.

In the current assumptions about oil prices, the energy component would switch to making a positive contribution to the rate of change in consumer prices as from 2021 Q2, once the base effect of the decline in the price of crude – which occurred a year earlier, at the beginning of the pandemic – has been included in the year-on-year calculation.

The gradual recovery in demand for consumer goods and services, particularly in the sectors hardest hit by the containment measures, would lead, throughout 2021, to gradual increases in the rate of change of the core component, which would be stronger in the second half of the year, once the base effects which have marked this component since last summer have been overcome. The rise in core inflation will probably not be uniform across the different categories of goods and services. In particular, the more sluggish and incomplete recovery in hospitality and leisure sectors will foreseeably cause inflation for these services to hold at very moderate levels for a longer period.

Although the rates of change in core inflation are rising, they will nevertheless be moderate throughout the projection horizon. Thus, after averaging 0.5% in 2020 and 2021, the rate of change in the HICP excluding food and energy, would gradually climb to 1.1% in 2023 in the baseline scenario. The rise would be somewhat less pronounced in the mild scenario (to 0.8%) and somewhat more marked in the severe scenario (to 1.3%). The headline HICP is estimated to begin to post positive rates as from spring 2021 in line with the anticipated quickening of the energy component. In terms of the annual average rate, the headline HICP would grow by 1.3% in the baseline scenario in 2023 (which would be 0.2 pp higher than in the mild scenario and 1 pp lower than in the severe scenario). Compared with the September projections, these figures generally represent a slight downward revision of the paths projected both for headline and core inflation.

Risks

As indicated, the outlook for economic activity continues to be highly shaped by developments in the epidemiological situation, particularly over the coming quarters, while uncertainty remains as to the scale of potential fresh outbreaks of the pandemic. The announcements of the imminent availability of various vaccines tend to lessen uncertainty as the projection horizon unfolds. However, it has only been partially dispelled, given the relative uncertainty about the timeframe needed to immunise the whole population. In any event, the progress announced in the development of the vaccines eases uncertainty compared with the September projections.

The remaining elements of uncertainty have been captured through the construction of three alternative scenarios, based on different assumptions as to the epidemiological developments. At present, the baseline scenario is expected to be the most likely. However, the risks to GDP growth under this scenario would be moderately on the downside, essentially owing to the possibility of epidemiological developments being more adverse than those underlying its construction, requiring the introduction of restrictions for a lengthier period of time. Moreover, a modest amplification of the crisis through the financial system is included in this scenario, on the assumption that economic policies will be effective in limiting such phenomena, as has occurred so far. However, there may be more adverse developments in terms of the availability and cost of financing to the private sector, the possible materialisation of which would give rise to solvency problems for these agents, with adverse consequences for banks' balance sheets.

The other risks are considered to be more balanced. The high volume of resources that Spain should receive under the NGEU programme has the potential capacity to boost the post-pandemic recovery and, in the more medium term, modernise the productive system and foster the potential capacity for sustainable economic growth. However, the degree to which all these positive consequences will actually materialise is subject to notable uncertainties arising from how the aspects relating to the implementation of the NGEU will be defined. Included here are the volume of resources that the authorities will mobilise, the distribution of these resources over time, and their multiplier effect on the economy as a whole, which in turn will hinge on the nature of the projects developed. The current scenarios are shaped by specific assumptions about all these aspects, although the information available only allows for a partial reduction in the uncertainty about their final outcome. Box 2 presents different exercises with alternative estimations of the impact of the programme, on the basis of certain changes in the assumptions used to construct the scenarios.

Moreover, there are two risk factors of a geopolitical nature outside the euro area. The first derives from the outcome of the Brexit negotiations. The Eurosystem's projection exercise is based on the assumption that there will be no deal at the end of the transition period, which would lead to the application of tariff and non-tariff barriers, hampering future bilateral trade between the EU and the United Kingdom. However, the scenarios presented do not include the possibility that, together with this trade channel, the hypothetical event of there actually being no deal could have adverse consequences on the financial markets, with the consequent negative impact on economic activity in Spain. By contrast, the possibility that a deal is ultimately reached before the expiry of the deadline set for the end of the year represents an upside risk to Spanish GDP.

The second factor of geopolitical uncertainty arises from the fact that information is not yet available on the economic policies that will be deployed by the new US

administration (which will take office in January) in areas as relevant as its positioning vis-à-vis the multilateral framework of trade.

In turn, the risks to inflation are on the downside. These would result from a hypothetical materialisation of more adverse scenarios from the economic standpoint associated with the possibility of a weaker consumer price reaction to the recovery in demand than that envisaged in the scenarios, potential financial amplifications of the crisis and, lastly, the possibility of agents giving substantial emphasis to the recent period of systematically very low price growth when forming their expectations about future inflation.

11.12.2020.

ASSUMPTIONS MADE IN PREPARING THE PROJECTIONS

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 ten working days prior to the cut-off date of the projections (in this case, 25 November). In particular, oil prices, which are set to stand at \$41.6 per barrel on average in 2020, are expected to rise to \$44 and \$45.7 in 2021 and 2022, respectively, somewhat lower than those projected in the September exercise (4.1% in 2021 and 5.8% in 2022). In 2023, oil prices are expected to rise to \$46.9, reflecting a cumulative increase of close to 13% for the projection horizon as a whole.

Turning to interest rates, the various monetary policy actions taken by the ECB since the outbreak of the pandemic have helped maintain very favourable financing conditions in the euro area. Over the projection horizon, three-month EURIBOR is expected to stand at around -0.5% in the three-year period from 2021 to 2023, based on futures market prices.

After the sharp increase observed at the start of the pandemic, the ten-year Spanish government debt yield has followed a declining path in recent months. It is expected to grow over the projection horizon, from 0.2% to 0.5% between 2021 and 2023 in annual average terms. In turn, the cost of borrowing for households and firms is set to increase slightly compared with 2020, against a backdrop in which the risk of borrowers is expected to be at somewhat higher levels. The more severe the scenario, the more sizeable the increase would be. In the specific case of non-financial corporations, the cost of financing is expected to increase from 2% in 2020 to 2.9% in 2023, under the baseline scenario, and to 3.6%, under the severe scenario.

The euro exchange rate is expected to appreciate, in nominal effective terms, by 2.9% over the projection horizon compared with the average level observed in 2020. The appreciation against the dollar is expected to be slightly higher (3.5%).

In 2020, there has been a very severe downturn in global activity. The fall in the global trade of goods and services has been even more pronounced owing to the disruptions to global value chains and to tourism flows triggered by the restrictions on the movement of goods and people as a result of the health crisis. Consequently, Spain's export markets have recorded a severe contraction in 2020

(around -11.5%). This variable is set to embark a path of recovery from 2021 onwards; the more severe the scenario, the more sluggish such recovery would be. Under the baseline scenario, the growth rates of the export markets in each of the three years of the projection horizon would be 6.9%, 5.3% and 3.5%. Under the mild scenario, a very marked recovery is expected in 2021 (12.3%), which would ease substantially in the following two years (5.4% and 3.3% in 2022 and 2023, respectively). Lastly, by contrast, under the severe scenario, export markets show increasing momentum over the projection horizon, such that, following growth of 0.2% in 2021, they would accelerate to 4.1% in 2022 and 5.2% in 2023, in line with the later and incomplete nature of the resolution of the health crisis and the economic recovery.

In the realm of fiscal policy, the new projections of public finances are based on the latest budget outturn data with the National Accounts' criteria published by the National Audit Office (IGAE, by its Spanish abbreviation). As regards the assumptions considered, the new development for 2020 vis-à-vis the September projections is the latest extension, until January 2021, of the benefits for the self-employed and workers on furlough schemes associated with the effects of the pandemic.¹ Overall, the measures approved this year geared to combating the fallout of COVID-19 entail a spending increase of 3.5% of GDP in 2020 and an additional 0.7 pp in 2021.

With a view to next year, the assumptions also include the revenue impacts that the Banco de España expects will result from the recently-created taxes on financial transactions and on certain digital services; the reduction in value-added tax on masks, approved on 18 November; and the other revenue and spending measures included in the draft budgetary plan for 2021 and in the draft 2021 State and Social Security budget. These texts were submitted by the Government in October, and the latter is pending approval by the Senate, having been passed by Congress.

By far the most significant new development from the budgetary policy standpoint for next year is the inclusion in the draft State budget of the funds from the European programmes NGEU and Recovery Assistance for Cohesion and the Territories of Europe (REACT-EU), which Spanish general government agencies will begin to use. In particular, the Government has announced that it intends to make use of the maximum volume of funds that will

¹ The types of furlough schemes and the scope of the waivers of social security contributions have been changed (see Royal Decree-Law 30/2020 of 29 September 2020).

ASSUMPTIONS MADE IN PREPARING THE PROJECTIONS (cont'd)

potentially be available through non-repayable grants; this is expected to represent close to €27 billion in 2021, to be channelled through the State, plus a further €8 billion, which would go directly to regional governments. The figure is expected to amount to €74 billion in 2021-2023 as a whole. These funds would increase both general government revenue and spending, and would therefore have a neutral impact on the budget deficit.

There is a very high degree of uncertainty over general government's ability to absorb such a large volume of

resources in such a short period of time. For these projections, it was decided to include, in 2021, 100% of current spending and 70% of the investment expenditure announced by the Government for that year² and, for the 2021-2023 projection horizon as a whole, 80% of the total grants available, for both current consumption and investment.³

On the spending side, the measures also include increases of 0.9% in pensions and the public sector wage bill, 1.8% in contributory benefits (including the minimum income

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

Annual rates of change unless otherwise indicated

	2019	December 2020 projections				September 2020 projections		
		2020	2021	2022	2023	2020	2021	2022
International environment								
World GDP	2.7					-4.2	6.1	3.7
Mild scenario		-3.2	8.3	4.2	3.3			
Baseline scenario		-3.5	5.6	3.9	3.4			
Severe scenario		-3.7	2.4	2.9	4.0			
Spain's export markets (b)	1.4					-13.1	7.3	4.3
Mild scenario		-11.2	12.3	5.4	3.3			
Baseline scenario		-11.5	6.9	5.3	3.5			
Severe scenario		-12.0	0.2	4.1	5.2			
Oil price in US dollar/barrel (level)	64.0	41.6	44.0	45.7	46.9	42.1	45.9	48.5
Monetary and financial conditions								
US dollar/euro exchange rate (level)	1.12	1.14	1.18	1.18	1.18	1.14	1.19	1.19
Nominal effective exchange rate against non-euro area (c) (100 = 2000)	116.4	117.6	121.0	121.0	121.0	117.6	121.0	121.0
Short-term interest rates (3-month EURIBOR) (d)	-0.4	-0.4	-0.5	-0.5	-0.5	-0.4	-0.5	-0.5
Long-term interest rate (10-year bond yield) (d)	0.7	0.4	0.2	0.3	0.5	0.4	0.4	0.6

SOURCES: Banco de España and ECB.

- a** Cut-off date for assumptions: 18 November 2020. Figures expressed as levels are annual averages. Figures expressed as rates are calculated based on the relevant annual averages.
- b** Assumptions on Spain's export market performance obtained from Eurosystem staff macroeconomic projections.
- c** A positive percentage change in the nominal effective exchange rate denotes an appreciation of the euro.
- d** For the projection period, the figures in the table are technical assumptions, prepared using 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.

² This does not include the funds that will go directly to the regional governments, which have been distributed symmetrically by year.

³ Box 2 provides greater details of the rationale for these decisions and describes possible alternative assumptions.

ASSUMPTIONS MADE IN PREPARING THE PROJECTIONS (cont'd)

scheme) and 5% in the Multipurpose Public Indicator of Income (IPREM, by its Spanish abbreviation).

On the revenue side, in addition to another two new upcoming taxes (on plastic packaging and on waste) and the cap on double taxation relief for large firms in respect of corporate income tax, the State budget includes various increases in tax rates, such as those for personal income tax and wealth tax at the highest tax base levels, the tax on insurance premiums and value-added tax on sugary drinks. Together, it is estimated that all these revenue measures would increase receipts, in GDP terms, by 0.3 pp in 2021 and by 0.4 pp from 2022 onwards.

For the rest of the forecasting horizon (2022-2023) and for the items for which there is no specific information, the

projections are based on the usual technical assumptions. First, those items subject to greater discretionality – such as public investment and procurement, in particular, given their volume – are assumed to grow in line with the growth potential of the Spanish economy. Second, 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.⁴

Given the set of projections and assumptions of the fiscal policy variables and the output gap estimated in a manner consistent with the other macroeconomic projections, the fiscal policy stance, measured by the change in the primary structural balance, is expected to be expansionary in 2020 (0.9 pp of GDP) and 2021 (0.7 pp), becoming approximately neutral in 2022 and 2023.

4 Specifically, it is assumed that government revenue will grow in line with tax bases, which mainly depend on the macroeconomic context. The same applies to 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).

THE IMPACT OF THE NGEU INITIATIVE ON THE SCENARIOS FOR THE SPANISH ECONOMY

The present projections include for the first time the use by Spain of the funds of the Next Generation EU (NGEU) programme. This box describes the main characteristics of the programme and the assumptions included in relation to the volume of funds employed, their breakdown by spending category and the size of the fiscal multipliers used to estimate their macroeconomic impact.

The NGEU is a temporary fund, with a maximum amount of €750 billion, set up by the European Council in late July to address the consequences of the COVID-19 crisis and to speed through the digital and ecological transition of the European economy.¹ It should be borne in mind that, in step with the European Commission's (EC) usual procedure, all the programme's official figures are expressed in 2018 constant euro. The conversion to current euro for each year is made assuming inflation of 2% per annum. The programme, whose funds are on top of those of the multiannual budget of the European Union (EU) for the 2021-2027 period, will be financed through the EC tapping the debt market.

90% of the NGEU funds are earmarked for financing expenditure programmes of the Member States. The disbursement of these funds will be through direct transfers (up to €312.5 billion) and the granting of loans (up to €360 billion). Most of the funds will be routed through what is known as the Recovery and Resilience Facility (RRF) and the attendant disbursements will be linked to the recommendations of the European Semester. In turn, 70% of the amounts committed in the RRF will be for payment obligations incurred in 2021-2022, with the remaining 30% for 2023. That said, EU payments of the funds financing this expenditure will be distributed over a longer period of time (specifically, 2021-2026).²

The remaining 10% of the NGEU funds will be used in pan-European programmes, including most notably React-EU, whose aims include expediting the

disbursement of the cohesion funds and increasing the resources earmarked for health spending arising from the COVID-19 crisis. The commitments under React-EU amount to €47.5 billion for the 2021-2023 period.

According to EC publications, it is estimated that Spain would receive transfers with a ceiling of €77.8 billion (6.7% of projected 2021 GDP), of which €63.9 billion will be from the RRF and the rest from React-EU (see Chart 1).³ In terms of the calendar, it is foreseen that the Government might incur spending commitments for a maximum amount of €34.6 billion in 2021, €24.4 billion in 2022 and €18.8 billion in 2023 (or 2.9%, 1.9% and 1.4% of the GDP projected for these years, respectively). Conversely, as noted, the EU payment calendar is expected to be lengthier owing to the RRF component being extended until 2026. As a result, it is estimated that Spain, as at end-2023, will have received somewhat less than half of the total funds.⁴

Information on the use Spain will make of the NGEU funds is incomplete and can be found mainly in two documents. Firstly, in early October the Government released its "Recovery, Transformation and Resilience Plan". This describes the guiding principles for the use of the NGEU funds: ecological transition, digital transformation, gender equality, and social and territorial cohesion. The plan intends to present projects for the total funds available in transfers over the next three years (2021-2023). The Government moreover announced that, for the moment, it does not expect to draw on the programme's loan facilities.

Secondly, the State and Social Security Budget for 2021, in passage through Parliament, includes NGEU spending totalling €26.6 billion (2.2% of projected GDP), more than 90% of which will be financed with RRF funds. Of these, it is estimated that one-half will be earmarked for financing general government investment projects and one-third for

1 The details of the programme are described in Box 5, "Next Generation EU: main characteristics and impact of its announcement on financial conditions" of the "Quarterly Report on the Spanish Economy", *Economic Bulletin*, 3/2020, Banco de España.

2 There will thus be a lag between the time of governments' expenditure outturn and that of payments by the EU. However, the resulting financial imbalance would not be taken into account when calculating general government financing capacity in National Accounts, although it may impact public debt dynamics.

3 The final figures have not yet been set. In the case of the RRF, the distribution of funds for the 2021-2022 period has been made following the EC's proposal, which takes into account population, the inverse of GDP per capita and the average unemployment rate from 2015 to 2019. In 2023 the unemployment rate will be replaced by the declines in GDP in 2020 and 2021. The final figures will be calculated in autumn 2022. In the case of React-EU, the 2021 figure is official, whereas the funds for 2022 and 2023 have been calculated assuming the same distribution among countries as in 2021. The final allocation of funds for that period will be published in June 2021 and 2022, respectively.

4 In line with the EC's proposal for the RRF and the European Council's resolution dated 21 July 2020, in the case of the RRF it is assumed that the payments relating to the commitments for year t have the following profile: 15% in t , 25% in $t+1$ and 30% in $t+2$ and $t+3$. In the case of React-EU, it is assumed that the total committed will be received in six equal instalments between 2021 and 2026.

THE IMPACT OF THE NGEU INITIATIVE ON THE SCENARIOS FOR THE SPANISH ECONOMY (cont'd)

Chart 1
DISTRIBUTION OF THE NGEU FUNDS AVAILABLE THROUGH EURO AREA TRANSFERS

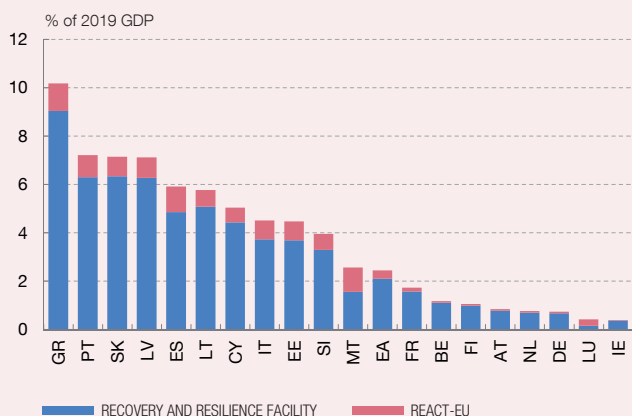


Chart 2
HISTORICAL ABSORPTION RATE OF EUROPEAN STRUCTURAL FUNDS

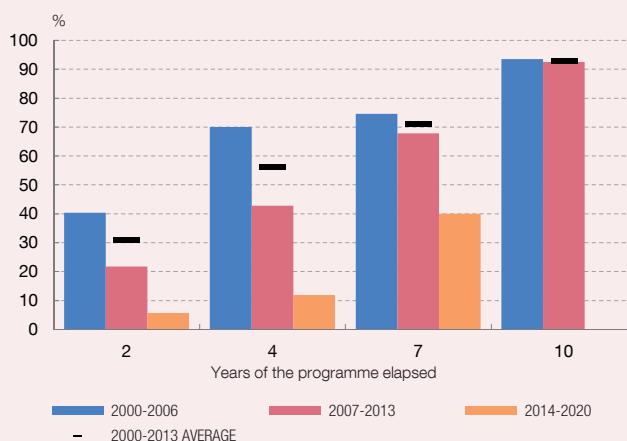


Chart 3
ASSUMPTIONS ON THE COMPOSITION OF THE USE OF NGEU FUNDS

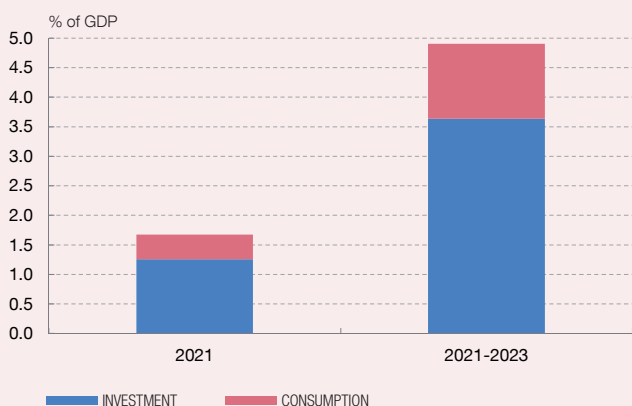


Chart 4
ASSUMPTIONS ON THE MULTIPLIERS FOR THE USE OF NGEU FUNDS

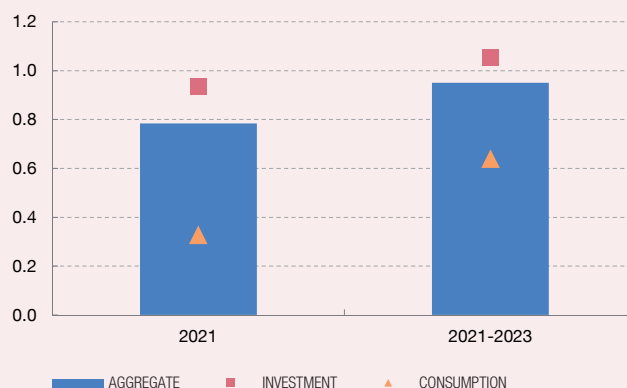


Table 1
IMPACT OF A FISCAL IMPULSE DUE TO NGEU FUNDS UNDER ALTERNATIVE ASSUMPTIONS ON GDP

Percentage differences in level	2021	2021-2023
Projection scenario (a)	1.3	1.5
High multiplier (1.2)	1.6	1.9
Moderate multiplier (0.7)	1.0	1.2
Late implementation assumption (b)	0.6	1.6

SOURCES: European Commission, Eurostat and Banco de España.

- a** In the projection scenario, an annual fiscal impulse of around €20 billion between 2021 and 2023 is simulated using the Quarterly Macroeconomic Model of the Banco de España, with an average multiplier of 0.95. In terms of its composition, 75% of the annual spending is earmarked for investment projects and the remainder for current expenditure.
- b** In the late implementation assumption, a fiscal impulse is simulated of €11 billion, €20 billion and €30 billion in 2021, 2022 and 2023 respectively, with an average multiplier of 0.95. 55% of this spending is earmarked for investment projects in 2021, with the average for 2021-2023 standing at 75%.

assistance to private investment. The remainder will be distributed between intermediate consumption and transfers to households. In terms of broad economic categories, more than 50% of the funds will be assigned to assisting investment in industry and in the energy sector, to improving infrastructure and to investment in research, development and innovation. Also for 2021, the regional governments in Spain will draw on financing from the React-EU programme for a maximum amount of around €8 billion.

On the estimates made in the draft State Budget, the fiscal impulse stemming from the programme will increase the level of Spanish GDP by 2.6 pp in 2021 and by a similar amount over the 2021-2023 period. This effect would be consistent with a multiplier of 1.2 in 2021, which would rise to around 1.7 in 2023. These public spending multiplier values are in the top part of the range of available empirical estimates, this being, moreover, a very extensive range.⁵

The information in the different countries' budgetary plans enables comparison of the use that each of them intends to make of the NGEU funds. Specifically, Spain's plan, along with that of France, is expected to be one of the most ambitious in the euro area in terms of the volume of funds absorbed and of bringing forward timeframes. The Italian Government, the recipient of the biggest amount of funds, has planned to distribute the new spending more gradually over time. The German and Dutch Governments have not yet announced how they will allocate the funds.

The publication of the budgetary plan and its passage to the State Budget has helped significantly confine uncertainty over the size, calendar and composition of the projects to be implemented with NGEU funds.⁶ Contributing to this, moreover, has been the recent initiative to centralise expenditure planning in the Council of Ministers, to simplify government procurement procedures and to shorten the attendant resolution arrangements. However, there are still various factors that hinder quantifying the impact of these plans on public finances and growth.

First, there is no comparable historical reference in Spain for a programme on this scale. The closest precedent would be the "Spanish Plan for Stimulating the Economy and Employment", commonly known as "Plan E", whereunder the State transferred funds worth 1.2 pp of GDP to local governments in response to the 2008 crisis in order to implement public investment over the two years spanning 2009-2010. That plan was carried out in economic circumstances sharing some similarities with the current situation, with a relatively low degree of capacity utilisation and a very accommodative monetary policy stance; notwithstanding, it is estimated that its activity and jobs multiplier was relatively low.⁷

Second, there is a high level of uncertainty as to the capacity of the general government and the private sector to implement such large investment projects within such short timeframes as those announced. In this respect, the historical evidence available on the absorption of European structural and investment fund programmes by the Spanish economy in the past highlights the scale of the challenge. In particular, as shown in Chart 2, on average after the first two years of these programmes, the Spanish general government has only managed to implement projects for around 30% of the available funds, a figure which gradually increases to around 70% in the seventh year, the last year in which spending commitments can be made.

A second element, closely related to the one above, is that, in order to achieve maximum effectiveness, project selection and planning must be very rigorous, which can be particularly complex given the high volume of resources and short timeframes. An additional complexity arises from the fact that, although the central government will coordinate expenditure planning, a very significant part of its implementation will fall directly on the regional governments. In any event, it is possible that these uncertainties will be dispelled when these projects are set out in the National Recovery and Resilience Plan (NRRP), which must be assessed by the EC. The deadline for submission of this plan is 30 April 2021.

5 See V. Ramey (2019), "Ten Years After the Financial Crisis: What Have We Learned from the Renaissance in Fiscal Research?", *Journal of Economic Perspectives*, vol. 33(2), pp. 89-114, for a review of the existing evidence. For the European case see M. Alloza et al. (2019) "Fiscal policies in the euro area: Revisiting the size of spillovers", *Journal of Macroeconomics*, vol. 61, September 2019.

6 See Box 9, "The macroeconomic impact of the Next Generation EU programme under various alternative scenarios", "Quarterly Report on the Spanish Economy", *Economic Bulletin*, 3/2020, Banco de España, for a discussion of these elements.

7 The empirical evidence available shows that this investment programme had a multiplier effect in the range of 0.3-0.5, thus lower than that projected by the State Budget for the NGEU programme. See M. Alloza and C. Sanz (2020), "Jobs Multipliers: Evidence from a Large Fiscal Stimulus in Spain", forthcoming in *Scandinavian Journal of Economics*.

Against the backdrop of the high level of uncertainty stemming from these considerations, a number of assumptions have been needed to incorporate NGEU funds into the macroeconomic projections. The main principle underlying these assumptions is the nature of the Eurosystem's projection exercise. The criteria used to determine NGEU-related assumptions, this being a joint exercise of the different national central banks of the euro area and the ECB, need to be standardised across countries.

First, it is assumed that the RRF resources will be distributed among investment and current expenditure of the general government in 2022 and 2023 as stipulated in the 2021 State budget, whereas React-EU funds will be allocated in line with historical evidence on the use of structural funds.

Second, it is presumed that all the current expenditure announced in the State budget will be implemented in time, as it will be mainly earmarked for mitigating the effects of the health crisis. Conversely, as compared with what was announced in the State budget, the implementation of government investment and the provision of assistance to private investment are expected to be more gradual, given that these are larger projects involving legal and administrative processes that require more time and resources for their initiation. In particular, the projections include around 70% of the spending on investment announced for 2021, with the percentage gradually increasing over time to 85% in 2023. This implies that, over the projection horizon, expenditure amounting to slightly more than 80% of available resources through NGEU transfers will be implemented, i.e. around 5% of projected GDP (see Chart 3).

Third, the spillover effects arising from the simultaneous fiscal impulse in other euro area countries, as announced in their budget plans, are included. Both the European Council and the EC have highlighted the importance of coordination among Member States when designing their plans, to harness synergies and boost strategic sectors. Lastly, in line with the technical assumptions of the Eurosystem's joint projection exercise, it is assumed that the cumulative volume of funds over the forecasting

horizon remains unchanged across the different epidemiological scenarios considered.

Taking into account all these assumptions, Table 1 shows the macroeconomic impact of the NGEU programme, using the Quarterly Macroeconometric Model of the Banco de España.⁸ Specifically, GDP growth is estimated to increase by 1.3 pp in 2021 and by an additional 0.2 pp on average in 2022 and 2023.⁹ Implicit in these results is an aggregate fiscal multiplier of 0.9 on average for the 2021-2023 period (see Chart 4). This is the result of a significantly higher multiplier for investment than for public consumption (1.1 and 0.6, respectively).¹⁰ The weaker boost to activity compared with the State budget plans is due to assuming a lesser degree of absorption of funds and a lower fiscal multiplier.

As noted above, these estimates are highly uncertain; therefore, it would be advisable to consider alternative assumptions.¹¹ First, there could be initial temporary delays in the implementation of the projects, resulting from factors both at the European level, such as the delay in the entry into force of the programme, and at the domestic level, linked to the inevitable initial difficulties in ensuring adequate coordination between the central and regional governments. Were these types of risks to materialise, the impact on GDP would be lower in 2021, although it would accelerate over the forecasting horizon to values similar to those envisaged in the baseline scenario. In this regard, the fourth row of Table 1 — late implementation assumption — shows, by way of example, the impact of a resource absorption pattern consistent with historical evidence for European structural fund programmes.

Secondly, it is difficult to assess the impact of the fiscal impulse resulting from the use of NGEU resources on GDP. First, the empirical and theoretical literature suggests that, under the current conditions of low productive capacity use and interest rates at historically low levels, multipliers could be higher. However, although the existing documentation describes the planned distribution by spending type and policy, the exact type of projects to be financed is not known. This, together with such a demanding timeframe,

8 See A. Arencibia, S. Hurtado, M. de Luis and E. Ortega (2017), *New Version of the Quarterly Model of Banco de España (MTBE)*, Working Papers, No 1709, Banco de España.

9 Of these amounts, the spillover effect of the impulse in the rest of the euro area would account for approximately 0.1 pp of GDP each year.

10 In the first year, the multiplier effect on GDP stands at 0.9 and 0.3 for investment and current expenditure, respectively, resulting in an aggregate multiplier of 0.8.

11 Box 9, "The macroeconomic impact of the Next Generation EU programme under various alternative scenarios", "Quarterly Report on the Spanish Economy", *Economic Bulletin*, 3/2020, Banco de España, shows the results for a first set of simulations under various alternative assumptions.

THE IMPACT OF THE NGEU INITIATIVE ON THE SCENARIOS FOR THE SPANISH ECONOMY (cont'd)

could lead to projects with a lesser effect on output being given priority in its practical implementation.

In view of these two factors of uncertainty, a lengthier timetable for the implementation of projects should not necessarily be assessed negatively, insofar as this may contribute to ensuring a better quality of projects and, therefore, a greater impact in terms of medium and long-term growth. In any event, these two sources of uncertainty mean that the multiplier could significantly differ from that considered in the baseline scenario. The second and third rows of Table 1 show the effect on output of considering multipliers in the upper and lower margins of the available empirical evidence.

In short, the NGEU programme is a unique opportunity to enhance the post-pandemic economic recovery while simultaneously achieving a structural transformation of the economy, although maximising these effects will crucially depend on being able to make the most of the programme. This, in turn, depends on the majority of resources being allocated to projects with a high impact on the economy's human and technological capital. If this proves to be the case, the expenditure multipliers could be greater than those envisaged in the macroeconomic scenarios. In addition to this, were the Spanish general government to absorb all available funds, the impact on economic growth could be higher than that considered in these projections.

SPANISH BUSINESS SURVEY ON ACTIVITY AND THE IMPACT OF COVID-19

The Banco de España has launched a new Spanish business survey to compile qualitative data on non-financial corporations' activity in the current quarter and the short-term outlook on a regular basis.¹ Specifically, the survey compiles turnover, employment and price data. Given the current setting, the first round also included some additional questions on the impact of the pandemic on the firms, the strategies adopted to withstand these effects and the degree of use of the different economic policy measures approved to mitigate the effects of COVID-19 on activity and employment.

The survey questionnaire was sent, on 4 November, to a broad potential sample comprising a total of 12,494 firms, 46% of which typically respond to Central Balance Sheet Data Office (CBSO) surveys. This box compiles the responses to the questionnaire received to 19 November. Overall, the surveyed firms' response has been very satisfactory, with 4,004 valid responses being received (a response rate of 30.9%).²

With regard to the firms' view on their activity in 2020 Q4 (see Chart 1), a broad set of firms indicated that the impact of the health crisis remained high in that period. Almost half (48.5%) of the firms surveyed reported that their turnover in 2020 Q4 was lower than in Q3. Furthermore, almost one-quarter of the sample (23.9%) classed the decline observed as steep. The outlook for 2021 Q1 remains unfavourable, since 45.9% of the firms stated that they expected their turnover to diminish further in that period. In terms of employment, the firms surveyed described a more stable outlook, such that the drop in activity does not at present appear to be resulting in a comparable destruction of employment. Specifically, although almost 25% of the firms reported having reduced their headcount in this quarter, at most firms it appears to have remained constant or even increased slightly in that period. With regard to the outlook for 2021 Q1, firms expected the size of their workforce to be very similar to 2020 Q4.

As expected, the firms' assessment of their current situation shows a very high degree of cross-sector heterogeneity, given that sectors have been affected very unevenly by the restrictions introduced to contain the pandemic, which have had most impact on services activities where social contact plays a greater role. Chart 2 shows the changes in turnover and employment by productive sector, drawing on an index built using the firms' qualitative responses.³ The chart confirms that activity and employment are faring worse in Q4 in the services hardest hit by the lockdown measures, such as hospitality, leisure and entertainment, and retail. In any event, activity and employment appear to have dropped across all sectors in this quarter, albeit less steeply. This would reflect a slight economic downturn after the vigorous recovery observed in the period immediately after lockdown was eased.⁴

According to the replies received, this deterioration in firms' activity also appears to be reflected in the selling prices of their products, which have fallen (see Chart 3).⁵ The decline in these prices appears to have been more pronounced in the sectors most affected by the crisis. In addition, this is putting downward pressure on firms' margins, as they also report a small increase in the cost of their manufacturing inputs, especially in the sectors most affected by the drop in activity. Firms are expecting margins to continue to shrink in 2021 Q1.

Although the survey aims to compile mainly qualitative data, firms were also asked to estimate how they expected their turnover and employment to evolve in Q4 in year-on-year terms, to provide a quantitative approximation of the cumulative impact of the pandemic on business activity since the onset of the crisis. A very high proportion of firms reported year-on-year declines in turnover at end-2020 (see Chart 4), reflecting a severe impact. In addition, these decreases are very pronounced: 36.3% of firms reported turnover down

1 In April, Box 1 ("Business survey on the impact of the COVID-19 crisis") to the analytical article "Reference macroeconomic scenarios for the Spanish economy after COVID-19" included the results of a smaller-scale, ad hoc survey. The experience gained from that survey was particularly useful for designing the project whose results are presented in this box.

2 The response rate was higher among CBSO-respondent firms (49%) than among non-CBSO-respondents (15.5%). Furthermore, the response rate was quite uniform across sectors of activity.

3 The firms' qualitative responses and the assigned values correspond as follows: steep decrease=-2, slight decrease=-1, stable=0, slight increase=1, steep increase=2. Thus, the index's negative values indicate that firms reporting drops in their activity or employment, and those at which such drops have been steeper, have a greater weight in the sample.

4 As indicated for the aggregate sample, the outlook for 2021 Q1 by sector remains unfavourable, although the declines in turnover and employment in the services sectors hardest hit in 2020 Q4 appear to moderate.

5 The index depicted is built in the same way as the activity index.

SPANISH BUSINESS SURVEY ON ACTIVITY AND THE IMPACT OF COVID-19 (cont'd)

more than 15%,⁶ while on average for all the firms in the sample it was down almost 10%. In this case also, there is a very high level of sectoral heterogeneity (see Chart 5), with very marked declines in certain services sectors such as transport or leisure and entertainment

and, above all, in hospitality (with turnover down almost 50% on average).

When firms were asked how certain factors are affecting their recent business performance, the great majority

Chart 1
ACTIVITY AND EMPLOYMENT: RECENT DEVELOPMENTS AND OUTLOOK

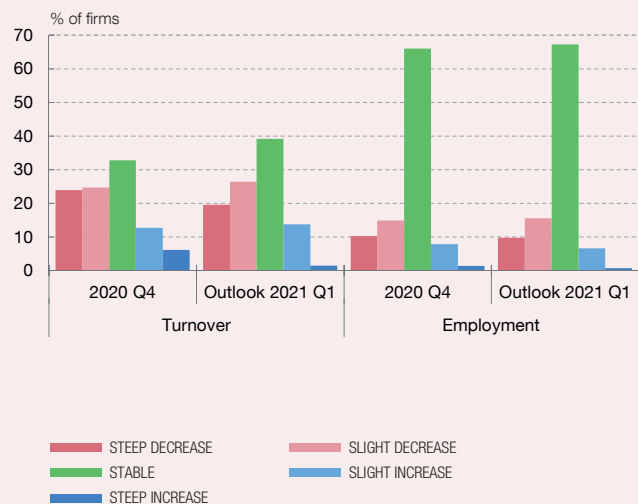


Chart 2
ACTIVITY AND EMPLOYMENT IN Q4 BY SECTOR

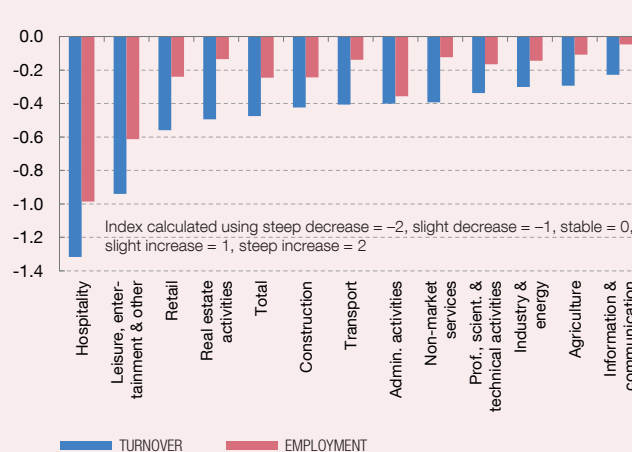


Chart 3
INPUT AND OUTPUT PRICES

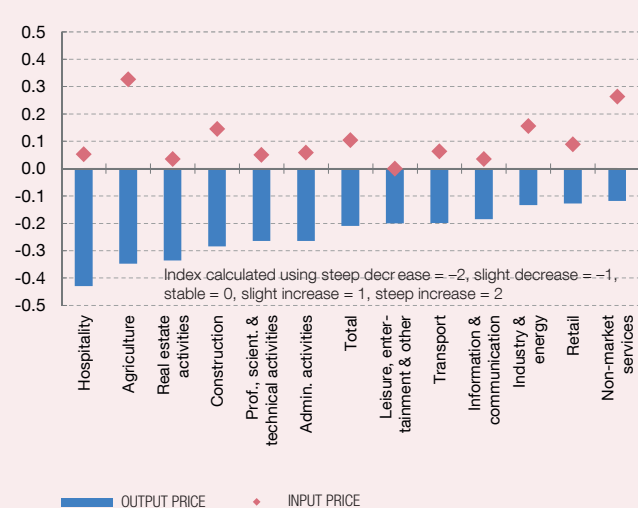


Chart 4
YEAR-ON-YEAR CHANGE IN TURNOVER AND EMPLOYMENT IN Q4



SOURCE: Banco de España Business Activity Survey (EBAE).

6 In the case of the year-on-year change, firms were asked to provide data in intervals. The average rates were calculated using the central values of each of the intervals considered.

SPANISH BUSINESS SURVEY ON ACTIVITY AND THE IMPACT OF COVID-19 (cont'd)

point to the negative impact of the high uncertainty surrounding both the course of the pandemic and economic policy (see Chart 6).⁷ The second factor most mentioned by firms as a determinant of the recent fall in activity is the decline in demand for their products. Here also, as was to be expected, there is very high sectoral

heterogeneity, with this factor being more important for the services sectors which, for the reasons indicated above, have been most affected by the crisis. By contrast, access to external finance appears to be conditioning activity for a comparatively lower proportion of firms, even in the sectors most affected by COVID-19 (see Chart 7).

Chart 5
YEAR-ON-YEAR CHANGE IN TURNOVER AND EMPLOYMENT BY SECTOR

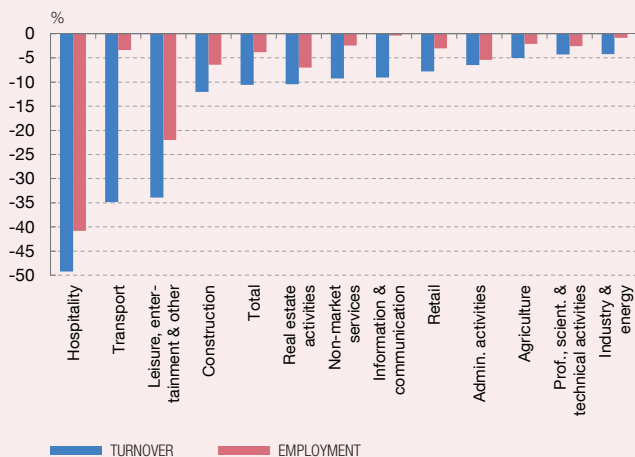


Chart 6
CONSTRAINTS ON BUSINESS ACTIVITY
% of firms reporting a negative or very negative impact

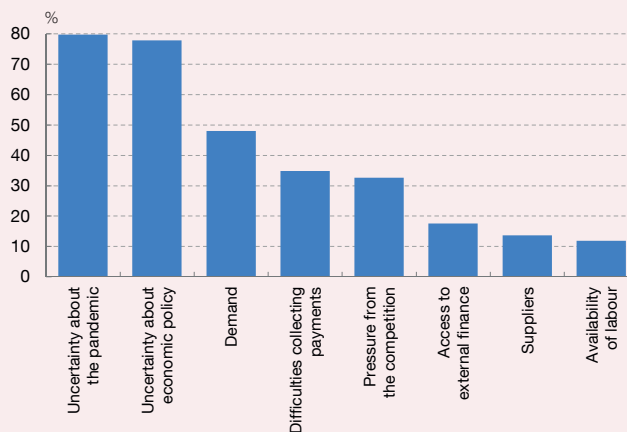


Chart 7
CONSTRAINTS ON BUSINESS ACTIVITY
% of firms reporting a negative or very negative impact

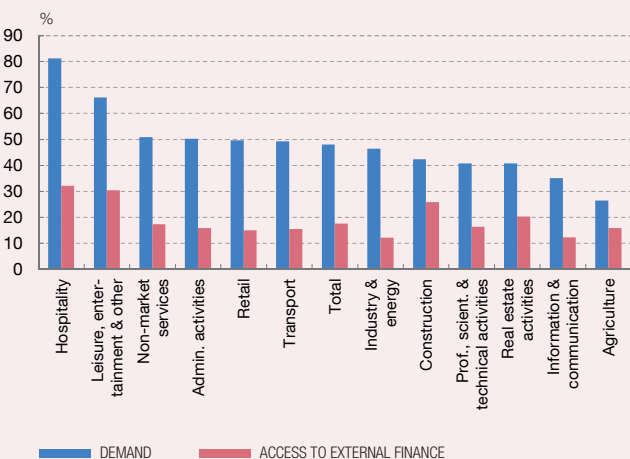
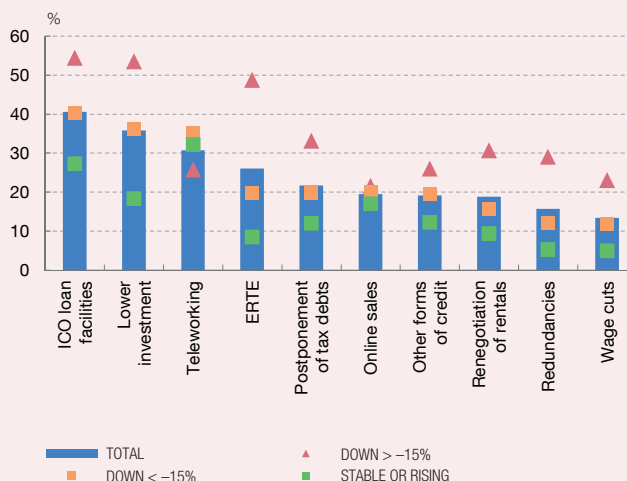


Chart 8
MEASURES USED ACCORDING TO CHANGES IN TURNOVER
% of firms that consider measures material or very material



SOURCE: Banco de España Business Activity Survey (EBAE).

7 The existence of high uncertainty, which can affect firms' decisions in different areas, is also detected in their replies to the question on when they expect to recover their pre-pandemic level of activity. Specifically, of the high proportion (82.5%) of firms that do not expect to recover this level of activity in 2020, the majority are not prepared to put a date on when they expect to do so.

This could suggest that the public guarantee schemes put in place following the onset of the crisis are working correctly. Yet the relatively high proportion of firms in some sectors that mentioned this as a constraint on their productive activity suggests that not all firms have been able to fully meet their financing needs.

Lastly, the survey also asked firms about the extent to which they have used different measures to mitigate the effects of the crisis (see Chart 8). According to the replies received, the channels most frequently used have been the loans backed by the Official Credit Institute (ICO), lower investment, increased teleworking and short-time work schemes and temporary lay-offs (ERTE by their Spanish name). There is a correlation between recourse being had to several of these instruments and the impact of the crisis: the more pronounced the decrease in turnover, the more use firms have made of these

instruments. This is the case of the ICO-backed loans, lower investment or short-time work schemes and temporary lay-offs. Additionally, the survey shows that firms in the most difficult economic situation have tended to make more use of measures to cut labour costs, such as headcount reductions or wage cuts, although overall the use of these instruments has been comparatively low to date. By contrast, no correlation is detected between how firms' turnover has evolved and the increase in teleworking or in the use of online sales channels.

Going forward the survey will be conducted regularly. Having available time series of the results will be a valuable source of information on how business activity evolves by sector. When designing macroeconomic projection exercises for the Spanish economy, this will help in particular to outline short-term economic developments, but also to identify more long-term patterns.