ANNUAL REPORT

2019

BANCO DE ESPAÑA
Eurosistema

ANNUAL REPORT 2019

THE SPANISH ECONOMY AND THE COVID-19 CRISIS

Cut-off date for data: 9 June 2020.
Publication date: 30 June 2020.

3 THE ROLE OF ECONOMIC POLICIES INTERNATIONALLY IN THE FACE OF THE PANDEMIC

4 THE IMPACT OF THE PANDEMIC IN SPAIN AND THE ECONOMIC POLICY RESPONSE

5

CHALLENGES FOR THE SPANISH ECONOMY IN THE POST-PANDEMIC SCENARIO

INDEX OF TABLES

INDEX OF CHARTS

INDEX OF CHARTS

INDEX OF FIGURES

Foreword by the Governor Pablo Hernández de Cos

The COVID-19 pandemic is exacting a very heavy cost in human lives despite the extraordinary measures adopted to contain its spread. It has also caused far-reaching disruption to society and the global economy in recent months. As a result, the dynamics of the global and Spanish economic environment in late 2019 and early 2020 were abruptly altered. And this year, the level of activity will foreseeably contract on a scale never before witnessed in peacetime.

Against this background, the Banco de España Annual Report 2019 focuses singly on the unfolding of the health crisis, its initial economic impact and the economic policy measures deployed to restrict its adverse effects. Chapters 2, 3 and 4 of the Report address these aspects from a global, European and Spanish perspective. The fifth and final chapter analyses in detail the main challenges the Spanish economy must tackle in the medium term and what, in the Banco de España's view, the guiding principles of the economic policy response should be.

As I recently had the opportunity to set out before Parliament,[1] many of our economy's current challenges were already present before the health crisis broke, though the current circumstances have increased the scale of the threat they pose and the urgency of responding to them. The pandemic has also given rise to new challenges whose magnitude and consequences are still very uncertain. How economic policy addresses these challenges will determine the intensity and sustainability of Spain's economic growth and social well-being in the coming years.

Naturally, the economic policy response to this crisis should adapt to how the pandemic unfolds healthwise. Initially, the measures to contain the disease involved, in most countries affected, the shutdown of a wide range of sectors of activity. At that juncture, the severity and the temporary and global nature of the shock warranted the implementation of forceful, time-limited and internationally coordinated economic policy actions.

Indeed, Chapter 3 of this Report shows how the economic authorities in different areas and regions have in recent months applied a type of shock therapy. Their

1 See the appearances by the Governor before the parliamentary committees for Economic Affairs and Digital Transformation on 18 May 2020, and for the Social and Economic Reconstruction of Spain after COVID-19 on 23 June 2020.

essential aim has been to prevent what is an eminently temporary health shock from ultimately causing persistent harm to the economy's growth and recovery capacity.

Within the euro area, the European Central Bank has launched a raft of anti-crisis emergency measures. These have been crucial in alleviating financial tensions and maintaining the flow of financing to the economy. They have also provided considerable headroom to the fiscal authorities in their fight against the pandemic and its economic effects. As a matter of fact, the response of national fiscal policies has likewise been robust. It is this strand of economic policy that has the most appropriate instruments to combat the crisis with immediate and focused measures, which can and must be tailored to the still-uncertain duration of this situation and to the differing effects the crisis will have on different population groups and productive sectors.

At the European level, we must acknowledge that, even with the support of monetary policy, national authorities alone can hardly face down the challenges posed by this shock. Given the deep-seated economic and financial interactions among the various euro area countries, joint action is the most effective way to ensure that the economic effects of the pandemic are overcome promptly and at a lower cost for each and every member. Following an initial, muted response by the European Council, a European Commission proposal to create a European recovery fund is now under discussion. It is imperative that we approve this fund as soon as possible, and that it should be of a size proportionate to the financing needs generated by the pandemic.

In recent weeks we have moved into a second phase of the crisis. In a setting in which the disease is more under control, it has been possible in Spain and other countries to start rolling out lockdown easing plans. This second phase, in which the economy begins gradually to pick up, has some significant features. First, uncertainty remains very high, as there are numerous doubts over the path the disease will follow in the coming months. This uncertainty will adversely affect consumption and investment decisions, and also international economic transactions. Second, minimising the risk of a fresh outbreak of the disease will mean we will have to retain some restrictions and health safety measures. These circumstances, which will condition the normal pursuit of economic activity, will affect the different productive sectors unevenly. Third, we will begin to discern in this phase to what extent the

crisis, despite the economic policy measures taken, may be harming our productive system and, therefore, our growth capacity more permanently. We will also begin to see some signs of the possible structural changes that may stem from the pandemic, e.g. in terms of a transformation to the ongoing globalisation and digitalisation marking the world economy in recent decades.

In this period, the economic policy response must encompass two objectives: to support the recovery, which advises against a premature withdrawal of the support measures, since that would raise the risk of economic growth undergoing more lasting damage; and to smooth the economy's adjustment to the post-pandemic scenario.

In the area of monetary and financial policies, to whose European-level decisions the Banco de España contributes as part of the Eurosystem and Single Supervisory Mechanism, the priority is clear: to continue giving support to the recovery; to provide appropriate financing conditions for the different economic agents; and to preserve financial stability. In this connection, and in relation to monetary policy, we have on the ECB Governing Council reiterated our commitment to do what it takes to support the euro area economy at this extremely difficult juncture. This includes ensuring that the Eurosystem's monetary policy is properly transmitted to all sectors of the economy and all countries, and preventing the financial fragmentation of the area. In this respect, we stand ready to adjust all our instruments as needed.

On the supervisory front, the banking sector is facing this crisis from a healthier position than in the previous recession. That highlights the importance of the far-reaching global financial reform undertaken in the past decade. In any event, it will be necessary in the coming months to be doubly watchful: first, of banks' ability to continue providing the financing that firms, the self-employed and households need; and further, of the risks to financial stability arising from this crisis.

Regarding the ability to provide financing, we supervisors have adopted several decisions which, among other matters, allow banks to continue using the capital and liquidity buffers at hand. Moreover, most European governments, including Spain's, have approved public guarantee programmes backing loans to firms. These are geared to mitigating the possible reluctance of financial intermediaries to incur greater risks in a setting such as the present, and to helping pave the way for many SMEs and

sole proprietors to continue raising finance in these difficult times. So far, these measures have been effective in terms of keeping lending in Spain buoyant. Chapter 4 of the Report attests to this, as do the data from recent months, which evidence a strong increase in the flow of new lending granted by banks to firms in Spain.

While the current high level of uncertainty persists, small firms and those most affected by the crisis might encounter difficulties gaining access to financing, especially in the absence of public support instruments. In terms of how economic activity evolves, that would advise studying the possibility of extending the public guarantee mechanisms already in place. In re-designing such mechanisms, priority of access to funds should be for firms with sound prospects of viability, with a view to smoothing the necessary cross-firm and cross-sectoral reallocation of productive resources.

The crisis will also significantly impact the quality of banks' credit portfolios. The effect across banks will be uneven, depending on their starting position, their business model and the distribution of their exposures to the sectors and territories most affected by the pandemic. The scale of the shock and its uncertain path thus obliges us to monitor closely the risks to financial stability arising from this crisis. We must be ready to provide a forceful, pan-European response should these risks materialise.

Hence, all economic authorities, European and national alike, must share the same goal. We must ensure the current crisis is not accompanied by an across-the-board tightening of financing conditions and that it does not seriously damage the financial system's stability. Well are we aware that crises incorporating a significant financial downturn are usually deeper and more durable.

Turning to domestic policies, some of the measures already applied should be temporarily extended and recalibrated. Along with the recently approved extension of short-time work arrangements (ERTEs) until end-September, it seems appropriate to retain some of the support instruments for the most vulnerable households. It is essential, however, that such instruments remain focused, and designed so as not to distort, for instance, labour market participation decisions. In parallel, the proper functioning of the different working flexibility mechanisms available for firms should be ensured. Their role is especially useful in these circumstances for enabling the adjustments derived from the crisis to be made.

At the same time, it would also be advisable to incorporate new measures into various areas. Active labour market policies and training policies for the unemployed and for workers affected by ERTEs should, once suitably redesigned, be geared to boosting employability and to providing for the relocation of workers most affected by the crisis to those sectors or firms with most growth capacity. Also, the suspension of face-to-face education runs the risk of adversely affecting students' academic performance, particularly in less well-off households. Consequently, the education system should have the mechanisms enabling it to allow all students to acquire the necessary skills and qualifications, even in the absence of presence-based classes. Likewise, there is a pressing need to review firms' restructuring, insolvency and financial burden-alleviation processes, in order to set nimble, simplified administrative procedures in place. Specifically, debt-laden firms with financial difficulties should be able to move into a preventive framework enabling them to continue to pursue their business activity while they are still viable.

The economic policy response in this second phase of the crisis must also count on the resolute support of the European Union. By means of an additional EU fiscal impulse to that each Member State deploys, it can then support the restructuring of the European productive system and the recovery of its growth capacity. It would be advisable here to prioritise the use of the aforementioned European recovery fund for specific investments that usually contract more at times of uncertainty and financial difficulty. Such is the case of investment in technological capital and in training. The time is also right to promote projects contributing to the transition to a more environmentally sustainable economy. Approving and rolling out this European fund should be done as swiftly as possible. Its design should likewise provide for the possibility of an increase in its size, depending on how the crisis evolves. Further, the fund should be the precursor to a permanent fiscal mechanism for pan-European macrofinancial stabilisation.

We should look beyond the policies needed in this phase of incipient economic recovery. Taking a longer view, the setting envisaged in the latest Banco de España projections (and those of most analysts) for the coming years is extraordinarily complex. It will call for the definition of a reform agenda to tackle our economy's increasingly pressing (because of the crisis) structural challenges. Moreover, insofar as the post-pandemic Spanish economy will have its highest levels of public debt in

many decades, partly due to the necessary fiscal expansion in the short term, it is also imperative to design a plan to redress public finances in the medium term. Otherwise, persistently high public debt/GDP ratios will leave us chronically vulnerable ahead of any adverse macrofinancial shocks in the future. Chapter 5 of this Report addresses these and other priority aspects for positioning the Spanish economy on a sustainable growth and job-creation path once more.

One of the most visible challenges concerns the need to raise productivity. That requires increasing public and private investment in human and technological capital, reviewing the educational model, and promoting business growth and dynamism. Labour market duality and a very high structural unemployment rate do not only limit growth capacity; they also contribute to increasing inequality. We must undertake forthwith a review of active employment policies and those aspects of the current labour market regulatory framework that lead to excessive disparity in the degree of protection afforded to permanent as opposed to temporary employees. It is the latter who have borne the brunt of job destruction during the first phase of this crisis, as has recurrently been the case in previous recessions. These reforms, along with income support measures such as the now-approved Minimum Income Scheme, should contribute to reducing inequality in Spain. Inequality levels, which were higher at the onset of the pandemic than at the start of the 2008 crisis, will probably rise further in the coming quarters, given that this crisis is affecting to a greater extent groups that generally have relatively lower income.

Nor can we forget ongoing population ageing. Among other aspects, this phenomenon will most appreciably influence the behaviour of the labour market, growth dynamics and the main fiscal variables in the coming decades. Once the crisis is behind us, public finances must gradually restore their room for manoeuvre by means of a credible multi-year consolidation plan. Reducing the vulnerability of our economy also requires further boosting progress in the institutional design of the euro area, moving towards a fully fledged Banking Union, the Capital Markets Union and, more generally, greater euro area-wide risk-sharing.

In any event, with every challenge there are new opportunities. The Spanish economy must be flexible and proactive in harnessing the new possibilities arising from the fight against climate change and the transition to a more sustainable economy, from the

changes in the globalisation model and from the foreseeable acceleration in digitalisation in the economy. The analyses conducted in this Report and the assessments made of the evidence garnered nationally and internationally seek to contribute actively to the collective debate on these issues of vital interest to the Spanish economy.

To address these challenges, we urgently need an ambitious, comprehensive, permanent and assessable structural reform and fiscal consolidation strategy for Spain. This strategy must be ambitious if we genuinely seek to lay the foundations for more sustainable and balanced growth in the future. The design and implementation of the reforms should be pushed swiftly through, since their credible formulation may positively affect spending, investment and hiring decisions, even in the very short term. Fiscal consolidation, for its part, must be applied once the economy is on a sound growth path again. But its definition and prompt communication can significantly benefit the credibility of our economic policy. This strategy must also be comprehensive in nature, encompassing the numerous interactions between the challenges to be tackled which, in many cases, require measures at the international and, in particular, European level. Accordingly, the guiding principles of this strategy must command considerable consensus among the various political, economic and social agents, so that the foundations underpinning our growth may be stable. Finally, any strategy conceived with a medium-term horizon should be rigorously and continuously assessed with a view to identifying areas for improvement in its design or in its application. Adopting this culture of assessment in economic policy design and implementation should be one of the pillars of the growth strategy for the Spanish economy.

Pablo Hernández de Cos
Governor of the Banco de España

Foreword to the *Annual Report 2019*.

30 June 2020.

Annual Report: Digest

The spread of the virus

- The COVID-19 epidemic began in China, with the first cases detected in late 2019. It subsequently spread worldwide, turning into a pandemic.
- The number of infections and deaths has grown worldwide in recent months, although the virus's progression and impact have varied across countries.
- Most affected countries have adopted lockdown measures of varying severity. However, confinement at home and restrictions on movement have frequently been the norm.
- As the pandemic's intensity has subsided in some areas, the authorities have launched plans to normalise the social and economic situation.
- The virus continues to spread to several countries and regions. Arousing much concern are its spread (particularly to the least developed countries) and the possibility of fresh outbreaks where it is relatively under control.

The initial economic impact worldwide

- Global GDP grew by 2.9% in 2019, the lowest rate since the 2008 financial crisis. Yet there were signs of the world economy stabilising in late 2019, partly owing to the positive impact on activity of an initial US-China trade agreement.
- The expansion of the pandemic and the necessary containment measures have abruptly altered global economic developments. Activity and employment have declined sharply across all geographical areas, acutely so in the services sector.
- The scale of the economic disruption is still uncertain. There are different channels in play (supply, demand and financial), whose intensity and duration are as yet unknown.
- Even if the pandemic subsides in 2020 H2 and the lockdown measures are gradually eased, the IMF projects a sharp contraction in global GDP in 2020, by far exceeding that in 2009. Nonetheless, the impact will essentially be temporary; the IMF duly projects a recovery in activity from 2020 H2 and high growth rates throughout 2021.
- The outlook for the global economy is subject to significant downside risks. These may lead to a far slower recovery than is currently expected. A high level of uncertainty surrounds, inter alia, the pandemic's pathway and potential fresh outbreaks, the effectiveness of the economic measures adopted and the spillover effects associated with the real and financial interrelationships between countries (Box 2.1).
- Latin America is expected to be the emerging market region whose GDP most contracts in 2020, while the expected upturn for 2021 will also be smaller than that projected for the other main emerging market economies. Among other factors, this is due to the confluence of some of the region's structural characteristics, such as lower potential growth, the high rate of informal employment and the shortcomings of some institutions, combined with reduced economic policy response leeway.

The spread of the crisis in the euro area

- COVID-19 spread rapidly through the euro area countries, which introduced severe lockdown measures to contain it. These entailed a sudden, very severe fall in activity, with an uneven cross-country and cross-sectoral impact.
- Euro area GDP contracted by 3.6% in Q1, as compared with an expected increase pre-crisis of 0.1%. The decline in activity will foreseeably be much steeper in Q2.
- At this exceptionally uncertain juncture, the baseline scenario of the Eurosystem's June projections points to a severe contraction in activity in 2020.
- The contraction will be greater than that recorded in the global financial crisis and will be more acute in several of the main euro area economies, such as Spain, Italy and France. The crisis is also exerting downward pressure on the euro area inflation rate.
- A strong recovery is forecast for 2021, though there continues to be much uncertainty over how long the pandemic's effects will persist.

The main economic policy objectives in the current crisis

- A swift and forceful economic policy response is required to mitigate the short-term effects of the current health crisis and ensure a strong recovery.
- The world economy is tackling this crisis from a weaker position than in previous recessions. In recent years, global economic growth has essentially been underpinned by highly expansionary demand-side policies, against a setting in which the potential growth rate worldwide remained on a downward path.
- The nature of the crisis calls especially for multilateral cooperation to provide an internationally coordinated response to the pandemic and pave the way for a prompt and strong recovery.

The fiscal policy response

- To address the health emergency, virtually all countries have adopted fiscal policy measures to fund the increase in health spending and support households' and firms' income.
- The US fiscal policy package is particularly significant in quantitative terms and is essentially based on direct financial assistance to households, businesses and state and local governments.
- In euro area countries, governments have approved diverse fiscal packages, with varying budgetary impacts.
- At the European level, several EU instruments have been mobilised, via the EIB, ESM and in the form of SURE (the new temporary Support to mitigate Unemployment Risks in an Emergency), to uphold the measures adopted by national governments (Figure 3.1).
- The proposal with the greatest capacity to boost the European economy in the medium term is the European Commission's recovery plan for Europe, based on a supplementary budget of €750 billion for the EU between 2021 and 2027. The funds would be earmarked to finance investment and reforms bolstering European economies' growth capacity.

The multilateral response

- The IMF has swiftly deployed a broad battery of measures (Box 3.1). The main multilateral banks and fora have also responded to the crisis with various initiatives.
- Despite these multilateral actions, the magnitude and nature of this crisis evidence the need to refine the multilateral institutional structure, step up international cooperation and avoid the resurgence of protectionist policies.

The monetary policy response

- The monetary authorities of the main advanced and emerging economies have reacted swiftly and decisively to the COVID-19 crisis by cutting their key policy rates to record lows and, in many cases, by using unconventional instruments such as large-scale asset purchases.
- ECB measures:
  - The ECB has, in general, reacted substantially more forcefully to the COVID-19 crisis than it did in the wake of the 2008 financial crisis.
  - The ECB's main measures have focused on its asset purchase programmes and long-term funding provision. It has also temporarily expanded the set of assets eligible as collateral in the Eurosystem (Box 3.2).
  - This raft of expansionary measures is aimed fundamentally at countering the risks a potential financial fragmentation of the euro area could pose to the smooth running of the monetary policy transmission mechanism and to the area's economic outlook.
  - The ECB's measures appear to be helping maintain favourable financing conditions in the euro area (Box 3.3). However, the scale of the crisis evidences the importance of the monetary stimulus being accompanied by a broad fiscal policy response at the pan-European level (Box 3.4).

The response of the financial authorities

- On the prudential front, the ECB and the BCBS have boosted the use of capital and liquidity buffers by credit institutions. NCAs have also lowered some of the macroprudential capital requirements, such as the CCyB.
- Supervisors have promoted measures on operational, prudential and regulatory flexibility, while also adopting accounting measures to prevent an excessively mechanical application of provisioning standards from triggering a disproportionately contractionary effect on the supply of bank lending to the real economy.
- The ECB, EBA and the ESRB have recommended the temporary suspension of dividend payments and prudence in employee bonuses in order to channel income towards shoring up banks' solvency.

The health crisis in Spain

- In recent months, the COVID-19 pandemic has posed a major public health challenge in Spain.
- In March and April, as in most countries affected by the pandemic, severe restrictions were imposed on people's movement and on some economic activities to curb the rate of infection.
- Since early May, as the pandemic came more under control, there has been some lockdown easing, leading to a progressive reactivation of the economy.
- Yet while there is no vaccine or effective treatment for the virus, the Spanish economy remains very vulnerable to a fresh outbreak. On other countries' experience, a programme of rigorous protocols is needed to reduce this vulnerability. This should aim at a significant increase in the number of tests performed, to identify and isolate persons infected, and to closely monitor all those who may have been in contact with the positive cases detected.

The initial economic impact

- The measures adopted to contain the pandemic have markedly impacted economic activity in Spain.
- In 2020 Q1, Spanish GDP shrank 5.2%, its largest quarter-on-quarter contraction to date. All private spending items fell very considerably, as did exports, especially of tourism services.
- The latest economic indicators suggest the decline in GDP will be considerably steeper in Q2, albeit with a significant rebound in 2020 H2, assuming there are no further shocks.
- The impact of this crisis on employment is proving to be particularly severe:
  - in addition to the decline in social security registrations (of 752,000 between mid-March and end-May) are the employees subject to short-time work arrangements (ERTEs) and the self-employed who have temporarily ceased their activity (3 million and 1.4 million at end-May, respectively)
  - as is habitual in the Spanish labour market, temporary workers are bearing the brunt of the adjustment
  - the impact of the employment adjustment is highly uneven across sectors, with a more adverse effect on services, especially retail trade, recreation and hospitality, than on manufacturing or the primary sector

Economic policies adopted in Spain

- The Government's response has focused on four key areas:
  - strengthening the healthcare system
  - protecting employment
  - supporting vulnerable households
  - providing liquidity to firms and the self-employed
- One key aim is to prevent this eminently temporary health crisis from causing significant damage to the economy's growth potential, which would limit its capacity for subsequent recovery if viable firms were to close or jobs were to be permanently lost.
- The final cost of the measures adopted will be high, but will ultimately depend on their ability to achieve the objectives pursued. Further, the total cost of this crisis for public finances will depend not only on the expenditure associated with the discretionary measures approved, but also on the functioning of the automatic stabilisers and macroeconomic developments.

Economic outlook for the coming quarters

- The starting point
  - The Spanish economy faces the economic crisis stemming from the pandemic after a long upturn that showed a more balanced growth pattern than in the past, helping to redress some of the economy's main macrofinancial imbalances.
  - In recent years the Spanish economy has continuously run external surpluses, households and firms have deleveraged considerably, and the construction sector and financial system have undertaken extensive restructuring.
  - Despite the progress, the Spanish economy still presented significant sources of vulnerability at end-2019, which have shaped the response to the COVID-19 crisis and the scale of the current downturn: the public finances shortfall has not been corrected, high unemployment rates and excessive duality between permanent and temporary workers still prevail in the labour market, and productivity growth remains lacklustre and inequality is relatively high.
- Looking ahead, the main sources of uncertainty include:
  - How the pandemic unfolds and how quickly the different sectors of economic activity can resume some level of normality:
    - fresh outbreaks of the disease in the future cannot be ruled out, which will weigh on the spending and investment decisions of households and firms.
    - activity and movement will remain subject to certain restrictions, hindering a return to normality in some sectors.
    - the sectors most affected by the restrictions account for a relatively large share of the Spanish economy and employ a higher proportion of women, young people and low-income workers than other sectors of the economy, which could have a bearing on the recovery's buoyancy (Boxes 4.1 and 4.2).
  - The damage the health crisis has caused to the productive system and growth potential of the economy, despite the measures deployed to avert such damage:
    - Employment: the ability of short-time work arrangements (ERTEs) to protect employment in the medium term will depend on the duration of the crisis and the specific growth conditions of the sectors and firms that employ the affected workers.
    - Business sector: the severe contraction in activity in some industries in recent months has driven up the liquidity needs of businesses and the self-employed. Despite the Government's guarantee programme making substantial headway towards addressing these requirements (Box 4.3), there is a risk of some firms facing solvency difficulties as profitability deteriorates during this crisis.
  - Developments in financial markets and their potential implications for the financing conditions of businesses and households.
- Macroeconomic scenarios for the medium term:
  - The Banco de España's latest projections envisage various scenarios, drawing on different assumptions regarding how quickly some degree of normality may be restored both from the healthcare and the economic standpoint.
  - All of the scenarios envisage a very severe contraction in Spanish GDP in 2020, followed by a substantial rebound in 2021, albeit subject to considerable uncertainty.
  - However, this recovery, which would be compatible with relatively high quarter-on-quarter growth rates in 2020 H2, would only permit a return to activity levels close to those pre-crisis towards the end of 2022.
  - The projections also point to a very significant and persistent increase in public debt, the budget deficit and the unemployment rate.

- Before the health crisis broke, the Spanish economy was facing major medium-term challenges: the need to increase growth potential, correct labour market dysfunctions, improve the sustainability of public finances and address the challenges associated with population ageing, inequality and climate change.
- The COVID-19 crisis has increased the scale of some of these challenges and posed new ones: it may ultimately have significant consequences for the ongoing globalisation and digitalisation under way in society and in the world and Spanish economy.
- The seriousness of the situation created by the pandemic has raised the need for and urgency of an appropriate response to these challenges.
- The economic policy response should include a comprehensive, ambitious and broadly agreed medium-term growth strategy, to be designed and implemented swiftly.
- National policies should be complemented by actions at the European level that include resolute advances in the institutional structure of the EU and the euro area.

Priority areas for attention in the Spanish economy

- Constraints on the Spanish economy's growth capacity
  - The depth of this crisis will probably cause some persistent damage to the Spanish economy's potential growth, which was already relatively low.
  - Low productivity growth is the main factor behind the Spanish economy's modest potential growth. Low productivity is in turn explained by, among other factors, the small size of Spanish companies and lower average levels of human and technological capital than our peer economies.
  - Further ahead, it will be necessary to delve into the various reasons why the Spanish business sector is so skewed towards small companies, and to have mechanisms at hand to promote business growth.
  - The relative disadvantage in the Spanish economy's human capital advises reconsidering the institutional design of the education system. It should include a far-reaching review of curriculum content and the very system of learning.
  - The most suitable financing arrangements to develop investments in innovation must be leveraged. It is also essential to reinforce the mechanisms supporting innovation and to improve the evaluation and selection of research-based further education.
- Labour market dysfunctions
  - For decades, the structural shortcomings in the Spanish labour market have explained why our economy has a significantly higher unemployment rate than any of our peers, even in expansionary periods.
  - Another differential aspect of the Spanish labour market is its high temporary employment ratio. This has negative structural implications in many other dimensions: it increases inequality; it adversely influences the formation and size of new households; and it has persistent effects on the careers of the workers most affected and on human-capital investment decisions.
  - Reducing the high duality in the Spanish labour market is an inescapable objective. Employment protection mechanisms should be reviewed to square the necessary protection of workers with flexibility requirements, but, above all, to achieve a fairer division of protection among workers with different contractual conditions.
  - It is imperative to strengthen active labour market policies in order to increase workers' human capital, reduce unemployment permanently and, in the current circumstances, increase the employability of the workers hardest hit by the crisis and smooth their transition to the sectors and businesses with a better growth outlook.

Priority areas for attention in the Spanish economy (cont'd)

- Restoring room for manoeuvre for fiscal policy
  - There were considerable mismatches in the general government accounts before the COVID-19 crisis. Since 2015 there has been no appreciable headway in reducing the structural budget deficit; the public debt/GDP ratio stood at 95.5% at end-2019, only 5.2 pp below its 2014 peak.
  - The fiscal measures adopted to alleviate the effects of the pandemic, the inevitable macroeconomic downturn and the operation of the automatic stabilisers will bear down most adversely on public finances.
  - While in the short term the fiscal response to this crisis should be expansionary, in the medium term far-reaching reforms must be enacted to reduce public debt and restore fiscal policy leeway ahead of future negative shocks (Box 5.1).
  - To bring general government debt back into compliance with SGP commitments, a multi-year fiscal consolidation programme encompassing all government tiers is needed.
  - On the revenue side, there is room to re-define the basket of taxes to make it more conducive to economic growth. One distinctive feature of Spanish taxation susceptible to reconsideration is the high level of tax benefits.
  - On the expenditure side, it would be advisable to increase the relative weight of those items relating to human and technological capital accumulation (Box 5.2). In tandem, it is necessary to set out a clear map of priorities, improve the efficiency of public spending under every heading and reduce resources for non-priority items in light of the Spanish economy's and society's more significant needs.
- Population ageing
  - Demographic change will have a particular bearing on Spain: it will be the EU country undergoing the biggest increase in the dependency ratio (i.e. the over-65s in proportion to the population aged 15-64) in the next 25 years.
  - Among the prominent determinants of population ageing in Spain are the increase in life expectancy and the decline in the fertility rate.
  - Population ageing has notable implications in the fiscal policy arena. Specifically, demographic pressure poses the need for additional measures to strengthen the financial sustainability of the public pension system.
  - Population ageing also poses key challenges in terms of the potential growth of the economy through its impact on the labour market and worker productivity. To avoid this downturn in the employability of workers as they age, it is vital to reinforce the role of active labour market policies and lifelong learning, and make some changes in working conditions.
- Inequality
  - At the onset of this crisis, inequality levels in the Spanish economy were clearly higher than at the end of the expansionary cycle prior to the 2008 crisis.
  - The crisis is bearing down more sharply on the most vulnerable groups, which will foreseeably entail a further increase in inequality levels.
  - The employment protection and household income support measures enacted by the government in response to this crisis will contribute to lessening the vulnerability of the households most affected by it.
  - The recently approved minimum income scheme (MI) may be useful for reducing the level of extreme poverty among groups with special structural difficulties. However, there should be close monitoring of whether this instrument may ultimately prompt unwanted effects, e.g. on the future income-generating capacity of beneficiaries or a possible switch from certain economic activities to informality.
  - Reducing the adverse effects of inequality also requires action on numerous fronts, including the labour market and housing affordability.

Priority areas for attention in the Spanish economy (cont'd)

- The transition to a more sustainable economy
  - — Climate change and the transition to a more sustainable economy are among the main challenges now facing our society. In recent years, both the EU and Spain have taken an active stance in combating climate change.
  - — Attaining the established environmental goals will call for a comprehensive and internationally coordinated strategy.
  - — Fiscal policy must be to the fore in this strategy, both to deter more environmentally damaging activities and to foster public and private investment in the development of cleaner technologies and to alleviate the social costs of the transition.
  - — The financial sector is also called on to play a key role in the transition towards a more sustainable economy. It is crucial here that the sector incorporate into its decision-making process all climate change-associated risks and identify the opportunities opening up in this transformation.
  - — Supervisors must ensure that banks correctly price the risks associated with climate change and incorporate them into the management of their portfolios.

New economic realities after COVID-19 (Figure 5.1)

- The COVID-19 crisis has highlighted some of the vulnerabilities associated with globalisation. The pandemic has prompted major disruptions in global supply chains, and in many countries major shortcomings have been observed in meeting minimal levels of domestic demand for specific essential consumer goods.
- In light of these vulnerabilities, some countries and agents may develop strategies that contribute to slowing even further the process of globalisation in the world economy, in line with what has been observed in recent years as a result of the re-emergence of protectionist trends in some of the major world economies.
- To contend with these dynamics, Spain, which has made very considerable efforts to internationalise its economy in recent years, must play a leading role in the defence of a global trade model, based on multilateral rules and free competition.
- The pandemic might also significantly alter the process of digitalisation in which economies and societies worldwide have been immersed in recent years. During the lockdown the resort to teleworking, e-commerce and education through online channels has stepped up appreciably. Some of these trends might prove to be permanent and even accelerate in the medium term.
- There is potential for teleworking becoming more widespread in Spain, but this option would not necessarily be equally accessible to all groups of workers (Box 5.3). The promotion of teleworking must, however, involve bolstering its positive aspects and seeking to alleviate its potential disadvantages.
- Foreseeably, e-commerce will continue to gain in importance in the coming years, with very significant and multi-faceted consequences, e.g. in business competition and in pricing dynamics. It is necessary to prevent the eminently global and growing digitalisation of commercial transactions from putting the Spanish economy at a competitive disadvantage.

Challenges for the financial sector

- Spanish banks continued to improve the quality of their balance sheets and solvency levels in 2019, but profitability fell significantly.
- The severe adverse impact of the COVID-19 crisis on economic activity is expected, with something of a lag, to worsen the quality of financial institutions' credit portfolios (Box 5.4).
- As losses materialise on credit portfolios, additional downward pressure will be exerted on the banking sector's profitability. Improving the sector's profitability will therefore require efforts to cut operating costs, which may be achieved through efficiency gains.
- Supervisory authorities must remain vigilant to head off the risks to financial stability stemming from this crisis and be ready to provide a forceful, pan-European response should they materialise.
- Since the onset of the pandemic, there have been no signs of a general tightening of funding conditions for businesses. Support here has come from certain measures adopted as a result of the crisis, such as the Government's State guarantee scheme and the strengthening of the ECB's asset purchase and bank funding programmes.
- The health crisis has brought into sharper relief the urgent need to address the challenges associated with digitalisation, cybersecurity risk management, the low interest rate environment, climate change and population ageing.

Europe's role: challenges and responses

- Many of the challenges facing the Spanish economy cannot be addressed from an exclusively domestic perspective. Where Spain is concerned, Europe is on many fronts the natural platform for taking strategic action.
- In the short term, the nature of the current crisis warrants swift and unequivocal action by the EU to ensure economic recovery, preserve the Single Market and reaffirm the European project of social and economic progress. Many EU-approved measures are along these lines (SURE, ESM credit line and business loan support through the EIB) (Figure 5.2).
- A common, investment-focused fiscal drive, such as that proposed by the European Commission in its recovery fund initiative, would help provide for a buoyant recovery and increase the EU's potential growth capacity (Box 5.2).
- Nevertheless, further progress in the European project, beyond the measures adopted or proposals made in the context of this crisis, is required. Further deepening of the EU irrevocably entails setting greater store by the supranational risk-sharing mechanisms, including expanding the EU budget and making it more flexible.
- All EU countries would reap the benefits of a common safe asset operating on a large enough scale: it would reduce the sovereign-bank nexus and enhance financial integration within the EU.
- All Member States would benefit were the European Union to have greater weight in fiscal policy. However, this would also require increased fiscal responsibility at the domestic level.
- In the financial realm, strengthening European governance by completing the Banking Union, through the creation of a European Deposit Insurance Scheme, and removing the impediments to the existence of a fully fledged Capital Markets Union in the EU is essential.

1

OVERVIEW

Global economic dynamics have been sharply affected by the pandemic and very significant declines in activity are expected in 2020. Following several quarters in which activity had been weighed down, among other factors, by the US-China trade dispute and uncertainty over Brexit, the pick-up in global growth discernible in late 2019 was abruptly curtailed by the emergence of the disease and by the social distancing measures to contain it. As a result, the rate of increase of world GDP in 2020 has been revised substantially downwards in recent months. At the start of the year, global growth of over 3% was expected this year. But now the latest forecasts point to a contraction of close to 5%, sharper than that recorded during the global financial crisis.

The COVID-19 pandemic has caused practically unprecedented disruption to society and global economic activity in recent months. The high rates of contagion and mortality associated with this disease, and the lack of a vaccine or effective treatment, have stretched health systems in most of the countries affected by the pandemic to the limit and have given rise to an extraordinary high cost in human lives. To contain the rate at which the disease is spreading has necessitated the adoption of stringent restrictions on people's movement and on economic activity in a large number of productive sectors, with the subsequent adverse impact on household and corporate income and on jobs.

Insofar as this health shock is eminently temporary, economic activity might pick up relatively dynamically in the coming quarters, partly underpinned by the economic policy measures taken in recent months. Although there are still regions and countries where the incidence of the disease is high, the headway made in recent weeks in the lockdown-easing plans adopted by a growing number of countries has entailed a gradual pick-up in activity. If they hold, these dynamics would suggest that the most adverse effects of the pandemic on the global economy might be concentrated in Q2 this year. Activity could therefore pick up quite robustly in the second half of the year and continue expanding throughout 2021. However, at present it is not expected to resume pre-crisis levels of activity before 2022. The recovery would be supported by the recent economic policy measures rolled out relatively quickly and forcefully in numerous areas. Thus, in most of the countries affected, governments have implemented a wide range of measures aimed essentially at shoring up their health systems, protecting employment and household income, especially in the case of the most vulnerable, and providing liquidity to firms. Meantime, many central banks have cut their benchmark interest rates to record lows and, frequently, they have launched or bolstered non-conventional instruments that will expand their balance sheets most significantly. The overriding aim is to

alleviate the tensions witnessed on financial markets in the early stages of the global spread of the disease and to ensure the appropriate functioning of monetary policy transmission so that credit may flow smoothly to the real economy. Along these same lines, the prudential authorities have allowed banks' regulatory requirements to be eased so that they may not have to reduce their balance sheets during the crisis and in order to promote buoyant credit flows to the private sector.

In any event, much uncertainty persists over how the pandemic health situation is evolving and the lasting damage it may already have caused to the productive system and growth capacity in the medium term. Until a vaccine or effective treatment is widely available, which will foreseeably not happen before late 2020, it cannot be ruled out that fresh outbreaks may call for some of the now-relaxed social distancing measures to be reintroduced. That will upset economic activity once again. Such disruption will be all the more limited the greater the capacity of the different national health systems to perform serological tests on the population to identify and isolate the infected, and to monitor those people who have already been in contact with those who have tested positive. In light of the experience of those countries that have pursued this type of disease-control strategy, that would help control fresh outbreaks without the need to deploy once more the most stringent and disruptive lockdown measures. Further, the economic policy measures approved to date in the fiscal, monetary and financial realms have been on a most extensive scale; however, the absence of comparable past references makes it especially complex at present to calibrate their effectiveness in preventing persistent damage to the growth capacity of economies, owing to the disappearance of solvent firms or to the permanent rupture of stable labour relations.

Worldwide, these challenges are being addressed from a relatively fragile starting position of the global economy and, in some cases, with less fiscal and monetary headroom than in the past. In recent years, the potential growth rate of the world economy has held on a clearly declining path. Notwithstanding, the main causes behind this secular weakness of the economy have generally not been tackled ambitiously enough. They include most notably, for instance, the consequences of population ageing, low investment rates and lacklustre productivity. Against this background, global economic growth in recent years, which has been relatively modest in historical terms, has been sustained essentially by extraordinarily expansionary demand-side policies. In some countries this has entailed less leeway with which to face the current crisis. This is so both in terms of fiscal policy, given the high levels of public debt, and of monetary policy, especially regarding the meagre space to make substantial new cuts to what were record-low interest rates before the pandemic.

The crisis is highlighting the current weakness of governance arrangements and of global economic relations. While a large number of multilateral measures have been taken, aimed especially at the poorest countries, this crisis has underscored

the current fragility of governance arrangements and of global economic relations. Compared with the 2008 global financial crisis, in this pandemic there has been a notable lack of high-level political leadership in the international coordination of the health response. And at present, moreover, uncertainty persists over the extent to which the weakened spirit of international cooperation may prove significant in the recovery of the global economy.

In Europe, various and multi-faceted measures have been taken to tackle the economic effects of the pandemic, and the ECB has significantly increased the volume of its monetary stimulus. So far, however, the weight of the fiscal response to the crisis has fallen essentially on the measures independently implemented by the different Member States. Although the different national packages of measures show similar objectives and content, their volume and scope differ significantly from country to country. At the same time, at the European level several instruments have been launched to complement the measures adopted by national governments, and some notable headway has been made, especially with the European Commission's proposed and still-to-be-approved Recovery Fund (Next Generation EU). But there remains a significant gap between the sizeable financing requirements Member States will need in their budgetary drive to combat the effects of the pandemic and the volume of European funds mobilised.

In the realm of banking supervision, where the degree of international coordination has generally been greater than in other economic policy areas, numerous macroprudential, microprudential and accounting measures have been deployed. In particular, the Basel Committee on Banking Supervision and the ECB have boosted the use of the capital and liquidity buffers available to credit institutions, and the national authorities have released some of the macroprudential capital buffers available, namely the countercyclical and systemic risk buffers. At the microprudential level, the ECB, the European Banking Authority (EBA) and other supervisory authorities have promoted operational, prudential and regulatory measures of flexibility to support the proper functioning of the banking system and to smooth the flow of credit to the private sector. Specific measures have been adopted to prevent an excessively procyclical behaviour of provisions from prompting a disproportionate contractionary effect on the supply of bank lending. The EBA has also recommended that banks suspend dividend payments and exercise prudence in the payment of employee bonuses, in order to shore up their solvency.

The impact of this health crisis on the Spanish economy will be very severe. The growth path of the last six years was abruptly altered in March, in a setting in which the spread of the health crisis necessitated extraordinary lockdown measures, affecting people and productive activity alike. Although these restrictions mainly affected the second half of March, their intensity was such that Spanish GDP underwent in Q1 the biggest quarter-on-quarter contraction in its history, to date,

with a decline of 5.2% (on preliminary National Accounts data). Insofar as the restrictions on activity and movement have been in force for much of Q2, the expected fall in GDP for this period is appreciably sharper.[1]

Economic activity has been picking up gradually in recent weeks, but that will not prevent a very marked decline in GDP in 2020 as a whole. In recent weeks, the headway in the lockdown-easing process provided for by the Government has allowed some recovery in activity and employment, which is expected to continue and accelerate in the coming quarters.[2] That said, the scale of decline in activity recorded in the first half of the year will entail a very sharp contraction in GDP over 2020 as a whole.

Despite the notable rebound in activity projected for 2021 and 2022, the crisis will have a persistent effect on employment and public finances. Both the latest Banco de España projections, and those of most analysts, point to a significant recovery in activity in the coming two years. However, the envisaged recovery in GDP will only allow activity levels to return close to those pre-crisis towards late 2022. These projections also auger a most notable and persistent increase in debt and the budget deficit, and in the unemployment rate. Specifically, this rate is estimated to increase sharply this year and will remain for several years at levels clearly above those posted before the pandemic. The general government deficit and debt will also rise most significantly over the current year and will only improve slightly at the end of the projection horizon when, even under the most favourable scenarios, public debt will exceed 110% of GDP.

The Spanish economy has faced this crisis after a long period of growth, which enabled some of its main imbalances to be corrected. Until the COVID-19 crisis broke, the Spanish economy had been in an uninterrupted growth phase dating back to late 2013. During those years, the growth pattern was more balanced than in other, previous expansions, which enabled some of the macrofinancial imbalances built up during the financial crisis and the expansionary phase that preceded it to be reduced. In recent years in particular, the economy ran successive surpluses on current account, households and firms deleveraged forcefully, and the construction sector and financial system undertook far-reaching restructuring that led to notable downsizing but also reduced their fragility.

However, a series of factors have contributed to the impact of this crisis being greater in Spain than in our European peers. First, the lockdown has been more prolonged and intense in Spain than in the euro area on average. Moreover, compared with other euro area economies, the Spanish economy's sectoral structure evidences a greater relative weight of sectors, such as tourism, that have overall been more

1 See Quarterly report on the Spanish economy 2/2020, June 2020.

2 See Macroeconomic projections for the Spanish economy 2020-2022.

affected by the social distancing measures that have had to be implemented. To the extent that temporary workers and SMEs are, generally, relatively more vulnerable to adverse macrofinancial shocks than employees with permanent contracts or larger companies, the high percentage of temporary employment in Spain and the substantial weight of SMEs in the national productive system are also expected to have influenced the greater negative impact of this crisis on the Spanish economy.

Looking ahead, the Spanish economy faces extraordinarily deep-seated challenges. Some of these were already present before the health crisis, while others have arisen as a result of it. Before the outbreak of the COVID-19 crisis, the Spanish economy was already facing major medium-term challenges. These included the need to increase growth potential, to redress labour market dysfunctions, to moderate public debt and to address the challenges associated with population ageing, inequality and environmental sustainability. The crisis has inflated these challenges and posed some new ones. In particular, it has revealed some of the vulnerabilities associated with the ongoing international fragmentation of production witnessed in recent decades with the intense development of global value chains. In light of these vulnerabilities, it is not to be ruled out that some economies or agents will pursue future strategies that may involve a sharper slowdown or even reversal of globalisation than that seen in recent years. At the same time, the lockdown measures to tackle the pandemic have strongly boosted activities such as teleworking, e-commerce and online classes. If these dynamics take root, it might mean a most significant acceleration in the ongoing digitalisation of society and the economy, globally and in Spain. This would involve new challenges, but also new opportunities that would be worth exploring.

The seriousness of the situation created by the pandemic has raised the need for and urgency of an appropriate response to these challenges. The extraordinarily complex circumstances facing the Spanish economy in the coming quarters, and the scale of the challenges ahead in the medium term, pose a considerable threat to present and future growth capacity and, therefore, to employment and well-being. Accordingly, an ambitious economic policy response is required.[3] In some cases, this response should take the form of new measures in the short term. In others, these measures should be applied once the current recessionary bout and its more adverse economic effects is behind us, although they should be designed and communicated without delay. This is the case, for example, with fiscal policy. Here, there is no place for a premature withdrawal of the stimulus measures deployed, since that would increase the risk of more lasting harm to economic growth; however, at the same time, it would be advisable to move towards the design and announcement of a sufficiently detailed medium-term fiscal consolidation plan to be implemented once the crisis has been overcome.

3 See the Governor's appearance before the Parliamentary Committee for the Social and Economic Reconstruction of Spain (Congress of Deputies), 23 June 2020.

The economic policy response should take the form of a comprehensive, ambitious and broadly agreed medium-term growth strategy. The challenges conditioning the Spanish economy's growth outlook and our society's well-being are closely interrelated. In this connection, a well-planned strategy is needed, in which the impact each economic policy decision may have on multiple facets is assessed, and balances are struck between different objectives that are not always simultaneously compatible. Further, the importance of the challenges that will mark the future of the Spanish economy in the coming decades requires an ambitious response in the form of an extensive package of deep-seated reforms. Lastly, the economic policy measures pursued to tackle the Spanish economy's challenges should be the outcome of a high degree of consensus on the part of the different political, economic and social agents. That would mean the underpinnings of our growth are stable and not subject to the vagaries of the political cycle.

On the financial front, Spanish and, generally, European credit institutions will be up against a more demanding environment in the coming years. Spanish credit institutions have improved the quality of their balance sheets and increased their solvency ratios significantly in recent years. Consequently, their starting position coming into this crisis, which did not originate in the financial field, is relatively sound. However, the scale of the adverse shock to households and firms in recent months is likely to impair, with something of a lag, the quality of financial institutions' credit portfolios. This deterioration will bear down on the sector's profitability ratios, which were already low previously. In a setting in which interest rates will probably hold at very low rates for a longer period than estimated just some months back, improving the sector's profitability will require efforts to cut costs and increase efficiency. In addition to this challenge, amplified by the current circumstances, Spanish banks will also have to address eminently global challenges, already in place before the pandemic struck. They include those associated with digital disruption, climate change and population ageing. Given the significant role the banking sector plays in the Spanish economy, how successfully they resolve these challenges will notably influence the intensity and sustainability of Spain's economic growth in the coming years.

Lastly, national policy should be complemented by actions at the European level that include resolute advances in the still inconclusive institutional structure of the EU and the euro area. This crisis has shown that, to the extent that the European economies' future challenges are essentially shared, successfully resolving them will necessarily involve a greater weight of supranational policies and institutions. In the fiscal realm this calls, among other measures, for an increase in and greater flexibility of the EU budget. Also, the launch of new, genuinely pan-European and permanent instruments will be needed, allowing for a greater pooling of risks among the Member States. Financially speaking, a full Banking Union in the euro area must be achieved. Its cornerstone, still pending approval, is a European Deposit Guarantee Scheme. Headway must also be made in reviewing those institutional and regulatory aspects hampering the development of an authentic Capital Markets Union in the region.

2

THE GLOBAL DEVELOPMENT OF THE COVID-19 CRISIS

2.1 The spread of the virus

The SARS-CoV-2 (COVID-19) virus began in China, with the first cases detected in late 2019, expanding subsequently worldwide and turning into a pandemic. The disease is believed to have emerged in Wuhan, the capital of the Chinese province of Hubei, in early December. The World Health Organization (WHO) was notified on 31 December. In early January, the number of infections began to grow rapidly, and a lockdown was imposed in Wuhan on 23 January. The spread of the virus outside this first location was swift, and by late January cases had been detected in all Chinese provinces. The international spread of the disease allegedly took place via international flows of tourist and business travellers. The first cases of mass contagion outside China were in Italy and South Korea, and in early March 2020 the virus spread forcefully through Europe. The WHO, after having classed the virus as an international health emergency on 30 January, declared it a pandemic on 11 March.

The number of infections and deaths has grown worldwide in recent months. Despite the efforts to combat the disease, the COVID-19 pandemic poses an unprecedented public health challenge given the large number of infections and lives lost. By late June, more than nine million people worldwide had been infected and the global death count exceeded 470,000 (see Chart 2.1). Among the advanced economies, the United States had the highest number of infections and deaths, followed by the United Kingdom, Italy, France and Spain. Among the emerging regions, several Latin American countries stand out (especially Brazil). The pandemic reached this region with some delay, but it has become the epicentre, recording the highest percentage of infections worldwide in recent weeks. However, these figures mask differences in terms of cross-country data reliability, meaning that their comparability is limited.[1] In particular, it is very uncertain why some countries have been more affected than others, although there are factors that might explain these divergences. These include the age structure and population density,[2] the idiosyncrasy of health systems and their capacity to accommodate the number of hospitalised COVID-19 patients, and the degree of compliance with general diagnosis, distancing and hygiene instructions,[3] among others.

1 See, for example, the study by Oke and Heneghan (2020).

2 Population Europe, a network of demographic research centres, has a vast list of articles in this connection.

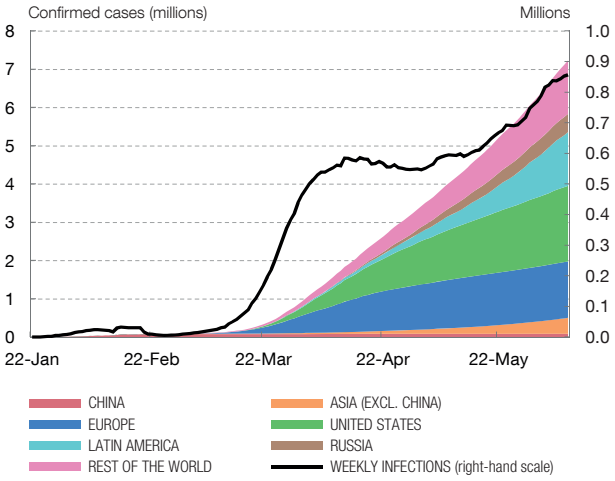
3 The Risk Assessment by the European Centre for Disease Prevention and Control (ECDC) discusses these factors for the European countries.

Chart 2.1

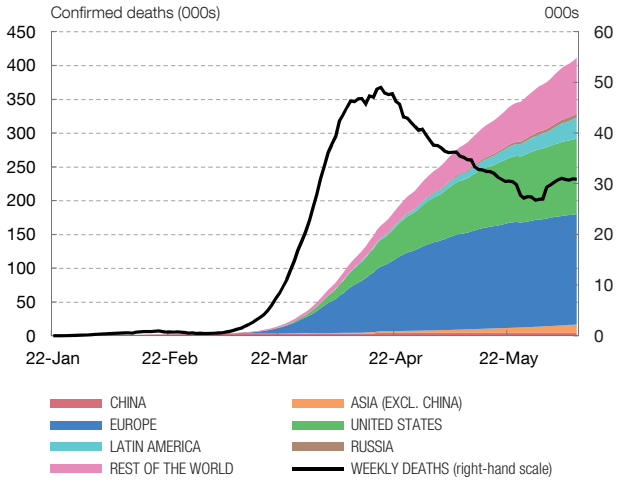
THE COVID-19 PANDEMIC HAS SPREAD WORLDWIDE

The COVID-19 epidemic that began in the Chinese city of Wuhan in late 2019 has become a global pandemic, requiring the introduction of containment measures worldwide.

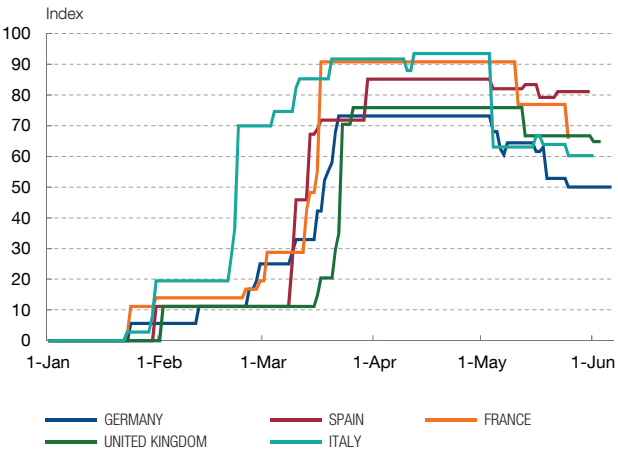
1 TOTAL INFECTIONS AND NEW CASES WEEKLY



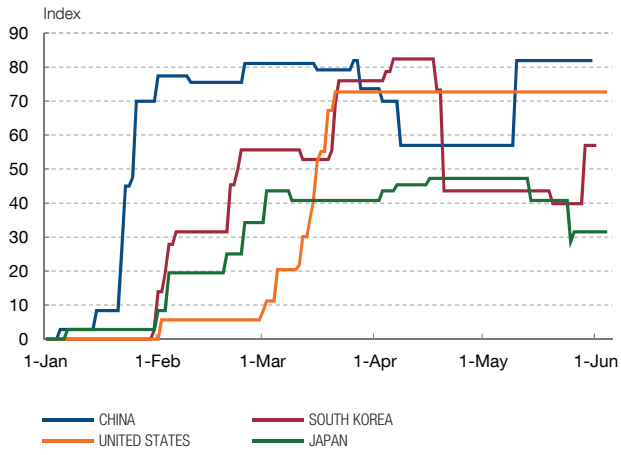
2 TOTAL AND WEEKLY DEATHS



3 GOVERNMENT RESPONSE STRINGENCY INDEX: EUROPE



4 GOVERNMENT RESPONSE STRINGENCY INDEX: REST OF THE WORLD



DOWNLOAD

SOURCES: Johns Hopkins University - Coronavirus Resource Center and Oxford COVID-19 Government Response Tracker.

In response to the rapid spread of the epidemic, the Chinese authorities adopted stringent social distancing measures. These included the mass confinement at home of the population of Wuhan and other cities in the province of Hubei in late January, affecting around 57 million people. Subsequently, these restrictions were extended in differing degrees to other cities and provinces. Mass-attendance events and educational activity were cancelled, and tourist attractions shut down. Further, the authorities decreed that the holiday period for the Chinese New Year festivities be extended. As regards industrial activity, factories in the contagion hotspots were obliged to suspend or significantly restrict production.

Moreover, individual prevention measures, such as disinfection, the use of masks and social distancing, were set in place.

With much unevenness, other countries subsequently adopted containment measures, although confinement at home and large-scale restrictions on movements were prevalent. In step with the swift growth of numbers infected in other geographical areas, other countries have fully or partly replicated the measures adopted in China (see Chart 2.1).[4] In many European and Latin American countries, and in India, the authorities opted for strict confinement, with their citizens unable to leave their homes except to meet basic supply needs, and all non-essential economic activity was shut down. In contrast, other regions adopted an approach focusing on early detection of the disease. In South Korea, for instance, people likely to have been infected were identified following large-scale testing and were forced to go into two weeks' quarantine. The bulk of the population, however, was able to continue with their everyday activity without widespread restrictions on movement or closure of retail outlets. In any event, despite the differences from one country to another, there have in turn been common strands, such as reducing social contact, promoting teleworking and urging individual hygiene and protection measures.

In those countries and regions in which the intensity of the pandemic has progressively subsided, the authorities have begun to set plans in motion to normalise the social and economic situation. At the cut-off date for this Report, the lockdown measures have been gradually eased in a large number of developed countries, albeit following different strategies. Generally, these strategies are providing for a gradual recovery in economic activity, while maintaining social distancing measures, in particular those relating to restricting agglomerations. The Asian countries, the first to be affected, have also been the first to begin to ease the lockdown measures. In China, all industrial activity resumed in mid-March, and restrictions in the province of Hubei began to be lifted on 24 March. However, temperature controls remain in place on public transport, in the workplace and in primary schools, as do the habits adopted during the lockdown, such as teleworking, the use of masks and social distancing. Universities remain closed and classes are being taught online, while leisure activities entailing large gatherings continue to be restricted. In South Korea, where such drastic measures were not imposed during the spread of the disease, people likely to be infected are expected to go into "voluntary quarantine" for two weeks, controlled by mobile devices. In Latin America, even though infections continue to rise and the height of the pandemic has not yet been reached, some countries have begun to relax the lockdown. This is partly because of the high economic and social cost of keeping the economy shut down,

4 The lockdown stringency indices shown in the charts take values between zero (no measures) and 100 (most extreme measures). They are constructed as a simple average of nine sub-indices: public information campaigns, closure of educational centres and workplaces, cancellation of public events, restrictions on the size of meetings or gatherings, public transport closures, stay-at-home requirements, and restrictions on internal and international movements. For further information, see Hale et al. (2020).

the sizeable informal labour market and the limited fiscal space available to pursue expansionary policies.

The disease continues to advance in some areas and its spread, especially in less developed countries, and possible fresh outbreaks in places where the first wave of infections had already subsided are cause for concern. The WHO warned in late June that the pandemic was accelerating and the number of infections rising, especially in the Americas. And there is a risk that the pandemic will intensify in regions, such as Africa, whose health systems are less prepared to deal with it. Despite progress in research to find effective treatment and a vaccine for the virus, these are complex processes for which a clear time horizon is not yet discernible. Further, the experience of past pandemics suggests that the possibility of fresh outbreaks in regions where the disease was under control after containment measures were lifted, as has occurred in recent weeks in specific areas of China, South Korea and Germany, cannot be ruled out.[5]

2.2 The initial economic impact worldwide

Global GDP grew by 2.9% in 2019, the lowest rate since the global financial crisis and 0.7 pp down on 2018. The slowdown was across the board, largely due to trade tensions and increased uncertainty, which particularly affected trade, investment and manufacturing. The services sector and private consumption, meantime, remained more buoyant, thanks to the sound performance of employment and to the support of expansionary demand-side policies. Global economic growth has been underpinned in recent years by extraordinarily expansionary demand-side policies, against a background in which the global potential growth rate held on a declining path. Nonetheless, signs of the world economy stabilising were perceptible in late 2019, partly owing to favourable trade news following an initial US-China trade agreement.

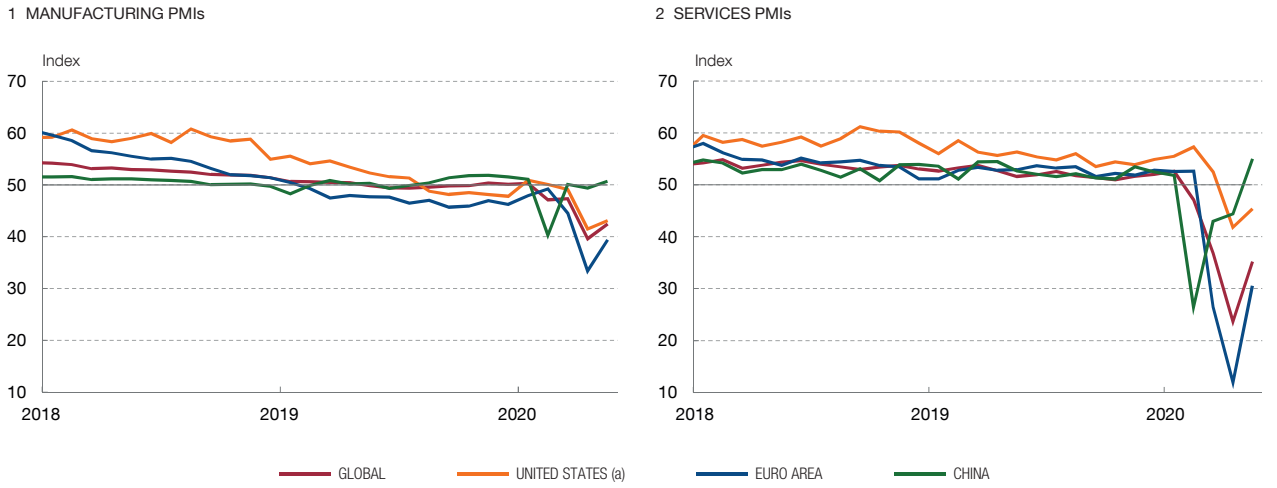
The expansion of the pandemic and the necessary containment measures have abruptly altered global economic developments. The need to check the spread of the disease and prevent health systems from collapsing led most of the countries affected by the pandemic to impose severe restrictions on people's movement and on economic activity. The evidence available shows a most pronounced decline in activity and employment, practically across all geographical areas, and one that is particularly acute in the services sector (see Chart 2.2) and in those countries that introduced more stringent containment measures. In China, the first economy affected, GDP in Q1 posted a fall of 9.8% quarter-on-quarter (6.8% year-on-year, compared with growth of 6% the previous quarter). Industrial

5 Two notable examples are the 1918 flu pandemic and, more recently, the H1N1 virus in 2009. See, respectively, Jordan (2019) and Nelson et al. (2010).

Chart 2.2

THE EFFECTS OF THE PANDEMIC BEAR DOWN ESPECIALLY ON SERVICES

Over the course of 2019, manufactures were more affected by the trade tensions, while services were more robust. Conversely, the pandemic has had a very marked impact on activity, one more pronounced in the services sector, especially in countries that have adopted more stringent lockdown measures.



SOURCE: IHS Markit.
NOTE: values below 50 denote a contraction.

a For the United States the ISM (published by the Institute for Supply Management) is shown. This is the most widely used purchasing managers' index in that country.

DOWNLOAD

production, retail sales and investment declined by 15%-25% in January and February, although these indicators began to pick up in March, April and May. In the other pandemic-affected economies, and as was previously the case in China, the impact of COVID-19 and of the measures adopted has resulted in a very marked downturn in activity. This is already partly discernible in the Q1 GDP data and, especially, in the Q2 indicators, as for example in the April PMIs which posted the sharpest fall in their history, in particular in the services sector. As lockdown measures have progressively been eased, these indicators have risen in May, without yet regaining their early-2020 levels. In terms of demand components, there has been a particularly sharp fall-off in consumption and tourism indicators and, in the productive sectors, in passenger transport, leisure activities and other related services, all of which combined account for a high share of activity. Job destruction has been especially marked in the United States, whose unemployment rate rose by 10.3 pp between March and April, up to 14.7%, the highest level since 1940. This rate did, however, edge down to 13.3% in May, coinciding with the easing of the lockdown. In the other large advanced economies, with declines in activity comparable to those in the United States, there have been sizeable increases in unemployment. These have, however, been less marked than in the United States, reflecting the institutional differences in labour markets and the widespread use of short-term employment protection schemes in Europe. Turning to inflation, in the advanced economies, despite supply-side problems potentially raising certain

prices, so far the disinflationary effects of the collapse in demand continue to prevail. In combination with the fall in oil prices, this has prompted a decline in overall inflation rates.

The scale of the economic disruption is still uncertain, given that there are different channels in play whose intensity and duration are as yet unknown. First, the forced shutdown of production has a negative impact on supply. This effect is amplified by the high degree of integration of the manufacturing sector worldwide and by the decline in trade. Second, the lockdown measures, the fall in household and business income, and the heightened uncertainty have all had a very severe impact on the various demand components. Third, a global financial shock is occurring, also largely associated with the rise in uncertainty, that has led to a tightening of global financial conditions, only partially mitigated by the economic policy response. Lastly, the drop in commodity prices as a result of falling demand, and in the case of oil prices of the difficulty agreeing on supply cuts, has a particularly damaging impact on commodity-producing countries, and gives rise to tensions in some of the capital market segments that are most exposed to these extractive industries.

Despite the efforts of the economic authorities to contain the crisis, there are risks of a feedback loop between the above-mentioned factors that may depress economic activity more permanently. Although the effects of the pandemic on public health are, in principle, essentially temporary,[6] the situation created may entail more persistent economic damage in some sectors and changes in agents' behaviour. This may ultimately affect potential growth, especially if there are further outbreaks of the disease and the measures adopted in response are as drastic as those adopted in past months, and if the crisis ultimately triggers severe disruption in the financial sector. The uncertainty surrounding the economic outlook, falling consumer spending and investment and growing public and private indebtedness could result in a lower rate of activity in the future and greater destruction of businesses and jobs. This in turn could drive up defaults and prompt further tightening of financial conditions, which would have a negative impact on spending and income, in effect creating a vicious circle.[7]

In the financial arena, conditions in the international capital markets deteriorated sharply towards the end of February when the health crisis became a global crisis, reversing the trend of previous months. The main stock indices recorded losses not seen since the global financial crisis, corporate risk premia rose sharply (especially in the high-yield segment) and price volatility

6 There are studies that show long-term effects on mental and physical health; see Deaton and Paxson (1998), Wu et al. (2008) or Wu et al. (2009).

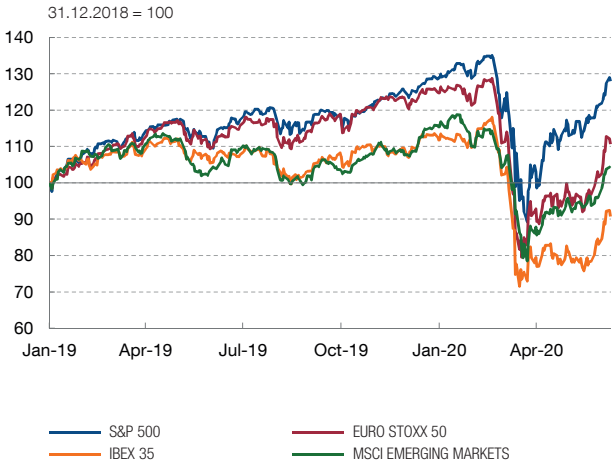
7 Mian et al. (2020) maintain, in the context of COVID-19, that higher debt may lead to lower interest rates and lower levels of activity as a result of over-indebtedness.

Chart 2.3

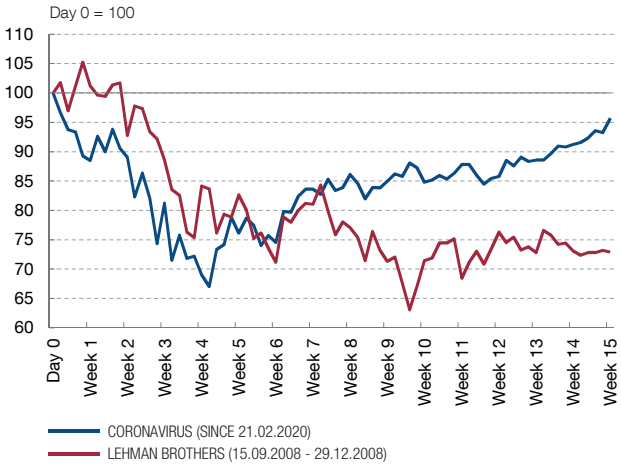
THE PANDEMIC HAS HAD A HARSH IMPACT ON INTERNATIONAL FINANCIAL MARKETS

Sharp falls in stock market indices not seen since the 2008 financial crisis, an abrupt increase in corporate credit risk premia and rising volatility, which reached all-time highs in equities. The measures taken by central banks and governments, and the favourable course of the health crisis, have helped reverse much of the initial impact.

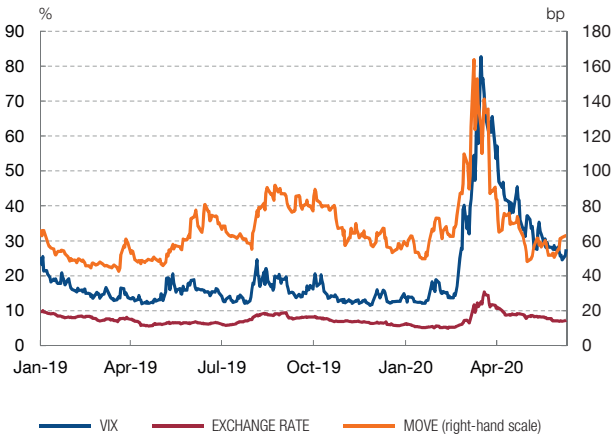
1 STOCK MARKET INDICES



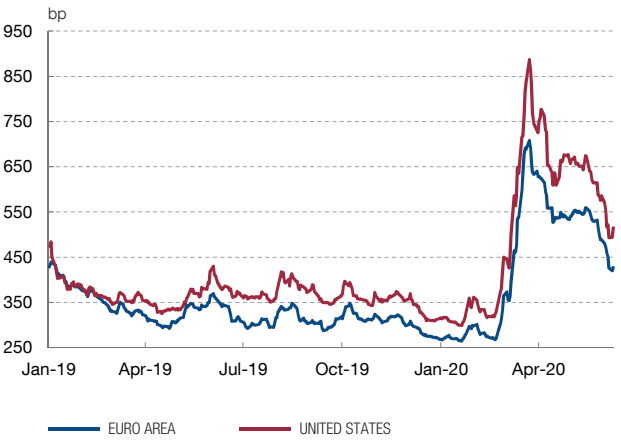
2 S&P 500. PERFORMANCE IN PERIODS OF STOCK MARKET INSTABILITY



3 IMPLIED VOLATILITIES (a)



4 HIGH-YIELD BOND SPREADS OVER SWAP CURVE (b)



SOURCE: Thomson Reuters Datastream.

a VIX: Implied volatility index based on S&P 500 options. Exchange rate: average implied volatility on dollar/euro, dollar/sterling and yen/dollar options. MOVE: Implied volatility index based on US Treasury bond options.
b ICE Bank of America Merrill Lynch High-Yield Index.

DOWNLOAD

soared, reaching record highs in the case of equities (see Chart 2.3). Thus, for example, the S&P 500, the EURO STOXX 50 and Spain's IBEX 35 accumulated losses of 34%, 33% and 39%, respectively, in the second half of March compared with the highs recorded in February.

The fall in the price of risk assets, which was initially more abrupt than in the global financial crisis, began to reverse towards the end of March. The measures

taken by the economic authorities, and the subsequent improvement in the health situation, steadied the financial markets. This was reflected in strong growth in stock market indices, lower credit risk premia and lower price volatility in the most recent period. Compared with the global financial crisis that began in 2008, in the current episode asset prices have fallen much faster, but the losses recorded to date are smaller than those observed in the period 2008-09[8] (see Chart 2.3). Yet, given the persistent high uncertainty as to the duration and depth of the shock, further market tensions could arise, especially if the economic outlook were to be weaker than expected or if there were to be further outbreaks of the disease.

The decline in stock market indices has affected all sectors, but especially banking, insurance and tourism. In the case of the banking sector, which has been that most affected, despite the non-financial origin of the crisis, at the cut-off date for this Report the S&P 500 and EURO STOXX Banks indices are down by slightly more than 20% and 30%, respectively, since the spread of the virus became global at the end of February.

Sovereign debt and foreign exchange markets have also felt the brunt of the crisis. Highest credit quality long-term bond yields have fallen, as investors have sought out safe assets and more accommodative monetary policies have come to be expected[9] (see Chart 2.4). Both German and US 10-year sovereign bond yields posted all-time lows at the beginning of March (-0.84% and 0.49%, respectively). In the euro area markets, spreads over the German benchmark widened with the outbreak of the health crisis, but they narrowed again after the ECB announced a new asset purchase programme (PEPP) on 18 March (see Chart 2.4). In the foreign exchange markets, the dollar depreciated from the end of February to mid-March, possibly reflecting moves by some investors, against a backdrop of heightened risk aversion, to dispose of their investments in dollars financed with currencies from areas with lower interest rates, such as the euro area or Japan. Subsequently the US dollar appreciated, as demand rose for this global reserve currency, although the climb was short-lived (see Chart 2.4).[10]

As a result of growing risk aversion in the capital markets, financial conditions have tightened. The movements in financial asset prices described above have prompted a sharp tightening of financial conditions in the main economic areas. This development, which has reversed in part but was very intense in some segments of the US financial sector (see Chart 2.4), will foreseeably have an adverse impact on

---

8 Thus, for example, during the global financial crisis, the S&P 500 index fell by 56% over 17 months. In the case of the COVID-19 crisis, this same index fell by 34% from the high recorded on 19 February to the March low.

9 During a brief period, sovereign bond yields of countries such as the United States and Germany also rose, influenced by government announcements of tax stimulus packages and by higher demand for liquid assets, while the price of safe haven assets such as gold fell.

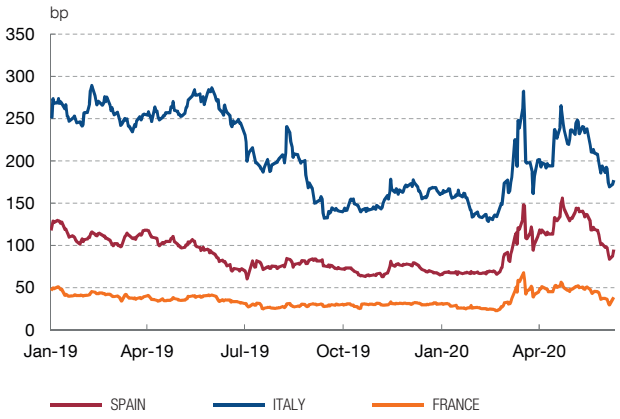
10 The high demand for dollar financing was reflected in the surge in the cost of the dollar, which triggered co-ordinated action by the main central banks to increase dollar liquidity in the international markets.

Chart 2.4

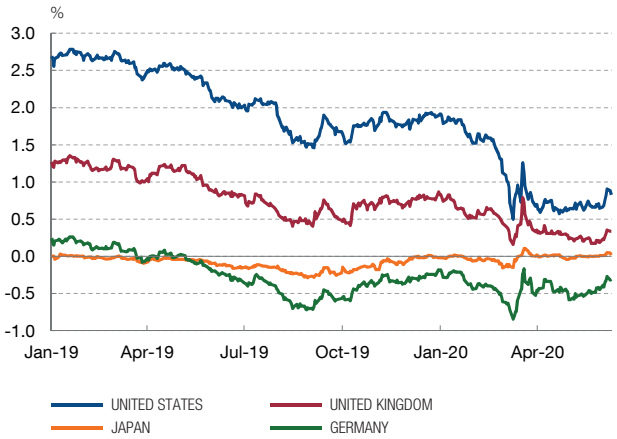
TIGHTENING FINANCIAL CONDITIONS, GROWING SOVEREIGN BOND RISK PREMIA AND MAJOR EXCHANGE RATE FLUCTUATIONS

Falls in highest credit quality sovereign bond yields and increases in sovereign bond risk premia in the euro area, which partially reversed following the measures taken by the ECB. The dollar has moved in different directions, initially influenced by the close of carry-trade positions, and later by risk aversion. Severe tightening of financial conditions which has partially reversed.

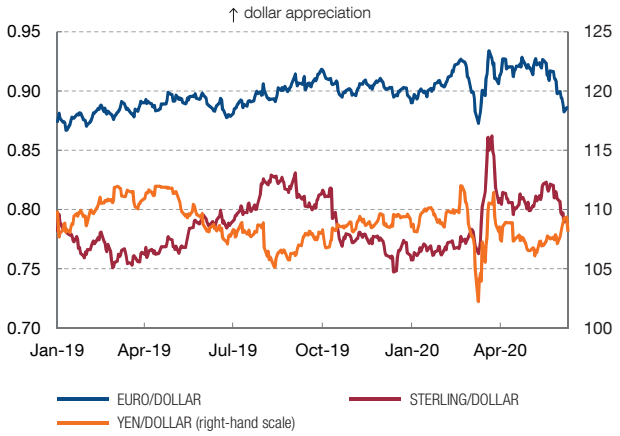
1 TEN-YEAR GOVERNMENT BOND YIELD, SPREADS AGAINST GERMANY



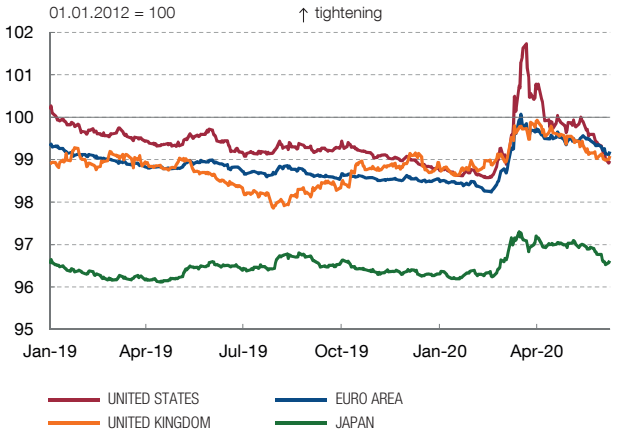
2 TEN-YEAR GOVERNMENT BOND YIELDS



3 EXCHANGE RATES



4 GOLDMAN SACHS FINANCIAL CONDITIONS INDICES



DOWNLOAD

SOURCES: Thomson Reuters Datastream and Bloomberg Data License.

the different sectors' spending decisions, on account of the increase in the cost of funding and the consequent negative wealth effects.

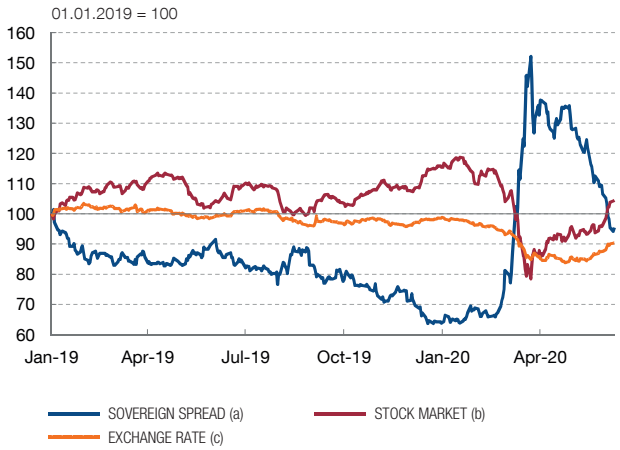
The spread of the pandemic is also affecting economic and financial developments in emerging market economies. From the economic standpoint, in addition to the general channels of loss of domestic demand (owing to the direct impact of the lockdown measures) and external demand (including tourism), these countries have been particularly hard hit by the fall in migrant remittances, the tightening of financial conditions and, for commodity-producing countries, the drop in commodity prices. The collapse in global demand for oil is the key factor behind the

Chart 2.5

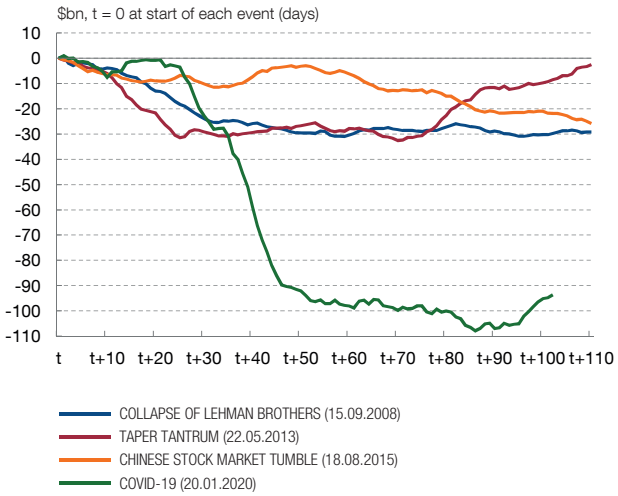
EMERGING ECONOMY FINANCIAL MARKETS

The emerging markets were influenced, throughout 2019, by the US-China trade talks. The global spread of the pandemic triggered the largest price correction and capital outflows since the crisis of 2008. The measures taken by the authorities of advanced and emerging market economies stabilised markets at end-March.

1 FINANCIAL CONDITIONS IN EMERGING MARKETS



2 PORTFOLIO CAPITAL FLOWS TO EMERGING MARKET ECONOMIES (CUMULATIVE) (d)



SOURCES: Reuters and Institute of International Finance (IIF).

a JP Morgan EMBI.
b MSCI Emerging Markets (USD).
c JP Morgan EMCI.
d IIF daily debt and stock market outflows, which do not fully reflect balance of payment flows.

DOWNLOAD

significant drop in oil prices in the first half of the year.[11] Emerging market financial markets deteriorated sharply from end-February to end-March: stock market prices fell, sovereign spreads widened and exchange rates depreciated as investors moved out of higher risk assets (see Chart 2.5). Portfolio debt and equity outflows from emerging market economies in that period (estimated at around $100 billion) were much faster than those observed in other turmoil episodes in the last decade (albeit without reaching the scale of the accumulated portfolio outflows observed in the global financial crisis). These adverse developments only began to ease somewhat from the end of March, on the back of the monetary and fiscal stimulus measures approved by the authorities both in emerging market and advanced economies. These measures included the Federal Reserve's decision to restart or launch new programmes to broaden access to dollars, and also certain multilateral measures such as the IMF's credit facilities. Nevertheless, external vulnerability remains high in some emerging market economies, such as Turkey, given its high external funding requirements (especially in the private sector) and the low level of international reserves available.

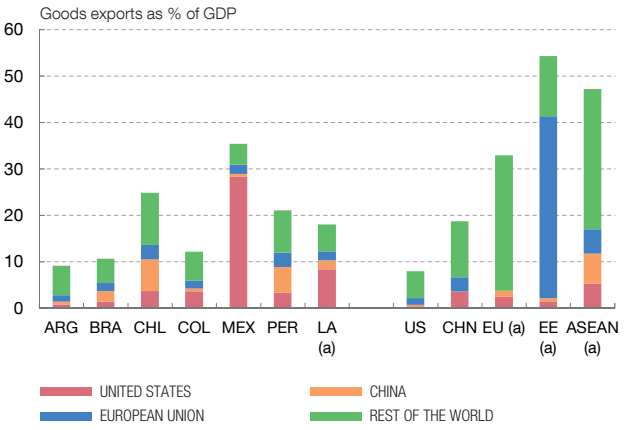
11 Specifically, at the end of April, the price of West Texas Intermediate fell into negative territory, below minus $35 per barrel, coinciding with the expiration of the May futures contract. The impact on the price of Brent was less severe, although prices also corrected substantially, to around $20 per barrel. See Banco de España (2020a).

Chart 2.6

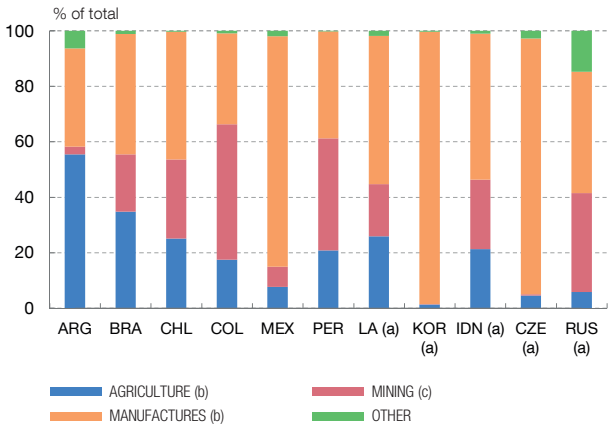
PANDEMIC TRANSMISSION CHANNELS IN EMERGING ECONOMIES. THE EXAMPLE OF LATIN AMERICA

Apart from the channels of loss of domestic demand (due to the containment measures) and of external demand (including tourist services), the emerging economies are affected specifically by the fall in migrant remittances, the greater tightening of financial conditions and by the decline in commodity prices for exporting countries.

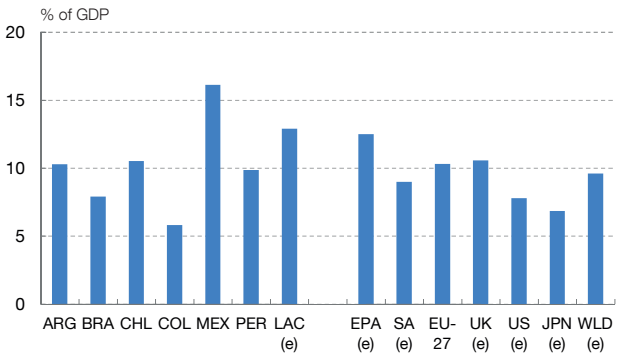
1 TRADE EXPOSURE



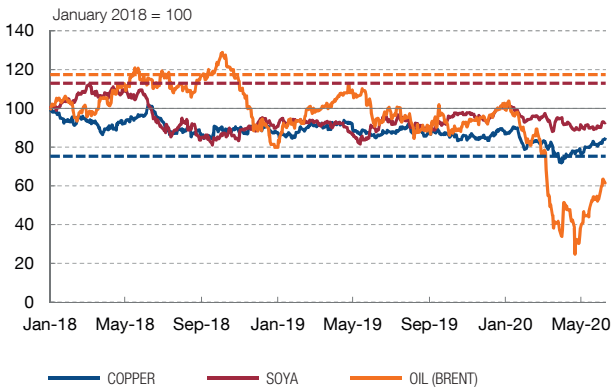
2 COMPOSITION OF EXPORTS BY TYPE OF PRODUCT



3 CONTRIBUTION OF TOURISM TO GDP (d)



4 COMMODITY PRICES (f)



SOURCES: Thomson Reuters, OECD, World Bank, UNCTAD-Eora GVC database and WTO.

a LA: Argentina, Brazil, Chile, Colombia, Mexico and Peru. EE: eastern Europe (EU-13). ASEAN: Association of Southeast Asian Nations. EU: European Union. KOR: South Korea. IDN: Indonesia. CZE: Czech Republic. RUS: Russia.
b The heading food, drink and tobacco is included in the agriculture aggregate and not manufactures, unlike in the original source (OECD).
c Mining includes petroleum extraction.
d The indicator refers to the total contribution of tourism and travel to GDP and includes its direct contribution, indirect contribution (effects arisng from spending on suppliers and public and private-sector investment relating to travel activities) and induced contribution (arising from spending generated by tourist industry workers).
e LAC: Latin America and Caribbean. EPA: east and Pacific Asia. SA: south Asia. UK: United Kingdom. US: United States. JPN: Japan. WLD: world total.
f The coloured dotted lines are the averages of the corresponding series in the period 2005-2017.

DOWNLOAD

The pandemic reached Latin America comparatively late, but the region subsequently became one of the main focal points. The region started out from a more delicate position than other emerging market economies, on account of the weak growth observed since 2014, following the end of the favourable commodity price cycle. In addition, certain factors specific to the countries of Latin America, such as the lower level of preparedness of their health systems, the high rate of

informal employment, and the quality failings of some institutions, may have amplified the effect of the health crisis.[12]

From an economic point of view, it should be noted that some of the crisis transmission channels are more important in Latin America than in other emerging regions. Thus, for example, commodities account for a high proportion of the main economies' exports (in some cases over 50%), so the deterioration in the terms of trade has been a negative shock for the region, and some economies, such as the Mexican one, will be more damaged by the drastic reduction in tourism (see Chart 2.6) and in migrant remittances. Also, the negative effect of lockdown measures on domestic demand is more pronounced in the Latin American economies than in other emerging regions, since they are relatively more closed to foreign trade in goods and services. Most monetary and fiscal authorities in Latin America, having consolidated more robust policy frameworks in recent years, have adopted response measures rapidly, but they had much less monetary and fiscal space available than in other regions, and also than in the 2008-09 crisis. Accordingly, analysts consider that Latin America will be the emerging region to suffer the largest fall in GDP in 2020, while the rise in activity anticipated for 2021 will also be lower than in other areas, as a result of the lower potential growth of the region and its lower economic policy response capacity. In addition, negative GDP growth may particularly affect the section of the population that in recent decades has joined the ranks of the middle class, as they are highly vulnerable to sharp economic slowdowns. This deterioration in their economic situation may revive the demonstrations and social protests that occurred in various Latin American countries in 2019.

To sum up, global GDP is expected to contract in 2020 as a whole, although activity may begin to recover gradually in the second half of the year. Against a background of heightened uncertainty regarding the duration and intensity of the health crisis, the IMF, in line with other international institutions, is forecasting that if the pandemic subsides in the second half of the year and lockdown measures are gradually relaxed, global GDP will fall by 4.9% in 2020 (much larger than the fall of 0.1% in 2009 during the global financial crisis) (see Chart 2.7). In the near term, the main economic areas would enter into recession. However, the impact is expected to be temporary; the IMF, like most analysts, forecasts a recovery in activity as from the second half of the year and higher growth rates in 2021 (5.4% in the case of the world economy).

Looking ahead, therefore, it is essential to understand the extent to which social and economic activity may return to normal once the epidemic is under control. Countries that appear to have already overcome the most critical period of the health crisis, such as China, may offer some points of reference. In China,[13] the strict quarantine and other health measures that affected some regions have been

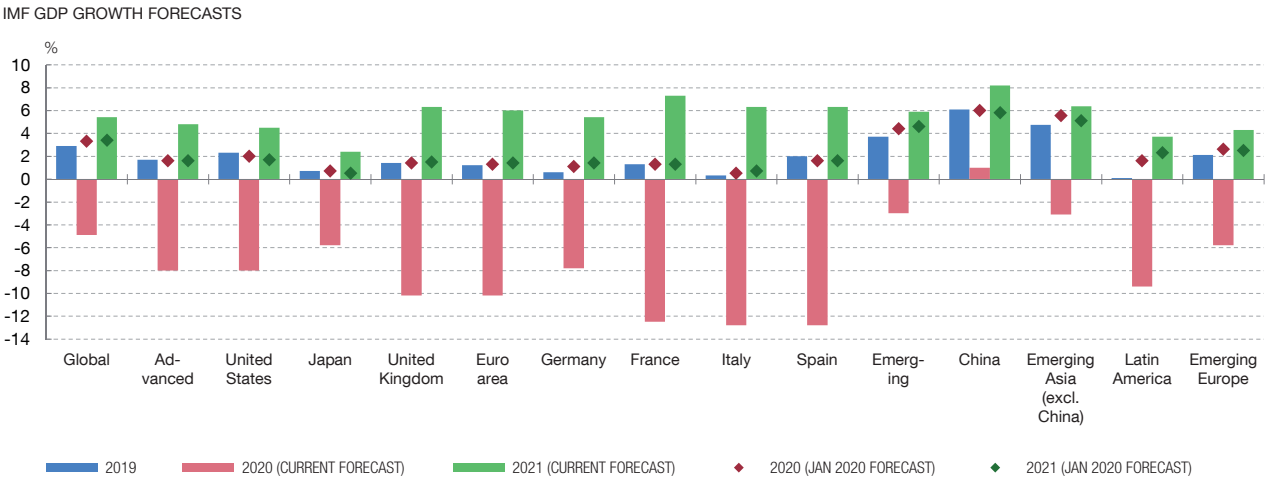
12 See Banco de España (2020b).

13 See Banco de España (2020c).

Chart 2.7

WORLD GROWTH IN 2020 WILL BE SEVERELY AFFECTED BY THE EXPANSION OF THE PANDEMIC

The world economy has been drastically affected by the worldwide spread of the pandemic. The negative impact on activity and international trade in 2020, although still uncertain, is expected to be very pronounced. International organisations consider that the impact will be temporary with a notable growth recovery in 2021.



SOURCE: IMF (WEO January 2020 and WEO June 2020).

DOWNLOAD

gradually relaxed. Against this background, those regions most exposed to the epidemic, such as Hubei, are recovering more slowly than the rest of the country. Considering the Chinese economy as a whole, industrial activity resumed in mid-March and, since then, has recovered rapidly. By the end of April, industrial output had already exceeded the level of last December, partly due to buoyant exports, which were especially strong in the electrical machinery, electronics, communication equipment and textiles sectors. This was a result of the recovery in orders, the substitution of other exporters affected by lockdown measures and China's dominant position in the production of certain medical equipment. However, consumption and investment remain depressed, against a background of continued social distancing measures, mobility restrictions and great uncertainty. The largest fall in consumption was in sectors relating to leisure, durables (other than cars) and luxury goods, all of which declined by between 5% and 12% year-on-year, by contrast with online sales which increased substantially.

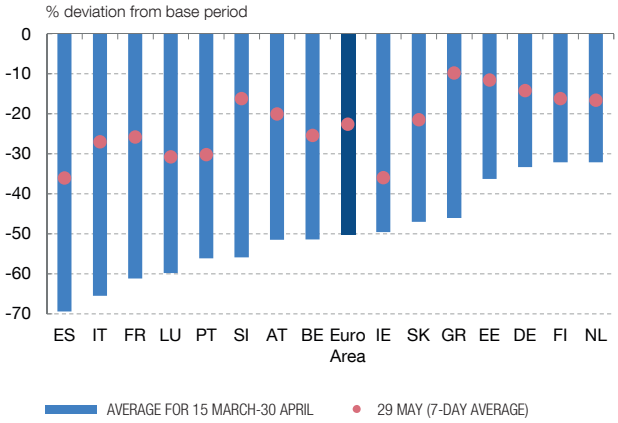
The outlook for the world economy is subject to significant downside risks, which may lead to a considerably slower recovery than is currently expected. Various factors whose behaviour is difficult to predict may affect the prospects for recovery of the world economy. Notable among them are the course of the pandemic itself and the possibility of further outbreaks, as well as the strength and effectiveness of the containment efforts, the effectiveness of the economic measures adopted, possible changes in agents' behaviour and the persistence of uncertainty. With reference

Chart 2.8

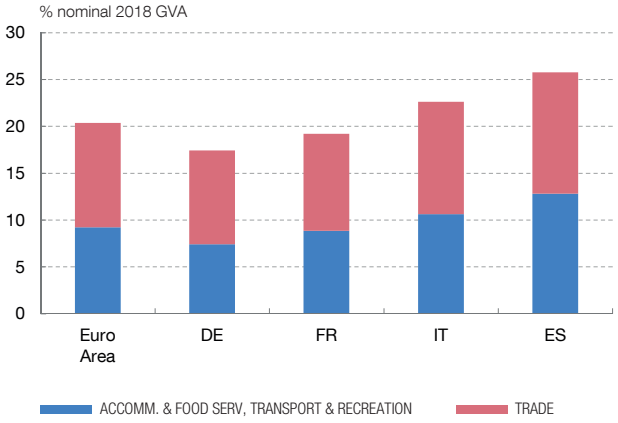
SOCIAL DISTANCING MEASURES TO CONTAIN THE PANDEMIC

Strict social distancing measures were adopted in all euro area countries in mid-March, and these remained in force in April. In May they began to be eased very gradually. These measures had a severe impact in sectors such as accommodation and food service activities, transport, recreation and trade.

1 GOOGLE MOBILITY INDICES (a). AVERAGE MOBILITY INDEX AT WORKPLACES AND FOOD AND RETAIL CENTRES



2 WEIGHT OF SECTORS MOST AFFECTED BY CONFINEMENT MEASURES (b)



SOURCES: Google COVID-19 Community Mobility Reports and Eurostat.

a The base reference period is the median, for each day of the week, between 3 January and 6 February 2020. The euro area is a GDP-weighted average.
b The transport services industry includes storage; trade includes wholesale and retail trade and repair of motor vehicles.

DOWNLOAD

to this set of factors, Box 2.1 considers various simulations that approximate the degree of uncertainty surrounding the strength of the contraction and the subsequent economic recovery. The exercise also serves to illustrate that the effects of the crisis will probably not be evenly distributed across geographical areas, given the differences in pandemic containment strategies, spillovers between economies, productive structures and the magnitude and effectiveness of the responses by the economic authorities.

2.3 The spread of the crisis in the euro area

COVID-19 spread rapidly through the euro area countries, which introduced severe lockdown measures to contain the pandemic. Italy was the first European country to be widely affected by the virus, which then spread rapidly to the other countries, albeit with varying intensity. By mid-March, stringent measures restricting individual mobility and economic activity had generally been applied, and they remained in force throughout April. The severity of the measures varied from one country to another, as reflected, for example, in human mobility indicators, which record the sharpest falls in Spain, Italy and France during the period of strictest lockdown (see Chart 2.8). In May, a very gradual easing of the lockdown commenced, at different rates across the euro area countries, although the situation remained distant from that existing prior to the health crisis.

These measures entailed a sudden very severe fall in activity, especially in the most directly affected sectors, generally those linked to certain services.[14] Some industries, such as accommodation and food services, transport and leisure have been critically affected. These sectors represent around 9% of the euro area economy, although their weight is higher in countries such as Spain and Italy (see Chart 2.8). Activity in other services, such as wholesale and retail trade, and in other industries, such as machinery and equipment, vehicles, textiles, and construction, was also severely reduced as a result of the pandemic containment measures. Overall, those industries most directly affected by the lockdown measures represent around 30% of euro area activity. According to the National Accounts figures for the first quarter, the crisis led to a decline in euro area activity of around 20% during the period of strictest quarantine, with an impact that varied by country and sector.[15]

Although it was mid-March before the brunt of the crisis was felt, the contraction in euro area activity was already very marked in the first quarter of the year. As the international comparison presented in Chart 2.9 shows, the decline in services PMI indices in March was especially severe in the euro area countries, where the lockdown measures have generally been relatively stricter than in other regions. The GDP estimate for Q1 shows this clearly (see Chart 2.9). Thus, euro area GDP contracted by 3.6% in Q1, as compared with an expected increase before the spread of the pandemic of 0.1%. Among the largest euro area economies, the fall was less marked in Germany (2.2%), where the incidence of the disease and the severity of the lockdown measures have been relatively lighter. In contrast, the contraction of activity in France, Italy and Spain exceeded 5% quarter on quarter.

The decline in activity will be considerably more marked in Q2. The general social distancing and lockdown measures only began to be relaxed gradually in May, as the pandemic became less virulent. Although economic activity recovered somewhat in May and June, the economic impact in Q2 will be substantial, and the contraction may be as much as 13% in the euro area as a whole, according to the Eurosystem's June forecasts.[16]

At this exceptionally uncertain juncture, the outlook is for a severe contraction in activity in 2020 as a whole, of greater magnitude than in the global financial crisis. The euro area started out from a situation of low economic growth, following a slowdown to 1.2% in 2019 (0.8 pp less than in the previous year), owing to the weakness of foreign trade and the notable contraction in manufacturing. At the end of 2019, the projections maintained this scenario of weakness in 2020, with expected GDP growth for the euro area of around 1%. With the outbreak of the pandemic, the forecasts of private analysts and official agencies anticipate a severe contraction of

14 See Prades and Tello (2020).

15 See Banco de España (2020d).

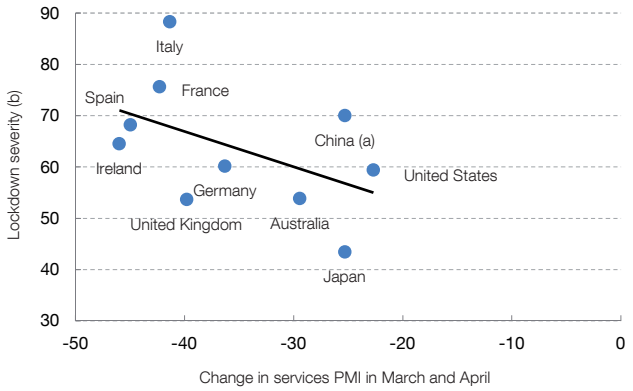
16 See Eurosystem staff macroeconomic projections for the euro area, June 2020.

Chart 2.9

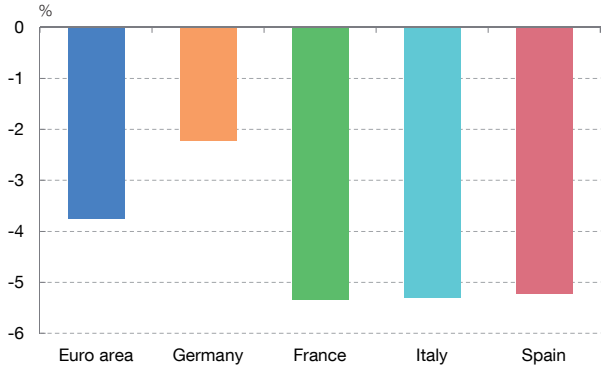
THE HEALTH CRISIS WILL CAUSE A SEVERE ECONOMIC CONTRACTION OF STILL UNCERTAIN MAGNITUDE

The contraction in euro area activity will be very pronounced in the first half of the year, the short-term impact being a reflection of the stringency and duration of the pandemic containment measures. Despite the recovery in activity in the second half of the year, forecasts anticipate a severe contraction in GDP in 2020, as well as lower inflationary pressures.

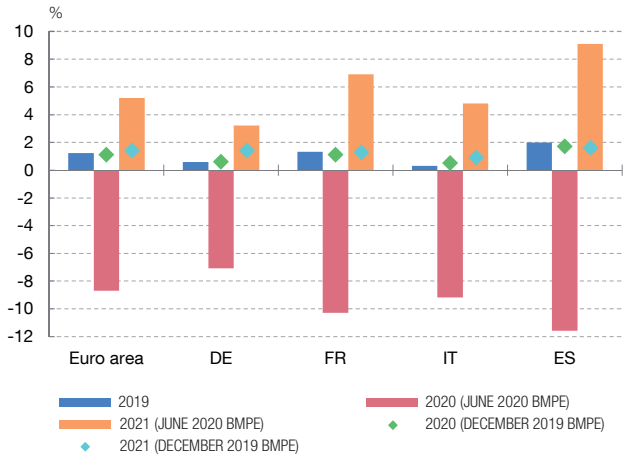
1 FALL IN PURCHASING MANAGERS' INDICES (PMIs) AND LOCKDOWN SEVERITY INDEX



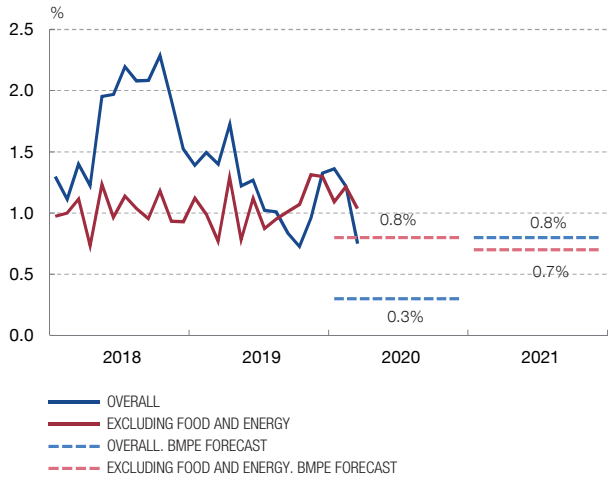
2 GDP IN 2020 Q1
QUARTER-ON-QUARTER GROWTH



3 EURO AREA GDP GROWTH FORECASTS (c)



4 EURO AREA INFLATION AND JUNE BMPE FORECASTS (c)



SOURCES: Eurostat, Markit, University of Oxford and ECB.

a For China the change refers to February.
b Average for March and April of the University of Oxford's daily index of the severity of the pandemic containment measures.
c BMPE is the Eurosystem's Broad Macroeconomic Projection Exercise.

DOWNLOAD

GDP in 2020 across the board, albeit most pronounced in some of the main euro area economies such as Spain, Italy and France (see Chart 2.9). According to the baseline scenario of the Eurosystem's June projections exercise, euro area GDP may contract by 8.7% in 2020. The euro area unemployment rate is expected to rise sharply, to around 10% of the labour force in 2020 (as against 7.4% at the end of 2019).

The crisis is also exerting downward pressure on the euro area inflation rate. Having remained at the moderate level of 1.2% on average in 2019, the Eurosystem's June projections point to a decline to 0.3% in 2020, largely as a result of the sharp

fall in commodity prices, compounded by the effects of a less pronounced fall in household spending and agents' inflation expectations (see Chart 2.9).

In 2021, a strong recovery is expected, although a high degree of uncertainty remains regarding the persistence of the effects of the pandemic. On the assumption that the pandemic will subside in the second half of the year and that the economic policy measures adopted will be effective, the Eurosystem's June projections are for a 5.2% increase in GDP in the euro area in 2021. However, the uncertainty regarding the shape of the recovery is high, given the risks to global economic growth mentioned above, which would also be present in the case of the euro area.

The uncertainties that surround the economic outlook arising from the pandemic are compounded by the risk of a scenario of no agreement between the United Kingdom and the EU at the end of this year. In the event that there is no agreeement, there will be no framework to regulate the future relations between these two parties following the expiry, on 31 December 2020, of the current transition period. In recent weeks, there has been an absence of substantial progress in the negotiations for this agreement. The EU-UK high-level conference of 15 June 2020 confirmed the United Kingdom's decision not to request any extension to the transition period, highlighting the need for intensification of the negotiations over the coming months to enable an agreement to be concluded and ratified by the end of the year.

Reaching an agreement before the end of the year to avoid disruptive effects for these two economies would be highly desirable. Both the EU and the United Kingdom face the risk of absence of a bilateral legal framework, in which case their relations would be governed by the international rules of the World Trade Organization (WTO), under the "most-favoured-nation" principle (each member of the WTO has to apply to all other members the most favourable tariff applied to the countries with which it maintains trade agreements).[17] Although progress has been made over the last year and a half, both at national and EU level, to address the most disruptive effects of this scenario in some sectors, including the financial sector, it would be desirable to avoid the arrival of January 2021 without at least a minimal trade agreement to regulate relations between the EU and the United Kingdom. Given the short timeframe available, it is unlikely that this agreement will be able to foresee all aspects of future relations between the two parties. Accordingly, supplementary agreements will need to be forged in future in those areas not considered essential for an agreement to be reached by the end of the year.

17 See Vega (2019).

REFERENCES

Banco de España (2020a): "Supply and demand-side factors in determining oil prices against the background of the COVID-19 crisis", Box 2, *Economic Bulletin*, 2/2020.

— (2020b). "Report on the Latin American economy. First half of 2020". Analytical Articles. *Economic Bulletin,* 2/2020.

— (2020c). "The recent recovery of the Chinese economy during the gradual lifting of the COVID-19 lockdown", Box 1, *Economic Bulletin,* 2/2020, forthcoming.

— (2020d). "The initial economic impact of the health crisis and the lockdown measures on the euro area countries", Box 3, *Economic Bulletin*, 2/2020.

Deaton, A. S., and C. H. Paxson (1998). "Aging and Inequality in Income and Health", The American Economic Review, vol. 88, No. 2, May, pp. 248-253.

Hale T., Angrist N., Kira B., Petherick A., Phillips T. and Webster S. (2020). *"Variation in Government Responses to COVID-19",* Working Paper, Version 5.0., Blavatnik School of Government.

Jordan D. (2019). "The Deadliest Flu: The Complete Story of the Discovery and Reconstruction of the 1918 Pandemic Virus", Center for Disease Control and Prevention

Mian, A., L. Straub and A. Sufi (2020). *The saving glut of the rich and the rise in household debt,* Working Papers 26941, NBER.

Nelson M. and co-authors (2010). "Phylogeography of the Spring and Fall Waves of the H1N1/09 Pandemic Influenza Virus in the United States", *Journal of Virology* 85(2): pp. 828-834.

Oke J., and Heneghan C. (2020). *Global Covid-19 Case Fatality Rates*, Centre for Evidence-based Medicine, University of Oxford.

Prades E., and Tello P. (2020). "The heterogeneous economic impact of COVID-19 among euro area regions and countries", Analytical Articles, *Economic Bulletin* 2/2020, Banco de España.

Vega, J.L., coord. (2019). Brexit: current situation and outlook, Occasional Papers, No 1905, Banco de España.

Wu P., X. Liu, Y. Fang, B. Fan, C. J. Fuller, Z. Guan, Z. Yao, J. Kong, J. Lu and I. J. Litvak (2008). "Alcohol abuse/dependence symptoms among hospital employees exposed to a SARS outbreak", *Alcohol and Alcoholism,* November-December 2008, 43(6), pp.706-712.

Wu P., Y. Fang, Z. Guan, B. Fan, J. Kong, Z. Yao, X. Liu, C. J. Fuller, E. Susser, J. Lu and C. W. Hoven (2009). "The psychological impact of the SARS epidemic on hospital employees in China: exposure, risk perception, and altruistic acceptance of risk", *Canadian Journal of Psychiatry,* May, 54(5), pp. 302-311.

Box 2.1

GLOBAL ECONOMIC EFFECTS OF THE HEALTH CRISIS

Based on various simulations, this box illustrates the potential adverse effects of the COVID-19 pandemic and the measures to contain the spread of the virus on the world's main economic areas. In the simulations, emphasis is placed on identifying and quantifying the channels through which these effects are produced (domestic demand, tourism, financial and commodity markets, and supply-side disruptions), the economic policy response under way and the spillovers among countries.

At present, there is significant uncertainty surrounding the ultimate scale of the disruption that this episode may cause. This stems not only from the duration of the pandemic itself and the containment-measure and economic-policy-response implications, but also from the fact that several different economic shocks are simultaneously in play. First, the forced disruption of production has an adverse impact on supply. This phenomenon is amplified by the high level of integration of the manufacturing sector at the global level and may exert persistent effects on potential output. Second, the sharp contraction in demand is reflected in lower household consumption and a decline in business investment. Third, the global financial shock may also have sizeable adverse effects on financing conditions and on economic agents' wealth. This would afflict consumption and investment decisions. Fourth, the drop in commodity prices is detrimental to the countries producing these goods (although it has a positive impact on the income of consumers) and may give rise, as observed in recent months, to tensions in certain segments of the financial markets that are most exposed to fluctuations in commodity prices. Lastly, there are risks of these shocks creating a feedback loop that could depress economic activity on an ongoing basis. The uncertain outlook could reduce consumer spending and investment even after the health crisis itself, ultimately destroying businesses and jobs, increasing defaults and tightening certain economic agents' financing conditions. This could fuel a vicious circle and further prolong the crisis.

To illustrate the potential scale of the impact of the pandemic and the containment measures on economic activity, the results of a series of simulations performed on the basis of various hypothetical scenarios from NiGEM,[1] the global macroeconomic model, are presented below. This model's simplified framework captures mainly the channels operating through domestic demand, tourism, the effects of financial variables and commodity prices, although it also partially includes some supply-side effects. The simulations assume that economic policies react according to conventional historical patterns,[2] although the budgetary measures adopted and announced that are detailed in Section 3 of this chapter are also included.

Three hypothetical scenarios, dubbed "limited", "persistent" and "prolonged confinement", are considered. They differ in terms of the assumed duration of the period of confinement, the speed at which demand is assumed to recover and the possibility that global financial conditions may tighten. The technical assumptions of the exercise are detailed in Table 1. These scenarios assume that the crisis pervades all geographical areas and that the pandemic's direct adverse effects are confined to 2020 H1; however, there continues to be significant uncertainty surrounding the pandemic's future pathway, as argued in Section 2.1 of this chapter. The first two scenarios consider a lockdown lasting a total of eight weeks, whereas in the case of the "prolonged confinement" scenario, the stricter containment measures last up to twelve weeks. These durations are assumed consistently across all the simulated economies, given the difficulty of identifying specifically the severity of the restrictions on people's freedom of movement and business activity, in addition to the timing of their implementation and easing by the authorities, which has varied significantly across jurisdictions. As regards the speed of the recovery, in the "limited" scenario, a more dynamic profile for activity associated with a swift recovery in the financial conditions and in major purchases postponed during the lockdown is taken into consideration. This would materialise from the end of Q2. However, the other two scenarios include further adverse effects, stemming from the possibility that the initial decline in activity ultimately proves more persistent due to a potential tightening of financial conditions, making some of the pandemic's contractionary elements last longer. The scale of the shocks applied to these scenarios is calibrated using the data available on the decline in activity in China in 2020 Q1, the drops observed in the financial and commodity markets as at

1 Documentation on the model, devised by the National Institute of Economic and Social Research, is available at https://nimodel.niesr.ac.uk/.

2 Specifically, it is considered that monetary policy is endogenous based on a Taylor rule (and the unconventional measures make up for the negative nominal rates constraint) and that fiscal policy acts through automatic stabilisers (simultaneously maintaining a medium-term budget balance target).

mid-March and the trend in potential output witnessed following the global financial crisis triggered in 2008.

Based on the simulations performed, global growth would fall, compared with the outlook prior to the outbreak of the pandemic,[3] by around 7 pp, 9 pp and 12 pp in 2020 in the limited, persistent and prolonged confinement scenarios, respectively. The world economy would therefore shrink by -3.7%, -6.1% and -8.9%, respectively, in 2020 (see Chart 1).[4] The most adverse effects would arise through the domestic demand channel, followed by the collapse of the tourism sector, whereas the contractionary effects of the financial shock are smaller. By geographical area, the impact is somewhat more severe in emerging market economies than in advanced economies, owing to the domestic demand channel having a greater impact and a slightly contractionary effect associated with the drop in commodity prices, the producers of which

Table 1
SCENARIO CALIBRATION

Shock		Calibration	Scenario 1 Limited			Scenario 2 Persistent			Scenario 3 Prolonged confinement		
			China	Advanced economies	Other emerging market economies	China	Advanced economies	Other emerging market economies	China	Advanced economies	Other emerging market economies
Domestic demand		Estimates of Chinese GDP growth in Q1: –10% quarter-on-quarter	–10% during the three months following the imposition of containment measures, 40% of the shock is recovered in the following quarter			–10% during the three months following the imposition of containment measures, domestic demand recovers slowly			–15% during the three months following the imposition of containment measures, domestic demand recovers slowly		
Supply		Potential GDP reduction in financial crises + fall in investment + hours worked	The fall in investment and hours worked affects potential GDP			Potential GDP is further affected by a financial crisis					
Tourism		Severe restrictions on movement of people	–100% in 2020 Q2 and gradual recovery to 2021 Q3								
Financial markets	Stock markets	MSCI World Index since the start of the epidemic	–25% in Q2; rapidly returns to prior levels			–25% in Q2; returns to prior levels very slowly					
	Risk premium on investment	Corporate spread (average of investment grade and high yield)	+250 bp in Q2; rapidly returns to prior levels			+250 bp in Q2; returns to prior levels very slowly					
Commodities		Oil futures market	Change in Brent crude prices implicit in the futures curve								
Discretionary fiscal policy		Budgetary measures adopted and announced	The budgetary measures considered are those detailed in Section 3.4 of this chapter. The average discretionary fiscal impulse is greater in the advanced economies than in the emerging market economies 2/3 are deployed in 2020 and 1/3 in 2021 H1 These measures have generally been implemented through transfers								

SOURCE: Banco de España.

3 The IMF's forecasts are used as reference, see *World Economic Outlook: Tentative Stabilization, Sluggish Recovery?*, IMF, January 2020.

4 The IMF forecasts that the pandemic's effect on global growth will amount to -6.3 percentage points in 2020, assuming that the strictest containment measures last a total of eight weeks and the restrictions are gradually lifted throughout 2020 H2, see, *World Economic Outlook: The Great Lockdown,* IMF, April 2020. In turn, the scenarios considered by the OECD reflect a drop in global GDP in 2020 of between 6 (single-hit scenario) and 7.6 (double-hit scenario) percentage points, see *OECD Economic Outlook, The world economy on a tightrope,* OECD, June 2020. Lastly, the World Bank's June projections consider that global growth will fall by 7.7 percentage points, see *Pandemic, Recession: The Global Economy in Crisis,* World Bank, June 2020.

generally belong to this group.[5] As regards the world's main economies, growth in the United States would suffer an adverse impact of 5.7 pp, 8.2 pp and 11.5 pp in each of the three scenarios, respectively. These declines are similar to those experienced in the euro area, of 6.3 pp, 8.4 pp and 11.2 pp, respectively. In turn, the impacts in China would stand at 5.6 pp, 7.7 pp and 10.1 pp, respectively. The real and financial spillovers[6] among the

Chart 1
GLOBAL IMPACT OF THE HEALTH CRISIS IN 2020

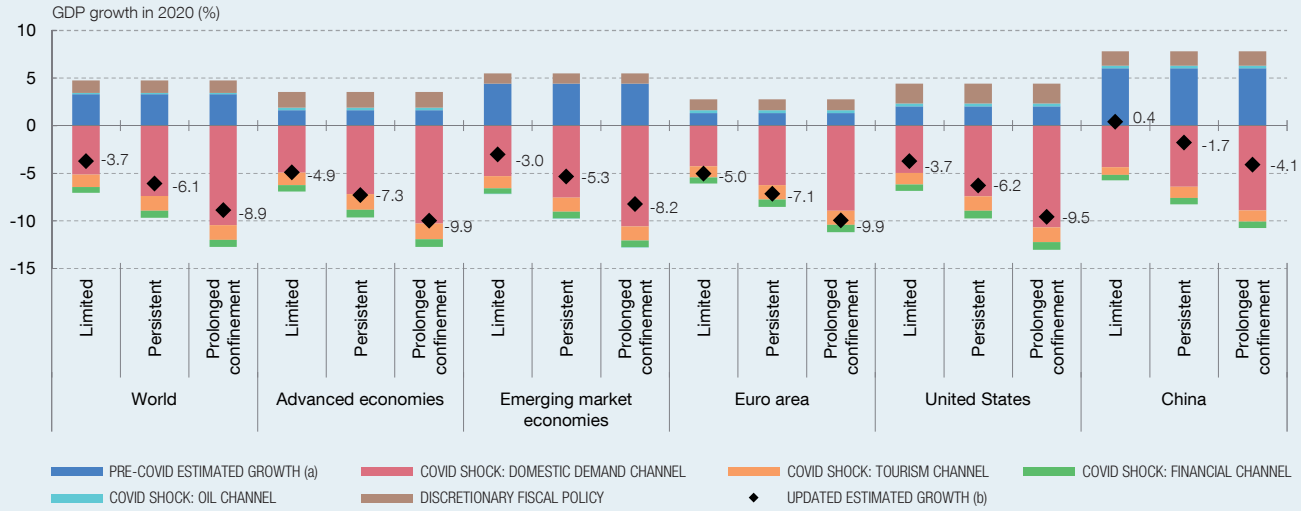


Chart 2
EFFECT OF THE SPILLOVERS AMONG ECONOMIES ON GDP GROWTH IN 2020

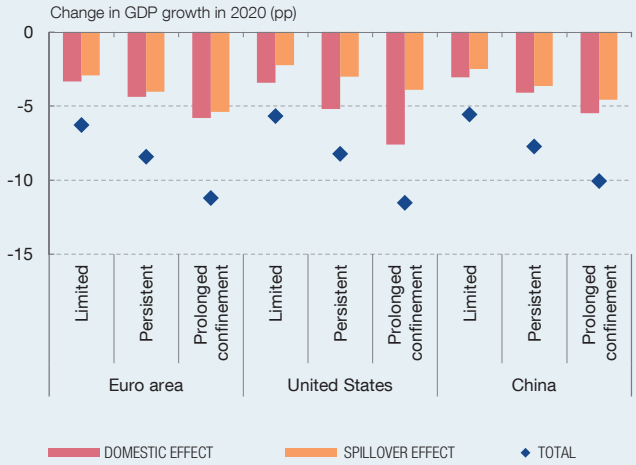
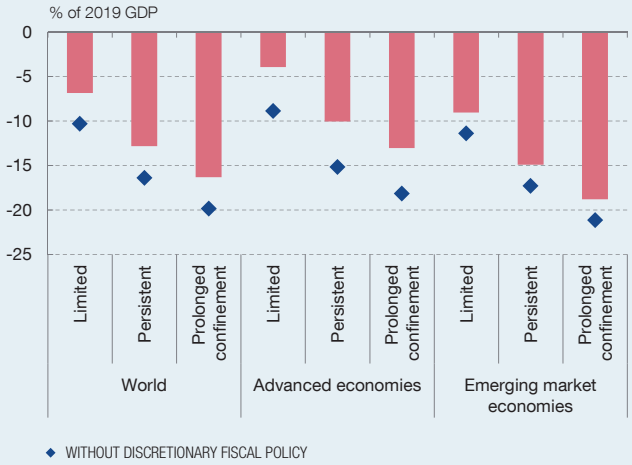


Chart 3
CUMULATIVE LOSS OF GDP BETWEEN 2020 Q1 AND 2021 Q4



SOURCES: Banco de España and IMF.

a The pre-COVID forecasts considered are those of the IMF published in the January 2020 WEO Update.
b Sum of the impact of the channels taken individually and the composition effect (interaction between channels).

5 Some factors could cause the impact on emerging market economies to be even more severe. First, in the simulations it is assumed that the drops in stock market indices and the increases in risk premia in the emerging market economies are identical to those in the advanced economies. It is also assumed that the emerging market economies have monetary policy leeway that is comparable with that of the advanced economies. Lastly, the model includes lower commodity price elasticity with respect to GDP than that estimated in the empirical literature for some commodity exporters. The drops in GDP could therefore be greater than those considered in this exercise.

6 These spillover effects are calculated as the difference between the impact on GDP considering all the economies in the model and the impact if the spillover of each economy to third countries is excluded.

various economies lie behind between one-third and almost one-half of these impacts on growth, and are higher in regions, such as the euro area, characterised by greater openness (see Chart 2). On the assumption that the health crisis and the measures to contain it are temporary in nature, economies would start to recover from 2020 H2; accordingly, the world economy would grow significantly in 2021. Nevertheless, the cumulative loss of income between 2020 and 2021 would stand, depending on the scenario, at between 7% and 16% of global GDP (see Chart 3).

Discretionary fiscal policy plays a decisive role when tempering the impact of the shock and supporting the recovery in activity following the health crisis. The budgetary measures adopted, common across the three scenarios, help to mitigate by approximately 1.2 percentage points the decline in global economic growth in 2020 (see Chart 1). The impact is stronger in advanced economies, due to the greater fiscal impulse deployed, than in the emerging market economies, which have less fiscal space. These measures help to limit the cumulative loss of global income in 2020 and 2021 by around 3.5 percentage points of GDP (see Chart 3).

The as yet limited information on activity in the current circumstances, the speed at which events are unfolding and the lack of comparable episodes in recent decades mean that these simulations are subject to an unusually high level of uncertainty. In particular, the duration of the pandemic and the medium-term implications of the containment measures for the economy are particularly uncertain. Should they remain in force beyond the timeframes considered in these simulations or should there be a significant renewed outbreak of the virus triggering the implementation of quarantine measures similar to those adopted in recent months, the adverse impact on the global economy would be even more severe.[7] Against this background, the coordinated application of economic policies, such as those deployed in recent months, is necessary to soften the adverse effects on households and businesses, and to put the global economy back on the path of sustained growth and job creation as soon as possible.

7 For illustrative examples of more adverse scenarios, with further outbreaks of the pandemic occurring in 2021, see *World Economic Outlook: The Great Lockdown,* IMF, April 2020.

3

THE ROLE OF ECONOMIC POLICIES INTERNATIONALLY IN THE FACE OF THE PANDEMIC

3.1 The main economic policy objectives in the current crisis

A swift and decisive economic policy response is required to mitigate the short-term effects of the current health crisis and to ensure a strong recovery. The global disruption to supply and demand caused by COVID-19 and the confinement of the population has been partly counteracted by the broad-based response of the main economic policy levers. However, in some cases, both fiscal and monetary policy space is more limited than in the past. This is not only due to the legacy of the global financial crisis of 2008, but also to certain structural weaknesses which have had a bearing on economic growth worldwide in recent years and will continue to do so in the medium term.

The world economy is tackling this crisis from a weaker position than in previous episodes of recession. In recent years, global economic growth, relatively modest in historical terms, has essentially been underpinned by highly expansionary demand-side policies, against a setting in which the potential growth rate worldwide remained on a downward path. The main causes of this secular weakness include population ageing,[1] which notably affects advanced economies and some emerging economies;[2] low investment rates, particularly in advanced economies; and the slowdown in global productivity growth. During this period, world economic activity has also been affected by an increase in inequality in many countries and growing political polarisation, both of which influence the economic policy decision-making process. Apart from all the above challenges, which will continue in the medium term, before the onset of the COVID-19 crisis, the global economy faced other major, and relatively recent, challenges, such as climate change or the digitalisation of the economy. Both will require substantial adaptation by economic agents and important public policy measures, both at regulatory level and in terms of greater investment. Climate change, in particular, calls for a resolute multilateral response.

The strong fiscal and monetary policy response is taking place in a setting in which the available margin may be influenced, in some cases, by the pre-pandemic situation of high levels of public debt and low interest rates. At end-2019, the levels of debt of the main systemic economies were well above those posted in 2007, before the global financial crisis (see Chart 3.1.1). According

1 See Summers (2015) for a general discussion of *secular stagnation* and Jimeno et al. (2014) for an analysis of the consequences of these developments for European economies.

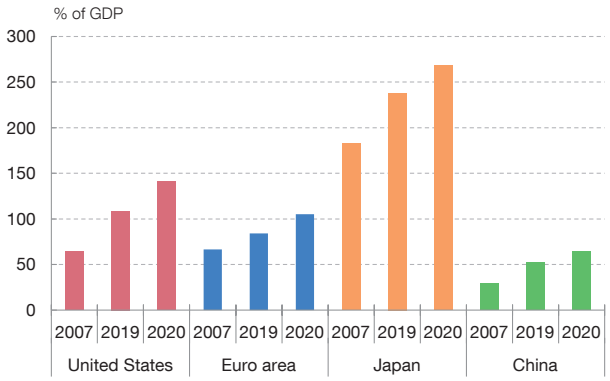
2 See Banco de España (2019b) for a detailed analysis of the situation in Spain, and Berganza et al. (2020) for an analysis focusing on Latin America.

Chart 3.1

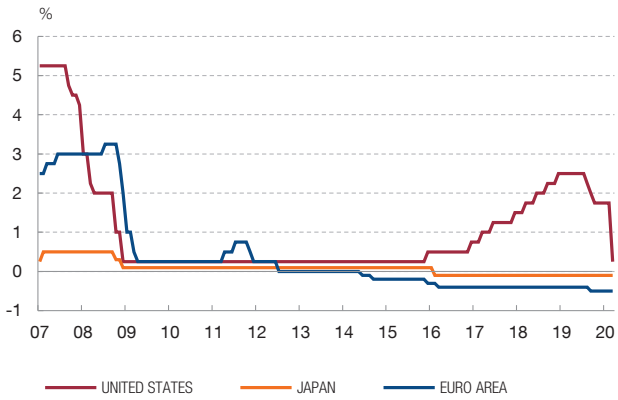
PUBLIC DEBT AND POLICY INTEREST RATES

The responsiveness of economic policies to the pandemic could be constrained by the high levels of public debt resulting from the financial crisis, and by the lack of monetary policy space. In 2019, the level of public debt of the main systemic economies was well above that posted in the years before the global financial crisis. In addition, according to IMF estimates, public-sector debt is expected to increase by 10 to 30 percentage points of GDP in 2020 in most world economies, as a result of the measures adopted to combat the pandemic.The policy interest rates of the main advanced economies were very close to their lower bound, in an environment of continued subdued inflation.

1 PUBLIC DEBT (a)



2 POLICY INTEREST RATES



SOURCES: IMF and Refinitiv.

a For 2020, the IMF projections (WEO June 2020) are used.

DOWNLOAD

to the IMF,[3] in 2020, these levels are set to increase by 10 to 30 percentage points of GDP, mostly in advanced economies, as a result of the measures adopted to tackle the pandemic. This is also the case of emerging economies, particularly in Latin America. Moreover, in the latter region's economies, the external debt, mainly denominated in foreign currencies, has increased significantly since 2008, making them more vulnerable to a decline in external financing and to capital outflows. The fact that they have accumulated more international reserves than in the previous crisis only partially mitigates the problem. Before the outbreak of the health crisis, interest rates in the main advanced economies were already very low (see Chart 3.1.2), in an environment of continued subdued inflation and declines in the natural interest rate.[4]

The economic policy response to this crisis, in monetary, fiscal and regulatory terms, has essentially focused on providing economic agents with liquidity, on avoiding a tightening of their financing conditions and on supporting their income. The central banks of the main economies have implemented a broad raft of expansionary measures, particularly to increase their balance sheets through asset purchase programmes and to provide liquidity to the financial sector, in an environment

3 See International Monetary Fund (2020a).

4 For a more detailed analysis of the natural interest rate, see Banco de España (2019a).

in which the traditional channel for lowering interest rates is constrained by the proximity of rates to their lower bound, that is, the level below which they cannot be cut to provide greater monetary stimulus (see Section 3.4). The macro- and micro-prudential authorities, and those responsible for implementing accounting standards, have eased certain regulatory requirements to boost lending to the private sector (see Section 3.5). As for fiscal policy, the response has been more uneven at the international level, which is possibly a reflection of the strength of each country's public finances. Countries have gradually adjusted the fiscal policy response as the consequences of the pandemic and confinement have become evident in their economies (see Section 3.2). In general, the purpose of these measures has been to support the income of households and businesses and to provide them with liquidity to meet their immediate payment commitments, while preserving favourable financing conditions for the different economic agents.

The global nature of the crisis especially calls for an internationally coordinated response to the pandemic. A well-managed health crisis at country-level is essential, but a rapid recovery from the economic crisis cannot be guaranteed if the pandemic continues to affect other regions and, as a result, global external demand. In an environment in which the fiscal and monetary policy space may at times be limited at the national level, full advantage must be taken of the capacity of multilateral institutions to coordinate economic policies and to channel financing flows to the countries hardest hit by the pandemic and with fewer resources to tackle it (see Section 3.3). In the case of developing economies, a greater flow of foreign currency liquidity should be provided through credit facilities, and steps should be taken to alleviate their debt burden. In advanced economies, maintaining a high level of cooperation when designing economic policies is particularly important for preventing unwanted effects, such as a new wave of heightened protectionist pressures. In the euro area, in particular, the supranational response by European institutions should play a key role, since the current crisis affects all its Member States and has not been caused by imbalances built up in previous periods (see Section 3.2). The pandemic and the measures adopted to respond to it may give rise to disruption in the regional value chains and in the free circulation of factors of production, and to new episodes of financial fragmentation. In this respect, the lessons learned from the handling of the European sovereign debt crisis of 2010-2012 should be applied, to avoid repeating the same mistakes and to take full advantage of the common support mechanisms available in a monetary union (see Section 5.4 in Chapter 5)

The crisis may exacerbate the weak system of global governance and economic relations, which had already been affected in recent years by the rise in protectionism, with potentially serious consequences for world trade and manufacturing. The increase in bilateral tariffs and restrictions to the exchange of technology between the United States and China led to heightened economic uncertainty and a slowdown in manufacturing and international trade worldwide

during much of 2018 and 2019.[5] Recent developments could exacerbate this situation both in the short term, given the disruptions observed to supply chains and the global shortage of some products at specific points in time during the first half of the year, and mainly in the long term, if they lead to the excessive renationalisation of certain production chains or to major changes in their geographical diversification (see Section 5.2 of Chapter 5).

3.2 The fiscal policy response

To address the health emergency, virtually all countries have adopted fiscal policy measures to fund the increase in health spending and to support the income of economic agents.[6] The stimulus plans approved in different countries tend to share some common features. On the expenditure side, the measures include increases in health spending and other actions to support the income of those households and businesses most affected by the pandemic. These measures notably include shoring up the existing partial unemployment arrangements and sick leave in countries with strong automatic stabilisers, as is the case of Europe. Countries where the automatic stabilisers provide less coverage have mostly opted for direct cash transfers to households. Additionally, some governments have approved subsidies for businesses affected by the pandemic. On the income side, the vast majority of countries have approved moratoria on tax payments and social security contributions. Lastly, governments have introduced liquidity support measures for businesses, with the launch of sizeable State guarantee schemes, particularly in euro area countries.

The budgetary plans approved by the main non-euro area economies generally provide for a discretionary fiscal impulse that is greater than that of euro area countries, partly as a result of the less important role of automatic stabilisers outside the euro area (see Table 3.1). Such measures notably include subsidies to businesses to cover the costs arising from employee sick leave, in the United Kingdom, and from employees taking childcare leave, in Japan and South Korea. Meanwhile, China has brought forward unemployment benefits, by means of a single initial payment, and in Brazil, financial assistance is fundamentally aimed at supporting the income of the most vulnerable households. In addition, some countries (including China, Japan, South Korea, United Kingdom and Chile) have announced tax and social-contribution payment moratoria for businesses in the hardest-hit industries, with some, such as United Kingdom and China, having also approved broad-based fiscal stimulus measures. The cost of the fiscal measures announced at the cut-off date of this Report varies across countries, between 3.2% and 12.2% of GDP (see Chart 3.2).

5 See Caldara et al (2020) and Albrizio et al. (2020).
6 For more details about this section, see Cuadro-Sáez et al. (2020).

Table 3.1

FISCAL POLICY MEASURES IN NON EUROPEAN COUNTRIES (a)

Country	Deferral or suspension of taxes	Support for households	Subsidisation of labour costs, unemployment and support for businesses	Liquidity provision to firms through loans	Aggregate demand
United States	Deferral of tax payments for individuals and businesses, including social security contributions Increase in deductions on personal income tax and on interest payments and losses on corporate income tax Deduction for preserving employment (50% of wages paid up to a maximum of $10,000 per employee) Temporary suspension of aviation taxes	Students exempt from paying interest on federal loans Food stamps and broader Medicare coverage Cash payments to individuals ($1,200) and $500 per dependent child, with gradual phase-out based on income (up to $99,000 per year) Loans to consumers	Remunerated sick leave for workers in quarantine; tax relief to SMEs for sick employees Increase to a maximum of $600 per week in provision for unemployment and duration extended by 13 weeks	Interest-free, unsecured loans to SMEs, which could become subsidies depending on the % of staff retained Loans to non-financial corporations and those hardest-hit such as airlines and strategic companies	Transfers to finance extraordinary spending of state and local governments
China	Exemption from VAT Exemption (reduction) from tax on new (used) cars Reduction of taxes and rates ($70 bn) and deferral of income tax payments for the self-employed and small businesses	Moratoria on student loan repayments and broader social benefits Temporary subsidies on prices doubled between March and June Deferral of social security contributions	Exemption/reduction of social security contributions and social housing pool Reduction in commercial premises rentals and electricity price Subsidies for companies to expand productive capacity	Refinancing and extension of credit to SMEs and companies affected. Support for companies in the form of bond purchases and guidelines to commercial banks to increase loans to microfirms and small businesses	General fiscal stimulus package Expansion of renewal projects in rural communities Job creation in education and healthcare sectors
Japan	Deferral for one year of social contribution payments and corporate income tax of businesses affected by the crisis	Increase in monthly subsidy per child for low-income households, if their income has been reduced as a result of the crisis Payment of $930 to all citizens 100% coverage of salary (maximum of 15,000 yen) and subsidies of 330,000 yen per month to employees dismissed by SMEs without compensation between April and September	Subsidies for businesses that retain workers on the payroll (9/10 of the cost of workers who take leave to SMEs and 3/4 to large corporations) $18 bn in subsidies to owners of SMEs who experience a significant fall in billing $18 bn in financial assistance for rental payments if monthly sales fell by more than 50%	Interest-free, unsecured loans granted through public and private financial institutions ($586 bn)	$107 bn for future contingencies
South Korea	9 months' deferral for corporate income tax, VAT and personal income tax 1 year's deferral for customs and wealth tax VAT cut for small businesses Tax deductions for property owners who reduce rent for small businesses	$2.8 bn in vouchers, family allowances and preserving employment 30% social security deduction for low-income households Up to $820 to 14 million households in the lowest 70% of wealth distribution ($7.4 bn) $4 bn for social safety nets	30% social security deduction for small businesses $1.2 bn in subsidies to self-employed and temporary workers who are not eligible for unemployment Subsidies for firms to cover sick leave and to SMEs for payment of wages and rentals $9 bn to stabilise employment	Total of $50 bn in loans to SMEs, consumers and businesses $16 bn to buy corporate bonds and commercial paper Extension of due dates for payment of debt and interest Additional fund of $33 bn to provide financial assistance to strategic sectors	Investment plan 2020-2025 worth $61 bn *(Korean New Deal)* Creation of 550,000 public-sector jobs
Australia	6-month deferral of loan payments for firms with loans of less than AU$ 10 million 4-month deferral on tax payments for firms	AU$ 750 payment to low-income social security taxpayers Double-up of job seeker payment (AU$ 550, every two weeks) The government will cover 50% of income in the childcare sector	100% payment of taxes withheld by firm from staff (maximum AU$ 100,000 and minimum of AU$ 20,000 if no withholding made) Payment every two weeks (AU$ $1,500) for 6 months to retain workers (SMEs will be eligible if their income is reduced by 30% and large corporations, by 50%)	Programme comprising guarantees of 50% of the loan for AU$ 40 billion Measures approved for greater deductions for asset purchases and depreciation	
Canada	Deferral of tax payments (CA$ 39 bn)	Transfers to low-income individuals Payment of CA$ 1,400 for up to 4 months to those who have lost income. Expansion of social policies and support to different groups	Subsidisation of sick leave for those not meeting requirements (i.e. the self-employed) Wage subsidy of up to 75% for up to 6 months Assistance to landlords who reduce or cancel rent for commercial premises	CA$ 48 bn in loans to businesses through the Business Credit Availability Program Loans to large corporations (minimum revenues of CA$ 217 million per year) to cover short-term expenses	

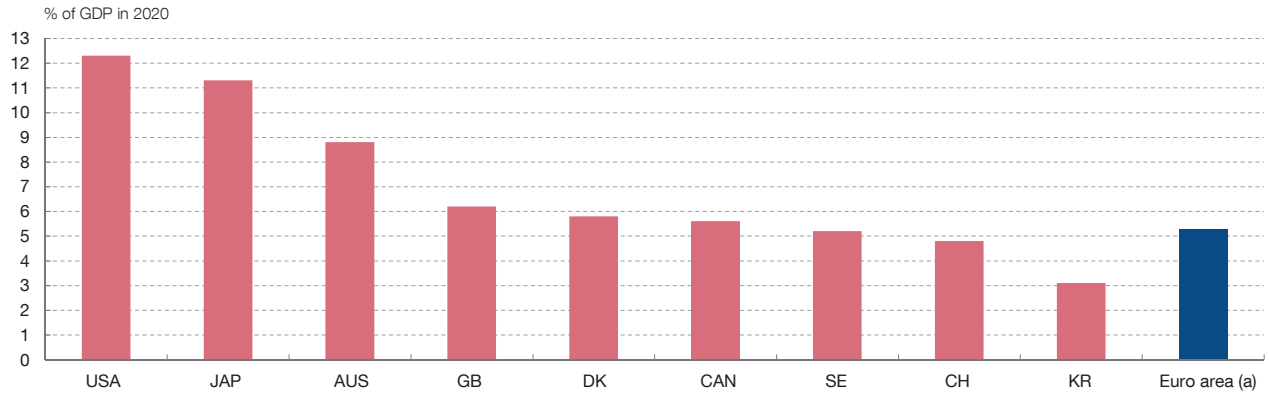
SOURCES: Banco de España, drawing on national sources.

a Solely includes numbers announced by governments. Generally, these figures do not include higher spending on unemployment insurance.

Chart 3.2

MAGNITUDE OF THE BUDGETARY MEASURES APPROVED IN DEVELOPED ECONOMIES IN RESPONSE TO THE PANDEMIC

Virtually all countries have adopted fiscal policy measures to finance the increase in health spending and to mitigate the effects of the pandemic on the economy. The differences in the size of the automatic stabilisers make international comparison difficult. However, the fiscal plans approved by the advanced economies outside the euro area countries generally provide for a discretionary fiscal impulse that is greater than that of euro area countries.



SOURCE: IMF (WEO June 2020).

a Data for the euro area reflects a weighted average of the budgetary measures of the following countries: France, Germany, Italy, Spain, Belgium, Netherlands and Finland.

DOWNLOAD

The US fiscal policy package is particularly significant in quantitative terms, and is essentially based on direct financial assistance to households, businesses and state and local governments. It is estimated that the measures adopted by the US federal government will have a total budgetary cost of more than 12% of GDP,[7] although funds equivalent to 14.7% of GDP will be mobilised once the guarantees to monetary authority transactions are added. With respect to businesses, funding has been provided for loans and subsidies to SMEs, and the Treasury's Exchange Stabilization Fund has been expanded to grant loans to the most affected large corporations. Additionally, all businesses are granted a six-month extension for corporate income tax payments. SMEs also obtain tax relief for the costs arising from sick leave. In addition, a Paycheck Protection Program has been created, based on providing incentives to businesses, mainly SMEs. It aims to provide $670 billion (3.1% of GDP) of guaranteed loans to small and medium-sized enterprises, so that they can keep their workers on the payroll during the interruptions caused by the pandemic. These loans will be partially or fully forgiven, provided that businesses retain their employees and do not significantly change their employment conditions. The fiscal package for households includes a transfer of $1,200 per person, plus $500 per dependent child. Unemployment benefits are also increased, their duration extended, and the

7 See the Congressional Budget Office's (CBO) assessments of *H.R. 748, CARES Act, Public Law 116-136* and *H.R. 266, Paycheck Protection Program and Health Care Enhancement Act*.

eligibility requirements eased. Furthermore, a three-month extension is granted for personal income tax payments. Lastly, the package mobilises funds equivalent to 1.4% of GDP to fund extraordinary health spending related to the pandemic at state and local level. These measures complement and add to those taken by the Federal Reserve to support liquidity, described below.

In euro area countries, national authorities have approved significant fiscal policy packages, albeit heterogeneous in scope (see Table 3.2). These packages are very similar as regards the main measures adopted. First, the partial unemployment systems have been strengthened in most countries, easing or expanding the existing arrangements. In addition, the debt burden of firms has been alleviated, through the suspension or deferral of taxes. Second, liquidity support schemes for firms have been approved, varying in size depending on the country. Worth noting is the case of Germany, where a mechanism has been established to provide liquidity to businesses in the form of loans with favourable conditions, new credit facilities and public guarantees, and a bail-out fund for large corporations has been set up, which may include both the acquisition of holdings in the capital of companies experiencing financial difficulties and additional guarantees for corporate debt.[8] France has adopted additional measures to support various industries, such as tourism, aviation and aerospace, through loans, guarantees and the possibility of bailing out businesses via recapitalisations or even nationalisation. Third, measures to support households and the self-employed have been approved. In Italy, these measures notably include the suspension for up to 18 months of mortgage payments on first homes, the creation of emergency income for low-income households excluded from other financial assistance, the five-month suspension of redundancy procedures initiated since 23 February, €600 of compensation for self-employed workers, various work-life balance measures and a "holiday voucher" for low-income households, to be used in Italian tourist establishments until the end of the year. In Germany, the government has extended basic income assistance, which grants minimum subsistence benefits subject to certain requirements, to working-age individuals whose income level is deemed insufficient, including assistance for rental expenses, Lastly, the German government has also adopted specific measures aimed at boosting the recovery of consumption and investment, through a temporary cut to VAT (from 19% to 16% from July to year-end) and the creation of a programme to invest in green and digital technologies.

At European supranational level, several EU instruments have been mobilised to support the measures adopted by national governments. In terms of legislation, the European Commission (EC) approved the easing of restrictions on State aid to accommodate the above-mentioned guarantee schemes. Furthermore,

8 Although State guarantee programmes are a common feature of the main European economies, at present, national schemes have been implemented at different speeds across the various countries. In May, the guarantees extended in Germany and Italy were equivalent to 3% and 8%, respectively, of their national guarantee programmes. In the same month, the guarantees approved in France amounted to 27% of the total scheme, a figure which stood at 60% in the case of Spain

Table 3.2

FISCAL POLICY MEASURES IN EUROPEAN COUNTRIES (a)

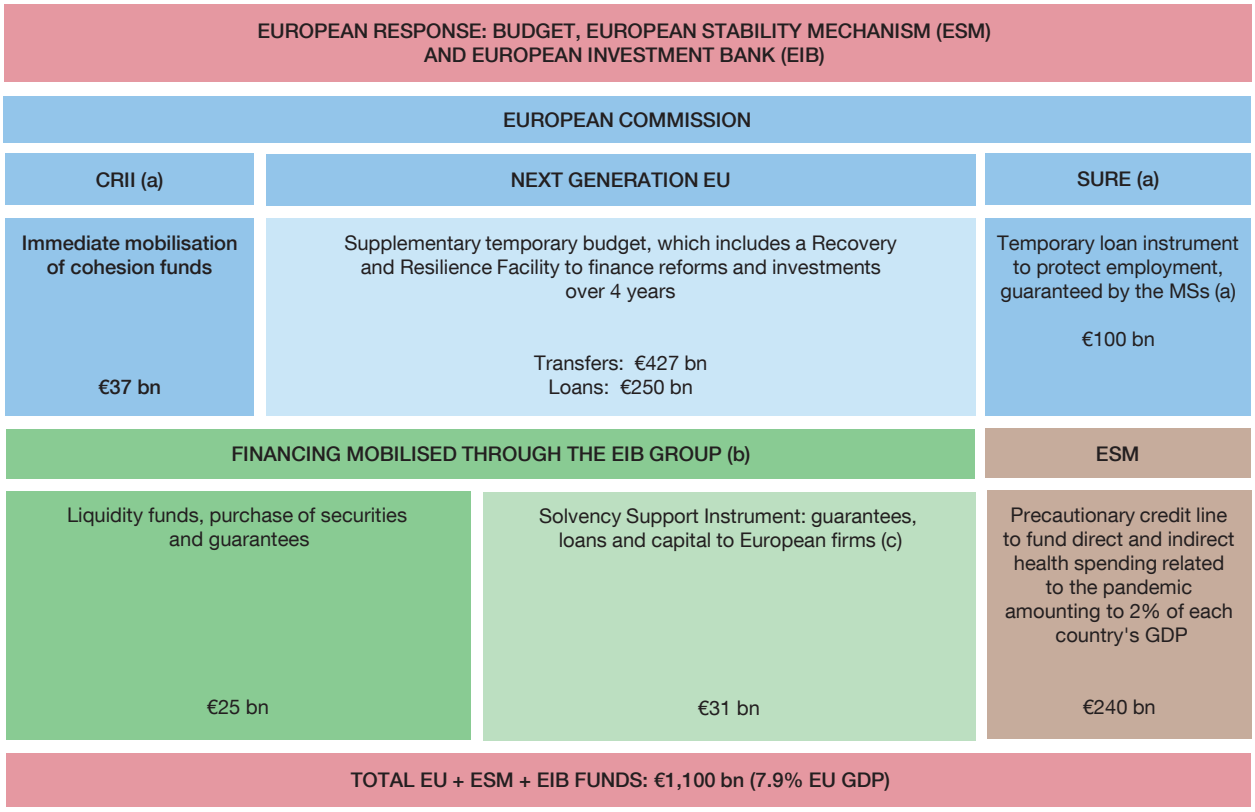
Country	Deferral or suspension of taxes	Support for households	Subsidisation of labour costs, unemployment and support for businesses	Liquidity provision to businesses through credit	Aggregate demand
Spain	6-month moratorium for tax debts of SMEs and the self-employed, up to a maximum of €30,000 per tax Adjustment to payment of corporate income tax Reduction of VAT Extension until 20 May for SMEs and the self-employed to declare income	Moratorium on mortgage payments for low-income workers and the self-employed Benefits for the self-employed and domestic service workers whose employment is suspended Extension of temporary contracts at universities Furthermore, albeit not directly linked to the current health crisis, a minimum living income was approved on a permanent basis	Exemption from payment for temporary layoffs or short-time working schemes, extension of unemployment benefit to more groups, greater protection for unemployed seasonal workers Reduction in contributions of agricultural employees	State guarantees of €100 billion for non-financial corporations' loans and additional guarantee facility of €2 billion for exporters	
Italy	Deferral of most March, April and May taxes until September for businesses and the self-employed that experienced losses of more than 33% or particularly hard hit industries and regions Abolition of regional tax on the self-employed and businesses with turnover of less than €250 million	Guarantees for moratoria on mortgages, leave for care responsibilities and fund for low-income workers Emergency income for low- income households, work-life balance measures and food aid	Unemployment subsidy for firms affected, of up to 13 weeks, extension to industries not covered and suspension of social security contributions Reduction of SMEs' fixed costs for 3 months Direct aid proportional to losses of SMEs and microfirms Dismissals suspended for 5 months Direct subsidies of €1,000 in May for the self-employed with reduction in income of more than 33% and €600 for the self-employed	Guarantees for moratoria on loan repayments reinforcement of guarantee fund for SMEs and "SACE" State guarantee (up to a total of €450 billion); large corporation recapitalisation fund	New fund for any type of short-term investment
Germany	Temporary deferral of taxes for businesses VAT reductions: from 19% to 16% and 7% to 5% (reduced rate) Reduction of electricity taxes Social security contributions limited to 40%	€10 billion for additional recipients of HARTZ IV (basic income) Greater protection for tenants and households unable to pay utility bills Financial assistance for low-income and single-parent households, €300 lower for all households	Easing of requirements for businesses to apply for *Kurzarbeit* (reduced working hours) and increase in amounts receivable by employees A total of €75 billion earmarked for direct assistance for businesses affected to cover fixed costs Unemployment benefit extended for 3 months (for the over 50s gradual increase of up to 2 years) €50 billion of support for green and digital companies	"Unlimited" liquidity through KfW (could reach €820 billion) Creation of bail-out fund for large corporations: €400 billion in guarantees; €100 billion for recapitalisations; €100 billion for KfW loan	2021-2024 investment plan of €12 billion and investment plan of €25 billion for municipalities, €55 billion in reserve
France	Temporary deferral of taxes for businesses Refund of tax credits accelerated	Enlargement of social rights and extension of unemployment benefit Postponement of unemployment insurance reform	Reinforcement of partial unemployment system Payment of social insurance deferred Creation of Solidarity Fund for microfirms and the self-employed Deferral of lease and utility payments €4 billion for start-ups	State guarantee programme for businesses of any size through Bpifrance totalling €300 billion	
Portugal	Temporary deferral of taxes for businesses	Work-life balance measures: 2/3 of salary for childcare leave	Suspension of businesses' social security contributions and temporary unemployment benefit of 2/3 of salary	Liquidity through State guarantees and a €3.7 billion credit line	
Netherlands	Deferral of taxes for businesses and the self-employed Reduction in interest rate on public loans	Coverage of 30% of pension contributions	Subsidies of up to 90% of salaries if employment is maintained €4,000 for businesses affected The self-employed may receive social assistance benefits for 7 months	Credit and guarantees of 50% for SMEs of up to €1.5 billion	
Austria	Temporary deferral of income tax, corporate income tax and businesses' and individuals' social security contributions	The State pays 1/3 of the salaries of individuals who have had to look after children due to the closure of childcare facilities and schools	Direct assistance to industries such as tourism and shorter working hours The State pays salaries (90% for salaries of up to €1,700; 95% of salaries under €2,685 and 80% for salaries which do not exceed €5,370)	€9 billion in credit guarantees €15 billion emergency fund	€4 billion in direct emergency assistance
Denmark	€22 billion in temporary deferral of corporate income tax and VAT for businesses (€5.4 billion for SMEs)	The State pays 75% of salaries and businesses pay 25% Extension of unemployment benefits and sick leave (€1.3 billion)	Assistance for payment of salaries due to temporary discontinuation of activity Subsidies of 75% of losses of the self-employed for 3 months (€1.3 billion) Subsidies of fixed costs of SMEs with lost turnover of more than 40% (€5.4 billion)	State guarantees and a €13 billion credit line	
United Kingdom	Stamp Duty Tax relief, delay in payment of VAT and income tax for the self-employed and professionals Application of zero rating to certain e-publications brought forward	Improvement in social welfare measures (income subsidies and rent support) Increase in benefits for the most disadvantaged	Extension of sick pay to include quarantine to be met by the government in full for up to 14 days Payment of 80% of the salary and contributions of companies which have furloughed workers (£9 billion) £25,000 for retailers, healthcare firms and leisure industry and £10,000 for small businesses £10 billion to pay 80% of profits of the self-employed in the last 3 months (maximum of £2,500) £1.2 billion support for start-ups	State guarantees (British Business Bank) and access to credit for businesses	General fiscal stimulus package

SOURCE: Banco de España, drawing on national sources.

a Only includes numbers announced by governments. In general, these figures do not include the increased expenditure on unemployment insurance.

Figure 3.1

THE SUPRANATIONAL RESPONSE TO THE CORONAVIRUS



SOURCES: Banco de España, based on EU sources. The lightly-shaded parts are measures proposed by the Commission as part of Next Generation EU, pending approval.

a CRII stands for Coronavirus Response Investment Initiative, SURE refers to Support to mitigate Unemployment Risks in an Emergency and MSs stands for Member States.
b The EIB has two programmes, to mobilise up to €240 bn.
c The Solvency Support Instrument forms part of the proposals put forward under Next Generation EU.

Member States are allowed to use the flexibility clause in the face of exceptional circumstances contained in the Stability and Growth Pact, which would enable them to temporarily deviate from the paths for the deficit, expenditure and public debt which would be set, under normal circumstances, by the framework of the fiscal rules. From an operational standpoint, the EC approved several measures which envisage using the EU budget (see Figure 3.1). These include the Corona Response Investment Initiative (CRII) which can immediately mobilise €37 billion of existing and yet unallocated cohesion funds to finance pandemic-related expenses. If needed, this amount could be increased by a further €29 billion. Similarly, the EC proposed a reinsurance mechanism for national unemployment insurance (SURE), structured through loans to Member States to cover the costs of temporary lay-off schemes, these loans being conditional upon preserving employment. Total funding available under SURE amounts to €100 billion which will be distributed based on the expenditure incurred by these short-time work schemes, while respecting a combined ceiling of €60 billion for the three countries which request most funds.

The proposal with the greatest capacity to boost the European economy is the recovery plan for Europe (Next Generation EU).[9] This initiative, which was proposed by the European Commission at the end of May and has yet to be approved, would be based on a supplementary budget of €750 billion for the European Union within the 2021-2027 multiannual financial framework.[10] These funds would be financed with long-term debt repayable as from 2028 through new European taxes, such as digital or environmental taxes. The funds would be earmarked for financing investment and reforms in Member States to boost growth and compliance with shared EU objectives, and a combination of transfers, loans and guarantees for different EU programmes would be used. The distribution scheme would favour countries whose economies were hardest hit by the COVID-19 crisis, such as Spain or Italy.

In addition to the European Commission's measures, funding has been mobilised by the European Investment Bank (EIB) and by the European Stability Mechanism (ESM). As an immediate response to this crisis, the EIB set up a new €25 billion Pan-European Guarantee Fund which could guarantee up to €200 billion of financing for businesses, and a support plan to ease the liquidity strains of SMEs and mid-caps (with the purpose of mobilising up to a further €40 billion of financing). Governments of euro area countries established a special ESM credit line (Pandemic Crisis Support) based on existing preventive tools which may grant total financing of up to €240 billion. Exceptionally, the Member States agreed that the only requirement for accessing this credit, which has a ceiling of 2% of each State's GDP, is a commitment to use the financing to cover the direct and indirect costs of medical care owing to the health crisis.

It is estimated that the pandemic will trigger a substantial increase in the government deficit of the main advanced economies. The International Monetary Fund anticipates that, due to the effect of these discretionary measures and the automatic stabilisers, the health crisis will cause the government deficit of euro area countries to surge by 11.1 pp of GDP in 2020[11,12]. By comparison, a larger increase is expected in the US government deficit, whose budget balance will drop by 17.5 pp relative to the previous year. The increase in the UK government deficit is calculated to be similar to that projected for the euro area (10.6 pp of GDP).

3.3 The multilateral response

The depth of this crisis and the limited national policy leeway in many regions require stronger international coordination in times of fragile multilateralism. Strictly from a healthcare perspective, the advantages of international cooperation

9 See the European Commission's Recovery plan for Europe.
10 For thoughts on the design of a European Recovery Fund, see Arce et al. (2020).
11 The impact of State guarantees is not included in these fiscal projections. The final impact of these guarantees will hinge, among other factors, on the pace at which loans with State guarantees are granted and their default rates. For more information, see Cuadro-Sáez et al. (2020).
12 See International Monetary Fund (2020b).

in attempting to halt the spread of the disease or the emergence of new outbreaks are clear in a crisis of this kind. In particular, in the case of the poorest countries, with very weak health and social protection systems, the absence of a decisive multilateral response could have dramatic consequences. In the economic and financial field, the standstill in activity in numerous sectors, the ensuing slowdown in trade between countries and the abrupt changes in financial flows (see Section 2.2 in Chapter 2) also underscore the importance of multilateral fora for providing a global response to the pandemic. In this connection, the strength of the world economic recovery in the medium term will depend on the response to the crisis being global, coordinated and adaptable over time, as fresh action is required.[13] In 2008 the global financial crisis revived the G20 and macroeconomic policy coordination, and strengthened international financial regulation and its institutional architecture. These elements constitute a significant, albeit insufficient, basis for a global response to the current crisis.

The main multilateral fora started to analyse possible responses to the crisis from early March. In particular, the G7 reaffirmed its commitment to coordinate the economic stimuli and the health and border control measures necessary to contain the pandemic, mitigate its impact and contribute to economic recovery. For its part, the G20 endorsed an extensive Action Plan[14] which combines health measures – committing to compliance with international rules, transparent information and to providing institutions such as the World Health Organisation (WHO) with the resources needed[15] – with a coordinated global economic and financial response. It also allows for the application of exemptions (regarding export restrictions on medical and food supplies) from the rules of the World Trade Organisation (WTO), only if necessary. This plan aimed to mitigate the disruptions in the global medical equipment supply chains, in view of the lack of strategic stocks and production capacity at national level that became evident at the height of the pandemic. Also, in response to the IMF and the World Bank's call to action, the G20 countries, together with the Paris Club, resolved to address requests for a moratorium until end-2020 on debt payments from low-income countries hit hardest by the pandemic.[16] The G20 has also called on multilateral development banks, provided they maintain their credit ratings, and on private creditors to participate in this initiative through the Institute of International Finance (IIF). The aim is to allow countries with fewer resources to have greater fiscal space in the short term to tackle the pandemic. That said, based on the decisions taken since the onset of the pandemic, it appears that the highest level political stimulus for the multilateral

13 See, for example, Kohlscheen et al. (2020), who highlight the magnitude of the possible spillover effects between the major global economies as a result of the COVID-19 health crisis and illustrate the risk of unilateral macroeconomic policies. By focusing on the pandemic's direct effects on the domestic economy, these policies fail to internalise its indirect effects derived from international spillovers.

14 See *G20 Finance Ministers and Central Bank Governors Meeting*.

15 Except for the United States, which announced its withdrawal from the WHO at the end of May.

16 Countries eligible for International Development Agency (IDA) assistance and those defined as least developed countries by the United Nations may avail themselves of this moratorium.

response has been weaker than that provided during the global financial crisis in 2008.

The main multilateral development banks are playing a significant role in this crisis (see Table 3.3)**.** From the start of the pandemic, these institutions have fostered a series of emergency measures in line with their mandates and fields of action. Their financial support to emerging and low-income countries up to the cut-off date of this Report amounts to over $200 billion and includes investment programmes in the health sector in coordination with the competent international organisations.[17] Among other actions, they also provide support to the most vulnerable countries through safety nets and transfer programmes, emergency assistance using budget or sectoral channels in line with the IMF programmes and liquidity facilities for the private sector.

Within the framework of the global financial safety net, the IMF has swiftly deployed a broad battery of measures. The measures adopted by the IMF include most notably increasing access to emergency facilities with no conditionality[18] and creating a new liquidity line designed to assist emerging countries with sound fundamentals and moderate funding needs. The Regional Financing Arrangements (RFAs)[19] have confirmed their willingness to cooperate with the IMF, share information and co-finance possible programmes. Against the backdrop of the "Team Europe" strategy supporting partner countries in combating the pandemic, a macro-financial assistance (MFA)[20] package totalling €3 billion in assistance to ten countries[21] will be combined with the IMF's emergency financing. The main central banks have been quick to reactivate, and even expand, the swap lines with systemic emerging economies which were so useful during the global financial crisis. In addition, the Federal Reserve (Fed) has established a repo facility to exchange US Treasury securities for US dollars (see Section 3.4). The fact that not all emerging countries have access to these facilities or are covered by an RFA provides a greater opportunity for the IMF's new liquidity line, since it allows these countries to deal with the liquidity tensions and capital outflows they have experienced since the onset of the crisis (see Section 2.2 in Chapter 2).

Despite the deployment of these multilateral actions, the magnitude and nature of this crisis evidence the need to analyse in depth the multilateral institutional structure and to step up international cooperation. Specifically,

17 Excluding the EIB, which also provides assistance to developed countries.

18 To cover the greater demand for concessional, including emergency, assistance, the Fund has initiated a round of fund-raising for the Poverty Reduction and Growth Trust (PRGT).

19 The main RFAs are the Chiang Mai Initiative Multilateralised (CMIM) in Asia and the European Stability Mechanism (ESM) in Europe. For further information on these bodies and their cooperation with the IMF, see European Central Bank (2018).

20 Through the MFA, the EU provides loans or grants to third-country partners as a supplement to an IMF adjustment programme. MFA is available for candidate countries, potential candidate countries, EU neighbours and, exceptionally, other countries politically, economically and geographically close to the EU.

21 See Decision of the European Parliament and of the Council on providing macro-financial assistance to enlargement and neighbourhood partners in the context of the COVID-19 pandemic, of 18 May 2020.

Table 3.3

RESPONSE OF THE MAIN MULTILATERAL DEVELOPMENT BANKS TO COVID-19

Institution	Measures	Main eligible countries	Duration
World Bank	Financial package of $160 billion including $50 billion in concessional assistance and grants through the International Development Association (IDA) This financial package includes an emergency assistance line of $14 billion, comprising $8 billion from the International Finance Corporation (IFC) and $6 billion from the International Development Association (IDA) and the International Bank for Reconstruction and Development (IBRD)	Developing and low-income countries that are World Bank members To date the World Bank is providing assistance to 100 countries, mainly in Africa and Asia, within the framework of COVID-19	15 months with possible extension
Asian Development Bank (ADB)	Announcement of measures amounting to $20 billion, including $2.5 billion in concessional lending and grants and $2 billion for the private sector	Asian countries that are ADB members To date the countries which have received COVID-19-related assistance are: Mongolia, Bangladesh, Sri Lanka, Kyrgyz Republic, Bhutan, India, Philippines, Nepal, Laos, Indonesia, Georgia and Pakistan	15 months with possible extension
African Development Bank (AfDB)	(1) A *Rapid Response Facility* amounting to $10 billion, including: $5.5 billion for sovereign operations for all AFDB member countries; $3.1 billion in concessional financial assistance to countries under the framework of the African Development Fund (AFD); and $1.4 billion in non-concessional assistance to the private sector (2) Issuance of $3 billion "*Fight COVID-19*" Social Bond, issued in the international markets	African countries that are AfDB members	Unspecified
Inter-American Development Bank (IDB)	$12 billion allocated to: reprogramming the existing portfolio of healthcare projects to address the COVID-19 crisis; an additional $3.2 billion for the loan programme initially stipulated for 2020; and $5 billion for the private sector through IDP Invest	Latin American countries that are IDB members To date, the countries that have received COVID-19-related assistance from IDB are: Argentina, Dominican Republic, Panama, Honduras, Ecuador, Paraguay, Uruguay and El Salvador	9 months
Islamic Development Bank (IsDB)	Approval of the *Respond, Restore, Restart* programme, with an allocation of $2.3 billion, including emergency grants, credit facilities for SMEs, sovereign loans and political risk insurance	Countries that are members of the Organisation of Islamic Cooperation (Muslim-majority countries)	Short term: 6/9 months Medium/long term: 18/24 months
Asian Infrastructure Investment Bank (AIIB)	(1) Creation of COVID-19 *Crisis Recovery Facility* (CRF) amounting to $10 billion in the form of healthcare support, liquidity, and budgetary and fiscal support in coordination with other Multilateral Development Banks. Includes a concessional window (2) Approval of a sovereign-backed loan to China of $355 million for the healthcare sector	Asian countries To date the countries that have received COVID-19-related assistance are India, China, Mongolia, Indonesia, Pakistan, Philippines, Bangladesh and Turkey	Unspecified
European Investment Bank (EIB)	*Response for European Union (EU) countries:* (1) €40 billion to support the needs of SMEs through guarantees backed up by the EU budget (2) Special assistance to the healthcare sector via redistribution of framework loans not entered into/not signed and loans of €5 billion already earmarked for the healthcare sector (3) Creation of a €25 billion Guarantee Fund to mobilise €200 billion in bank credit to firms *Response for non-EU countries:* €5.2 billion for the healthcare sector and the private sector (this funding is part of the Team Europe programme)	EU and non-EU countries: Africa, EU neighbouring countries, Western Balkans, Asia and Latin America To date the countries which have requested assistance related to COVID-19 are Spain, Italy, Western Balkans, Egypt, Montenegro and Morocco	Unspecified
European Bank for Reconstruction and Development (EBRD)	*Solidarity Package* of €4 billion for clients with imminent working capital and liquidity needs, with a possible expansion to €21 billion during 2020/2021	38 emerging countries mainly in Europe (not EU), Central Asia and southern and eastern Mediterranean countries	During 2020 and 2021
New Development Bank (NDB)	(1) Issuance of a 3-year *Coronavirus Combating Bond* in the China interbank bond market amounting to $1 billion to finance the emergency assistance programme for China (2) Creation of an *Emergency Assistance Facility* to provide $10 billion to finance expenditure in combating COVID-19 and boost economic recovery	BRICS (Brazil, Russia, India, China and South Africa) To date, China and India have received assistance	Unspecified

SOURCE: Banco de España, drawing on information from the different Multilateral Development Banks.

a greater political stimulus, coordinated at the highest level, to foster a global healthcare management strategy was lacking in the early stages of the global spread of the pandemic. This was evidenced, for instance, in the shortages which arose in the global medical equipment supply chains at the height of the pandemic. Just as major crises in the past profoundly transformed international cooperation – the Great Depression led to the creation of the Bretton Woods institutions and the global financial crisis redrew the map of international financial institutions[22] and fostered coordinated action among countries – the size of this pandemic and its severe global economic impact should bolster a richer multilateral institutional structure and lay the foundations for sounder international cooperation. In particular, it is time to reflect on how to improve the role of these instruments in managing global crises, such as the current one, and in the early containment of their effects. This would also help to better address other challenges, such as climate change, which the world economy and society at large should begin to deal with in the short term. Nevertheless, it is not easy to make progress in this direction given the fragility of multilateralism in the current circumstances, as it is threatened by growing tensions in US-China relations, and this could lead to a reactivation of protectionist positions. In this setting, the EU should play a leading role in achieving a reinforced and inclusive multilateralism and an area of operation governed by international rules.

3.4 The monetary policy response

3.4.1 Actions taken by the main central banks

The monetary authorities of the main advanced and emerging economies have reacted swiftly and decisively to the COVID-19 crisis. First, most central banks have reduced their key policy rates to all-time lows and, second, many have simultaneously used unconventional instruments which were, in many cases, created to address the 2008 financial crisis. The US Federal Reserve (Fed) lowered its key policy rates by 150 bp to between 0% and 0.25%. It also reactivated the quantitative expansion of its balance sheet through unlimited purchases of government bonds and mortgage-backed securities (see Chart 3.3.1) and introduced measures supporting liquidity in the markets to facilitate their functioning, including some relating to the availability of dollar liquidity in international markets and new credit facilities to promote financing for small and medium-sized enterprises, households and sub-central governments. The US monetary authority is also encouraging, through regulatory changes, the modification of the loans of customers affected by the pandemic and the extension of new credit to solvent customers. The US Treasury has supported the Fed in many of these programmes by providing guarantees for its operations and, especially, by contributing capital to joint financial

22 See Garrido et al. (2016).

Table 3.4

MONETARY POLICY MEASURES ADOPTED TO COMBAT THE IMPACT OF COVID-19

Country	Cut in policy rate (to % level)	Asset purchases	Maximum amount established	Credit support	Amount	Backed by the Treasury (%)
Euro area		Purchases of government and private-sector bonds (including commercial paper) with reinvestment of principal (increase in Asset Purchase Programme, APP) and new Pandemic Emergency Purchase Programme (PEPP)	€120 billion (APP) +€1,350 billion (PEPP)	Additional longer-term refinancing operations (LTRO) until June (average deposit facility rate) Subsequently, TLTRO III under more favourable conditions, and pandemic emergency longer-term refinancing operations (PELTROs, 25 bp below the average interest rate on the main refinancing operations)	—	—
				Easing of capital and liquidity requirements for banks	—	—
				Easing of collateral criteria	—	—
United States	–150 bp (0%-0.25%)	Unlimited purchases of Treasury bonds and mortgage-backed securities Reinvestment of the principal of the agency debt and mortgage-backed securities		Reduces discount window cost (to 0.25%) and lengthens maturity of operations up to 90 days	—	—
				Encourages the use of liquidity and capital buffers to support credit	—	—
				Reduces reserve requirement to 0% as from 26 March	—	—
				Encourages the use of intraday credit	—	—
				Primary Market Corporate Credit Facility (PMCCF) for purchases of corporate bonds in the primary market	$500 billion	10
				Secondary Market Corporate Credit Facility (SMCCF) for purchases of corporate bonds in the secondary market	$250 billion	10
				Commercial Paper Funding Facility (CPFF)	$10 billion	—
				Term Asset-Backed Securities Loan Facility (TALF) to provide credit to households	$100 billion	10
				Municipal Liquidity Facility (MLF) to purchase local and state government debt	$500 billion	7
				Paycheck Protection Program Liquidity Facility (PPPLF) to provide term financing backed by PPP loans	$670 billion	100
				Main Street Lending Program to provide funding for SMEs not covered by the other facilities	$600 billion	12.5

SOURCE: Banco de España.

vehicles expressly created to implement such programmes. Among the major central banks, the Bank of England has also cut its key policy rate by 65 bp to 0.1% since March, while the Bank of Japan maintained it at -0.1%. The two institutions have expanded their sovereign and corporate bond purchase programmes, established measures to support credit and market liquidity, and participate in the agreement to re-establish swap lines with the Fed to provide dollars at international level. Other advanced economies such as Canada, Sweden, South Korea and Australia, have taken similar measures (see a summary of the measures adopted by central banks in Table 3.4).

The central banks of emerging economies have resorted to policy interest rate cuts across the board. As a result of these decisions, these rates have been

Table 3.4

MONETARY POLICY MEASURES ADOPTED TO COMBAT THE IMPACT OF COVID-19 (cont'd)

Country	Cut in policy rate (to % level)	Asset purchases	Maximum amount established	Credit support	Amount	Backed by the Treasury (%)
Japan		Maximum annual purchases of ETFs doubled	¥6 trillion additional (Annual total: ¥12 trillion)	New lending facility maturing at up to one year for financial institutions (0% interest, corporate and household debt as collateral)	The maximum would be reached if all corporate and household debt were used as collateral (¥25 trillion in April 2020)	—
		Maximum annual purchases of J-REITs doubled	¥90 billion additional (Annual total: ¥180 billion)	Increase in limit for corporate bonds in bank balance sheets, which may mature in up to 5 years (formerly 3)	Purchases of up to ¥7.5 trillion up to March 2021 (Maximum in the balance sheet: ¥10.5 trillion)	—
				Increase in limit for commercial paper in bank balance sheets	Purchases of up to ¥7.5 trillion up to March 2021 (Maximum in the balance sheet: ¥9.5 trillion)	—
		Increase in purchases of government bonds	Indefinite	New lending facility (0% interest, maturing at up to one year and interest-free, unsecured loans granted through the measures put in place by the Government)	The maximum would be reached if all eligible loans were used as collateral (¥30 trillion)	—
United Kingdom	–65 bp (0.1%)	Increase in purchases of sovereign and corporate bonds	+ £200 billion increase (+ £10 billion corporates, + £190 billion government bonds) (Total: £645 billion)	TFSME: financing facility for SMEs, over 12 months, at a rate close to the policy rate	£100 billion (BoE estimations)	0
				CCFF: State guarantees on loans to firms affected, via purchases of commercial paper (through the BoE)	Unlimited in principle, first phase for £330 billion, to be combined with the British Business Bank's CBILS, CLBILS and BBLS programmes	100
China	MLF (1 year): –30 bp (2.95%) Reverse repos: 7 days: –30 bp (2.20%) 14 days: –10 bp (2.55%) Preferential loans: 1 year –30 bp (3.85%); 5 years –15 bp (4.65%)	—	—	Refinancing facility for firms hit by the pandemic	¥300 billion	—
				Refinancing/rediscounting facility for lending to SMEs	¥900 billion	—
				Expansion of financing and rediscounting share for small and medium-sized banks	¥1,000 billion	—
				Issuance of financial institutions' bonds to increase credit granted to SMEs	¥300 billion	—

SOURCE: Banco de España.

Table 3.4
MONETARY POLICY MEASURES ADOPTED TO COMBAT THE IMPACT OF COVID-19 (cont'd)

Country	Liquidity measures on domestic markets	Amount	Backed by the Treasury (%)	Currency swaps/Provision of liquidity to other central banks	Amount
Euro area				Coordinated with other central banks	Bulgaria and Hungary (€2 billion), Romania (€4.5 billion) and Denmark (€12 billion) No limit specified by the Federal Reserve
United States	1-month repos	$500 billion	—	Coordinated with other central banks	For Australia, Brazil, South Korea, Mexico, Singapore and Sweden ($60 billion) For Denmark, Norway and New Zealand ($30 billion)
	3-month repos	$500 billion	—		
	Increase in supply of overnight repos	+$400 billion (Total: $500 billion)	—		
	Increase in supply of 15-day repos	+$25 billion (Total: $45 billion)	—		
	Primary Dealer Credit Facility	—	—		
	Money Market Mutual Fund Liquidity Facility (MMLF)	—	$10 billion		
Japan	Ad hoc operation in March to inject liquidity through repos	¥500 billion		Coordinated with other central banks	—
	Other operations: securities sale repo, government bond loans for use in transactions of liquidity provision in dollars, etc.	—			
United Kingdom	*Contingent Term Repo Facility* (CTRF) to increase liquidity in monetary markets	—	—	Coordinated with other central banks	—
	Temporary extension of the *Ways and Means Facility* (W&M) Treasury credit facility at BoE				
China	Cuts in reserve ratio: — Segmented (equivalent to –35 bp on the aggregate, currently 10%). — For SMEs (100 bp, currently 7%)	—	—	—	—
	Liquidity provision: reverse repos for value of $174 billion and $71 billion	—	—		
	Decrease in remuneration of excess reserves from 0.72% to 0.35%)	—	—		

SOURCE: Banco de España.

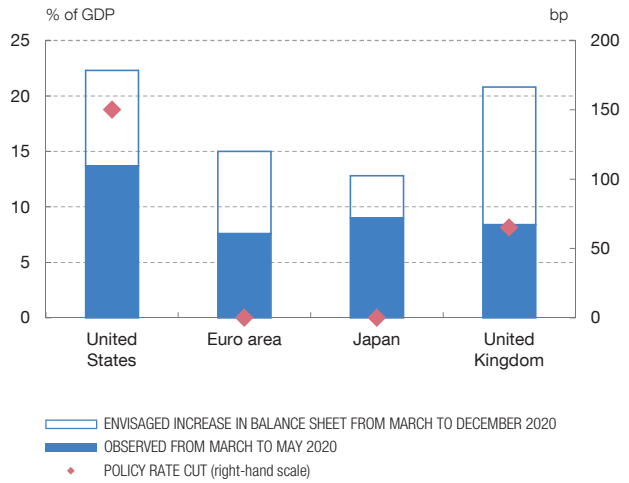
reduced to all-time lows in certain cases and, in real terms, have moved into negative territory (see Chart 3.3.2). In contrast with other episodes in the past, this expansionary monetary policy was implemented in an environment of notable currency depreciation, which was only partially mitigated through foreign exchange intervention. Additionally, certain central banks (for instance, those of Brazil, Chile,

Chart 3.3

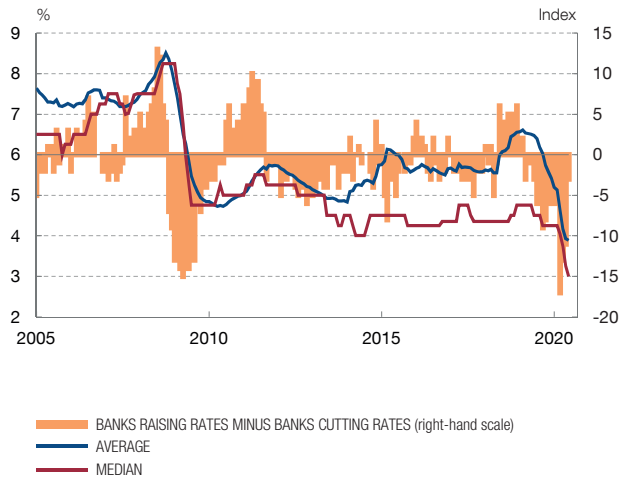
MEASURES ADOPTED BY THE MAIN CENTRAL BANKS

The monetary authorities of the main advanced and emerging economies have reacted swiftly by reducing key policy rates to all-time lows and using unconventional instruments.

1 INTEREST RATE CUTS AND MONETARY EXPANSION IN ADVANCED ECONOMIES (a)



2 POLICY INTEREST RATES IN EMERGING ECONOMIES



SOURCES: Central banks and Banco de España calculations based on reports of Reuters, JP Morgan, Goldman Sachs, Morgan Stanley, Bank of America, Capital Economics and Barclays Capital.

a "Envisaged increase in balance sheet from March to December 2020" is calculated based on projections made by analysts for the total balance sheet size in December 2020. "Observed from March to May 2020" refers to the change in the total balance sheet size from 28 February to 29 May 2020, expressed as percentage points of 2019 GDP. The policy rate cuts refer to the those made between 28 February and 29 May 2020.

DOWNLOAD

Colombia, Hungary, India and South Africa) have put into place, or plan to do so, asset purchase programmes similar to those implemented by the central banks of the advanced economies. Also, the central banks of the emerging economies have, in general, adopted measures to support credit and provide liquidity to the domestic financial markets.

3.4.2 Actions taken by the ECB

In view of the COVID-19 health crisis, on 12 March the ECB adopted a comprehensive package of expansionary monetary policy measures to help preserve the smooth provision of credit to the real economy. First, the ECB undertook to carry out additional net asset purchases under its asset purchase programme (APP) of €120 billion until the end of 2020. Second, it decided to conduct additional longer-term refinancing operations (LTROs) to provide immediate liquidity on favourable terms for banks until June 2020, the date of the second targeted longer-term refinancing operation (TLTRO III) scheduled this

year.[23] Third, to support bank lending to the agents most affected by the spread of COVID-19, particularly to small and medium-sized enterprises, the ECB resolved to apply considerably more favourable conditions between June 2020 and June 2021 to all TLTRO III outstanding during that period.[24] In parallel, the European Single Supervisory Mechanism decided to allow banks to temporarily use their capital and liquidity buffers to help them to continue to fulfil their role in financing the real economy (see Section 3.5).

On 18 March 2020 the ECB announced a new Pandemic Emergency Purchase Programme (PEPP), which was expanded by the Governing Council on 4 June, to counter the serious risks to the monetary policy transmission mechanism and to the outlook for the euro area posed by the pandemic. This temporary asset purchase programme of private and public sector securities was launched with an initial envelope of €750 billion until end-2020. Subsequently, on 4 June 2020 it was increased to €1,350 billion until at least the end of June 2021 and it was announced that the maturing principal payments from securities purchased under the PEPP will be reinvested at least until the end of 2022. Purchases will be conducted in a flexible manner and fluctuations in their distribution will be allowed over time, among jurisdictions and across asset classes. However, the allocation of public sector bonds purchases across jurisdictions will continue to be guided by the capital key, without prejudice to the aforementioned flexible application of the programme in the short term. The extraordinary Governing Council meeting of 18 March also resolved to include non-financial commercial paper in the range of eligible assets under the corporate sector purchase programme (CSPP). The PEPP, together with the new purchases under the APP will increase the portfolio of the Eurosystem's securities purchase programmes to around €4.4 trillion in June 2021 (see Chart 3.4.1).

In April the ECB also adopted a package of temporary collateral easing measures in the Eurosystem. The main purpose of these measures is to expand the capacity of banks to access the Eurosystem's refinancing operations and to support bank lending to businesses and households (see Box 3.2 for further details). Additionally, at its meeting on 30 April, the ECB announced new pandemic emergency longer-term refinancing operations (PELTROs) to provide liquidity support to the financial system.[25]

---

23 The rate in these new LTROs will be fixed at the average of the deposit facility rate (DFR) (currently -0.50%) over the life of the respective operation and they will be conducted with full allotment.

24 The terms and conditions of TLTRO III were further improved at the ECB meeting on 30 April. Following this recalibration, the maximum rate applicable from June 2020 to June 2020 is 50 bp below the average rate on the main refinancing operations (MRO) at long term, currently at 0%. For institutions maintaining their levels of lending, the interest rate will be 50 bp below the average DFR. Also, for these operations, the limit for requesting funds per institution was increased to 50% of their eligible loans.

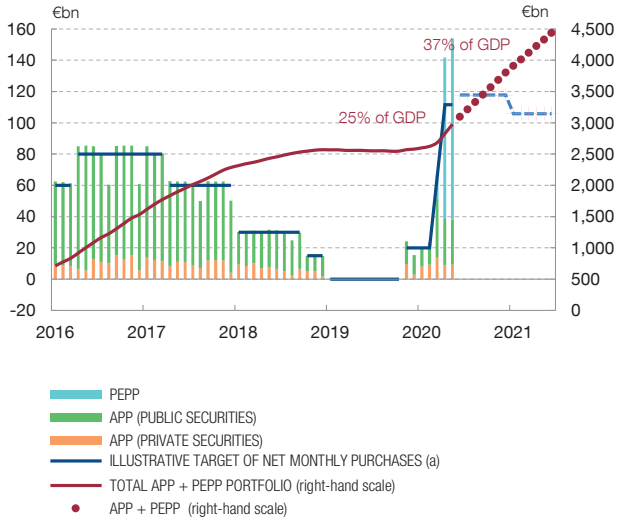
25 Specifically, seven operations will be carried out, commencing in May, with staggered maturities in 2021 Q3. These operations will be conducted as fixed rate tender procedures with full allotment. The interest rate will be 25 bp below the average MRO rate over the life of each PELTRO.

Chart 3.4

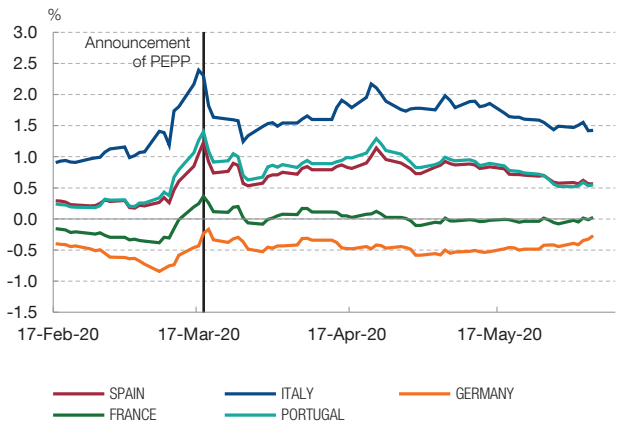
THE ECB ADOPTED A COMPREHENSIVE PACKAGE OF EXPANSIONARY MONETARY POLICY MEASURES

The ECB adopted a comprehensive package of measures to help preserve the smooth provision of credit to the real economy and to counter the risks to the monetary policy transmission mechanism posed by the outbreak of coronavirus. These measures include programmes to provide liquidity (LTROs, TLTRO-III and PELTROs) and to purchase assets (APP and PEPP).

1 ASSET PURCHASE PROGRAMME (APP)



2 INTEREST RATES ON TEN-YEAR SOVEREIGN BONDS



SOURCES: ECB and Thomson Reuters Datastream.

a The monthly net purchase target as from June 2020 (broken blue line) includes, in addition to the €20 billion per month approved last year, monthly net purchases of €120 billion under the APP (approved on 12 March) and €1,350 billion under the PEPP (approved 18 March and extended and increased on 4 June). These purchases will be made until June 2021, assuming, for illustrative purposes, that they will be distributed uniformly until June 2021 (in practice they may be distributed flexibly over time). Based on the total purchases announced, the asset volume under the APP and PEPP in the Eurosystem's balance sheet as at June 2021 will reach 37% of the euro area's GDP in 2019.

DOWNLOAD

In short, the ECB has, in general, reacted substantially more forcefully than it did in the wake of the 2008 financial crisis. As discussed previously, the ECB's main measures focused on its asset purchase programmes (APP and PEPP) and on its longer-term refinancing operations (LTRO, TLTRO III and PELTRO). As a result of these measures, the size of the Eurosystem's balance sheet is expected to expand by around €2 trillion during 2020,[26] considerably more than the increase of just over €0.5 trillion following the ECB's initial response to the crisis that began in 2008. On that occasion the European monetary authority's reaction centred mainly on reducing its policy interest rates and on establishing fixed rate full allotment (FRFA) tender procedures in refinancing operations since October 2008 with the aim of providing financial institutions in the euro area with sufficient liquidity.

The measures recently deployed by the ECB appear to be considerably effective and, in particular, the announcement of the PEPP substantially eased financial conditions in the euro area. On the one hand, European banks seem to

26 According to a Reuters survey of financial sector professionals, mostly banks, conducted in May 2020.

be using the liquidity offered by the Eurosystem to provide credit to the real economy. This is suggested by the euro area Bank Lending Survey (BLS) of April 2020, where 74% of the banks surveyed indicate that they expect to use the liquidity provided by TLTRO III to grant loans to households and firms over the next six months. Noteworthy in this connection is that the fourth TLTRO III tender operation, held on 18 June, received demand for €1.3 trillion, a far higher figure than that of the three previous tenders (a maximum volume of €115 billion was recorded in the March 2020 tender procedure). On the other, the announcement of the PEPP significantly eased financial conditions in the euro area. Such easing prompted a strong fall in sovereign debt yields (see Chart 3.4.2), but also affected other financial indicators, as illustrated in Box 3.3, which uses an event-study methodology.

The easing of financial conditions prompted by the PEPP was partially reversed in April owing to the progressive worsening of the euro area's economic prospects, only to improve over the course of May and June, in part possibly as a result of the extension of the PEPP. Following the lows posted at end-March after the PEPP was announced, sovereign debt yields and spreads rose again, and at end-April stood at levels close to the highs recorded before it was announced. However, announcements of new stimulus measures by national and supranational authorities, as well as the extension of the PEPP in early June, led to another decline in sovereign debt spreads to levels which, at the cut-off date of this Report, continue, nonetheless, to be somewhat higher than their pre-crisis levels. In any event, these dynamics evidence the importance of accompanying the high level of monetary stimulus provided by the ECB with a broad fiscal policy response within the euro area. This response should incorporate common investment and financing instruments, in line with the European Commission's recent proposal, particularly in a setting in which the fiscal space available in certain countries is relatively limited, as shown in Box 3.4).

3.5 The response of the financial authorities

The measures adopted in the realm of banking supervision to mitigate the effects of COVID-19 have been extended to other areas. These measures cover, among others, macroprudential, microprudential and accounting decisions. Their common purpose is that, in the current adverse environment, the financial system continues to provide the financing needed by households and businesses so that they can cope with the (in many cases expected to be essentially temporary) fall in their income.

As for macroprudential policy, numerous countries have released the countercyclical capital buffer (CCyB). The CCyB, which had been activated by many European economies in the past, generally as a result of excess credit growth, has now been released and set at 0%.[27] In Spain the CCyB stood at 0%, given the

27 See Banco de España (2020).

absence of alerts to warrant its activation. Following the outbreak of COVID-19, it is anticipated that this instrument will not be activated over a prolonged period, at least until the main economic and financial effects arising from the current crisis have receded. Accordingly, an important lesson of the current shock is that capital requirements which can be released during macro-financial crisis situations need to account for a higher proportion of the total requirements requested from banks, and they need to adapt to cyclical economic developments to a greater degree than in the past. Indeed, building up a higher level of these cyclical capital requirements would provide banks with more room at this time, not only to cushion the fluctuations in the financial cycle, but also to deal with the impact of shocks such as the current one, which has not arisen from within the financial system itself.

Furthermore, banks will be allowed to operate temporarily under lower regulatory capital and liquidity requirements than usual. Although Spain had not activated the CCyB, Spanish banks did build up other buffers and capital requirements over the last few years, precisely with the aim of using them to absorb losses in the face of scenarios where risks materialise, such as that generated by COVID-19. In this respect, the ECB and the Basel Committee on Banking Supervision (BCBS) have boosted the use of capital and liquidity buffers which can be drawn down by credit institutions, as well as the timely use of the flexibility afforded by prudential regulations to adapt to the new situation. Additionally, the Single Resolution Board (SRB) also clarified how it will supervise, in the current environment, compliance with MREL (minimum requirements for own funds and eligible liabilities). These requirements, which were designed to absorb losses in case of resolution, will be supervised so that they do not constrain banks' ability to use capital buffers which have been released or made more flexible by the authorities.[28]

In the microprudential realm, financial authorities promoted measures on operational, prudential and regulatory flexibility to support the correct functioning of the banking system and to make it easier for the flow of credit to be maintained. Supervisory processes were adapted to adjust the operational resources committed by institutions so that such resources can be used to contribute to business continuity. In this respect, the European Banking Authority (EBA) decided to postpone the biannual stress tests until 2021. Nevertheless, this institution published a sensitivity analysis to assess the impact of COVID-19 based on the information collected in the 2018 stress test exercise.[29] Additionally, the EBA published its 2020 transparency exercise with data on 127 European banks, which includes details of their financial position in December 2019.[30] The ECB's Banking Supervision requested banks to include the pandemic risk in their

28 This situation would arise in cases where capital buffers need to be recorded for the calculation of MREL, which would effectively prevent using them to absorb losses if the SRB does not adopt mitigating measures.

29 See *Thematic note - Preliminary analysis of impact of COVID-19 on EU banks – May 2020. EBA/REP/2020/17*.

30 See *2020 EU-wide transparency exercise*.

contingency plans and to review their business continuity plans. Likewise, deadlines were extended for compliance with the corrective measures required in on-site inspections and completed internal model reviews, and flexible application of the ECB guidance on non-performing assets was permitted.

On 28 April, the European Commission presented a raft of measures to encourage banks to make full use of the flexibility included in the EU's prudential and accounting framework and to introduce a series of adjustments to the regulation applicable to facilitating bank loans to households and businesses. This set of measures included an interpretative communication on the application of the accounting and prudential frameworks – a "quick fix" – to the Capital Requirements Regulation (CRR) which was approved by the Council and the Parliament in June and has already come into force. Among other measures, this amendment to the CRR delays by one year the entry into force of the leverage ratio buffer requirements for global systemically important institutions introduced by CRR2, at the same time as it brings forward the application dates of certain measures agreed in 2019 in the CRR review (including supporting factors for SMEs and infrastructure projects, as well as changes to the prudential treatment of software assets which is being finalised by the EBA). Additionally, changes are introduced to the transitional arrangements for provisioning under IFRS 9 in the prudential framework (in line with the changes agreed recently by the Basel Committee) and other further adjustments are made to the framework which allow credit institutions to reduce capital requirements. These changes include favourable treatment of publicly guaranteed loans under the NPL prudential backstop, adjustments to the possibility of excluding central bank reserves from the leverage ratio, the possibility of overlooking forecasting errors in market risk models during 2020 and 2021, along with favourable prudential treatment for a transitional period of euro-denominated sovereign debt issued by non-euro area countries.

As for accounting, financial authorities adopted measures to avoid an excessively procyclical and mechanical behaviour of provisions which could trigger a contractionary effect on the supply of bank lending to the real economy. The measures focus on clarifying the correct interpretation of accounting rules for calculating the credit risk impairment of financial assets. Specifically, these measures attempt to better differentiate between temporary and permanent credit risk impairment and to take into account the value of guarantees granted by the State. This should limit the growth rate of impairment allowances and moderate their negative impact on profitability. Nevertheless, the supervisory guidelines also consider that the measures adopted in this area should not hamper the measurement of actual impairment and the recording of reasonable provisions for credit risk, and should provide banks with the necessary incentives to maintain adequate standards. The authorities' goals also include a temporary reduction in the amount of accounting information required in order to free up additional operational resources.

Financial authorities recommended the temporary suspension of dividend payments and prudence in employee bonuses, in order to channel income towards shoring up banks' solvency. In March 2020, the ECB[31] and the EBA[32] recommended that banks refrain from paying out dividends for 2019 and 2020, at least until 1 October 2020, and from buying back shares to remunerate shareholders. The Banco de España extended these recommendations to the Spanish banks which it supervises.[33] The CNMV and the Registrars Association of Spain issued a joint statement to indicate how banks, which have approved a dividend and wish to make changes, should proceed.[34] All Spanish significant institutions which could legally suspend or defer the dividend paid out of income for 2019 followed the ECB's recommendation.

The measures adopted by the sectoral supervisors were supplemented and strengthened by a set of macroprudential recommendations of the European Systemic Risk Board (ESRB).[35] First, the ESRB recommended that restrictions on dividend distribution cover the EU's financial system in its entirety and extended them until, at least, 1 January 2021. Additionally, the ERSB issued recommendations on variable remuneration[36] and a recommendation on monitoring, both nationally and EU-wide, the financial stability implications of the measures to support the economy introduced by Member States in response to the COVID-19 crisis.[37] Furthermore, the ESRB published a recommendation, addressed to the European Securities and Markets Authority (ESMA) to coordinate with national competent authorities a supervisory exercise to assess the preparedness of investment funds with significant exposures to corporate debt and real estate in the face of possible pressure on future redemptions.[38] Lastly, the ESRB issued a recommendation with actions targeting the mitigation of potential liquidity risks and of procyclical effects linked to variation margin requirements in securities settlement by central counterparties.[39]

---

31 See European Central Bank press release of 27 March 2020.
32 See EBA Statement on dividends distribution, share buybacks and variable remuneration of 31 March 2020.
33 See Banco de España press release of 27 March 2020.
34 See Joint statement issued by the Registrars Association of Spain and the Spanish National Securities Market Commission in relation to annual accounts and the proposed distribution of profit of corporate entities in the context of the health crisis resulting from COVID-19 of 26 March 2020.
35 See ESRB press releases of 14 May 2020 and 8 June 2020.
36 See Recommendation ESRB/2020/7.
37 See Recommendation ESRB/2020/8.
38 See Recommendation ESRB/2020/4.
39 See Recommendation ESRB/2020/6.

REFERENCES

Arce, Ó., I. Kataryniuk, P. Marín and J. Pérez (2020). "Thoughts on the design of a European Recovery Fund", *Occasional Paper,* No 2014, Banco de España

Albrizio, S., A. Buesa, M. Roth and F. Viani (2020). "The real effects of trade uncertainty", Banco de España, mimeo.

Banco de España (2020). "Macroprudential measures adopted across Europe in response to the COVID-19 crisis", Box 3.1, *Financial Stability Report,* Spring 2020.

— (2019a). "Monetary policy design in the medium and long term", Chapter 3, Annual Report 2018.

— (2019b). "Economic consequences of demographic change", Chapter 4, *Annual Report* 2018.

Berganza, J.C., R. Campos, E. Martínez and J. Pérez (2020). "The end of the demographic dividend in Latin America: challenges for economic and social policies", Analytical Articles, *Economic Bulletin,* 1/2020, Banco de España.

Caldara, D., M. Iacoviello, P. Molligo, A. Prestipino and A. Raffo (2020). "The economic effects of trade policy uncertainty", *Journal of Monetary Economics,* January, Vol. 109 January, pp. 38-59.

Cuadro-Sáez, L., F. López-Vicente, S. Párraga and F. Viani (2020). "Medidas de política fiscal en respuesta a la crisis sanitaria en las principales economías del área del euro, EEUU y el Reino Unido", *Documentos Ocasionales,* Banco de España, forthcoming.

European Central Bank (2018). "Strengthening the Global Financial Safety Net. Moving relations between the IMF and Regional Financing Arrangements forward". *Occasional Paper,* No 207.

Garrido, I., P. Moreno and X. Serra (2016). "The new map of international financial institutions", *Economic Bulletin,* January, Banco de España.

International Monetary Fund (2020a) *Fiscal Monitor,* April.

— (2020b). *World Economic Outlook Update,* June 2020,

Jimeno, J.F., F. Smets and J. Yiangou (2014). "Secular stagnation: a view from the Eurozone", Chapter 13 in *Secular stagnation: facts, causes and cures* (Eds. C. Teulings and R. Baldwin), pp. 153-164, CEPR.

Kohlscheen, E., B. Mojon and D. Rees (2020). "The macroeconomic spillover effects of the pandemic on the global economy", *BIS Bulletin,* No 4.

Summers, L. (2015). "Demand Side Secular Stagnation", *The American Economic Review,* May, Vol. 105, No 5, pp. 60-65.

Box 3.1

THE IMF's FINANCIAL RESPONSE TO THE COVID-19 CRISIS

The IMF reacted swiftly and forcefully to the health emergency triggered by COVID-19, as well as to the crisis resulting from the confinement of a large part of the world population and from broad economic sectors having come to a global standstill. Its initial response was mainly geared towards the economies that were most vulnerable from a healthcare standpoint, but also towards the emerging economies that were potentially more affected by the capital outflows that took place in certain regions.

The support measures adopted by the IMF focused mainly on boosting emergency financial assistance on a temporary basis, as well as providing debt relief for the most vulnerable low-income countries and short-term liquidity through a new credit line.[1] At the cut-off date of this Report, the Fund had not yet decided whether to supplement these measures with a general allocation of its own currency, the special drawing rights (SDRs), distributed proportionally among all its members.

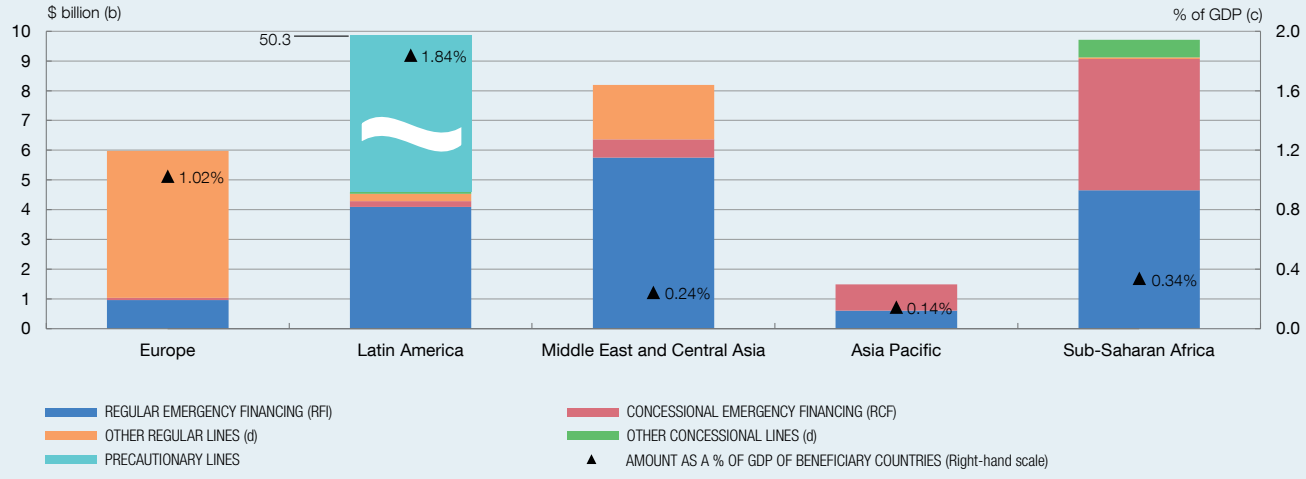
As regards emergency financial assistance, the IMF has approved raising the access limits to its emergency facilities, namely the Rapid Financing Instrument (RFI), available to all Fund members, and the Rapid Credit Facility (RCF), a concessional instrument limited to low-income countries only. Specifically, the annual access limit for the lines has been increased from 50% to 100% of the country quota in the IMF, and the cumulative limit from 100% to 150%, for an initial period of six months, which may be extended. Neither of these instruments requires the application of an economic programme nor compliance with conditionality.

To date the IMF has received requests for emergency financial assistance from around 100 mostly low-income countries and has approved aid amounting to nearly $70 billion, a figure which is expected to continue rising. Chart 1 shows all the financial – not only emergency – assistance, by region, granted by the IMF since the onset of the pandemic until the cut-off date of this Report.

As regards debt relief for the most vulnerable low-income countries, the IMF has adapted the Catastrophe Containment and Relief Trust (CCRT) to the new global pandemic scenario. The trust is supported by voluntary

Chart 1
IMF FINANCIAL ASSISTANCE APPROVED FROM THE ONSET OF THE PANDEMIC (a)

ABSOLUTE AND RELATIVE VOLUME OF FINANCIAL ASSISTANCE TO EACH REGION



SOURCE: Devised by authors based on IMF data.

a Including loans approved up to 10 June.
b Exchange rate as at 1 June.
c 2019 GDP according to WEO, April 2020.
d New loans and augmentation of access under previous lines.

1 See *Communiqué of the Forty First Meeting of the International Monetary and Financial Committee (IMFC),* 16 April 2020.

contributions from its members and aims to help the most vulnerable countries free up financial resources to channel them to strengthening their emergency health systems and assistance. The IMF has also green-lighted the immediate forgiveness of debt maturities in 25 out of the 33 countries covered by the CCRT, mostly in Sub-Saharan Africa, amounting to $215 million, over an initial six-month period ending in October. This period may be extended up to a maximum of two years, subject to the availability of trust resources. To this end, the IMF has opened a round of fund-raising to generate approximately $1 billion for the CCRT. In connection with concessional lending, the Fund has also launched a new round of fund-raising for loans and subsidies under the Poverty Reduction and Growth Trust (PRGT) of approximately $19 billion.[2] Lastly, in parallel with the CCRT reform, the IMF and the World Bank issued a joint statement to the G20 calling on official bilateral creditors to suspend debt payments from low-income countries that request a moratorium (see Section 3.2 of this Report).[3]

As regards the provision of short-term liquidity, the IMF has created a new credit line called Short-term Liquidity Line (SLL) to provide liquidity to (mainly emerging) economies with strong economic fundamentals, but subject to moderate balance of payments pressures.[4] The SLL sets the same access criteria as the precautionary Flexible Credit Line (FCL), financing for up to 145% of the country quota, a duration of one year (with indefinite renewals), revolving access and more favourable financial charges than the rest of the Fund's credit lines.[5] This instrument will contribute to enhancing the Fund's role in the global financial safety net, particularly insofar as it will be able to provide liquidity to economies outside the network of swap lines provided by the main central banks. The Fund's first estimates point to a potential demand for approximately $50 billion, although no request has been made at the date of this Report. The SLL will be reviewed in five years and, if not renewed, it will expire in seven.

An additional support measure for all IMF members is the possible issuance by the IMF of SDRs[6] amounting to $500 billion, which would be allocated to all the members on the basis of their shares in the IMF quotas. This is an option that has been repeatedly discussed in the Fund, and implemented during the global financial crisis, but which still lacks sufficient support for its approval. SDR issues aim to cover very high long-term global liquidity needs to supplement the aggregate volume of existing reserves. Countries opposing this measure argue that there is no structural lack of liquidity as envisaged by the Fund's Articles of Agreement in order to launch a new issue. They also highlight the scant use of the SDRs issued in 2009 in the wake of the global financial crisis, the fact that SDRs entail additional financing with no conditionality associated or that the SDR market is shallow and narrow. As they are allocated to IMF members on the basis of their quotas in the Fund, the bulk of the issues goes to advanced countries and emerging economies that generally already have fully convertible reserve assets. In the current setting, around 52% of the issue would be allocated to these countries and only 3.3% of the remaining 48% would be allocated to low-income countries. A solution to correct this asymmetry is that surplus SDR economies could voluntarily pledge these surpluses for the grant of IMF concessional loans. The outcome of the crisis and its effect on global liquidity will ultimately determine the decision of whether or not to issue SDRs over the next quarters.

The COVID-19 crisis has revived the public debate on the sufficiency of the IMF's resources. Its current lending capacity is around $1 trillion. Of this amount, 45% relates to membership quotas, 20% to funds from the New

2 Against this background, the Banco de España has pledged SDR 750 million (around $1 billion) to the PRGT managed by the IMF, to grant concessional loans to low-income countries.

3 See *Joint Statement World Bank Group and IMF—Call to Action on Debt of IDA Countries, 25 March 2020.*

4 See International Monetary Fund (2020). "IMF COVID-19 Response—A New Short-Term Liquidity Line to Enhance the Adequacy of the Global Financial Safety Net", Policy Paper No 20//025, April.

5 Other differences with respect to the SLL are that the FCL covers all types of external imbalances, has no access limit and may be in place for up to two years following an interim annual review. The IMF trusts that, in certain cases, the SLL may serve as an instrument to facilitate exiting a pre-existing FCL.

6 The IMF created the SDR in 1969 as an international reserve asset to supplement gold and US dollars. The SDR is neither strictly a currency nor a claim on the IMF, but rather a claim on currencies considered to be freely usable, as well as being the unit of account of the IMF and other international organisations. SDRs can only be held and used by IMF member countries, by the IMF itself and by certain prescribed organisations. The IMF allocates SDRs unconditionally. General SDR allocations are made in proportion to member countries' IMF quotas. The IMF reviews the long-term global liquidity situation at least every five years and, in this context, decides whether a new general allocation is to be made. General SDR allocations have only been made three times; in addition, there has been a special one-time allocation made for equitable reasons. The IMF's Articles of Agreement also allow for cancellation of SDRs, but this provision has never been used.

Arrangements to Borrow (NAB) and 35% to bilateral borrowing agreements of the IMF with certain members. The NAB constitutes the second line of defence to satisfy the demand for IMF funding, after the quotas, and the bilateral agreements the third one. At the cut-off date of this Report, around 80% of the Fund's lending capacity was not committed and its liquidity, calculated for a one-year horizon, stood at $225 billion and was supported solely by the quotas. However, an increase in the demand for ordinary lending, in conjunction with the approval (and future disbursement) of SLL lines might require activating NAB and, subsidiarily, bilateral borrowing.

In principle, the IMF's current resources should be sufficient to satisfy the projected demand for loans. However, owing to the gravity of the crisis and the still high uncertainty on how it evolves over the next quarters, more extreme scenarios in which, additionally, a significant number of IMF member countries might be reluctant to increasing the Fund's resources cannot be ruled out. In this connection, it should be noted that a change in the composition of the IMF's external financing was scheduled for January 2021, with a doubling of the NAB and a retrenchment in bilateral loans to practically one half, which would leave its total size practically unchanged. However, part of IMF membership, particularly the more dynamic emerging economies, continue to claim a decisive quota increase, both to underpin the Fund's lending capacity and to correct their underrepresentation in the institution.

Box 3.2

EASING OF THE EUROSYSTEM'S COLLATERAL FRAMEWORK

In March and April this year, the Governing Council of the European Central Bank (ECB) adopted a broad package of measures to ensure liquidity and mitigate the tightening of financing conditions as a result of COVID-19. These measures include the expansion of asset purchases (additional envelope for the existing Asset Purchase Programme and launch of the Pandemic Emergency Purchase Programme), changes in liquidity-providing operations to credit institutions, and easing of collateral eligibility criteria for such operations (see Section 3.3). This box aims to review the latter aspect of the package in greater detail.

In the Eurosystem's monetary policy framework, liquidity-providing operations must be sufficiently collateralised by counterparties. National central banks (NCBs) accept as collateral marketable and non-marketable financial assets that comply with certain eligibility criteria and to which a valuation haircut is applied depending on the level of risk involved.

In April 2020, the Governing Council of the ECB adopted a set of temporary measures to ensure that any potential shortage of collateral caused by the pandemic does not reduce credit institutions' access to liquidity from their NCBs and, consequently, does not undermine the transmission of monetary policy or restrain the supply of credit to the economy. The economic crisis triggered by the COVID-19 pandemic may adversely affect both the value of assets used as collateral and their eligibility if their credit ratings are downgraded, thus excluding them from the set of assets that are eligible in such operations.

The measures adopted by the Governing Council of the ECB can be divided into three broad categories:

First, measures which apply immediately and uniformly to all NCBs. Specifically:

— The valuation haircuts applied to both marketable and non-marketable assets have been reduced by between 20% and 36%.

— Credit institutions have been allowed to use a larger volume of bank bonds as collateral. The limit for those of a single issuer or connected issuers has been increased from 2.5% of the total portfolio of pledged assets, to 10%.

— To mitigate the impact of possible rating downgrades resulting from this crisis, it has been decided that all the marketable assets of public or private issuers that were eligible on 7 April shall continue to be so, as long as their credit rating does not fall below the BB equivalent (CQS5, in the Eurosystem's taxonomy), except in the case of asset-backed securities, which will remain eligible provided that their rating does not drop below BB+ (CQS4).

The second set of measures focuses on the expansion of the so-called "additional credit claims frameworks" (ACCs). These frameworks give NCBs the possibility of enlarging the scope of eligible collateral in their jurisdictions by including bank loans that comply with certain requirements. The ACCs are proposed by NCBs and approved by the Governing Council of the ECB, thus ensuring a sufficient degree of uniformity across the different national frameworks. The measures that have been adopted by the Banco de España under its ACC framework can be summarised as follows:

— Acceptance of the government-guaranteed loans to corporates, SMEs and self-employed individuals under the Royal Decree-Laws approved in response to the COVID-19 pandemic.

— Introduction of a purely statistical system for the credit assessment of non-financial corporations, which will allow for an increase in the number of debtors assessed and the acceptance of loan portfolios (not only of individual loans).

— Acceptance of loans with a credit rating not lower than the equivalent of BB (CQS5).

Lastly, also in April, the Governing Council of the ECB approved another set of measures, the adoption of which is voluntary for NCBs. With respect to this category, the Banco de España has adopted the following measures under its collateral framework:

— It has removed the minimum threshold for the acceptance of loans, previously set at €25,000.

— It has decided to accept Greek sovereign debt as collateral, for which the ECB has granted a waiver of the minimum credit rating threshold (equivalent to investment-grade, CQS3).

It is not easy to quantify the aggregate impact of all these measures. First, because it will depend on the behaviour of the counterparties themselves, and second, because it

will also be influenced by external factors such as the assessment of credit rating agencies in light of the risks generated by COVID-19, which will be decisive for assessing the effects of the measures adopted.

In any event, the impact will foreseeably be quantitatively significant. For example, the expanded ACC framework in Spain includes as new collateral the loans guaranteed by the ICO facility of €100 billion provided by the Spanish Government to partly cover loans to non-financial corporations (see Section 4.3 in Chapter 4). At end-March 2020, credit institutions had pledged collateral amounting to €255 billion to the Banco de España. The potential inclusion of all these new loans as eligible assets would mean a substantial increase in the liquidity that institutions could borrow from the Banco de España.

The impact is also likely to be significant from a qualitative viewpoint. To a large extent, the expanded ACC framework in Spain has a direct effect on institutions' capacity to pledge at the Banco de España loans granted to productive sectors of the economy that are greatly exposed to the adverse economic impact of the pandemic, such as SMEs or self-employed individuals.

Box 3.3

IMPACT ANALYSIS OF THE ANNOUNCEMENT OF THE PANDEMIC EMERGENCY PURCHASE PROGRAMME (PEPP)

As discussed in the main text of this chapter, an essential part of the ECB's response to the COVID-19 crisis consisted of the implementation of large-scale financial asset purchases. Thus, in addition to increasing the volume of net purchases by €120 billion within the asset purchase programme (APP), the ECB will purchase €1,350 billion of public and private-sector securities under the new Pandemic Emergency Purchase Programme (PEPP) – the sum of the €750 billion committed when the PEPP was initially announced on 18 March and the €600 billion added at the recalibration adopted by the Governing Council of the ECB on 4 June. This box analyses the impact of both announcements on financial conditions in the euro area.

The event-study methodology, which uses the intraday data of several financial market indicators, is applied for this purpose. This technique identifies the immediate impact of the announcements of asset purchase programmes by central banks on financial asset prices. This impact is one of the main transmission channels of these programmes and is called the "stock effect" in the economic literature since it includes investors' expectations of future developments in the stock of financial assets held by the central bank. Event studies are usual in the assessment of the main central banks' asset purchase programmes.[1] As a note of caution, this methodology only partially assesses this type of programme's effects on financial markets given that it does not capture other effects of asset purchases, such as those produced by the flow of purchases when the latter take place ("flow effects"). Consequently, in principle, this approach undervalues the total impact of these programmes.

Event studies are based on the calculation of the variation in the financial indicators of interest in a narrow window of time around the event in question. This isolates the variation in such indicators that is attributable solely to the event analysed, and not to other factors (such as different economic or, in the current context, epidemiological news). Specifically, the ECB announced the PEPP in a press release published at 23:45 on 18 March after European capital markets had closed. Consequently, the variation is calculated in each indicator between the closing value on 18 March (for example, 17:30 in the case of stock market indices) and the first 30 minutes of the session on 19 March (09:30 for the stock markets).[2] On 4 June the increase in the PEPP was announced in the usual fashion, through a press release published at 13:45 and, therefore, the window between 13:30 and 14:15 is used so that it ends, once more, 30 minutes after the event.

Chart 1
STOCK MARKETS AND EXCHANGE RATES

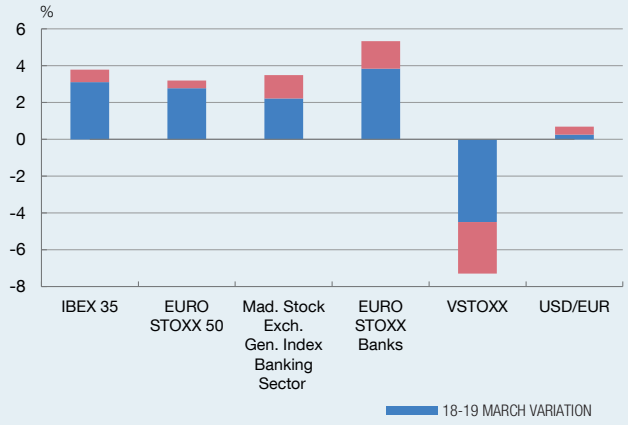
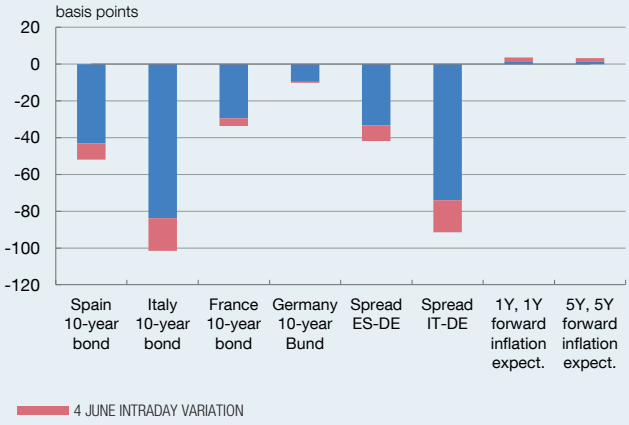


Chart 2
SOVEREIGN BONDS AND INFLATION EXPECTATIONS



SOURCE: Thomson Reuters.

1 For the case of the United States, see for example Gagnon, J., M. Raski, J. Remache and B. Sack (2011). "The Financial Market Effects of the Federal Reserve's Large-Scale Asset Purchases", *International Journal of Central Banking,* Vol. 7(1), pp. 3-43. For the case of the euro area, see Altavilla, C., G. Carboni, or R. Motto (2015). "Asset purchase programmes and financial markets: lessons from the euro area", *ECB Working Paper Series* No 1864. See also Banco de España (2016) "The effect of the ECB's monetary policies in the recent period", Chapter 3, *2015 Annual Report.*

2 The exception is the foreign exchange market which operates via a computerised trading system. In this case the exchange rate variation is calculated between 30 minutes before and after the announcement is made, namely between 23:15 on 18 March and 00:15 on 19 March.

Charts 1 and 2 show the effect of the announcements of 18 March (blue bars) and of 4 June (red bars) on various stock market indicators, the euro/dollar exchange rate and ten-year sovereign bond yields and spreads, as well as on inflation expectations obtained from inflation swaps. The results indicate that the announcement of the PEPP and, to a lesser degree, of an increase in the programme, had a positive effect on the main stock market indices in the euro area (Eurostoxx 50) and in Spain (Ibex 35), as well as on the banking sector indices, and they also decreased stock market volatility (see Chart 1). Additionally, both announcements prompted sharp falls in sovereign debt yields, especially those of Italy and Spain, and in their spreads over the German Bund (see Chart 2). For example, as a result of the initial announcement of the PEPP, Italian and Spanish bond yields decreased by 84 bp and 43 bp, respectively. The announcement of 4 June had a more limited effect with Italian and Spanish sovereign debt yields falling by 18 bp and 9 bp, respectively. The two announcements had a very limited impact on the euro exchange rate and inflation expectations.

As shown in the charts, in general, the increase in the PEPP on 4 June had a smaller impact than that triggered when this programme was initially announced. This may be due to several factors. On the one hand, unlike the initial announcement, which was largely unexpected, the increase announced on 4 June was discounted by investors, although the additional volume finally approved was higher than expected.[3] On the other, the PEPP was increased against a background of lower financial market tension than that observed in mid-March, prior to the initial announcement, which could also mean a lower impact on financial markets.

3 For example, a survey by Reuters between 11 and 14 May showed that almost half of the respondents expected an increase in the PEPP in June, with the median increase being €375 billion, lower than the €600 billion which were finally announced.

Box 3.4

THE IMPORTANCE OF AN INTERNATIONALLY COORDINATED FISCAL POLICY RESPONSE AND ITS INTERACTION WITH MONETARY POLICY

The impact of a specific discretionary fiscal measure depends on many factors, the foremost of which are the fiscal space of the economy deploying the measure, the fiscal policy reaction of other economies closely related to the first economy, and the response and available leeway in the monetary policy realm.[1] The purpose of this box is to illustrate the various channels through which these factors influence the effectiveness of fiscal policy. To this end, the stochastic general equilibrium model developed in Andrés et al. (2020)[2] is used and the economy's response to a temporary fiscal stimulus, such as that being implemented in most of the countries affected by the COVID-19 pandemic, is analysed under various scenarios.

The model considers a monetary union comprising two countries: one with a high public debt/GDP ratio and another with a more contained level of debt. In this outline of the euro area, the European Central Bank (ECB) sets monetary policy by adjusting the nominal interest rate based on developments in inflation and activity in the euro area as a whole. Each country decides its fiscal policy independently but follows a common budget rule. This rule is an automatic arrangement whereby deviations from each country's deficit and debt thresholds laid down in the EU's Stability and Growth Pact (of 3% of GDP and 60% of GDP, respectively) are corrected gradually over time. Lastly, the two countries cover their net borrowing in each period by issuing government debt.

A key aspect of the model is that issuance costs depend on the sustainability of public finances in each economy. For instance, if the public debt/GDP ratio of a country stands considerably above 60%, investors may consider that there is some risk that the State does not have enough funds to finance this debt and, consequently, they demand a risk premium that is higher than the interest rate which would be compatible with the nominal policy rates set by the common monetary authority. Where, by contrast, the deficit and debt are relatively low, investors do not usually require a positive yield spread and the Treasury of said country can finance itself at the interest rate in keeping with the policy rate set by the central bank. According to the calibration used in the model, an economy has sufficient fiscal space to avoid paying a risk premium on its new issues when its debt/GDP ratio is below 70% of GDP.

In this model, a temporary increase in public spending, such as that arising from the measures adopted to combat the effects of the COVID-19 pandemic, in a country in the monetary union stimulates activity in the short term. Nevertheless, the scale and persistence over time of this stimulus crucially hinges on the monetary policy response, the available fiscal space (which affects the risk premium level) and the fiscal measures adopted in the rest of the union, as illustrated in the simulation exercises below. Bearing in mind that the model used constitutes a highly simplified representation of the various arrangements operating in a monetary union, these simulations should be assessed essentially from a qualitative standpoint.[3]

Chart 1.1 depicts the reaction of the GDP of a country with a small fiscal space to a temporary increase in public spending of around 2.5% of GDP, under two different scenarios of monetary policy response[4]. In particular, the solid line shows changes in GDP where monetary policy operates under normal circumstances (which differ from current circumstances in the euro area) in which the central bank reacts to any rise in inflation by raising its interest rates in line with its conventional rule. In this case, the expansionary effects of fiscal policy peter out relatively rapidly. This outcome is due to increased activity in the short term, on account of the effect of the fiscal stimulus,

---

1 At the theoretical level, see, for example, Christiano, L., M. Eichenbaum and S. Rebelo (2011). "When is the government spending multiplier large?", *Journal of Political Economy,* 119(1), 78-121, The University of Chicago. From an empirical standpoint, see, for example, Ramey, V. A. (2019). "Ten years after the financial crisis: What have we learned from the renaissance in fiscal research?", *Journal of Economic Perspectives,* 33(2), 89-114, American Economic Association. The interactions between monetary and fiscal policies in the context of a monetary union with asymmetrical economies, such as the euro area, have been studied in Arce, O., S. Hurtado and C. Thomas "Policy Spillovers and Synergies in a Monetary Union", *International Journal of Central Banking,* 2016, Vol. 12, No 3, pp. 219-277.

2 Andrés, J., P. Burriel, and W. Shen (2020). "Debt sustainability and fiscal space in a heterogeneous monetary union: normal times vs the zero lower bound", *Working Paper,* No 2001, Banco de España.

3 In particular, the model does not contemplate the effects that the ECB's current sovereign debt purchase programme may have on the risk premium of each country, or on the fragmentation of the monetary policy transmission mechanism.

4 It is assumed that in these two years the other country, which is a member of the monetary union and has larger fiscal space, does not undertake any discretionary fiscal stimulus.

Box 3.4

THE IMPORTANCE OF AN INTERNATIONALLY COORDINATED FISCAL POLICY RESPONSE AND ITS INTERACTION WITH MONETARY POLICY (cont'd.)

Fiscal stimulus has a greater impact on activity where it is implemented with a higher degree of international coordination and where the monetary policy reaction is accommodative and more fiscal space is available.

Chart 1
RESPONSE OF A COUNTRY WITH A SMALL FISCAL SPACE TO A TEMPOARY INCREASE IN ITS PUBLIC SPENDING BASED ON MONETARY POLICY REACTION

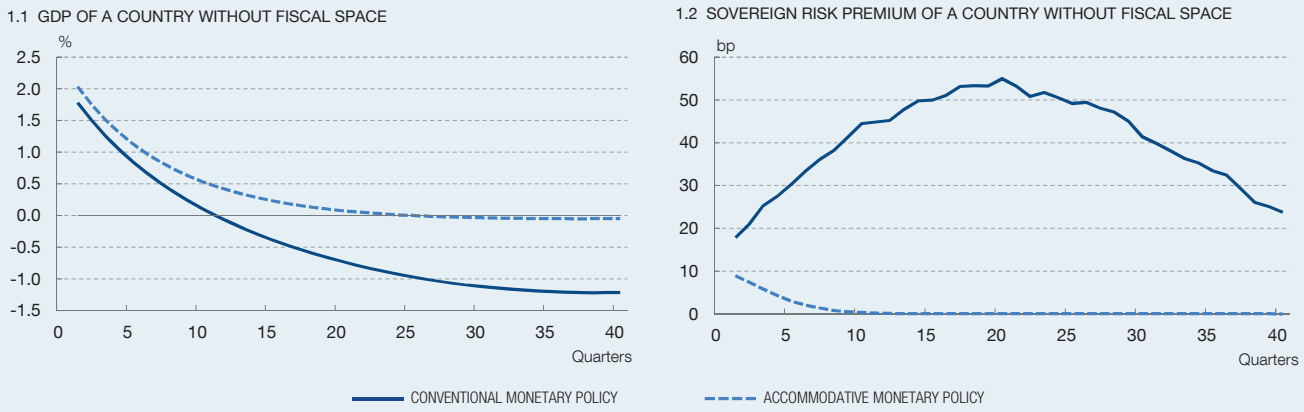


Chart 2
RESPONSE OF A COUNTRY WITH A SMALL FISCAL SPACE TO A TEMPORARY INCREASE IN PUBLIC SPENDING IN THE EURO AREA AS A WHOLE

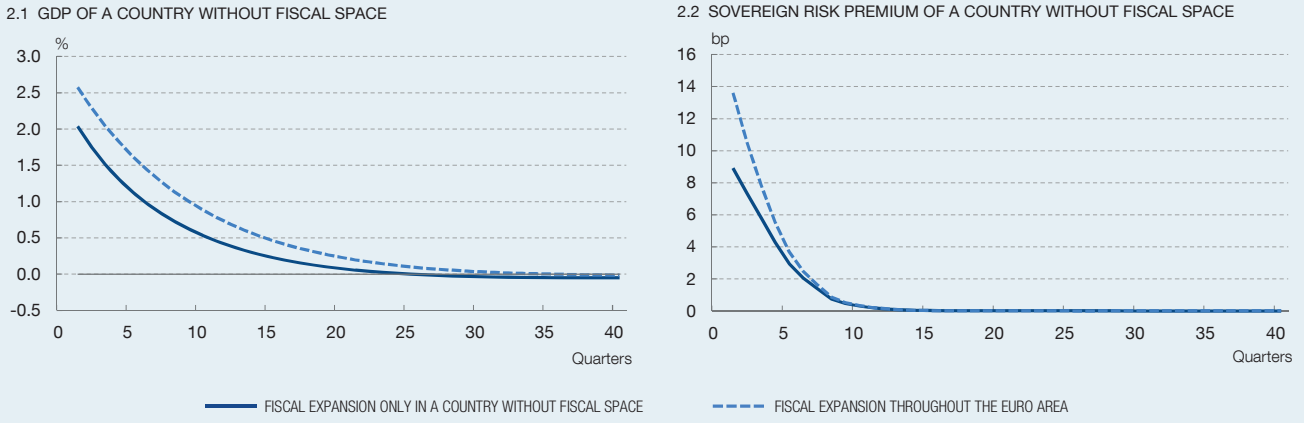
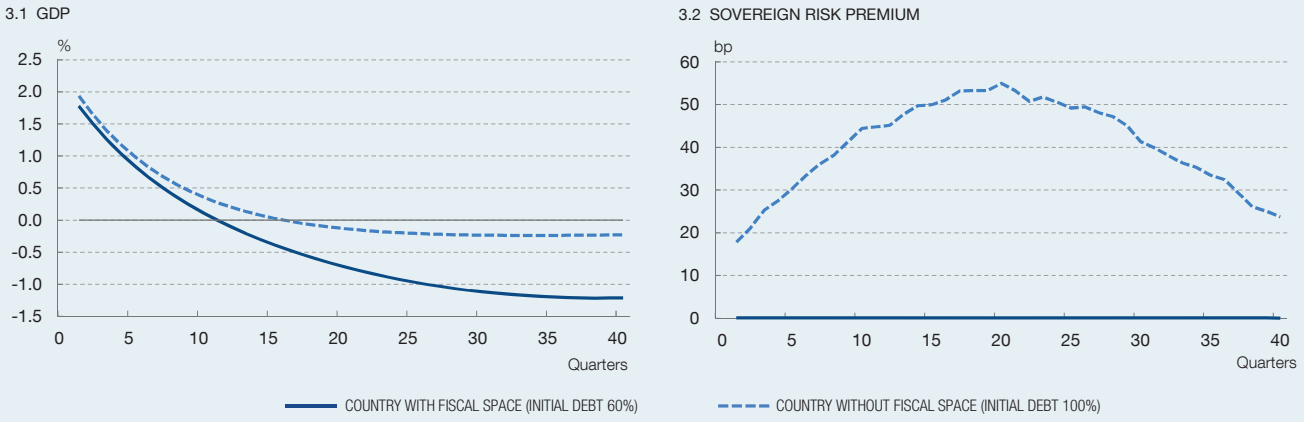


Chart 3
RESPONSE OF A COUNTRY TO A TEMPORARY INCREASE IN ITS PUBLIC SPENDING BASED ON THE AVAILABLE FISCAL SPACE



SOURCE: Banco de España calculations using the model described in Andrés, Burriel and Shen (2020).

a The variables are presented as differences with respect to the baseline scenario.

exerting upward pressure on prices, which leads the central bank to raise policy interest rates. This, in turn, causes inflation to ease but, at the same time, it acts as a drag on buoyant activity, resulting in tighter financial conditions for the public and private sectors. Furthermore, fiscal expansion significantly increases the – already high – deficit and public debt ratios. That prompts a rise in the risk premium required by investors, which has an additional adverse effect on activity (see the solid line in Chart 1.2).

The broken lines in Charts 1.1 and 1.2 show the reaction of the selected variables where monetary policy maintains an accommodative stance and does not react to greater inflationary pressure. The foregoing provides the best description of the current situation in the euro area, in the sense that the persistence of systematically lower inflation rates than the medium-term price stability target (represented by an inflation rate below, but close to, 2%) makes a response from the monetary authority unnecessary. Thus, higher prices would trigger a decline in the real interest rate, which would have a greater positive impact on activity in both the short and medium term. At the same time, maintaining policy interest rates unchanged would result in an easing of the real cost of financing the debt of the country with a small fiscal space, which in turn would limit the increase in the risk premium.

Charts 2.1 and 2.2 show how the responses of GDP and the risk premium change when the same temporary fiscal stimulus considered above is deployed in the rest of the monetary union. In particular, the solid lines depict the performance of the selected variables where the aggregate formed by the other euro area countries does not implement any discretionary fiscal stimulus, whereas the broken lines relate to a scenario in which the increase in public spending in these countries is similar to that implemented, on average, in the euro area during this crisis (3.5% of GDP according to the Eurosystem's estimate[5]). It is assumed that in these two years the ECB does not tighten monetary policy in response to these fiscal measures, as in the second case described above.[6] As can be seen in these charts, if public spending were to be increased simultaneously across all the countries in the monetary union, its expansionary effect on the economy without fiscal space would be greater. First, coordinated fiscal stimulus would generate greater inflationary pressure, which, against a background of accommodative monetary policy, would lead to a sharper decline in real interest rates. Second, growth of activity in the rest of the euro area would also stimulate domestic activity through a rise in exports. Both aspects would improve the outlook for the public finances of this country, which would help to reduce the risk premium and, in turn, amplify the expansionary effect of this fiscal measure.

Lastly, Charts 3.1 and 3.2 show the extent to which the effectiveness of fiscal policy is influenced by the fiscal space available in each country. In particular, the solid lines in these charts match a scenario in which only a country with a small fiscal space (with a debt level of approximately 100% of GDP) implements a temporary fiscal stimulus and in which there is a conventional monetary policy response. Therefore, these lines coincide with the solid lines in Chart 1. By contrast, the broken lines show what the reaction of the economy would be to this fiscal impulse in a euro area Member State with a public debt/GDP ratio of 60%. As can be observed in Chart 3, as a result of the risk premium's endogenous response to public debt dynamics, fiscal policy is substantially more effective the lower the starting point of public debt and, consequently, the greater the fiscal space available.

In short, the results presented in this box underline the aggregate positive effects for the monetary union, as a whole, where a coordinated fiscal policy response is implemented across its economies. In a setting in which certain countries' fiscal space is relatively limited, international coordination may require supranational institutions to play a preeminent role. Furthermore, accommodative monetary policy, such as that deployed by the monetary authorities in the vast majority of countries affected by the pandemic, also contributes to increasing the effectiveness of the expansionary fiscal policy response.

5 See Eurosystem staff macroeconomic projections for the euro area, June 2020.

6 Therefore, the broken lines in Chart 1 coincide with the solid lines in Chart 2.

4

THE IMPACT OF THE PANDEMIC IN SPAIN AND THE ECONOMIC POLICY RESPONSE

4.1 The health crisis in Spain

In recent months the COVID-19 pandemic has posed a major public health challenge in Spain. The first case of COVID-19 infection in the country was diagnosed on 31 January 2020, but the incidence of the disease, both in terms of daily infection rates and deaths, peaked in March and April (see Chart 4.1.1). In light of the need to curb the rate of infection and prevent a collapse of the healthcare system, and as in the majority of countries affected by the pandemic, severe restrictions were imposed on people's movements and economic activity, and extraordinary measures were urgently adopted for the management of healthcare resources. Many of these measures were adopted in the framework of the state of alert, imposed with effect throughout the country on 14 March.

In practice, the state of alert involved confining people to their places of residence and shutting down almost all economic activity across a wide range of sectors. Specifically, people were only allowed to leave their homes to carry out a very limited number of essential activities.[1] Accommodation and food service activities were all shut down (the latter, save for home delivery services), along with face-to-face teaching at all levels of education and all cultural, artistic and sporting activities. As a result of these restrictions, which were intensified with the suspension of all non-essential economic activity between 30 March and 9 April, people's movements decreased dramatically in the second half of March and throughout April. Thus, for example, some road traffic indicators fell by almost 80% in year-on-year terms (see Chart 4.1.2), while mobility indicators based on information provided by several technology companies using mobile phone location records showed similar declines across a wide range of activities. In many cases the falls were more pronounced than those observed in other countries affected by the pandemic (see Chart 4.1.3).

Since early May, as the pandemic came more under control, some restrictions have been eased as part of a gradual process of lifting the lockdown measures adopted. On 28 April, the Spanish government announced its lockdown easing plan, in four phases, running from 4 May to the end of June. The plan established that each province could progress through the different phases at its own pace, according to the capacity of its healthcare system, its epidemiological situation, the

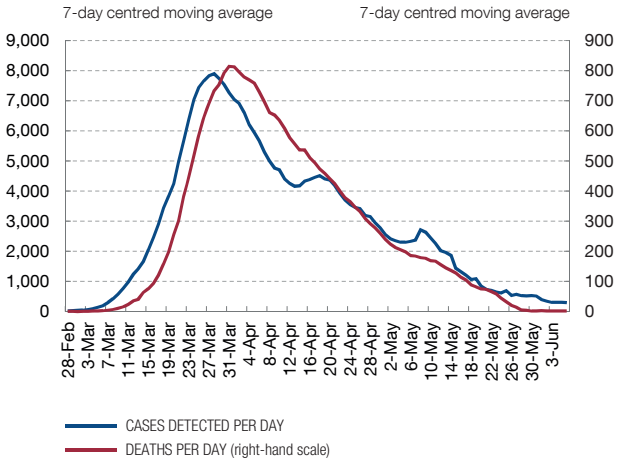
1 The activities permitted included among others, shopping for food, pharmaceutical products and other essentials, attending health centres and health services, travelling to work, returning to one's main residence and attending to dependent or especially vulnerable persons (see Royal Decree 463/2020 of 14 March 2020).

Chart 4.1

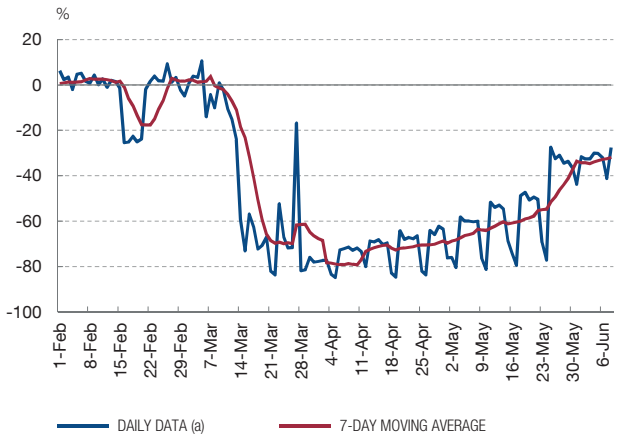
THE CORONAVIRUS PANDEMIC HAS POSED A MAJOR PUBLIC HEALTH CHALLENGE IN SPAIN IN RECENT MONTHS

The first case of COVID-19 infection in Spain was diagnosed on 31 January 2020, but March and April saw the highest incidence of the disease. To curb the rate of infection, severe restrictions were imposed on people's movements and economic activity. Since early May, as the pandemic came more under control, some restrictions have been lifted as part of a gradual process of easing the lockdown.

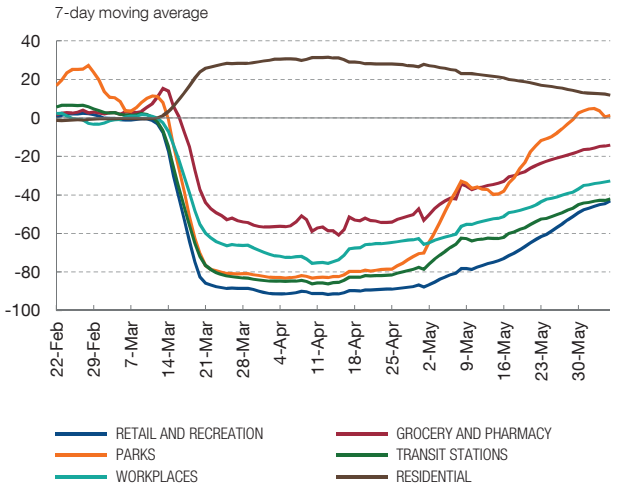
1 COVID-19 PANDEMIC IN SPAIN



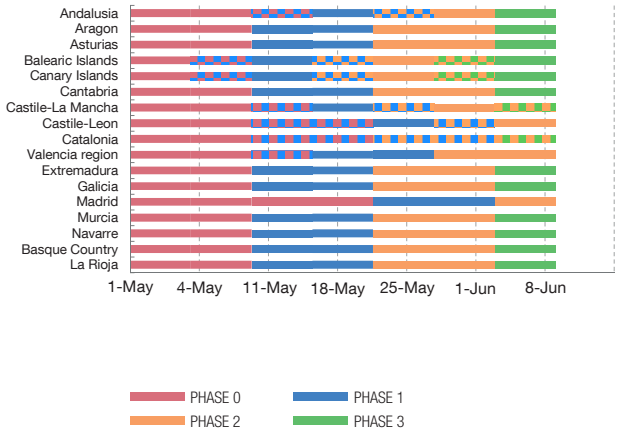
2 TRAFFIC ON M-30 (MADRID INNER RING ROAD) (VEHICLES PER KM TRAVELLED, Y-o-Y CHANGE)



3 GOOGLE MOBILITY INDICATORS



4 LOCKDOWN EASING PHASES (b)



SOURCES: Ministerio de Sanidad, Ayuntamiento de Madrid, Google and Banco de España.

a The year-on-year change of the daily data is in respect of the equivalent day of the week in the previous year (e.g. 29.03.2020 vs 31.03.2019).

b Andalusia: all provinces moved to Phase 1 on 11 May, except Malaga and Granada which did so on 18 May; all provinces progressed to Phase 2 on 25 May, except Malaga and Granada which did so on 1 June; the entire region entered Phase 3 on 8 June. Islands: Formentera (Balearics) and El Hierro, La Gomera and La Graciosa (Canaries) moved to Phase 1 on 4 May, to Phase 2 on 18 May and to Phase 3 on 1 June; all the other islands progressed to Phase 3 on 8 June. Castile-La Mancha: only Cuenca and Guadalajara entered Phase 1 on 11 May, followed by the other provinces on 18 May; Cuenca and Guadalajara progressed to Phase 2 on 25 May, and to Phase 3 on 8 June. Castile-Leon: 26 basic health areas moved to Phase 1 on 11 May, followed by a further 42 on 18 May, and the entire region was in Phase 1 by 25 May; the area of El Bierzo entered Phase 2 on 1 June; the rest of the region changed phase on 8 June. Catalonia: only three health areas moved to Phase 1 on 11 May, two in the province of Tarragona and one in Lleida; the rest of the region entered Phase 1 on 18 May, except Barcelona and its metropolitan area which did so on 25 May, when the more advanced health areas progressed to Phase 2; on 8 June the three most advanced health areas in exit from lockdown moved to Phase 3. Valencia region: only ten health departments moved to Phase 1 on 11 May, one in Castellón, three in Valencia and six in Alicante; the rest of the region entered Phase 1 on 18 May, and then all provinces progressed to Phase 2 on 1 June.

DOWNLOAD

protective measures adopted in public spaces and how the mobility and socioeconomic data evolve.[2] In any event, it was established that, in general, each province would remain in each of the four phases for at least two weeks.

The first phase of the lockdown easing plan – Phase 0 or the Preparatory phase – included, among other measures, allowing certain establishments to open for individual customers on an appointments-only basis. In particular, small local retailers, hairdressing salons and restaurant takeaway services were allowed to open. In the second phase – Phase 1 or the Initial phase – most retail outlets that were still closed were allowed to open (except for shopping malls), as well as accommodation and food services, but with strict safety regulations and very limited capacity. Thus, for example, restaurants and bars were allowed to open outdoors, but limited to 50% of their capacity, and in the case of hotels and tourist accommodation all communal areas had to remain closed as this is where agglomerations of people are most likely. In the third phase of the plan – Phase 2 or the Intermediate phase – shopping malls and cultural premises opened, although still with significant restrictions. Restaurants were allowed to open for indoor dining, with limited capacity. The restrictions on people's movements and on social contact were also eased. The last phase of the plan – Phase 3 or the Advanced phase – was essentially managed by Spain's regional governments. In this phase, almost all activity was allowed to reopen, public transport was able to operate virtually without restriction and some of the limitations still in place were eased even further, although not completely removed (for example, restrictions on mobility or on the use of communal areas in certain establishments). When the state of alert ended on 21 June, Spain entered the "new normal" phase. All restrictions on movements within the country have been removed, but various hygiene and prevention measures affecting both individuals and economic activity remain. In particular, the use of face masks remains mandatory outdoors and in enclosed public spaces, unless minimum social distancing can be guaranteed (a rule in force since 21 May).[3]

In recent weeks, the gradual easing of the lockdown measures adopted when the pandemic was at its peak has been reflected in mobility indicators. The pace of progress through the different phases of easing of lockdown varied by region, province and, in some cases, even by health area (see Chart 4.1.4). In any event, the process has entailed a relatively gradual increase in mobility in recent weeks (see Charts 4.1.2 and 4.1.3).

Although the worst of the pandemic may appear to be behind us, the cost has already been extraordinarily high in all spheres and further outbreaks of the disease cannot be ruled out. According to the latest official data available, more

2 As the implementation of the lockdown easing plan has progressed, some intra-provincial geographical areas have been considered separately and have been granted differential treatment (for example, some of the Spanish islands and some health areas).

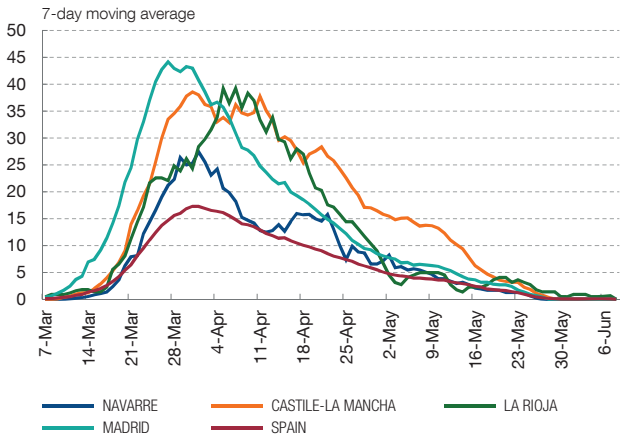
3 See Royal Decree-Law (RDL) 21/2020 of 9 June 2020.

Chart 4.2

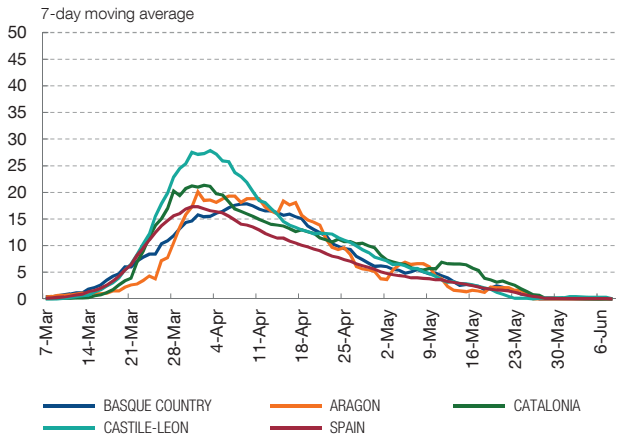
WITHIN SPAIN, THE INCIDENCE OF THE PANDEMIC HAS BEEN VERY UNEVEN ACROSS REGIONS

There are significant regional differences both in the timeline of the disease and in the mortality rate per capita. A broad range of factors could be behind these differences, including environmental factors, demographics, socioeconomic factors and others relating to the lockdown measures adopted. In the future, a detailed analysis will be required in order to assess the role that each of these factors may have played in the incidence of the disease in each region or country. Such an analysis must take account of possible methodological differences in the recording of the data.

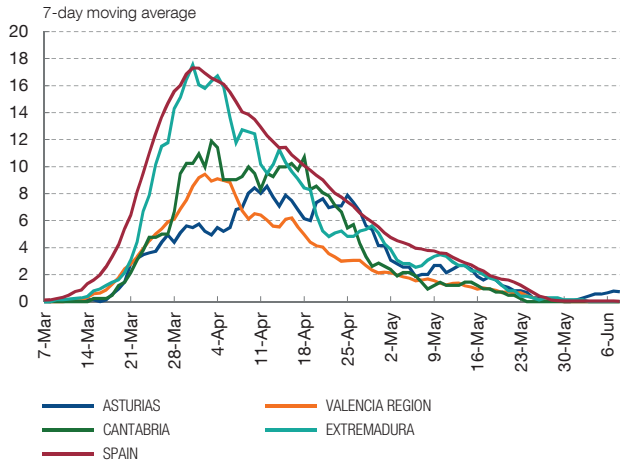
1 DAILY DEATHS PER MILLION INHABITANTS



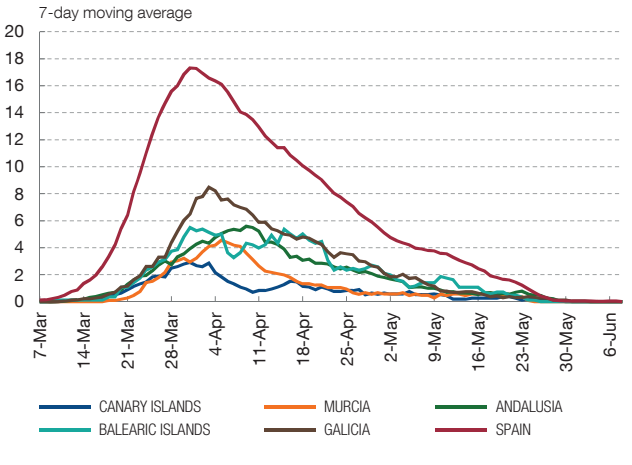
2 DAILY DEATHS PER MILLION INHABITANTS



3 DAILY DEATHS PER MILLION INHABITANTS



4 DAILY DEATHS PER MILLION INHABITANTS



DOWNLOAD

SOURCE: Ministerio de Sanidad.

than 28,000 people will have lost their lives to COVID-19 in Spain since the start of the pandemic. Although comparisons between countries must be made with extreme caution, as the criteria used may vary, this is one of the highest mortality rates per capita worldwide. In addition, according to the first results of a seroepidemiological study carried out by the Instituto de Salud Carlos III, the estimated prevalence of COVID-19 antibodies is only approximately 5% in Spain.[4] In this setting, and while there is no vaccine or effective treatment for the virus, Spain remains very vulnerable

4 See Estudio ENE-COVID19: Primera ronda and Estudio ENE-COVID19: Segunda ronda.

to a further outbreak. To reduce this vulnerability, a programme of rigorous protocols should be rolled out, as has been done in other countries affected by the pandemic, to achieve a significant increase in the number of tests performed, identify and isolate persons infected, and closely monitor all those persons who may have been in contact with the positive cases detected.

Within Spain, the incidence of the pandemic has been very uneven across regions. In particular, there are marked regional differences both in the timeline of the disease and in the mortality rate per capita (see Chart 4.2). Thus, at the peak of the pandemic, Madrid, Castile-La Mancha and La Rioja all presented mortality rates per capita much higher than the national average, while the Balearic Islands, Andalusia, Murcia and the Canary Islands recorded much lower rates. In addition, the peak mortality rates were recorded at different moments in time, such that, for example, Madrid reached its peak approximately two weeks before the Basque Country, Asturias and Andalusia reached theirs.

A broad range of factors could be behind the differences in the incidence of COVID-19 in certain regions or countries. These would include environmental factors (such as temperature or pollution levels), demographics (such as population density or the percentage of population groups at risk), socioeconomic factors (such as the volume of healthcare resources, the degree of social and international contact among the population, or the sectoral structure of the economy) and other factors relating to the lockdown measures adopted (such as the type, timing and severity of the measures).[5] In any event, it is important to note that some of these international or inter-regional comparisons could be affected by significant methodological differences in the recording of the data, so the findings should be analysed with due caution.

4.2 The initial economic impact

The measures adopted to contain the pandemic have had a very marked impact on economic activity in Spain. According to the activity indicators for January and February 2020, the Spanish economy was growing at a similar rate in this period to that recorded in late 2019.[6] This dynamic was suddenly interrupted in March, as the health crisis intensified and it became necessary to adopt extraordinary containment measures.

In 2020 Q1, Spanish GDP suffered its largest quarter-on-quarter contraction ever. With the declaration of the state of alert on 14 March, the mobility of the population was drastically restricted and activity was suspended in a large number

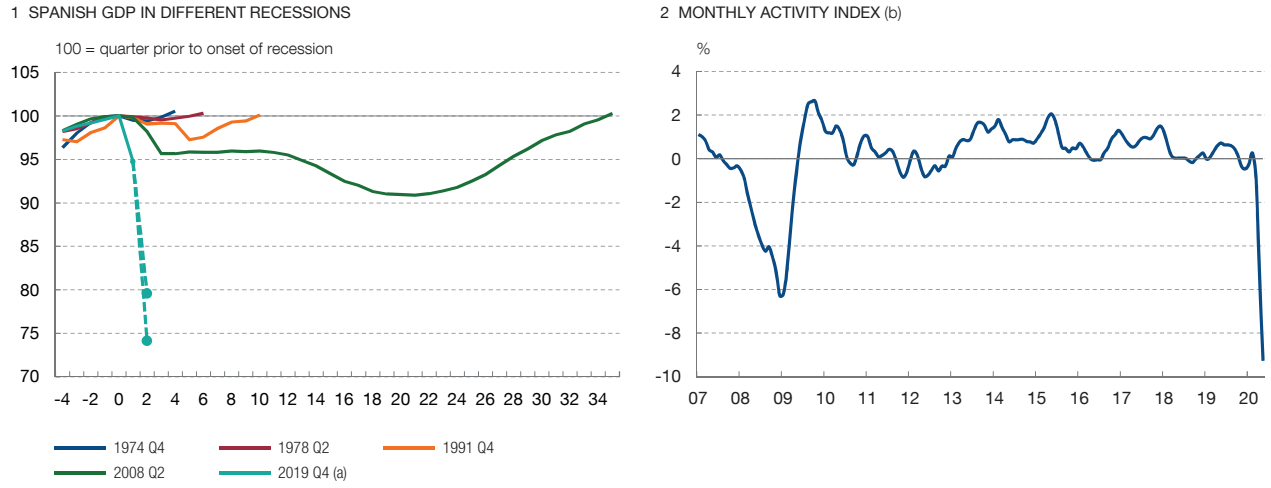
5 Several, essentially preliminary, studies have explored the possible relationship between the incidence of the disease in the different regions of Spain and some of these factors. See, for example, Orea and Álvarez (2020), and the joint work of the Agencia Estatal de Meteorología and Instituto de Salud del Carlos III.

6 See Banco de España (2020c).

Chart 4.3

SPANISH GDP IS ESTIMATED TO HAVE SUFFERED AN UNPRECEDENTED CONTRACTION IN THE FIRST HALF OF THE YEAR

In 2020 Q1, Spanish GDP suffered its largest quarter-on-quarter contraction ever. The most recent activity indicators suggest that the fall in GDP will be significantly steeper in Q2. The magnitude of the negative shock of the COVID-19 pandemic on the Spanish economy can also be seen in a monthly activity index which summarises in real time the information contained in a broad set of indicators.



SOURCES: INE and Banco de España.

a The data for 2020 Q2 are consistent with the Banco de España's latest forecasts under the early recovery and gradual recovery scenarios (June Quarterly Report).

b Rate of change on the basis of three-month moving averages. The latest data available correspond to May. The monthly activity index, which summarises the information contained in a broad set of activity indicators, is governed by non-linear dynamics that adapt to the presence of phase changes in economic cycles and is constructed following the methodology proposed in Leiva-León et al. (2020).

DOWNLOAD

of sectors, especially in the retail, recreation, and accommodation and food services industries. Activity was also affected in some manufacturing industries (in particular, the car industry), initially by distortions in global supply chains caused by the pandemic, and subsequently by the collapse in demand. Although the impact of all these negative shocks was from mid-March onwards, it was so strong that GDP contracted by 5.2% in the first quarter as a whole. This was the largest fall in quarter-on-quarter terms recorded by the Spanish economy since data first became available and marked the end of an uninterrupted growth phase dating back to late 2013.

The most recent activity indicators suggest that the decline in GDP will be significantly steeper in Q2. Practically all the restrictions initially linked to the state of alert, which were tightened between 30 March and 9 April when all non-essential economic activity was suspended, have remained in force during most of Q2. This means that activity will suffer even more in this period than in Q1. Indeed, in line with the information supplied by the latest activity indicators available, the Banco de España's most recent estimates point to a GDP contraction in the current quarter in the range of 16% to 21.8% quarter-on-quarter.[7] Thus, it is estimated that Spanish GDP will have fallen in the first half of the year by a significantly larger amount than in previous

7 See Banco de España (2020a).

recessions (see Chart 4.3.1). This impression is consistent with the evidence of a monthly activity index, which summarises in real time the information on the Spanish economy contained in a broad set of indicators (see Chart 4.3.2).[8]

In any event, output appears to have recovered some strength in recent weeks, as the restrictions initially imposed on mobility and on the activity of certain sectors have been gradually eased. In Q2, the negative impact of all these restrictions on economic activity was at its height in the month of April; since then it has been gradually declining, in line with implementation of the Government's lockdown easing plan. This easing of restrictions has already been reflected in certain high-frequency activity indicators, in addition to those relating to mobility mentioned in Section 4.1 (see Charts 4.1.2 and 4.1.3). Thus, for example, electricity consumption (see Chart 4.4.1) and credit card spending[9] have picked up somewhat in recent weeks. Some of the intraday indicators normally used to monitor activity are also consistent with this gradual improvement over the quarter; these are mentioned in the following paragraphs.

On the demand side, all private spending items appear to have fallen very considerably in the first half of the year. In this period, Spanish household and business spending and investment decisions appear to have been very adversely affected, not only by the restrictions on mobility and activity already mentioned, but also by the deterioration in the macroeconomic outlook and in agents' confidence, due to the increase in uncertainty and the tightening of financial conditions. Indeed, the outbreak of the health crisis led to a collapse by historical standards in confidence indicators (see Chart 4.4.2) and equally unprecedented climbs in economic uncertainty indices (see Chart 4.4.3), which have only been partially reversed in recent weeks. Also, at the global level, the pandemic has caused a notable increase in the volatility of asset prices on financial markets, sharp falls in stock market indices and very significant increases in credit risk premia in some segments. All this has entailed a tightening of financial conditions, to which the Spanish economy has not been immune. In particular, the IBEX-35 fell by 39.4% between 19 February (when it recorded its high prior to the COVID-19 crisis) and 16 March (when it reached its low); as at the cut-off date of this Report, it has since recovered by 26.9% (see Chart 4.4.4). Likewise, the Spanish 10-year sovereign debt spread over the German Bund has widened from 66 bp on 21 February to 95 bp as at the cut-off date of this Report, after peaking at 157 bp on 22 April. Meanwhile, the average cost of long-term corporate debt issues rose by 75 bp between February and May, to 2.1%, thus reversing a large part of the decline since the beginning of 2019. In contrast, on data to April, no appreciable tightening of financial conditions was observed in the bank funding market. This was largely a result of the measures adopted by the ECB and of the Government's public guarantee scheme (see Sections 3.4 and 4.3 of this

8 For further details of this index, see Leiva-León et al. (2020).

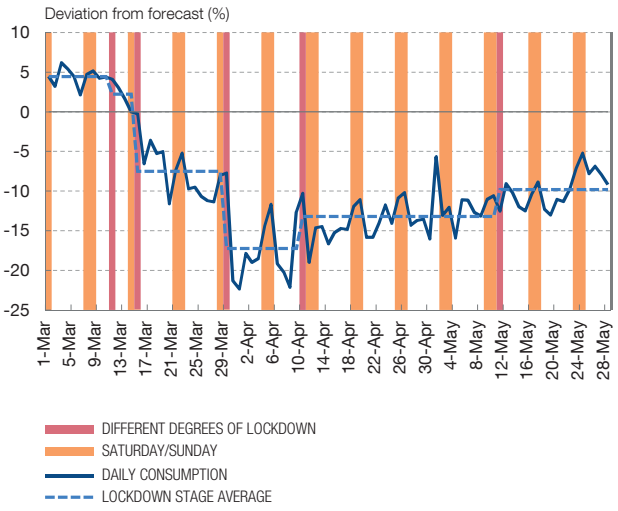
9 For further details of the recent behaviour of credit card spending, see Banco de España (2020a) and BBVA Research (2020).

Chart 4.4

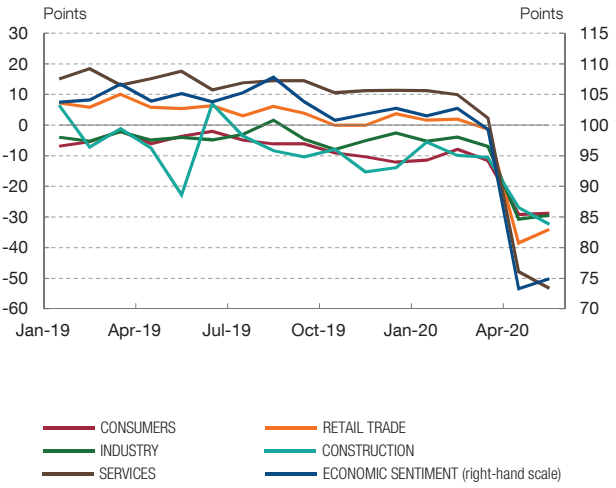
THE HEALTH CRISIS HAS LED TO SEVERE ADJUSTMENTS IN BOTH REAL AND FINANCIAL QUANTITATIVE AND QUALITATIVE INDICATORS

The outbreak of the health crisis and the lockdown measures adopted to curb its spread led to historic corrections in numerous indicators, such as electricity consumption, confidence and economic uncertainty, in March and April. These dynamics have only been partially reversed in recent weeks. On the Spanish and global financial markets, the pandemic has also caused sharp falls in stock market indices and significant increases in credit risk premia.

1 ESTIMATION OF IMPACT OF DIFFERENT LOCKDOWN MEASURES ON ELECTRICITY CONSUMPTION (a)

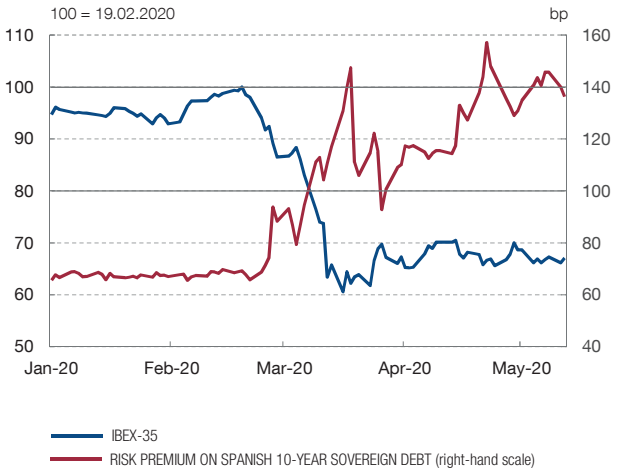


2 ECONOMIC SENTIMENT INDICATOR (LEVELS)



3 ECONOMIC POLICY UNCERTAINTY INDICATOR (b)

4 CHANGES IN THE FINANCIAL MARKETS



SOURCES: Red Eléctrica de España, European Commission, INE, Thomson Reuters Datastream and Banco de España.

a The estimation period runs from 1 January 2019 to 28 May 2020. The dependent variable for the regression is the logarithm of hourly electricity consumption, based on indicators of year, month, day of the week and time of the day, distinguishing three time bands (super-off-peak, from 01:00 to 07:00; off-peak, from 07:00 to 13:00; and peak, from 13:00 to 01:00). Also included are maximum temperature, maximum temperature squared and dummy variables for national and regional holidays, weighted by electricity consumption per region.

b The indicator is constructed on the basis of the number of articles published in leading Spanish newspapers containing a set of terms referring to the concept of economic policy uncertainty. See Ghirelli et al. (2019).

DOWNLOAD

Report, respectively). In particular, the latest data (for April) on interest rates on new loans show declines in most segments since the outbreak of the health crisis, that have been especially sharp in the case of financing for the self-employed.

The preliminary Quarterly National Accounts (QNA) data for Q1 show very sharp falls in domestic demand and exports. As a result of the impact of the factors described above, the preliminary QNA data for the period January-March point to quarterly declines of 7.5% in household consumption and 5.3% in gross capital formation, particularly in residential investment (-12.3%), but also in investment in capital goods (-3.5%). Government consumption was the only relevant item to increase in this period, by 1.8%, which is consistent with the need to provide greater funds to the national health system to address the pandemic. For its part, external demand made a slightly negative contribution to output growth (-0.2 pp), the result of an 8.4% contraction in imports and a fall of the same magnitude in exports. This fall was especially sharp in the case of exports of tourist services (18.6%) (see Box 4.1 for further details on the recent performance and future outlook for tourism in Spain). The fact that the restrictions on activity and mobility were in force for a longer period in Q2 than in Q1 can be expected to result in an acceleration of the decline in the private domestic demand components. Also, the spread of the disease to practically all the world's economies and the widespread imposition of lockdown measures have led to a synchronised global slowdown, which would also point to an acceleration of the decline in exports.

Since the start of the crisis, certain notable changes have been observed in the composition of household spending. The lockdown measures and the suspension of activity in certain sectors have forced households to change their consumption patterns significantly. Notable among the most adversely affected items of spending are those relating to accommodation and food services, but sales of cars, personal equipment (a category that includes, inter alia, clothing and footwear) and household equipment (which includes, inter alia, furniture, lighting and domestic appliances) have also suffered a collapse by historical standards.[10] Conversely, as expected, the lockdown has favoured spending on food products.[11] However, the positive impact on this item was not sufficient to offset the decline in the other categories included in the overall retail sales index, which has fallen sharply since the beginning of the crisis (see Chart 4.5.1). In any case, besides the changes in the composition of consumption caused by the restrictions in force during the state of alert, it should be taken into account that during periods of recession and heightened uncertainty, such as the present one, it is normal to see changes in the

10 According to the services sector activity indicator, turnover in the accommodation and food services sector contracted by 59.1% in March (in terms of the seasonally- and calendar-adjusted monthly rate) and by 87.0% in April. Likewise, new private car registrations fell very sharply in March (-67.5% year-on-year), April (-98.2%) and May (-66.0%). According to the retail trade index, sales of personal equipment fell by more than 50% month-on-month, both in March and in April, while sales of household equipment declined by more than 30% in each of these months.

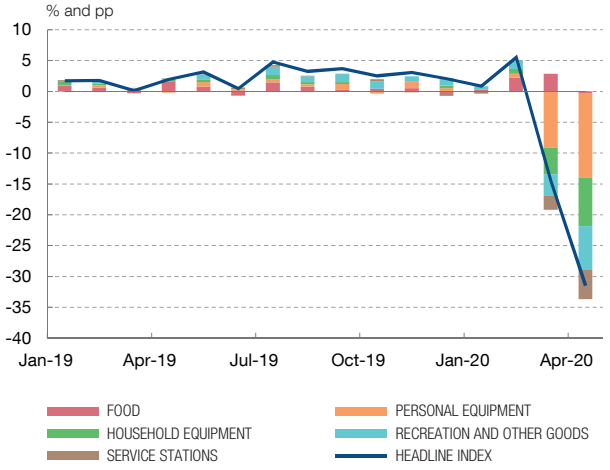
11 For further details of the changes in the consumption pattern of Spanish households in recent months, see Carvalho et al. (2020), based on the data for credit card transactions (including point-of-sale terminals) of a Spanish credit institution.

Chart 4.5

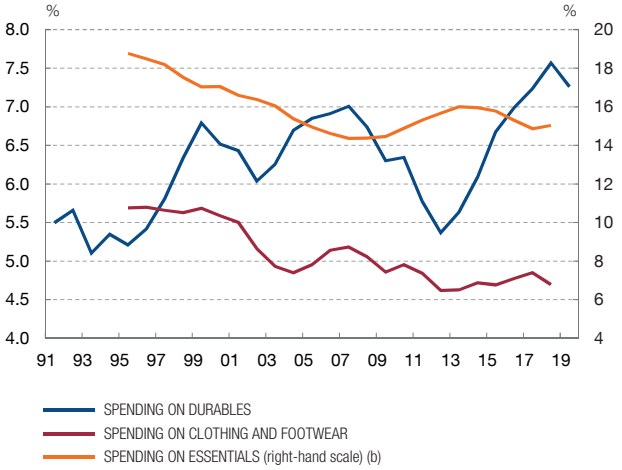
THE LOCKDOWN MEASURES HAVE FORCED A DRASTIC CHANGE IN HOUSEHOLD CONSUMPTION PATTERNS, WHICH HAS BEEN REFLECTED IN INFLATION

The lockdown measures have favoured spending on food products. Notable among the most adversely affected items of spending are those relating to accomodation and food services, but there has also been a collapse by historical standards in sales of cars and personal and household equipment. Within the subset of goods and services that households have continued to consume during lockdown, broadly speaking the prices of goods have increased while those of services have fallen.

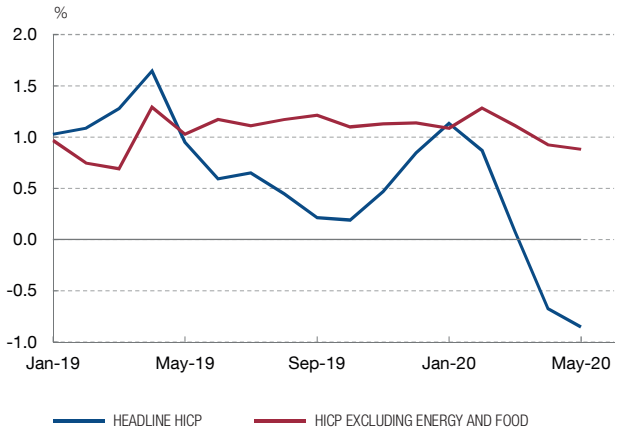
1 RETAIL TRADE INDEX
Year-on-year change and contributions



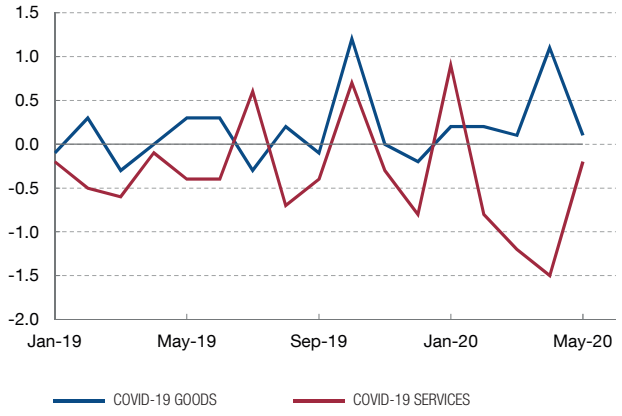
2 WEIGHT OF DIFFERENT ITEMS OF SPENDING IN CONSUMPTION OF HOUSEHOLDS AND NPISHs IN REAL TERMS (a)



3 HEADLINE AND CORE INFLATION



4 INFLATION: SPECIAL COVID-19 GROUPS (c)



SOURCE: INE.

a Base year: 2015.
b Food and non-alcoholic beverages, and pharmaceutical and medical products.
c Special groups, calculated by the INE, of the goods and services that most households have continued to consume during lockdown.

DOWNLOAD

structure of household spending, as households reduce the weight of durables in their consumption.[12] This happened, for example, between 2007 and 2012 when the share of durables in household consumption spending fell by more than 1.5 pp to around 5.5% (see Chart 4.5.2).

12 See, for example, Martínez-Matute and Urtasun (2017), and Arce et al. (2013).

The adjustments observed in the composition of the household consumption basket have also been reflected in inflation dynamics. In recent months, the behaviour of inflation, both in Spain and at the global level, has basically been driven by the slump in the price of oil (see Chart 4.5.3 and Section 2.2 of Chapter 2 for further details of recent oil and other commodity price developments). However, the measures to contain the pandemic and the consequent changes in household consumption patterns have also had a direct impact on the prices of certain goods and services. In this respect, in order to provide more details of the effect that the COVID-19 pandemic is having on prices, the INE has created two specific aggregates of basic consumer products for households in lockdown: the *Special COVID-19 goods group* and the *Special COVID-19 services group.*[13,14] In line with the discussion in the preceding paragraphs, the behaviour of the prices of these goods and services has been very dissimilar in recent months, as the prices of goods have increased while the prices of services have fallen, partly due to oil price developments (see Chart 4.5.4). The behaviour of fresh food prices, which surged in April (by 2.6% month-on-month) and barely corrected in May, is noteworthy. These developments may have been influenced not only by demand-side factors, but also by supply-side issues relating, for example, to greater difficulty hiring labour and certain transport restrictions.

The impact of this crisis on employment is proving to be particularly acute. According to social security registrations data, between mid-March and the end of May almost 752,000 jobs (3.9% of the total) were destroyed in Spain. However, these figures do not include furloughed workers (subject to temporary layoffs or short-time work arrangements, ERTEs by their Spanish initials) or the self-employed who have temporarily ceased their activity. In fact, the bulk of the labour market correction in Spain in recent months has been precisely through these two temporary employment adjustment instruments – the ERTEs and discontinuation of activity for the self-employed – promoted by the Government in its economic policy response to the crisis (see Section 4.3). In particular, according to the latest information published by the Ministry of Inclusion, Social Security and Migration, at the end of May almost 3,000,000 workers were furloughed and somewhat more than 1.4 million self-employed workers had temporarily ceased their activity.[15]

---

13 Lockdown measures have also had a notable impact on the compilation of inflation statistics. For example, in April, a considerable number of consumer goods and services were not available for purchase, or were only available online. Although the situation improved in May, when calculating the measures of inflation for that month the INE still had to estimate 18.6% of prices, which correspond to 21% of the index weighting. For further details, see the INE's Technical note on the influence of COVID-19 (Spanish version only).

14 According to the information provided by the INE, the Special COVID-19 goods group, which represents 27% of the overall index, includes food, beverages, tobacco, pet food, and household cleaning and personal care products. The Special COVID-19 services group, which accounts for 18% of the overall index, includes housing and garage rentals, water distribution, sewerage, refuse collection, maintenance charges in multi-occupied buildings, electricity, gas, heating oil, telephone, music and television streaming services, insurance, bank charges and funeral services.

15 At the end of May, 87.2% of furloughed workers had been furloughed due to force majeure, while the rest had been furloughed for other economic reasons. This percentage was lower than at the end of April (91%), since the number of workers furloughed due to force majeure decreased by 14.9% in May, while the number of workers furloughed for other reasons increased by 22.4%.

The destruction of employment was concentrated in the second half of March. In that 15-day period alone, which followed the declaration of the state of alert, social security registrations decreased by more than 890,000. In April and May, the labour market showed some signs of stabilising (see Chart 4.6.1). In particular, social security registrations fell much less significantly in April (with a 0.3% contraction, as compared to a 4.3% decrease in March)[16] and increased slightly in May (by 1%). Also that month, the number of furloughed workers fell by 11.5%. As discussed below, these dynamics partly reflect the recovery in employment in certain sectors and provinces that were further ahead in the lockdown easing process in May.

As in other episodes of major job destruction in the Spanish economy, in this crisis temporary workers are bearing the brunt of the adjustment. As seen in Chart 4.6.2, the destruction of employment in recent months has basically been concentrated among temporary workers, whether with part-time or full-time contracts, while the fall in social security registrations among workers with permanent contracts has been relatively low. Thus, temporary employees account for 77.2% of the total decline in social security registrations since the start of the crisis. The fact that this percentage is so high is nothing new for the Spanish economy, but rather a normal phenomenon that repeats itself at times of job destruction. For example, between July 2008 and May 2009, in the initial phase of the global financial crisis, 92% of the workers who lost their jobs in Spain were on temporary contracts. In the current context, this situation appears to have been exacerbated, possibly by the fact that the sectors most affected by the health crisis are also those that have a higher rate of temporary employment. In addition, an analysis of social security registration inflows and outflows shows that the decline in registered workers in March was basically the result of an increase in outflows, which were 36% higher than in March 2019, and, to a lesser extent, to a decline in inflows, which fell by 19.2% from the same period a year earlier. In contrast, in April and May, the flows of employment creation (inflows) and destruction (outflows) were both 60% smaller than in 2019.

The impact of employment adjustment is highly heterogeneous across sectors. The fact that the measures adopted to slow the rate of infection have restricted the activity of services (especially retail trade, recreation, accommodation and food services) more severely than that of other sectors of the economy is reflected in employment.[17] Thus, between the end of February and the end of May, the most marked falls in social security registrations were concentrated in certain non-essential services (for example, –12.5% in the arts and –7.8% in accommodation and food services), while job destruction was lower in the manufacturing industries (for example, –2.6% in the food industry) (see Chart 4.6.3). These same sectoral differences

16 Month-end month-on-month data.

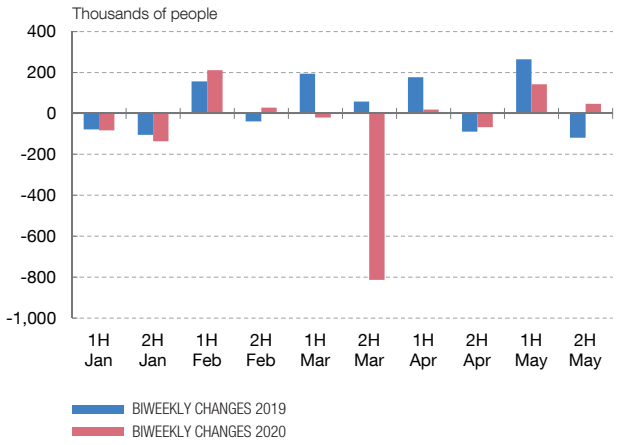
17 The greater direct impact of the lockdown measures on services is consistent with the fact that, according to different metrics (see, for example, Koren and Peto (2020)), services industries generally involve more intensive social interaction than other activities and, therefore, tend to be more conducive to the spread of the virus.

Chart 4.6

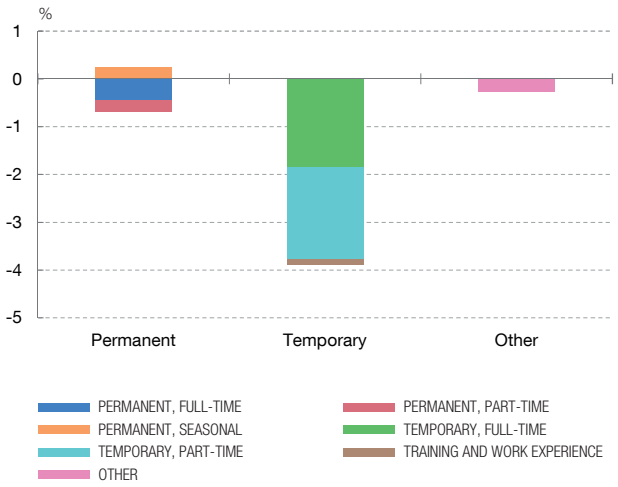
THE IMPACT OF THIS CRISIS ON EMPLOYMENT IS PROVING PARTICULARLY SEVERE

The impact of the crisis on employment was concentrated in the second half of March; the labour market showed signs of stabilising in April and May. Temporary workers are bearing the brunt of the adjustment in this crisis, which at the sector level is affecting services (especially retail trade, recreation, accommodation and food services) far more severely than manufacturing.

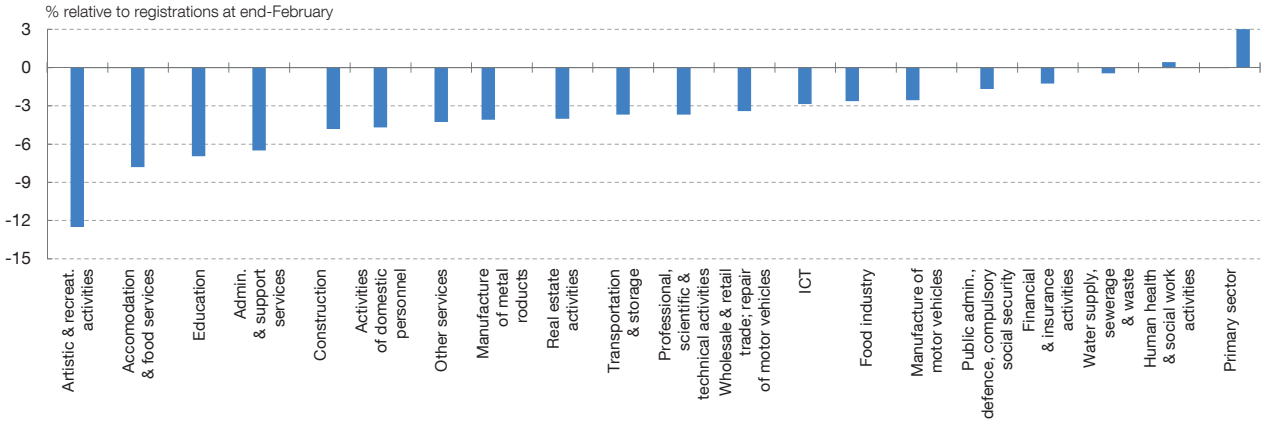
1 BIWEEKLY CHANGES IN SOCIAL SECURITY REGISTRATIONS



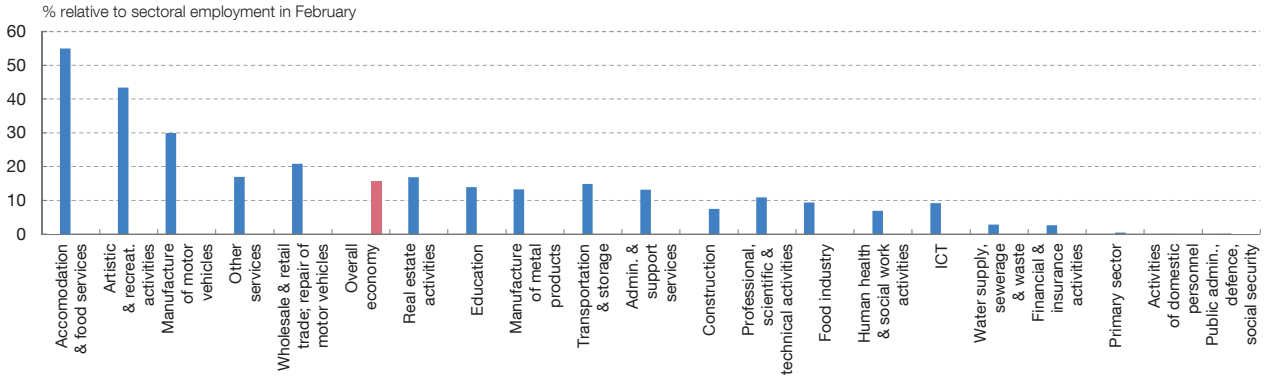
2 DROP IN SOCIAL SECURITY REGISTRATIONS BY CONTRACT TYPE BETWEEN FEBRUARY AND MAY 2020



3 CHANGE IN SOCIAL SECURITY REGISTRATIONS AT END-MAY BY SECTOR OF ACTIVITY



4 INCIDENCE OF FURLOUGHS (ERTEs) IN MAY BY SECTOR OF ACTIVITY



DOWNLOAD

SOURCE: Ministerio de Inclusión, Seguridad Social y Migraciones.

are also observed when the use that the different industries have made of furloughs (ERTEs) as an employment adjustment mechanism is considered (see Chart 4.6.4). In addition to these cumulative impacts, it should be noted that, within the framework of the gradual lockdown easing plan established by the Government, employment in some of the sectors that have benefited most from the easing of certain restrictions on their activity was relatively more dynamic in May. In fact, when the sectoral breakdown of the increase in social security registrations in May (almost 188,000 more jobs) and of the decrease in the number of furloughed workers in the same month (almost 390,000 fewer workers) is considered, the recovery in effective employment in accommodation and food services and wholesale and retail trade (19.3% and 7.5%, respectively) is seen to have been well above that recorded for the economy as a whole (4.1%) and, for example, for manufacturing (4.5%).

A broad set of additional information indicates that services activity has suffered more than manufacturing activity since the beginning of this crisis. A case in point are the results of the Banco de España survey of a sample of Spanish non-financial corporations to obtain information on the impact of the COVID-19 crisis on their business (see Chart 4.7.1).[18] Other indicators of different kinds are also consistent with a larger decline in the activity of services than manufacturing. One example, among qualitative indicators, is the purchasing managers' index (PMI) (see Chart 4.7.2). Other quantitative indicators pointing in the same direction include the latest industrial production (IPI) and services activity (IASS) data. All this information is in line with the behaviour of value-added by industry inferred from the preliminary National Accounts data for 2020 Q1. In particular, according to these data, activity in the services sector contracted by 5.6% in the first three months of the year, with especially sharp falls in retail and wholesale trade, transport and accommodation and food services (10.9%), as well as in artistic and recreational activities (11.2%). Industry, by contrast, suffered a significantly smaller decline, of 2.7%. In the same period, activity in the primary sector, which has been practically unaffected directly by the measures applied to contain the pandemic, fell by only 1.4%. Finally, there was a notable contraction, of 8.1%, in construction, which would be consistent with the collapse in some of the most relevant activity indicators for this sector (for example, those for property sales, cement consumption and confidence).

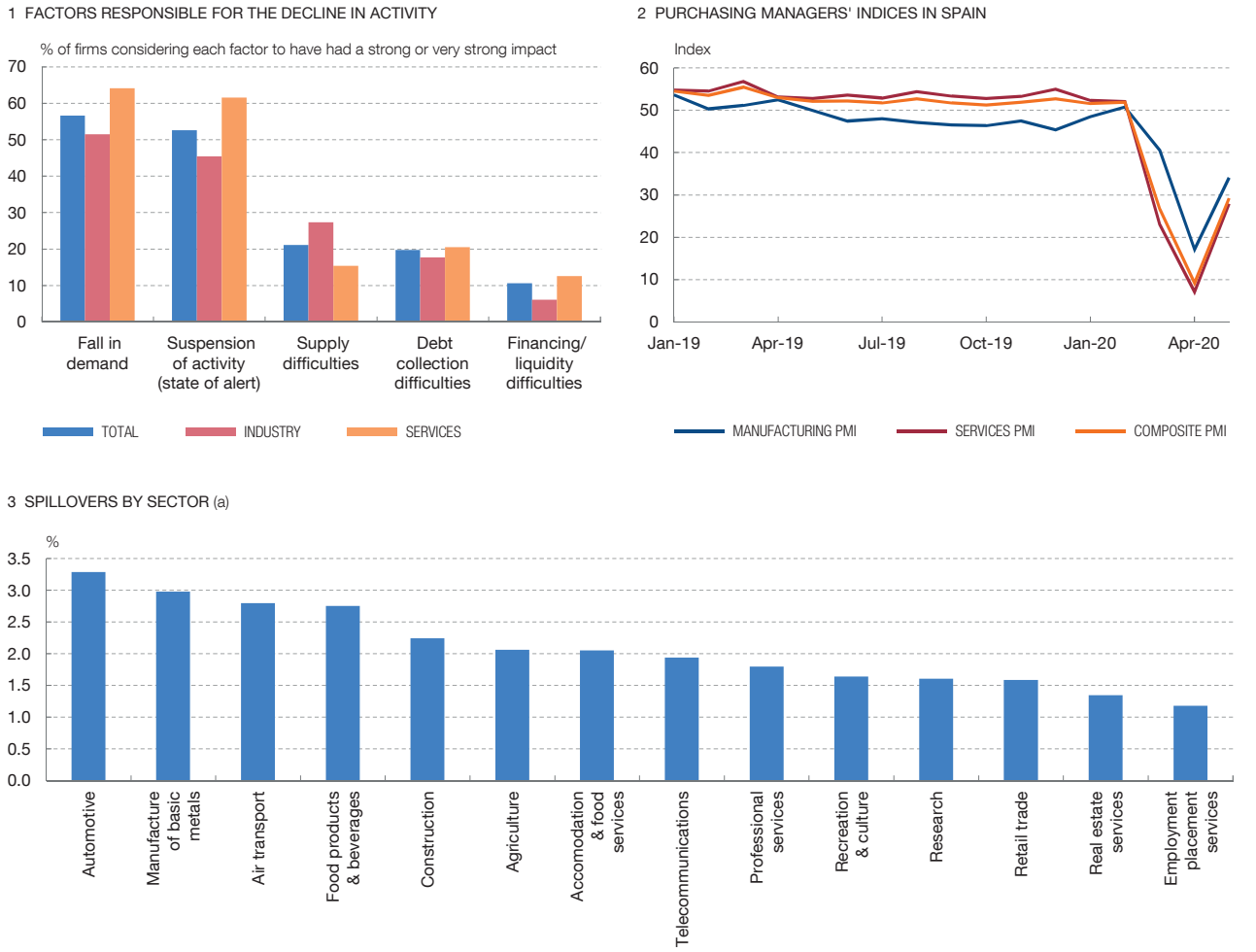
Apart from the direct impact of the measures to contain the pandemic, all industries appear to have been affected indirectly by the fall in demand and the spillovers between the different sectors. As already mentioned, although some sectors were barely affected by the restrictions imposed on activity during the management of the health crisis, their level of employment and activity also appears to have declined in recent months. This is the case, for example, of the primary and energy sectors. It is important to remember in this respect that the activity of a particular sector may be affected not only directly by the measures to contain the

18 For further details of this survey, see Banco de España (2020b).

Chart 4.7

SERVICES ACTIVITY APPEARS TO HAVE SUFFERED MORE THAN MANUFACTURING ACTIVITY SINCE THE BEGINNING OF THIS CRISIS

Different pieces of information are consistent with a larger decline in services activity than in manufacturing. For example, the PMIs and the results of the Banco de España's survey of a sample of Spanish non-financial corporations in early April point in this direction. However, apart from the direct impact of the measures to contain the pandemic, all industries appear to have been affected indirectly by the fall in demand and by the spillovers among the different sectors.



SOURCES: IHS Markit, INE and Banco de España.

a See Acemoglu et al. (2016).

DOWNLOAD

pandemic, but also indirectly by the spillover effects arising from the input-output links that such sector has with the rest of the economy's industries. Chart 4.7.3 shows, for a selection of sectors, the total spillover effect that each has on the economy as a whole.[19] A notable example is the car industry, whose activity was significantly affected in March and April by the fall in demand and by global supply chain disruptions and which, in addition to being one of the sectors of the Spanish

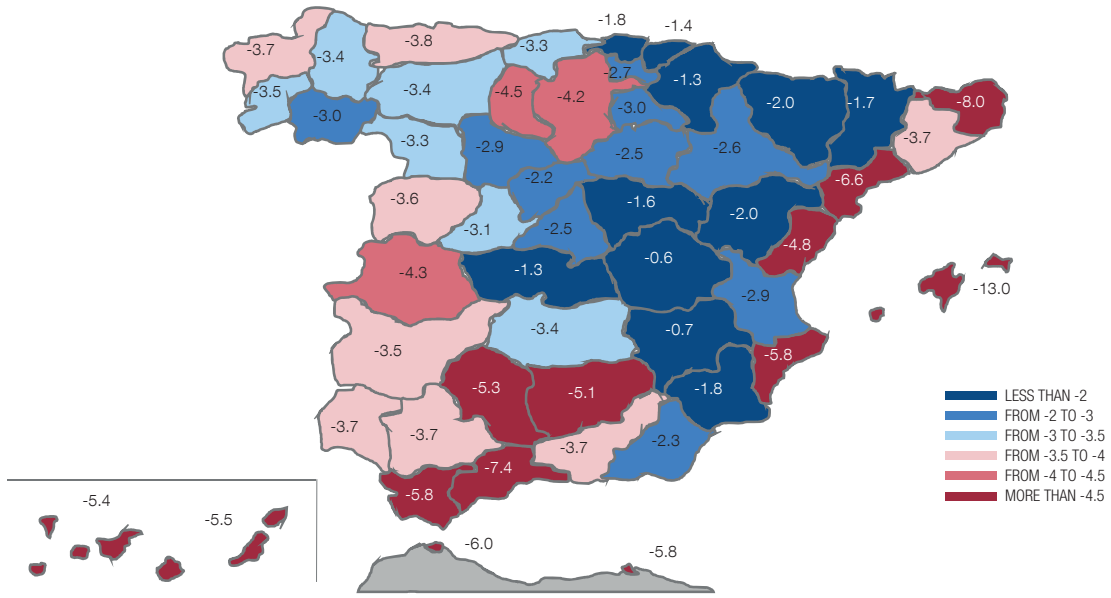
19 For further details of the methodology used to calculate these spillover effects, see, for example, Izquierdo et al. (2019) and Acemoglu et al. (2016).

Chart 4.8

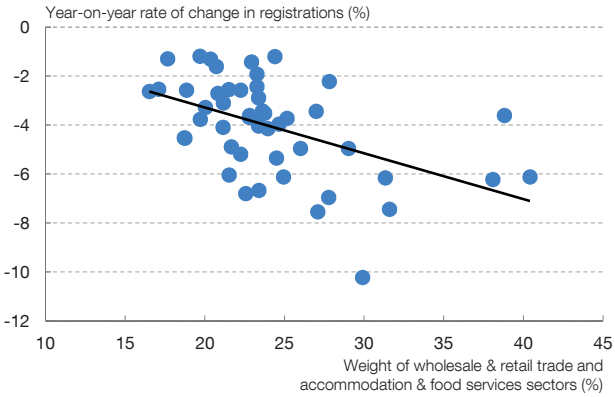
THE HEALTH CRISIS IS HAVING A VERY UNEVEN IMPACT ON THE ECONOMIC ACTIVITY OF SPAIN'S PROVINCES

The impact of this crisis on employment is proving to be highly uneven at the provincial level. A significant part of this heterogeneity can be explained by the differences in sectoral structures and temporary employment rates across provinces. In May, social security registrations and furloughs were also affected by the different rates of progress in the easing of lockdown among provinces.

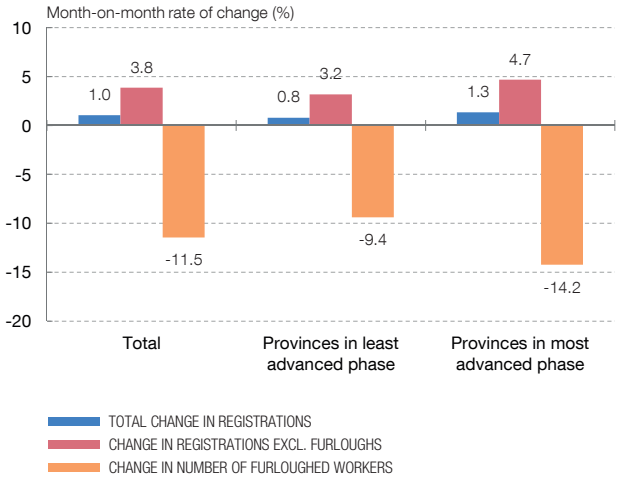
1 YEAR-ON-YEAR CHANGES IN SOCIAL SECURITY REGISTRATIONS IN MAY 2020 BY PROVINCE (%)



2 DROP IN SOCIAL SECURITY REGISTRATIONS IN APRIL 2020 AND WEIGHT OF WHOLESALE & RETAIL TRADE AND ACCOMODATION & FOOD SERVICES SECTORS BY PROVINCE



3 CHANGES IN SOCIAL SECURITY REGISTRATIONS IN MAY



DOWNLOAD

SOURCES: Ministerio de Inclusión, Seguridad Social y Migraciones, INE and Banco de España.

economy with the highest productivity,[20] also has a very high spillover effect. Also, the multiplier or spillover effect of accommodation and food services and travel agencies, the sectors that have perhaps suffered most from the impact of the

20 See Cuadrado et al. (2020).

lockdown measures, is quantitatively highly relevant; each additional euro of turnover in these sectors is linked to somewhat more than two euro of additional production in the rest of the economy.

The health crisis is having a heterogeneous impact on the economic activity of Spain's provinces. Even though sufficiently detailed information is still not available on developments in activity at a geographically disaggregated level, the impact of this crisis on employment is proving to be highly uneven across provinces (see Chart 4.8.1). For example, while social security registrations in May fell by more than 7% year-on-year in the Balearic Islands, Girona and Málaga, the decline was less than 2% in provinces such as Navarre, Guipúzcoa, Cuenca and Toledo. A significant part of these differences can be explained by the heterogeneity of the sectoral structures and temporary employment rates at provincial level.[21] In this respect, Chart 4.8.2 shows that provinces with a high proportion of their productive activity in the wholesale and retail trade and accommodation and food services sectors recorded much sharper falls in employment between the end of February and the end of April. The behaviour of social security registrations and furloughs in May also suggests that differences in the rate of progress in the lockdown easing are an additional factor that has driven provincial heterogeneity in the recent behaviour of employment (see Chart 4.8.3). The increase in social security registrations in May was greater in those provinces that moved into the second stage of the lockdown easing plan on 11 May than in other provinces (1.3%, as against 0.8%) and the decline in the number of workers affected by furloughs was steeper (14.2%, as against 9.4%). The fact that this health crisis is having an asymmetric impact across Spain, mainly as a result of differences in sectoral structure and in the pace of easing of lockdown, is consistent with the estimates made by the Banco de España on the basis of sectoral input-output links broken down by region.[22]

4.3 Economic policies adopted in Spain

Economic policy measures in response to the COVID-19 crisis have been taken in several areas and in different phases. Akin to other countries, Spain has responded to the COVID-19 pandemic on various fronts, implementing measures as the economic impact of the health crisis has intensified.[23] The measures approved have chiefly focused on strengthening the healthcare system, protecting employment and supporting vulnerable households, and providing liquidity to firms and the self-employed.[24] The main aim has been to ease the pressure on the healthcare system

21 See Pérez and Izquierdo (2020).

22 See Prades Illanes and Tello Casas (2020).

23 The main measures adopted are set out in four Royal Decree-Laws (RDL 7/2020, RDL 8/2020, RDL 11/2020 and RDL 15/2020), approved between 12 March and 21 April.

24 Measures have also been taken in many other spheres. For example, a degree of flexibility was introduced in certain obligations on companies during the state of alert, and in some cases for longer. In particular, more flexible arrangements have been set in place for the way in which meetings of governing and management bodies may be held and resolutions adopted, and various timelines have been suspended. For more details, see RDL 8/2020.

in the short term and protect households' and firms' income. It has also been to prevent this eminently temporary health crisis from causing significant damage to the economy's growth potential that would limit its capacity for subsequent recovery, if viable firms were to close or jobs were to be permanently lost.

The budgetary resources assigned to healthcare have been increased to withstand the pandemic. To this end, the central government has provided €2.8 billion to the regional governments and has assigned an extra €1 billion to the Ministry of Health. Moreover, €30 million has been earmarked for funding research into the virus, and €600 million has been assigned to regional and local governments to ensure that healthcare services reach the most vulnerable. The Government has also approved the creation of a special non-repayable fund – the COVID-19 Fund – through which the State will pay regional governments €16 billion, €9 billion of which will be earmarked for healthcare expenditure.[25] Moreover, on 21 April, a zero VAT rate was set for purchases of healthcare equipment for public sector entities, clinics, hospitals or private charitable entities, which will be in force until 31 July 2020.

Important measures have also been deployed to protect jobs and support the most vulnerable households. These measures notably include greater flexibility in layoffs and short-time work arrangements and waiver of employer social security contributions (100% in the case of SMEs and 75% for all other firms). The term of these measures was initially linked to the duration of the state of alert. It was subsequently extended, first to the end of June and then to the end of September, albeit with lower rebate rates in order to encourage the return to work as firms' activity recovered. Further, an extraordinary unemployment assistance benefit has been introduced for various groups, such as temporary workers with an insufficient previous contribution period and domestic service workers. The conditions for drawing the discontinuation of activity benefit for the self-employed have been relaxed, removing certain eligibility requirements, and greater unemployment protection has been afforded to permanent seasonal workers, expanding coverage to those who have been unable to start work and were not entitled to claim the benefit. Among other measures for the most vulnerable households, supplies of essential utilities have been guaranteed and moratoria have been established for rent payments and mortgage and non-mortgage loan repayments. Although not directly linked to the present health crisis, a permanent minimum living income has also been approved.[26, 27] This new

25 Of the remainder of this fund, €5 billion will be used to offset the fall in revenues of regional governments (i.e. from regional taxes and other revenues), which particularly affects specific-status regional and provincial governments, and €2 billion will be earmarked for education. For more details on this fund and its distribution among the regions, see RDL 22/2020.

26 See RDL 20/2020.

27 The minimum living income eligibility requirements are generally defined on the basis of the prior year's income. However, in order to reach the groups that have been hardest hit by the ongoing health crisis, it has been established that households whose income was particularly low in the early months of 2020 may benefit from this assistance, under certain conditions, during the second half of 2020.

benefit is intended to reduce extreme poverty and will supplement the income of eligible households so as to guarantee a minimum annual income of €5,538 per person. According to information provided by Social Security, this scheme could benefit around 850,000 households, with a cost of approximately €3 billion per annum.

A third set of measures is aimed at providing liquidity to firms, specifically SMEs and the self-employed. First, a public guarantee facility of €100 billion has been made available for loans to non-financial corporations, and another of €2 billion specifically for SMEs and export firms. The Official Credit Institute (ICO) has also set up a credit facility of €400 million for the tourism industry. Second, a series of legislative moratoria on mortgage and non-mortgage debts, similar to those introduced for households, was also approved for sole proprietors who are economically vulnerable as a consequence of the crisis. Subsequently, the banking sector established a special additional regime for moratoria agreements for these vulnerable groups. Third, a six-month moratorium on tax debts was agreed for SMEs and the self-employed, and also the deferral of all tax payments by firms until 20 May. Along the same lines, a six-month moratorium on social security contributions was granted, running from April to June for firms and from May to July for the self-employed in certain sectors. Lastly, it has also been agreed that SMEs and the self-employed registered under the objective estimate scheme may declare their taxes based on an estimate of their current levels of activity, rather than on their volume of business in 2019.

The estimates of the budgetary cost of the set of discretionary measures approved by the Government to tackle this crisis are subject to an extraordinary level of uncertainty. First, in some cases the number of households or firms that will benefit from the measures adopted cannot be accurately determined, nor is the term of the measures always clear. Second, the final cost of the measures will ultimately depend on their ability to prevent long-lasting deterioration in economic growth potential, an aspect that is also subject to considerable uncertainty. In particular, how successfully these measures foster a swift and sharp economic recovery in the near term will have a direct impact on the solvency and liquidity of the Spanish business sector and, therefore, on the final cost for the public sector of the guarantee facilities established for lending to business. In addition, the total cost of this crisis for public finances will depend not only on the expenditure associated with the discretionary measures approved, but also on the functioning of the automatic stabilisers. In this regard, as detailed in Section 4.4.3, this crisis is expected to trigger a highly substantial increase in the general government deficit in coming quarters, largely owing to a very significant decline in public sector tax revenues and a rise in unemployment benefit expenditure.

4.4 Economic outlook for the coming quarters

4.4.1 The starting point

The Spanish economy faces the economic crisis stemming from the COVID-19 pandemic after a long upturn that showed a more balanced growth pattern than in the past. Until the outbreak of the COVID-19 crisis, the Spanish economy had been in a phase of uninterrupted growth since end-2013. During this period, Spanish GDP increased by 16% in cumulative real terms, a markedly steeper growth rate than that observed in the euro area on average (11.5%),[28] and at end-2019 it was more than 6% higher than the peak GDP recorded in the previous upward cycle (in 2008). This growth phase was underpinned by the introduction of various reforms at the European and national level, and by the expansionary stance of demand-side policies. A number of elements distinguished this period of growth from previous expansionary cycles and broadly contributed to a notable reduction in the main macrofinancial imbalances of the economy.

External surpluses, private sector deleveraging and the transformation of the productive structure were all distinctive elements of the last growth phase. The expansionary cycle that came to an end in 2008 was characterised, among other factors, by burgeoning current account deficits, large-scale private sector borrowing and an extraordinary prominence of the construction sector in the productive structure. These dynamics, which were a source of considerable vulnerability for the economy as a whole and for the financial sector, saw highly significant adjustments in the growth phase that began towards the end of 2013, as described below.

The Spanish economy has continuously posted surpluses on current account in recent years (see Chart 4.9).[29] At end-2019, this surplus stood at 2% of GDP, in contrast to the deficits of around 9% of GDP observed in the period 2006-2008. This improvement in the external balance of the Spanish economy was explained by a series of interrelated factors, including the competitiveness gains built up over the last decade, the geographical diversification of Spanish exports to markets with greater growth potential, and the increase in the number of regular exporting firms. As a result, the weight of Spanish exports in GDP rose significantly (35% in 2019, compared with 26% in 2007) and the negative international investment position declined, although it is still very sizeable, both in historical terms and compared with other European economies (see Chart 4.9.1).

Households and firms deleveraged, while the construction sector and the financial sector undertook extensive restructuring, leading to a very marked

28 In per capita terms, real GDP growth in Spain between 2013 and 2019 also exceeded the euro area average (15.2% in Spain, compared with 10% in the euro area).

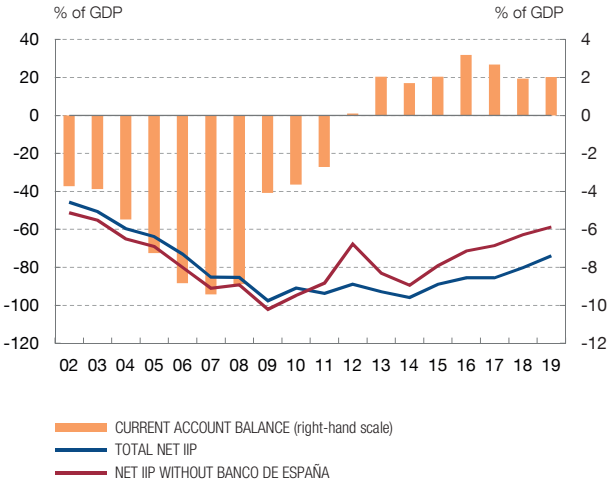
29 For more details on the adjustment of the Spanish current account balance during these years, see Banco de España (2017a).

Chart 4.9

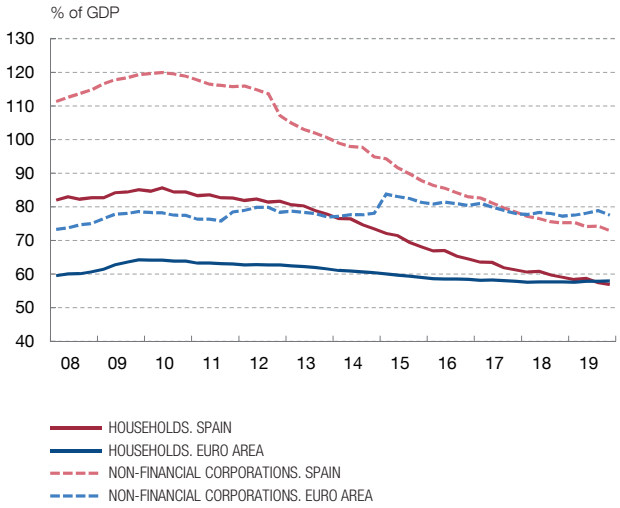
EXTERNAL SURPLUSES, PRIVATE SECTOR DELEVERAGING AND THE TRANSFORMATION OF THE PRODUCTIVE STRUCTURE WERE ALL DISTINCTIVE ELEMENTS OF THE LAST GROWTH PHASE IN SPAIN

The Spanish economy has continuously posted surpluses on current account in recent years, in contrast to the deficits of around 9% of GDP observed in 2006-2008. Growth in recent years was also compatible with intensive deleveraging by Spanish households and non-financial corporations, whose debt-to-GDP ratios were lower than the euro area average at end-2019.

1 CURRENT ACCOUNT BALANCE AND NET INTERNATIONAL INVESTMENT POSITION (IIP)



2 DEBT OF THE PRIVATE NON-FINANCIAL SECTOR



DOWNLOAD

SOURCES: Banco de España, ECB and INE.

reduction in their size. The growth in recent years was compatible with an intensive process of deleveraging by the private non-financial sector. Thus, at end-2019, the debt-to-GDP ratios of Spanish households and non-financial corporations stood at 57% and 74%, respectively (28 pp and 46 pp below their post-crisis peaks), in both cases lower than the euro area average (see Chart 4.9.2). At the same time, the weight of construction investment in Spanish GDP fell very significantly (from nearly 21% in 2006 to 9% on average in 2013-2019), drawing it closer to the euro area average.[30] In contrast to the relative sluggishness seen in the construction sector in recent years, investment in capital goods was clearly more buoyant in Spain than in other European countries after 2013 (with average annual growth of 5.1% in Spain, compared with 3.2% in the euro area).[31] This occurred against a backdrop of considerable rationalisation, recapitalisation and restructuring by the financial sector, which contributed to a more efficient

30 This same dynamic is also observed in terms of the weight of the GVA of the construction sector in the total GVA of the economy. In real terms, this ratio fell from 10.3% in 2006 to 5.9% on average in 2013-2019, only 1 pp above the euro area average in this period. For further details of the adjustment process in the Spanish construction sector in recent years see, for example, García-Montalvo (2013) and Banco de España (2020d).

31 For a more detailed description of the behaviour of investment in the last Spanish expansionary cycle see, for example, Banco de España (2018).

allocation of credit to businesses, with lending being more concentrated on more productive firms.[32]

Despite the progress made in recent years, the Spanish economy still presented some significant sources of vulnerability at end-2019, shaping the response to the COVID-19 crisis and the scale of the current downturn. In particular, after years of robust and uninterrupted growth, the Spanish economy has not managed to correct the imbalance in its public finances, the labour market continues to be characterised by high unemployment rates and excessive duality, and productivity growth remains low. Not only have these aspects already had some influence on the initial impact of the COVID-19 pandemic on the Spanish economy (see Section 4.2), but looking forward they will also have a bearing on its behaviour and its responsiveness (see Section 5.1 of this Report).

4.4.2 The main sources of uncertainty

Extraordinary uncertainty surrounds the three keys aspects that shape the medium-term outlook for the Spanish economy. First, the economic performance over the coming quarters will hinge on how the pandemic develops from a healthcare perspective, on how the plans for the gradual easing of lockdown implemented in recent weeks unfold, and on the extent to which the different sectors of economic activity can recover a certain level of normality. In the context of a highly integrated global economy, all of these matters must be assessed from both a domestic and an international standpoint. Second, the momentum of the Spanish economy over the medium term will depend on the degree to which the health crisis has damaged the growth potential of the economy, despite the measures deployed to avert such damage. In this regard, there is considerable uncertainty as to how persistent the damage to the labour market and the business sector may be. Lastly, the medium-term outlook for the Spanish and global economy will be influenced by developments in the financial system and, in particular, by the possibility of disruptive episodes in this area, with potentially adverse implications for the real economy.

As regards the first source of uncertainty, although the pandemic appears to be relatively under control in most European countries in late June, new outbreaks of the disease in the future cannot be ruled out. Indeed, experience of other epidemics throughout history and the evidence analysed in various scientific studies suggest that there is a not insignificant probability of new outbreaks of COVID-19 in the future. Naturally, it is not possible to determine when any such new outbreak would occur, nor how severe it would be. Further, it is not

32 See Banco de España (2017b) for a detailed description of the transformation process undertaken by the financial sector in recent years, and Jiménez, Moral-Benito and Vega (2018) for an analysis of the changes that took place in the credit allocation process in this period. For a description of the challenges facing the financial sector in the coming years, see Section 5.3 of this Report.

certain when a vaccine or effective anti-viral treatment for COVID-19 could become widely available. There is, however, broad consensus that, until such a vaccine or treatment is available, any possible new outbreak of the disease will require renewed lockdown measures, with the consequent economic cost.[33] Such a possibility means that uncertainty will remain at relatively high levels over the coming months, adversely affecting agents' spending and investment decisions. In this regard, the Banco de España's estimates suggest that, if economic uncertainty were to remain at current levels (following the increase recorded in the second half of March; see Chart 4.4.3), household consumption in mid-2021 would be 3.5% less than it would be under a scenario in which uncertainty fell swiftly back to pre-COVID-19 levels. There would be an even more significant adverse impact, of around 27%, on business investment.

Nor is it certain how households and firms will adapt to the lockdown easing plans implemented in Spain and other countries in recent weeks, nor what the new normal will be. Despite the major differences among them, most plans still maintain different forms of restrictions on activity in some sectors (for example, in terms of capacity in certain public spaces)[34] and on international movement. So it is not yet a case of a full return to normal. How long these restrictions will last is uncertain, and they will undoubtedly place constraints on the profitability of the sectors and businesses affected, potentially leading to changes in their business models in the short term. It is also possible that this crisis may ultimately trigger relatively persistent changes in some countries' industrial policies, in the functioning of global value chains, and in households' consumption and work habits, all of which are surrounded by a high level of uncertainty (see Section 5.2 of this Report). For example, it is difficult to determine the extent to which there will be permanent changes in the percentage of households' online consumption expenditure (with implications for the retail trade sector) or in demand for services linked to international travel or mass gatherings (with implications for sectors such as transport, tourism and leisure).

The sectors most affected by the restrictions to contain the pandemic account for a large share of the Spanish economy, which amplifies the adverse impact of the crisis in the short term and will foreseeably affect the momentum of the subsequent recovery.[35] In comparison with other economies, the weight of the

33 Broadly speaking, the incipient academic literature analysing the economic implications of the COVID-19 pandemic suggests that, although the social distancing measures implemented to curb the spread of infection have an immediate, high economic cost, they are optimal from an economic standpoint when a longer-term perspective is taken or when the different channels through which the pandemic could affect activity are internalised. See Bodenstein et al. (2020) and Farboodi et al. (2020).

34 See Section 4.1 for more details on the lockdown easing plan in Spain.

35 As detailed in other sections of this Report, in addition to the sectoral structure of the Spanish economy, the high percentage of temporary employment and the relatively large weight of small and medium-sized enterprises in the national productive system will also exert significant influence on the outlook of the Spanish economy in the short and medium term.

sectors most affected by the initial restrictions on movement and activity (those connected with passenger transport, retail trade, leisure, restaurants and, more generally, with tourism) is relatively high in Spain (see Chart 2.8.2). This pattern of productive specialisation explains, in part, why the Spanish economy is being harder hit than other European economies by the present crisis (see Section 2.3 of this Report). Indeed, it is estimated that, even in a hypothetical exercise in which the four large countries in the euro area applied exactly the same restrictions to activity in the different sectors of the economy, there would be a more acute contraction in activity in Spain than in Germany, France or Italy, as a result of its specific sectoral composition.[36] Insofar as the restrictions that are currently in force, and will foreseeably remain in place over the coming months, continue to have a greater direct impact on the services sectors mentioned above, the sectoral structure of the Spanish economy could continue to have an adverse influence on the momentum of the recovery in the medium term. This channel is illustrated from the perspective of the tourism sector in Box 4.1, which describes the collapse of this sector in Spain in recent months and assesses its possible performance in coming quarters, as well as the impact that this performance may ultimately have on the recovery of the whole Spanish economy in the medium term.

The make-up of the workforce of these sectors, with a relatively high share of women, young adults and low-income workers, will also influence the spending recovery path and how inequality evolves in the future. Box 4.2 highlights that the sectors of activity bearing the brunt of this health crisis – also known as "social industries" insofar as they entail a larger proportion of tasks requiring a high degree of social interaction – have a much higher percentage of female, young and low-income employees than other sectors of the economy. The fact that the workers most affected by the crisis are precisely those who were more vulnerable at the outset and have more limited resources with which to maintain their spending levels could undoubtedly influence the momentum of the recovery in aggregate demand and changes in inequality, not only during the coming months, but also over the longer term. Thus, for example, it has been documented that greater instability in young adults' income leads them to delay buying durable goods (such as housing)[37] and that young adults affected by bouts of high unemployment have a lower propensity to spend, both in the short term and over their life cycle.[38] Moreover, in terms of vulnerability, the latest data from the Banco de España's Survey of Household Finances (EFF) suggest that a relatively significant percentage of workers in the "social industries" (12%) are women who also provide more than 50% of their household income. Furthermore, one in five women in this cohort (22%) live in a household with assets of less than one month's income. Importantly, however, in comparison with the global financial crisis, the workers most affected by the present

36 See Prades Illanes and Tello Casas (2020).
37 See Paz-Pardo (2020).
38 See Malmendier and Sheng Shen (2019).

crisis are relatively more protected. Their households are in better financial health (in terms of lower debt payments relative to their income) and, in general terms, these workers are not the principal source of the household's income, which is usually salaried income from a sector other than the "social industries".[39]

The specific degree to which the economic policy measures will be effective in preventing long-lasting damage to the labour market is as yet unknown. As discussed in Section 4.2, in recent months Spanish firms have made large-scale use of furlough schemes (ERTEs). Although this has also been observed in other countries during the crisis, the use of this mechanism is new in the Spanish labour market compared with the dynamics observed in previous downturns. In addition to the design of this tool making it particularly suitable for responding to short-lived episodes such as the COVID-19 health shock, its current use has also been driven by the incentives approved by the Government at the outbreak of the crisis. In any event, given the relative novelty of furloughs due to force majeure as a tool for employment adjustment in the Spanish economy, there is notable uncertainty as to how the employment relationships concerned will be affected. Clearly this will also depend on how the crisis unfolds over the coming months. In this regard, it should be noted that the number of workers furloughed due to force majeure fell by nearly 460,000 between April and May, while the number of those furloughed due to other reasons increased by 70,000 in the same period. This could reflect a gradual shift from the initial furloughs due to force majeure, which were directly related to the COVID-19 pandemic, to other mechanisms (in this case, furloughs due to other reasons) that are better aligned with the specific situation of each firm. In any event, this evidence suggests that the transition from furloughs due to force majeure to employment does not necessarily have to be direct or immediate.

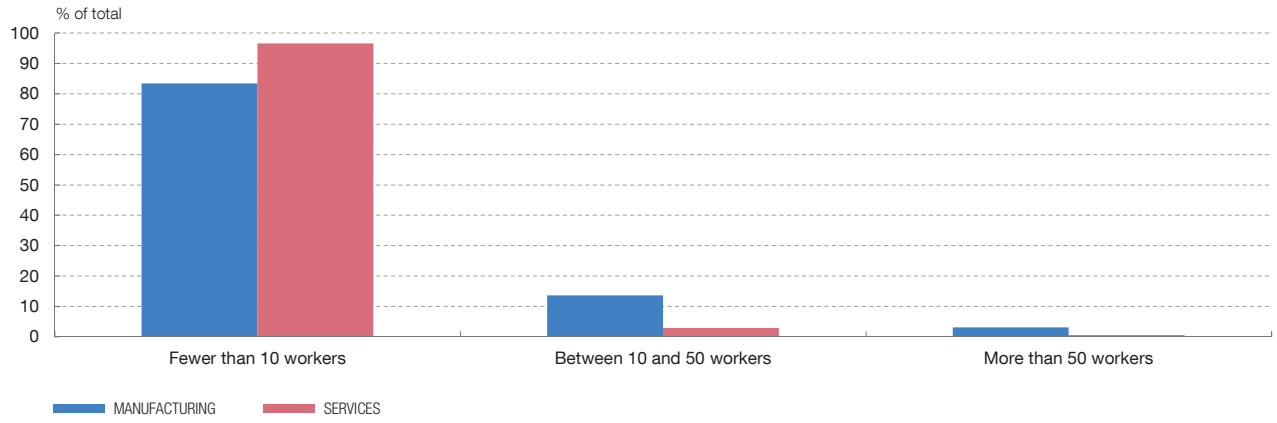
The percentage of workers on furlough who will recover their jobs will depend, among other factors, on the growth capacity of each sector and firm. As mentioned, the recovery in the manufacturing sector may be expected to be more robust than the recovery in retail trade, leisure, restaurant and tourism services, at least while uncertainty persists as to a possible new outbreak of the disease. However, it is precisely these services sectors that have most resorted to furlough schemes and that concentrate the bulk of the workers affected. As discussed below, the future of furloughs in each sector will also hinge on firms' capacity to adapt to the new environment, which usually presents a positive correlation with their size.[40] In this respect, notable sectoral heterogeneity is once again observed, which suggests that firms in the manufacturing sector are significantly larger than services sector firms (see Chart 4.10). Lastly, how the layoffs and short-time work arrangements evolve over the coming quarters will undoubtedly be influenced by the conditions applied to them. The economic benefits and advantageous conditions approved for requesting furloughs were, in principle,

39 See Alvargonzález et al. (2020).
40 See, for example, Bartik et al. (2020).

Chart 4.10

FIRMS BY SIZE AND SECTOR IN 2019

In comparison with other economies, Spain has a relatively high share of small and medium-sized enterprises in its productive system. Although this is true both of manufacturing and services, the prominence of SMEs is particularly pronounced in the services sector.



DOWNLOAD

SOURCE: Directorio Central de Empresas 2019 (DIRCE) (INE).

linked to the duration of the state of alert. These conditions were subsequently extended, albeit with lower rebate rates, first to the end of June and then to the end of September. In any event, any further adjustment made in this area should take account of the extraordinary heterogeneity among sectors and firms as regards their capacity to recover over the coming quarters.

The empirical evidence available suggests that temporary layoff or short-time work schemes, such as the ERTEs in Spain, would have a relatively limited ability to protect employment in the medium term should there be structural changes in economic activity momentum. In particular, the international economic literature generally finds that the ability of schemes of this kind to safeguard employment is lower the longer the crisis persists.[41] This suggests that, at least in part, some such schemes may delay rather than prevent job destruction in certain cases where restructuring is inevitable. In any event, this empirical evidence should be interpreted with due caution, as it focuses on crisis episodes that are very different from the present one. In particular, much of the existing analysis focuses on the downturn that Spain and other European countries suffered from 2008, when employment cuts in certain sectors were unavoidable, as they were oversized following a long previous expansionary phase. By contrast, in the present episode, the risk of future job destruction would be more closely linked to the potential long-lasting effects of the crisis on the sectors of activity most affected by the measures taken to mitigate the spread of the disease, rather than to previous structural imbalances.

41 For evidence relating to Spain, see Arranz et al. (2018); for evidence relating to Germany, see Boeri et al. (2011).

A relatively prolonged period of job losses affecting a large number of workers would have an adverse impact on human capital and economic growth potential in the medium term. In this respect, it seems unlikely that workers with either permanent or temporary contracts who have lost jobs in the sectors worst hit by the crisis will be able to quickly find new employment in other sectors where activity may be more dynamic in coming quarters. In particular, it has been documented that the potential mobility of the workers most affected by the crisis is generally limited. This is especially the case in accommodation and food services and in wholesale and retail trade, partly owing to the low level of use in these sectors of tasks associated with information and communication technology and with reading, writing and numeracy skills.[42] On the basis of this evidence, it may be appropriate, so as not to delay the possible reallocation of workers in the labour market, for the economic policy response to the current crisis to encourage training of workers affected by temporary layoffs and, in some cases and under certain conditions, to allow them to combine this with the possibility of working in other sectors or firms. Following the 2008 crisis, the effects on the employability of workers who had been employed in the construction sector were very negative: by 2013, more than half were still jobless, and only 23% had obtained employment in a different sector of activity. In that period, the likelihood of finding employment in another sector was especially low in the case of older workers, with greater work experience and lower skill levels.[43]

There is also considerable uncertainty regarding the permanent damage that this crisis may have on the Spanish business sector. As a result of the severe contraction in activity in some industries in recent months, businesses and the self-employed have seen their liquidity needs climb sharply. The fall in sales has meant that many have insufficient income to pay utility bills, rents or wages (despite the measures approved by the Government, which have helped to reduce some of these expenses in the short term and to defer the payment of others, such as taxes or rents). In this respect, the Banco de España's estimates suggest that a signification proportion of Spanish non-financial corporations would need additional liquidity to meet these payments and repay their financial debts in the last three quarters of the year.[44]

Businesses may meet some of these liquidity needs by having recourse to their liquid assets and to undrawn credit facilities. Smaller firms in particular have been building up liquid assets since the crisis that began in 2008. Accordingly, they come into the present crisis with a high liquidity ratio by historical standards. In addition, some companies, especially larger ones, have credit facilities open with financial institutions. Indeed, the information on banks' balance sheets available to April 2020 shows that, at end Q1, these companies had significantly increased drawdowns on these credit facilities.

---

42 See Anghel et al. (2020).

43 See Banco de España (2015).

44 For more details, see Blanco et al. (2020).

The bulk of the liquidity needs of businesses and the self-employed will have to be met through recourse either to the markets or to financial intermediaries. As only companies of a certain size have access to the capital markets, and as such access is more complicated at times of financial stress, most of the funds needed may be expected to be channelled through banks. In this respect, the existence of close previous relationships with their customers should make it easier for banks to fund the liquidity needs of businesses and the self-employed. These relationships enable banks to obtain information on the financial situation of their customers, including important qualitative aspects, so as to be able to identify those borrowers that have liquidity needs in the short term but that present a solvent position in the medium term.

In addition, the measures adopted by the economic authorities will also facilitate the provision of bank financing to the private sector. The Eurosystem's liquidity support measures help to ensure that banks have the funds needed to finance this lending. Moreover, some of these measures, such as the targeted longer-term refinancing operations (TLTRO-IIIs) in particular, contain explicit incentives for financial institutions to continue to provide financing[45] (see Section 3.4.2 in Chapter 3). At the national level, the Government's guarantee programme will also help stimulate lending to the private sector, reducing any reluctance on the part of banks to assume new risks in a highly uncertain environment. The data on new lending to business in March and April point in that direction (see Box 4.3), as does the latest information on the volume of lending to resident non-financial corporations, which rose again in year-on-year terms in May after accelerating sharply in April. On the data published at 14 June, the guarantees requested totalled almost €52.8 billion. This has enabled slightly more than €69 billion to be mobilised through new loans and other funding facilities, of which almost €48.8 billion has been granted to SMEs and the self-employed. In addition, at 16 June, credit institutions had granted, to vulnerable households and sole proprietors, more than 1 million moratoria on mortgage and non-mortgage loans, amounting to an outstanding credit balance of more than €37.7 billion.

Both the ECB and the Basel Committee on Banking Supervision have adopted measures to allow a significant volume of capital buffers to be used to absorb possible losses and thus encourage banks to continue lending. The Banco de España has committed to the ECB's decision and has extended it to all the financial institutions under its direct supervision. The combined size of all these buffers – including the voluntary, countercyclical, systemic, capital conservation and P2G buffers – amounted to 6% of the risk-weighted assets of the Spanish banking system at end-2019 (see Chart 4.11).[46] It is estimated that these buffers would be able

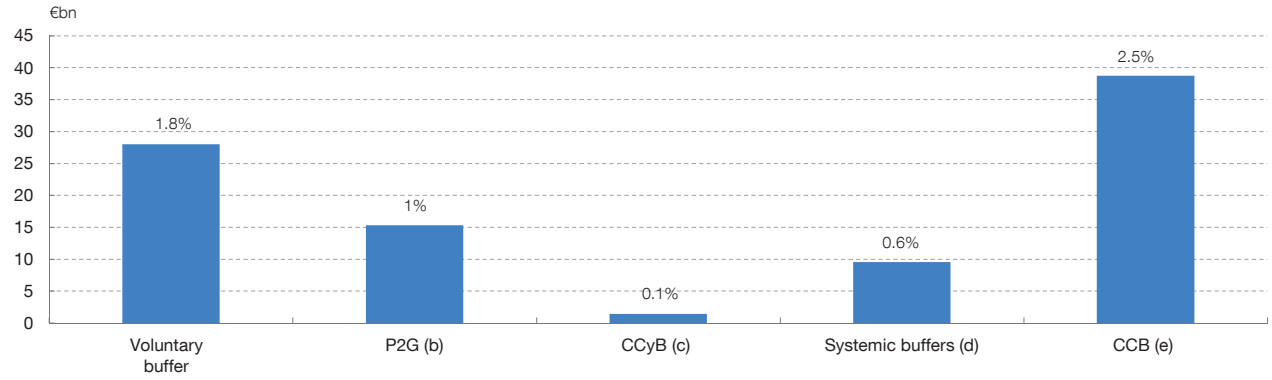
45 In particular, these refinancing operations have a lower cost if the bank's credit balance increases during the reference period.

46 According to the current supervisory guides of the ECB and the national authorities, the voluntary, countercyclical, systemic and capital conservation buffers, and capital linked to P2G, may be drawn down to absorb losses, while the P2R requirements are maintained, although the rules on their composition are relaxed, with a lower weight of CET1 capital required. An easing of the rule on P2R composition would provide a minimum additional release of CET1 capital at significant institutions that is not considered in this analysis.

Chart 4.11

VOLUME AND RELATIVE WEIGHT OF BUFFERS WITH RESPECT TO RISK-WEIGHTED ASSETS (RWAs) (a)
December 2019

The capital conservation buffer is by far the most important of the capital buffers, while the countercyclical buffer represents a minimal percentage of RWAs. The joint release of these buffers, which is permitted as part of the prudential response to the crisis, could cover a significant volume (relative to the RWAs) of impairment losses on banks' balance sheets.



SOURCE: Banco de España.

a The figure above each bar is the percentage of total risk-weighted assets the buffer represents.
b Pillar 2 Guidance.
c Includes the countercyclical capital buffer.
d Includes both the buffer for global systemically important institutions and the buffer for other systemically important institutions.
e Includes the capital conservation buffer.

DOWNLOAD

to absorb an increase of some 8.2 pp in the non-performing loan (NPL) ratio, albeit with a certain degree of heterogeneity across institutions as they do not all have the same margin for recording impairment provisions. In any event, the loan moratoria and the Government's programme of guarantees for loans to businesses and the self-employed will further increase loss-absorption capacity, without institutions being required to reduce their assets in order to comply with capital requirements.[47] All the foregoing will help sustain the flow of credit, reducing the risk of amplification of the effects of the shock associated with the pandemic through the financial channel.[48]

In any event, despite this wide range of measures, there has already been a very considerable drop in the number of firms registered with Social Security.[49]

47 The loans guaranteed have a risk weight of 0%, which is the Spanish sovereign risk weight. In consequence, the increase in these loans on the balance sheet does not consume own funds.

48 Past experience suggests that making use of capital buffers during periods of crisis may play a significant role in sustaining the flow of credit. This was, in particular, the evidence gained from Spain's dynamic provisions, which were in force from 2000 to 2006, and their release during the 2008 financial crisis. Although these dynamic provisions are not fully comparable with the capital buffers, and were subject to different regulatory frameworks, they were a sufficiently similar mechanism for building up and releasing funds so as to be used as a benchmark for the effects of the use of these buffers.

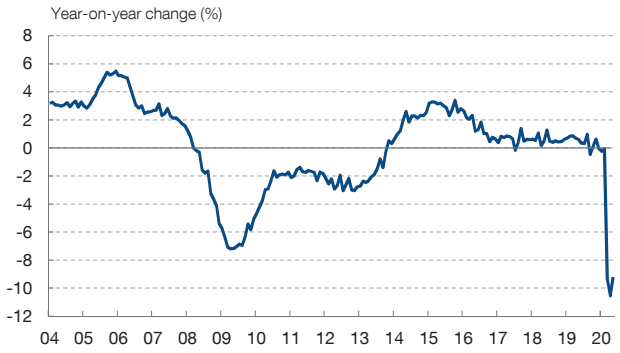
49 The fact that a firm ceases to be registered with Social Security does not necessarily mean its definitive closure or disappearance. Firms cease to be registered if they have no workers registered with Social Security in a specific month, but they may resume their activity at a later date. However, the longer this situation lasts, the more likely it is that a firm that has no workers registered will ultimately close. The empirical evidence presented here points in this direction.

Chart 4.12

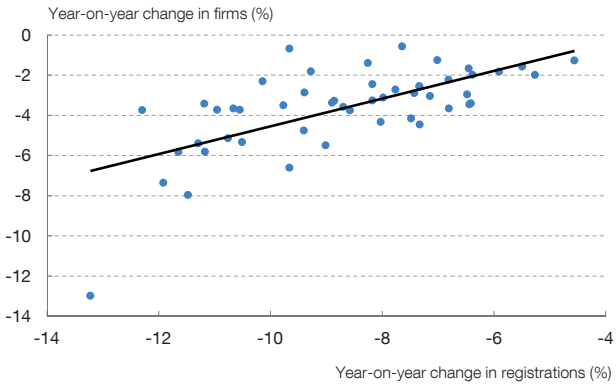
THERE HAS ALREADY BEEN A VERY CONSIDERABLE DROP IN THE NUMBER OF FIRMS REGISTERED WITH SOCIAL SECURITY

Since the start of the crisis, the number of firms registered with Social Security has fallen very significantly. This decrease is closely related to the intensity of the fall-off in employment, both by province and by sector of activity. In the past, a relatively high correlation is observed between a decrease in the number of firms registered with Social Security and an increase in the number of firms subject to insolvency proceedings.

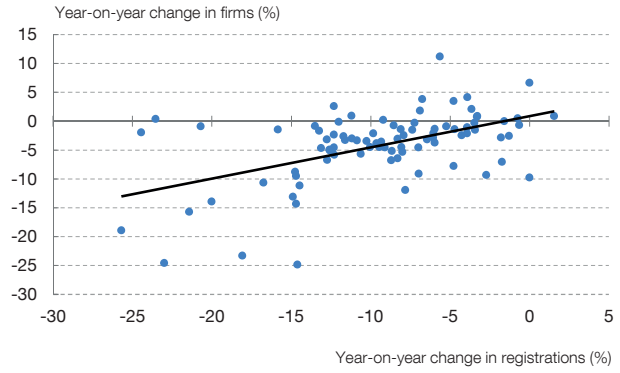
1 FIRMS REGISTERED WITH SOCIAL SECURITY



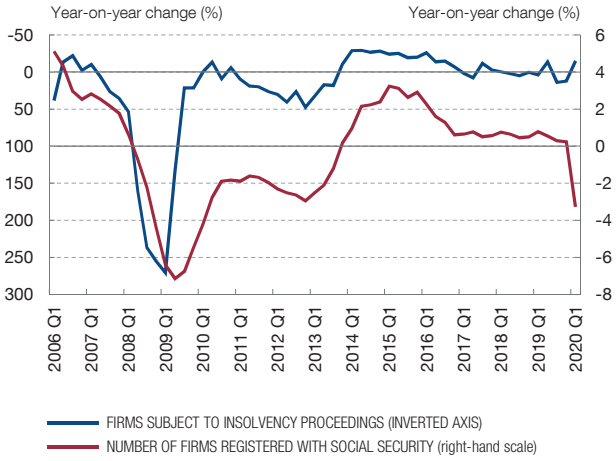
2 CHANGE IN REGISTRATIONS AND IN FIRMS REGISTERED WITH SOCIAL SECURITY BY PROVINCE IN MAY 2020



3 CHANGE IN REGISTRATIONS AND IN FIRMS REGISTERED WITH SOCIAL SECURITY BY SECTOR OF ACTIVITY IN MAY 2020



4 FIRMS SUBJECT TO INSOLVENCY PROCEEDINGS AND FIRMS REGISTERED WITH SOCIAL SECURITY



DOWNLOAD

SOURCES: Ministerio de Inclusión, Seguridad Social y Migraciones and INE.

Indeed, since the start of the crisis the number has fallen very significantly, with a loss of almost 108,000 firms from social security records between end-February and end-May, giving a drop of 9.2% in year-on-year terms in May (see Chart 4.12.1). This decrease is closely related to the intensity of the fall-off in employment, both by province and by sector of activity (see Charts 4.12.2 and 4.12.3). There is great uncertainty about the extent to which this dynamic may reverse or intensify in coming quarters, and about its possible impact on the growth potential of the economy in the medium term. In any event, the evidence from previous crisis episodes, which must be interpreted with caution as those were downturns with very different characteristics

from the present crisis, suggests that there is an appreciable risk of the decrease in the number of businesses registered in recent months ultimately resulting in permanent damage to the Spanish productive system. In particular, in the past, a relatively high correlation is observed between a decrease in the number of firms registered with Social Security and an increase in the number of firms subject to insolvency proceedings (see Chart 4.12.4), and also between a decrease in the number of firms registered with Social Security and the number of active firms in the Spanish Central Companies Directory (DIRCE).

This evidence points to the need to ensure that the Spanish insolvency process works swiftly and effectively. Specifically in the case of insolvency processes, despite a series of partial reforms adopted in recent years, the Spanish system is much less efficient than those of our peers.[50] It would, therefore, be advisable to consider the appropriate transposition of the regulations included in the European Directive on restructuring and insolvency.[51] This would provide for rapid and simplified administrative procedures that would grant debtors in financial difficulties access to a preventive restructuring framework that would allow them to continue to pursue their business activity while it is still viable. It would thus enhance the efficiency of the restructuring and insolvency procedures and ease the financial burden. This reform is especially important in the present circumstances, in which there will foreseeably be an increase in personal and business insolvency procedures in the coming quarters. Speed of resolution is paramount in these procedures so as to minimise the losses in asset value that would materialise if they were to drag on. And all the more so in a situation in which the economic policy response in the short term makes it very likely that the liabilities of ailing businesses to general government will be much higher than in previous crisis periods. The introduction of more appropriate procedures and incentives would also avoid excessively high levels of business liquidations and destruction of the productive system that would weaken the long-term economic growth and recovery potential.

A third source of uncertainty affecting the growth outlook for the Spanish economy in the medium term relates to the response of the financial markets in coming quarters. Looking ahead, one of the possible financial risks is that, as a result of a change in investor sentiment in the markets, the cost of financing for public and private sector resident issuers may rise, prompting a tightening of financing conditions for businesses and households. In any event, in this case, by contrast to the episodes during the European sovereign debt crisis of 2010-2012, the likelihood of this risk materialising, and its incidence, would be mitigated by the ECB's asset purchase programmes (APP and PEPP) and the extraordinary measures it has adopted to facilitate bank financing, and by the State guarantee programme rolled out by the Spanish government to encourage bank lending to business.

---

50 See Indicators of Product Market Regulation.

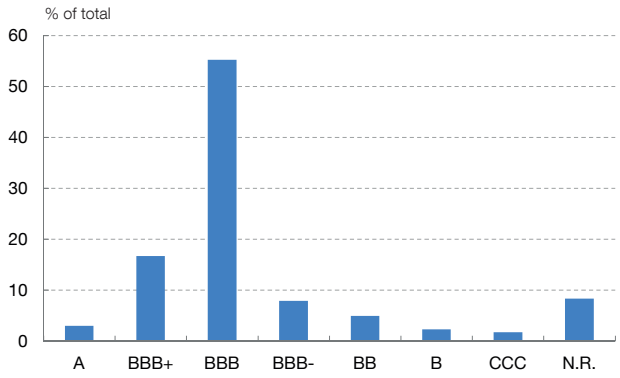
51 See García-Posada and Vegas (2018).

Chart 4.13

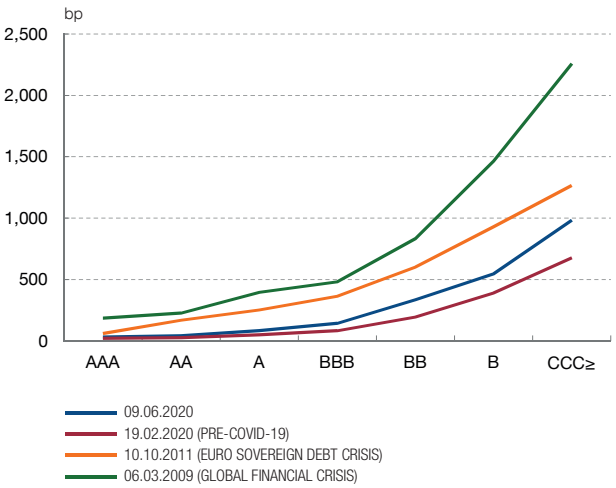
SOME FINANCIAL RISKS WILL PLACE CONSTRAINTS ON THE OUTLOOK FOR THE SPANISH ECONOMY IN COMING QUARTERS

Spanish issuers of debt securities are highly exposed to a possible downgrade of credit ratings, as a large share of their issuances are rated at the low end of investment grade. During financial stress episodes, the cost of issuing securities with a credit rating below BBB increases significantly, hindering new placements.

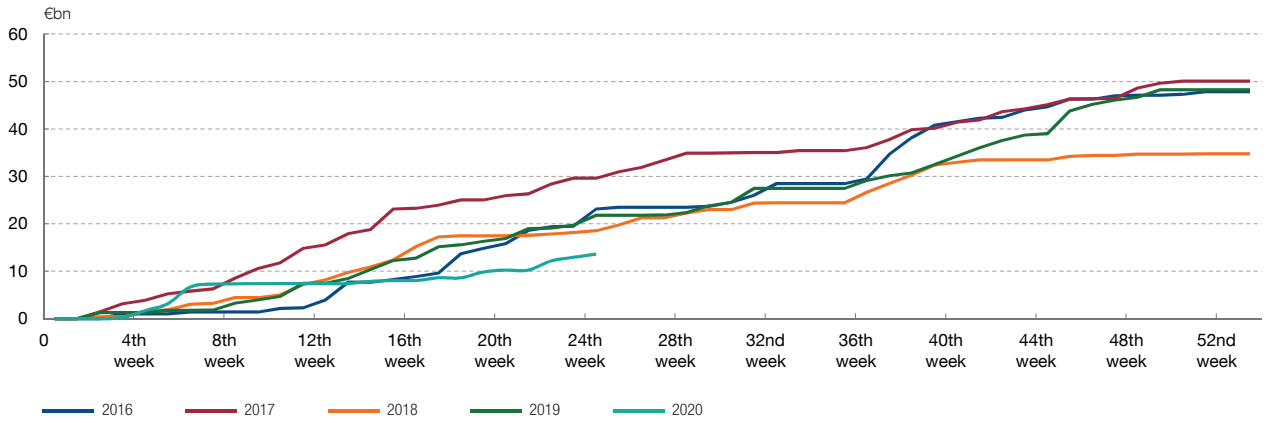
1 DISTRIBUTION OF DEBT OF SPANISH NON-FINANCIAL CORPORATIONS BY RATING



2 CORPORATE CREDIT RISK PREMIA IN THE EURO AREA



3 CUMULATIVE ISSUANCE OF HIGH-YIELD BONDS IN THE EURO AREA



DOWNLOAD

SOURCES: Thomson Reuters Datastream, Dealogic and Banco de España.

Another financial risk is the possibility of significant downgrades of credit ratings of securities issued both by financial and non-financial corporations. This could occur if, for example, the deterioration of the macroeconomic outlook proves to be greater than expected. A good many Spanish financial and non-financial corporations that issue securities could be particularly affected by this shock, since a high proportion of their securities are currently rated at the low end of investment grade (see Chart 4.13.1). A downgrade that takes them below investment grade (down to high yield) would likely have a potentially significant

adverse impact on their financing conditions in the wholesale markets (see Charts 4.13.2 and 4.13.3).[52]

A further source of uncertainty is the lack of clarity on the future trade agreement between the United Kingdom and the European Union, once the transition period agreed by the two parties in the framework of the Brexit negotiations comes to an end on 31 December 2020 (see Section 2.3 of this Report). At the aggregate level, the Spanish economy's exposure to the British economy is relatively similar to the average euro area exposure. However, in the services sector – tourism and non-tourism services – Spain is more highly exposed than its main euro area partners.[53] The vulnerability of Spanish export firms with a strong presence in the United Kingdom could be mitigated, however, by their higher productivity and greater geographical diversification compared with the average of Spanish companies with no presence in the British market.[54] In any event, an outcome of no agreement on future trade relations between the United Kingdom and the European Union and, therefore, with trade subject to WTO tariffs from 1 January 2021, would be an added source of uncertainty that would have an adverse impact on the Spanish economy. Accordingly, it is highly desirable that a trade agreement be reached between the parties before year-end, even if it is only an agreement on minimums and is thus susceptible to subsequent review and extension.

4.4.3 Macroeconomic scenarios for the medium term

In such an uncertain healthcare and macro-financial setting, the Banco de España's latest projections,[55] published on 8 June, envisage three scenarios drawing on different assumptions as to the rate at which a certain degree of normality may be restored both from the healthcare and the economic standpoint. Under the "early recovery" scenario, it is assumed that the improvement in economic activity observed from the last stretch of Q2 continues, with no new major healthcare, economic or financial obstacles. By contrast, the "gradual recovery" scenario does not rule out the possibility of fresh future outbreaks of the epidemic, but it assumes they would be less virulent than the recent episode and, therefore, that the economic cost would be lower. This scenario also factors in rather more persistent damage to the productive system than the early recovery scenario.

---

52 As Chart 4.13.2 shows, the cost of issuing securities with a credit rating below BBB (the lowest end of investment grade) increases significantly compared with the cost of issuing securities that have a higher credit rating during financial stress episodes. In the same vein, Chart 4.13.3 shows that the debt securities market for securities with a credit rating below investment grade has been practically closed since the COVID-19 epidemic spread to Europe at the end of February.

53 For more details on the Spanish economy's exposure to Brexit, see Vega (2019) and the section of the Banco de España's website dedicated to this issue.

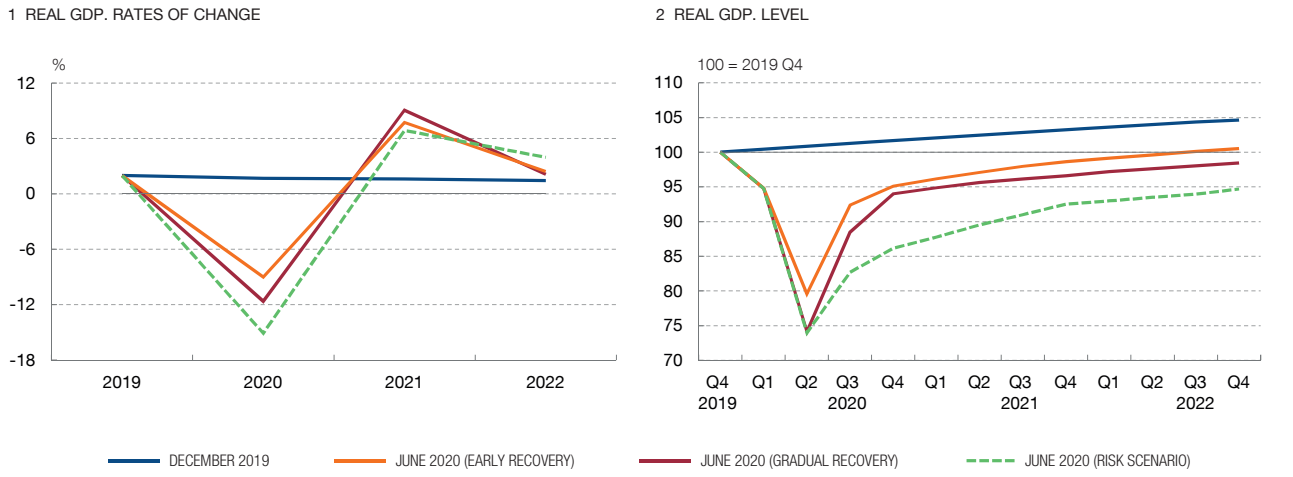
54 See Gutiérrez-Chacón and Martín-Machuca (2020).

55 See Macroeconomic projections for the Spanish economy (2020-2022): the Banco de España's contribution to the Eurosystem's June 2020 joint forecasting exercise. These projections form part of the Eurosystem's June 2020 joint forecasting exercise (see Eurosystem staff macroeconomic projections for the euro area June 2020).

Chart 4.14

A SEVERE CONTRACTION IN SPANISH GDP IS ENVISAGED IN 2020

Under the three scenarios envisaged in the Banco de España's latest projection exercise, Spanish GDP is expected to contract severely in 2020, by between 9% (early recovery scenario) and 15.1% (very slow recovery scenario). The subsequent economic recovery would only entail a return to levels close to those recorded pre-crisis towards the end of 2022.



DOWNLOAD

SOURCES: Banco de España and INE.

The deterioration would be concentrated in the sectors most exposed to social interaction, where it will take longer for the pre-crisis levels of activity to be fully restored. Lastly, a "very slow recovery risk" scenario is considered, which includes the possibility of more adverse epidemiological developments in coming months, with significant increases in the number of new infections, requiring further strict lockdown measures, with the consequent adverse economic impact. This scenario also considers the presence of financial channels that amplify the real shock and cause it to have notably more persistent effects than in the other two scenarios.

All three scenarios envisage a severe contraction in Spanish GDP in 2020, followed by a substantial rebound in 2021 (see Chart 4.14.1 and Table 4.1). GDP would shrink by 9% this year under the early recovery scenario, and by 11.6% under the gradual recovery scenario. In the hypothetical case of the very slow recovery risk scenario materialising, the downturn this year could be significantly deeper, with a fall of around 15% in GDP. The subsequent economic recovery, which in the most favourable scenarios would be compatible with relatively high quarter-on-quarter growth rates in 2020 H2, would translate into growth of between 6.9% and 9.1% in 2021, followed by slightly more moderate rates in 2022. However, this recovery would only entail a return to levels close to those recorded pre-crisis towards the end of 2022 (see Chart 4.14.2). Specifically, at the end of the projection period, it is estimated that GDP will be approximately 0.5 pp above the pre-crisis level under the early recovery scenario, whereas under the gradual recovery

Table 4.1
PROJECTIONS OF THE MAIN MACROECONOMIC VARIABLES OF THE SPANISH ECONOMY (a)

Annual rates of change

		June 2020 projections								
		Early recovery			Gradual recovery			Risk scenario		
	2019	2020	2021	2022	2020	2021	2022	2020	2021	2022
GDP	2.0	-9.0	7.7	2.4	-11.6	9.1	2.1	-15.1	6.9	4.0
Harmonised index of consumer prices (HICP)	0.8	-0.1	1.3	1.6	-0.2	1.2	1.5	-0.3	0.9	1.2
HICP excluding energy and food	1.1	0.9	1.1	1.3	0.8	1.0	1.1	0.6	0.5	0.7
Unemployment rate (% of labour force) (b)	14.1	18.1	18.4	17.1	19.6	18.8	17.4	23.6	24.7	22.2
General government net lending (+)/net borrowing (-) (% of GDP)	-2.8	-9.5	-5.8	-4.8	-11.2	-6.8	-6.1	-14.0	-10.5	-8.7
General government debt (% of GDP)	95.5	114.5	111.7	112.5	119.3	115.9	118.7	126.7	129.0	131.8

SOURCES: Banco de España and INE.
NOTE: Latest QNA figures published: 2020 Q1.

a Cut-off date for the projections: 25 May 2020.
b Annual average.

scenario and the very slow recovery risk scenario it would remain 1.6 pp and 4.7 pp, respectively, below that level.

In addition to the impact of the crisis on GDP, the projections also point to a very significant and persistent increase in public debt and the budget deficit, and in the unemployment rate (see Table 4.1). Specifically, the unemployment rate is expected to climb sharply this year, up to 18.1% of the labour force under the early recovery scenario and to 19.6% under the gradual recovery scenario, remaining above 17% in 2022 in both cases. Under the very slow recovery risk scenario, the increase in the unemployment rate would be considerably higher and longer lasting. For its part, the general government deficit is expected to rise very sharply this year, to 9.5% under the early recovery scenario, 11.2% under the gradual recovery scenario and 14% under the risk scenario. The rebound forecast in economic activity in 2021 and 2022, together with the gradual disappearance of the impact of the temporary measures adopted in response to the pandemic, would give rise to a lower deficit in those two years, but it would still stand at between 4.8% (early recovery) and 8.7% (very slow recovery) in 2022. Similarly, the government debt-to-GDP ratio is expected to increase by 20 pp to 30 pp in 2020, to between 115% and 125% approximately across the three scenarios envisaged, and to continue at very high levels in 2021 and 2022.

REFERENCES

Acemoglu, D., U. Akcigit and W. Kerr (2016). "Networks and the Macroeconomy: An Empirical Exploration", *NBER Macroeconomics Annual 2015,* Vol. 30, National Bureau of Economic Research.

Alvargonzález, M. P., M. Pidkuyko and E. Villanueva (2020). "La situación financiera de los trabajadores más afectados por la pandemia: un análisis a partir de la Encuesta Financiera de las Familias", Artículos Analíticos, *Boletín Económico,* Banco de España, forthcoming.

Anghel, B., A. Lacuesta and A. Regil (2020). "Transferability of workers' skills in sectors potentially affected by COVID-19", Analytical Articles, *Economic Bulletin,* 2/2020, Banco de España.

Arce, O., E. Prades and A. Urtasun (2013). "Changes in household saving and consumption in Spain during the crisis", *Economic Bulletin,* September, Banco de España.

Arranz, J. M., C. García-Serrano and V. Hernanz (2018). *Short-time work and employment stability: Evidence from a policy change*, *British Journal of Industrial Relations,* 56:1, pp. 189–222.

Banco de España (2020a). "Quarterly report on the Spanish economy", *Economic Bulletin,* 2/2020.

— (2020b). "Business survey on the impact of the COVID-19 crisis", Box 1, "Reference macroeconomic scenarios for the Spanish economy after COVID-19", Analytical Article, *Economic Bulletin,* 2/2020.

— (2020c). "The Spanish economy before the spread of the coronavirus epidemic", Box 1, *Economic Bulletin,* 1/2020.

— (2020d). "El mercado de la vivienda en España entre 2014 y 2019", Occasional Paper No 2013 (English version forthcoming).

— (2018). "The buoyancy of investment in the recovery: determinants and challenges", Chapter 3, *Annual Report,* 2017.

— 2017a). "Current account adjustment", Chapter 3, *Annual Report,* 2016.

— (2017b). *Report on the financial and banking crisis in Spain, 2008-2014*, May.

— (2015). "Sectoral reallocation of unemployed workers formerly employed in the construction sector", Box 3.2, Chapter 3, *Annual Report,* 2014.

Bartik et al. (2020). *How are small businesses adjusting to COVID-19? Early evidence from a survey*, Working Paper 26989, NBER.

BBVA Research (2020). Impacto de la COVID-19 sobre el consumo en España en tiempo real y alta definición. Semana del 25 al 31 de mayo.

Blanco, R., Á. Menéndez and M. Mulino (2020). "Las necesidades de liquidez y la solvencia de las empresas no financieras españolas tras la perturbación del Covid-19", Documentos Ocasionales, Banco de España, forthcoming.

Bodenstein, M., G. Corsetti and L. Guerrieri (2020). *Social distancing and supply disruptions in a pandemic,* Working Papers in Economics, No 2031, University of Cambridge, May.

Boeri, T., H. Bruecker, N. Fuchs-Schündein and T. Mayer (2011). "Short-time work benefits revisited: some lessons from the Great Recession", *Economic Policy,* Vol. 26, No 68, pp. 697765.

Carvalho, V.M. et al. (2020). *Tracking the COVID-19 Crisis with High-Resolution Transaction Data,* Working Paper No 20/06, BBVA.

Cuadrado, P., E. Moral-Benito and I. Solera (2020). "A sectoral anatomy of the Spanish productivity puzzle", Occasional Paper No 2006, Banco de España.

Farboodi, M., G. Jarosch and R. Shimer (2020). *Internal and External Effects of Social Distancing in a Pandemic,* Working Paper No 2020-47, Becker Friedman Institute, University of Chicago.

García-Montalvo, J. (2013). "The Spanish housing market: Is the adjustment over?", *Spanish Economic and Financial Outlook,* 2(5), 15-26. FUNCAS.

García-Posada, M. and R. Vegas (2018). "Bankruptcy reforms in the midst of the Great Recession: The Spanish experience", International Review of Law and Economics, Vol. 55, pp. 71-95.

Ghirelli, C., J. J. Pérez and A. Urtasun (2019). "A new economic policy uncertainty index for Spain", Working Paper No 1906, Banco de España.

Gutiérrez-Chacón, E. and C. Martín-Machuca (2020). "Las empresas exportadoras de bienes: rasgos estilizados y evolución reciente por comunidades autónomas", Artículos Analíticos, *Boletín Económico,* Banco de España, forthcoming.

Izquierdo, M., E. Moral-Benito and E. Prades (2019). "Propagation of sector-specific shocks within Spain and other countries", Working Paper No 1928, Banco de España.

Jiménez, G., E. Moral-Benito and R. Vegas (2018). "Bank lending standards over the cycle: the role of firms' productivity and credit risk", Working Paper No 1811, Banco de España.

Koren, M. and R. Peto (2020). *Business disruptions from social distancing,* Cornell University.

Leiva-León, D., G. Pérez-Quirós and E. Rots (2020). "Real-time weakness of the global economy: A first assessment of the coronavirus crisis", Working Paper No 2015, Banco de España.

Malmendier, U. and L. Sheng Shen (2019). *Scarred Consumption,* International Finance Discussion Paper No 1259.

Martínez-Matute, M. and A. Urtasun (2017). "The recovery of private consumption in Spain by product type and household", Analytical Articles, *Economic Bulletin* 2/2017, Banco de España.

Orea, L. and I. Álvarez (2020). *How effective has the Spanish lockdown been to battle COVID-19? A spatial analysis of the coronavirus propagation across provinces,* Working Papers No 2020/03, FEDEA.

Paz-Pardo, G. (2020). *Home ownership and portfolio choice over the generations,* mimeo, University College of London.

Pérez, T. and M. Izquierdo (2020). "La evolución del empleo y del paro en el primer trimestre de 2020, según la Encuesta de Población Activa", Notas Económicas, *Boletín Económico,* 2/2020. Banco de España.

Prades Illanes, E. and P. Tello Casas (2020). "The heterogeneous economic impact of COVID-19 among euro area regions and countries", Analytical Articles, *Economic Bulletin,* 2/2020. Banco de España.

Vega, J. L., coord. (2019). "Brexit: Current Situation and Outlook", Occasional Paper No 1905, Banco de España.

Box 4.1

THE SPANISH TOURISM SECTOR: RECENT PERFORMANCE, OUTLOOK AND IMPLICATIONS FOR THE ECONOMY

As evidenced by a wide range of indicators, activity in the Spanish tourism sector has been brought to a standstill since the outbreak of the COVID-19 health crisis. For instance, overnight stays at hotels – which had grown year-on-year by 2.9% and 6.8% in January and February, respectively – fell by more than 60% in March, while in April there were none. This dynamic was common to both resident and non-resident travellers (see Chart 1).[1] Along the same lines, foreign tourist arrivals and inbound tourism expenditure also fell sharply in March and disappeared completely in April. This brought the momentum demonstrated by these variables in the preceding months to a sudden halt (see Chart 2). In employment terms, the adjustment in the domestic tourism sector has been equally pronounced. For example, at end-May, 7.8% of the employees of the accommodation and food service activities sector — one of the sectors most closely linked to tourism — were no longer registered for social security, and 55% of the total were subject to short-time working arrangements. Furthermore, according to data at end-April, 15% of the sector's workers were receiving the benefit for cessation of activity.

This box first analyses the outlook for the Spanish tourism sector in the coming quarters. The outlook is of course contingent on how the virus evolves, which is extraordinarily uncertain and will be key to determining the pace at which this sector's activity could return to a certain level of normality. This box then studies the extent to which the Spanish tourism sector's performance in the medium term could affect the recovery of the economy as a whole. This is a matter of particular importance considering that tourism accounts for a relatively high percentage of Spanish GDP and employment in the Spanish economy.

It is foreseeable that the uncertainty surrounding further possible outbreaks of the virus will continue to adversely affect the sector's activity until a vaccine or effective treatment for COVID-19 is widely available. First, this uncertainty, along with a downturn in household income and in the macroeconomic outlook, will clearly hinder the recovery in domestic and inbound tourism demand in the medium term. Further, in order to minimise the risk of a second outbreak of the virus, the leisure, accommodation and food services, restaurant and transportation sectors of activity are still subject to significant capacity restrictions and must adopt various hygiene and safety measures that place constraints on the normal performance of their activity.

These factors may also delay the recovery from a supply-side perspective. In particular, it is likely that some of the restrictions in force significantly limit in the short term the profitability of many tourism-related firms and their ability to resume business, following sizeable revenue losses during the months when the measures to contain the pandemic were at their strictest and amid high levels of uncertainty surrounding the future outlook for their businesses.[2]

The various scenarios envisaged in the tourism sector point in the same direction. Broadly speaking, they all suggest – even in a context in which a second wave of infections of the virus is avoided and the authorities of the various countries can continue with the lockdown easing plans – that activity in this sector will plummet in 2020 by around 60% both in Spain and globally, and that the recovery will be very gradual. Accordingly, at present, it does not seem feasible that pre-health crisis levels of activity will be achieved before 2021 H2.[3]

In any event, tourism activity will foreseeably recover at different speeds. In particular, one could expect domestic tourism to recover before inbound tourism and a portion of Spanish residents' usual outbound tourism expenditure to be redeployed in the domestic market.[4] Nevertheless,

---

1 Data on overnight stays in February were already evidencing some of the pandemic's effects on the sector's activity. Specifically, overnight stays by Chinese residents, the country initially hardest hit by the virus, fell by 54% between January and February. Further, coinciding with the cancellation of the Mobile World Congress in Barcelona in February, overnight stays by foreign tourists in Catalonia performed considerably worse than the national average and declined 6% year-on-year.

2 The vulnerability of the business model or the financial position of certain key firms in this sector, such as airlines, tour operators, hotels and restaurants, has been highlighted, inter alia, in various reports by the Alliance for Excellency in Tourism (Exceltur), the International Air Transport Association (IATA) or the consultancy firm Ernst and Young. For the specific case of accommodation and food services activities, see, for example, Ernst and Young (2020). *Impacto de Covid-19 en hostelería en España,* April.

3 See, for example, UNWTO (2020). *World Tourism Barometer May 2020, Impact assessment of the COVID-19 outbreak on international tourism;* and Exceltur (2020). *Plan "Renacer del Turismo Español" 2020-2023* (June).

4 Some EU countries have adopted economic incentives to boost domestic tourism. The cases of Italy and France stand out because of their significance. In Italy, the incentive consists of a "holiday voucher" of up to €500 per family to be redeemed at Italian hotels and hostels this summer. Households whose income does not exceed €40,000 per year will benefit from this voucher. In turn, France will provide tourism cheques to its underprivileged citizens and to the cohorts that have battled COVID-19 on the front line, such as healthcare workers and cleaning, transport and food services.

Box 4.1

THE SPANISH TOURISM SECTOR: RECENT PERFORMANCE, OUTLOOK AND IMPLICATIONS FOR THE ECONOMY (cont'd.)

Chart 1
OVERNIGHT HOTEL STAYS

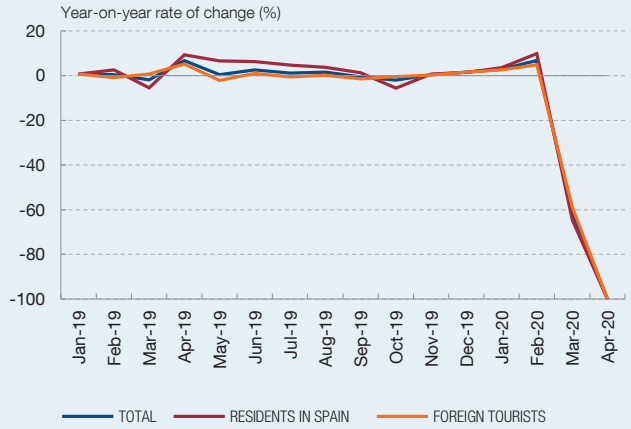


Chart 2
ARRIVALS OF FOREIGN TOURISTS AND TOURISM EXPENDITURE

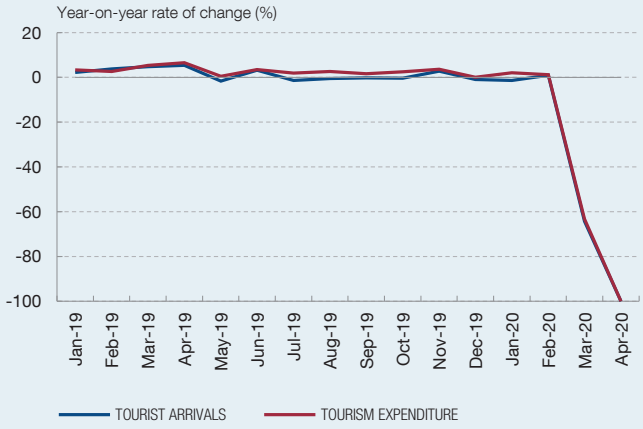


Chart 3
ARRIVALS OF FOREIGN TOURISTS AND TOURISM EXPENDITURE BY MONTH

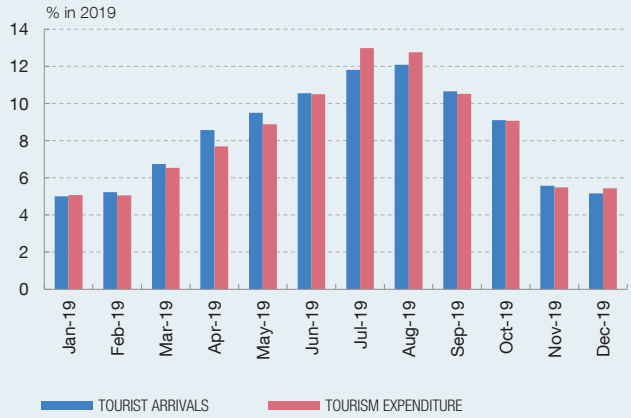


Chart 4
SPILLOVER EFFECT AMONG THE MAIN SECTORS ENGAGED IN TOURISM ACTIVITIES

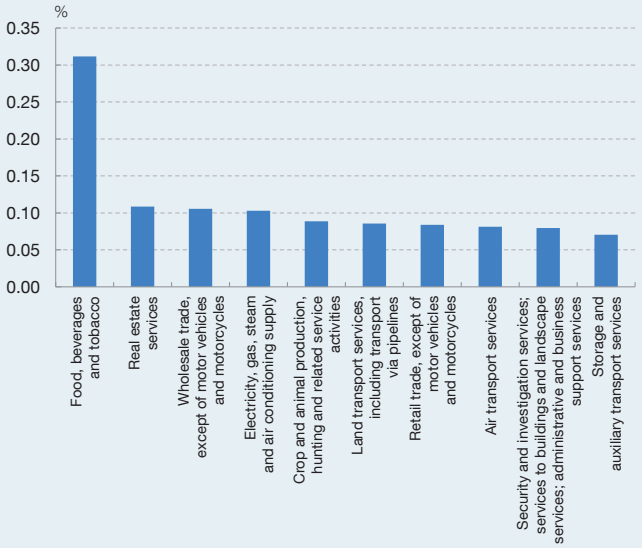


Chart 5
INTERNAL TOURISM EXPENDITURE BY REGION IN 2019

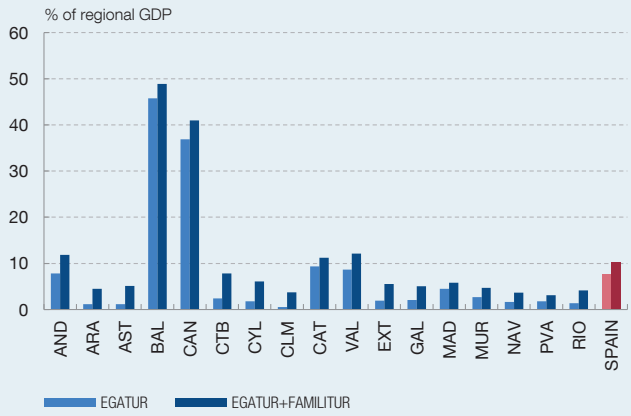
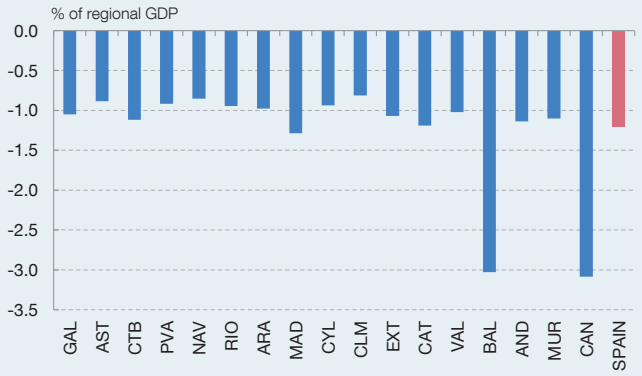


Chart 6
IMPACT ON ANNUAL REGIONAL GDP OF A DOWNTURN IN INTERNAL TOURISM EXPENDITURE OF 1% OF GDP



SOURCES: INE, AENA, EUREGIO 2018 input-output table and own calculations (based on Google).

the ability of these channels to mitigate the sharper and more protracted reduction that will probably be recorded in inbound tourism to Spain would be relatively limited. For instance, the latest data from the Tourism Satellite Account in Spain show that, in 2018, domestic tourism only accounted for 41% of total internal tourism expenditure. In turn, drawing on data from the Balance of Payments, outbound tourism expenditure by Spanish residents in 2019 only accounted for 33% of inbound tourism expenditure in Spain, resulting in the large travel surplus consistently recorded by the Spanish economy in recent decades.

As regards inbound tourism, some sources in the sector suggest that it seems likely that the flows of visitors from relatively nearby countries, some of whom could enter the country by road (without needing to use shared means of transport for their journey), and of visitors with their own residence in Spain or, more generally, who do not require market accommodation for their stay, will recover first. Table 1 details the make-up of inbound visitors to Spain in 2019, based on data provided by the Inbound Tourism Survey (FRONTUR, by its Spanish abbreviation). As can be observed in the table, most inbound visitors to Spain last year were tourists (66%), while the remainder were same-day visitors whose trips did not include overnight stays. Most tourists come by plane (more than 80%), for leisure or holidays (almost 90%) and stay at a hotel (around 65%). Drawing on the Tourism Expenditure Survey (EGATUR, by its Spanish abbreviation), most inbound tourism expenditure in Spain is by these specific profiles. By contrast, some of the visitor flows that could recover with more momentum in the short and medium term account for a relatively small weight of the sector's total activity. For instance, in 2019, same-day visitors only accounted for 5% of inbound tourism expenditure, whereas, when focusing solely on tourists, those who accessed the country by road or who stayed in non-market accommodation only accounted for 8% and 16%, respectively, of inbound tourism expenditure.

In terms of inbound tourism markets, a significant portion of inbound tourists visiting Spain comes from relatively nearby countries, such as the United Kingdom (almost 22%), Germany and France (in both cases 13% of total tourists). Overall, the British, Germans and French account for just over 40% of inbound tourism expenditure. Nonetheless, it should be highlighted that, as part of the growing globalisation of tourism flows, in recent years the weight of tourism expenditure in Spain by tourists from countries further afield (such as Scandinavian countries, the United States, Russia or China, which, overall, accounted for 13% of the inflows of foreign tourists to Spain in 2019) was on the rise. Furthermore, their average expenditure during their stays in Spain is, broadly speaking, higher. There is a high level of uncertainty surrounding how this momentum will be affected in the medium term, which will hinge on, among other aspects, macroeconomic and health developments in both the countries that provide tourists for Spain and in our main market competitors. In this regard, there is considerable uncertainty over not only the varying impact of the pandemic on these two groups of countries, but also its effect on the Spanish tourism sector.

In Spain, the tourism sector accounts for 12.3% of GDP and 12.7% of employment, according to the latest information available for 2018. The intensity of its recovery will therefore have a significant bearing on the pace of the overall economy's recovery. Furthermore, insofar as the sectoral and regional exposure to tourism varies considerably, the tourism sector's momentum in the coming quarters will also notably influence the economic outlook for certain sectors of activity and regions. To illustrate these channels, different findings are presented below obtained from several approaches and alternative models.

First, the Quarterly Macroeconometric Model of the Banco de España (MTBE, by its Spanish abbreviation)[5] shows the importance of inbound tourism to the Spanish economy as a whole. The simulations performed using this model suggest that, if international tourism flows (i.e. both imports and exports of tourism) disappeared completely in an "average" month, GDP and annual exports would fall by 0.4% and 1%, respectively. However, as can be seen in Chart 3, inbound tourism expenditure in Spain is highly seasonal. Hence, were international tourism flows to disappear completely in August, the decline in GDP and annual exports would rise to 0.6% and 1.6%, respectively. These estimates highlight the

5 The MTBE is a large-scale macroeconometric model used for medium-term macroeconomic forecasting of the Spanish economy and for simulating counterfactual scenarios. The model is specified as a large set of error correction equations and, especially in the short run, is mostly demand driven. See A. Arencibia, S. Hurtado, M. de Luis and E. Ortega (2017). *New Version of the Quarterly Model of Banco de España (MTBE)*, Occasional Paper No 1709, Banco de España.

extraordinary importance of the exact point when activity in the sector returns to a certain level of normality.

Second, analysis of global input-output tables with regional detail[6] demonstrates the important differences in the sector's impact on the activity of other productive sectors in the Spanish economy and of certain regions. For example, Chart 4 shows the ten main sectors acting as suppliers of firms engaging in tourism activities in Spain.[7] Based on that information, each €1 of tourism turnover would generate €0.3 of demand in the food and beverage sector and €0.1 of demand in the real estate services sector. Through these spillover effects, wholesale and retail trade services would also be relatively exposed to the greater or lesser momentum exhibited by tourism activities in the coming quarters.[8]

Table 1
FOREIGN VISITORS: TOURISTS AND SAME-DAY VISITORS

	Characteristics of foreign tourists			
	2019		2019	
	Millions of people	%		%
Foreign visitors	126.1	100.0	Tourists by country of residence	100.0
Tourists	83.7	66.4	Germany	13.3
1 night	4.2	3.3	Belgium	3.0
2 to 3 nights	15.5	12.3	France	13.3
4 to 7 nights	39.7	31.5	Ireland	2.6
8 to 15 nights	18.9	15.0	Italy	5.4
More than 15 nights	5.4	4.3	The Netherlands	4.4
Same-day visitors (0 nights)	42.4	33.6	Scandinavian countries	6.6
Tourists by mode of transport		100.0	Portugal	2.9
Air		82.1	United Kingdom	21.6
Road		15.2	Russia	1.6
Sea		2.3	Switzerland	2.2
Rail		0.4	Rest of Europe	7.7
Tourists by accommodation type		100.0	United States of America	4.0
Market		81.6	Rest of America	4.5
Hotel		65.4	Rest of the world	6.8
Other non-hotel market accommodation		16.2	Tourists by purpose of trip	100.0
Rented accommodation		11.2	Leisure, recreation and holidays	87.4
Other		5.0	Business or professional purposes	6.4
Non-market		18.4	Other	6.2
Own dwelling		5.9	Tourists by organisation of trip	100.0
Dwelling owned by relatives or friends		11.3	Non-package holiday	71.9
Other		1.2	Package holiday	28.1

SOURCE: INE.

6 The EUREGIO database includes, in the global input-output table, regional detail for EU countries at the NUTS2 level. For further information, see E. Prades-Illanes and P. Tello-Casas (2020). *Spanish regions in Global Value Chains: How important? How different?,* Working paper, Banco de España, forthcoming.

7 According to the INE's Tourism Satellite Account, tourism activities include, inter alia, accommodation, food and beverage, travel agency, tour operator and transport services.

8 As detailed in Section 4.2, the spillover effect on the overall economy of each additional €1 of tourism turnover is just over €2.

From a regional standpoint, Spain's regions are clearly heterogeneous, not only as regards the weight of the tourism sector in terms of expenditure (see Chart 5), but also the type and seasonality of these flows.[9] In any event, through the various sectoral and interregional input-output relationships, all regions have a relatively high sensitivity to the sector. The foregoing is demonstrated by Chart 6, which illustrates the drop in the regions' GDP that would result from a reduction (equal to 1% of domestic GDP) in the activity of tourism-related services. Naturally, given their greater direct exposure, the impact on the Canary Islands and the Balearic Islands would be greater. Nevertheless, other regions that are less directly exposed would also suffer a relatively significant impact, owing to the aforementioned spillover effects.

In sum, this box has highlighted that the collapse of the tourism sector in recent months – mainly the result of the measures adopted to contain the spread of the COVID-19 pandemic – will not, foreseeably, be accompanied by a swift recovery in the short and medium term. There are several contributing factors, among which mention should be made of the need to keep in place, for an additional period, certain restrictions on people's movement and on the activity of certain sectors in order to minimise the risk of a second wave of the pandemic. This – relatively negative – outlook for a sector of such importance to the Spanish economy points to the need to deploy an economic policy measure specific to this sector that aims to avoid the destruction of a significant part of its productive system. In this regard, on 18 June the government announced a plan to support tourism, based on providing liquidity to the sector's firms in the form of ICO loans and mortgage moratoria, and creating a credit line to fund firms' transition to a more digital, sustainable and competitive model. Here, like in other areas of the economy, it is necessary to be flexible enough to adapt the measures applied depending on how the situation evolves. In particular, two aspects, among others, that should probably be taken into account when designing future measures are the sector's high seasonality and the heterogeneous regional exposure to it.

9 See, for example, A. Gómez and M. J. González (2014). "La evolución reciente del turismo no residente en España", *Economic Bulletin,* April, Banco de España.

Box 4.2

THE EMPLOYMENT INCOME AND FINANCIAL SITUATION OF THE WORKERS MOST AFFECTED BY COVID-19

The most recent economic crises have had asymmetric impacts across different groups of the population. Between 1978 and 2013 a decline in GDP of 1% had a proportionally larger negative impact on the income of men than that of women among US workers earning median salaries. By age group, the same 1% contraction in GDP reduced the annual employment income of workers under the age of 35 by 2.5%, of those aged between 36 and 55 by 1% and of those aged between 55 and 65 by less than 1%. Lastly, in past crises the workers hit by the deepest declines in employment income when GDP shrank were employed in the manufacturing sector and construction.[1]

This box sets out preliminary evidence for the potential effects of the current economic crisis, prompted by the COVID-19 pandemic, on different groups of workers and sectors in the Spanish economy.[2] The analysis focuses on two specific aspects that have had a notable bearing on the extent to which levels of economic activity have been maintained during the crisis: the feasibility of performing the work from home and the degree of physical proximity to others required by each task.

Specifically, this box describes the characteristics of workers in the so-called "social industries", which bore the brunt of the confinement measures implemented by most countries in response to the pandemic, using data from the Spanish Survey of Household Finances. In particular, the analysis focuses on the financial position of those workers and their households.

The financial position of households is a key factor when studying how loss of employment might affect their demand for goods. The lower the levels of disposable savings held by the affected individuals' households, the lower their capacity to maintain spending when employment is lost, resulting in a deeper drop in expenditure. It has been documented in the United States that households with members less able to work from home and employed in the industries hardest hit by the confinement measures also tend to have fewer financial assets (liquid savings) than other households. At the aggregate level, the fact that these workers, who are more at risk of losing their employment, hold lower levels of financial assets is likely to accentuate the drop in total expenditure in the economy during a pandemic.[3]

For the purposes of this analysis, the "social industries" are: retail trade, accommodation and food services, education, arts and entertainment, and other personal services.[4] As described in Chapter 4.2 of this report, employment and activity levels in those sectors have been particularly dented by the confinement measures implemented by most countries to contain the pandemic. Conversely, the relatively less affected or "regular" industries include agriculture; manufacturing; construction; real estate and financial services; clerical, professional and specialist services and public administration. In addition to these two industry groups, this analysis also examines two essential sectors – healthcare and transport – on a separate basis, owing to their particular importance during this crisis.

Given that a substantial proportion of young Spanish people live with their parents and bearing in mind the varying frequency with which men and women may work in the different sectors, the analysis in this box is conducted at the individual level.

Charts 1 to 3 show the proportion of workers – both employed and self-employed – in the various industries in 2014 on the basis of various characteristics.[5] Chart 1 illustrates how women are overrepresented in the social industries. While Chart 2 shows that practically half of all workers in Spain under the age of 35 are employed in the social industries. The evidence available for other countries

---

1 F. Guvenen, S. Schulhofer-Wohl, J. Song and M. Yogo (2017): "Worker betas: Five Facts About Systematic Worker Risk", *American Economic Review,* Vol. 107 No 5; B. Bell , N. Bloom, J. Blundell and L. Pistaferri (2020): *Prepare for Large Wage Cuts if you are Younger*, VOX CEPR Policy Portal.

2 For an analysis of the heterogeneous impact of the COVID-19 crisis based on the productive structure of the economy and sectoral interconnections, see E. Prades-Illana and P. Tello-Casas (2020), "The heterogeneous economic impact of COVID-19 among euro area regions and countries", *Analytical Articles,* Economic Bulletin, 2/2020. Banco de España.

3 G. Kaplan, B. Moll and G. Violante 2020 *Pandemics according to HANK*, mimeo, Stockholm University; S. Mongey, L. Pilossoph and A. Weinberg (2020) *Which workers bear the burden of social distancing policy?*, BFI Working Paper 2020-51.

4 This classification of regular and social industries is an adaptation of the classification used by G. Kaplan, B. Moll and G. Violante (2020), op. cit., but here healthcare and transport are separated from the others. In the Spanish Survey of Household Finances, "Transport" encompasses both regular and social modes in the classification by G. Kaplan, B. Moll and G. Violante (2020). The same applies to "Healthcare", which is considered social but has been maintained as an essential industry.

5 This box takes data from the 2014 Spanish Survey of Household Finances, which is the most recent with full available data. The analytical article *"La situación financiera de los trabajadores afectados por la pandemia"* argues that the main qualitative results are unchanged when examining the preliminary data from the 2017 Spanish Survey of Household Finances.

Box 4.2

THE EMPLOYMENT INCOME AND FINANCIAL SITUATION OF THE WORKERS MOST AFFECTED BY COVID-19 (cont'd.)

Chart 1
PROPORTION OF MALE AND FEMALE WORKERS, BY SECTOR OF ACTIVITY

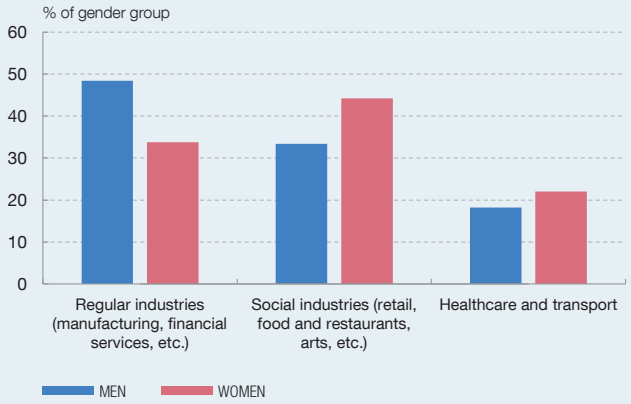


Chart 2
PERCENTAGE OF WORKERS, BY SECTOR OF ACTIVITY AND AGE GROUP

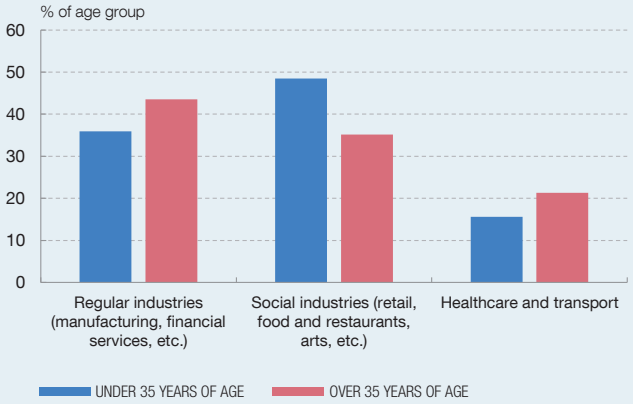


Chart 3
PERCENTAGE OF WORKERS IN THE BOTTOM QUARTILE OF THE INCOME DISTRIBUTION

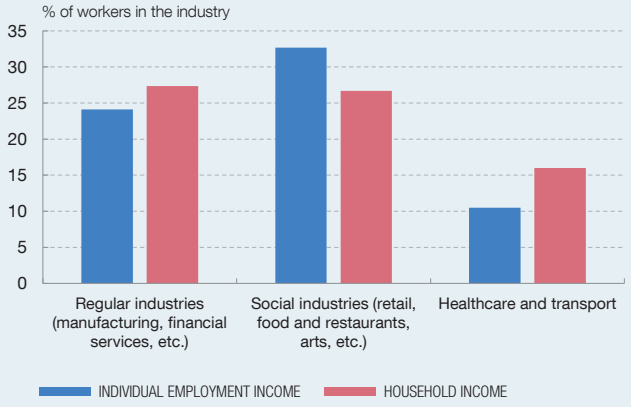


Chart 4
RELEVANCE OF INCOME SOURCES TO THE HOUSEHOLDS OF WORKERS IN DIFFERENT SECTORS OF ACTIVITY

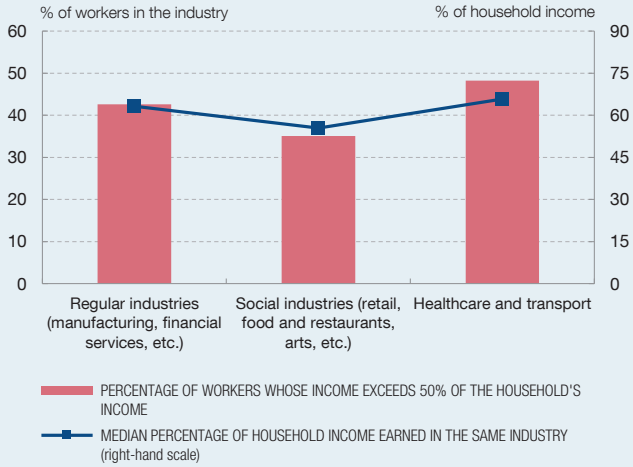


Chart 5
FINANCIAL SITUATION OF THE HOUSEHOLDS OF WORKERS IN DIFFERENT SECTORS OF ACTIVITY

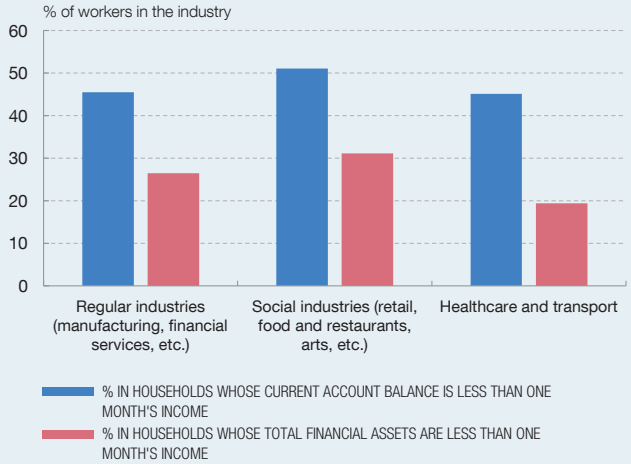
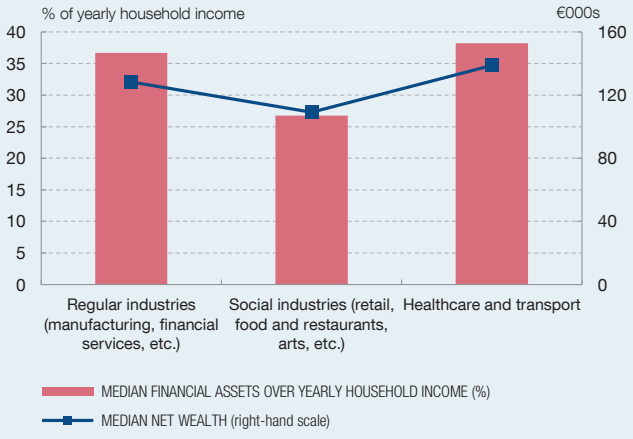


Chart 6
FINANCIAL ASSETS AND NET WEALTH OF THE HOUSEHOLDS OF WORKERS IN DIFFERENT SECTORS OF ACTIVITY



SOURCE: Banco de España, based on the Survey of Household Finances (EFF) 2014.

likewise indicates that social industries employ proportionally more young workers.[6] Further, 33% of those employed in the "social industries" have lower employment income than 75% of all workers (see Chart 3). In the remaining sectors the percentage of employees in the bottom quartile of salary income is substantially smaller, which suggests that the workers hardest hit by social distancing measures earn less than the rest.

However, it is important to take into account the composition of the households where each of these workers resides. Although nearly a third of employees in the social industries earn less than 75% of the population, they are not necessarily members of households in the lowest income groups. As Chart 3 likewise illustrates, just a quarter of workers in the "social industries" live in households in the bottom quartile of the income distribution. This ratio is very similar to that observed for the regular industries. The reason for this is a higher proportion, on average, of young people being employed in social industries than regular industries.[7] As a proportion of young Spanish people live with their parents and given that salaries tend to rise with age, the total income of the households of workers hardest hit by the pandemic may be greater than their individual income would suggest.

Taking this into account, Chart 4 shows that 35% of workers in the "social industries" are the primary breadwinners for their homes, i.e. their earnings account for more than half of the household's income. This percentage stands at 43% for employees in the regular industries. Further, the impact of the potential loss of employment in social industries on a household will be smaller if other members of the family unit draw salaries in other sectors. In fact, half of all affected employees reside in households that earn less than 55% of their income from the social industries (see Chart 4). By contrast, half of the workers in regular industries live in households where more than 63% of total income is earned from regular industries. Therefore, the earnings of other members of the household provide something of a safety net, albeit limited, when employment is lost in the sectors worst hit by the pandemic.[8]

Chart 5 suggests that the households of workers in "social industries" generally have more limited access to resources to maintain their expenditure. Half of the workers in the industries worst affected by the crisis live in homes whose current account savings represent less than one month of the household's income (see Chart 5). If less liquid financial assets (such as pension funds) and higher risk assets (such as shares) are included, 31% of those workers live in homes whose financial assets amount to less than one month's income. The median ratio of financial assets to annual household income for workers in social industries stands at 0.27 (see Chart 6). This means that for 50% of these individuals the household's savings represent less than 3.3 months of their total income. The financial position of employees in regular industries is somewhat better: 26% live in a home with financial assets amounting to less than one month's income and 50% hold assets representing more than four and a half months' income (the ratio of financial assets to annual income is 0.37). Lastly, the net median wealth of households with members employed in the "social industries" stands at €109,000, 17% lower than that of other workers' households (see Chart 6).

In short, a high percentage of women and young people are employed in the sectors bearing the brunt of the confinement ("social industries"). Further, a higher proportion of employees in these sectors are low-income earners and live in households with few financial assets to help withstand a reduction in employment income. This evidence suggests that the measures aimed at supporting income and employment should be targeted to take into account the asymmetric impact that the current crisis is having on certain groups of particularly vulnerable workers.

Notable among these measures, given the more physical and interactive tasks performed by the groups of workers most closely associated with the social industries, would be support for training in new skills that may be in demand in other sectors with robust growth potential, thus enhancing the employability of these workers.

---

6 R. Joyce and X. Xu (2020), in *Sector shutdowns during the coronavirus crisis: which workers are most exposed?*, IFS Briefing Note BN278, documented a high percentage of workers in the United Kingdom under the age of 25 in industries affected by the quarantine. S. Mongey, L. Pilossoph and A. Weinberg (2020) showed that, in the United States, there are more employees under the age of 50 in occupations that require close physical contact with other people.

7 The bottom quartiles of the distribution of salary income and total household income are calculated based on the population of employed individuals to ensure that 25% of workers are at the lower end of the distribution in both cases.

8 In 2008 the employment income of one in two workers in construction – which bore the brunt of that crisis – accounted for at least 50% of their household income. In this recession, the employment income of one in every three workers affected exceeds the 50% level.

Box 4.3

DEVELOPMENTS IN BANK FINANCE FOR PRODUCTIVE ACTIVITIES IN THE CONTEXT OF THE COVID-19 CRISIS

The liquidity needs of Spanish non-financial corporations (hereinafter NFCs) have grown significantly since the outbreak of the health crisis, owing to income from ordinary activities declining sharply for most firms as activity ground to a halt during the state of alert and demand fell. Many of these firms have resorted to bank finance to cover their liquidity needs, in some cases benefiting from the State guarantees approved by Royal Decree-Law 8/2020 of 17 March 2020, via the COVID-19 ICO Guarantee Facility (hereinafter, ICO facility). The facility will guarantee up to a maximum of €100 billion, covering up to 80% of the potential losses on finance extended to the self-employed and SMEs, and up to 70% or 60% of financing extended to firms that do not satisfy the European Commission's definition of a SME (hereinafter, large enterprises), depending on whether they are new loans or rollovers.

This Box describes the developments in new loans extended to finance productive activities during March and April 2020, distinguishing between loans implemented through the ICO facility and other lending. It further analyses the extent to which the funds obtained by NFCs through these transactions have helped to address their liquidity needs. Also examined are the terms and conditions of the loans extended under the ICO facility.

Chart 1 shows data for new credit drawn and undrawn to finance productive activities during March and April 2020, both with and without State guarantees.[1] The first two tranches of the guarantee programme, amounting to €40 billion – of which €30 billion was earmarked for SMEs and the self-employed, and the rest for large enterprises – were approved during this period and a total of nearly €26.5 billion was disbursed. For the purposes of comparing new lending in the most recent period against the pre-crisis situation, the amount of new loans arranged during the same period in 2019 is also presented. The chart shows that lending to finance productive activities, extended mainly to NFCs, grew significantly in March and April 2020 as compared with the previous year, reaching €98.3 billion. Although the amount of bank finance not guaranteed by the ICO facility (€63.8 billion) amply exceeded total new lending in March and April 2019 (€48.3 billion), the bulk of the increase was attributable to the sizeable borrowing under the ICO facility (€34.6 billion).

Credit guaranteed by the ICO facility centred on the SME segment (€22.9 billion), while most of the bank finance extended to large enterprises was not guaranteed by the facility (€39 billion out of a total of €48.5 billion). Also noteworthy is the €9.1 billion increase in finance available to large enterprises through credit lines that do not benefit from the State guarantee. The bulk of this credit was extended in April, as large corporations to a significant extent resorted to their existing lines of credit at the onset of the health crisis. In finance provided to the self-employed, the ICO facility made a notably large contribution (€2.2 billion) to the overall credit obtained in March and April 2020 (€4 billion), slightly up on the financing obtained in the same period of the previous year.

Chart 2 illustrates how the new credit was distributed based on the NFCs' estimated liquidity needs. These have been calculated using company information in the Integrated Central Balance Sheet Data Office Survey (CBI)[2] and include both potential deficits (payments minus receipts) from the firms' ordinary activities this year and the outlays associated with debt repayments between March and December 2020.[3] The first bar in Chart 2 shows that 92% of the new bank credit originated in March and April 2020 was provided to firms with liquidity needs. These firms represent 67% of Spanish NFCs and employ 73% of the workers in the sector. The subsequent bars in Chart 2 refer to these firms and depict the distribution of the two credit types (ICO facility and other) in different categories of firms. Around 35% of the finance received by the NFCs needing liquidity was

1 The data for the ICO facility are provided by the ICO itself, while the figures for other lending are obtained from the Banco de España Central Credit Register (CCR).

2 The CBI includes information on some 500,000 non-financial corporations and represents, in GVA terms, around 42% of the overall NFC sector (according to National Accounts). Given that these firms represent a sub-sample of the universe of companies in the Spanish economy, the results are adjusted using weights to estimate a representative figure for the overall NFC sector.

3 The needs stemming from the firms' ordinary activities are obtained through a simulation, which assumes a severe contraction of their activity in 2020 as compared with 2018 (the latest available CBI data), distinguishing between sectors based on the extent to which they are affected by the pandemic. The outlays associated with debt repayments are estimated based on data from the CCR and the firms' balance sheet information. It should be borne in mind that the firms' liquidity needs may include measurement errors since they are identified through simulation. For further details, see R. Blanco, A. Menéndez and M. Mulino (2020): *Las necesidades de liquidez y la solvencia de las empresas no financieras españolas tras la perturbación del Covid-19*, Occasional Papers, Banco de España, forthcoming.

accounted for by the ICO facility loans. However, this proportion is not consistent across all of the different company types. As might be expected, the ICO's weight is comparatively greater in the segments with the worst conditions of access to credit: SMEs (57%), firms operating in the sectors most affected by the health crisis (47%) and riskier firms (56%).[4] Conversely, the ICO guarantee facility was used to a lesser extent in lending to large enterprises

Chart 1
NEW CREDIT TRANSACTIONS TO FINANCE PRODUCTIVE ACTIVITIES (a)

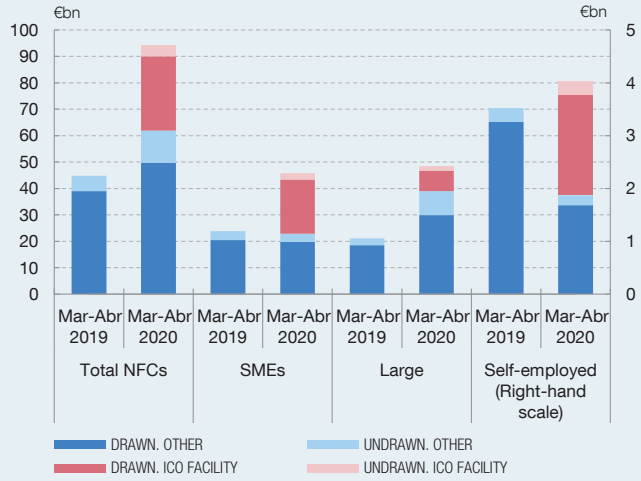


Chart 2
DISTRIBUTION OF NEW CREDIT TRANSACTIONS BY NFCs' LIQUIDITY NEEDS. MARCH-APRIL 2020 (a) (b)

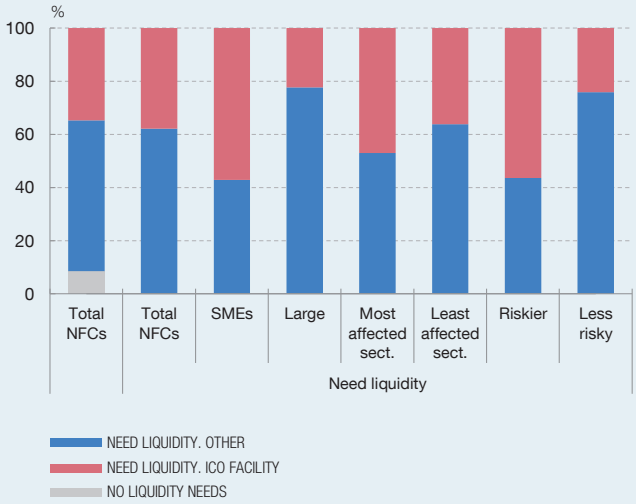


Chart 3
COVERAGE OF LIQUIDITY NEEDS BY NFCs' SIZE AND RISK. MARCH-APRIL 2020 (a) (b)

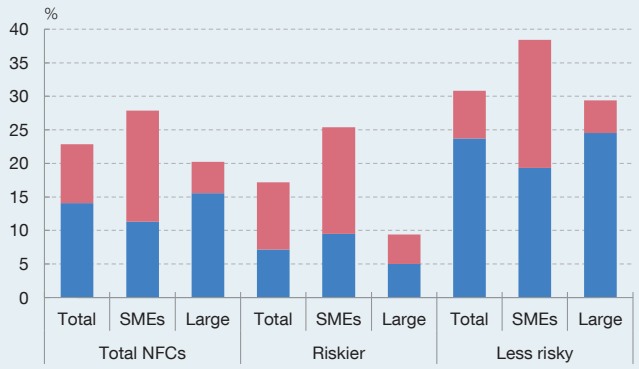
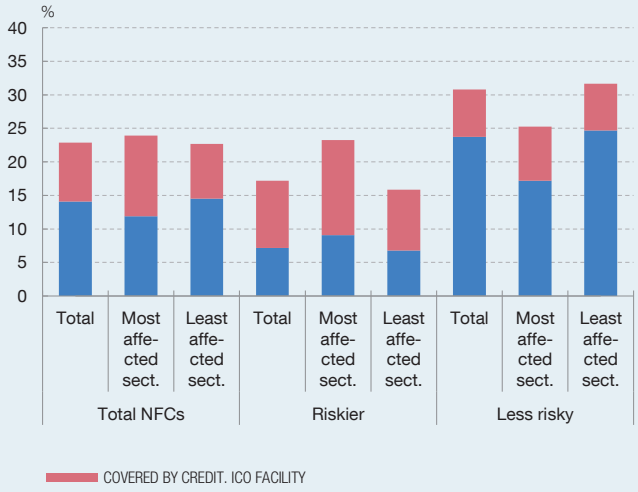


Chart 4
COVERAGE OF LIQUIDITY NEEDS BY NFCs' SECTOR AND RISK. MARCH-APRIL 2020 (a) (b)



SOURCE: Banco de España.

a Includes credit drawn and undrawn. The firms are classified based on their size, risk and sector. Size is defined in line with the European Commission Recommendation. Small firms forming part of a business group are not classified as SMEs. Riskier firms are those with credit quality steps (CQS) of 6, 7 or 8, meaning a probability of default of over 2%. Lastly, the sectors most affected by the health crisis are transport, hospitality, catering, entertainment and motor vehicles.
b The firms' liquidity needs are identified based on a simulation of their ordinary activities during 2020 and debt repayments between March and December 2020.

4 The sectors most affected by the health crisis are: transport, hospitality, catering, entertainment and motor vehicles. Riskier companies are those with a credit quality step (CQS) of 6, 7 or 8, meaning a probability of default of over 2%.

and less risky firms, where its weight stood at 22% and 24%, respectively.

Chart 3 shows that, on average, new credit covered around 23% of the firms' estimated liquidity needs between March and December 2020. Further, the chart demonstrates that loans arranged through the ICO facility played a particularly important role in addressing the liquidity needs of SMEs, covering close to 17% (compared with around 11% covered by credit not linked to the facility). Whereas loans extended to large enterprises under the guarantee programme covered just 5% of their liquidity needs, while other credit accounted for more than 16%.

Admittedly, the ICO facility has helped significantly to address the liquidity needs of riskier firms. But to date these companies have not been able to cover their needs to the same extent as less risky companies, particularly in the case of large enterprises, which may reflect greater restrictions in terms of their access to bank finance.

Chart 4 shows that the credit needs of NFCs operating in the sectors most affected by the health crisis and with a higher probability of default on their debts have been considerably alleviated by the credit originated under the guarantee programme.

Finally, Charts 5, 6 and 7 show the terms and conditions (interest rates, maturities and amounts) of the loans extended through the guarantee programme as compared with the terms and conditions of other bank finance before and during the pandemic. Chart 5 shows that the average interest rate of loans under the guarantee programme stood at 2.1% in the SME segment and 2.2% for large enterprises. These are significantly lower than the interest rates on loans not linked to the ICO facility and arranged during the same period or in the weeks prior to the state of alert, which range from 2.6% to 2.8%.[5] Likewise, the ICO facility credit has considerably longer maturities in both company segments, exceeding the maturities of other loans extended before and during the pandemic by more than three years (see Chart 6). Lastly, the loan amounts under the guarantee programme are likewise clearly larger than those of the other loans (see Chart 7). Given that the borrowers in transactions benefiting from State guarantees may not be exactly comparable with the borrowers in the other two types of credit, a regression analysis has been conducted comparing the terms and conditions of the loans guaranteed by the programme against the loans with no guarantee that are extended by the same bank and to the same company, while controlling for other characteristics of the loans. The results confirm the differences described above.

Chart 5
NEW CREDIT TRANSACTION INTEREST RATES (c)

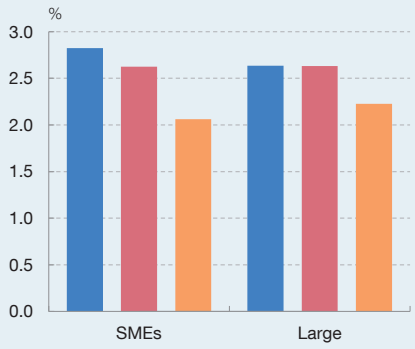


Chart 6
NEW CREDIT TRANSACTION MATURITIES (c)

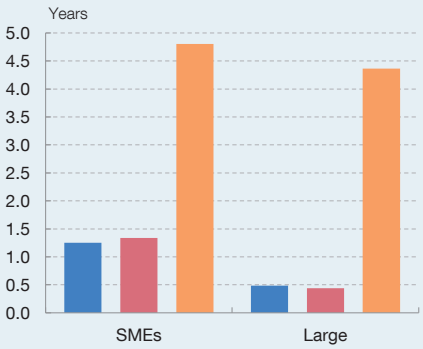
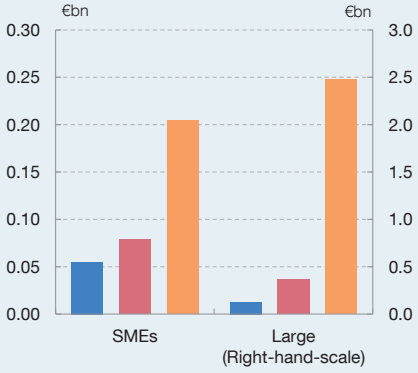
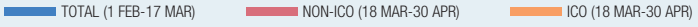


Chart 7
NEW CREDIT TRANSACTION AMOUNTS (c)





SOURCE: Banco de España.

c ICO indicates credit implemented through the ICO facility and non-ICO indicates all other credit transactions. The credit includes the amount drawn and undrawn. Excluded are transactions with maturities of less than one month. Size (SME and large) is defined in line with the European Commission Recommendation. In accordance with the European Commission, small firms forming part of a business group are not classified as SMEs.

5 Although these interest rates do not include fees, the differences are likely to be almost the same given that the average front-end fee for ICO facility transactions stands at 0.2%.

In short, the evidence presented in this Box, based on data at end-April, indicates that the State guarantee facility is contributing significantly to covering the liquidity needs of the companies hardest hit by the pandemic and that face the greatest difficulties in terms of access to credit. Further, the terms and conditions associated with these credit transactions, in terms of interest rates and in particular loan amounts and maturities, are more favourable than would be applied in the programme's absence. The lengthy average term to maturity of lending under the ICO programme (more than four years) will help to extend the average life of the firms' debt, which will mitigate potential short-term rollover risk. Meanwhile, those companies less affected by the pandemic and with better access to credit have been able to increase their bank finance without resorting to the ICO facility.


ATENCIÓN
Madrid Central
calle Los Madrazo
calle Zorrilla
TRÁFICO RESTRINGIDO
EXCEPTO VEHICULOS AUTORIZADOS
PRECAUCION

5

CHALLENGES FOR THE SPANISH ECONOMY IN THE POST-PANDEMIC SCENARIO

5 CHALLENGES FOR THE SPANISH ECONOMY IN THE POST-PANDEMIC SCENARIO

Before the health crisis broke, the Spanish economy was already facing major medium-term challenges. The expansionary phase preceding the current crisis allowed the Spanish economy to correct some of its macrofinancial imbalances; but specific challenges linked to several key areas persist. These include most notably the need to increase growth potential, to correct labour market dysfunctions, to enhance the sustainability of public finances and to address the challenges associated with population ageing, inequality and climate change.

The COVID-19 crisis has increased the scale of these challenges and posed some new ones. As detailed in Chapter 4, the crisis has highlighted some of the vulnerabilities inherent in the Spanish economy in recent years. Most particularly, it has cast light on the problems generated by an excessive temporary employment ratio, not only in terms of labour market dynamics, but also of inequality. It also brings into relief the limitations entailed by facing a crisis such as the present one with less room for fiscal manoeuvre than that available in peer economies. In addition, this crisis has evidenced certain vulnerabilities, common to many other economies, that have gone relatively unnoticed in recent years. In addition, it has prompted some notable behavioural changes in economic agents which, in turn, will involve new challenges looking ahead. In particular, as detailed in Section 5.2, this crisis may ultimately have significant consequences for the ongoing globalisation and digitalisation under way in society and the economy, both globally and in Spain. Understanding the implications that a potential structural transformation in these processes might have for the economy as a whole, and for specific sectors, firms and population segments, is a first-order challenge for Spain.

The seriousness of the situation created by the pandemic has raised the need for and urgency of an appropriate response to these challenges. The extraordinarily complex circumstances facing the Spanish economy in the coming quarters, and the scale of the challenges ahead in the medium term, pose a considerable threat to present and future growth capacity and, therefore, to employment and well-being. Accordingly, an ambitious economic policy response is required.[1] In some cases, this response should take the form of new measures in the short term. In others, these measures should be considered once the current recessionary bout and its more adverse economic effects is behind us, although they should be designed and communicated without excessive delay. This is the case, for example, with fiscal policy. Here, as described in Sub-section 5.1.3, there

1 See the Governor's Parliamentary appearance before the Committee for Spain's Social and Economic Reconstruction after COVID-19 (Congress of Deputies), 23 June 2020.

is no place for a premature withdrawal of the stimulus measures deployed, since that would increase the risk of more lasting harm to economic growth. However, at the same time, it would be advisable to move towards the design and announcement of a sufficiently detailed medium-term fiscal consolidation plan, to be implemented once the current crisis is behind us and a robust recovery path has taken hold.

The economic policy response should include a comprehensive, ambitious and broadly agreed medium-term growth strategy. The challenges conditioning the Spanish economy's growth outlook and our society's well-being are closely interrelated. Attempts to resolve any such challenges in isolation are neither feasible nor desirable. A well-planned strategy is needed, in which the impact of each economic policy decision on multiple facets is assessed, and balances are struck between different objectives that are not always simultaneously compatible. Further, the importance of the challenges that will mark the future of the Spanish economy in the coming decades requires an ambitious response in the form of an extensive package of deep-seated reforms. Lastly, structural challenges require structural responses, which last over time. Accordingly, the economic policy measures to tackle the challenges described in this chapter should be the outcome of a high degree of consensus on the part of the different political, economic and social agents. That would mean the underpinnings of our growth are stable and not subject to the vagaries of the political cycle.

National policies should be complemented by actions at the European level that include resolute advances in the institutional structure of the EU and the euro area. This crisis has shown that, to the extent that the European economies' future challenges are essentially shared, successfully resolving them will necessarily involve setting greater store by supranational policies and institutions (see Section 5.4). In the fiscal realm, this calls, among other measures, for an increase in and greater flexibility of the EU budget. Also, the launch of new, genuinely pan-European and permanent instruments will be needed, allowing for a greater pooling of risks among the Member States. Financially speaking, a full Banking Union in the euro area must be accorded priority. Its cornerstone, still pending approval, is a European Deposit Guarantee Scheme. Headway must also be made in reviewing those institutional and regulatory aspects preventing an authentic Capital Markets Union in the region.

5.1 Priority areas for attention in the Spanish economy

This chapter describes some of the main structural challenges that the Spanish economy should already have tackled before the COVID-19 crisis broke. For presentation purposes, these challenges are set out individually. However, it is worth highlighting that they are all closely interrelated, and an overall interpretation must be made of them. Thus, for instance, the problems associated with population ageing cannot be resolved without taking into account the public sector's inter-

temporal budgetary constraint or intra- and inter-generational inequality dynamics. Similarly, structural reforms aimed at increasing the economy's growth potential and at tackling the Spanish labour market's mismatches will have a notable bearing on public finances sustainability. Labour market dynamics also clearly influence the accumulation of human capital by workers and patterns of inequality across population segments, an area where appropriate housing affordability conditions must also be assured.

5.1.1 Constraints on the Spanish economy's growth capacity

The depth of this crisis will probably cause some lasting damage to the Spanish economy's potential growth. Although the shock behind this crisis is eminently temporary, its high intensity and the uncertainty still surrounding how it will evolve are likely to trigger some lasting effects on the productive structure of many economies, including Spain. In this respect, the Spanish economy's potential growth, which was already low before this crisis, will foreseeably diminish because of it (see Chart 5.1.1).

From a broader time perspective, low productivity growth is the main factor behind the Spanish economy's modest potential growth. In the past 20 years, total factor productivity (TFP) has grown at an approximate annual average rate of 0.2% in Spain, far below the growth in the advanced, benchmark economies such as Germany (0.8%) and the United States (0.9%) (see Chart 5.1.2). The sustained differences in productivity largely explain the uneven economic well-being levels across countries in the long term.

The sectoral make-up of the Spanish economy explains only part of its lacklustre productivity. Admittedly, our productive structure is skewed towards sectors of activity that usually post low productivity growth. However, the low level of productivity compared with other European countries can be seen in practically all sectors (see Chart 5.1.3).[2] This suggests the presence of structural factors which, across the board, limit productivity gains in most sectors and, therefore, growth potential in the Spanish economy as a whole. These possible constraints on productivity gains include most notably business demographics, human capital and technological capital.

The small size of Spanish companies is a significant factor in explaining the Spanish economy's aggregate low productivity. The weight of small-sized firms in Spain is relatively high on international comparisons (see Chart 5.2). Thus, for example, the percentage of firms with fewer than five employees was 78% in Spain in 2019, a proportion clearly above the related euro area average (69%). This contributes to the Spanish economy's lower aggregate productivity compared with

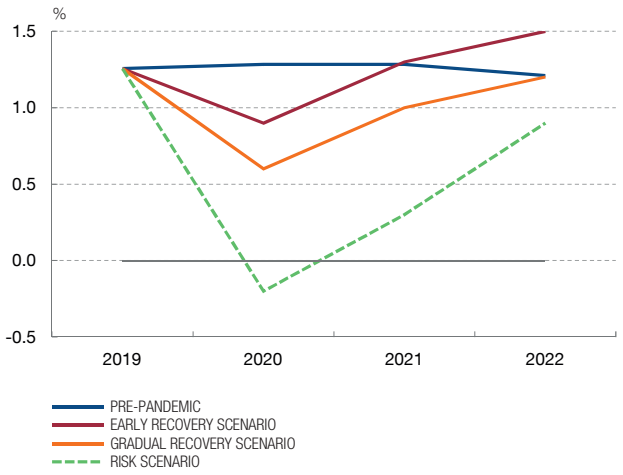
2 See Cuadrado et al. (2020).

Chart 5.1

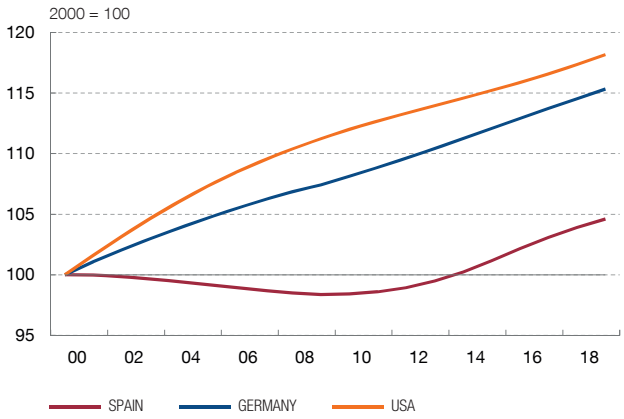
GROWTH CAPACITY OF THE SPANISH ECONOMY

The potential growth of the Spanish economy, which was already relatively low prior to the crisis, will diminish as a result of the pandemic. Muted productivity growth is the main factor behind this modest potential growth. Low productivity relative to other European countries is observed across practically all sectors and is due, in part, to the smaller relative size of Spanish companies.

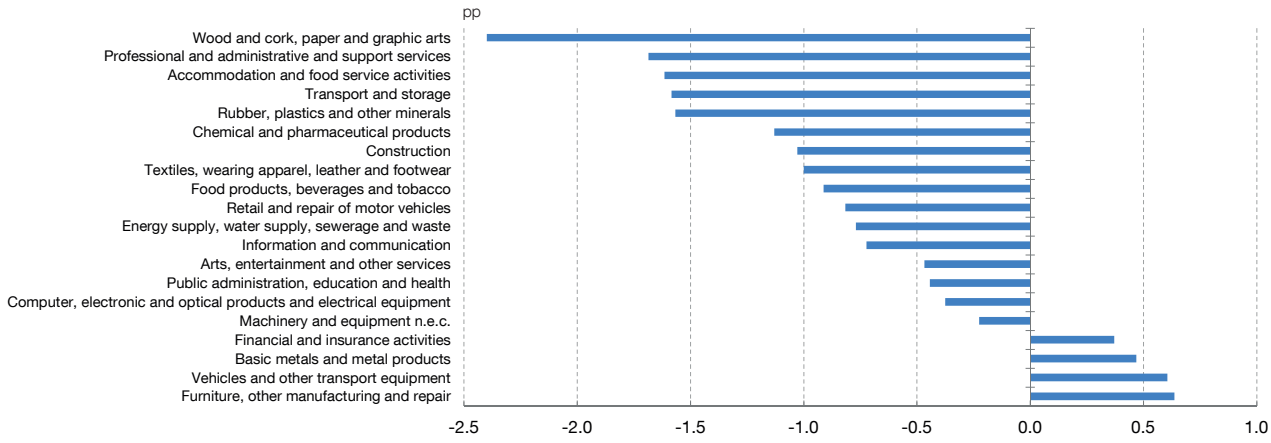
1 GDP GROWTH POTENTIAL



2 TOTAL FACTOR PRODUCTIVITY IN SPAIN, USA AND GERMANY



3 ANNUAL GROWTH DIFFERENTIAL IN TOTAL FACTOR PRODUCTIVITY (TFP) BETWEEN SPAIN AND THE EU-12 (2000-2016) (a)



SOURCES: Banco de España, European Commission and EUKLEMS.

a EU-12 includes Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Italy, the Netherlands, Spain, Sweden and the United Kingdom.

DOWNLOAD

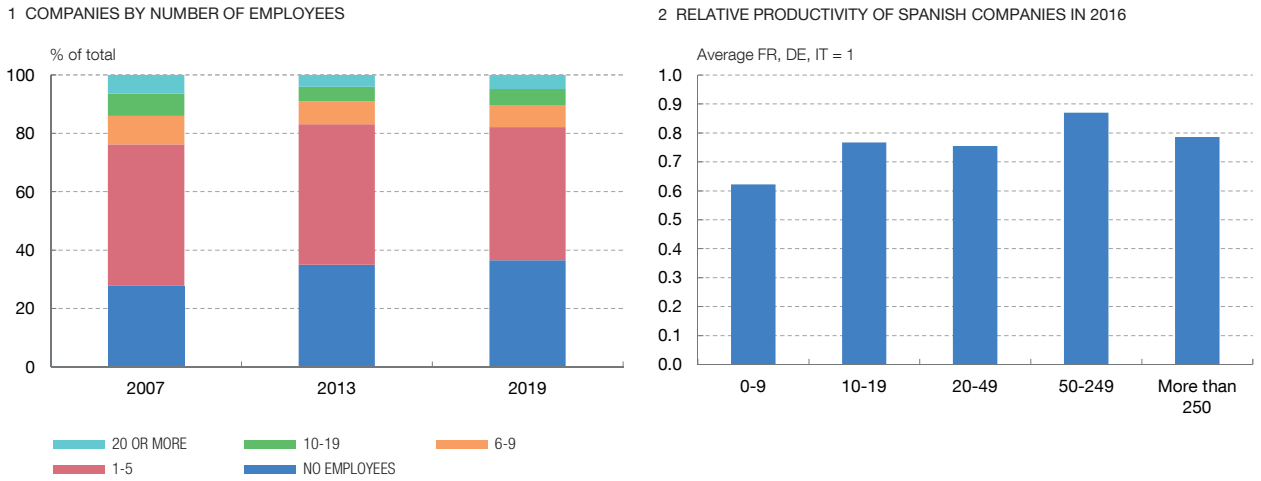
the euro area as a whole, since it is precisely in smaller Spanish companies where there is a wider negative productivity difference in relation to their European counterparts.[3] These differences, which are usually bigger in services firms, hold even after taking into account the different sectoral structures of the European and Spanish economies (see Chart 5.2).

3 See Banco de España (2019a).

Chart 5.2

COMPANY SIZE AND PRODUCTIVITY

The proportion of small-sized firms in Spain has increased in the last decade. Thus, in 2019 the percentage of companies with fewer than five employees stood at 78% in Spain. These firms are, broadly speaking, less productive than companies of the same size in Germany, France and Italy.



DOWNLOAD

SOURCES: DIRCE and Eurostat.

Further ahead, it will be necessary to delve into the various reasons why the Spanish business sector is so skewed towards small companies, and to have mechanisms at hand to promote business growth. Although the Spanish productive structure itself may prove conducive to a specific business size in specific sectors, there is a broad set of State regulations contingent upon corporate size which may pose deterrents to business growth. In particular, some regulations increase the corporate burden once companies have more than 50 employees (along with other activity-based criteria); they entail, for example, the obligation to establish a workers' committee, to make VAT payments monthly, to forgo the possibility of presenting abridged financial statements and engaging auditors. Plausibly, therefore, some companies opt to remain small to avoid the greater costs that exceeding this employee threshold usually entails. The empirical evidence available is along these lines, confirming the presence of an abnormally high number of firms just below this regulatory threshold.[4] In this respect, it would be worth ensuring that the objectives of these types of regulations do not pose added difficulties to the possibilities of corporate growth. Spain's regional governments have increased their enactment of regulations in recent years, whereby at present there is notable heterogeneity in the regional formalities needed, for example, to undertake certain investment projects. These obstacles to

4 See the evidence on the impact of specific regulatory thresholds on the breakdown by size of firms, Banco de España (2015), in European Commission (2016), Report on Spain España 2016, Garicano et al. (2016) and Almunia and López-Rodríguez (2018).

market unity might not only be restricting company start-ups, but also their subsequent growth capacity. In this connection, it would also be worthwhile for the regions to pool their different practices, sector by sector, to arrive at regulatory standards in keeping with best practices. And this while continuing to pursue the goal of promoting productivity and not restrict access to (and the future growth of) potential competitors.

Small-sized firms, which are generally less diversified both geographically and in terms of product lines and customers, are also more vulnerable to macrofinancial shocks. These types of companies usually face greater obstacles in raising finance, given that investment in them is usually perceived as riskier, and also because of problems of asymmetric information (between investors or lenders and the firm itself) and of limited scale.[5] In particular, the size of firms is an obstacle to gaining access to financing on the wholesale markets via debt issuance, to which resort is normally only possible after facing heavy fixed costs. This means that, generally, small companies have a less diversified financing structure than their larger competitors. Frequently, such financing is particularly dependent on bank loans, meaning that small firms are more vulnerable to shocks affecting this financial channel, as became manifest during the previous financial crisis.

Accordingly, boosting small firms' growth capacity would help shore up the financial soundness of the business sector as a whole. According to information from the Banco de España Central Balance Sheet Data Office (CBSO), the percentage of fixed costs with which SMEs with fewer than 50 employees must contend has increased in the past decade. Indeed, on average this proportion accounts for 31% of turnover.[6] Hence, in the current economic circumstances in which some firms do not have recurring income, they could well incur losses. This is especially so in certain sectors such as retail trade, hospitality and leisure which, since the pandemic crisis broke, have been appreciably affected by the decline in demand and the restrictions on their activity.

The average level of the Spanish economy's human capital also contributes to explaining the negative productivity gap with the more dynamic European economies. In recent decades, the Spanish population's level of educational attainment has improved considerably. The causes have been both the generational change and more education for the latest youth cohorts. However, there remains a

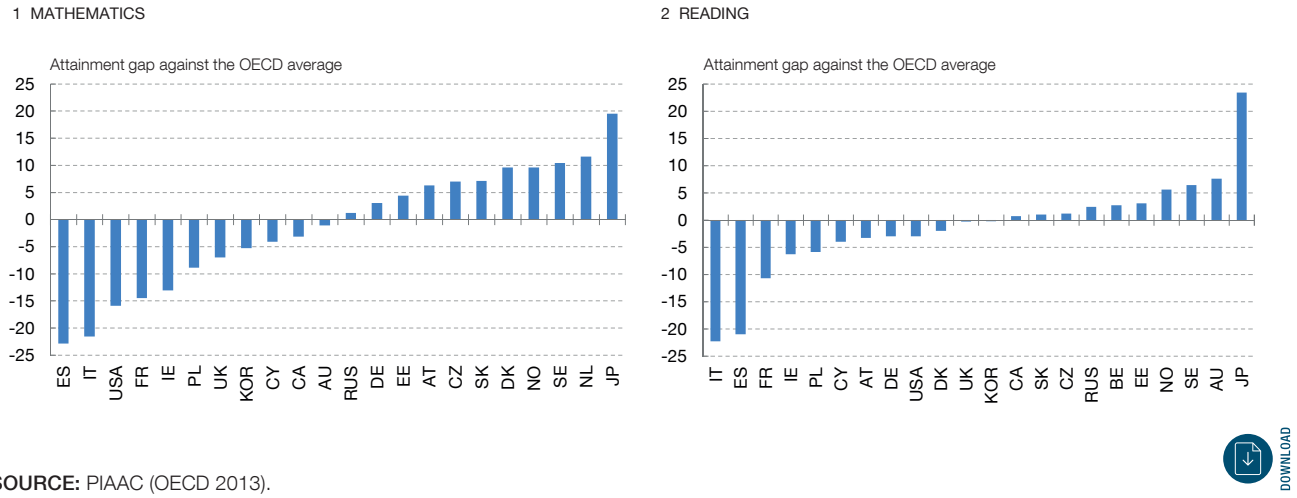
---

5 Indeed, the economic literature has identified the greater asymmetric information of small-sized firms linked to the lesser quality and quantity of information available on their economic and financial situation as one of the sources of their greater problems in gaining access to external financing. Moreover, their small size means that the fixed costs that lenders incur in analysing their economic and financial situation are comparatively high.

6 For this calculation, the personnel costs relating to permanent employees, other operating expenses not related to the size of production (including external services, such as R+D, leasing, repairs, independent professional services, transport, insurance, banking services, advertising and supplies, along with taxes and other current administration expenses) and financial expenses are considered. Further, net purchases and work by other firms relating to the size of production and personnel costs relating to temporary workers are considered.

Chart 5.3
HUMAN CAPITAL AND PRODUCTIVITY

The Spanish population's level of educational attainment has improved in recent decades. However, there remains a significant shortfall in respect of the EU average, which helps to explain the negative productivity gap. Spain ranks last amongst OECD countries in mathematical reasoning and penultimate in terms of reading comprehension.



DOWNLOAD

SOURCE: PIAAC (OECD 2013).

significant shortfall in respect of the EU average, which affects both Spanish workers and employers. In Spain, in particular, 38.9% of the self-employed, 35.9% of employers and 31.1% of employees had a lower educational level in 2019, according to Eurostat. These percentages are far higher than those for the euro area as a whole (22.2%, 19.0% and 18.8%, respectively). At the same time, Spain is in last position among the OECD countries in mathematical reasoning and in penultimate position in terms of reading comprehension (see Chart 5.3).

The relative disadvantage in the Spanish economy's human capital advises reconsidering the institutional design of the education system. It should include a far-reaching review of curriculum content and the very system of learning. The evidence available internationally shows the advisability of reducing curriculum content to promote individualised and early guidance for pupils by teachers and to focus learning on the application of knowledge creatively and not on repetition.[7] On this point, the draft legislation amending the Organic Law on Education (LOMLOE by its Spanish abbreviation) currently being discussed in Parliament may be a good opportunity to address the challenges outstanding. In the university sphere, there is extensive room for improving aspects such as the selection of tutors and researchers, and the bolstering of the conditionality of the financing of the system to excellence-based goals.[8] In this respect, Spain has very few universities among the best worldwide in terms of quality and quantity of

7 See OECD (2019a).
8 See OECD (2017).

scientific output, given the size of our population and economy according to some international rankings.[9] Finally, against a background in which the existing skills mismatches between labour supply and demand will foreseeably increase, vocational training takes on particular importance. Its design can be considerably improved in line with that of the systems of other European countries that have attained better results here, as is the case of Germany.[10]

Technological capital is another key factor for explaining lacklustre productivity in Spain. According to Eurostat, the proportion of innovative companies in Spain stood at 36.9% in 2016, at some distance from the related figures in France, Italy and Germany (57.7%, 53.8% and 63.7%, respectively).[11] In a similar vein, the weight of investment in R&D activities relative to Spanish GDP, in the public and private sectors alike, is 26% and 54%, respectively, lower than the EU average.

Given the particularities of investments with more innovative potential, the most suitable financing arrangements to develop them must be leveraged. The expected return on research, development and innovation (R+D+I) investments is usually shrouded in high uncertainty. Moreover, such projects have a long time horizon, and the specific nature of the intangible assets generated with them hinders their use as collateral when it comes to financing. These factors warrant a role for general government as a catalyst in financing such investments, especially in the field of basic research. From a business standpoint, the foregoing differential aspects of investments in innovation mean that debt is often not the most suitable instrument for financing these projects and that innovative companies that exhaust their internal sources of financing usually resort to the capital markets and, more specifically, to venture capital to obtain the funds needed to pursue these activities. Spain is a heavily banked economy in which the venture capital industry is less developed than in the United States and the United Kingdom, for example. And in this connection, it is vital that resolute headway be made under the various Capital Markets Union initiatives of the EU that are attempting to develop these markets.

It is essential to reinforce the mechanisms supporting innovation and to improve the evaluation and selection of research-based further education to encourage a greater volume of investment in R+D+I. Here, the restructuring of the public organisations that undertake innovation in Spain could be considered in an attempt to harness to the full potential synergies between them and to strengthen the mechanisms for allocating resources across centres so that they reflect academic excellence more than at present. Any future efforts made in this connection could be complemented with changes to the arrangements for promoting research and

9 See Academic Ranking of World Universities.

10 For Spain, updated aggregate and regional information can be found on vocational training teaching at the Ministerio de Educación y Formación Profesional. Also, for an assessment of the Madrid region's dual vocational training system, see Bentolila et al. (2019).

11 See Community Innovation Survey 2016.

complemented with changes to the arrangements for promoting research and higher-education research studies in order to smooth access for and the personal development of new high-potential researchers.

5.1.2 Labour market dysfunctions

For decades, the structural shortcomings in the Spanish labour market have largely explained why our economy has a significantly higher unemployment rate than any of our peers, even in expansionary periods. These shortcomings can be more clearly appreciated in crisis periods like the present. However, they also have a notably negative influence on the Spanish labour market in periods of growth. Indeed, since 1980, the average unemployment rate in Spain has stood at close to 17%, a figure far higher than those observed in other European countries (see Chart 5.4.1). Moreover, this high level of unemployment is frequently long-term, which has very negative effects on the employability of the workers affected.

Another differential aspect of the Spanish labour market is its high temporary employment ratio. In the past decade, this ratio has stood on average at 25.2% relative to total employment, compared with 13.9% in the other euro area countries. Further, this marked difference cannot be attributed to the particular sectoral composition of the Spanish economy, where certain industries such as tourism are highly seasonal, given that the high temporary employment ratio is across the board in all sectors of activity (see Chart 5.4.2). In clear contrast to other advanced economies, job shedding in the Spanish labour market during recessionary phases is largely concentrated in the destruction of temporary employment. As Section 4.2 sets out, employees on temporary contracts have disproportionately borne the brunt of job destruction flows in the Spanish economy in recent decades. This pattern has remained in place in the current crisis.

The strong cyclical oscillations in temporary employment have historically contributed to the fact that the unemployment rate in Spain has also evidenced very marked changes and to inequality increasing substantially in crisis periods. Each recession in the Spanish economy expulses a large number of temporary employees from the labour market. These include particularly vulnerable groups, such as those with less work experience and the lesser skilled. This pattern of adjustment has the perverse effect of significantly increasing inequality in individuals' income levels during these episodes.[12]

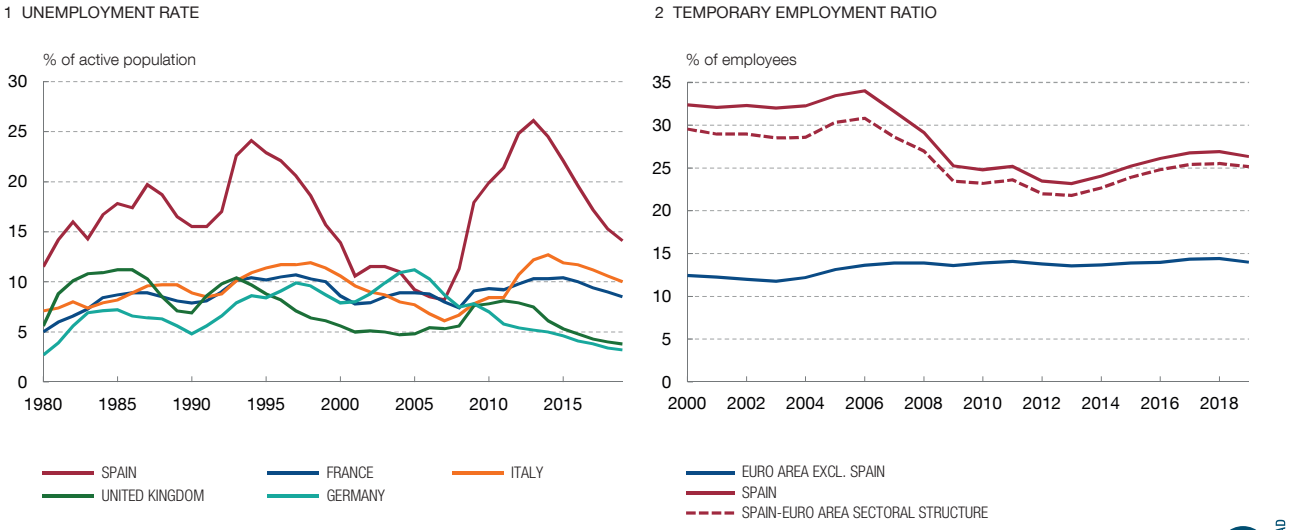
The scale and vulnerability of temporary employment in Spain also have negative structural implications in many other dimensions. Thus, for example, the high temporary employment ratio and unemployment, essentially affecting the

12 See Bonhomme and Hospido (2017).

Chart 5.4

UNEMPLOYMENT RATE AND TEMPORARY EMPLOYMENT RATIO OF THE SPANISH ECONOMY

The Spanish labour market presents far higher unemployment rates than peer countries, particularly in crisis periods. Another differential aspect of the labour market is its high temporary employment ratio. In the past decade, this ratio has stood on average at 25.2% relative to total employment, compared with 13.9% in the other euro area countries.



DOWNLOAD

SOURCES: Eurostat and Banco de España.

young, have been documented as reducing both the formation of new households and their size, by negatively influencing fertility decisions.[13] The rates at which youths leave the family home to live independently are also seen to be negatively related to the degree of job insecurity[14], undoubtedly accentuated by the incidence of temporary employment. Temporary employment has also been shown to be associated with persistent effects on the careers of the workers most affected and on decisions on investment in human capital, both by firms and by employees.[15] In particular, the empirical evidence suggests that temporary workers have fewer possibilities of working in firms that offer training and that, even if they are in firms that do offer it, the likelihood of receiving it is less than that of the permanent employees in the same firm.[16]

Accordingly, reducing the high duality in the Spanish labour market is an inescapable objective. Employment protection mechanisms should be reviewed to square the necessary protection of workers with flexibility requirements; but it should also be an aim to achieve a fairer division of protection among workers with different contractual conditions. In this respect, contractual mechanisms that avoid strong discontinuity in the degree of employee protection, in terms of the type of

13 See Gutiérrez-Doménech et al. (2008) and Adsera (2006).
14 See Becker et al. (2008).
15 See García-Pérez et al. (2019).
16 See Albert et al. (2005).

contract they have at each point in time, are an interesting option for tackling this significant dysfunction in our labour market. Modalities such as contracts with growing firing costs may in particular be a good starting point for the debate on the design of a new regulatory framework, which should under no circumstances promote a widening of the protection gap already existing between temporary and permanent employees. Also worthy of attention are mixed models. These combine the possibility, while the worker remains in employment, of building up in advance in a fund a portion of the related severance costs (the "Austrian backpack" scheme) with a severance payment in the event of dismissal whose amount increases in terms of years of experience.

It is imperative to strengthen active labour market policies in order to increase workers' human capital and to reduce unemployment permanently. In circumstances like the present, but also generally over the course of the cycle, it is necessary to have appropriate policies and instruments to increase the employability of those who have lost their jobs. In that way, we avoid a permanent impairment of the human capital of the unemployed and of the growth potential of the economy as a whole.[17] In this connection, there is a need to promote active job search, appropriate worker guidance and specialised and specific training when skills requirements are detected. To this end, mechanisms should be set in place to provide for monitoring and individualised guidance for the unemployed based on available statistical profiling techniques of unemployed workers and of local vacancies.

In the current economic situation, improving active labour market policies must be a priority. As indicated in Section 4, the COVID-19 crisis is bearing down very unevenly on different sectors of activity. It cannot be ruled out that some of these dynamics will ultimately prompt permanent changes in the economy's sectoral composition and, therefore, in employment needs in the different productive sectors. The sound functioning of active labour market policies is vital if this potential cross-sectoral reallocation is to go ahead flexibly and efficiently. Some of the sectors most affected by the crisis evidence a greater concentration of less-skilled workers less used to performing IT, numerical and reading and writing-related tasks. That hampers their employability in other productive sectors with a better growth outlook. This makes reinforcing active labour market policies, and their instruments and resources (see Chart 5.5), a particular priority.[18] In addition, the new, post-pandemic economic environment that will emerge will require firms to adapt flexibly to the new conditions, in respect both of the demand for their products and services, and of possible changes in the structure of their sector of activity. In this process, providing for the appropriate functioning of the internal flexibility mechanisms available at firm-level will be essential for alleviating potential adverse effects on employment.

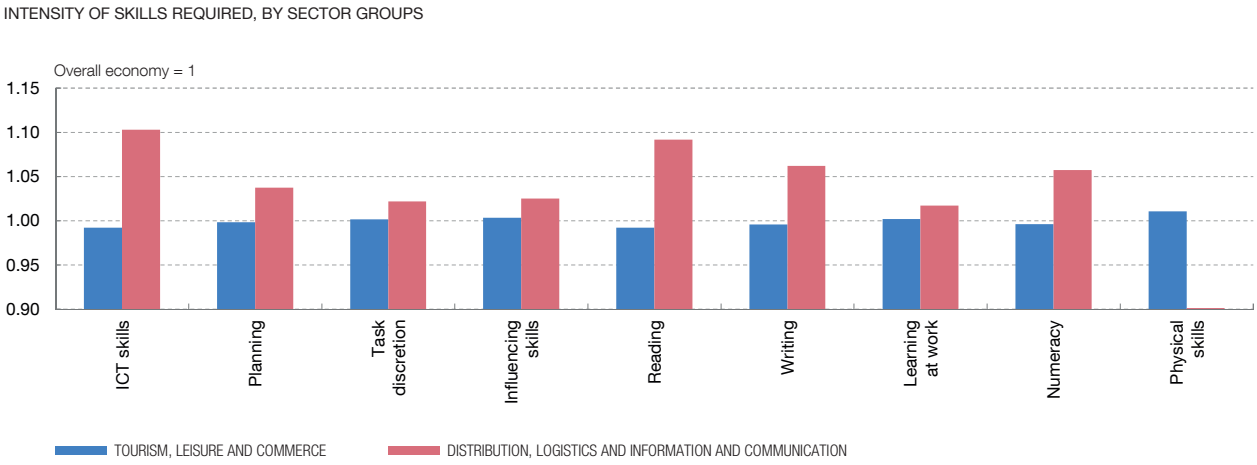
17 Keane and Wolpin (1997) estimate a rate of depreciation of skills during unemployment of 30% per annum for non-manual workers and of 10% for manual workers.

18 See Anghel et al. (2020).

Chart 5.5

HUMAN CAPITAL AND ACTIVE LABOUR MARKET POLICIES

Potential shifts in demand may adversely affect sectors associated with tourism, leisure and commerce. These sectors present a higher concentration of lower-skilled workers less used to performing IT, numerical and reading and writing-related tasks, which hampers their employability in other productive sectors. This makes reinforcing active labour market policies, and their instruments and resources, a particular priority.



DOWNLOAD

SOURCES: MCVL, PIAAC (OECD 2013) and Banco de España (see Anghel *et al,* 2020).

Improving active labour market policies is also necessary over a medium-term horizon. Unquestionably, technological advances (artificial intelligence, automation and robotics) will create new opportunities and will contribute to much-needed productivity growth. However, some workers will lose their jobs in this transition and will not always be in a position to instantly take advantage of the new opportunities. Active labour market policies and training policies, duly redesigned to boost their effectiveness and efficiency, and suitably endowed with funds, are a natural lever for ensuring learning throughout a person's career. They can help workers to acquire new skills, to hone them and to recycle themselves professionally in the face of a changing and, foreseeably, very demanding environment in terms of technological skills. These policies are of particular significance against a background of rapid population ageing (see Sub-section 5.1.4).

5.1.3 Restoring room for manoeuvre for fiscal policy

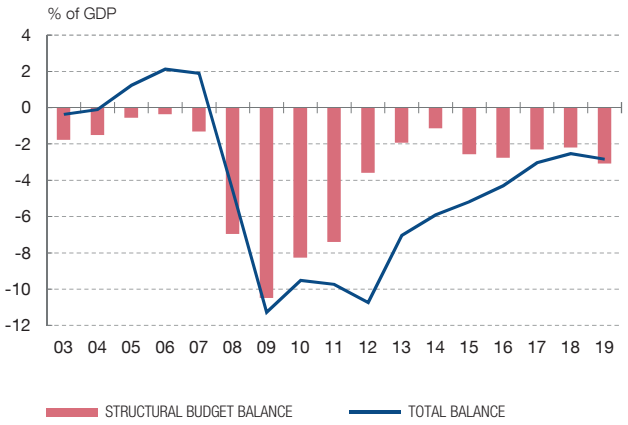
The general government accounts were evidencing considerable mismatches before the COVID-19 crisis. The Spanish economy's fiscal policy leeway in the face of recessionary situations had diminished considerably because of the global financial and European sovereign debt crises. Moreover, it scarcely recovered subsequently, despite the robust and uninterrupted growth of activity and employment. Indeed, after four years of declines, the overall general government

Chart 5.6

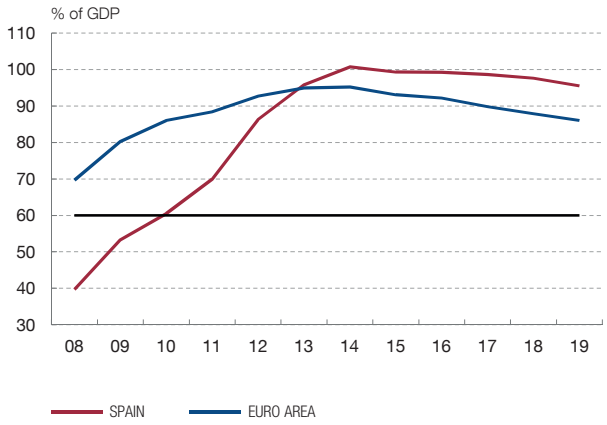
THE CHALLENGE OF ENSURING THE SUSTAINABILITY OF PUBLIC FINANCES

After four years of declines, the overall general government deficit increased to 2.8% of GDP in 2019. In structural terms, i.e. having stripped out the effect of the economic cycle, the public finances shortfall also increased. The public debt/GDP ratio stood at 95.5% at end-2019, 5.2 pp below its 2014 peak, and far above the reference value of 60%.

1 TOTAL AND STRUCTURAL GENERAL GOVERNMENT BALANCE



2 GENERAL GOVERNMENT DEBT IN SPAIN AND THE EURO AREA



DOWNLOAD

SOURCES: Banco de España, IGAE and Eurostat.

deficit increased to 2.8% of GDP in 2019. In structural terms, i.e. having stripped out the effect of the economic cycle, the public finances shortfall also stands at over 3% of GDP on Banco de España estimates. Thus, since 2015 there has been no appreciable headway in reducing the structural budget deficit (see Chart 5.6.1). In fact, the correction of the budgetary imbalance achieved from that year onwards was due solely to the improvement in the economy's cyclical position and to lower debt service expenditure. The public debt/GDP ratio stood at 95.5% at end-2019, only 5.2 pp below its 2014 peak, and far above the reference value of 60% of GDP under the current framework of European fiscal rules and of the Organic Law of Budgetary Stability and Financial Sustainability (see Chart 5.6.2).

However, the economic policy response to this pandemic calls for resolute fiscal action. A flexible but forceful fiscal response aimed at sustaining household and corporate incomes in the short term is needed. This is not only to restrict the impact of the strong recession triggered by the crisis, but also to reduce the risk of a persistent deterioration in the economy's growth capacity and to contribute to a swifter and sounder economic recovery once the pandemic is behind us. The effectiveness of fiscal policy in the current situation should be assisted by the forceful response of monetary policy and by the record-low interest rate environment (see Box 3.4, which underscores monetary and fiscal policy complementarity).[19]

19 For a detailed analysis on the complementarity between expansionary monetary and fiscal policies, see Arce et al. (2016).

The fiscal measures adopted to alleviate the effects of the pandemic, the inevitable worsening of the macroeconomic environment and the operation of the automatic stabilisers will bear down most adversely on public finances. As detailed in Sub-section 4.4.3, the latest Banco de España estimates point to a very significant rise in the budget deficit and public debt ratios relative to GDP in the 2020-2022 period. Further, there remain some factors of risk relating to how the disease will unfold in the coming quarters and to the harm the current strong recession may cause to the productive system. If such harm materialises, it would give rise to higher levels of deficit and debt than those projected. Because of these factors of risk, there is notable uncertainty over whether it will be necessary to apply fresh fiscal stimuli in the coming quarters to reactivate the economy. Moreover, it cannot be ruled out that, as witnessed in previous recessionary episodes, the sensitivity of tax revenue to changes in tax bases will be greater than usual in the coming months, with the subsequent adverse impact on public finances.

In the short run, it might be necessary to prolong the fiscal stimulus, focusing it on the agents and sectors most affected by the crisis. There may be a need to extend some of the measures already implemented to address the pandemic, or to introduce new ones. Were this the case, it is essential the decisions adopted should seek to maximise the potential impact of public funds committed and that they be geared to the sectors and groups of firms and households most affected. In the health system, the huge efforts to contain the pandemic have led to the postponement of numerous operations and treatments at all levels, which may require additional funds to absorb them in the coming months. The pandemic has also highlighted a shortage of material and human resources in the fight against the disease. While the system was greatly stretched due to extraordinary circumstances, it would be advisable to study material-supply measures and equipping the system with greater resources if structural shortcomings are identified[20], especially given the risk of possible outbreaks of the disease for some time. In the case of households, a minimum income scheme (MI) has recently been approved to reduce the level of extreme poverty of groups with special structural difficulties. On the business front, extending furlough-like or short-time working schemes over a longer period could be considered for specific activities. And other measures could include the immediate payment of VAT refunds and of general government outstanding payables to suppliers, and the introduction of new liquidity programmes for firms and the self-employed linked to debt receivables from their customers or to overheads on their trading activity.

While in the short term the fiscal response to this crisis should be expansionary, in the medium term far-reaching reforms must be enacted to reduce public debt and restore fiscal policy leeway ahead of future negative shocks. Based on the analytical tools developed by the Banco de España, it is possible to assess

20 In this respect, the second phase of the spending review project entrusted to AIReF, scheduled for completion by summer 2020, envisages analysing hospital-related spending by the National Health System.

the future path of Spanish public debt under different alternative scenarios. In this respect, the exercises conducted in Box 5.1 suggest that, in a hypothetical scenario in which general government were not to make any structural fiscal effort in the next 10 years, the public debt/GDP ratio would, by end-2030, remain at levels far above 100%. The persistence over time of such high public debt levels would reduce the countercyclical room for manoeuvre available to fiscal policy to address adverse macroeconomic shocks. It would also expose the Spanish economy to chronic vulnerability in the face of changes in investor sentiment on financial markets. Further, this high public debt would weigh down on the growth capacity of the economy, in that it would affect its aggregate financing conditions, distorting private-sector investment decisions. Set against a scenario such as that described in which no structural fiscal efforts are undertaken in the medium term, the simulations of Box 5.1 draw on an alternative scenario. Hereunder, if general government were to adopt a fiscal policy consistent with the requirements of the preventive arm of the Stability and Growth Pact (SGP) over the coming decade, public debt/GDP ratio might gradually fall in this period, standing below 100% at end-2030.

To bring general government debt back onto a path consistent with the fulfilment of the SGP commitments, a multi-year fiscal consolidation programme is needed. To reinforce its credibility and effectiveness, this programme should be part of a comprehensive strategy that includes the introduction of growth-capacity-enhancing reforms for the economy and that provide for broader tax bases. Budgetary consolidation could then be undertaken with the necessary gradualism to allow it to run in step with a robust economic recovery.[21] This strategy should link all government tiers with tax-raising powers and be structured around a detailed definition of the budgetary objectives it is wished to attain (along with the timeframes and measures that will be needed to achieve this). Moreover, this programme should be based on a prudent forecast of macroeconomic developments and include a rigorous early-response plan in the event of potential slippage from the objectives set. An essential aspect of any budgetary consolidation programme is the composition of the adjustment in terms of the contributions of the various revenue and expenditure items, whereby it is attempted to minimise the adverse effects on economic growth. While there is no universally accepted blueprint for an optimal composition of public expenditure and revenue, international comparisons with euro area economies offer a useful starting point.

On the revenue side, there is room to re-define the basket of taxes to make it more conducive to economic growth. Tax revenue in Spain, including that relating to social security contributions, is around 2 pp of GDP lower than the euro area average (see Chart 5.7).[22] About 40% of this difference is due to lower VAT takings in Spain, given the high percentage of consumer goods bearing a reduced or super-reduced

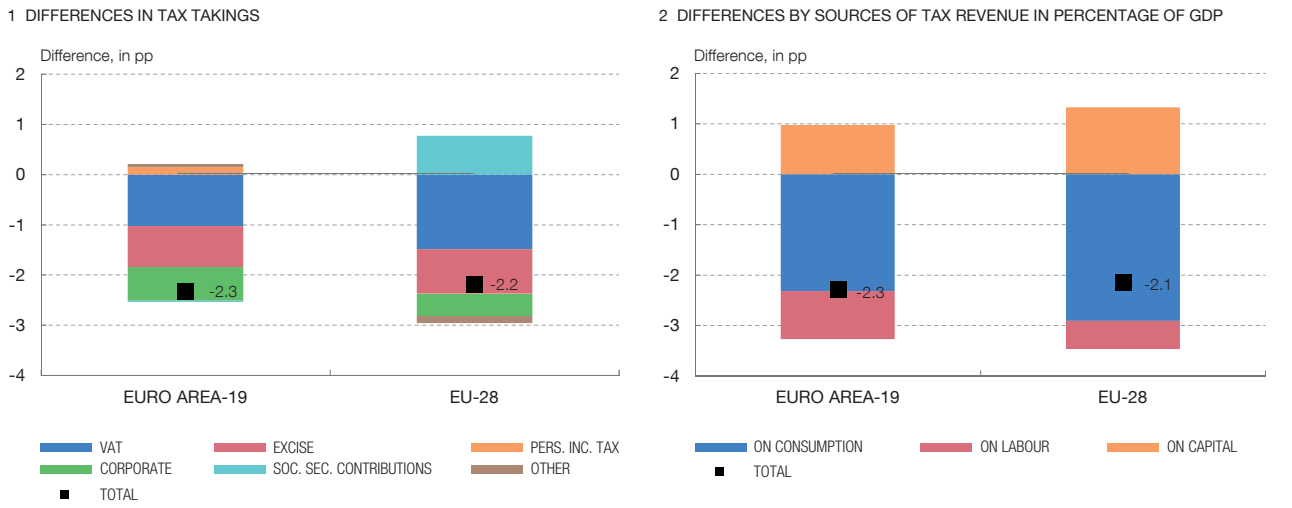
21 See Andrés et al. (2020).

22 See López-Rodríguez and García Ciria (2018).

Chart 5.7

DIFFERENCES BETWEEN THE TAX STRUCTURE OF SPAIN AND THE EURO AREA AND EU AVERAGE IN 2018 (a)

Tax revenue in Spain, including social security contributions, was more than 2 pp of GDP lower than the euro area average in 2018. Around 40% of this difference is due to lower VAT takings, given the high percentage of consumer goods bearing a reduced or super-reduced rate. Excise duties account for around one-third of the difference.



SOURCE: Eurostat 2020.

a The tax take is defined as total tax and social security contributions revenue (excluding imputed contributions), less amounts assessed but unlikely to be collected. The average in the EA-19 and EU-28 is calculated as the arithmetical mean of the Member States' revenue.

DOWNLOAD

rate. Revenue arising on corporate income tax and excise duties each account for around 30% of the difference. In the case of the latter, the lower revenue is due largely to the low taxation of hydrocarbons in Spain and, to a lesser extent, on tobacco and alcohol. Personal income tax and social security contributions do not contribute significantly to the revenue gap with the euro area, although it is true that employers' social security contributions in Spain are higher than the European average. Finally, environmental taxation, which includes - alongside some excise duties such as that on hydrocarbons or that on electricity - other indirect taxes, such as that on transport, also stands in Spain at around 0.8 pp below the euro area average.

One distinctive feature of Spanish taxation susceptible to reconsideration is the high level of tax benefits. These benefits, derived from the presence of numerous exemptions, deductions and special reduced rates, frequently give rise to significant forgone revenue and distort the efficiency and fairness of the tax system. The findings of the second phase of the ongoing review of public spending by AIReF (the Independent Authority for Fiscal Responsibility), which explicitly includes the analysis of tax benefits, will make a significant contribution to this much-needed comprehensive review of the efficiency of the tax system.

Currently in passage through Parliament is the draft legislation for the introduction of two new taxes, falling respectively on certain financial transactions and on the provision of digital services. The tax on financial

transactions is to be applied at a rate of 0.2% of the effective value of secondary stock market transactions involving the acquisition of shares in Spanish companies whose capitalisation exceeds €1 billion, irrespective of both where the acquisition is made and of the residence for tax purposes of the parties involved. The Tax on Specific Digital Services will be applied at a rate of 3% of the value of operations providing three types of digital services (the inclusion of advertising services on a digital interface, intermediation in commercial transactions between users and the sale of data compiled on user activity), provided that the provision of the services is by companies whose turnover exceeds €750 million globally and €3 million in Spain.

The revenue-raising capacity of these or other new taxes will be influenced, among other factors, by the degree of fiscal coordination in these areas internationally. The Spanish economy's high degree of international integration, against a background in which certain tax bases can shift with relative ease across jurisdictions, suggests the advisability of attaining some degree of coordination with other countries in introducing certain taxes. The aim here is to prevent the emergence of competitive disadvantages and the delocalisation of certain tasks, with the subsequent adverse impact on economic activity pursued in Spain and, therefore, on tax revenue. In the case of the new tax on the provision of digital services, the OECD-sponsored negotiations currently under way internationally should, as reflected in the draft legislation, serve to set minimum common conditions for the future orderly introduction of this tax. This will be so at least in the main advanced economies, with transposition to Spanish legislation once the conditions are approved. This international coordination drive is also significant with a view to other taxation tools that may affect other areas, such as environmental taxes or those on the activities of certain multinationals.

On the expenditure side, it would be advisable to increase the relative weight of those items relating to human and technological capital accumulation. As already mentioned in sub-section 5.1.1, human and technological capital is one of the key determinants of productivity and long-term growth capacity of the economy. Yet the weight of these items in the Spanish economy, from the standpoint of the public and the private sector alike, is limited. The economic literature has widely documented the potential that public efforts in this field may have for generating positive externalities and multiplier effects on innovation capacity in the private sector.[23] And in this connection, public investment should act as a catalyst in order to increase the mobilisation of private resources in this area (see Box 5.2). Accordingly, bearing in mind the need to prioritise the use of budgetary resources, public investment in innovation should ideally be stepped up, especially in those sectors and processes where complementarity with private-sector activity is higher. This would be the case, for instance, in the digitalisation of the economy and the fight against climate change.[24]

23 See, inter alia, Fournier (2016) and European Commission (2017).
24 See Dechezlepretre and Popp (2015).

For a greater provision of resources in specific areas to be compatible with the necessary correction of budgetary shortfalls, it is necessary to set out a clear map of priorities and improve the efficiency of public spending under every heading. In the years ahead it will not only be necessary to increase the weight of certain public investment items and tackle the challenges arising directly from the pandemic; other major challenges already in place before the crisis will also need to be addressed. These include most notably population ageing (see Sub-section 5.1.4) and climate change, and the transition to a more sustainable economy, which will significantly affect certain public revenue and spending items (see Sub-section 5.1.6). As a result of the foreseeable increased pressure on public resources, the need for fiscal consolidation makes improving efficiency on the expenditure side and reducing resources for non-priority items in light of the economy's and Spanish society's more significant needs vital. This calls for an ambitious structural reforms package, and an ongoing and painstaking assessment of public policies that enables the efficiency of greatly stretched budgetary resources to be maximised. In this respect, the conclusions of the first phase of AIReF's public spending review last year highlight the presence of ample headroom to improve the efficiency and effectiveness of key expenditure components such as those on pharmaceuticals, subsidies and active labour market policies. It is important that the previous recommendations by this authority, along with those stemming from the review currently under way, be taken into account as soon as possible in the budgetary process.

5.1.4 Population ageing

Population ageing is one of the biggest challenges the Spanish economy will have to face, from both a short and long-term perspective. The extraordinary scale of this challenge stems not only from the magnitude of the demographic changes under way, but also from the numerous implications these changes will have in terms of the economy's growth capacity, the labour market and fiscal policy, among other areas.[25]

Demographic change is a challenge affecting most of the advanced economies. But it is a process that will have a particular bearing on Spain. On Eurostat figures, the dependency ratio (which measures the over-65s in proportion to the population aged 15-64) currently stands at 29.5% in Spain. This ratio is 31.4% lower than that of the EU as a whole and that of 16 of its Member States. However, Eurostat's projections show that, in the next 25 years, the dependency ratio will increase by more than 25 pp in Spain to 56.1% (see Chart 5.8.1). According to Eurostat, Spain will be the EU country that undergoes the biggest increase in this ratio and, in 2045, only Italy, Greece and Portugal will have a higher dependency ratio (the European average will stand at 49.8%).

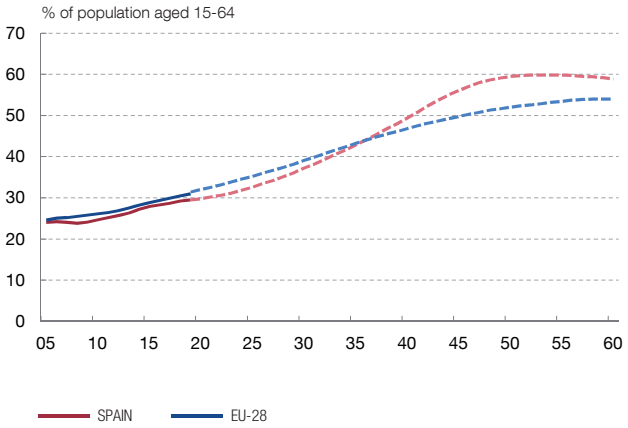
25 See Banco de España (2019b).

Chart 5.8

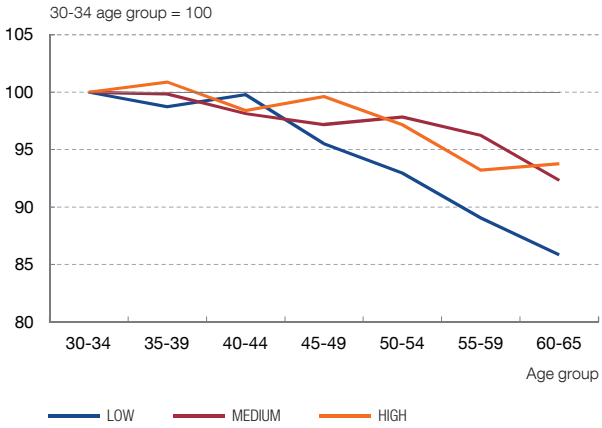
POPULATION AGEING IN SPAIN

According to Eurostat projections, in the next 25 years, the dependency ratio will increase by more than 25 pp in Spain to 56.1%, the largest rise among EU countries. People's physical and cognitive skills worsen over time, entailing a reduction in their productivity and added difficulty when performing specific tasks. It is vital to reinforce the role of active employment policies and lifelong learning for this group.

1 CHANGE IN DEPENDENCY RATIO
(population +65 / population 15-64)



2 PIAAC SCORE IN MATHEMATICS BY LEVEL OF EDUCATION (a)



SOURCES: Social Security, INE, Eurostat and PIAAC (OECD 2013).

a "Low" means secondary school education or lower, "Medium" means above secondary school education but below university level, and "High" means university education or higher. The bars represent the estimated coefficient of a regression indicator for each of the age groups (50-54, 55-59 and 60-65) that includes other control variables. The dependent variable is the use of skills at work index. The regression includes gender, level of education and dummy variables for sector of activity, job and age group.

DOWNLOAD

Among the prominent determinants of population ageing in Spain are the increase in life expectancy and the decline in the fertility rate. Globally, Spain has one of the highest levels of life expectancy. Specifically, on the latest Eurostat data, a Spaniard's life expectancy was 83.5 years in 2018, higher than that (81 years) for the EU as a whole. Set against this clearly positive aspect, the fertility rate in Spain, at scarcely 1.26 children per woman, is very low compared with other European countries. This rate is, moreover, at some distance from the fertility rate women of childbearing age *would wish for* (1.96 children per woman)[26]. This evidence suggests dual needs: to analyse in detail the role that various factors are playing in influencing the decision to have children; and to assess the advisability of introducing additional measures to promote work-life balance, to step up support for families and to increase opportunities in the labour market, especially for young women with children, since it is they who are frequently most affected economically by the decision to have children.[27]

Population ageing has notable implications in the fiscal policy arena. Both public revenue and public spending will be extraordinarily affected in the coming

26 See Encuesta de fecundidad, INE 2018.
27 See de Quinto *et al.* (2020).

years as a result of population ageing. Any medium-term budgetary plan and fiscal consolidation strategy must be mindful of this aspect. As regards public revenue, the composition of tax bases and, therefore, the revenue-raising capacity of the current tax system will be greatly affected by demographic change. Household consumption, saving and investment decisions change appreciably over their life cycle. Likewise, there are very significant differences in the level and composition of individuals' income and wealth based on their age. In particular, the return on previously accumulated assets usually accounts for a higher proportion of the income of older households than of younger households, whose labour income has a greater relative weight. Given that for many assets the taxation on saving is below that on employment income, this aspect will result in a lower aggregate tax take as a consequence of ongoing population ageing, unless the current tax structure is adjusted. Further, insofar as household income normally dips when retirement age is reached, the progressivity of personal income tax will also entail lower tax revenue.[28]

Increased longevity and the fact the baby boomer generation is on the verge of retiring will exert considerable upward pressure on public finances. According to the latest Eurostat figures, for 2018, spending on health and on social protection in Spain, which includes transfers associated with retirement, survival and disability, inter alia, totalled 22.9% of GDP that year. The weight of these items in GDP will increase in the coming years. Thus, for example, the European Commission's 2018 report on ageing forecasts that, in 2050, spending on health and on long-term care will be almost 2 pp of GDP higher than that recorded in 2016.[29]

Demographic pressure poses the need to introduce additional measures to strengthen the financial sustainability of the public pension system. The recent decisions to revalue pension benefits on the basis of the CPI and to suspend application of the sustainability factor have entailed, in practice, the withdrawal of two important adjustment mechanisms. These had provided for countering the impact on pension spending of the expected increase in the dependency ratio in the coming years.[30] Against this background, ensuring the financial viability of the public pension system will call for a rigorous debate. Discussions will have to address the level of benefits that the system should provide and how to mobilise sufficient funds to afford them. Insofar as a greater need for resources may entail a heavier burden for the present and future younger generations, the discussion should take into account not only the cohorts closest to retirement age, but also the young, establishing basic parameters of intergenerational fairness.

28 See Ramos (2019).
29 See European Commission (2018a).
30 See Arce (2019).

It would be desirable to strengthen the link between contributions made and benefits received, while always ensuring a level of sufficiency for less well-off households. Generally, establishing automatic adjustment mechanisms helps stabilise the system, adapting it to demographic and economic changes. In this respect, and precisely to ensure the sustainability of the system, several EU countries, namely Germany, Sweden, Italy and Portugal, have already established a link between the level of benefits or retirement age and life expectancy. Such options might be worth considering in Spain's case. Also, the advisability of promoting private saving mechanisms complementing the public system should be assessed. Their presence in Spain is very limited compared with what is observed in other northern European economies.[31]

Population ageing also poses key challenges in terms of the potential growth of the economy through its impact on the labour market and worker productivity. The labour market participation rate declines for ages close to retirement. Part of this is because people's physical and cognitive skills worsen over time, entailing a reduction in their productivity and added difficulty when performing specific tasks (see Chart 5.8.2).[32] Avoiding this downturn in the employability of workers as they age and, therefore, in the economy's growth potential is particularly important at present. In addition to far-reaching demographic changes, we are witnessing a most intense process of technological change, which requires increasingly greater levels of numeracy, data management and the adoption of digital technologies. In this connection, it is vital to reinforce the role of active labour market policies and lifelong learning.

Prolonging the working life of older workers may also require changes in working conditions. It would particularly help if firms were to attempt to promote teleworking in those cases where it is a possibility. On the evidence available, teleworking, the roll-out of which has accelerated very significantly since the current crisis broke (see Section 5.2), is seen as more attractive and is used more frequently precisely by older workers. It would also be advisable to reconsider working conditions so they might smooth cross-occupational switches by workers during their career, since they have been demonstrated to help increase productivity and allow for longer labour market participation.[33]

As with many other challenges, population ageing also poses new opportunities that should not be dismissed. In particular, demographic change offers possibilities for the development of certain sectors in the medium term. These include most notably health, recreation, tourism, real estate and finance. In this respect, Spain enjoys a favourable starting point to compete in the provision of services intended

31 See OECD (2019b).
32 See Anghel and Lacuesta (2020).
33 See INE (2020) and Hudomiet *et al.* (2020).

for the elderly (what has been called the "silver economy"[34]). This is in light both of our special geographical and cultural conditions, and the pattern of sectoral specialisation developed in recent years. Harnessing these new opportunities will require a flexible, nimble approach, on the part of the public and private sectors alike, and the pursuit of continuous improvements in quality and efficiency in providing the goods and services that a more aged society demands.

5.1.5 Inequality

The global financial crisis gave rise to a significant increase in wage income inequality in Spain. The robust and uninterrupted economic growth phase that ran from late 2013 until the pandemic broke a few months ago enabled almost 3 million jobs to be created and a notable reduction in the unemployment rate. That contributed significantly to easing income inequality in Spain. However, the improvement in the main inequality indicators has been relatively limited, to the extent that the Spanish economy and society are facing the COVID-19 crisis from a starting level in terms of inequality that is clearly above that in place at the end of the expansionary cycle prior to the 2008 crisis (see Chart 5.9).

Notable among the groups most affected by the increase in inequality are the young. Thus, for example, the level of income of the under-35s in 2018 was still 20% below its 2007 level. This has essentially been the result of the reduction in the average duration of temporary contracts for the young, something excessively frequent in this group, and of the increase in the degree of involuntary part-time working, in many cases.[35]

The crisis is bearing down more sharply on the most vulnerable groups, which will foreseeably entail a further increase in inequality levels. Both in Spain and in other EU countries, it has been documented that, among the employed in the sectors most affected by the social distancing measures implemented to contain the pandemic, the proportion of women, youths and the less-skilled, the lowest-paid, the inexperienced and those on temporary contracts is particularly high. In Spain there is in these sectors, moreover, a higher percentage of employees with limited financial assets with which to withstand a decline in labour income (see Box 4.2).[36]

Along with youths, women are another of the groups being most affected by the crisis. A survey conducted in May in Spain revealed that, unlike in the previous economic crisis, since the start of this crisis 11% of women have lost their jobs, compared with 8% of men. The percentage of women put on short-time working

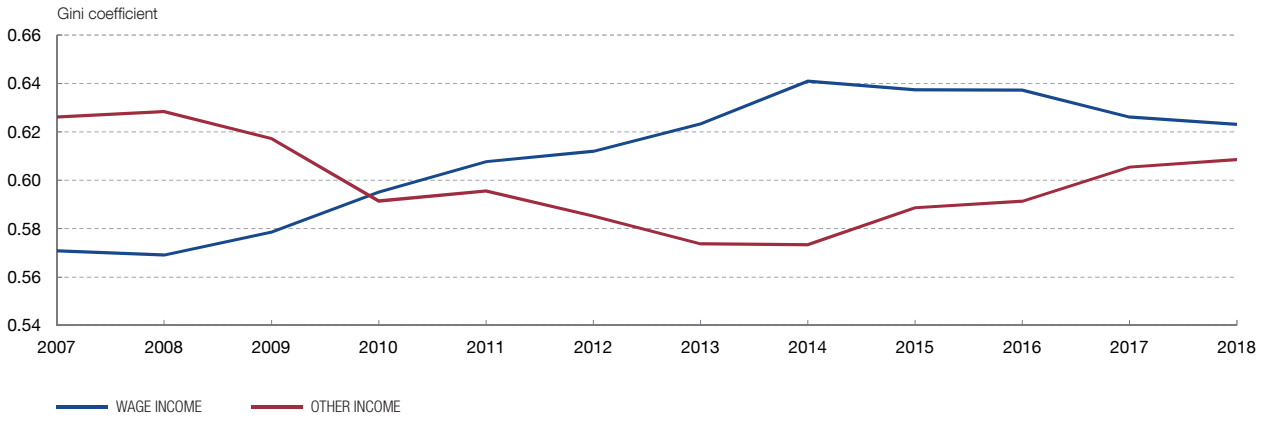
34 See European Commission (2018b).
35 See Puente and Regil (2020).
36 See Adams-Prassl *et al.* (2020) for the United Kingdom.

Chart 5.9

INCOME INEQUALITY IN SPAIN

Despite the decrease in income inequality in recent years, the Spanish economy and society are facing the COVID-19 crisis from a starting level in terms of inequality that is clearly above that in place at the end of the expansionary cycle prior to the 2008 crisis.

GINI COEFFICIENT OF TOTAL HOUSEHOLD WAGE INCOME AND OTHER HOUSEHOLD INCOME (a)



SOURCE: INE (Survey of Income and Living Conditions).

a Other income includes: self-employed income, capital income, income of children under 16, old-age benefits and survivors' benefits, other social welfare benefits, unemployment benefits and transfers from other households.

DOWNLOAD

schemes (25%) was also higher than that for men (19%).[37] Further, women devote on average more time than men do to childcare. In this respect, it should be borne in mind that the gender wage gap begins to be discernible precisely at the time care for the first-born begins, and it persists over time.[38]

Against this backdrop, support measures must be taken to protect the groups most affected. As discussed elsewhere in this Report, one of the key objectives of economic policy in the current circumstances is to prevent the eminently transitory shock caused by the pandemic from ultimately exerting permanent effects on the economy. Successfully attaining this goal will inevitably involve tackling the adverse effects the crisis may cause to activity through an excessive increase in inequality. Here there is abundant empirical evidence suggesting that excessive inequality may adversely and permanently influence not only the degree of social cohesion, but also spending, investment and human capital accumulation decisions in the economy as a whole. In other words, excessive inequality frequently weighs down economic growth and its sustainability.[39]

The employment protection and household income support measures enacted by the government in response to this crisis will contribute to lessening the

37 See Farré *et al.* (2020).
38 See De Quinto, Hospido and Sanz (2020).
39 See Banerjee and Duflo (2003).

vulnerability of the households most affected by it (see Section 4.3). Insofar as some of the adverse effects of this crisis may extend over time, it would appear appropriate to maintain some of these employment and income support measures for the most vulnerable households over a longer horizon than initially envisaged. However, when it comes to extending these measures, it is vital to retain their attendant focus and planned timeframe. In this connection, it must be sought to prevent these support measures from ultimately delaying inefficiently the structural adjustments needed in certain sectors and firms (e.g. in the case of short-time working arrangements) or permanently distorting the labour market participation decisions of certain groups (e.g. in the case of certain subsidies).

More permanently, the recently approved minimum income scheme (MI) can be a useful tool for reducing the level of extreme poverty of groups with special structural difficulties. Here it will be essential, as with any other economic policy measure, that the MI's functioning, cost and the fulfilment of its stated goals be continuously and rigorously monitored. In particular, it is important at present to assess how this instrument may overlap with other forms of assistance already available at the central, regional and local levels, for the purposes of ensuring efficiency in the use of public funds across all tiers of government. It must also be clear whether the eligibility requirements laid down in its current design (such as those relating to the need to be registered with the Public Employment Service) exclude certain vulnerable groups from assistance, or whether other requirements can be recalibrated to provide a more precise picture of the genuine degree of need of the beneficiaries. Such is the case with the asset-holding thresholds, which should possibly include some type of information requirement about the applicant's level of debt. Moreover, there should be close monitoring of whether this instrument, as it involves a permanent transfer, may ultimately prompt unwanted effects, e.g. in terms of the future income-generating capacity of beneficiaries or of a possible switch from certain economic activities to informality. In this respect, as set out in the Royal-Decree Law, it will be necessary to assess the effectiveness of some of the measures envisaged in order to prevent these unwanted effects, such as the temporary maintenance of at least a portion of the subsidised amount when the beneficiary finds work.

In any event, the MI does not replace the role of other tools that can act as automatic stabilisers and generally soften adverse household income shocks. Thus, for instance, in recessions like the present, there will probably be groups most adversely affected but who do not meet MI eligibility conditions. For example, for those unemployed whose unemployment subsidies are running out, but who do not meet the requirements for the MI, it might be necessary to approve further extensions of these automatic stabilisers, with the possibility of allowing some compatibility with work during the initial months after restarting work.

Reducing the adverse effects of inequality does not only require income support policies for the underprivileged, but also action on many different

fronts. To the extent that one of the main determinants of the vulnerability of the young is the excessive use of temporary contracts in the labour market and the marked duality between permanent and temporary employees, labour market regulations should be reviewed in line with the proposals considered in Sub-section 5.1.2. One significant area in which considerations of fairness should be taken into account is that of future reforms to the public pension system, discussed in Sub-section 5.1.4. In particular, any changes to be made to the system should be designed such that both the costs and benefits generated are shared fairly among the cohorts that are currently beneficiaries of the system and the younger generations.

Another area where action is called for is housing affordability. In recent years, conditions have become harsher in terms both of owner-occupied housing and, in particular, rental housing.[40] This phenomenon particularly affects vulnerable groups, such as the young, and may even adversely influence aspects such as the rate of new household formation, the fertility rate and regional mobility decisions. Once again, some of the aforementioned shortcomings of the Spanish labour market will have influenced these observed dynamics in the housing market. And the surge in rental prices in recent years, particularly so in specific cities and regions that have witnessed strong increases in demand, will also have been a contributing factor.[41] In this setting, priority should be given to those public policies aimed at promoting a sustained increase in the supply of rental housing.[42] Likewise, a stable regulatory framework that ensures legal certainty is needed, so that property owners may have sufficient incentives to offer their properties on the rental market.

5.1.6 The transition to a more sustainable economy

Climate change and the transition to a more sustainable economy is one of the main challenges now facing our society. This truly global challenge affects all social and economic agents, and calls for a deep-seated transformation of our methods of production and consumption habits.

In recent years, both the EU and Spain have taken an active stance in combating climate change and, in particular, in favour of the implementation of the Paris Agreement.[43] In late 2019, the European Commission unveiled the European Green Deal[44], which includes a broad package of measures to attain climate neutrality in the EU in 2050 and raises the emissions-reduction target for 2030. Further, the EU has taken the lead in the search for internationally coordinated action to tackle

40 See López-Rodríguez and Matea (2019).
41 See Álvarez and García-Posada (2019).
42 See López-Rodríguez and Matea (2020).
43 This agreement seeks to prevent global warming from being 2ºC higher, taking pre-industrial levels as a basis, and to step up efforts to confine its rise to aound 1.5ºC.
44 See "A European Green Deal", (European Commission).

climate change. As regards Spain, last May the Government sent the first draft Climate Change and Energy Transition Law to Parliament. As in the European case, this draft legislation sets ambitious environmental targets. In particular, the plan aims, by 2030, to achieve a 20% reduction in greenhouse gas emissions relative to the 1990 level (entailing a 33% reduction from the 2017 level), a 35% improvement in energy efficiency and a share for renewable energies in total final energy consumption of 35%. Further ahead, the aim is to achieve climate neutrality no later than 2050 and that the electricity generating system is 100% renewable.

Attaining these goals will call for a comprehensive and internationally coordinated strategy. The strategy should seek to provide for investment in less polluting technologies, to avoid regulatory uncertainty and to minimise the risks of delocalising activity and adaptation costs. According to some studies, there appears to be a majority in Spanish society who are mindful of the risks of not taking immediate action in combating climate change and who are prepared to assume certain costs that may arise from such action.[45]

Fiscal policy can and should be to the fore in managing the transition to a more sustainable economy. It is governments and parliaments, the depositories of the popular will, that have the necessary legitimacy to set out the path for this transformation. Moreover, they have the most appropriate instruments to implement it. Indeed, setting and calibrating taxes and subsidies so that private and social marginal costs even out is the most efficient means whereby economic agents may internalise the environmental impact which their activities cause. In this respect, environmental taxation should be centre-stage in tackling the challenges of climate change.

Various initiatives under discussion are along these lines. Thus, for example, the main tool envisaged in the European Green Deal to achieve the goals proposed is the Emissions Trading System (ETS). The aim of the ETS is to set a price for emission allowances that acts as a deterrent to carbon use in favour of less pollutant energies. In 2019, the price of these allowances held at levels still at some distance from the references some agencies consider appropriate for attaining the objectives of the Paris Agreement. With the aim of closing this gap, the European Green Deal extends the ETS to more sectors in the economy, such as transport, the maritime sector and construction, and reduces at a greater pace the volume of issues permitted within the system. As a complement to the emissions system, the Commission has also proposed the introduction of an at-border adjustment to the cost of carbon to prevent firms from transferring their production to countries with less demanding environmental regulations. Other initiatives are geared to reducing emissions in the transport sector, eliminating subsidies for the use of fossil fuels and tightening car pollution regulations, along with promoting recycling and innovation in clean technologies. In any event, it is worth highlighting that, in respect of environmental taxes, there are currently

45 See Lázaro-Touza et al. (2019).

notable national differences within the EU, both in terms of the type and scope of the instruments used. Looking ahead, it would be advisable to increase the degree of European harmonisation in the use of environmental taxes.

The role of fiscal policy in combating climate change is not confined exclusively to the tax role: increasing public investment will be vital. Thus, for example, although the European Green Deal seeks to mobilise investment worth €1 trillion in 10 years (approximately 0.5% of European GDP per annum), the European Commission's own estimates suggest that achieving the EU's climate goals would still require an additional annual investment equivalent to 1.5% of European GDP. As mentioned in Sub-sections 5.1.1 and 5.1.3, it is precisely in innovation projects, such as those relating to the development of cleaner and more efficient new technologies, and at times of uncertainty, as at present, when public investment must act as a catalyst. In that way it is liable to generate significant multiplier effects and positive externalities both on private-sector investment and on the overall economy's growth potential.

Some fiscal policy instruments could also be used to compensate those agents that may be adversely affected in this ecological transition process. Economic policy should acknowledge that, in the transition to a more sustainable economy, there will be population groups, regions and sectors whose well-being will inevitably be diminished, at least in the short term. In particular, attaining the climate goals will require very different efforts by the different sectors of activity. In this respect, it is imperative that those agents or sectors more vulnerable to the measures in place to tackle climate change be properly identified, and that effective and efficient policies be implemented to mitigate the potential adverse effects on them. One possibility would be to use the environmental tax revenue obtained to smooth the process of adjustment for these groups in the short term.

The financial sector is also called on to play a key role in the transition to a more sustainable economy. It is crucial here that the sector should incorporate into its decision-making process all climate change-associated risks, physical and transition-related alike, and identify the opportunities opening up in this transformation. Only by properly assessing these risks and opportunities may the financial sector contribute to the swift and efficient shift in resources between savers, sectors and firms that the transition to a more sustainable economy requires.

Supervisors must ensure that banks correctly price the risks associated with climate change and incorporate them into the management of their portfolios. Many initiatives are under way along these lines.[46] In particular, supervisory guidelines are being drawn up in order to align the approach different banks are using to treat

46 See Banco de España (2019b) and Delgado (2019) for a recent analysis of the consequences of climate change for the financial system and the initiatives by financial regulators in this area.

these risks. Many supervisors (including the Banco de España) are also developing environmental stress tests. Their aim is to introduce them in the coming years and analyse the consequences the financial institutions of different scenarios entailing changes in the structure of the economy.

Spanish credit institutions are moderately exposed to the sectors of activity potentially most affected by transition risks.[47] In particular, lending extended by Spanish banks to these sectors account for around 24% of their portfolio of loans to productive activities (see Chart 5.10.1). Since the global financial crisis, the non-performing loans ratio in these sectors has been lower than that observed in other productive sectors (see Chart 5.10.2). This would partly be the consequence of some of the sectors most exposed to transition risks posting above-average unit profits. To the extent that, as part of the ongoing transition to a more sustainable economy, these sectors are obliged to internalise the environmental costs they generate, they could see their profitability differential decline, while their perceived credit and market risk would rise in relation to that of other sectors of activity. Credit institutions must take these considerations into account.

Supervisors must also collaborate in developing the capital markets infrastructure that the transition to a more environmentally sustainable economy demands. The aim is for these markets to have the necessary instruments to be able to complement credit institutions in the enormous process of cross-sectoral and cross-firm reallocation of financing that the ecological transition entails. It is worth noting here that financial markets are progressively developing debt instruments linked to the so-called "green economy". Currently, investor demand for this type of product exceeds supply, which has contributed to these instruments enjoying something of a "green premium", which recently appears to be increasing. In collaboration with other institutions and with financial market players, supervisors should contribute to the development and international harmonisation of a sufficiently dynamic and detailed taxonomy. Such a taxonomy would add transparency to those activities (and products) that contribute to the transition to a low-carbon economy, and those that are more exposed to climate change risks. In this respect, the EU Taxonomy for sustainable activities, which will come into force shortly, is a landmark. It is the result of cooperation by a wide range of institutions and financial market participants in order to bring forward "green" debt products with a view to the future.[48] Supervisors should also play a key role in the initiatives under way that are seeking to develop a robust and internationally consistent framework for the dissemination of financial information relating to climate matters.

---

47 This category includes those sectors of activity whose annual CO2 emissions exceed 0.11 kg per euro of value added. This group includes several transport segments, electricity production, oil refining, the chemical industry, metallurgy, the manufacture of non-metallic products, paper, timber, food, textiles and agriculture. Overall, these sectors account for 20% of the Spanish economy's value added and 18% of employment. It is important to highlight that not all the firms in the sectors are equally pollutant.

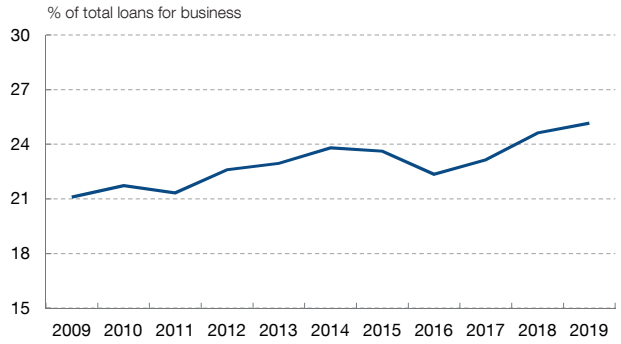
48 See EU taxonomy for sustainable activities.

Chart 5.10

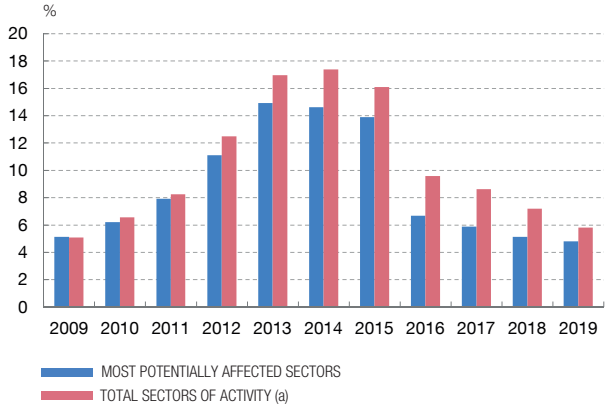
THE BANKING SYSTEM AND CLIMATE CHANGE-RELATED RISKS

Loans granted by Spanish institutions to the sectors of activity potentially most affected by the energy transition risks account for around 24% of their loans-for-business portfolio. Furthermore, the NPL ratio in these sectors of activity has, since the global financial crisis, been lower than that recorded in the other productive sectors.

1 EXPOSURE OF THE SPANISH BANKING SYSTEM TO THE SECTORS OF ACTIVITY POTENTIALLY MOST AFFECTED BY THE ENERGY TRANSITION RISKS



2 NPL RATIO BY SENSITIVITY OF THE SECTORS OF ACTIVITY TO THE ENERGY TRANSITION RISKS



SOURCE: Banco de España.

a Excluding construction and real estate development activities.

DOWNLOAD

Financial regulation and monetary policy could also contribute to the transition to a more sustainable economy, but only insofar as this does not interfere with the fulfilment of regulators' and policymakers' primary objectives. Under consideration is the possibility that central banks, within the financial regulation and monetary policy framework, could play a more proactive role in the transition to a more sustainable economy. They could do so by penalising the most pollutant sectors or initiatives (dubbed "browning") or by favouring their cleaner counterparts ("greening"). However, the explicit inclusion of environmental aspects in the conduct of these policies should be warranted by the fact that there is a well-identified risk differential between different types of activities (and the related assets) according to their degree of environmental awareness, or because these activities give rise to asymmetric aggregate price dynamics. These considerations, among others, are currently being taken into account in the Eurosystem's monetary policy strategic review. In any event, while this review is ongoing, the Banco de España has already approved the inclusion of sustainability and accountability criteria in its investment policy in respect of the reserves it manages. Also, under its mandate, the Spanish central bank has progressively increased its own holdings of green bonds. Furthermore, it is one of the founding members of the green investment fund set up by the Bank for International Settlements in Basel.

5.2 New economic realities after COVID-19

In addition to inflating some of the challenges previously facing the Spanish economy, the current crisis also poses new ones. This crisis has, in particular, revealed vulnerabilities linked to the notable international fragmentation of production processes via the so-called global value chains (GVCs), one of the linchpins of the ongoing globalisation of the world economy in recent decades. The health crisis has also prompted significant changes in agents' patterns of behaviour. Examples of this are household consumption habits and the organisation of work within firms, which might considerably alter the future pace of the ongoing digitalisation of the economy. The response to these new vulnerabilities and the extent to which the changes recently observed in agents' behaviour prove to be permanent may have very considerable implications for economic activity in the medium and long term, not only in Spain but globally (see Figure 5.1).

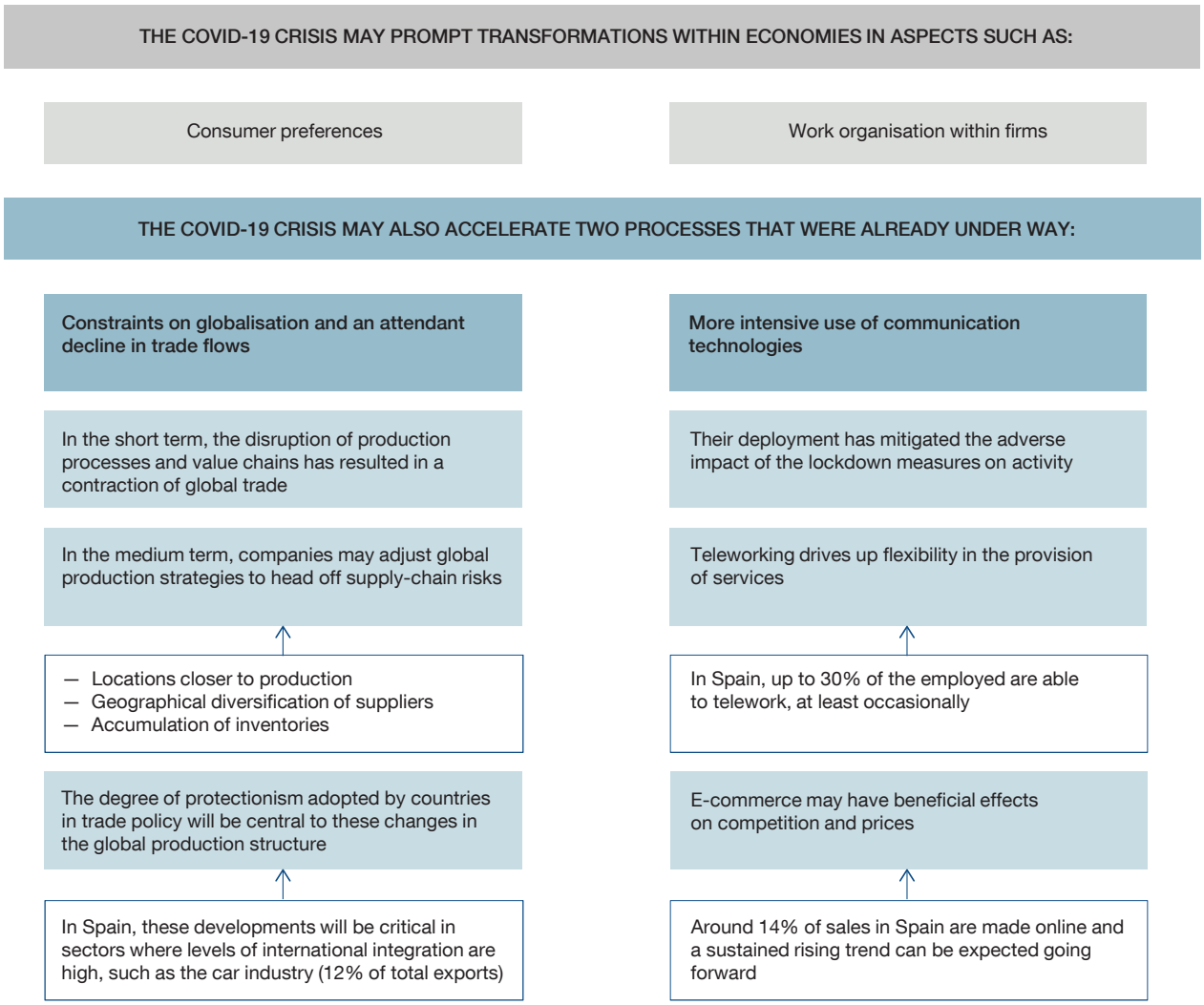
The crisis has highlighted some of the vulnerabilities associated with globalisation. Over recent decades, against the background of a favourable regulatory environment, firms have tended to relocate some of their production to other countries and to supply themselves with inputs on international markets pursuing cost savings and efficiency gains. Hence, at present, global value chains account for almost half of all world trade.[49] At the same time, in order to fully harness different economies' asymmetries in the pattern of productive specialisation, the production of certain final goods has been significantly delocalised, and in some cases concentrated in a few international suppliers. In a productive and trade environment such as that described, and set in an incomplete global governance framework like that set out in Section 3.2, the outbreak of the health crisis has evidenced certain frictions affecting the proper functioning of national economies. These frictions would appear to be linked to the extraordinary dependence of many economies and sectors on international trade flows with a view to maintaining domestic production in specific sectors of activity or to meeting domestic demand for certain products. Specifically, as a result of the pandemic there have been major disruptions in global supply chains that have conditioned production in sectors such as the car industry, one of great importance for the Spanish and European economies. In many countries, too, major shortcomings have been observed in meeting minimal levels of domestic demand in the case of specific essential consumer and health-equipment goods.

It cannot be ruled out that, in light of these vulnerabilities, some national authorities may seek to reduce their dependence on imported inputs and final goods and to boost domestic industry in specific sectors. Likewise**,** albeit at the expense of some loss of efficiency, some firms might opt to switch some phases of production to the parent company or to closer locations, sourcing supplies to a

49 See World Bank (2020).

Figure 5.1

POST-PANDEMIC GLOBAL TRANSFORMATIONS AND THEIR IMPACT IN SPAIN



SOURCE: Banco de España.

greater extent in the domestic market or regionally, for example within the European Union. They may also choose to diversify their sources of inputs and to build up more inventories to head off supply-chain risks. A generalisation of some of these strategies aimed at reinforcing national production would contribute to slowing even further the process of globalisation in the world economy, in line with what has been observed in recent years, largely as a result of the re-emergence of protectionist trends in some of the major world economies.

It is difficult to anticipate how permanent and intense these global trends and their impact on the Spanish economy will be. But it would be desirable to plan a strategy, ideally in the European context, to contend with the potential developments that may arise in this connection. It should be stressed that, since

the global financial crisis, the weight of Spanish exports in GDP has increased by almost 10 pp. While this should be interpreted as a sign of the strength and competitiveness of our economy, Spain's current greater openness may be a source of vulnerability in a hypothetical situation in which international trade were to slow strongly or global value chains were to diminish sharply. The impact of such a scenario would, probably, be very heterogeneous by sector, insofar as there are major differences as regards export orientation, participation in global value chains and import content (see Chart 5.11). Among the sectors most exposed would be the automobile industry, which accounts for 12% of Spanish exports and is one of the sectors most integrated into international trade. Conversely, in the services sectors, business services and the accommodation and food service activities sector, which account for 5% and 6%, respectively, of exports, have a relatively very low share in global value chains. In any event, these latter sectors will be very sensitive to how much global demand recovers after COVID-19.

The pandemic might also significantly alter the process of digitalisation in which economies and societies worldwide have been immersed in recent years. Unquestionably, Internet-based connectivity between households, tiers of government and firms has been a key tool in recent months for lessening the impact of the lockdown measures adopted in most countries. This has been especially evident in respect of work, where the resort to teleworking has stepped up appreciably; in wholesale and retail trade and in recreational activities, with the expansion of online channels; and in the educational field, where face-to-face teaching has gone virtual in a short space of time for millions of students whose schools and universities were shut down. Some of these trends might prove to be permanent and even accelerate in the medium term, especially those that may entail significant productivity gains or cost savings.

There is potential for teleworking becoming more widespread in Spain, but this option would not necessarily be equally accessible to all groups of workers. The extent of teleworking in Spain is still limited compared with other European economies. In 2018, while 13.5% of those employed aged 15-64 worked remotely in the EU-28, this ratio was only 7.5% in Spain. In this respect, the evidence analysed in Box 5.3 suggests that, when the intrinsic characteristics of each occupation are taken into account, approximately 30% of the employed could telework, at least occasionally. Yet this evidence also reveals that the lesser-skilled and those linked to more basic activities would have greater difficulty benefiting from this mode of working. It would be desirable for this aspect to be taken into account in the design and implementation of active labour market policies.

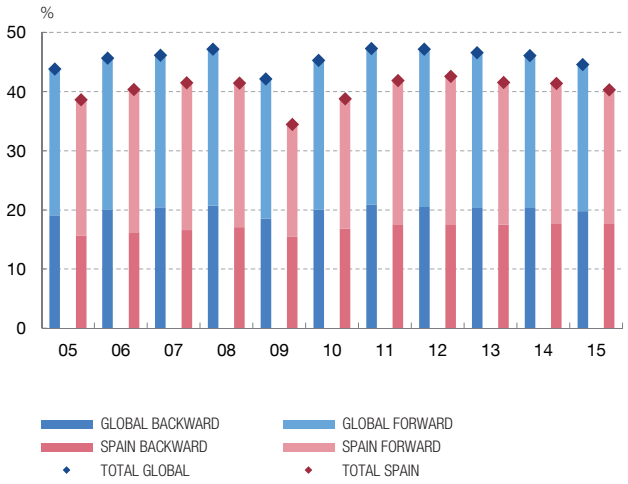
The promotion of teleworking will, however, need to bolster its positive aspects and seek to alleviate its potential disadvantages. It is essential to bear in mind that the possibility of working from home and its potential impact on productivity depend, among other aspects, on the type of work, on the firm's readiness to allow

Chart 5.11

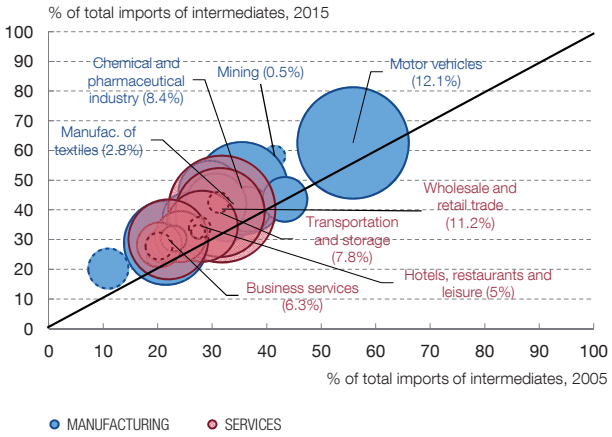
RECENT TREND IN GLOBAL VALUE CHAINS

Participation in global value chains (GVCs) is measured as the percentage of total value added of exports crossing at least two international borders. Backward participation refers to the ratio of foreign value added and forward participation refers to the ratio of domestic value added that direct importers will in turn include in their exports. Chart 5.11.2 illustrates the trend in the percentage of inputs imported by a sector that are re-exported following transformation in the Spanish economy. 2005 is compared with 2015, and a widespread increase is recorded in all sectors of activity. The bubble's size reflects the weight of the sector as a percentage of Spain's total exports.

1 GLOBAL AND SPANISH PARTICIPATION IN GLOBAL VALUE CHAINS



2 IMPORTS OF INTERMEDIATE INPUTS INCLUDED IN EXPORTS



DOWNLOAD

SOURCES: OECD, Trade in Value Added (TiVA) - December 2018.

this activity to go ahead and on each employee's capacity to work remotely. In this respect, some studies have already noted that if the appropriate conditions are not in place, teleworking-related productivity might be lower than that involving workplace attendance.[50] Likewise, the findings of different surveys suggest that, although teleworkers usually view favourably the prospect of not incurring commuting costs (time and money) and the flexibility of being able to work at different points in time and in different places, teleworking might have some adverse effects in terms of occupational health.[51]

Foreseeably, e-commerce will continue to gain in importance in the coming years, with very significant and multi-faceted consequences. Even before the outbreak of the COVID-19 crisis, this area of activity had been growing very considerably. In the euro area, according to Eurostat, the share of sales via digital platforms stood at around 14% in 2016, up by more than 4 pp since 2009 (see Chart 5.12). Spain has been party to this trend and shows a digital/total sales ratio similar to that of the euro area as a whole. Looking ahead, after the increase witnessed in e-commerce in some facets during the lockdown, an acceleration in the growth path this activity has been

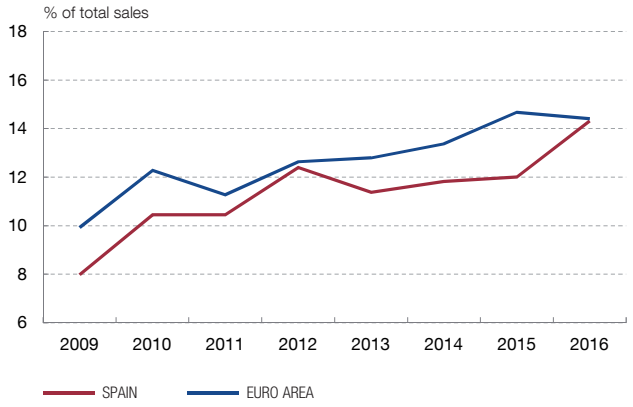
50 See Morikawa (2020).
51 See Tavares (2017).

Chart 5.12

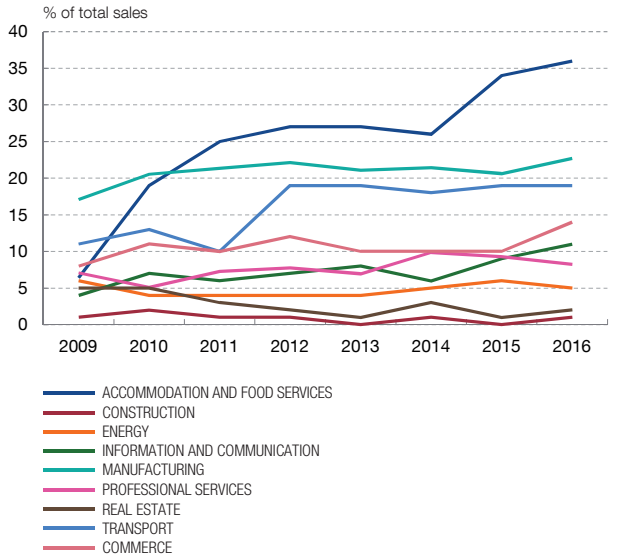
DIGITAL COMMERCE IN SPAIN

In the euro area, the share of sales via digital platforms stood at around 14% in 2016, the last year for which data are available. Online commerce was up by more than 4 pp since 2009. Spain has shown a more marked trend since that year, converging with the euro area average in 2016, albeit with significant differences in the trends posted by each activity.

1 ONLINE SALES IN SPAIN AND IN THE EURO AREA (a)



2 ONLINE SALES IN SPAIN, BY SECTOR OF ACTIVITY (a)



SOURCE: Banco de España, based on Eurostat data (2020).

a The value represented is calculated using an average (weighted by sales) of the companies by region or sector.

DOWNLOAD

moving on in recent years is not to be ruled out. This might entail significant changes, e.g. in business competition and in price-setting dynamics, although the empirical evidence does not yet offer a conclusive response in this respect.

It is necessary to prevent the eminently global and growing digitalisation of commercial transactions from putting the Spanish economy at a competitive disadvantage. As in any other transformation, the greater development of e-commerce in the future will see winners and losers. As part of a comprehensive growth strategy, it will be vital to identify promptly these profiles and to take measures that minimise any potentially adverse effects on the productive system as a whole or on aggregate demand. In principle, the Spanish economy's starting point ahead of this process of transformation does not appear to be unfavourable. Indeed, among other aspects, Spain enjoys one of the best high-speed Internet networks in Europe, with 91% broadband coverage across the country.[52] Conversely, however, the high weight of SMEs in our economy may prove a burden when it comes to harnessing the economies of scale e-commerce offers.

52 According to the CNMC (National Commission on Markets and Competition), in 2018 mobile telephony penetration in Spain was 116.1 lines per 100 inhabitants and, for mobile broadband, 98.6 lines per 100 inhabitants.

5.3 Challenges for the financial sector

Spanish banks continued to improve the quality of their balance sheets and solvency levels in 2019, but profitability fell significantly. In fact, return on equity declined to 7.1% in 2019, below the estimated cost of capital. The bulk of this drop was due to non-recurring factors, such as staff restructuring at some banks, reflected in operating expenses, and impairment of goodwill. In terms of solvency, the Common Equity Tier 1 (CET1) capital ratio for deposit institutions as a whole stood at 12.6% at end-19, rising 35 basis points (bp) in the year, essentially due to the accumulation of reserves. In 2019, the average profit ratio for the main Spanish institutions stood above the EU average, but Spanish institutions ranked last in terms of CET1 ratio (see Chart 5.13). Consolidated assets grew 3.4% last year, driven by activity abroad, while the consolidated NPL ratio improved slightly.

The severe adverse impact of the COVID-19 crisis on economic activity is expected, with something of a lag, to worsen the quality of the financial institutions' credit portfolios. In 2019, the NPL ratio of the resident private sector continued the downward trend of the previous five years and stood at 4.8% (see Chart 5.14), while forbearance as a percentage of total credit likewise declined to 5%. The COVID-19 crisis will foreseeably change this trend (See Box 5.4). Business closures, widespread job losses and, broadly speaking, a decline in borrowers' income will impair loan repayment capacity, although these effects may be cushioned by the support measures provided by the Government to the hardest-hit groups (households and businesses). In particular, the legislative moratoria approved by the Government and those agreed by the credit institution associations would, as a whole, delay the receipt of repayments under these schemes and, in the case of legislative moratoria, likewise of the interest. However, insofar as they comply with the conditions set out in the European Banking Authority's Guidelines,[53] the deferred payments will be subject to specific prudential treatment, meaning they will not automatically be classified as defaulted, forborne or under distressed restructuring. In any event, increased NPL inflows can be expected, as well as complications in terms of the recovery of non-performing loans and the disposal of troubled assets for some time.

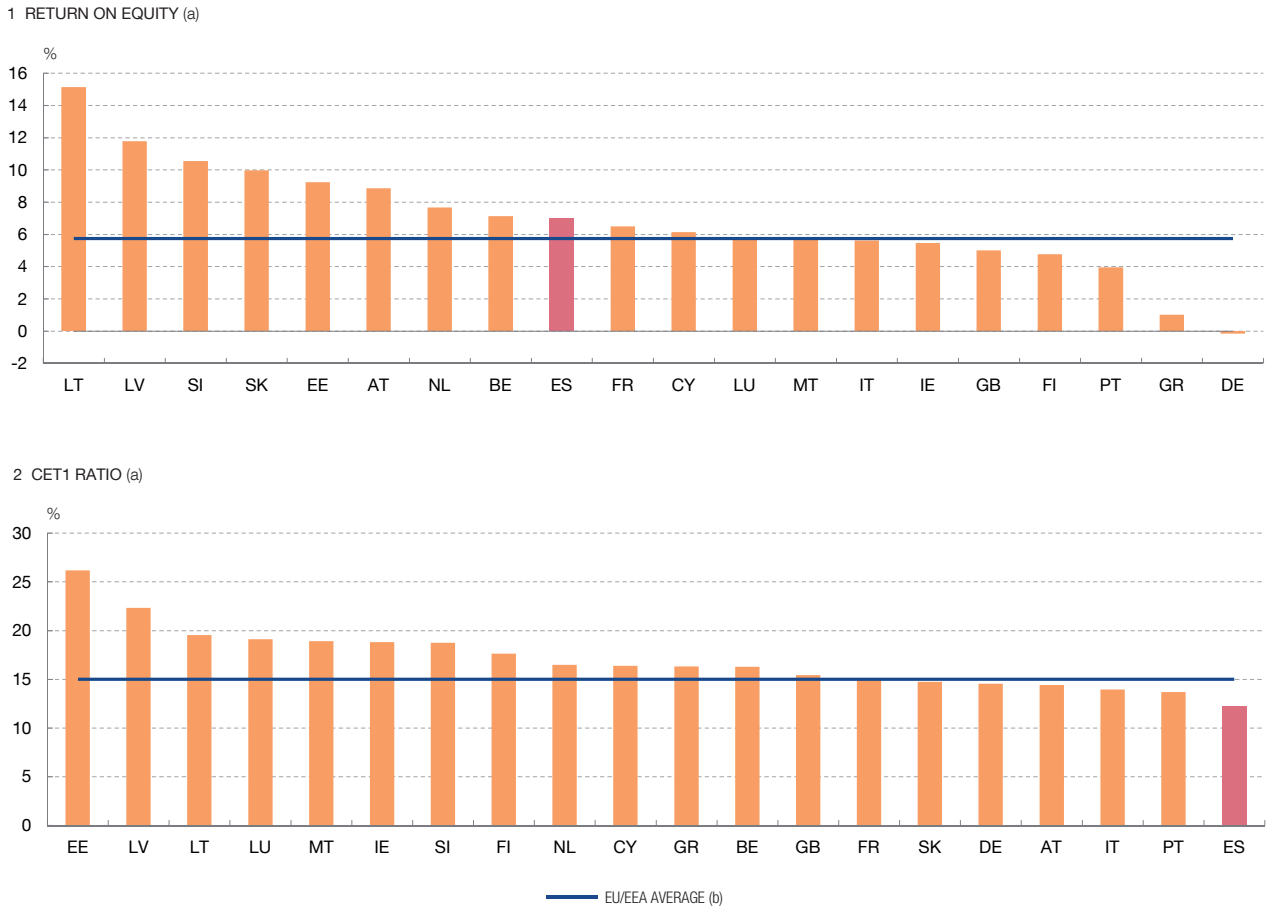
Losses materialising on credit portfolios will exert additional downward pressure on the banking sector's profitability. As has been noted, the average profitability of the Spanish banking system prior to the onset of the crisis stood below the cost of capital. This was also observed in the banking systems of most European countries. The cost of capital has risen during the COVID-19 crisis, associated with greater risk aversion among investors. This will likely be coupled with a decline in profitability, resulting in further widening of the negative spread against the cost of capital. The low interest rate environment - which will probably

53 See European Banking Authority (2020)-

Chart 5.13

THE SOLVENCY AND PROFITABILITY OF SPANISH BANKING INSTITUTIONS

In 2019, the Spanish banking system's position relative to other European systems was favourable in terms of profitability, standing above the EU average, while it ranked last in terms of CET1 ratio.



SOURCE: EBA.

a Consolidated data. December 2019. The data for each country correspond to the sample of that country's institutions included in the EBA Risk Dashboard.
b The EBA data include Iceland. EEA: European Economic Area.

DOWNLOAD

persist for longer than envisaged prior to the COVID-19 crisis - will hinder a profitability recovery through growth in net interest income, although it will help to stem losses from the credit portfolio by easing the debt burden of borrowers. Improving the sector's profitability will therefore require efforts to reduce operating costs, which may be achieved through efficiency gains. Therefore the supervisory authorities must remain vigilant and head off the risks to financial stability stemming from this crisis and be ready to provide a forceful, pan-European response should they materialise.

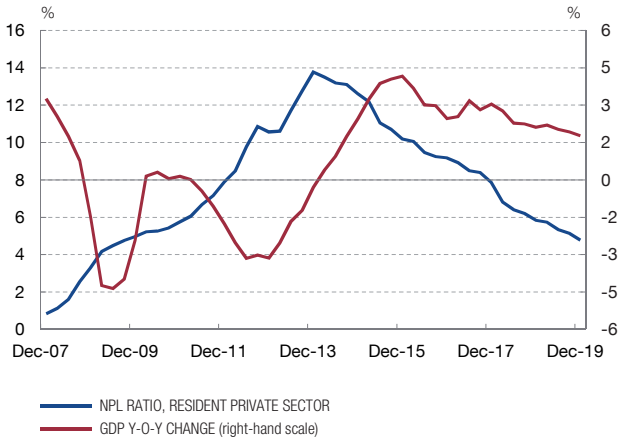
Since the onset of the pandemic there have been no signs of a general tightening of funding conditions for businesses. Indeed, the combination of the measures approved by all authorities and the stance adopted by the institutions

Chart 5.14

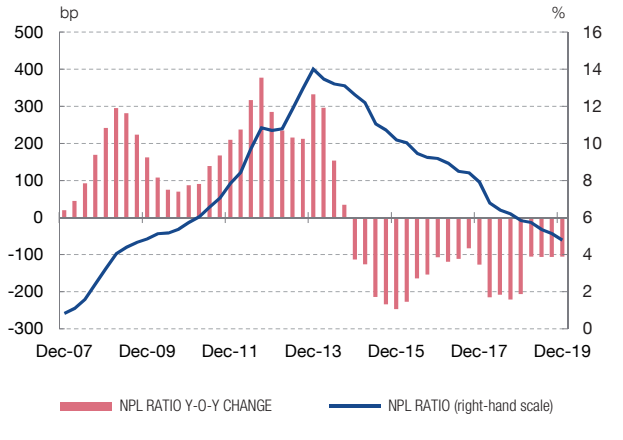
NPL RATIO AND GDP GROWTH

The NPL ratio exhibits pronounced countercyclical behaviour in Spain. During the global financial crisis which began in 2008, the NPL ratio for bank credit rose to a peak of around 14% in late 2013. It has followed a downward trend in the last five years, standing at 4.8% at end-2019. The NPL ratio can be expected to rise in 2020.

1 NPL RATIO AND GDP GROWTH



2 NPL RATIO. LEVELS AND Y-O-Y CHANGE



DOWNLOAD

SOURCE: Banco de España.

themselves is allowing many companies to secure sufficient liquidity to face the current downturn. The latest data for banks' balance sheets reveal a sharp increase in new credit extended to businesses and the self-employed during March and April. However, as noted above, there is likely to be a lag before impairment losses on credit exposures materialise, leading to some erosion of the institutions' capital levels. It is therefore crucial that the capital buffers built up by institutions can be used and that they do not undertake a process of balance sheet reduction during the crisis.

The institutions must have the certainty that capital buffers will be rebuilt very gradually once the crisis has been overcome and financial markets have returned to a situation of relative normality. Under such conditions the cost of capital should be lower, which would be conducive to raising funds on the markets. Certain lessons learned during this crisis must be incorporated into the reconstruction of solvency levels, including greater emphasis on cyclical components that are releasable during macrofinancial crises, such as the present scenario. It is worth recalling that even before the outbreak of the COVID-19 pandemic some of these ratios for the Spanish banking system were among the lowest of the EU's banking systems. Although activating macroprudential measures (such as expanding the countercyclical capital buffer or the limits on indebtedness) can curb economic growth in the expansionary phase of the cycle, the available empirical evidence shows that deactivating or easing the measures during downturns substantially

moderates their scope.[54] Thus, in net terms, the benefits of such actions seem to clearly outweigh their costs.

The health crisis has brought into even sharper relief the urgent need to address certain challenges, such as those associated with digitalisation and cybersecurity risk management. The spread of the pandemic and the resulting confinement have accelerated the activation of remote working protocols and business continuity contingency plans. This underscores the importance of pressing forward with the sector's digitalisation, seeking greater efficiency in the provision of financial services. This process will entail an increase in cybersecurity risk, which institutions will have to manage in order to minimise any adverse impact on their business activities.

In the medium term, further vigilance is required to ensure that the foreseeable continuation of the low interest rate environment does not lead to excessive risk-taking by financial intermediaries. Although the outbreak of the COVID-19 crisis prompted an avid pursuit of safe and liquid assets globally, over time, and once risk aversion dissipates, some investors may once again increase their exposure to risk-bearing assets. Should such risk-taking, which is necessary for the smooth functioning of any economy, become excessive, the financial systems may become more vulnerable to adverse shocks. To rein in any potentially destabilising dynamics, macroprudential authorities must broaden their range of available instruments, particularly in connection with the markets and non-banking intermediaries, where the least headway has been made to date. It is worth noting in this regard that in 2019 the first Spanish macroprudential authority (AMCESFI) was set up and the sectoral supervisors were furnished with additional macroprudential tools. The aim was to enhance the early detection of systemic risk and improve coordination between the different supervisory authorities, against a backdrop of strong interconnection among the financial intermediaries subject to different supervisors.

In the medium term, the Spanish financial system, like those of other European economies, must also address the challenges associated with digital disruption and climate change. BigTech firms, with their capacity to collect, store and analyse vast volumes of data, could potentially begin providing services as financial intermediaries. This might significantly shift the sector's traditional business model. In order to compete with BigTech firms, existing financial institutions will need to invest in new technologies and data processing methods. As has been noted in Sub-section 5.1.6, the financial sector must also play a leading role in the transition towards a more sustainable economy, providing the required volume of funding to facilitate the shift towards a greener economy and including climate and environmental factors in their risk analyses.

---

54 See Banco de España (2020) and J.E. Galán (2020), which uses the growth-at-risk method to measure the costs and benefits, in the European context, of activating and easing macroprudential instruments such as the countercyclical capital buffer.

In the longer term, the financial sector will also face the challenges associated with population ageing, which has important implications in terms of households' demand for financial services. First, population ageing will tend to depress demand for credit, given that households' financing needs are largest during the middle stages of the life-cycle. Second, these trends will generate growing demand for new long-term savings and other products that grant greater liquidity to the wealth accumulated by individuals during their working life to cover living expenses in later life.[55]

5.4 Europe's role: challenges and responses

Many of the challenges facing the Spanish economy can neither be understood nor addressed from an exclusively domestic perspective. Some of them are shared with the other advanced economies, specifically, the European economies. Moreover, in such an interconnected world, national authorities' ability to act and the effectiveness of unilateral measures are relatively limited. This is especially the case of the European Union and the euro area, where, on many fronts, Europe is the optimal platform for taking action.

The nature of the current crisis warrants swift and unequivocal action by the EU to ensure economic recovery and to reaffirm the European project of social and economic progress. The health shock that triggered this crisis is exogenous in nature and unrelated to the greater or lesser structural or cyclical strength of the economies afflicted by it. Even so, its economic impact on Europe's various countries is particularly uneven. This is largely a result of each country's productive specialisation, itself a product of the workings of the Single Market. In this regard, protecting the Single Market also means preventing the pandemic from leading to excessive economic disparity among the members.

The measures approved by the EU Council to provide countries with liquidity, such as the SURE instrument and the ESM credit line, and to support lending to business through the EIB represent important progress, yet they have certain limitations in terms of their force and scope. These measures help to further shore up the European safety net of last resort, but neither in terms of size or nature are they ideal for instrumenting a wide-ranging, common fiscal response. Overall, the three instruments mentioned above will mobilise at most around €540 billion. This figure is relatively small in proportion to the EU Member States' future financing needs resulting from the fiscal policy measures applied to counter the pandemic's effects, which, for the next two years, are estimated to total €1.7 trillion.[56]

---

55 See Banco de España (2019c).

56 The estimated financing needs refer to the sum of the Member States' cyclical and discretionary deficit, excluding, for example, the possible losses related to State guarantee schemes.

The European Commission's proposal to create a temporary recovery fund (Next Generation EU) would serve to partially offset the potential real and financial disparities among European members. This fund could harness the positive spillovers arising from joint action and pave the way for a coordinated recovery from the crisis, based on common budgetary instruments (see Figure 5.2). Financing the fund through pooled debt would take advantage of the favourable low interest rate environment and would preclude the Member States from assuming debt individually under conditions that, in some cases, would foreseeably be less favourable than those expected to be applied to this joint instrument.

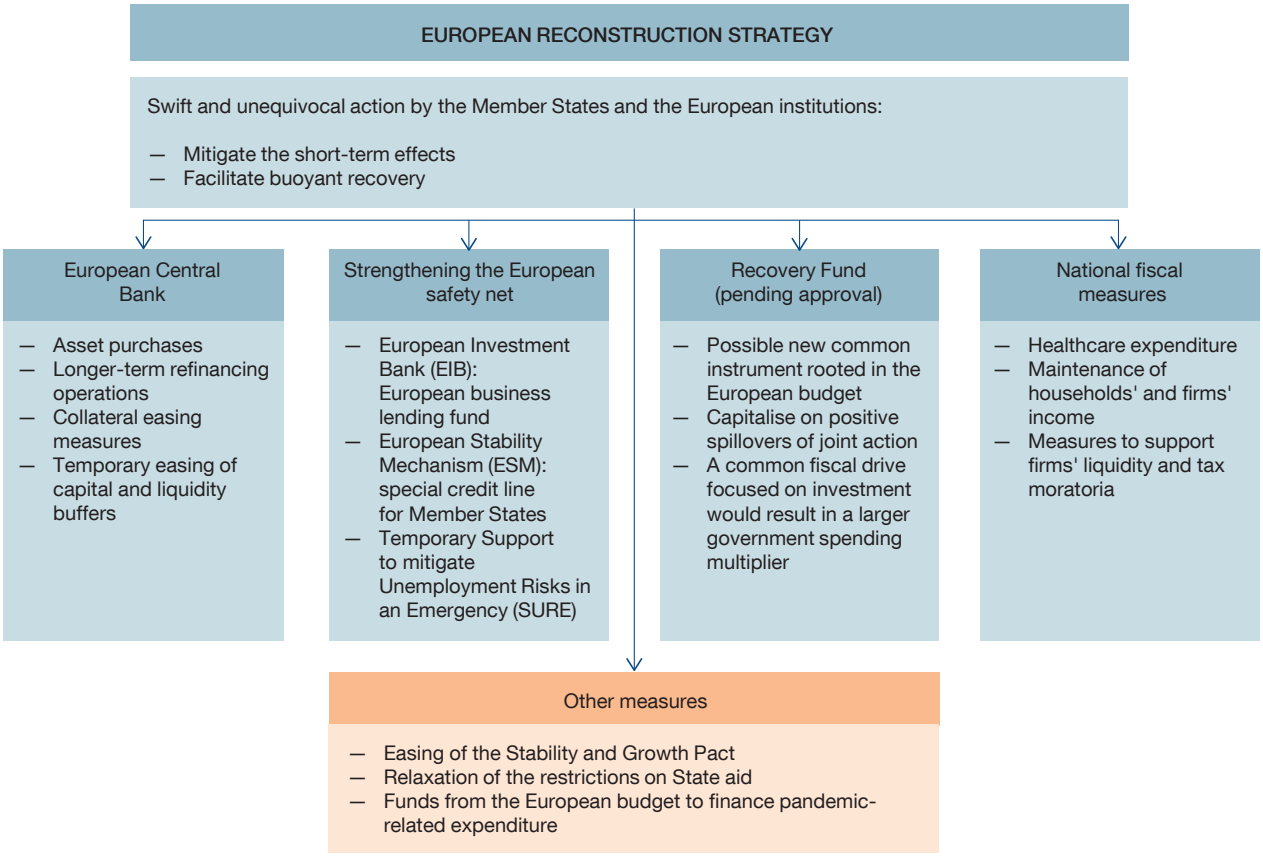
In the medium and long term, a common, investment-focused fiscal drive, such as that proposed by the European Commission, would facilitate a buoyant recovery and would increase the EU's potential growth capacity. Box 5.2 analyses the macroeconomic effects of a fiscal impulse at the European level based on investment and productive spending. In the current context, there are grounds for expecting the European Union to be able to benefit from a larger government spending multiplier resulting from the complementarity of certain government spending items with private investment, a low interest rate environment and the positive spillovers among countries.[57] Furthermore, the increase in government investment in certain items - such as research, digitalisation and the fight against climate change - would help to improve the long-term outlook for sustainable growth. These are areas where the EU must assert its size, economic capacity and social commitment so as to prevent the gap that has opened up in recent years relative to the global position of the other two large economic powers (the US and China) from widening further.

However, the fact that the EC's current proposal for the recovery fund is focused on medium- and long-term objectives means that there is still a significant need to fund Member States' budgets to combat the pandemic's effects. To cover this shortfall, it would be desirable for the fund to be larger and more agile, doing away with the delays inherent to proposing, approving and implementing specific government investment projects. Further, given the aforementioned cross-country heterogeneity in the crisis's impact, it would be advisable to have fiscal policy mechanisms at the EU level whose main aim would be to act as a line of defence against potential spells of fragmentation in the EU, both financially and in terms of competition in the Single Market.[58] In the medium term, the EU should equip itself with an appropriate institutional framework for tackling the uneven impact of economic shocks, for example, by implementing a macroeconomic stabilisation fund in the EU common budget, a cyclical stabilisation function or a pan-European unemployment reinsurance scheme. This would result in increased risk sharing at a budgetary level and would improve resilience to adverse shocks.[59]

---

57 See Arce et al. (2016).
58 See Arce et al. *(2020).*
59 See Banco de España (2017).

Figure 5.2
EUROPEAN RESPONSE TO THE COVID-19 HEALTH CRISIS



SOURCE: Banco de España.

The EU would reap the benefits of the creation, on a large enough scale, of a common and pooled safe asset. Alongside the borrowing-cost savings made by using the joint capacity of the EU budget to raise funds,[60] the creation of an ample quantity of common safe assets would reduce the sovereign-bank nexus and improve financial integration in the EU. Pooled funding, rather than national debt, would therefore become a "positive sum game". That would complement the operation of the private risk-sharing channels - such as accessing bank credit or obtaining foreign investment - and lessen the risk of these channels behaving procyclically, as there would be a safe benchmark common to all the countries. Against a backdrop of relatively scant euro-denominated safe assets, the availability of this new safe asset would also encourage international investment and bolster the international role of the euro.[61]

60 The European Union currently only borrows through instruments directly linked to a loan arranged with a state (inside or outside the EU). Debt issued by the EU totals around €51 billion. Most of that sum relates to loans linked to the instruments created during the European debt crisis between 2010 and 2012, which were the origin of the European Stability Mechanism (ESM).

61 See, among others, Brunnermeier et al. (2017), Farhi and Werning (2017), Hernández de Cos (2019) and Iltzezki et al. (2020).

This crisis has, in any event, demonstrated that in order for the EU to achieve further integration, it is essential that the supranational systems be afforded greater influence and that the EU budget be reinforced. Since the future challenges facing the European economies are necessarily common to them all, it would be recommendable for them to at least partially pool their financing. In this regard, expanding the EU's resources would also require the taxes established at the European level to have more weight. Various alternatives exist, such as potential taxes on some aspects linked to the growing importance of the digital economy or on activities that cause the most pollution, in order to foster the economy's decarbonisation. The fact that the tax base of these potential taxes may be transferred between countries would already justify, in and of itself, at least a high level of coordination at the European level.

All Member States would benefit were the European Union to have greater weight in fiscal policy. However, this would also require increased fiscal responsibility at the domestic level. The issuance of new bonds at the European level does not mean that the EU must satisfy the debt obligations incurred by the Member States in the past, which should continue to fall to the Member States themselves. In any event, in order to further pool fiscal resources it is necessary to update and bolster the countries' incentive framework, so that the use of these mutually backed resources is tied to a greater commitment to macroeconomic and fiscal stability, and to the reforms aimed at improving the sustainable growth capacity of the national economies.[62]

The new priorities should supplement, and not replace, the tasks yet to be completed to strengthen European governance. Key in this regard is, among other reforms, the completion of the Banking Union by creating a European Deposit Insurance Scheme. A fully pooled deposit insurance scheme would make a fundamental contribution to generating confidence in the European banking system, at a time when it is required to provide sufficient liquidity to the European economy. However, in recent years, no headway has been made in either this area or in the regulatory harmonisation required to complete the Banking Union.[63] The persistence of these barriers helps, in turn, to explain why banking operations are structurally skewed towards national markets and the scarcity of cross-border bank consolidation processes.

Headway should also be made in reducing the various impediments to the existence of a fully fledged Capital Markets Union in the EU. Achieving that goal requires, first, a clear and determined political commitment from the national authorities to this common project. Second, it requires a detailed and thorough plan of the measures that must be implemented. With that specific goal in mind, at

62 See, among others, Beetsma and Bovenberg (2001), and Arce et al. (2020).
63 See Lane (2019).

end-2019 the European Commission set up the High Level Forum on the Capital Markets Union.[64] This forum's final report, published on 10 June, should serve as a starting point to make determined progress in integrating the European capital markets. Specifically, this report presents, in a relatively granular fashion and with a detailed timeline, 17 clusters of measures that are mutually reinforcing and dependent on each other. These should be implemented without delay to eliminate the main obstacles that, in recent decades, have prevented European financial institutions from increasing the scale of their operations, especially at the cross-border level, have made European markets less attractive to international investors and have limited the ability of region's financial institutions to compete globally.

As regards coordinating fiscal policy, prior to the outbreak of the health crisis the European Commission had instituted a reform process to simplify fiscal rules and improve compliance therewith. This reform may be key when the current situation - in which the rules have been relaxed in order to prevent them from creating a procyclical bias in national fiscal policy - has been overcome. In particular, it is crucial that, once the crisis has been weathered, the fiscal rules make it possible to conduct the necessary national fiscal consolidation without jeopardising the recovery in activity. Moreover, the reform process under way should serve the aforementioned purpose of updating and reinforcing the incentive framework of the national authorities vis-à-vis compliance with the common rules.

64 See High Level Forum on Capital Markets Union and Final report of the High Level Forum on the Capital Markets Union - A new vision for Europe's capital markets.

REFERENCES

Adams-Prassl, A., T. Boneva, M. Goli and C. Rauh (2020). *Inequality in the impact of the coronavirus shock: Evidence from real time surveys (2020),* mimeo, University of Cambridge.

Adsera, A. (2006). "An Economic Analysis of the Gap Between Desired and Actual Fertility: The Case of Spain", *Review of Economics of the Household*, Vol. 4, pp. 75–95.

Albert, C., C. García-Serrano and V. Hernanz (2005). "Firm-provided training and temporary contracts", *Spanish Economic Review*, 7 pp. 67-88.

Almunia, M. and D. López-Rodriguez (2018). "Under the Radar: The effects of monitoring firms on tax compliance", *American Economic Journal: Economic Policy*, 10, pp. 1-38.

Álvarez, L. and M. García-Posada (2019). *Modelling regional housing prices in Spain,* Occasional Paper No 941, Banco de España.

Andrés, J., O. Arce, D. Thaler and C. Thomas (2020). "When fiscal consolidation meets private deleveraging", *Review of Economic Dynamics*, Vol. 37, July 2020, pp. 214-233.

Anghel, B., V. Regil and A. Lacuesta (2020). "Transferability of workers' skills in sectors potentially affected by Covid-19", Analytical Articles, *Economic Bulletin*, 2/2020, Banco de España.

Anghel, B. and A. Lacuesta (2020). "Ageing, productivity and employment status", Analytical Articles, *Economic Bulletin*, 1/2020, Banco de España.

Arce, O., I. Kataryniuk, P. Marín and J. J. Pérez (2020). *Thoughts on the design of a European Recovery Fund*, Occasional Paper No 2014, Banco de España.

Arce, O. (2019). *Envejecimiento y pensiones*, speech at the conference *Jornadas sobre Previsión Social* organised by Ernst & Young, December.

Arce, O., S. Hurtado and C. Thomas (2016). "Policy Spillovers and Synergies in a Monetary Union", *International Journal of Central Banking*, Col. 12, No. 3, pp. 219-277.

Banco de España (2020). "Cost-benefit analysis of macroprudential policy", Box 3.2, *Financial Stability Report, spring 2020*.

Banco de España (2019a). *Annual Report 2018.*

— (2019b). "The financial system and climate change", Box 3.1, *Financial Stability Report, autumn 2019*.

— (2019c). "Economic consequences of demographic change", Chapter 4, *Annual Report 2018.*

Banco de España (2017). "Fiscal policy in the euro area", Chapter 4, *Annual Report 2016.*

Banco de España (2015). "Growth and reallocation of resources in the Spanish economy", Chapter 3, *Annual Report 2014*.

Banerjee, A.V. and E. Duflo. (2003). "Inequality and growth: What can the data say?", *Journal of Economic Growth* 8, pp. 267–299.

Becker, S., N. Bloom, S. Davis and S. Terry (2020). *COVID-induced economic uncertainty and its consequences*, Vox CEPR Policy Portal.

Beetsma, R. M. and Bovenberg, A. L. (2001). "The optimality of a monetary union without a fiscal union", *Journal of Money, Credit and Banking*, 33 (2), pp. 179-204.

Bentolila, S., A. Cabrales and M. Jansen (2019). "Does Dual Vocational Education Pay Off?", mimeo.

Bonhomme, S. and L. Hospido (2017). "The cycle of earning inequality: Evidence from Spanish social security data", *Economic Journal*, 127, pp. 1244-1278.

Brunnermeier, M., K., Langfield, S., Pagano, M., Reis, R., Van Nieuwerburgh, S., and Vayanos, D. (2017). "ESBies: Safety in the tranches", *Economic Policy*, *32*(90), pp. 175-219.

Cuadrado et al. (2020). *A sectoral anatomy of the Spanish productivity puzzle*, Occasional Paper No 2006, Banco de España.

Dechezlepretre, A. and Popp, D. (2015). *Fiscal and Regulatory Instruments for Clean Technology Development in the European Union*, Working Paper Series No 5361, CESifo.

Delgado, M. (2019). "Energy transition and financial stability. Implications for the Spanish deposit-taking institutions", *Financial Stability Review*, November, Banco de España.

De Quinto, A., Hospido, L. and Sanz, C. (2020). *The Child Penalty in Spain*, Occasional Paper, Banco de España, forthcoming.

European Banking Authority (2020). *EBA publishes Guidelines on treatment of public and private moratoria in light of COVID-19 measures*, April.

European Commission (2019). *Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal*, COM(2019) 640 final.

— (2018a). *The 2018 Ageing Report. Economic & Budgetary Projections for the 28 EU Member States (2016-2070)*, Institutional Paper 079, May.

— (2018b). The Silver Economy, a study prepared by Technopolis and Oxford Economics for the European Commission DG Communications Networks, Content & Technology.

— (2017). "Government investment in the EU: the role of institutional factors", *Report on Public Finances in EMU 2017*, 133-186.

— (2016). "Opinión pública en la Unión Europea. España", National report, *Standard Eurobarometer 86*.

Farhi, E., and I. Werning (2017). "Fiscal unions", *American Economic Review, 107(12), 3788-3834.*

Farré, L., Y., Fawaz, L. González and J. Graves (2020). *Desigualdad de género en tiempos de la pandemia por COVID-19, manuscript, Universitat de Barcelona.*

Fournier, J. (2016). The positive effect of public investment on potential growth, Working Papers, No. 1347, OECD Economics Department, Paris.

Galán, J. E. (2020). *The benefits are at the tail: uncovering the impact of macroprudential policy on growth-at-risk*, Working Paper No 2007, Banco de España.

García-Perez, J. I., I. Marinescu and J. Vall-Castelló (2019). "Can fixed-term contracts put low skilled youth on a better career path? Evidence from Spain", *Economic Journal*, 129, 1693–1730.

Garicano, L., C. Lelarge and J. van Reenen (2016). "Firm size distortions and the productivity distribution: evidence from France", *American Economic Review*, 106, 3439-3479.

Gutierrez-Domenech (2008). "The impact of the labour market on the timing of marriage and births in Spain", *Journal of Population Economics*, 21 83-110.

Hernandez de Cos, P. (2019). "The EMU at 20: from divergence to resilience", Welcome address. Third Annual Research Conference of the Banco de España.

Hudomiet, P., M. D. Hurd, A. Parker and S. Rohwedder (2019). "The effects of job characteristics on retirement", Working Paper 26332, NBER.

Ilzetzki, E., C. M. Reinhart and K. S. Rogoff (2020). "Why is the Euro punching below its weight?". *Economic Policy, forthcoming.*

Instituto Nacional de Estadística (2020). "El teletrabajo en España y la UE antes del Covid19", *Cifras, Boletín Informativo, 02/2020.*

Keane, M., and K. Wolpin (1997). "The career decisions of young men", *Journal of Political Economy*, 105(3), pp. 473-522, The University of Chicago.

Lane, P. (2019). "Macrofinancial Stability and the Euro", *IMF Economic Review*, 67(3), pp. 424-442, International Monetary Fund.

Lázaro-Touza, L., C. González and G. Escribano (2019). *Los españoles ante el cambio climático. Apoyo ciudadano los elementos, instrumentos y procesos de una Ley de Cambio Climático y Transición Energética,* Real Instituto Elcano, July.

López-Rodríguez, D. and M. Matea, (2020). *Public intervention in the rental housing market: a review of international experience*, Occasional Paper No 2002, Banco de España.

— (2019). "Recent developments in the rental housing market in Spain", Analytical Articles, *Economic Bulletin*, 3/2019, Banco de España.

López-Rodríguez, D. and C. García-Ciria (2018). *Spain's tax structure in the context of the European Union*, Occasional Paper No 1810, Banco de España.

Morikawa, M. (2020). *COVID-19, teleworking and productivity*, VOX CEPR Policy Portal.

OECD (2019a). *Education Policy Outlook: Spain*, OECD Publishing, Paris.

— (2019b). *Pensions at a Glance 2019: OECD and G20 Indicators*, OECD Publishing, Paris.

— (2017). *OECD Economic Surveys: Spain*, OECD Publishing, Paris.

Pérez, F., and J. Aldás (2019). *Indicadores sintéticos de las universidades españolas, Fundación BBVA and IVIE.*

Puente, S. and A. Regil (2020). "Intergenerational employment trends in Spain in recent decades", Analytical Articles, *Economic Bulletin*, 2/2020, Banco de España.

Ramos, R. (2019). "Los retos del envejecimiento para los ingresos públicos: la composición de las bases", *Revista Actuarios, No 44, spring 2019, pp. 36-39.*

Tavares, A. I. (2017). "Telework and health effects review", *International Journal of Healthcare*, Vol.3. No 2.

Box 5.1

ALTERNATIVE SCENARIOS FOR PUBLIC DEBT IN THE MEDIUM AND LONG TERM

The economic crisis triggered by COVID-19 has called for a forceful fiscal response in the near term, both in Spain and in other affected countries (see Sections 3.4 and 4.3 in Chapters 3 and 4, respectively, of this Report), to limit the scale and duration of the adverse effects of the pandemic, and to foster the subsequent recovery. However, this budgetary stimulus is prompting a very substantial rise in general government indebtedness (see Sub-section 4.4.3 in Chapter 4), which will require that a broad fiscal consolidation strategy be applied in the medium term, once the current economic downturn is over.

This box analyses the possible future path of the public debt-to-GDP ratio in Spain over the coming decade, considering various assumptions as to the behaviour of its main determinants. The two approaches used for analysing the debt trajectory on the basis of the relevant driving factors are based, respectively, on a standard deterministic model and a stochastic model.

The standard model contains three equations describing changes in real GDP, inflation and interest rates.[1] Specifically, the real GDP growth rate is assumed to depend upon the degree of slack in the economy – measured by the output gap – and changes in interest rates. The inflation rate in each period is estimated on the basis of the output gap and future inflation expectations, which, in turn, are determined by a combination of the ECB's medium-term inflation target and more recent price behaviour. Lastly, interest rates on general government financing hinge on the public debt maturity structure and are sensitive to the potential adverse effects on conditions of access to financing that could derive from having an excessive debt stock or deficit (see Box 3.4 of this Report for an analysis of the interplay between these variables).

Charts 1 and 2 show the expected path of public debt in Spain over the coming decade according to this model under different sets of assumptions. Specifically, the paths presented differ from one another in two aspects: the trend in the macroeconomic and fiscal variables up to 2021, and the (fiscal and structural) economic policies adopted from 2022 onwards. As regards the former, it is assumed that the trajectory of GDP, inflation, interest rates, the budget deficit and public debt in 2020 and 2021 alternately reflect those of the early and gradual recovery scenarios constructed by the Banco de España in its most recent projections in June 2020.[2] For the latter, the alternative assumptions as to fiscal policy beyond 2021 are that the structural balance will either remain constant as from that year or that it rises 0.5 pp annually until it reaches equilibrium. The possibility of structural reforms being introduced to raise potential growth is also considered.

Construction of the paths of public debt set out in Charts 1 and 2 is completed with the endogenous changes in the different variables (real GDP, inflation, interest rates, budget deficit) obtained in the context of the model described above. In particular, Chart 1 shows the public debt-to-GDP ratio under the early and gradual recovery scenarios, assuming, in both cases, a neutral fiscal policy from 2022 (i.e., no variation in the structural deficit). As can be seen in the chart, the public debt ratio is expected to rise gradually over the course of the decade, to around 115% and 125%, respectively, in 2030 under the two scenarios. This increase in debt during the period considered is due to nominal GDP growth not being sufficient to counterbalance the high primary deficit recorded year after year. Moreover, the rise in debt is greater in the gradual recovery scenario because of the higher primary deficit in 2022, which would be maintained going forward, whereas nominal growth thereafter is relatively similar to that under the early recovery scenario. Similarly, if a more adverse macroeconomic scenario than those described were to materialise, such as the very slow recovery risk scenario also considered in the most recent projection exercise, the debt ratio would reach significantly higher levels, owing essentially to the greater worsening in public finances in the short term.

Taking the gradual recovery scenario up to 2021 as an example, Chart 2 illustrates the sensitivity of the debt path to alternative economic policy strategies from 2022 onwards, in terms of adopting a fiscal consolidation programme and possible structural reforms that raise economic growth capacity.

The red line in this chart, reflecting a neutral fiscal policy from 2022 onwards, corresponds to the gradual recovery scenario presented in Chart 1. The yellow line shows the public debt-to-GDP ratio if, rather than fiscal policy being neutral from 2022, an effort is made to reduce the deficit

1 See Hernández de Cos, López-Rodríguez and Pérez (2018). "The challenges of public deleveraging", *Occasional Paper* No 1803, Banco de España.

2 See Sub-section 4.4.3 in Chapter 4 and Banco de España (2020). "Macroeconomic projections for the Spanish economy (2020-2022): the Banco de España's contribution to the Eurosystem's June 2020 joint forecasting exercise".

consistent with the usual requirements of the Stability and Growth Pact (SGP). In particular, a fiscal policy is assumed that would enable the primary structural balance to rise by 0.5 pp of GDP each year until it reaches equilibrium. Thanks to such budgetary consolidation, public debt shows a clear trend of sustained moderation, returning to a level in 2030 similar to that recorded at end-2019, before the outbreak of the health crisis. If this fiscal policy were also combined with the introduction of ambitious structural reforms that increase economic growth potential (by 0.5 pp, to 1.7% in 2030) and, therefore, the size of the main tax bases, the resulting greater economic buoyancy would enable the debt ratio to fall more sharply, to below 90% of GDP in late 2030 (blue line).[3]

Fiscal policy must play an active role in reducing the public debt ratio following the economic crisis. A structural effort in line with SGP requirements would reduce public debt to below 100% of GDP before 2030. The adoption of structural measures that increase potential GDP would substantially improve public debt sustainability.

Chart 1
SIMULATED PUBLIC DEBT PATHS WITH A NEUTRAL FISCAL EFFORT

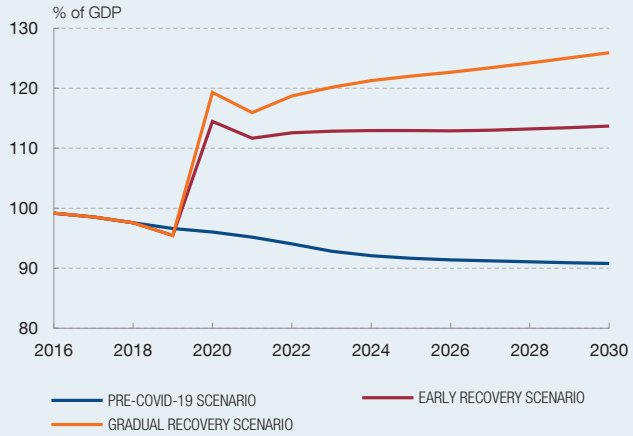


Chart 2
SIMULATED PUBLIC DEBT PATHS UNDER THE GRADUAL RECOVERY SCENARIO CONSIDERING ALTERNATIVE ASSUMPTIONS AS TO FISCAL EFFORT

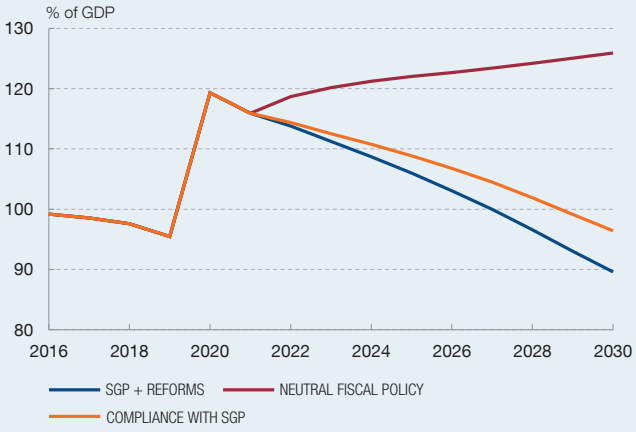


Chart 3
DISTRIBUTION OF PUBLIC DEBT SIMULATIONS ONE QUARTER AHEAD (FORECASTS FOR 2020 Q1-2022 Q4)

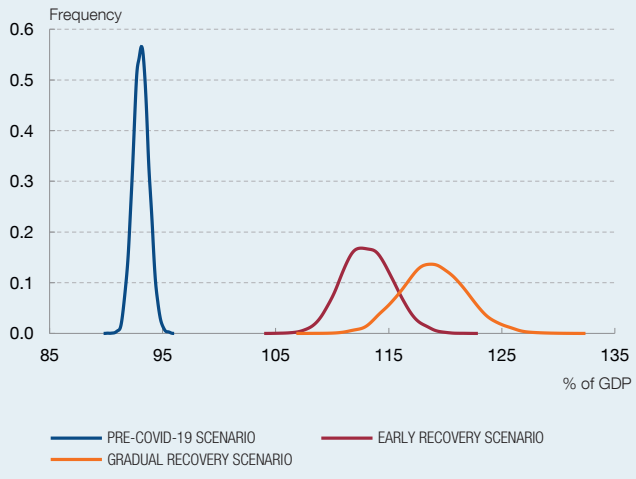
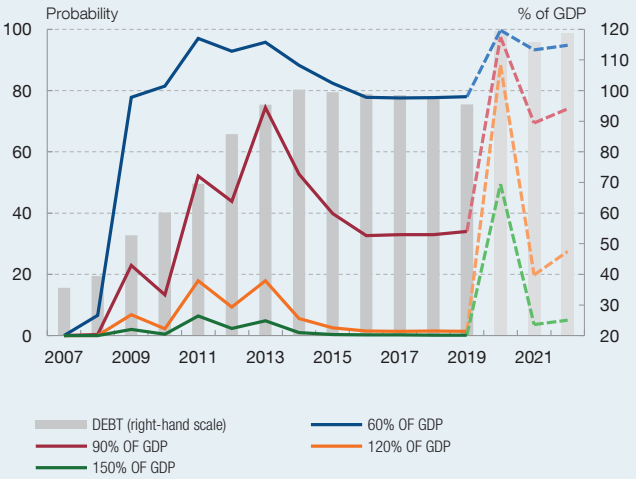


Chart 4
PROBABILITY OF THE DEBT RATIO EXCEEDING A THRESHOLD 10 YEARS AFTER A GIVEN DATE (FORECASTS UNDER THE GRADUAL RECOVERY SCENARIO FOR 2020 Q1-2022 Q4)



SOURCES: Banco de España, using INE and IGAE data.

3 The tool used distils the fiscal policy stance in the change in the structural primary balance, without distinguishing between the effects derived from using alternative combinations of fiscal instruments, which could be conducive to economic growth to different degrees.

When considering the different potentially feasible scenarios, the public debt paths set out in Charts 1 and 2 help illustrate, as an initial approximation, the high level of uncertainty surrounding the future behaviour of this variable, on the basis of its main driving factors. For a more explicit quantification of the effect of this uncertainty, a second set of exercises has been conducted, based on a stochastic model. This model uses empirical relationships between the main determinants of the public debt ratio to generate a large number of alternative paths for this variable which are, a priori, statistically feasible.[4] The simulation of these paths is therefore based on the assumption that the fiscal policy discretionary measures are governed by their historical behaviour, abstracting from hypothetical changes in the fiscal policy reaction function. The paths obtained can subsequently be used to calculate probability distributions as to the possible future behaviour of public debt.

By way of illustration, Chart 3 shows the probability distribution for the public debt-to-GDP ratio in 2023 Q1 under three different macroeconomic scenarios: that considered by the Banco de España in late 2019,[5] before the outbreak of the health crisis, and the early and gradual recovery scenarios considered in the June 2020 projections. The change in the probability distribution for the public debt ratio highlights the heightened uncertainty over the future behaviour of this variable as a result of the adverse shock to activity triggered by the pandemic. Thus, while under the scenario considered in the December 2019 projection exercise, this ratio was simulated at around 93%, within a relatively limited range of some 4 pp, under the gradual recovery scenario, not only is the ratio significantly higher, but its dispersion is also wider (with potential values ranging between 110% and 130%).

This stochastic model can also be used to calculate the probability of the debt-to-GDP ratio rising above a certain threshold over a specified horizon. Chart 4 shows the outcome of this exercise, taking by way of example the gradual recovery scenario, and considering a period of ten years. As can be seen in the chart, in late 2019 the probability of the public debt-to-GDP ratio exceeding 120% ten years ahead was virtually zero. However, after incorporating the information for this gradual recovery scenario, taken from the published 2020-2022 macroeconomic projections, which already considers the substantial worsening in public finances expected in the short term, the probability of debt surpassing 120% of GDP over a ten-year horizon increases to around 25%.

In summary, the simulations presented in this box, which consider different macroeconomic scenarios and models, underline that the necessary fiscal stimulus in response to COVID-19 will trigger a very significant, prolonged increase in government indebtedness in Spain from 2020 onwards. In this setting, the striking degree of vulnerability brought about by persisting and very high levels of government indebtedness will have to be tempered, and a degree of scope for fiscal action will have to be rebuilt in order to be able to deal with future adverse shocks. These needs make it advisable to undertake an ambitious medium-term fiscal consolidation plan and structural reforms, once activity begins to recover, in order to increase growth potential and, therefore, help reduce the cost of budgetary consolidation.

---

4 See Alloza, Andrés, Pérez and Rojas (2020). "Implicit Public Debt Thresholds: An Operational Proposal", *Journal of Policy Modeling,* forthcoming.

5 See Banco de España (2019). *"Macroeconomic projections for the Spanish economy (2019-2022): the Banco de España's contribution to the Eurosystem's December 2019 joint forecasting exercise"*.

Box 5.2

THE ROLE OF PUBLIC INVESTMENT ON A EUROPEAN SCALE IN THE ECONOMIC RECOVERY

The economic situation arising from the pandemic and confinement measures demands a re-evaluation of economic policy priorities so that the European economies may recover as soon as possible. Against this background, in late May the European Commission (EC) proposed establishing a Recovery and Resilience Facility financed by European long-term debt. This Facility would distribute funds from the European budget via transfers and loans to the Member States. Its aim would be to support public investments and reforms that leverage the growth potential of European economies and help address the challenges that the EU faced prior to the pandemic, such as digitalisation and the fight against climate change.

Ramping up public investment in Europe would simultaneously help correct the declining trend observed in the public investment-to-GDP ratio in recent decades. The median figure for this ratio across a broad set of EU countries fell from 5% in 1960 to 2.7% in 2018 (see Chart 2), while the latest data indicate ratios of 3.2% in the United States, 3.8% in Japan and over 6% in China. Several factors are behind this trend.[1] First, the stock of public capital grew significantly over that period, meaning the investment needs of the more traditional areas (such as road and rail transport) may be lower at present. Second, the development of the welfare state - against the backdrop of an ageing population - has seen welfare expenditure become an increasingly prominent component of government budgets, doubling its weight in GDP over the last four decades (see Chart 1). With the public sector facing budgetary constraints, the vigour of this expenditure item has impinged on the capacity to implement public investment projects.

The economic literature indicates that public finances with a more balanced mix of investment and current expenditure can ultimately yield benefits. In particular, the empirical evidence suggests that those economies where the public sector focuses investments on areas conducive to growth post stronger activity levels in the long term.[2] This, in turn, allows public sector budget constraints to be eased and contributes to the sustainable financing of other spending items, such as welfare expenditure.

Further, public investment often generates public goods that yield positive externalities for private sector activity. This is true, for example, of many investments that might benefit from the Recovery and Resilience Facility proposed by the EC - such as basic public research - and public sector investments geared to addressing

Chart 1
WELFARE EXPENDITURE

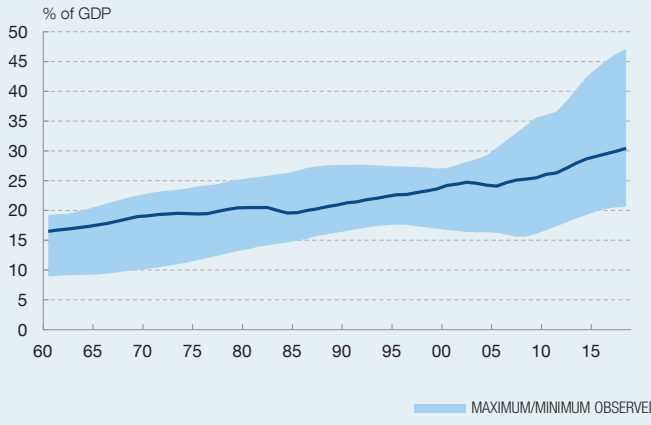
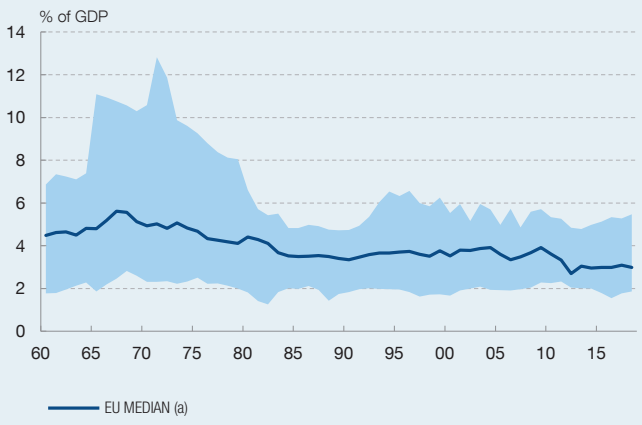
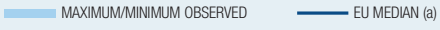


Chart 2
PUBLIC INVESTMENT





SOURCE: Own calculations based on European Commission data.

a The EU median comprises the following countries: Austria, Belgium, Germany, Spain, Finland, France, Greece, Ireland, Italy, the Netherlands, Portugal, Denmark, United Kingdom, Sweden and Luxembourg.

1 M. Delgado Téllez, E. Gordo, I. Kataryniuk and J. J. Pérez (2020). "The decline in public investment: "social dominance" or too-rigid fiscal rules?", *Working Papers,* Banco de España, forthcoming.

2 J. Fournier, (2016). "The positive effect of public investment on potential growth", *Working Papers,* No 1347, OECD Economics Department; European Commission (2017). "Government investment in the EU: the role of institutional factors", *Report on Public Finances* in EMU 2017, 133-186.

climate change.[3] In both cases, such public investment has a potentially sizeable multiplier effect on innovation capacity in the private sector[4] and the economy's long-term growth.[5] However, this effect is contingent upon efficiently designed public investment plans.[6]

A macroeconomic model calibrated for the euro area, distinguishing between Spain and the rest of the eurozone, helps to illustrate the channels through which public investment influences activity.[7] The model includes a high level of detail with respect to each region's fiscal authority, both on the income and expenditure sides. On the latter, it is worth noting that public investment, according to the model, enables the stock of public capital to increase, which enhances private capital and labour productivity.[8]

Table 1 shows the impact on the economy's output of a permanent increase of 1 pp of GDP in public investment in Spain.[9] In the short term, stronger public sector demand for investment goods would directly boost private output and employment. In the medium term, there would be private sector productivity gains as larger public investment outlays expand the stock of public capital, driving employment and output growth.

This impact essentially depends on four factors. First, the extent to which public capital can complement private capital and employment, i.e. how effectively public capital can yield positive externalities for private activity. The model captures this through the elasticity of private output with respect to public capital. The available empirical evidence indicates that a reasonable value for this parameter is around 0.02. In other words, a 1% increase

Table 1
LONG-TERM EFFECTS OF A PERMANENT INCREASE IN PUBLIC INVESTMENT OF 1% OF GDP

	Elasticity of private output with respect to public capital = 0.02			Elasticity of private output with respect to public capital = 0.03		
Percentage difference with respect to the baseline scenario	Private investment	Private consumption	GDP	Private investment	Private consumption	GDP
Funded by taxation on salary income	0.4	-0.2	0.3	1.2	0.6	1.1
Funded by public debt	1.4	-0.3	1.4	1.8	0.3	1.9
EU-wide increase in investment	0.7	0.1	0.5	5.5	4.9	4.3

SOURCE: FiMod model, see Stahler and Thomas (2012).

3 A. Dechezlepretre and D. Popp (2015). "Fiscal and Regulatory Instruments for Clean Technology Development in the European Union", *Working Paper Series,* No 5361, CESifo.

4 J. Gruber and S. Johnson (2019). *Jump-Starting America: How Breakthrough Science Can Revive Economic Growth and the American Dream,* New York: Public Affairs Publishers.

5 In endogenous growth models, the economy's long-term growth rate depends on the pace at which new technology is created or existing technology is improved, for which research and development are key (see P. Romer, (1990). "Endogenous Technological Change", *Journal of Political Economy,* 98(5), pp. S71-S102; G. M. Grossman and E. Helpman (1991). "Quality Ladders in the Theory of Growth", *Review of Economic Studies,* 58(1), pp. 43-61, and P. Aghion and P. Howitt (1996). "Research and Development in the Growth Process", *Journal of Economic Growth,* 1 (1), pp. 49-73). Further, the recent literature indicates that R+D+I influences an economy's adjustment pattern, generating persistent economic cycles (see D. Comin and M. Gertler (2006). "Medium-Term Business Cycles", *American Economic Review,* 96 (3): 523-551, and M. Correa-López and B. Blas (2018). "Faraway, So Close! Technology Diffusion and Firm Heterogeneity in the Medium Term Cycle of Advanced Economies", *Working Papers,* No 1835, Banco de España).

6 A. Abiad, A. Almansour, D. Furceri, C. Granados and P. Topalova (2014). "Is it time for an infrastructure push? The macroeconomic effects of public investment". *World Economic Outlook,* 75-114.

7 See N. Stähler and C. Thomas (2012). "FiMod — A DSGE model for fiscal policy simulation". *Economic Modelling,* Vol. 29, number 2, March 2012, 239-261.

8 In the model, the stability of public debt is ensured by lifting tax rates on salary income or reducing expenditure on non-distorting transfers when the public debt-to-GDP ratio exceeds 60%. The model parameters are calibrated based on a series of long-term ratios for the Spanish economy and the rest of the euro area.

9 This represents a 28% increase in public investment levels, rising from 3.5% of GDP to 4.5%. That figure is somewhat larger than the boost to investment in Spain prompted by full use of the transfers from the Recovery and Resilience Facility proposed by the European Commission during its lifetime (2021-2024).

in public capital would lift output by 0.02%.[10] The relevance of this parameter is apparent in the simulation shown in the first row of Table 1. For example, elasticity of 0.03%, i.e. 50% more than in the baseline scenario, would generate far greater synergies between private activity and public capital, with the activity growth prompted by public investment magnified fourfold as a result.

Second, how far public investment contributes to growth depends largely on how it is funded. Broadly speaking, funding investment projects with tax increases tends to generate stronger crowding-out effects on private investment in the short and medium term than if the same investment is funded with debt[11], while the latter strategy would allow tax revenue to be modulated over a longer horizon. In particular, according to the model, using short-term personal income tax increases to fund the fiscal impulse would stifle private investment growth considerably more than using debt (see the first two rows of Table 1).

Third, how a fiscal stimulus affects GDP in Spain also depends on the extent to which the expansionary policy is coordinated internationally. In particular, a stimulus introduced only in Spain and funded by taxation would, in the short term, drive stronger public sector demand for investment goods and boost private output and employment. This might prompt domestic wage pressure and price increases, leading to a loss of competitiveness vis-à-vis other euro area members and impinging on activity growth. By contrast, there would be no such loss of competitiveness if a similar fiscal stimulus were deployed across the euro area, resulting in more robust growth in activity, consumption and private investment in Spain. In parallel, rising public investment elsewhere in the euro area would boost local activity and, as a corollary, benefit Spanish exports and GDP. Thus, according to the model simulation, coordinated action across the above-mentioned channels could as much as double the domestic impact of an increase in public investment (see the third row of Table 1).

Lastly, the impact on GDP of public investment also depends on the responsiveness of monetary policy. Nominal interest rates not rising in response to moderate inflation increases, which is likely at present in the euro area, would magnify the effectiveness of increased public investment.[12] In this case, the price rises resulting from greater aggregate demand would not come in conjunction with higher nominal interest rates. Consequently, agents would anticipate lower real interest rates and therefore bring forward consumption and investment decisions, helping to spur even stronger activity growth. This, in turn, would limit the crowding-out effect on private investment and consumption that is often ascribed to higher public spending when an economy is operating with few idle resources.

In short, the above exercises show that for public investment to be optimally effective it must be geared to those sectors and processes that are most complementary to private activity. In addition, securing the initial funding for such investment by means of common debt issuance would yield financial cost savings for all Member States (see Section 5.5).

---

10 See E. M. Leeper, T. B. Walker and S. C. S. Yang (2010). "Government Investment and Fiscal Stimulus", *Journal of Monetary Economics,* 57, 1000–1012.

11 H. Ahmed and S. M. Miller (2000). "Crowding-out and crowding-in effects of the components of government expenditure", *Contemporary Economic Policy,* 18(1), 124-133.

12 For a detailed description of this mechanism, see O. Arce, S. Hurtado and C. Thomas (2016). "Policy Spillovers and Synergies in a Monetary Union", International Journal of Central Banking, Vol. 12, No 3: 219-277.

Box 5.3

CHANGES IN THE BUSINESS MODEL PROMPTED BY COVID-19: REMOTE WORKING

To restrict COVID-19 contagion, measures began to be taken in the second week of March restricting movements by workers and consumers. These restrictions have given rise to changes in working and consumption patterns, accelerating certain trends in the business arena observed in recent years. Also, the legislation on the "new normal" stipulates that workplaces shall adopt measures to "promote remote work when this is possible given the working activity involved".[1] This box analyses the organisational opportunities opening up in relation to teleworking, which is an option firms have adopted to soften the adverse effects of the current lockdown and to prepare themselves ahead of potential fresh outbreaks in the coming months.

In 2019, according to the Spanish Labour Force Survey (EPA), 8.4% of workers in Spain indicated that they occasionally worked at home and 4.5% did so for half of their working days. These figures mark a slight increase over the past 10 years, since in 2009 they stood at 6% and 3.4%, respectively.

These percentages are lower than those observed in the EU-28. In 2018, the latest year for which uniform information is available, 13.5% of the employed aged 15-64 worked from home in the EU-28 (Eurostat). Chart 1 shows there is much cross-country heterogeneity. Generally, remote working is a deeper-rooted practice in the northern European countries, while in the southern and eastern countries, it is used less frequently. In the Netherlands and Sweden, over 30% of all workers work remotely, whereas this practice is virtually non-existent in Cyprus, Bulgaria and Romania. Spain stands 6 pp below the European average, at 7.5%, and is some distance off the figures for other major countries such as France (20.8%) and Germany (11.6%).

The recent lockdown has galvanised this way of working. According to the Banco de España survey conducted in the first week of April, 80% of the firms consulted stated that remote working was proving an essential tool in tackling the crisis.[2] Furthermore, it has indirectly boosted the use of webinars and videoconferencing, and also the development of specific cybersecurity tools. These offer more powerful solutions in terms of antivirus, firewalls, backups, VPN, etc., against a background in which both operational and security risks have increased in intensity.

It is still premature to calibrate precisely the scope of these changes and their continuity over time once the pandemic is behind us. That said, two aspects appear to be evident. First, on the information available, there is considerable scope to increase teleworking in Spain. For a measure of the work that can potentially be done at home, we use the methodology proposed in the paper by Dingel and Neiman (2020).[3] At a highly disaggregated level, this paper classifies a job as not being able to be done at home if it meets at least one of the context- or activity-based characteristics identified as difficult to reproduce in the worker's main residence. Notable among these characteristics are, for example, having to spend the majority of time walking or running, working outdoors every day, conducting machinery inspection work or working directly with the public. This classification is applied to all workers in the Labour Force Survey based on their occupation and compared with the information offered in the same survey as to whether they performed part of their work at home.[4] Based on this characterisation, the proportion of workers in Spain who could work at home would be 30.6%, somewhat down on the estimate in the paper cited for the United States (34%).

Second, the room for improvement is clearly not the same for all sectors and groups (see Chart 2). In particular, there are some sectors currently in which teleworking is practically non-existent and where its potential for growth would be very high, such as transport and storage (a 42 pp potential increase); electricity, gas, steam and air-conditioning supply (+37 pp); general government (+32 pp); wholesale and retail trade (+25 pp); other services (+22 pp); water supply, sewerage, waste management and remediation activities (+22 pp) and manufacturing (+17 pp). At the other end of the scale are sectors such as agriculture, construction, hotels and restaurants, and domestic service, where there is scant possibility of remote working.

The different characteristics of the different types of jobs give rise to differences as regards the possibility different groups

---

1 See Art. 7 of Royal Decree-Law 21/2020 of 9 June 2020 on urgent prevention, containment and coordination measures to tackle the health crisis caused by COVID-19.

2 See Banco de España (2020). "Business survey on the impact of the COVID-19 crisis", Box 1, "Reference macroeconomic scenarios for the Spanish economy after COVID-19". *Economic Bulletin*, 2/2020.

3 See I. J. Dingel and B. Neiman (2020). "How many jobs can be done at home?", NBER Working Paper No 26948.

4 See details in B. Anghel, A. Lacuesta and M. Cozzolino (2020). "Teleworking in Spain", Analytical Articles, *Economic Bulletin* 2/2020, Banco de España.

of workers have of benefiting from remote working. Thus, for example, only 21.5% of the under-24s could telework, compared with 43.5% of the over-65s. This is so because, as experience is accumulated, workers usually spend less on physical tasks and more on planning and supervisory tasks which can more readily be done from home.[5]

By level of educational attainment, the estimate of the potential number of remote workers shows that, among the highest qualified, the total number of people working from home could increase to 51%. Conversely, among the group of workers with a lower educational level, only 16.7% could do so.

Different studies show the repercussions of remote working on firms' profits and workers' attitudes. For instance, Bloom et al. (2015) analysed the productivity-related results of a Chinese travel agency which, randomly,

Chart 1
PERCENTAGE OF EMPLOYED AGED 15-64 TELEWORKING (2018)

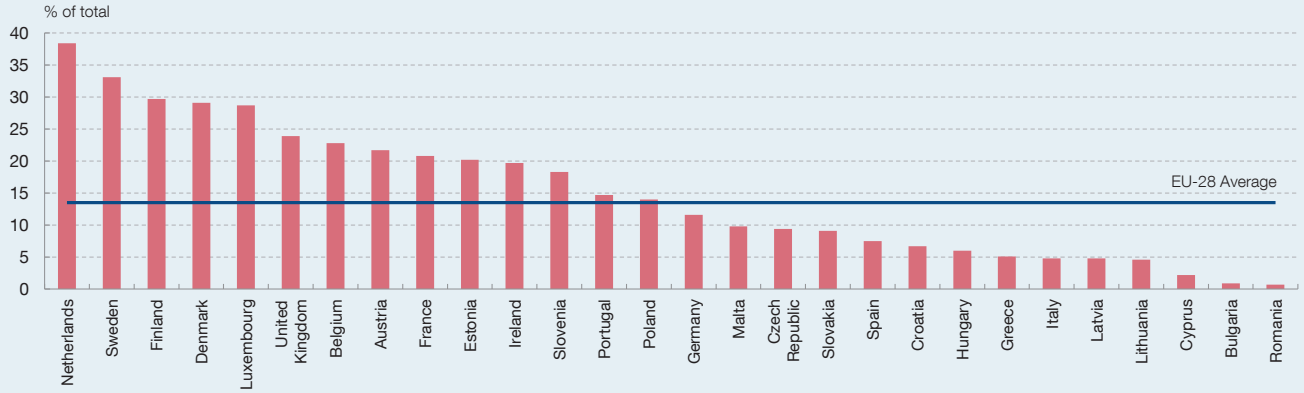
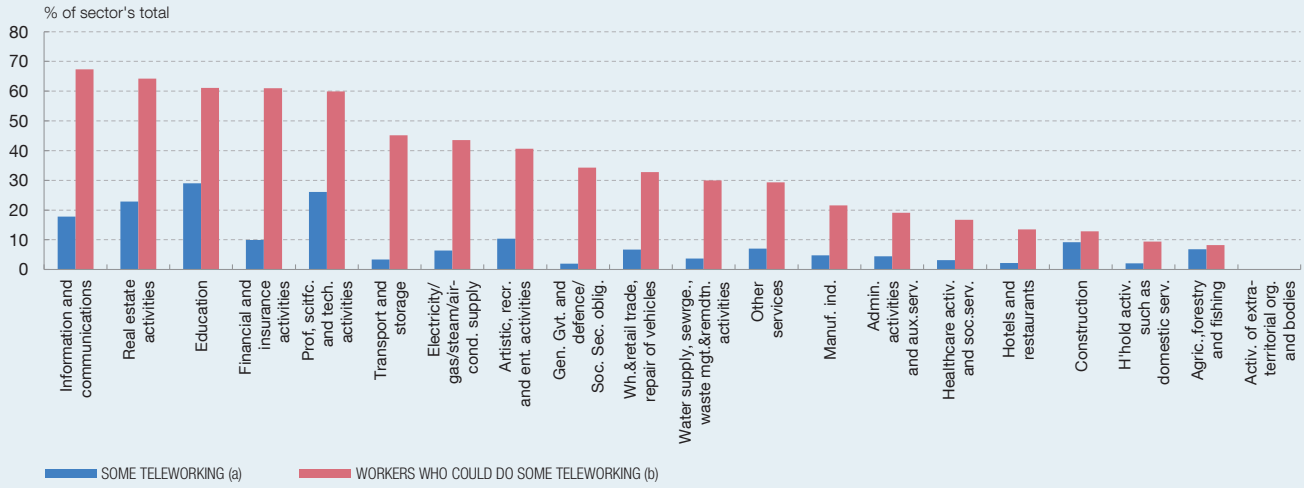


Chart 2
PERCENTAGE OF WORKERS TELEWORKING: OBSERVED AND POTENTIAL



SOURCES: Eurostat (Labour Force Survey, 2018) and INE (EPA, microdata of the annual sub-sample for the year 2019).

a The EPA definition of teleworking is used, in the question: "Did you work at home in the past 4 weeks (possibility envisaged in labour agreement)". The reply options are: "For over half the days you worked", "Occasionally" or "Not at all".
b The methodology of Dingel and Neiman (2020) is used.

5 See B. Anghel and A. Lacuesta (2020). "Ageing, productivity and employment status", Analytical Articles, Banco de España 1/2020.

assigned teleworking to a group of voluntary teleoperators for nine months.[6] In that period, productivity increased by 13%, with more hours worked and more calls attended to per minute. Further, there are studies indicating that this increase in productivity may depend on the type of tasks being performed. There is a positive increase for creative work, but it may be negative for urgent and complex tasks (Battiston et al. (2017) and Dutcher (2012)).[7] This negative effect on productivity may be compounded in a situation like the present in which remote working has been imposed by circumstances, without workers having had the opportunity to invest appropriately beforehand in home equipment or in training (Morikawa (2020)).[8] The paper by Bloom et al. (2015) also shows that workers feel satisfied at the possibility of remote working.

Generally, the findings of different surveys show that remote workers usually value in particular the flexibility of being able to distribute their working day accordingly, to perform their tasks in different places and to be able to avoid commuting to the workplace. However, set against this, remote workers usually list as negative aspects a lack of communication with co-workers, the feeling of working alone and greater difficulty in switching off from work.[9] Some analyses have also highlighted disadvantages for workers' health arising from teleworking, such as a greater propensity to suffer stress or depression.[10] In this respect, some authors advocate promoting remote working, but not on a continuous basis; rather, employees should alternate between working at home and being physically present in the workplace. Lastly, there are analyses suggesting that teleworking may become a good option for lengthening employees' working lives, since this timetable flexibility is something people close to retirement age particularly value (see Hudomiet et al. (2019)).[11]

---

6 See N. Bloom, J. Liang, J. Roberts and Z. J. Ying (2015). "Does working from home work? Evidence from a Chinese experiment", *The Quarterly Journal of Economics,* Oxford University Press, No. 130(1), pp. 165-218.

7 See D. Battiston, J. Blanes, I. Vidal, and T. Kirchmaier (2017). *"Is distance dead? Face-to-face communication and productivity in teams." CEPR Discussion Paper,* No. 11924; and E. G. Dutcher (2012). "The effects of telecommuting on productivity: an experimental examination. The role of dull and creative tasks", Journal of Economic Behavior & Organization, 84(1), pp. 55-363.

8 See M. Morikawa (2020). "COVID-19, teleworking, and productivity", Vox CEPR Policy Portal.

9 See State of remote work 2020.

10 See A. I. Tavares (2017). "Telework and health effects review", *International Journal of Healthcare,* Vol 3. no. 2.

11 P. Hudomiet, M. D. Hurd, A. Parker and S. Rohwedder (2019). *"The effects of job characteristics on retirement"*, Working Paper No. 26332, NBER.

Box 5.4

THE IMPACT OF THE CRISIS ON BANKING: ANALYSIS OF THE NPL RATIO

One of the main risks facing banks in the COVID-19 crisis is that of the deteriorating quality of the loans on their balance sheets. This risk stems from the sharp contraction in non-financial corporations' and households' income in recent months owing to the disruption to economic activity caused by the pandemic-containment measures, which has not been accompanied by a similar reduction in expenditure. The NPL ratio gauges the quality of banks' balance sheets. It is used frequently as an indicator of changes therein and, therefore, of financial stability. Broadly speaking, it measures non-performing loans (both those which are 90 days past due and those where it is highly likely that borrowers may default in the near future) as a percentage of total credit exposure.

The NPL ratio is, in general, highly countercyclical. Thus, during the 2008 global financial crisis, it increased by more than 13 pp in Spain, peaking at around 14% at end-2013. By contrast, in the five subsequent years of economic expansion, the ratio decreased by approximately 9 pp, to 4.8% in December 2019. This correction was driven by a favourable macroeconomic environment and the supervisory measures geared towards encouraging prompt management by banks of troubled loan portfolios. Given this past behaviour, it is therefore to be expected that the steep declines in GDP envisaged by the various macroeconomic scenarios prepared by the Banco de España for 2020[1] will result in a significant increase in the NPL ratio.

Quarterly data from 2008 to date were used to estimate a correlation between GDP growth and the NPL ratio that points to a 1 pp drop in GDP being accompanied by a 0.7 pp increase in the aggregate NPL ratio (see Chart 1). This historical observation is a guide for approximately calibrating the potential impact of the COVID-19 crisis on the NPL ratio. However, it must be borne in mind that declines in Spain's GDP such as those projected for 2020 are significantly higher than the largest fall recorded in recent history (3.8% in 2009). Therefore, a non-linear effect, leading to an increase in the NPL ratio in 2020 that is larger than that estimated using historical data on the basis of linear models, cannot be ruled out. Nonetheless, it is also necessary to consider the vigorous recovery projected for 2021 by both the Banco de España and most analysts. This would also entail a faster decrease in the NPL ratio than in other recovery periods following previous economic crises. Furthermore, the forceful set of economic policy measures adopted at the Spanish and European level in response to this crisis should also help to reduce the intensity with which the drop in GDP results in an increase in the NPL ratio. In this regard, the Government programmes to guarantee bank loans for business and to support household income and firms' liquidity, the ECB's monetary policy measures and accounting measures in the regulatory realm all take on particular importance.

Moreover, this crisis can be expected to have an inconsistent impact on the various institutional sectors and sectoral levels; therefore, the expected trend in the aggregate NPL ratio will also depend on the distribution of the loan portfolio by agents and economic sectors.[2] That means it is necessary to analyse how the weight of the various institutional sectors and of economic activity in bank lending and in GDP has changed in recent years. Specifically, in 2008 the construction and real estate sector received the largest share of bank loans for business (47.3%), whereas, in December 2019, this sector had become less preponderant relative to the other productive sectors (a share of 21.8%). By contrast, mention should be made of the services sector's growth in weight during this period (55% of total bank loans for business in December 2019, compared with 35% in 2008). This sector includes sub-sectors such as wholesale and retail trade, accommodation and food service activities, and transport, which are more vulnerable to the disruptions caused by the pandemic and the social distancing measures adopted (see Chart 2).

Analysis of the historical correlation between NPL ratios by activity and the activity's respective gross value added (GVA) also shows that the correlation is inconsistent. For example, for the wholesale and retail trade, transport and accommodation and food services sectors taken as a whole, the correlation between GVA and the sectoral NPL ratio is even greater than for the overall loan portfolio. Specifically, a 1 pp change in the GVA of these sub-sectors taken as a whole results in a change of almost 0.8 pp in their NPL ratio, compared with 0.7 pp obtained

1 For more details, see Banco de España (2020). *Macroeconomic projections for the Spanish economy (2020-2022): the Banco de España's contribution to the Eurosystem's June 2020 joint forecasting exercise.*

2 See E. Prades-Illanes and P. Tello-Casas, "The heterogeneous economic impact of COVID-19 among euro area regions and countries", Analytical Articles. *Economic Bulletin,* Banco de España, 2/2020.

for the portfolio in its entirety. Therefore, the sensitivity of the NPL ratio of the different economic sectors and the make-up of the loan portfolio will together determine how the effects, in terms of the NPL ratio and, consequently, profitability and solvency, are distributed among banks.

In 2019, the value of the NPL ratio has significantly improved with respect to that in 2013 in all sectors, yet some have made more progress than others; furthermore, the current levels are still higher than those at the onset of the 2008 financial crisis. As Chart 3 shows, for all businesses, the difference between the 2019 NPL ratio and that of 2008 is less than 2 pp, whereas, for certain sectors, that difference is considerably larger (more than twice as large, in relative terms, in the agricultural sector, in the industrial sector and in the group comprising the wholesale and retail trade, transport and accommodation and food services sectors).

The NPL ratio in loans to households in 2019 (4.2%) was also higher than its 2008 level (2.8%), following a considerable improvement during the period after the end of the last crisis. Households' ability to continue to meet their payment obligations is also key to financial stability, since as at December 2019 loans to households accounted for around 54% of banks' lending to the

Chart 1
CORRELATION BETWEEN THE CHANGE IN THE NPL RATIO AND GDP GROWTH (2008-2019)

Chart 2
SECTORAL DISTRIBUTION OF LOANS FOR BUSINESS, 2008-2019

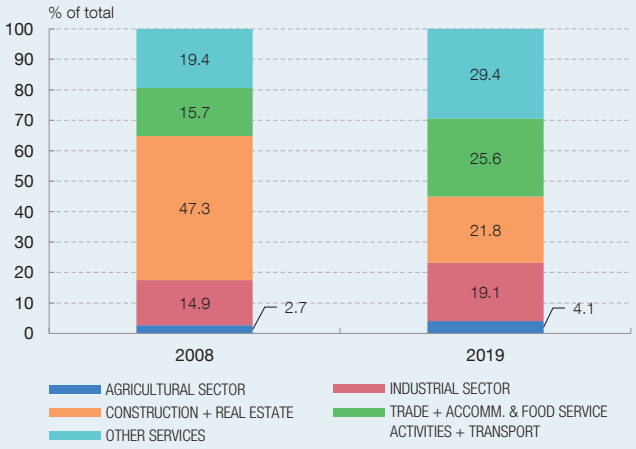


Chart 3
SECTORAL DISTRIBUTION OF THE NPL RATIO, 2008-2019

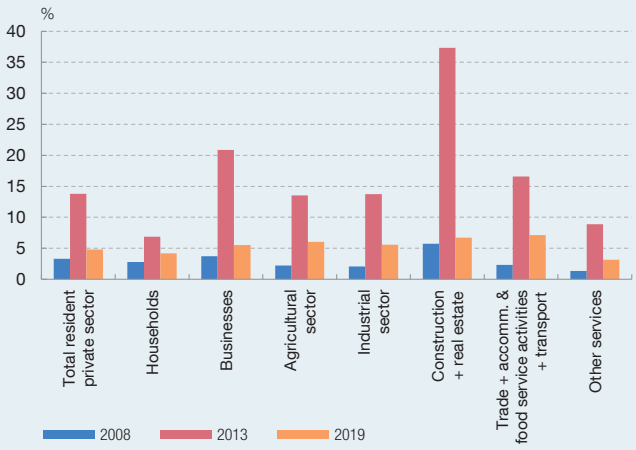
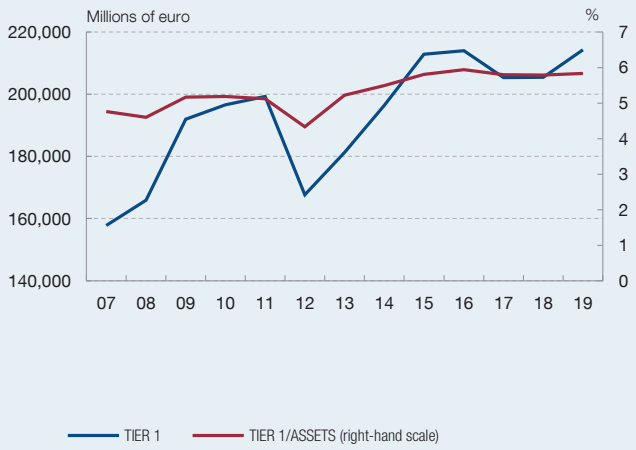


Chart 4
TREND IN TIER 1 CAPITAL (a)



SOURCE: Banco de España.

a Tier 1 capital comprises the highest quality capital, or Common Equity Tier 1, and other additional items (such as some hybrid instruments *(participaciones preferentes))*.

resident private sector. In particular, consumer loans accounted for 11.6% of loans to households at that date, but in general had grown significantly since 2015. Available analyses on the trend in non-performance in loans to households reveal that, for those households taking out various types of loan, defaults tend to arise first in the consumer lending segment.[3] Considering the recent trend in consumer loans and these historical patterns, this segment can be expected to suffer a relatively high and early impact on its credit quality as a result of the COVID-19 crisis. By contrast, if the current crisis ultimately proves to be an essentially temporary episode, the increase in the NPL ratio of mortgage loans might be moderate, since the mortgage loans that survived the global financial crisis are generally of a high credit quality and the new mortgage loans were granted under prudent lending standards.[4]

Lastly, although the NPL ratio is a very useful indicator of the quality of banks' balance sheets, it must be borne in mind that it does not provide all the information necessary to be able to assess banks' ability to absorb the losses associated with non-performing loans. First, the overall macroeconomic and financial conditions throughout the period of the considered scenarios must be assessed. Particularly, the cost of an increase in the NPL ratio in 2020 may vary depending on economic performance in 2021 and 2022. Thus, should there be a significant recovery in activity in this period, as envisaged in most of the latest forecasts, one could also expect an upturn in loan recoveries, i.e. borrowers classified as non-performing in 2020 being reclassified to performing in 2021-2022, and a more favourable trend in collateral prices, which would limit effective losses.

Second, banks' resilience also depends on their loss-absorbing items: provisions (to cover expected losses) and capital (ability to absorb unexpected losses). In the 2008 crisis, the existence of general provisions equipped banks with around €26 billion to absorb their initial losses. At the onset of the current crisis, as a result of the strengthening of capital (volume and its quality) in response to the global financial crisis, Spanish deposit institutions' Tier 1 capital has increased from around €158 billion in 2007 to almost €215 billion in 2019. In other words, Tier 1 capital has increased by €57 billion. Tier 1 capital accounted for 4.8% of total assets in 2007, rising to 5.8% at end-2019 (see Chart 4), thus increasing the ability to absorb the unexpected losses stemming from the growth in non-performance that the COVID-19 crisis will foreseeably cause in 2020.

3 See "Build-up of household debt defaults", Box 1.2, *Financial Stability Report,* Spring 2020.

4 See *El mercado de la vivienda en España entre 2014 y 2019,* Occasional Paper No 2013, Banco de España, 2020.

INDEX OF PHOTOGRAPHS

BANCO DE ESPAÑA PUBLICATIONS

The Banco de España publishes various types of documents providing information on its activity (economic reports, statistics, research papers, etc.). The full list of Banco de España publications can be found on its website at http://www.bde.es/f/webbde/Secciones/Publicaciones/Relacionados/Fic/Catalogopublicaciones.pdf.

Most of these documents are available in pdf format and can be downloaded free of charge from the Banco de España website at http://www.bde.es/webbde/en/secciones/informes/. Requests for others should be addressed to publicaciones@bde.es.

ISSN: 1579 - 8623 (online edition)
Depósito legal: M. 26001-2003

ACRONYMS AND ABBREVIATIONS

AIReF	Independent Authority for Fiscal Responsibility
AMCESFI	Spanish Macroprudential Authority
APP	Asset Purchase Programme
BCBS	Basel Committee on Banking Supervision
BE	Banco de España
BIS	Bank for International Settlements
BLS	Bank Lending Survey
CBILS	Coronavirus Business Interruption Loan Scheme
CBSO	Central Balance Sheet Data Office
CCFF	COVID-19 Corporate Financing Facility
CCR	Central Credit Register
CCyB	Countercyclical capital buffer
CDSs	Credit default swaps
CNE	Spanish National Accounts
CNMV	National Securities Market Commission
CPI	Consumer Price Index
CRII	Coronavirus Response Investment Initiative
CSPP	Corporate sector purchase programme
DGF	Deposit Guarantee Fund
EBA	European Banking Authority
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
ECOFIN	Council of the European Communities (Economic and Financial Affairs)
EDP	Excessive Deficit Procedure
EFF	Spanish Survey of Household Finances
EFSF	European Financial Stability Facility
EIB	European Investment Bank
EMU	Economic and Monetary Union
EONIA	Euro Overnight Index Average
EPA	Official Spanish Labour Force Survey
ERTE	Furlough-like and short-time work schemes
ESA 2010	European System of National and Regional Accounts
ESCB	European System of Central Banks
ESFS	European System of Financial Supervisors
ESM	European Stability Mechanism
ESRB	European Systemic Risk Board
ETS	Emissions Trading System
EU	European Union
EURIBOR	Euro Interbank Offered Rate
EUROSTAT	Statistical Office of the European Communities
FASE	Financial Accounts of the Spanish Economy
FDI	Foreign direct investment
FROB	Fund for the Orderly Restructuring of the Banking Sector
FSB	Financial Stability Board
GDI	Gross disposable income
GDP	Gross domestic product
GFCF	Gross fixed capital formation
GNP	Gross national product
GOP	Gross operating profit
GVA	Gross value added
HICP	Harmonised Index of Consumer Prices
IASB	International Accounting Standards Board
ICO	Official Credit Institute
IFRSs	International Financial Reporting Standards
IGAE	National Audit Office
IIP	International Investment Position
IMF	International Monetary Fund
INE	National Statistics Institute
LTROs	Longer-term refinancing operations
MFIs	Monetary financial institutions
MREL	Minimum requirement for own funds and eligible liabilities
MROs	Main refinancing operations
NAFTA	North American Free Trade Agreement
NCBs	National central banks
NFCs	Non-financial corporations
NiGEM	National Institute Global Econometric Model
NPISHs	Non-profit institutions serving households
OECD	Organisation for Economic Co-operation and Development
ONP	Ordinary net profit
OPEC	Organisation of Petroleum Exporting Countries
PELTROs	Pandemic emergency longer-term refinancing operations
PEPP	Pandemic Emergency Purchase Programme
PMI	Purchasing Managers' Index
PPP	Purchasing power parity
QNA	Quarterly National Accounts
SAFE	ECB Survey on the Access to Finance of Enterprises
SDRs	Special Drawing Rights
SEPA	Single Euro Payments Area
SGP	Stability and Growth Pact
SMEs	Small and medium-sized enterprises
SRB	Single Resolution Board
SRM	Single Resolution Mechanism
SSM	Single Supervisory Mechanism
SURE	Support to Mitigate Unemployment Risks in an Emergency
TFP	Total factor productivity
TLTROs	Targeted longer-tem refinancing operations
ULCs	Unit labour costs
VAT	Value Added Tax
WHO	World Health Organization
WTO	World Trade Organization

COUNTRIES AND CURRENCIES

In accordance with the protocol order, the EU Member States are listed using the alphabetical order of the country names in the national languages.

BE	Belgium	EUR (euro)
BG	Bulgaria	BGN (Bulgarian lev)
CZ	Czech Republic	CZK (Czech koruna)
DK	Denmark	DKK (Danish krone)
DE	Germany	EUR (euro)
EE	Estonia	EUR (euro)
IE	Ireland	EUR (euro)
GR	Greece	EUR (euro)
ES	Spain	EUR (euro)
FR	France	EUR (euro)
IT	Italy	EUR (euro)
HR	Croatia	HRK (Croatian kuna)
CY	Cyprus	EUR (euro)
LV	Latvia	EUR (euro)
LT	Lithuania	EUR (euro)
LU	Luxembourg	EUR (euro)
HU	Hungary	HUF (Hungarian forint)
MT	Malta	EUR (euro)
NL	Netherlands	EUR (euro)
AT	Austria	EUR (euro)
PL	Poland	PLN (Polish zloty)
PT	Portugal	EUR (euro)
RO	Romania	RON (New Romanian leu)
SI	Slovenia	EUR (euro)
SK	Slovakia	EUR (euro)
FI	Finland	EUR (euro)
SE	Sweden	SEK (Swedish krona)
UK	United Kingdom	GBP (Pound sterling)
JP	Japan	JPY (Japanese yen)
US	United States	USD (US dollar)

CONVENTIONS USED

M1	Notes and coins held by the public + sight deposits.
M2	M1 + deposits redeemable at notice of up to three months + deposits with an agreed maturity of up to two years.
M3	M2 + repos + shares in money market funds and money market instruments + debt securities issued with an agreed maturity of up to two years.
Q1, Q4	Calendar quarters.
H1, H2	Calendar half-years.
bn	Billions (10^9).
m	Millions.
bp	Basis points.
pp	Percentage points.
...	Not available.
—	Nil, non-existence of the event considered or insignificance of changes when expressed as rates of growth.
0.0	Less than half the final digit shown in the series.