FINANCIAL STABILITY REPORT

Spring
2020

BANCO DE ESPAÑA
Eurosistema

3 SYSTEMIC RISK AND PRUDENTIAL RESPONSE TO COVID-19

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TRANSMISSION CHANNELS AND RISKS TO FINANCIAL STABILITY FROM THE COVID-19 PANDEMIC

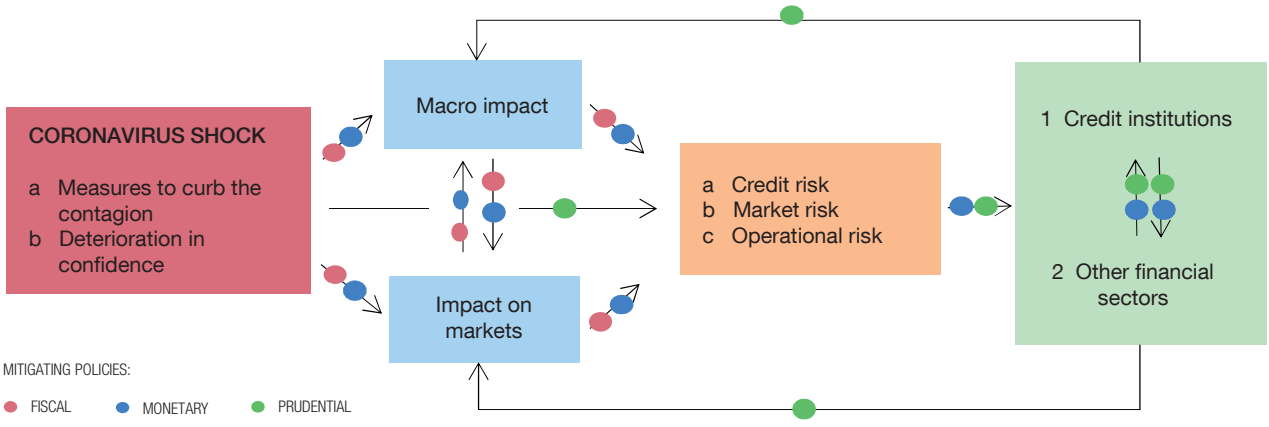
TRANSMISSION CHANNELS AND RISKS TO FINANCIAL STABILITY FROM THE COVID-19 PANDEMIC

In the context of the crisis of the COVID-19 pandemic, Banco de España is conducting reinforced monitoring of the economic and financial situation, in particular, of the national banking sector. Given the far-reaching change and exceptionality introduced into the macrofinancial setting by the crisis, this Financial Stability Report (FSR) is in a special format. Specifically, it focuses on analysing the transmission channels of this shock (in particular, to the domestic financial sector), its potential and actual impact up to the cut-off date for this report, and the factors that may help mitigate its effect, including most notably the response of economic policies.

The coronavirus pandemic and the necessary containment measures applied are exerting a most severe impact on economic activity. As a result, the risks to global financial stability have increased substantially. The economic policy measures adopted – at the national, European and international levels – should help mitigate these risks.

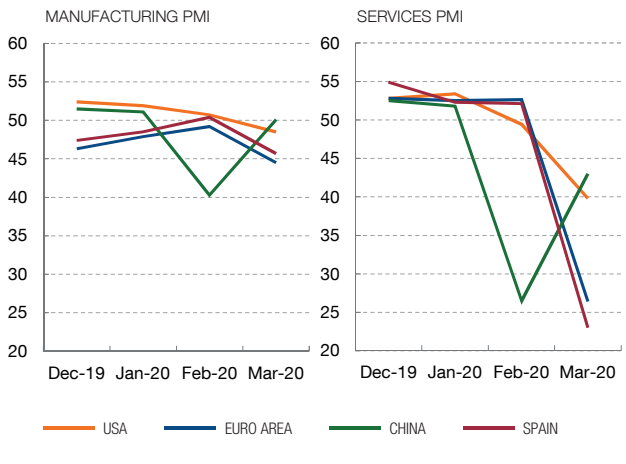
In the short term, the pandemic and the containment measures adopted by the authorities to control it directly impact economic activity and financial developments (see Figure 1) **via the reduction in the supply and demand for goods and services.** The containment measures drastically limit people's movements and entail the virtual full suspension of activity in certain productive

Figure 1
IMPACT OF CORONAVIRUS PANDEMIC ON FINANCIAL STABILITY, AND MITIGATING POLICIES

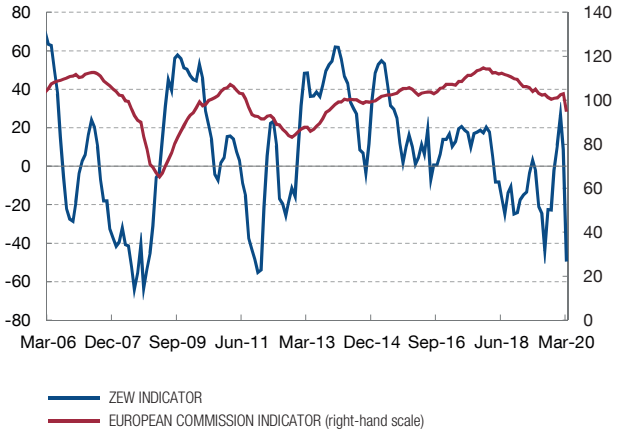


SOURCE: Banco de España.

1 PMI INDICATORS



2 CONFIDENCE INDICES



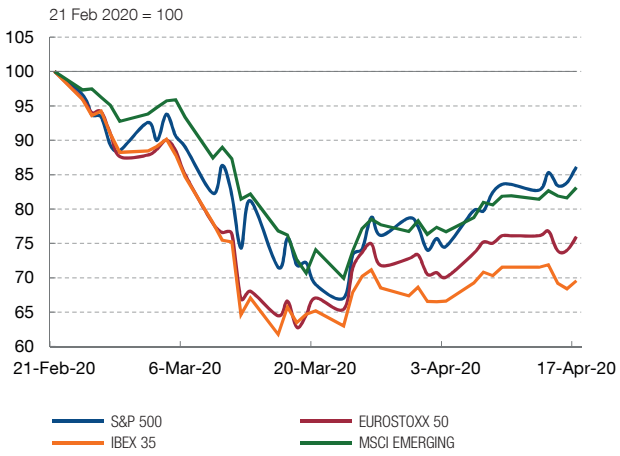
SOURCES: IHS Markit, European Commission and Leibniz Centre for European Economic Research (ZEW).

processes. Initially, the country most affected by these measures was China, which has now been joined by a growing number of economies, Spain among them. The leading indicators of activity show that the impact on Chinese output has been most significant, although the latest data point to a degree of recovery (see Chart 1). In Spain and in the other advanced economies, activity is also seen, with something of a lag, to be contracting most severely. This sharp adjustment is likewise feeding through to the emerging economies, including those of most importance in terms of exposure of Spanish financial institutions. These countries are highly dependent on global demand and on the course of commodities prices, which have collapsed.

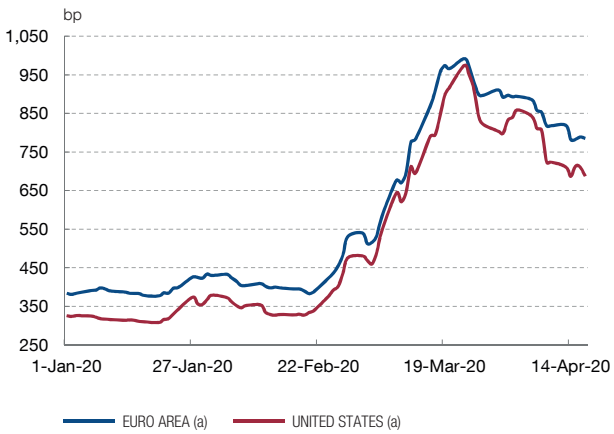
In parallel, the increase in uncertainty generated by the pandemic has caused a very marked downturn in agents' confidence and a strong fall in asset prices (see Chart 2). As a result of the uncertainty, agents have reconsidered spending decisions, in particular on durable goods consumption and on investment. Further, there has been a strong fall in asset prices, particularly those considered to be riskier, such as equities and lower graded bonds (see Charts 3 and 4), and those issued by the emerging economies, which have recently recorded sizeable capital outflows. This adjustment in financial market prices reflects both the increase in risk premia against a backdrop of high uncertainty and the worsening macroeconomic outlook. This, in turn, might exert an additional adverse impact on activity, if it entails a sustained tightening of financing conditions.

Accordingly, the pandemic has substantially increased the credit risk of exposures to non-financial corporations. Increased credit risk arises owing to the decline in companies' revenues, the outcome both of the fall in demand and of the dislocation of productive processes. That lessens companies' ability to repay the debt they have assumed, especially in the case of short-term debt. This effect is heterogeneous across economic sectors. In particular, some sectors, which in

3 STOCK MARKET INDICES



4 HIGH-YIELD BOND SPREADS OVER SWAP CURVE



SOURCE: Thomson Reuters Datastream.

a ICE Bank of America Merrill Lynch Single-B High Yield Index.

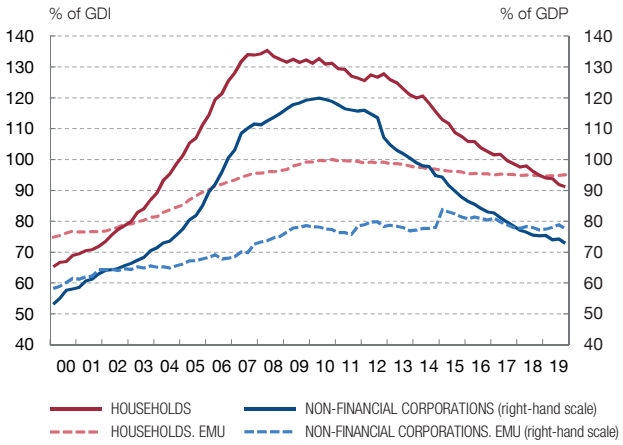
Spain's case account for around 25% of GDP, have been especially affected by the drastic restrictions on people's movements and the suspension of activity; cases in point are the hotel and restaurant trade and retail trade. Other sectors, such as the car industry, have halted production because of the standstill in demand and the interruption of supply chains.

Spanish firms are facing this shock in a more favourable financial position than that before the global financial crisis, but there are vulnerable segments. Spanish non-financial corporations have substantially reduced their debt levels in recent years (see Chart 5), which are now below the European average and have the support of higher liquidity buffers. Moreover, the sectoral distribution of activities is more balanced than in the situation prior to the previous crisis. That said, the scale of the shock is very significant and there are still segments of the Spanish corporate sector in a vulnerable position (see Chart 6).

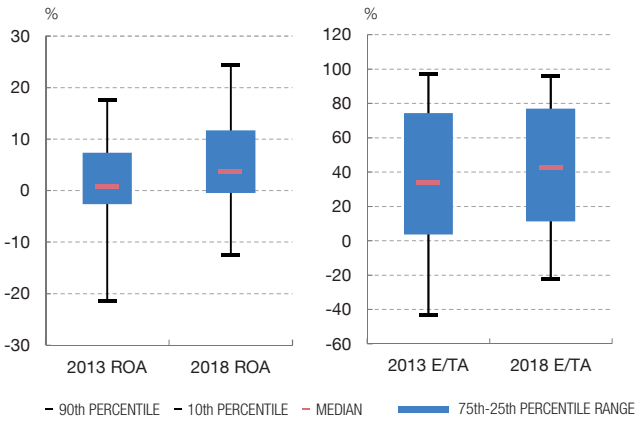
The credit risk of exposures to households has also risen. The reduction in activity has given rise to substantial job destruction in the short term which, as on previous occasions, has been concentrated in temporary employment. As in the case of firms, households' financial position has improved significantly since the global financial crisis (see Chart 5), while mortgage lending standards have been much more prudent. However, in addition to the significant scale of the shock, in recent years, consumer credit has been growing at high rates and, on past experience, this is one of the first financial liabilities that households fail to pay when their income turns down.

The pandemic has also increased market risk. As stated, the uncertainty associated with the effects of the pandemic has made for a forceful rise in the

5 DEBT RATIOS



6 DISTRIBUTION OF PROFITS OVER ASSETS (ROA) AND EQUITY (E) AS A PERCENTAGE OF TOTAL ASSETS (TA)



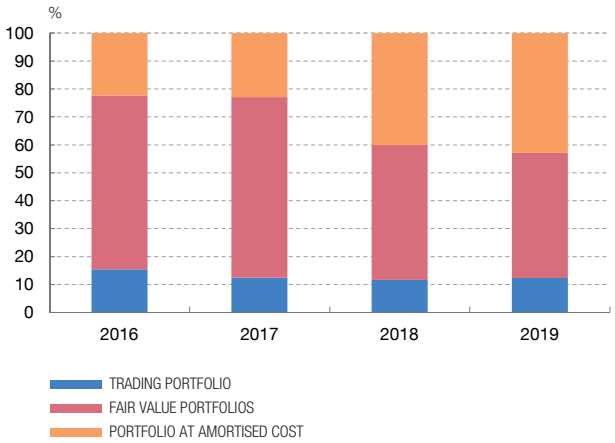
SOURCES: Banco de España and ECB.

volatility of asset prices traded on financial markets, the reflection of which has been a notable increase in risk premia (see Charts 4 and 10). This development, along with the foreseeable worsening in corporate profits, has prompted a sharp decline in risk-bearing asset prices, which might affect their value on financial institutions' balance sheets (see Chart 7).

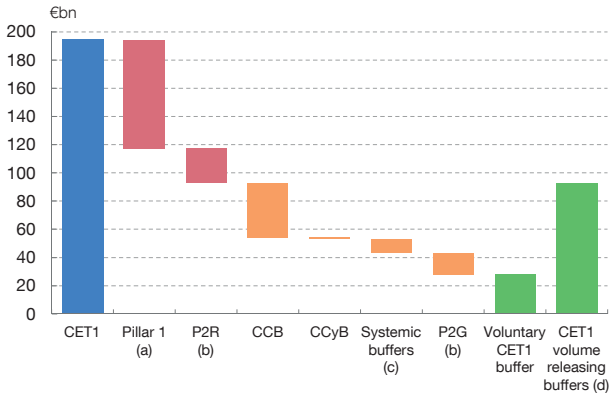
One of the distinctive characteristics of this crisis is that it has also increased institutions' operational risks. Confinement has entailed the speedier activation of remote working protocols and of contingency plans so as to ensure the appropriate provision of financial services to customers. The urgency with which it has been necessary to adapt to the restrictions on movement entails vulnerabilities for information systems, processes, platforms and technological infrastructures, on which institutions are increasingly dependent. Under these conditions, cybernetic risks become particularly prominent. To date, institutions have managed to effectively adapt to the situation and financial markets have continued functioning correctly; but contingency plans must be pursued, ahead of the potential extreme operational events this crisis may involve.

The high degree of interconnectedness in the financial sector might amplify the financial impact of the shock. On one hand, the interconnectedness of global financial markets means that the mitigation of the effects of the pandemic is conditional upon how certain countries playing a central role in the international economic and financial architecture perform. On the other, the interconnectedness of financial sub-sectors, which may be direct (when these intermediaries have cross-exposures on their balance sheets or income statements) and also indirect (through common holdings of securities), may become an additional amplifying factor. In this latter case, it is of vital importance to prevent bouts of accelerated portfolio sales, which may further distort the functioning of financial markets. In this respect, it is

7 DEBT SECURITIES IN PORTFOLIO OF CREDIT INSTITUTIONS
Consolidated data



8 VOLUME OF CAPITAL ABOVE MINIMUM REQUIREMENT
December 2019



SOURCE: Banco de España.

a This item includes all of CET1 earmarked to meet Pillar 1 requirements, both the direct requirement of 4.5% and the requirement made to institutions which do not have sufficient AT1 and T2 to meet their respective requirements of 1.5% and 2%.
b P2R refers to Pillar 2 capital requirements, whereas P2G refers to Pillar 2 guidance. Supervisory guidance in response to COVID-19 allows for the release of capital linked to P2G and relaxes the rules on the composition of the P2R, with a lower weight of CET1.
c This item includes the buffer for global systemically important institutions and the buffer of other systemically important institutions.
d The capital that can be released in accordance with the supervisory guidance in response to COVID-19 includes the voluntary CET1 buffer, the capital conservation buffer, the countercyclical buffer, the systemic buffers and the capital linked to Pillar 2 guidance.

imperative to monitor both withdrawals of collective investment institutions' funds and the decisions credit rating agencies take (whose re-grading of ratings may mean specific securities contribute to raising the risk profile of funds' portfolios and lessening the value of those securities as collateral), and also to scrutinise these institutions' and markets' liquidity. In addition, the reduction in market funding arising under these circumstances for certain agents must not entail an additional burden for other intermediaries.

Banks have higher solvency levels and must play a leading role in the absorption of this shock and in the response to the crisis. As part of the regulatory response to the international financial crisis, the banking sector has improved significantly balance sheet quality and increased its solvency levels over the past decade. In Spain's case, as can be seen in Chart 8, financial institutions have significantly higher capital levels than the minimum regulatory requirements, which can be used to absorb unexpected losses. In this respect, the readiness of capital buffers to accommodate a shock that has not originated in the banking sector itself coupled with their proximity to customers means that – with the support of government – banks can become key players in the response to the pandemic. Specifically, banks should be in a position to provide financing to agents that, prior to the pandemic, had a good payment record but now have liquidity needs.

Nonetheless, the magnitude of the short term economic deterioration has no close precedent, which, together with the doubts regarding its duration,

compels to maintain careful monitoring. The challenge for banking entities is very important given the size of the short term shock – larger than in stress test exercises conducted in the past- and the uncertainty about its persistence. Experience in previous stress test exercises indicates that periods of significant economic deterioration followed by swift recoveries do not entail very pronounced deteriorations in the banking system's aggregate solvency. However, the consequences of protracted adverse economic scenarios can significantly undermine aggregate solvency. Even in these latter scenarios, loss-absorbing items make possible a non-immediate erosion of solvency , providing scope for action, which must be used for an unequivocal response of economic policy.

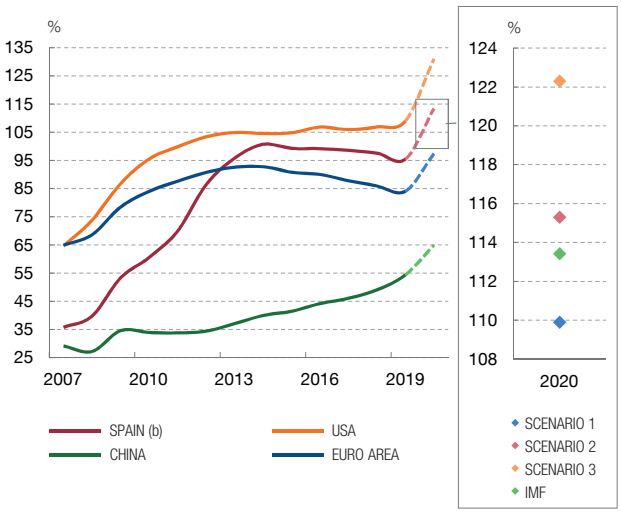
The impact on the financial situation of banking entities is expected to be heterogeneous. In this regard, entities with greater exposure to productive sectors and geographic areas that are most affected by the pandemic, and those that start from a worse initial situation in terms of balance sheet quality and profitability, will experience a larger negative impact on their profit and loss account and solvency levels.

The challenges for the banking sector arising from the effects of the pandemic are added to those that already existed. In recent years, the profitability of the European banking sector has remained at low levels and below the cost of capital. Besides, the non-performing loan ratio in Spain, despite the significant reduction since 2014, was still above the levels previous to the crisis and it will experience a rebound in the current circumstances. It must also be taken into account that, at least partly, the low profitability in the sector is associated with low nominal growth and low, and even negative, interest rates, which are likely to persist for longer after this crisis. Indeed, the banking sector, not only in Spain but also internationally, has seen one of the largest drops in stock market valuations.

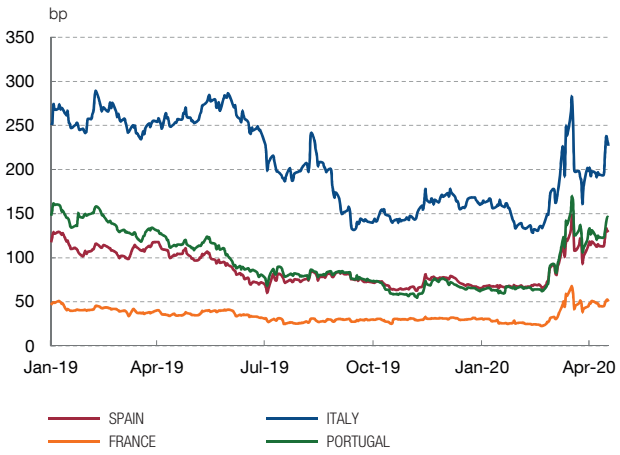
A forceful, swift and coordinated response by the economic authorities is crucial to mitigate the effects of the crisis and prevent them from being durable. The response should encompass national, European and global economic policies and cover the fiscal, monetary and prudential areas. The aim is to mitigate the earlier-mentioned transmission channels and to prevent a shock that has an essentially transitory effect – albeit a most severe one – on activity and financial stability from becoming more persistent (see Figure 1). This economic policy response must be adapted, both in terms of magnitude and duration, to the economic effects of the pandemic.

Fiscal policy stands as the first line of defence. It is indeed the fiscal authorities that have the most appropriate and powerful instruments to ensure agents' incomes and, from the financial stability perspective, to reduce the potential increase in credit risk. In Spain's case this has meant injecting liquidity into companies by means of payment deferrals on certain tax obligations and providing for temporary staffing adjustments without employees forgoing all their income. In the case of households,

9 PUBLIC DEBT AS A PERCENTAGE OF GDP (a)



10 10-YEAR GOVERNMENT BOND YIELD SPREAD OVER GERMANY



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

a Data for 2020 correspond to current IMF projections.
b For 2020, the dashed lines correspond to the IMF's current outlook for Spain and to the "Reference macroeconomic scenarios for the Spanish economy after COVID-19", *Analytical Articles, Economic Bulletin,* 2/2020, Banco de España.

unemployment benefits have been reinforced and basic supplies ensured, and it has also been announced the upcoming implementation of a subsidy for very-low-income households. Further, a moratorium has been approved on mortgage debt and on other non-mortgage loans, including consumer loans, for individuals affected by the crisis. In this connection, a large-scale guarantee programme has also been launched, the appropriate use of which should enable firms to finance their liquidity requirements. This will help ease the closure of companies and prepare the productive system for a potential recovery once the pandemic containment measures can be relaxed. Logically, these measures will have to be adapted to the actual duration of the confinement and be in step with the economy during the ongoing recovery of normality. In this accompaniment process, the measures will have to be tailored to the different speeds at which the different sectors of activity will foreseeably move.

This necessary fiscal policy response will lead to a most significant increase in public debt globally, the reduction of which must be faced once the effects of the crisis fade. The aforementioned measures, along with the operation of the automatic fiscal stabilisers, in a context of strong deterioration of activity, will significantly raise public-sector borrowing requirements and debt ratios in all countries. And this in a situation in which global public debt had already increased significantly in the wake of the international financial crisis (see Chart 9). Unsurprisingly, in this setting, tensions have fed through to sovereign risk premia, although their effect is being mitigated by the actions of central banks (see Chart 10). In Spain's case, the public debt/GDP ratio stood at end-2019 at 95.5% of GDP, more than 60 pp above its 2007 level, and the budget deficit was at 2.8% of GDP. Against this background, fiscal

policy has a necessary role to play in the current crisis, as a guarantor of household and corporate income. However it should be accompanied by a medium-term fiscal consolidation programme that, once the effects of this crisis fade, will reduce public finances imbalances, and by structural reforms that provide for an increase in the Spanish economy's growth potential.

The reaction of central banks has also been crucial to keeping monetary policy transmission channels fully operational and avoiding the fragmentation of financial markets. In the euro area, the ECB Governing Council has approved new long-term refinancing operations (LTRO and TLTRO-III), under very favourable conditions, an extension of the volume of asset purchases under the APP and a new Pandemic Emergency Purchase Programme (PEPP), under which it will purchase both public and private securities worth at least €750 billion over the rest of this year. These measures are key to preventing any tightening of economies' financing conditions and any financial fragmentation in the euro area, against a background of strongly increasing public treasury financing needs. Besides, the ECB Governing Council has reiterated its determination to do all that is necessary to ensure that monetary policy is transmitted to all economic segments and all countries in the area. Specifically, the ECB Governing Council is ready to increase the size of PEPP and adjust its composition, to the required extent and for the necessary time.

Both micro- and macroprudential policy decisions have been aimed at enabling use of the capital buffers, built up precisely to withstand unexpected losses, and at limiting profit distributions. As earlier indicated, following the regulatory reforms in response to the global financial crisis, financial institutions have raised their capital levels significantly. Banks' capital is conceived precisely to absorb unexpected losses in the face of adverse shocks and to smooth, in these situations, the continuing supply of financing to agents. To this end, the ECB and the national authorities, integrated into the Single Supervisory Mechanism (SSM), have allowed institutions to use the voluntary, countercyclical, systemic, conservation and P2G-derived capital buffers, and also to operate temporarily below the levels set for the liquidity ratio, in response to the current crisis. Moreover, they have recommended that banks should not distribute dividends and that they should exercise prudence in the payment of bonuses to their employees. In this way, both measures may contribute to shoring up their solvency in this crisis situation.

The measures approved have also sought to prevent unwanted potential procyclicality in the application of accounting and prudential regulations. Accountingwise, and given the, in principle, transitory nature of the shock, the ECB has stated that it will be flexible in its consideration of borrowers benefiting from public support measures (such as guarantees and moratoria) as non-performing. The ECB will also take into account these circumstances, in the application of the provisioning expectations under Pillar 2, accepting the possibility of operating below the pillar's recommendation. In addition, the ECB has recommended that institutions

avoid procyclicality in their provision-estimation models and that they incorporate a medium-term outlook into their calculation. Along these same lines, the European Banking Authority (EBA) has called for flexibility and pragmatism in the application of the prudential framework, clarifying that, in the event of a public or private debt moratorium, there should be no automatic classification as a non-performing loan or any accounting reclassification. The EBA has also supported the recommendations on the use of capital and liquidity buffers and on limits on dividend payouts.

The measures approved by the national authorities and by the ECB should be complemented with a forceful European response. The pandemic and its economic impact are affecting all euro area and, by extension, EU countries. Tackling it requires resolute and ambitious measures by Community authorities and institutions using the financial and budgetary instruments currently available, as well as possible new tools. In this respect, on 9 April the Eurogroup agreed to set in train a raft of support measures, including most notably a credit facility from the European Stability Mechanism (ESM) to provide financing to Member States; a European Investment Bank (EIB) programme to smooth the funding of SMEs; and a fund to defray part of the costs associated with temporary layoff arrangements by companies. In addition, the European Council supported on April 23th the creation of a Recovery Fund at the proposal of the European Commision, to be funded with the 2021-2027 multiyear European budget. Among other possible new instruments that might be required, priority should be given in all the cases to those that reinforce the capacity of the EU as a whole to promote appropriate financing conditions with which to defray the sizeable costs of the crisis and the repairing the growth capacity of all the Member States harmed by the pandemic. Given the current crisis it is more pressing than ever to make headway in completing the optimal monetary zone that the euro area aspires to be.

1

RISKS LINKED TO THE MACROFINANCIAL ENVIRONMENT

The expansion of the COVID-19 health crisis in the opening months of 2020 and the necessary containment measures implemented have abruptly altered global economic developments. Spain is one of the countries which the pandemic has impacted most and earliest. As in other countries, the impact of this – in principle transitory – shock on economic activity is proving very severe, and the authorities are adopting measures to mitigate its impact both on households and on firms. This chapter reviews the effects the pandemic is having both on systemic and materially significant countries and on Spain. It further summarises how national and international financial markets have reacted to date and how the various non-financial sectors of the Spanish economy are positioned to face this shock. Finally, it reviews the main measures adopted by the economic authorities.

1.1 Macroeconomic environment

1.1.1 Systemic and materially significant countries

The expansion of COVID-19 and the necessary measures adopted to curb it have strongly impacted the international economic situation in the past quarter. The level of uncertainty over the scale of the pandemic's adverse impact on activity and international trade is very high, though it is in any event expected to be very pronounced.[1] Consequently, analysts' and international organisations' growth forecasts for this year have begun to be revised substantially downwards, with an unusually high dispersion. The IMF forecasts that all global regions are expected, in the short term, to go into recession (see Chart 1.1). It also anticipates that the impact of COVID-19 will be transitory, whereby its forecasts, like those of most analysts, incorporate a pick-up in activity as from the second half of this year that will run at relatively high growth rates over the course of 2021. However, the uncertainty surrounding the pandemic is also extensive to expectations about the duration and intensity of its effects, with even more adverse scenarios not being ruled out. Against this background, the resolute response of fiscal, monetary and prudential policies, in the advanced and emerging economies alike, is cushioning the adverse impact of the coronavirus shock, and should be stepped up where necessary (see Box 1.1).

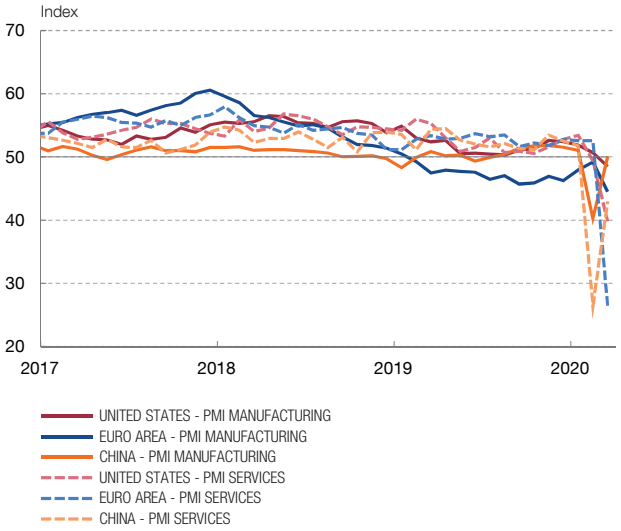
1 See Banco de España (2020) "The impact of the coronavirus pandemic", Analytical Articles, *Economic Bulletin* 2/2020, forthcoming.

Chart 1.1

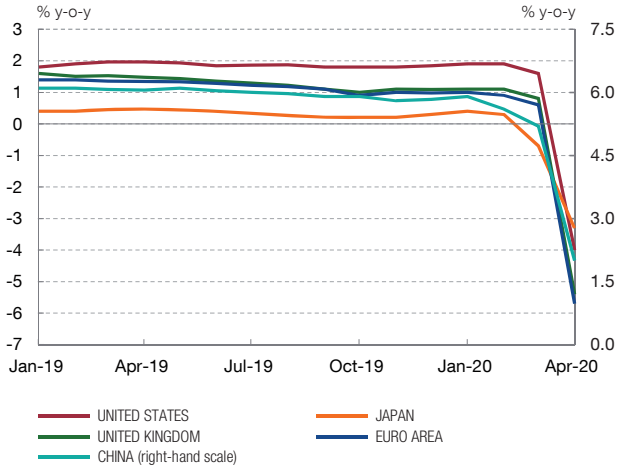
GLOBAL GROWTH IN 2020 WILL BE GREATLY IMPACTED BY COVID-19

Global economic developments have been severely influenced by the worldwide spread of the COVID-19 pandemic. The level of uncertainty over the scale of the adverse impact on activity and international trade is very high, although the impact is expected to be most pronounced. Consequently, analysts' growth forecasts for this year have begun to be revised substantially down, although most anticipate that the impact will be transitory.

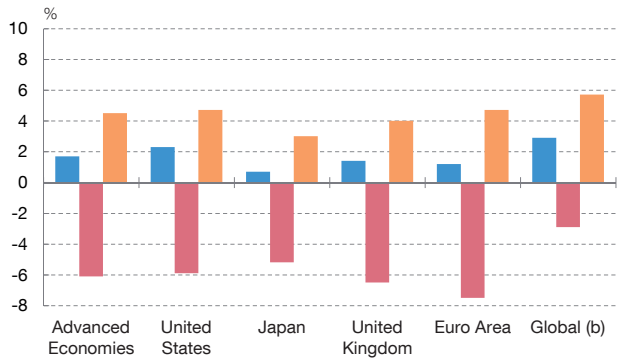
1 PMI MANUFACTURING AND SERVICES



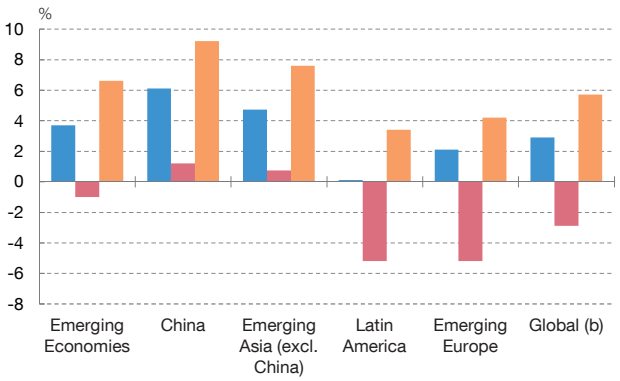
2 *CONSENSUS FORECASTS* FOR 2020



3 REAL GDP GROWTH PROJECTIONS. IMF (WEO) APRIL 2020: ADVANCED ECONOMIES



4 REAL GDP GROWTH PROJECTIONS. IMF (WEO) APRIL 2020: EMERGING MARKET ECONOMIES



SOURCES: IMF (WEO April 2020), IHS Markit, *Consensus Forecast*.

a Provisional figure.
b For comparison purposes, world economic outlook growth projections.

The indicators of activity becoming known broadly reflect a most significant impact of the expansion of the health crisis in the short term. Generally, in the main advanced economies, the PMI activity indices fell drastically in March, especially for services, with most components evidencing reductions on a large scale and historical lows, adding to the significant declines already observed for China in January and February. In the Chinese economy, the first affected, the available indicators of activity for Q1 show a quarter-on-quarter fall in GDP of 9.8%

(–6.8% year-on-year, compared with 6% in 2019 Q4) with declines in industrial production, retail sales and investment of between 15% and 25% in January and February; in March, however, some of these indicators have already begun to recover. The evidence thus becoming available on global economic activity, which is mainly partial in nature, augurs a most pronounced and across-the-board worsening of the economic situation, and one particularly acute in those countries which, having undergone the sharpest virus outbreaks, have been forced to introduce more drastic containment measures.

The risks the world economy is facing have shifted significantly upwards compared with previous FSR editions. As mentioned, these include most notably a prolongation of the coronavirus pandemic and a step-up in its geographical expansion. The bouts of geopolitical and social tension present in some regions prior to the health crisis,[2] or the new risks that may arise, might be exacerbated or activated owing to the impact of the pandemic. And that might have marked economic effects. Conversely, the recovery under way in China might partly soften the impact of the crisis on the global economy, given China's weight and its growing interrelatedness with the rest of the world.[3] Further, a more robust response of economic policies globally might also exert mitigating effects.

In the short run, the economic outlook for the euro area has worsened abruptly and sharply following the spread of the COVID-19 pandemic in Europe (see Chart 1.2). The population confinement measures, needed to halt the transmission of the disease, are adversely affecting the economy. They are doing so both through supply-side channels, given the disruption of productive chains (globally and locally), and demand-side channels, by prompting deep cuts in household and corporate spending, set against a heightening in uncertainty to unprecedented levels. That said, while the euro area economy is evidently facing a very deep shock at present, there is much underlying uncertainty over the scale of the economic impact of the pandemic, and how persistent it may prove. In these exceptionally uncertain circumstances, both private analysts and official agencies are revising the growth outlook for the euro area notably downwards, especially for 2020; however, as is the case globally, a growth rebound is expected in 2021. On mid-April IMF forecasts, euro area GDP might shrink by 7.5% in 2020, a revision of almost 9 pp on the on the forecasts prior to COVID-19. In 2021, GDP is expected to grow by 4.7%, under the assumption that the pandemic fades in the second half of 2020 and incorporating the effect of the economic policies approved.

The global expansion of the coronavirus pandemic has also significantly affected emerging markets. Generally, the emerging economies' degree of

2 See Banco de España (2020) "Social tensions in Latin America", Box 1 of the "Report on the Latin American economy. First half of 2020", Analytical Articles, *Economic Bulletin 2/2020.*

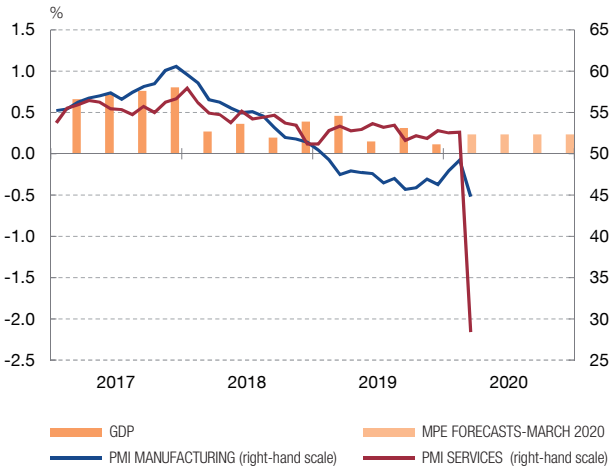
3 See Bing, Roth and Santabárbara (2019). "Global impact of a slowdown in China", Analytical Articles, *Economic Bulletin 4/2019,* Banco de España.

Chart 1.2

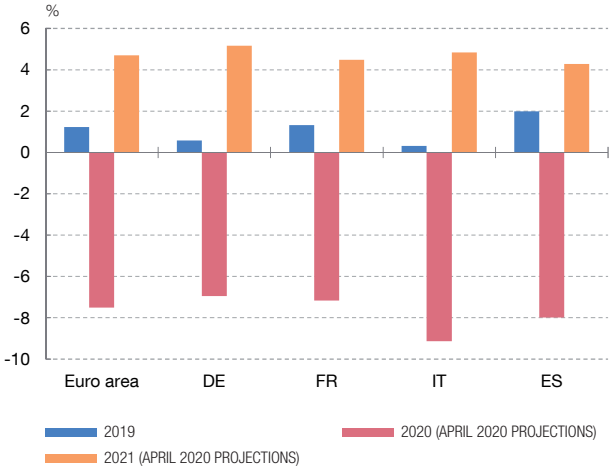
THE EURO AREA ECONOMY, WHICH WAS SHOWING WEAK GROWTH AS AT END-2019, WILL BE SIGNIFICANTLY IMPACTED IN THE SHORT RUN

In the short run, the euro area economic outlook has worsened most abruptly and sharply further to the spread of the COVID-19 epidemic in Europe, with significant revisions expected to the MPE-March 2020 projections. The euro area GDP is projected to contract by 7.5% in 2020, according to IMF WEO, April 2020. In 2021, euro area GDP is expected to rebound 4.7% under the assumption that the pandemic fades in the second half of 2020 and taking into account policy actions undertaken.

1 EURO AREA: GDP AND PMI INDICATORS
Quarter-on-quarter growth, diffusion index



2 EURO AREA GDP GROWTH AND PROJECTIONS (IMF WEO). APRIL 2020



SOURCES: Eurostat, Markit, IMF and ECB.

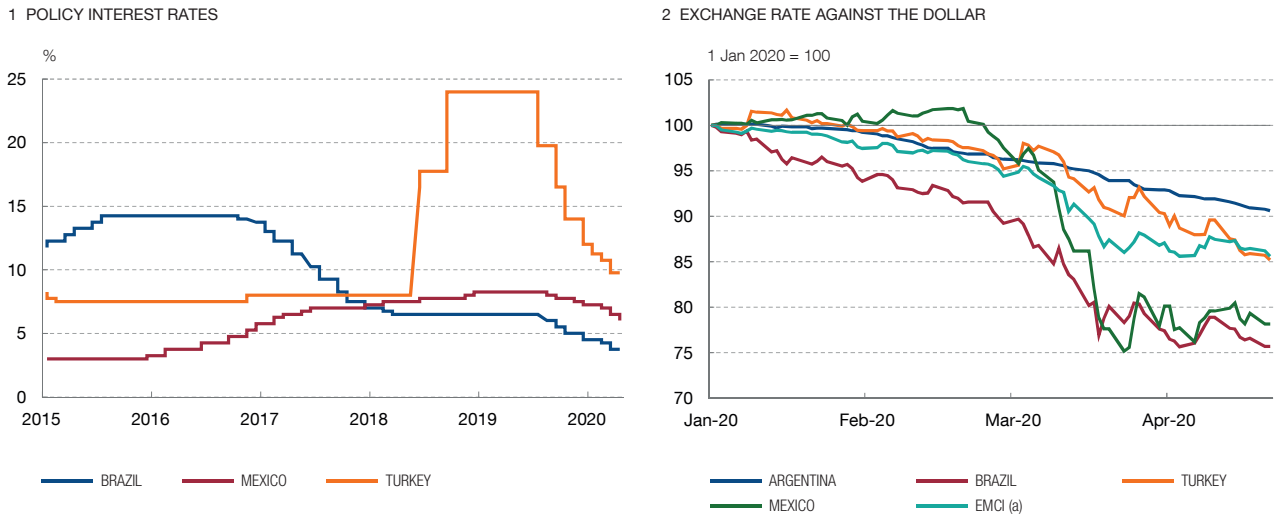
financial vulnerability has increased; their currencies have depreciated, their levels of sovereign risk have increased and portfolio investment flows have collapsed, according to the high-frequency partial data. Their vulnerability is much more acute than in previous episodes of financial stress, including the global financial crisis (see Chart 1.3).

Considerable risks, associated mainly with the spread of the pandemic but also with domestic factors, persist in the emerging markets with a significant Spanish banking presence. In Mexico, growth forecasts have been revised substantially downwards, and there may be most pronounced declines in GDP owing to the containment measures, the tightening of financing conditions, the fall in oil prices and the adjustment of activity in the United States. On the domestic front, there is continuing concern about the State-owned company Petróleos Mexicanos (PEMEX), which is overburdened with high debt. This partly explains the greater depreciation of the Mexican peso than that posted by other emerging currencies, following the collapse of oil prices. Brazil is subject to pandemic-related effects similar to those of Mexico, although its economy is more closed than Mexico's. On the Brazilian home front, the reform of the pensions system and the government's intention to adopt other structural reforms (affecting taxation and the privatisation of public corporations) in the period prior to the health crisis provided some leeway

Chart 1.3

THE EMERGING ECONOMIES HAVE BEEN GREATLY AFFECTED BY THE EXPANSION OF COVID-19

Financial markets in the emerging economies also felt most keenly the effects of the expansion of the pandemic. The episode has given rise to flight to safe-haven assets which has translated into stock market declines, higher risk premia and currency depreciations, all the greater in the case of the Mexican peso owing to the collapse of oil prices and the ensuing effects on PEMEX. Nonetheless, central banks in the emerging economies cut policy interest rates across the board and adopted other monetary easing measures to mitigate the sharp declines in economic activity.



SOURCE: Reuters.

a Aggregate index of emerging economies' exchange rates against the dollar. A decline denotes a depreciation.

for monetary policy, whereby the policy interest rate stood at historical lows in the final stretch of 2019. That has not prevented a further cut to this rate in response to the crisis. Nonetheless, the Brazilian real is performed relatively worse than other emerging currencies, given its lesser attractiveness owing to lower interest rates and the worsening current account balance. In Turkey, likewise affected by the global pandemic, the central bank has steepened the path of monetary policy easing in a setting in which, however, a high degree of external vulnerability remains.

1.1.2 Spain

Economic activity in Spain has also been abruptly affected by the necessary adoption of measures to contain the expansion of the virus. In 2019 Q4, quarter-on-quarter GDP growth was 0.4%. The most representative conjunctural indicators of activity suggest that GDP moved on a similar trajectory in the first two months of the year to that observed in late 2019.[4] However, the expansion of the COVID-19

4 For further details, see Box 1 "The Spanish economy before the spread of the coronavirus epidemic", in the Quarterly report on the Spanish economy, Economic Bulletin 1/2020, Banco de España.

health crisis to Spain and other European countries since then has abruptly changed the dynamics of economic activity. In particular, the rapid rise in March in the number of people infected necessitated the approval of the state of alert,[5] which has drastically restricted people's movements and practically brought to a standstill activity in some sectors.

The decline in activity is estimated to have affected certain specific sectors more than proportionately. These include some services sectors that have been more directly harmed by the restrictions on movement, such as tourism, air transport, accommodation and food service activities, significant retail trade segments and entertainment. Moreover, some manufacturing sectors have also ground to a halt because of the reduction in demand and the interruption of supply chains. The car industry is a case in point, where these value chains are of greater importance in the production of final goods.

Some indicators, including most notably the statistic on Social Security registrations, are already reflecting the extraordinarily acute impact of the COVID-19 crisis. The March figures on Social Security registrations reveal the biggest monthly decline in employment in the time series. The size of the fall, concentrated in the second fortnight, was 4.3% (833,979 workers) compared with the end-February level (see Chart 1.4). In terms of sectors, the most pronounced decline in employment in percentage terms was in accommodation and food service activities (–11.9%) and construction (–11.3%). The application of temporary layoff arrangements (ERTEs) has restricted the decline in Social Security registrations in all sectors. By type of contract, the decline in employment in the second half of the month was centred on temporary employees (–17.3%), while the impact on permanent employment was on a much lesser scale (–1.9%), partly owing to the application of ERTEs, which predominantly affect the second of these two sets of workers. In this regard, the Labour Force Survey of the first quarter showed an increase of the unemployment rate, reaching a level of 14.4%.

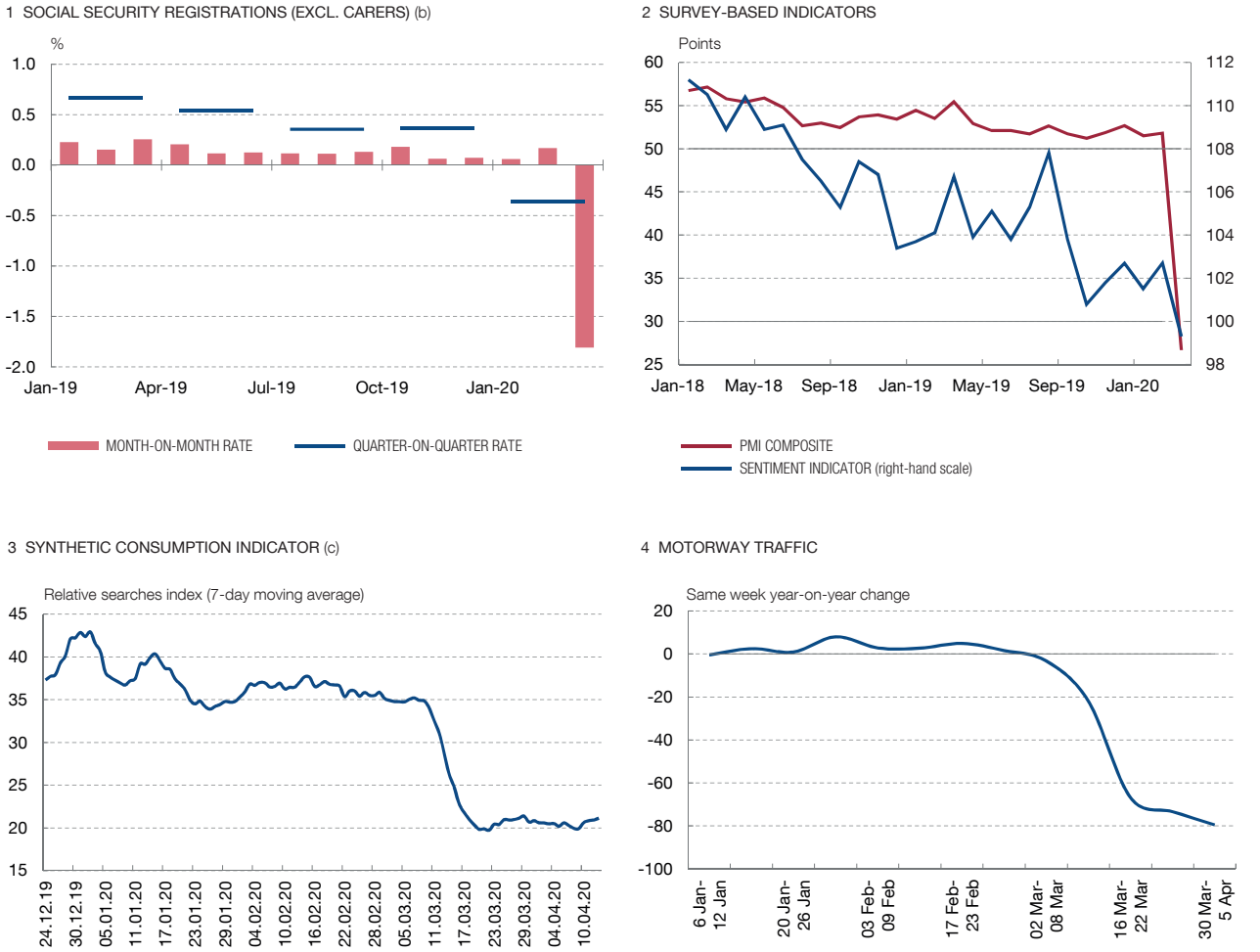
The qualitative indicators of activity and the high-frequency quantitative indicators also fell markedly in March. The manufacturing PMI, which have moved on an improving trend to February, fell sharply in March below 50 points. The decline in the services PMI was much steeper and shrank from 52.5 points in February to under 25 in March this year. The business sentiment indicator posted a reduction of 3.4 points in March which, however, reflects only partially the consequences of the pandemic containment measures, given that the surveys had been conducted in the main beforehand. Apart from the indicators of employment and new car registrations, which evidenced a very pronounced decline, the other quantitative indicators

5 The state of alert was decreed en 14 March and, since then, it has been extended on three occasions. Within this period non-essential economic activities, such as construction and manufacturing not geared to the supply of food or staple goods or that had not been adapted to the manufacture of health-related equipment, were suspended between 31 March and 9 April.

Chart 1.4

ECONOMIC ACTIVITY IN SPAIN HAS BEEN SERIOUSLY DISRUPTED BY THE COVID-19 PANDEMIC (a)

Economic activity in Spain has been sharply affected by the spread of the coronavirus health crisis, and some indicators, including most notably Social Security registrations, and consumer and business confidence surveys, are already capturing the extraordinarily severe impact of this crisis.



SOURCES: Ministerio de Trabajo, Migraciones y Seguridad Social, European Commission, Markit Economics, Google Trends and Grupo Atlantia.

a Latest observations: March 2020 (Social Security registrations and survey-based indicators), 13 April 2020 (synthetic consumption indicator based on daily Google searches) and 5 April 2020 (weekly volumen of motorway traffic).
b Royal Decree-Law 6/2019 of 1 March 2019 restored the right of non-professional carers of dependents to enter into a special agreement with the Social Security authorities under which the State assumes the social security contributions payable. This legal amendment has increased the number of non-professional carers from 7,300 in March 2019 to 57,600 in February 2020.
c Indicator compiled on the basis of Google Trends searches.

for March usually used for economic analysis are not available. Other, higher-frequency quantitative indicators, less used in monitoring economic developments, also suggest a most pronounced contraction in activity. Thus, for instance, the figures for international travellers entering Spain by air and of flights from or to Spanish airports are estimated to have fallen to practically zero since mid-March. Along these same lines, and in accordance with an indicator of Internet searches

relating to spending on consumer goods and services, this item is expected to have fallen heavily in the days prior to the announcement of the state of alert. The sharp fall-off in activity is also discernible in the decline in traffic on Spanish motorways.

These developments will translate into significant declines in GDP in the first half of the year.[6] Despite the fact that, as indicated, the information for March is incomplete, the preliminary estimates of the National Statistical Institute point to a quarterly GDP decline of 5.2% in the first quarter, even though the shock affected it mainly only in the last fortnight of the quarter. This fall exceeds in 2.6pp the biggest quarter-on quarter decline that the Spanish economy has posted in its recent history, namely in 2009 Q1. In 2020 Q2, the decline in output is expected to be appreciably higher, given that the number of weeks of confinement will be higher compared with Q1. This fall will have exceeded the biggest quarter-on-quarter decline that the Spanish economy has posted in its recent history, namely in 2009 Q1. In 2020 Q2, the decline in output is expected to be appreciably higher, given that the number of weeks of confinement will be higher compared with Q1.

The outlook for economic activity beyond the confinement period is shrouded in high uncertainty. First, there is a considerable lack of certainty over the duration and intensity of the current health crisis from an epidemiological standpoint. Second it is difficult to assess to what extent productive processes may return relatively rapidly to normality once the health alert is behind us. The time the resumption of normality takes will be all the shorter the more effective the domestic and international economic policy measures recently approved to prevent this shock leading to company closures and permanent job losses.[7]

These uncertainties hinder the preparation of medium-term macroeconomic projections using the habitual methodologies. Accordingly, on 20 April the Banco de España released a set of illustrative reference scenarios, using various analytical tools.[8] To construct the scenarios, two alternative – supply-side and demand-side – approaches were used. The supply-side perspective has as its starting point the calibration of the scale of the decline in output in the economy's various sectors as a result of the containment measures. The demand-side approach is based on simulations of different scenarios with a macroeconometric model drawing on a characterisation of the different shocks associated with the pandemic (see Chart 1.5). Evidently, given the pace of events, all these scenarios are subject to potentially frequent and large-scale revisions.

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6 For further details, see Banco de España (2020). "Reference macroeconomic scenarios for the Spanish economy after COVID-19", Analytical Articles, *Economic Bulletin 2/20200,* Banco de España.

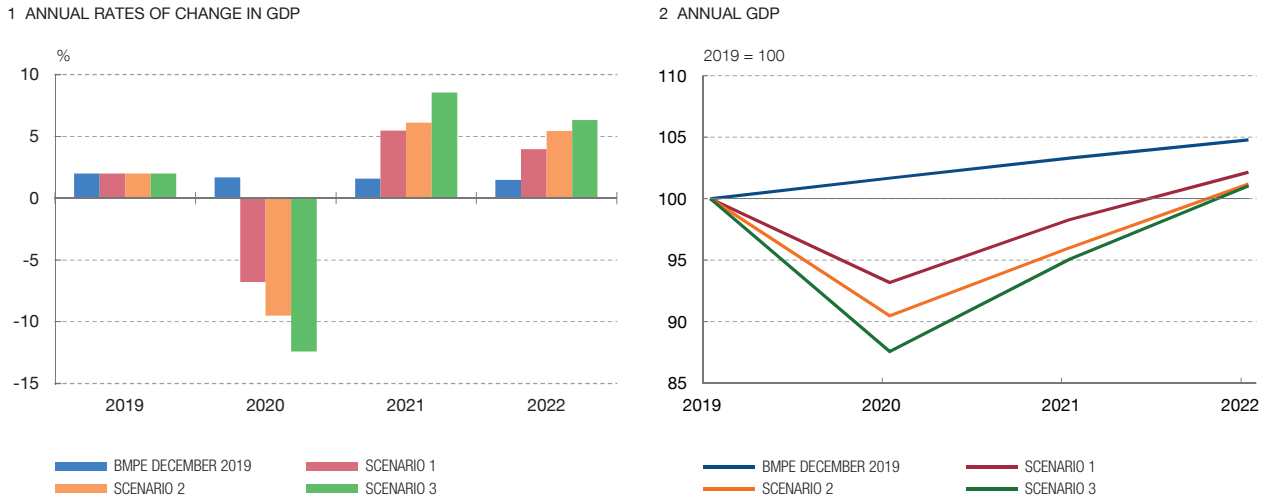
7 See Box 1.1 in this chapter. For further details on some of these measures, see Section 5 of the Quarterly report on the Spanish economy, *Economic Bulletin 1/2020,* Banco de España.

8 See Banco de España (2020) "Reference macroeconomic scenarios for the Spanish economy after COVID-19", Analytical Articles, *Economic Bulletin 2/20200,* Banco de España.

Chart 1.5

GIVEN THE UNCERTANTY SURROUNDING THE ECONOMIC IMPACT OF COVID-19, MULTIPLE SCENARIOS MUST BE CONSIDERED. HOWEVER THEY ALL FORESEE A SEVERE REDUCTION IN ACTIVITY DURING 2020 (a)

As in other countries, the Spanish economy faces a shock that is unprecedented in its recent history, the intensity and persistence of which are very uncertain; in any event, however, its effects are expected to be very marked. The specific impact on GDP will depend on the degree of success of the confinement measures in containing the pandemic and of the economic policy measures in preventing lasting damage to the economy and the financial position of agents.



SOURCES: Instituto Nacional de Estadística and Banco de España.

a Three GDP scenarios are simulated up to 2022, based on the scale of the impact of COVID-19 on activity and employment. Scenario 1 assumes that the health crisis is overcome rapidly, resulting in a confinement of the population lasting eight weeks, and that the measures approved by the authorities mitigate the destruction of firms and jobs. Scenario 3 considers a somewhat longer duration of the health crisis, with confinement lasting 12 weeks, and more persistent consequences on the loss of activity and employment. Specifically, in this scenario, activity would cease at certain percentage of firms due to liquidity problems. Scenario 2 lies between the two foregoing scenarios, combining the shorter duration of the confinement in scenario 1 with the business solvency problems of scenario 3, with a smaller proportion of firms affected. For more details, see "Reference macroeconomic scenarios for the Spanish economy after COVID-19", Analytical Article, *Economic Bulletin 2/2020,* Banco de España.

The scenarios currently available point to a decline in GDP in 2020 of between 6.6% and 13.6%. Where the Spanish economy lies in this range will depend on the duration of the confinement period, the persistence of the shocks and the extent to which private agents' liquidity problems may ultimately give rise to patrimonial difficulties. In any event, the scale of the decline will foreseeably and substantially exceed that recorded in the Spanish economy in 2009.

The simulations suggest that in 2021 there will be a rise of some intensity. However, there are factors that might detract from the momentum of such a recovery. First, it cannot be ruled out that, from a health standpoint, the pandemic may run, with some intensity, beyond the period covered in the simulations. Second, despite the economic policy measures implemented to mitigate its adverse effects, the health crisis might inflict persistent damage on the economy's productive structure (e.g. owing to permanent company closures) or a persistent reduction in aggregate demand (if households' permanent income expectations were to significantly worsen beyond what is considered even in the most unfavourable reference scenarios.

Hence, the authorities should be prepared to adopt further measures if necessary. These would include those that contribute to strengthening the European authorities' responsiveness to the crisis and to the financial needs that may arise as a result.

1.2 Financial markets and real estate sector

1.2.1 Financial markets

The expansion of the COVID-19 health crisis has impacted developments on financial markets since late February, with historical falls on stock market indices. The favourable market performance at the turn of the year, which had led the main stock market indices to post historical highs in the United States (S&P 500, Dow Jones and Nasdaq) and Europe (Stoxx Europe 600), was sharply reversed following the outbreak of COVID-19 outside China. Investors' concern over the macroeconomic effects of the health crisis coupled with the context of high uncertainty prompted flight by investors from risky assets.

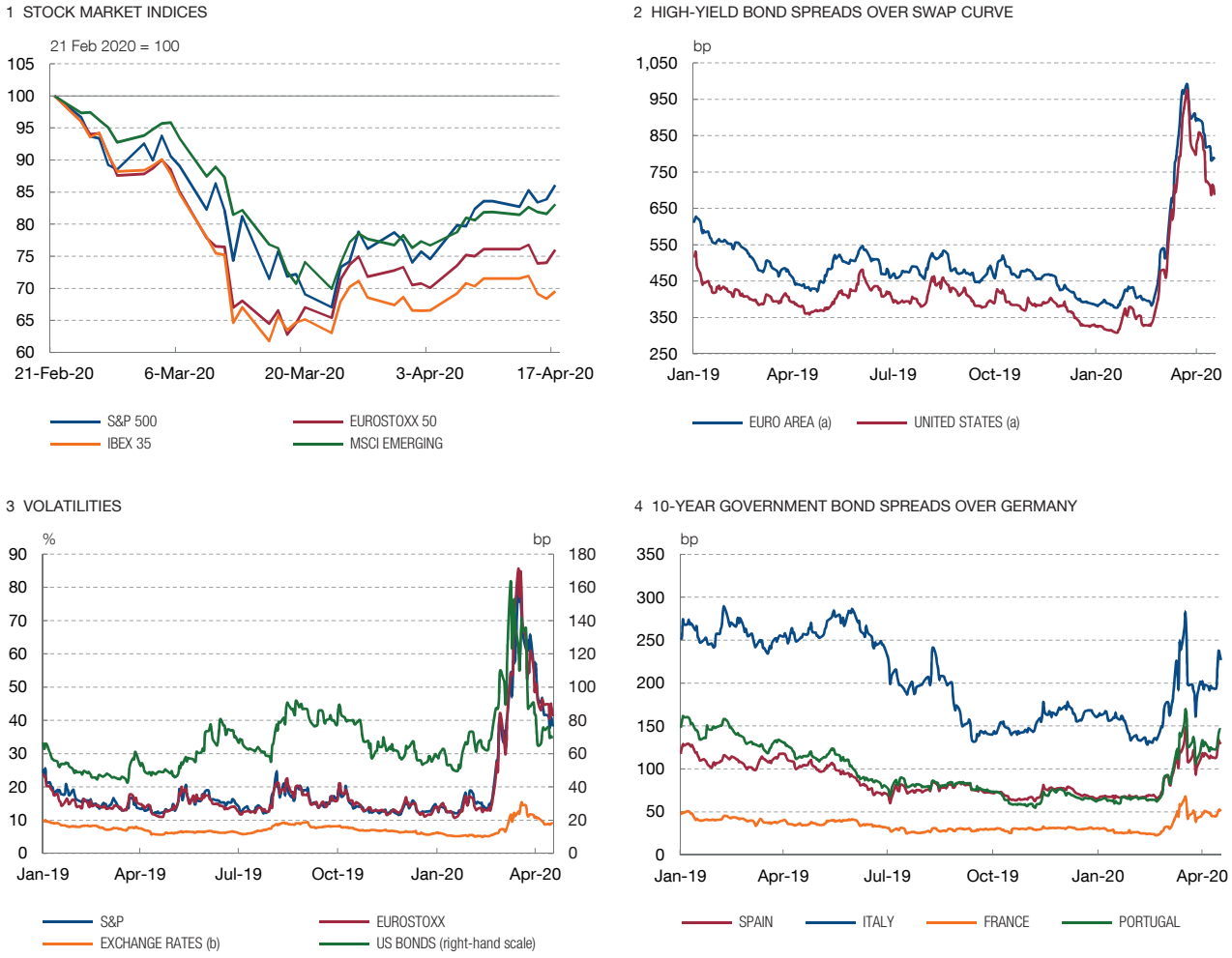
Despite the economic authorities' measures to contain the adverse effects of the health crisis have managed to stabilise the markets to some extent since late March, the cumulative declines the prices of risky assets are most significant. From 21 February to the cut-off date for this Report, the indices of the main global stock markets posted losses of over 13%, with the Ibex 35 falling back 30%, the EuroStoxx 50 24% and the S&P 500 14% (see Chart 1.6). Corporate credit risk premia have increased sharply, especially in the high-yield segments, with an increase over the same period of 348 bp in the case of the United States and of 397 bp in the euro area. Further reflecting the high uncertainty was the most significant rise in the volatilities of prices on equity and bond markets, reaching historical highs in some cases.

On the euro area financial markets, sovereign risk premia widened, albeit moderately owing to the ECB's measures. The widening reflects the outlook concerning the adverse impact of the health crisis on budget deficits (via both the automatic stabilisers and discretionary measures), and also the general climate of uncertainty and of investors' greater risk aversion. Pressure on these spreads eased first, following the approval on 18 March of new expansionary measures by the ECB, including purchases of assets worth €750 billion over the rest of 2020; and further, after the confirmation on 26 March that the limits on asset purchases set in previous programmes would not be applied. From 21 February to the cut-off date for this FSR, the cumulative increase in 10-year yield spreads over the German benchmark was 64 bp in Spain, 93 bp in Italy and 28 bp in France.

Chart 1.6

FOLLOWING THE SPREAD OF THE HEALTH CRISIS, RISKY ASSET PRICES FELL SHARPLY AND THE ASSOCIATED VOLATILITIES ROSE

Marked fall-off in stock market indices and a rise in risk premia on both corporate and sovereign debt. In the case of the latter, the measures adopted by the ECB managed to reduce the related premium in the final weeks of March. The high uncertainty globally prompted an increase in the volatility of financial asset prices.



SOURCE: Thomson Reuters Datastream.

a ICE Bank Of America Merrill Lynch Single-B High Yield Index.
b Average of 3-month volatilities for USD/EUR, USD/GBP and JPY/USD.

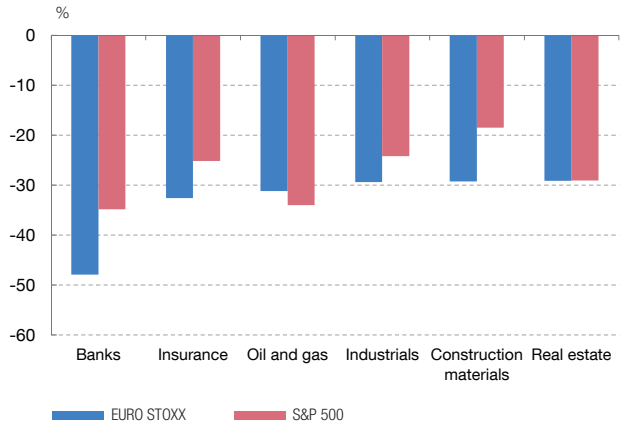
Prices of assets issued by banks and companies in the insurance and oil and gas sectors fell to a greater extent than the market on average. Euro area banks' share prices are among those most affected by the correction in stock market prices, in line with what has been seen on other international markets, such as the United States (see Chart 1.7). The cost of debt issued by banks has also risen, markedly so in the case of subordinated debt. The share prices of firms in the insurance and oil and gas sectors have fallen to a greater extent than overall indices. That reflects the greater impact the health crisis is expected to have on these companies' profits.

Chart 1.7

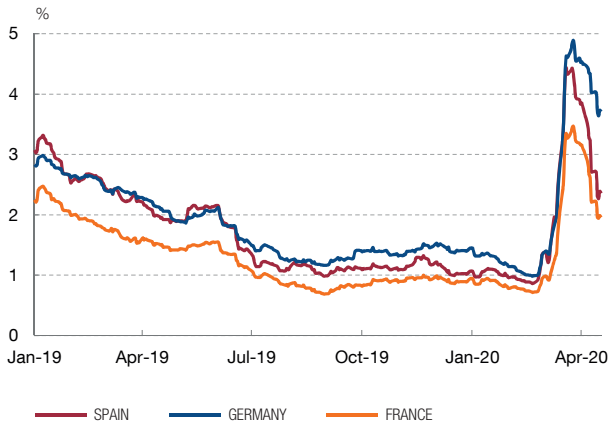
THE TENSIONS ON FINANCIAL MARKETS ALSO AFFECTED THE PRICES OF ASSETS ISSUED BY BANKS AND DOLLAR FINANCING

The stock market capitalisation of the banking sector has fallen by over 30% both in the United States and in the euro area since the spread of the coronavirus from China. Moreover, the cost of banks' subordinated debt also rose. Top-quality sovereign yields initially fell, but this movement was subsequently reversed owing to investors' search for liquidity and the expected increase in issuance. The cost of financing in dollars rose considerably, prompting coordinated action by central banks to increase their currency swap operations.

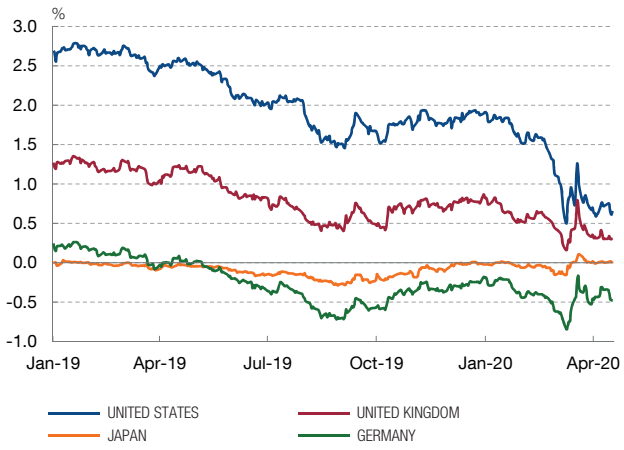
1 EURO STOXX SECTORS WITH BIGGEST LOSSES AND EQUIVALENT S&P 500 SECTORS (FROM 21/02/2020 TO 26/03/2020)



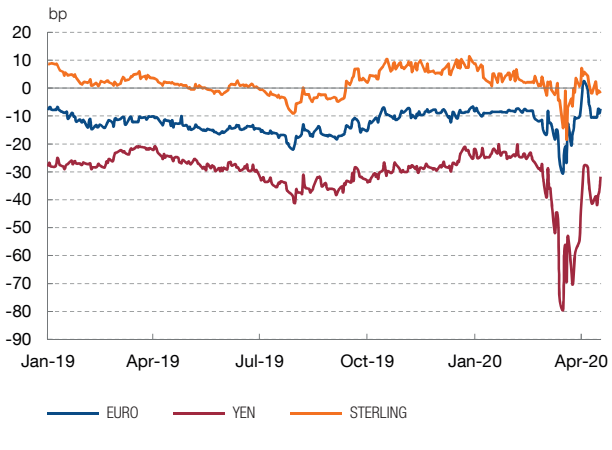
2 YIELD ON BANKS' SUBORDINATED DEBT. IBOXX INDICES (a)



3 10-YEAR INTEREST RATES



4 ONE-YEAR DOLLAR CROSS-CURRENCY SWAPS



SOURCE: Thomson Reuters Datastream.

a The Iboxx subordinated debt index tracks the prices of these instruments for a representative sample of banks.

The search for safe and liquid assets, expectations of expansionary monetary policies and the fiscal packages announced influenced the course of yields on higher-quality sovereign debt. The demand for safe-haven assets along with expectations of more accommodative monetary policies led to a decline in higher-rated sovereign debt yields. In the case of the US and German 10-year benchmarks, such yields fell to historical lows. However, in recent months there have also been temporary rises in these yields that might be linked to the announcement of fiscal stimulus programmes by many countries' governments and the increased demand

for liquid assets, which also prompted a fall in the price of assets – such as gold – deemed to be safe.

There have also been tensions on foreign exchange markets, with periods of heavy depreciation of the US dollar followed by a reversal of this trend. The initial depreciation of the US dollar was influenced by the unwinding of carry-trade positions, while its subsequent appreciation against the euro and the yen reveals the growing demand for this currency globally by banks and non-financial corporations that are seeking to remain operational. This is reflected in higher dollar borrowing costs in currency swaps. Coordinated action on 15 March by the Fed, the ECB and the Canadian, UK, Japanese and Swiss central banks duly ensued to raise the numbers of participating central banks and the frequency of dollar swap facility operations. These decisions managed to reverse, in part, higher dollar borrowing costs (see also the section on liquidity and financing conditions in Chapter 2). More recently, the Fed has launched a temporary lending facility that will allow foreign central banks with accounts at the Fed to convert their holdings of US Treasuries into dollars using repos.

Energy and non-energy commodities prices have collapsed in the wake of the pandemic. The decline in oil prices, by close to 50% since late February in the case of the Brent reference price, was initially due to the disagreement between OPEC and other oil producer countries over production quotas. This was accompanied by the contraction in demand, especially in the transport sector, owing to the confinement measures adopted in the face of the pandemic. Following the agreement reached between OPEC and other partners to reduce supply by around 10 million barrels per day in May and June (and by a progressively smaller amount until April 2022), prices have scarcely reacted, suggesting a notable collapse in the demand for crude oil. Moreover, in the case of the United States, the fall in oil prices is estimated to have prompted significant downward revisions of the creditworthiness of those companies most exposed to oil extraction activities.[9]

1.2.2 The real estate market in Spain

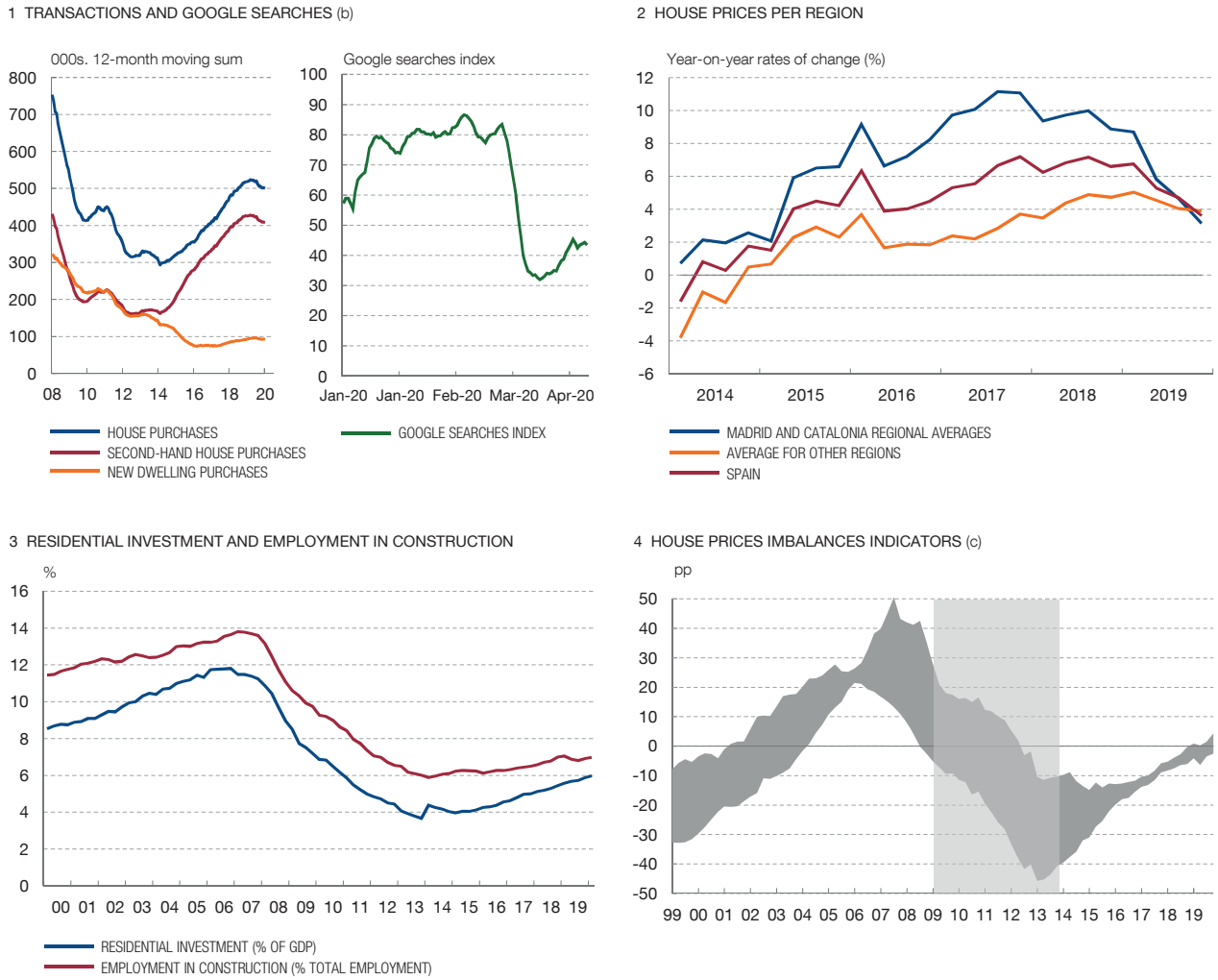
The impact of the health crisis on the real estate market will also be significant, at least in the short run. Prior to the current shock, this market was in a slowing phase both in terms of activity and transactions and prices, following the notable expansion in the previous years (see Chart 1.8). The declaration of the state of alert owing to the COVID-19 crisis did not initially entail a closedown in the construction sector. Later, activity came to a halt, as a result of the suspension of non-essential economic activities between 29 March and 9 April. In any event, the confinement of

9 Thus, for example, the rating agency S&P downgraded companies such as Anadarko Petroleum, Occidental Petroleum and Exxon Mobil in March.

Chart 1.8

THE HOUSING MARKET WAS SLOWING BEFORE THE CORONAVIRUS CRISIS, WHICH WILL PROMPT DOWNWARD ADJUSTMENTS, AT LEAST IN THE SHORT TERM (a)

Residential activity was slowing before the coronavirus health crisis shock. House purchases contracted in 2019 in both the newly built and, to a greater extent, second-hand housing segments. In turn, growth in the average housing price moderated, and the level of geographical heterogeneity remained high. Unlike the situation prior to the last crisis, at the end of 2019 there were no major imbalances in the housing market in terms of either volumes or prices.



SOURCES: Google Trends, ECB, Eurostat, INE and Banco de España.

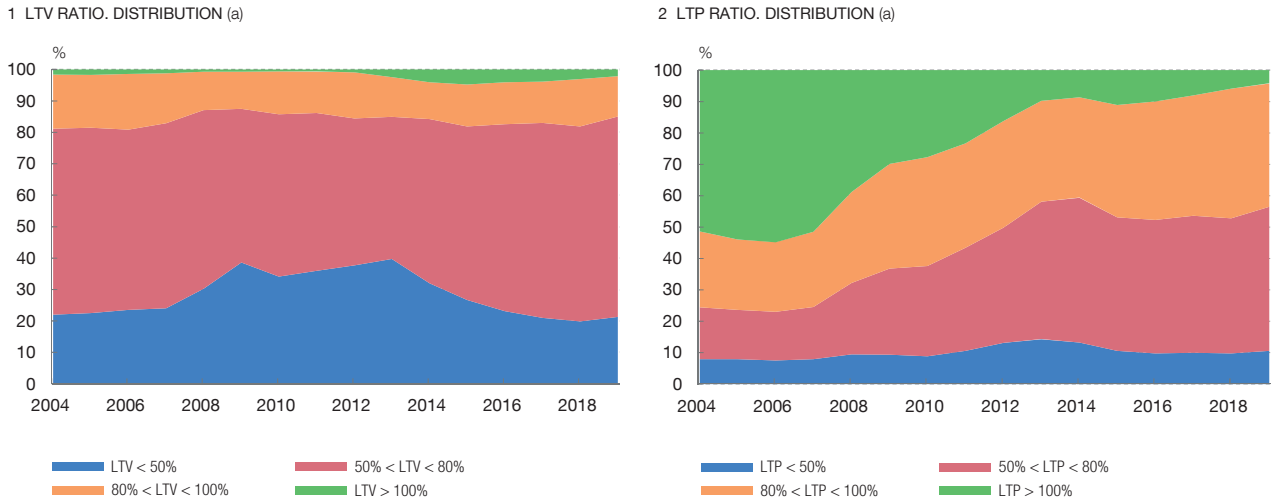
a Latest observation: 2019 Q4 (house prices), January 2020 (house purchases). 2020 Q1 (residential investment and employment in construction) and 13 April 2020 (Google searches index).
b The left-hand chart shows the number of purchases as a 12-month moving sum; the right-hand chart shows the Google housing search index.
c The vertical shaded area shows the last systemic banking crisis period (2009 Q1 to 2013 Q4). The shaded strip depicts the minimum and maximum values of a set of four indicators of price developments in the real estate sector relative to their long-term trends: i) housing prices gap relative to the long-term trend calculated using a Hodrick-Prescott filter with a smoothing parameter equal to 400,000; ii) the gap between the house prices-tohousehold-disposable-income ratio and the long-term trend calculated using a Hodrick-Prescott filter with a smoothing parameter equal to 400,000; iii) disequilibrium econometric model of house prices explained by long-term trends of disposable income and mortgage rates; and iv) long-term disequilibrium econometric model of house prices explained by prices from previous periods, disposable income, new mortgage rates and fiscal variables.

the population and the difficulty in concluding some of the tasks associated with the house sale process are estimated to have most significantly impacted demand. This can be inferred, for instance, from the indicators based on Internet searches for real estate sector-related terms, which reveal a sharp fall.

Chart 1.9

REAL ESTATE LENDING STANDARDS PRIOR TO THE OUTBREAK OF THE CORONAVIRUS CRISIS WERE MUCH MORE CONSERVATIVE THAN IN 2008

The weight of mortgages with high leverage in terms of LTP lessened substantially after the international financial crisis. Since then, much more conservative lending standards have remained in place. The empirical evidence available shows that this considerably reduces the probability of default when there is the decline in the borrower's income.



SOURCES: Datastream, ECB, Association of Registrars and Banco de España.

a Loans in which the collateral is a dwelling and the borrower an individual are included. In the distributions, the principal of the loans accumulates (by period) to define each segment within the distribution. The loan-to-value (LTV) ratio captures the relationship between the principal of the mortgage loan and the appraised value of the dwelling, while the loan-to-price (LTP) ratio, calculated for a sample of mortgages, uses the registered price of the dwelling as its denominator.

The extent of the recovery in real estate market activity once the health crisis is over will depend on how persistent the economic and financial effects of this shock prove to be. In any event, the absence of significant imbalances in terms of prices and volumes in this market prior to the outbreak of the health crisis is a factor that mitigates the scope of the possible risks to economic and financial stability more generally. Indeed, unlike at the onset of the previous crisis in 2008, on this occasion other factors were at play: the sector does not appear to be oversized; real estate activity-linked debt and financing to households for house purchases were contracting, even though they account for a significant fraction of bank lending to the private sector; and there were no widespread signs of housing overvaluation (see Chart 1.8). It should also be borne in mind that the weight of highly leveraged transactions in the granting of mortgages has been much lower in the post-2008 period (see Chart 1.9) and that the mortgage loans which survived the international financial crisis generally have prudent financing conditions and are much closer to maturing. The empirical evidence available shows that these factors are associated with a lesser likelihood of loan non-performance.

1.3 The non-financial sectors

1.3.1 Households and non-financial corporations

In the face of the coronavirus, which is a significant adverse shock to incomes, Spanish households are in a sounder financial position than they were before the 2008 financial crisis. In the past decade households have substantially deleveraged, with their debt declining by close to 23% since end-2008, when it peaked. This led the debt ratio to stand at 91% of gross disposable income (GDI) in 2019 Q4, a level not seen since early 2004 (see Chart 1.10). This level is almost 4 pp down on the euro area average. The reduction in debt has been accompanied by a significant decline in financing costs in recent years, which has translated into a strong reduction in the proportion of income earmarked for financial debt repayment. This percentage fell to 11.1% of GDI at end-2019, the lowest level for the past 20 years.

The volume of households' liquid assets relative to their income is also higher than before the last crisis. On the latest available data, for 2019 Q4, households' cash and deposits amounted to 118% of GDI, 8 pp up on 2007. If other readily realisable assets such as investment fund shares, listed shares and debt securities are added to these, households' liquid assets account for 181% of GDI, 11 pp up on 2007. However, the value of a portion of these latter assets has fallen in recent weeks as a result of the effects of the health crisis on financial market developments.

At the aggregate level, households' financial position, prior to the outbreak of the pandemic, was relatively sound. But there are population segments in a position of particular vulnerability. According to the latest wave of the Spanish Household Financial Survey (EFF by its Spanish name)[10], 10% of households were assigning more than 40% of their income to debt service, a percentage which is in any event at its lowest since 2005. However, the proportion of households earmarking over 30% of their income to rental payments has increased significantly, particularly among the under-35s (14%, compared with 8% in 2008). As regards the holding of financial assets, the EFF reveals that whereas in 2017 the median household had €10,500 in financial assets, €4,500 of which were in current accounts and sight deposits, households below the 25th percentile of net wealth had only €1,500 in financial assets, of which approximately half were in current accounts and sight deposits.

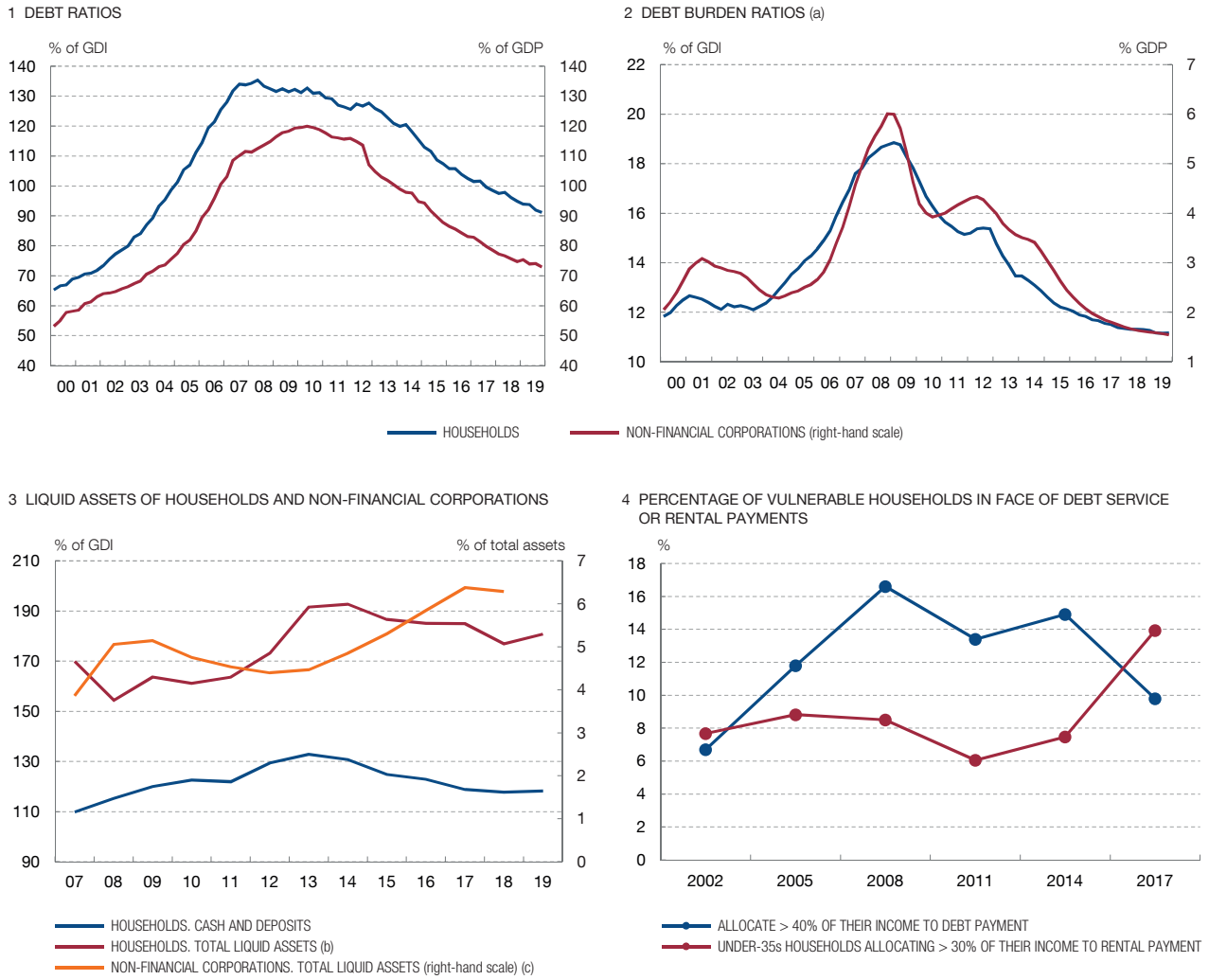
The support programmes for households affected by the economic effects of the health crisis should contribute to mitigating its impact on this sector's

10 For further details see the article "Survey of household finances (EFF) 2017: methods, results and changes since 2014", Analytical Articles, *Economic Bulletin 4/2019*, Banco de España.

Chart 1.10

THE NON-FINANCIAL PRIVATE SECTOR'S CURRENT FINANCIAL POSITION IS SOUNDER THAN IN 2007

Households and non-financial corporations have deleveraged intensely in the past decade. This, combined with the low cost of financing, has placed the debt burden at levels very close to historical lows. However, some household segments are in a position of some vulnerability. Thus, for example, the percentage of households allocating a high proportion of their income to rental payments has increased, particularly in the younger population segments. Liquidity ratios are at higher levels than those prevailing before the previous crisis, but household liquidity will be subject to valuation adjustments.



SOURCES: ECB, INE and Banco de España.

a The household financial burden comprises the debt principal and interest repayments they make, while in the case of firms only interest is considered, given the difficulty of reliably estimating the amount of repayment instalments.
b Comprises: cash, deposits, investment fund shares, listed shares and debt securities.
c Asset-weighted average.

economic and financial situation. Among the measures approved, the moratorium on mortgage loan instalment payments, and on other personal loans to the unemployed and self-employed who have seen their incomes substantially cut as a result of the health crisis, will ease the financial pressure on the groups availing themselves of this measure. Also, the possibility of deferring rental payments and the guarantee that basics will be provided also contributes to limiting the impact of the crisis on these groups. Access to contributory unemployment benefits for those workers laid off who

lack the contribution period needed or the extension of benefits to temporary employees will alleviate the decline in incomes. The possibility of drawing down amounts from pension funds without penalisation will also contribute to providing liquidity to those households most affected by the crisis. Further, the government has announced the forthcoming introduction of a subsidy for households with hardly any income. Box 1.2 analyses whether households establish priorities in terms of the potential default on their financial obligations when there is a substantial loss of income or job loss.

Non-financial corporations are also facing the economic effects of the health crisis with a starting financial position that had improved substantially since 2008. The business debt ratio stood at 73% of GDP at end-2019, 5 pp down on the euro area average. This is the lowest level since early 2004 and is 47 pp below the June 2010 peak. This, combined with the decline in the cost of debt in recent years, has translated into a substantial reduction in interest payments relative to GDP, which have reached their lowest level of the past 20 years. The average return on assets for non-financial corporations had also grown in recent years and stood at similar levels to those pre-crisis.

In any case, some firms, concentrated among the smallest, were showing signs of vulnerability. The magnitude of the shock is very significant and there were in 2019 certain segments of the Spanish corporate sector with a weaker financial situation. Besides, the effect of the crisis will be heterogeneous across economic sectors. In particular, some areas of activity, such as hotels and restaurants, commerce and car manufacturing, will be impacted more adversely.

Non-financial corporations' liquidity reserves have also improved in recent years. Notwithstanding, the foreseeable scale of the decline in revenue will hamper the coverage of their needs, although the public guarantee programme will help alleviate this problem. Firms' liquidity has increased in recent years and the latest individual firm data, for end-2018, evidence higher levels of liquid assets than those in place before the previous crisis (see Chart 1.10). The position is, however, not uniform across firms. Financing available in the form of credit facilities, in proportion to the total outstanding balance of credit granted, has risen in recent years; however, at end-2019 the related levels were lower than those prior to the 2008 crisis, and they were moreover concentrated in the segment of larger firms. The government-approved guarantees programme will smooth the resort to bank financing in order to provide liquidity to firms so they may face existing financial obligations and those that may arise during this period.

1.3.2 General government

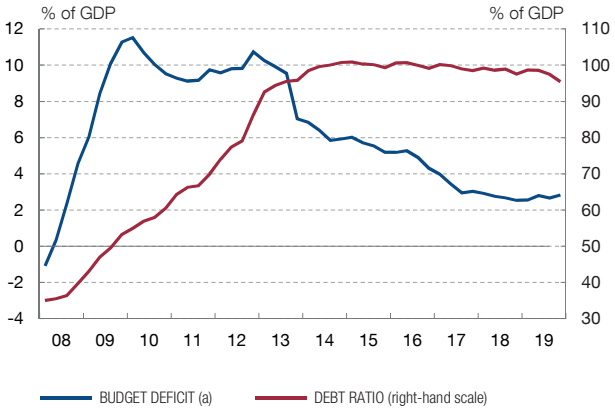
Following the worsening of the Spanish general government deficit in 2019, the structural position of public finances remained in deficit and public debt high. After six consecutive years of reductions in the Spanish general government deficit

Chart 1.11

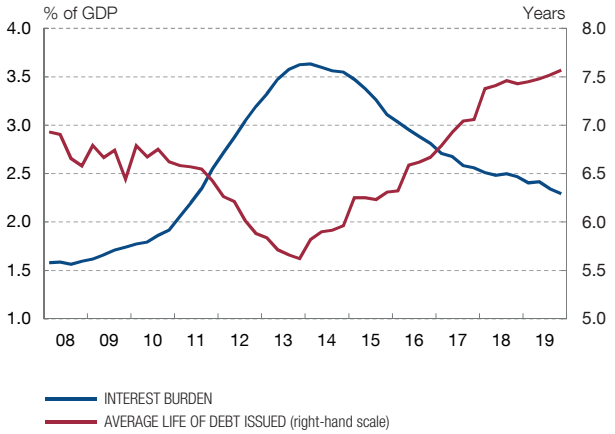
PUBLIC SECTOR DEBT REMAINS VERY HIGH AND WILL INCREASE SIGNIFICANTLY WITH THE CRISIS

In the different scenarios considered for the evolution of the Spanish economy, the general government debt is expected to rise considerably, on a potentially higher scale in the scenarios with a bigger downturn in activity. In any case, the risks to public debt sustainability are mitigated by the favourable financing conditions of recent years, although the risk premium has increased to some extent with the crisis, owing to the lengthening of the average life of outstanding debt, which reduces the volume of forborne exposures.

1 GENERAL GOVERNMENT FINANCIAL POSITION



2 GENERAL GOVERNMENT DEBT BURDEN AND AVERAGE LIFE OF DEBT ISSUED



SOURCES: Public Treasury and Banco de España.

a Four-quarter cumulative data.

as a percentage of GDP, in 2019 it rose by 0.3 pp to 2.8% (see Chart 1.11). This was due to the expansionary fiscal policy stance that year, reflected in significant increases in spending on social benefits and public-sector employees' remuneration. The positive effect of low financing costs and of the economic expansion – which while lower than in 2018, still exceeded the Spanish economy's estimated potential growth – was more than offset by the extra expenditure. In fact, since the start of the recovery in 2014, the entire correction of the public finances shortfall in Spain in recent years is estimated to have been due to the two effects mentioned (expansionary cycle and low interest rates). Accordingly, the general government structural balance and primary structural balance[11] are expected to have stood, at end-2019, at even higher levels, of around –3% and –0.8% of GDP, respectively, on Banco de España estimates. Public debt, for its part, stood at 95.5% of GDP, marking a reduction of 2.1 pp since last year. As a result, there has been a 5.2 pp reduction in this ratio from its 2014 peak of 100.7%, thanks to the increase in nominal GDP and the decline in the interest burden.

Against this background, the health crisis will have notable consequences for public finances, both in Spain and in many other countries. In the three scenarios

11 The structural balance attempts to correct the transitory effects that the economy cyclical position has on public revenue and spending. The primary structural balance excludes the public debt interest burden.

set out in Section 1.1.2, Spanish general government debt is expected to rise considerably, on a potentially higher scale in the scenarios with a bigger downturn in activity. In the first of these, public debt might rise to around 110% of GDP in late 2020. This scenario is characterised by an eight-week confinement period and the absence of financial frictions that may cause durable damage to the productive structure. Approximately half the almost 15 pp increase, compared with the end-2019 position, would be due to the public finances shortfall, equitable to around 7% of GDP. This would be as a consequence of the combined effect of the automatic stabilisers and the discretionary measures approved. The remainder would be attributable to the estimated decline in nominal GDP, plus a residual impact arising from flow-stock adjustments.[12] In the second, more unfavourable scenario, where it is assumed that private agents' liquidity problems may give rise to certain solvency difficulties, debt might rise in 2020 to 115% of GDP. These financial difficulties open the way for a sharper decline in activity and a somewhat slower recovery. If, moreover, the confinement measures run for a total of 12 weeks, as in the third scenario, debt might exceed 120% of GDP. In the three cases public debt would tend to fall in 2021, under the different scenarios. This is a consequence of the rise in nominal GDP growth, since the budget balance is expected to continue running a deficit.

The economic downturn prompted by the pandemic will give rise to a persistent increase in the vulnerability of the Spanish public finances position. The foreseeably temporary nature of the COVID-19 shock means that the expected downturn will not, in principle, be predominantly structural. For this to be so, however, a time-limited and forceful fiscal response is required. That said, the high starting position of the structural deficit and the increases in public debt which will foreseeably ensue, combined with the challenges arising from population ageing[13], highlight the vulnerability of Spanish public finances to further possible shocks to economic activity, to financing costs and to investor sentiment. In the short term, the bolstering of the ECB's asset purchase programmes is helping ensure the absence of general government financing tensions, and the decisions by the European institutions should smooth to a greater extent the financing of public sector requirements. Into the medium term, when normality resumes, a fiscal consolidation and structural reform programme should be implemented to reduce the imbalances in the economy and raised its potential growth.

The measures approved by the national authorities and by the ECB should be complemented by a broad-based European response. The pandemic and its economic impact are affecting all euro area countries and, by extension, the European Union. To tackle this situation calls for resolute and ambitious action by the Community authorities and institutions using the financial and budgetary

12 These reflect changes in debt not attributable to the balance of general government non-financial revenue and spending. Accordingly, they include the change in financial assets and liabilities and valuation adjustments.

13 The latest estimates already augured a significant increase in public spending on pensions, health and long-term care further to population ageing, but also to the latest measures adopted in the case of the pension system.

instruments already in place, along with possible new tools. In this respect, on 9 April the Eurogroup resolved to set in train a range of support measures. These included most notably a credit facility from the European Stability Mechanism (ESM) to provide financing to the Member States, a European Investment Bank (EIB) programme to smooth the funding of SMEs and a fund to defray a portion of the costs associated with employee furlough-like arrangements. In addition, the European Council supported on April 23th the creation of a Recovery Fund at the proposal of the European Commission, to be funded with the 2021-2027 multiyear European budget. Among other possible new instruments that may be required, priority should be given to those that strengthen the capacity of the EU as a whole to set in place conditions conducive to appropriate funding with which to defray the heavy costs of repairing the damage inflicted by the pandemic on all the Member States' growth capacity. In the current crisis it is more urgent than ever step up efforts to move resolutely towards completing the institutional architecture of the euro area.

1.3.3 The international investment position and external debt

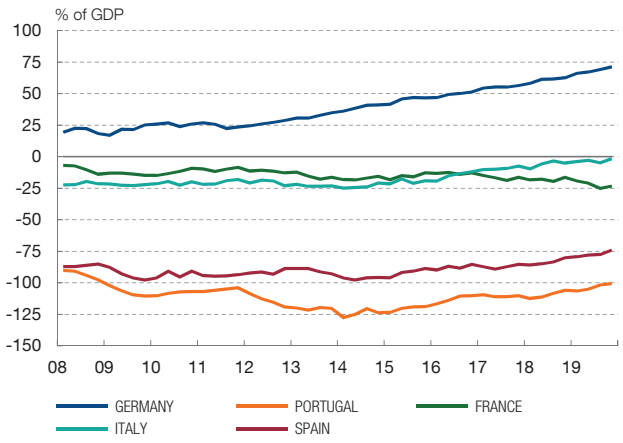
The Spanish economy has a high negative external position (IIP). This is a source of vulnerability given the current situation, steeped in uncertainty

Chart 1.12

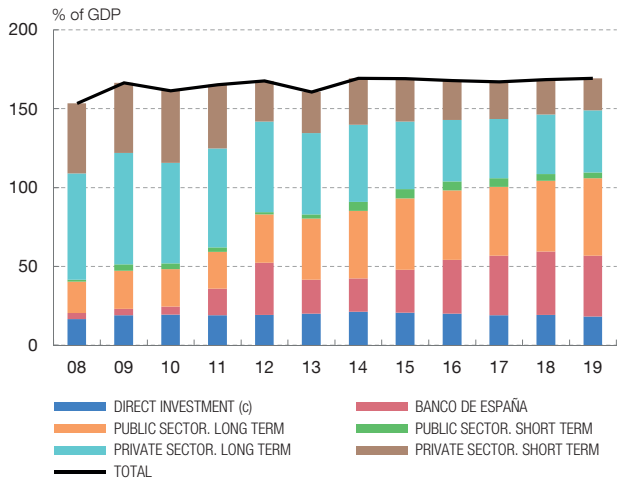
SPAIN'S NET DEBTOR INTERNATIONAL INVESTMENT POSITION HAS DECLINED BUT REMAINS HIGH

The Spanish economy's net debtor international investment position has fallen in recent years, but is still high from an international perspective. The refinancing risks of this debt are mitigated by the prevalence of long-dated issuance for public sector debt and for that denominated in euro.

1 NET INTERNATIONAL INVESTMENT POSITION BY COUNTRY (a)



2 GROSS EXTERNAL DEBT STRUCTURE BY INSTITUTIONAL SECTOR AND MATURITY (b)



SOURCE: Banco de España.

a The net IIP is the difference between the value of the resident sectors' external assets and that of liabilities vis-à-vis the rest of the world.
b External debt comprises the stock of all liabilities that give rise to future payments of principal, interest or both (i.e. all financial instruments except own funds, financial derivatives and monetary gold bullion).
c Includes only direct investment in the form of debt.

and with tensions on international financial markets. The Spanish economy's net debtor IIP has been falling in recent years, but is still at high levels in historical terms and compared with other advanced economies (see Chart 1.12). Specifically, at end-2019 it stood at 74% of GDP (in absolute terms), its lowest level since 2007 and 24 pp below its June 2014 peak. Gross external debt stood at end-2019 at 169% of GDP, 6.2 pp below its 2015 Q1 peak and in an intermediate position relative to the other advanced economies. The refinancing risks in relation to this debt are somewhat mitigated by the prevalence of debt issued long-term by the public sector, and debt denominated in euro, along with the active presence of the Eurosystem in sovereign debt markets by means of its asset purchase programmes. However, the reduction of the Spanish economy's NIIP to levels comparable with peer countries requires that the gains in competitiveness built up after the financial crisis be maintained. In that way, positive external current account balances may continue to be run recurrently.

Box 1.1

THE ECONOMIC POLICY RESPONSE TO THE COVID-19 CRISIS

There has been a swift response in terms of monetary and fiscal policy both in advanced and emerging market economies.[1] In the monetary arena, as the pandemic spread, the People's Bank of China cut official interest rates and announced a raft of measures to encourage lending to private agents. In the advanced economies, the US Federal Reserve reduced its federal funds target rate, by 50 bp on 3 March and again by 100 bp on 15 March, to a range of 0%-0.25%. Furthermore, it announced auctions of one- and three-month liquidity in the repo market, new credit lines for SMEs, municipalities and states, the re-establishment of foreign-currency liquidity swap lines with other central banks and its unlimited Treasury purchase plan. Most advanced economies, including the United Kingdom, Canada and Japan, have also taken conventional and unconventional monetary policy measures. Lastly, official interest rates have also been cut and other monetary policy measures have been taken in several emerging market economies, such as Brazil, Chile, Peru and Turkey.

The ECB Governing Council adopted important expansionary measures at its meeting held on 12 March. The package approved by the Governing Council consists of three measures: additional longer-term refinancing operations (LTRO), an easing of the conditions for targeted longer-term refinancing operations (TLTRO III), and an additional envelope for the asset purchase programme of €120 billion in net purchases until the end of 2020. All these measures aim to provide the financial system with sufficient liquidity to ensure that it continues to flow to households and firms, support bank lending – mainly to those segments hardest hit by the consequences of the health crisis, such as SMEs –, and avoid a tightening of financial conditions in the economy.

At an extraordinary meeting held on 18 March, the ECB Governing Council approved a special asset purchase programme of private and public sector securities with an overall envelope of €750 billion. Purchases under the pandemic emergency purchase programme (PEPP) will be conducted until the end of 2020, or beyond if necessary. For the purchases of public sector securities, the benchmark allocation across jurisdictions will continue to be the capital key of the national central banks, although purchases will be conducted in a flexible manner, thereby allowing for fluctuations in the distribution of purchase flows over time. This specific programme also waives the eligibility requirements for securities issued by the Greek government so that under the PEPP the Eurosystem may purchase these assets. As regards the purchases of corporate sector securities, the ECB has also announced an expansion of the range of eligible assets to include non-financial commercial paper of sufficient credit quality. Lastly, the ECB has announced changes to the collateral standards concerning monetary policy operations. It will expand the scope of the asset types that banks can use as collateral in their liquidity providing operations to include claims related to the financing granted to firms, the self-employed and households that are secured by governments. The minimum size threshold for accepting credit claims as collateral is lowered from €25,000 to €0 and collateral valuation haircuts are reduced by a fixed factor of 20%.

In accordance with the global nature of the shock, the fiscal policy response is broad-based across countries. Also, the packages approved tend to share some common elements. First, many of them include increases in health spending, in order to combat the pandemic in the countries affected. Second, in most cases the measures approved include action to support the income and expenditure of those households and businesses most affected by the pandemic, temporarily, while the effects last.

In the euro area, national fiscal policy-makers have reacted swiftly in light of the scale of the challenge. The intensity of the response has, however, varied. Governments in Germany, France, Italy, Spain, Ireland and Portugal, among others, have announced and implemented a broad raft of measures – similar to those adopted in other advanced economies –, which have also been strengthened by the supra-national actions led by the European Commission. Compared with the programmes of other advanced economies, these programmes are based to a greater extent on the provision of guarantees to banks to ensure credit flows to firms and the self-employed. Most countries have included moratoria on tax payments and, in some cases, on repayments on mortgage and other loans to individuals for the groups affected by the macroeconomic impact of the health crisis.

In the supra-national arena, the European institutions have adopted measures to respond to the health crisis. The European Union has approved the easing of budgetary control and rules on its areas of competence for 2020

1 For further details on some of these measures, see Section 5 of the Quarterly Report on the Spanish Economy, 1/2020, Banco de España.

in order to afford countries greater flexibility in their response to the pandemic, in addition to a series of measures comprising the use of surplus funds from the European budget (up to €60 billion) and new financial assistance totalling up to €100 billion for the EU as a whole to cover the costs incurred due to the increase in unemployment in the short term. Various forms of financial assistance have also been launched both for firms, through credit lines of up to €200 billion from the European Investment Bank, and for governments, through a credit line of up to 2% of GDP from the European Stability Mechanism for expenses related to the pandemic. Furthermore, the European Council backed the creation of a Recovery Fund, for a yet-to-be-determined amount, based on the pluriannual EU budget 2021-27. Overall, these measures focus on providing the necessary financial assistance in the short term, and could prove insufficient in view of the scale of the shock, requiring a greater push towards a true pooling of the fiscal efforts made by countries.

Spain has acted on several fronts. Specifically, measures have focused on strengthening the healthcare system, protecting employment and supporting vulnerable households, and providing liquidity to firms. Of these, the only area with a well-defined budgetary cost is the increase in healthcare expenditure, which encompasses budget items amounting to €4.4 billion (0.4% of 2019 GDP).[2,3]

The other measures envisaged will have a potentially significant – but unquantifiable – impact on the budget deficit in 2020. The support measures for employment and for income in the case of vulnerable households include greater flexibility in temporary layoffs and a waiver of the corresponding Social Security contributions, a special unemployment subsidy for temporary workers and domestic help and, lastly, easier access to benefits for cessation of activity by the self-employed. Most of these measures will remain in place until the state of alert ends, which means that the cost will depend on how long the state of alert lasts and on the number of persons within each of the groups affected who take up the measures.[4]

The third key group of measures approved aims to supply liquidity to potentially viable firms. These measures include providing public guarantees for loans to private firms, for up to €102.4 billion, equivalent to 8.2% of 2019 GDP.[5] A moratorium on tax debts has also been approved for a six-month period for SMEs and the self-employed, for up to €22.8 billion, in addition to the deferral of all firms' tax payments until 20 May, for €3.5 billion.[6]

As regards prudential policies, the ECB also announced a series of measures geared towards temporarily relaxing the prudential requirements for banks. Thus, for example, supervised institutions are allowed to operate below the level of capital defined by the Pillar 2 Guidance (P2G), the capital conservation buffer and the liquidity coverage ratio. It has also reduced capital requirements for market risks. Furthermore, the ECB issued a recommendation to credit institutions to refrain from paying dividends or performing share buy-backs aimed at remunerating shareholders at least until 1 October 2020. The purpose of this recommendation is to bolster the capital of these intermediaries so that they can support the economy.

Chapter 2 also discusses the possible effects of the adjustments to fiscal and monetary policies described in this box on Spanish financial intermediaries. Chapter 3 describes in more detail the adaptation of microprudential and macroprudential policies, in Spain and at the European level, in response to the COVID-19 crisis.

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2 The calculation uses nominal 2019 GDP. The figure would be higher if the sharp decline expected in GDP in 2020 were included.

3 This figure includes €2.8 billion for the regional governments, €1 billion managed by the Ministry of Health, €30 million for research into a vaccine against the coronavirus, and €600 million for the regional and local governments to ensure the provision of healthcare services to the most vulnerable population groups.

4 For the purposes of the impact of these measures on the budget deficit and on households' disposable income, it is important to consider that a very significant portion of these amounts would be linked to the normal functioning of the automatic stabilisers (specifically, the unemployment benefits for workers affected by temporary layoffs would also have been received had the job losses been permanent rather than temporary ones).

5 This figure is obtained by adding together the figures corresponding to the public loans and guarantee lines for loans to non-financial corporations (€100 billion) and export firms and SMEs (€2 billion) and Official Credit Institute ("ICO" by its Spanish acronym) loans for the tourism industry (€400 million).

6 These measures will not affect the deficit for the whole of 2020 as they will conclude within the year.

Box 1.2

BUILD-UP OF HOUSEHOLD DEBT DEFAULTS

Bank lending to households represented 57.9% of lending by credit institutions to the non-financial private sector in Spain in December 2019 (see Chart 1). The ability of households to meet their payment obligations is therefore essential for the financial stability of the economy as a whole.

Chart 1 also shows that mortgage lending to households for house purchase was 3.7 times higher than lending for the purchase of consumer goods and other purposes, although the latter has gained more weight in the last five years as a result of the increase in consumer credit. In fact, this segment has maintained an average growth rate of more than 10%, while mortgage lending has steadily contracted (see Chart 2). Moreover, the volume of non-performing consumer credit reversed its downward trend in December 2016 and posted growth of more than 10%, while that of non-performing loans for house purchase continued to decline in the 2016-2019 period.

The varying patterns of behaviour in each of the household lending segments suggest the existence of timing differences between them. Specifically, between the defaults and impairments of consumer loans and other lending, which represent a low but increasing proportion of household lending, with a growing NPL volume, and those of mortgage loans for house purchase, which have a high relative weight in deposit institutions' balance sheets but a declining volume of NPLs.

Additionally, it should be borne in mind that households may have non-bank financial commitments with suppliers (electricity, gas, telephone, etc.), insofar as these services are paid for after they have been used. Since this type of financing has different characteristics (the collateral in loans for house purchase, for example, is the home occupied by the household,[1] while collateral is not generally required for other types of lending), and is granted by financial and non-financial institutions, the question arises as to whether households establish an order of priority for defaults in situations of financial difficulty and if, as a result, these build up.

To analyse this aspect, an econometric exercise was performed using the individual information of the representative sample of Spanish households provided by the Living Conditions Survey (LCS) of the National Statistics Institute. This survey collects information on households' payment delays on their mortgages, consumer credit, instalment purchases and bills. It also contains

Chart 1
COMPOSITION OF LENDING TO HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS

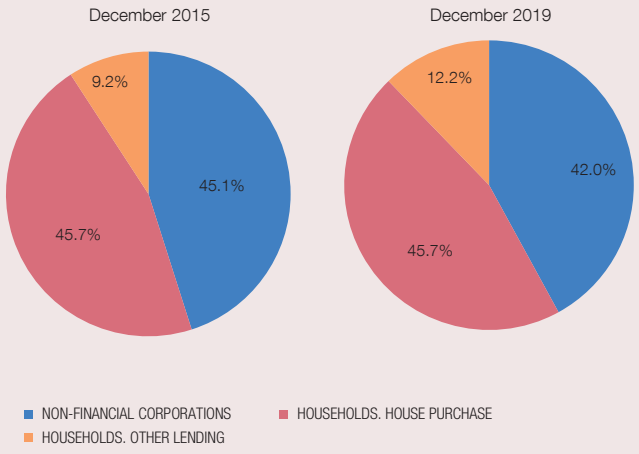
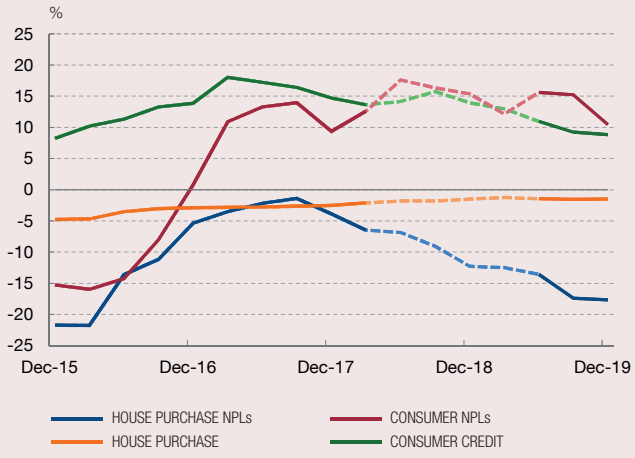


Chart 2
YEAR-ON-YEAR RATE OF CHANGE OF LENDING TO HOUSEHOLDS (a)



SOURCE: Banco de España.

a Data corresponding to deposit institutions and specialised lending institutions (business in Spain). The data for June 2018 to June 2019, shown by the broken line, exclude an institution at which substantial reclassifications were made.

1 In relation to mortgage lending in the Spanish banking system, Galán and Lamas (2019) found that the probability of default increases the higher the level of leverage of the loan, particularly the loan-to-price ratio, the borrower's ability to manage repayment of the loan (loan-to-income ratio), or maturity.

Chart 3
PERCENTAGE OF SPANISH HOUSEHOLDS WITH LOANS FROM CREDIT INSTITUTIONS. AVERAGE DATA 2011-2017

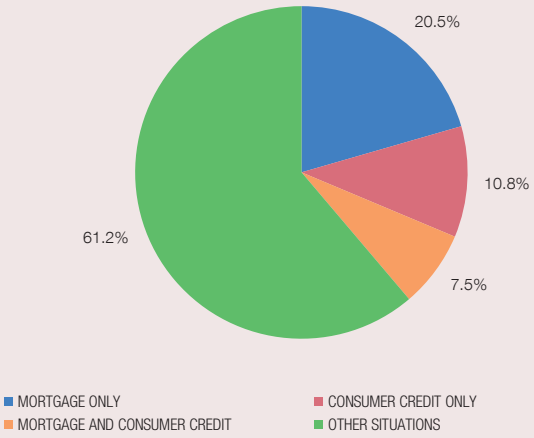
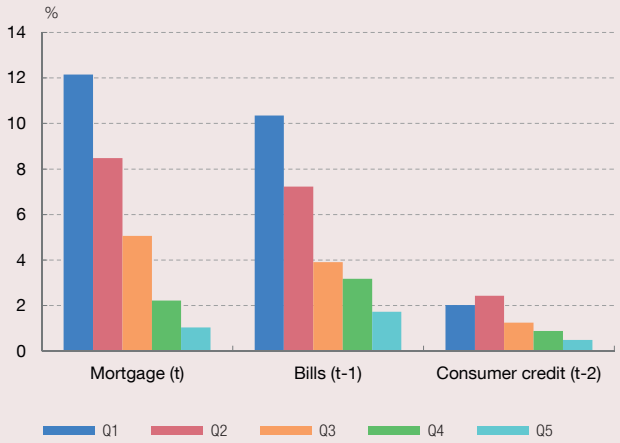


Chart 4
BREAKDOWN OF HOUSEHOLDS WITH DEFAULTS, BY LEVEL OF INCOME 2011-2017 (a)



SOURCES: INE, Living Conditions Survey and Banco de España.

a The chart shows, for each income quintile (from the bottom Q1 quintile to the highest Q5 quintile), the average proportion of households with defaults on mortgages (2013-2017), utilities bills (2012-2016), consumer credit and instalment purchases (2011-2015).

information on certain characteristics of households (level of education, age, etc.), employment status, income, household wealth or debt-to-income ratio, which determine their ability to meet their payment commitments.[2] Furthermore, three quarters of households in the survey are monitored during two to four years, allowing dynamic considerations to be added, such as those analysed here, namely, the possible build-up of defaults.

As can be seen in Chart 3, almost 40% of Spanish households had some form of debt to credit institutions in the 2013-2017 period. Of these indebted households, slightly more than half had mortgage loans only, approximately a third had consumer loans only and less than 20% had both types of loans. Chart 4 shows the average percentage of defaults on different types of loans for households with mortgages, broken down by household income levels. The percentage of defaults diminishes in line with the level of income for all loan products, with a larger decline in higher income levels for mortgages and bills than for consumer credit.

Based on LCS data, a probability model is estimated in which the mortgage default event depends on significant household characteristics and also on past defaults on consumer credit, instalment purchases and bills. With respect to household characteristics, the proportion of income allocated to paying the mortgage increases the probability of a payment delay, as does a lower level of education. However, as found in other studies, the variables with the highest information content explaining the probability of default are the transition to unemployment and a decline in household income. But, more importantly for the purposes of this analysis, past defaults on both consumer credit and bills have a statistically significant positive impact on the probability of default on mortgages.

The findings indicate that, faced with financial difficulties, indebted households first delay the payment of consumer credit, around a year later they stop paying bills and, if the situation persists for a further year, they cease to pay their mortgages. This order of priority appears to be consistent with the collateral requirements for each type of loan and with the level of necessity represented by the expense

2 Casado and Villanueva (2018) also found, drawing on data for Spanish households, but in this case, obtained from the Spanish Survey of Household Finances, that, over the life of the loan, the fall in household income and changes in the employment status of the main earner were the main factors explaining the delays in the payment of their debts.

Chart 5
VARIATION IN THE PD FOR MORTGAGES OF CUSTOMERS WITH PAST DEFAULTS ON OTHER BANK LOANS (a)

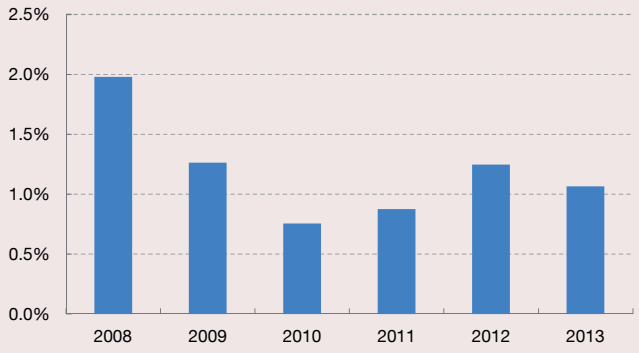
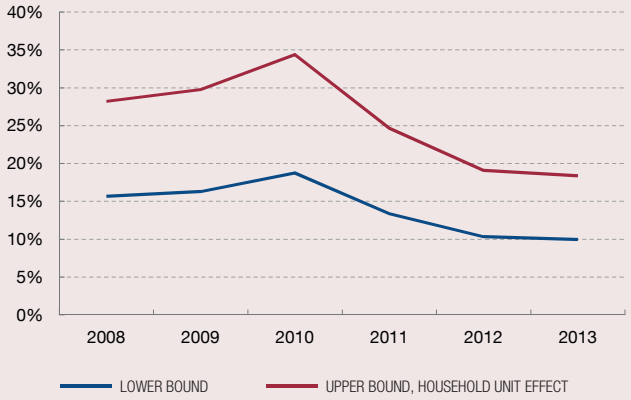


Chart 6
PERCENTAGE OF MORTGAGE DEFAULTS WITH PAST DEFAULTS ON OTHER BANK LOANS (b)



SOURCE: Banco de España.

a Difference between the PD of the entire mortgage portfolio and that observed in the population of individuals with past defaults on their other bank loans in the two preceding years (annual weighted averages obtained from monthly monitoring thereof).
b Percentage of individual borrowers with mortgage defaults preceded by other defaults in other types of bank loans in the preceding 24 months. The lower bound is obtained by considering borrowers individually, and the upper bound by assuming that the past default of a borrowers precedes two mortgage defaults (on average, mortgages have two borrowers corresponding to two adults in the household unit).

arising from of these debts. This build-up of defaults was particularly prevalent during the crisis years. Although it has subsequently decreased, it remains statistically significant. Nevertheless, to assess the quantitative impact of these estimates, it should be noted that less than 20% of households have both mortgage and consumer loans at the same time.

The aforementioned analysis was accompanied by a study, based on data from the Banco de España's Central Credit Register (CCR), on the relationship between the quality of mortgage loans and that of loans for other purposes to individuals during the crisis period (2008-2013).[3] The use of CCR data allows for this relationship to be analysed across all bank lending to individuals, not only for the representative sample of households in the LCS, but it does not measure the effect of household characteristics or of non-payment of bills as mentioned in the aforementioned study.

Chart 5 shows that the probability of impairment of the quality of a mortgage loan for house purchase increases if the borrower's other bank loans,[4] particularly consumer loans, have become impaired in the preceding 24 months. This increase is significant in all the crisis years, ranging from 0.8 pp to 2 pp in the period under review, but particularly pronounced in 2008-2009 and in 2012, coinciding with the periods of greatest financial stress in Europe. The presence of previous impairments in other types of bank loans, particularly consumer loans, can therefore be seen as a clear sign of risk regarding the ability to repay a mortgage loan.

However, Chart 6 shows that only a limited percentage of individual borrowers with mortgage loan impairments have previous impairments in other types of bank loans. This percentage ranges from 10% in 2013 to 18.8% in 2010. As this analysis is conducted at individual borrower level rather than at household level, this percentage may have been underestimated in the case of mortgages with more

3 This analysis, drawing on CCR data, is carried out at borrower level, focusing on individuals and considering as mortgage exposures those with collateral and a minimum duration of five years, and as other exposures to individuals, those lacking these characteristics.

4 The probability of impairment of a mortgage for house purchase in a given month is estimated as the frequency of transition into non-performing status (existence of objective non-performance or classification as non-performing for subjective reasons) of borrowers whose mortgage loans were performing in the preceding 24 months. Previous impairments of borrowers' other bank loans is measured as the occurrence of at least one monthly transition from performing to non-performing in the preceding 24 months.

than one borrower (on average, there are two) where only one of them has a non-mortgage loan with previous impairments. On this assumption, the level of borrowers with mortgage loan impairments conditioned by previous impairments of other loans would be higher, ranging from 18.4% (in 2013) to 34.4% (in 2010).

Both studies agree that, to date, the impact on the banking sector of this build-up of defaults and impairments is moderate, since a minority of households (less than 20%) have simultaneously held both types of loans. As the recourse to consumer credit grows among the Spanish population, following a clearly observed pattern until 2019, the quantitative significance of default build-up can be expected to increase within the banking system. These studies indicate that, as a result of the shocks triggered by the coronavirus, consumer credit defaults will occur at an earlier stage than mortgage defaults in the case of households combining different loan products, and that a decline in income and employment status will adversely affect mortgage lending overall. The presence of mitigating measures, such as state-sponsored or private mortgage payment holidays or financial support to vulnerable households, may alleviate these effects.

2

RISKS TO THE FINANCIAL SECTOR AND ITS RESILIENCE

Chapter 2 of this FSR analyses the Spanish banking sector's response to the severe adverse shocks triggered by the COVID-19 pandemic, and their transmission through interconnections within the financial system. In 2019, the Spanish banking sector continued the process of deleveraging and improving credit quality, and slightly increased its solvency. Its profitability fell, due in part to extraordinary factors, and held at lows levels below the cost of capital. Against this backdrop, the outbreak of the COVID-19 pandemic and the necessary containment measures adopted have adversely affected the outlook for the banking sector, as they are expected to have a negative impact on NPLs, driving additional profitability downwards. In this connection, it should be considered that income statements have less headroom than at the beginning of the century and that the NPL ratio is higher than that which existed prior to the global financial crisis. Moreover, there is significant disparity among institutions. The sector has substantial capital buffers to absorb the unexpected losses associated with this crisis, although not all institutions are in the same position. Furthermore, the early action taken by national and international authorities is expected to soften their impact. In any event, the sector's performance and the interactions between the financial system's different sub-sectors will need to be monitored closely, given the significant interconnections among segments and the growth of non-bank financial intermediation in recent years.

2.1 Deposit institutions

2.1.1 Balance sheet structure, risks and vulnerabilities

Credit risk

In 2019, Spanish deposit institutions continued to reduce the volume of lending on their balance sheets. The outstanding balance decreased by 1.3% year-on-year in 2019 Q4, a more moderate rate of decline than in previous quarters (see Chart 2.1). In turn, the rate of change in new loans to households and non-financial corporations in the 12 months to December 2019 was 1.9%, compared with 15.5% to December 2018. Despite the lower growth of new loans, the fall in the stock of bank loans to households moderated, as the number of existing loans removed from the balance sheet was reduced.

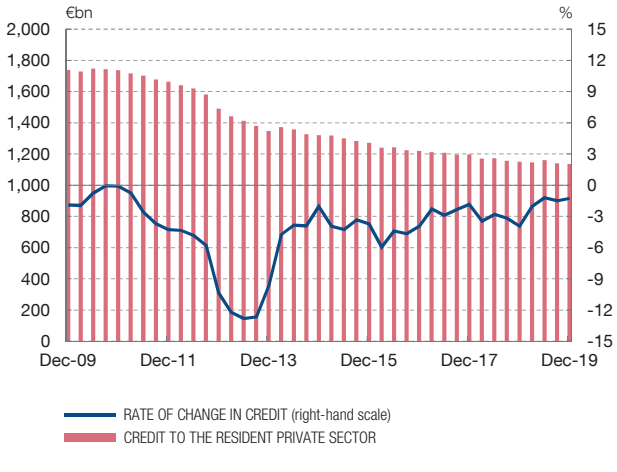
The guarantee programme for firms approved in March 2020 to mitigate the impact of the coronavirus crisis should help sustain the flow of credit to the productive sector. The guarantee programme is expected to enable the granting of

Chart 2.1

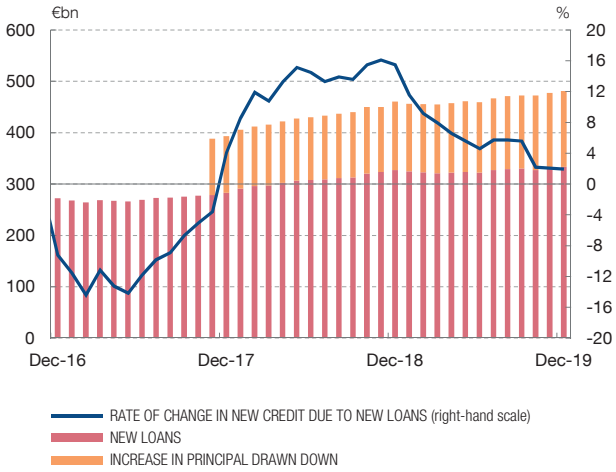
THE CORONAVIRUS CRISIS MAY REINFORCE THE DOWNWARD TREND IN CREDIT OBSERVED IN 2019, ALTHOUGH THE SUPPORT PROGRAMMES MITIGATE THE CONTRACTIVE EFFECT

Total credit granted by deposit institutions to the resident private sector continued to fall in 2019, albeit at lower rates than those observed in prior quarters. New credit to households and non-financial corporations also grew at lower rates in 2019 than in 2018. The coronavirus crisis may trigger adverse shocks in the supply of credit that reinforce the downward trend, but measures have already been adopted (Royal Decree-Law 8/2020) to mitigate this effect.

1 CREDIT VOLUME AND YEAR-ON-YEAR RATE OF CHANGE
Business in Spain, ID



2 VOLUME OF NEW CREDIT IN THE PAST 12 MONTHS AND YEAR-ON-YEAR RATE OF CHANGE. HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS (a)
Business in Spain, ID



SOURCE: Banco de España.

a Prior to 2017 information was not available on the increase in the principal drawn down against existing loans. Consequently, the first data item for this series, accumulated over twelve months, is represented in December 2017. The rate of change shown only refers to new loans.

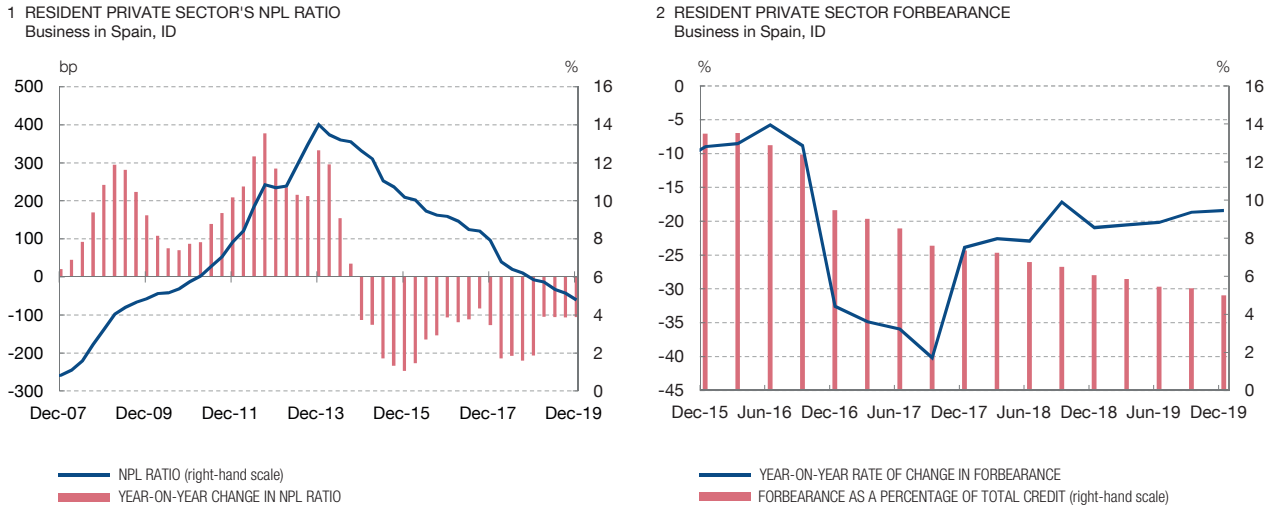
short-term loans, allowing firms to finance the costs incurred in the immediate months of business closures, and avoiding the non-renewal of the maturities of business loans, which would lead to a sharp fall in lending, compounding the macro impact of the coronavirus crisis. An appropriate use of the guarantee programme should ensure that the volume of lending to non-financial corporations relatively stable in the short term, curbing the number of business closures due to a lack of liquidity and preparing the productive system for a swift recovery when the confinement measures are withdrawn. The banking sector should also contribute to the role played by public policy in stabilising the economy by using the capital buffers available (see Chart 2.13) to absorb unexpected losses and by providing the necessary funding flows to ensure that this shock does not have lasting effects.

Although the NPL ratio and the volume of forbearance loans continued to fall in 2019, the spread of the pandemic will foreseeably cause increases in these ratios, which will be heterogeneous across banks. The NPL ratio in operations in Spain has fallen by 9.2 pp since its 2014 H1 high, and stood at 4.8% in December 2019 (see Chart 2.2). In terms of the NPL ratio, there are significant differences among portfolios; in December 2019, the ratio was relatively higher in the non-financial

Chart 2.2

THE NPL RATIO AND FORBEARANCE, WHICH CONTINUED TO FALL IN 2019, WILL INCREASE AS A RESULT OF THE COVID-19 PANDEMIC

The NPL ratio's decline continued, dropping to 4.8% in December 2019. Forbearance also continued to fall and accounted for 5% of total credit to the resident private sector in December 2019. However, the adverse pressure on economic activity triggered by the coronavirus crisis will foreseeably reverse this trend, leading to an increase in the NPL ratio and the forbearance ratio, while the economic support measures and accounting measures will moderate this adverse impact.



SOURCE: Banco de España.

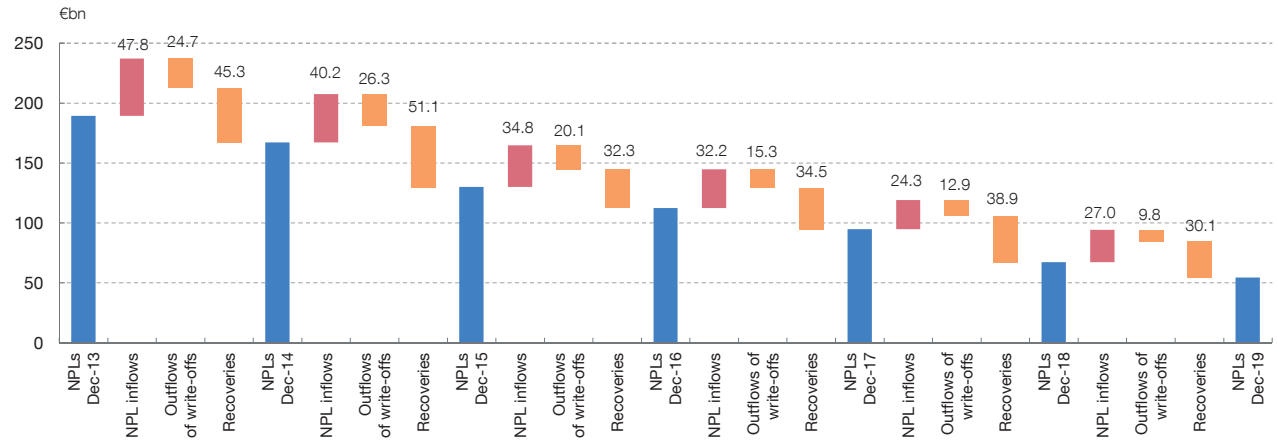
corporations portfolio (6.3%) than in the households portfolio (4.1%). In the case of households, the NPL ratio is expected to rise faster in consumer lending as a result of the current crisis, given the high level of growth this portfolio recorded in recent years and the behaviour traditionally observed following this kind of shock (see Box 1.2). Forbearance accounted for 5% of total lending at December 2019, down 9 pp since the end of 2014. The coronavirus crisis will change the trend in these ratios. However, this should only be temporary provided appropriate credit standards are kept in place. In this connection, it is very important that automatic rules not be used to classify this type of loan for accounting purposes (see the accountancy-related prudential response in Section 3.2.3). In any event, the crisis will impact institutions differently depending on their initial position in terms of credit quality and their degree of exposure to the most affected sectors and geographical areas. Foreclosed assets were also reduced by more than €12 billion in 2019 and amount to approximately €30 billion.

Since 2013 annual flows of new non-performing loans have been outstripped by NPL recoveries and outflows of write-offs. However, the current crisis will reverse this clean-up process. Classifications as non-performing already rose slightly in 2019 (see Chart 2.3), but the pandemic crisis will lead to a further increase. In this connection, it is critical that institutions keep appropriate credit standards in place. In 2019 NPL recoveries and outflows of write-offs continued to offset the

Chart 2.3

SINCE 2013 RECOVERIES AND OUTFLOWS OF WRITE-OFFS HAVE CONSISTENTLY EXCEEDED THE FLOW OF NEW NPLs, BUT THE CURRENT CRISIS WILL REVERT THIS TREND (a)

The inflows of resident private sector loans to the NPL category increased in 2019 (€27 billion as opposed to €24.3 billion in 2018). However, like in previous years, recoveries and outflows of write-offs more than offset this increase, thereby reducing the NPL balance. The coronavirus crisis will reverse this trend, as it will contribute significantly to increases in defaults by households and firms, and hinder recoveries and sales of written-off assets.



SOURCE: Banco de España.

a The bars are presented together with the amount, in billions of euro, of each NPL inflow or outflow. The NPL recoveries include NPLs reclassified as performing, and foreclosed assets or potential sales of NPL portfolios to third parties.

increase in new NPLs, but the crisis will also hinder maintaining this positive difference and settling non-performing loans through foreclosed and written-off asset sales.

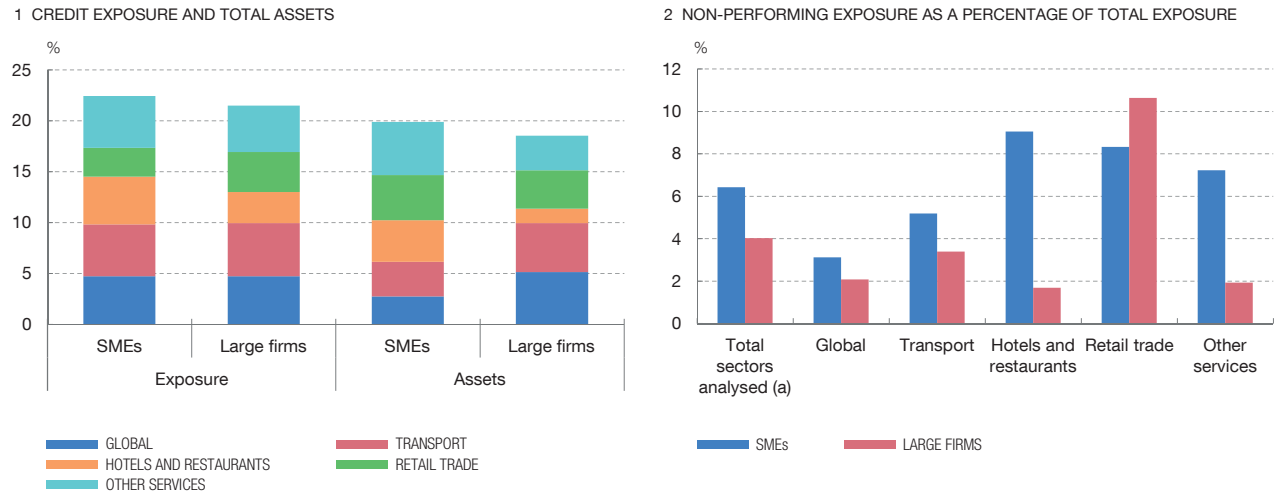
In December 2019 deposit institutions' exposure to sectors particularly sensitive to the coronavirus crisis accounted for around 20% of lending to non-financial corporations. The manufacturing sectors most dependent on global value chains (with imports accounting for more than 25% of their intermediate consumption) and that, therefore, may be most affected by the effects of the pandemic represent approximately 5% of bank lending to non-financial corporations, while the segments of the services sector most affected by the physical disruptions triggered by the measures to curb the contagion (e.g. tourism, transport) account for more than 15% (see Chart 2.4).[1] Broadly speaking, the NPL ratios of these sectors appeared to be contained in 2019; however, the ratios were relatively high in lending to some SME segments, such as retail trade and hotels and restaurants. Different degrees of exposure to these sectors are one reason why the impact of the COVID-19 crisis on deposit institutions' lending and credit quality will vary.

1 This pattern is comparable in SMEs and large firms, as well as when using these firms' total assets in the Banco de España's Central Balance Sheet Data Office (CBSO) rather than bank lending.

Chart 2.4

THE SERVICES SECTOR ACCOUNTS FOR MOST OF THE EXPOSURES OF THE SECTORS THAT ARE MORE SENSITIVE TO THE INITIAL IMPACT OF THE CRISIS

For both large firms and SMEs, in December 2019 the exposures of the sectors that are a priori most sensitive to the initial impact of the coronavirus crisis stood at 20% (of bank lending and of total assets), with the services sector accounting for most of the exposures (weight of 15%). The distribution among sectors of the NPL ratio in December 2019 shows that hotels and restaurants and retail trade are in a worse relative position, and that SMEs are in a worse position than large firms.



SOURCE: Banco de España.

a Total sectors analysed in this chart includes manufacturing sectors sensitive to global value chains (imports accounting for more than 25% of their intermediate consumption) and important segments of the services sector.

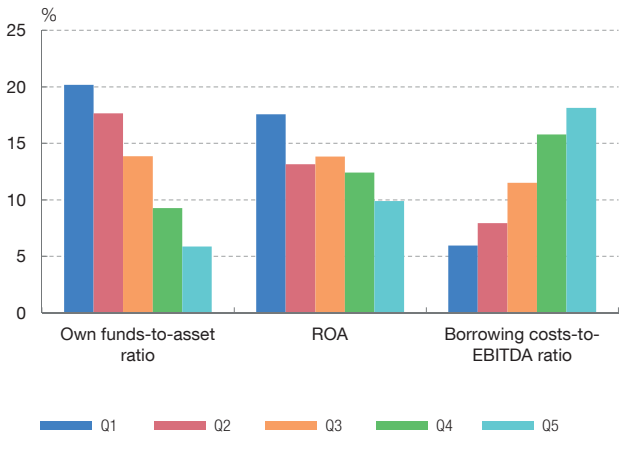
The adverse impact of the coronavirus crisis on the non-performance of loans to firms will vary among sectors and among firms, and will hinge on their initial financial position. Using a statistical model for calculating the probability of loans becoming non-performing, it is possible to simulate the future trend in this variable for non-financial corporations in the event of a deterioration of the macrofinancial environment. Differences in non-financial corporations' profitability, solvency and debt burden mean that when macrofinancial risks materialise, their effect on the probability of loans becoming non-performing differs (see Chart 2.5). Consequently, the sectoral impact of the crisis will vary depending not only on the disruption to activity it causes in each sector, but also on the initial financial position of each sector's firms (see Chart 2.5). Due to the uncertainty surrounding the ultimate consequences of the pandemic for the macrofinancial environment, shocks of between 25% and 150% of the downturn witnessed between 2007 and 2012 during the global financial crisis have been simulated; however, it is not currently possible to estimate with sufficient accuracy the most likely scenario. The revised growth estimates for Spain presented in Chapter 1 point to the shocks being closer to 100% for 2020. This would entail a very pronounced deterioration in the macro variables and the financial ratios of firms, which would result in a robust rise in the probabilities of loans becoming non-performing, particularly in certain segments of the services sector.

Chart 2.5

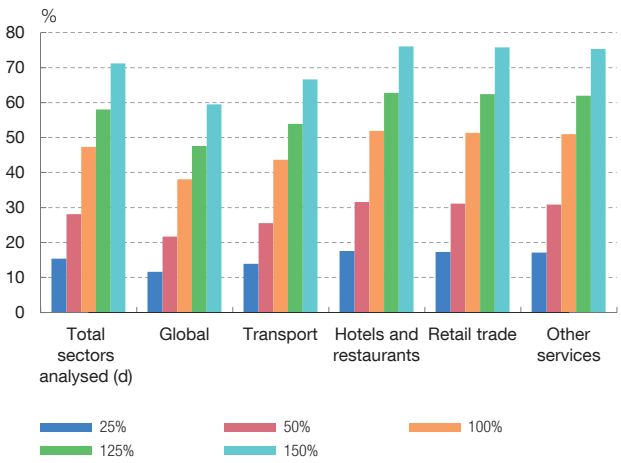
THE CORONAVIRUS CRISIS WILL INCREASE THE RATE OF FIRMS DEFAULTING. THIS INCREASE WILL VARY DEPENDING ON THE PRIOR FINANCIAL POSITION AND SECTOR OF EACH FIRM, AND THE DEGREE OF MACROECONOMIC DOWNTURN

Applying statistical models to the experience of the global financial crisis shows that deteriorating macrofinancial conditions have a very inconsistent impact on firms with varying levels of profitability, solvency and debt burden. Economic measures helping to support the financial position of firms may thus contribute to limiting the deterioration of their creditworthiness. The measures may also contain the downturn in the wider macroeconomic conditions, surrounding which this is a high level of uncertainty. In any event, it is expected to be very significant in 2020. This would lead to a significant increase in the probabilities of non-performance in the various sectors.

1 DISTRIBUTION OF THE RELATIVE INCREASE IN THE PROBABILITY OF NON-PERFORMANCE BASED ON FIRMS' FINANCIAL POSITION (a) (b)



2 RELATIVE INCREASE IN THE PROBABILITY OF NON-PERFORMANCE BY SECTOR (a) (c)



SOURCE: Banco de España.

a Probability of non-performance is defined in a given year as the probability of being reclassified as non-performing (objective past due or nonperforming for subjective reasons) for those firms classified as performing over the prior 12 months.

b The distribution of quintiles of firms based on the relative increase in the probability of non-performance (defined as the change in probability as a percentage of average probability in unstressed conditions) in the event of a worsening of the macro conditions and of the individual financial position for a shock equal to 25% of the historical downturn between 2007 and 2012 is shown for each variable. The distributions are constructed in terms of initial position in the corresponding financial ratio. In other words, the first quintile of each variable corresponds to those firms with the lowest own funds-to-asset ratio, lowest rate of return on assets and lowest borrowing costs-to-EBITDA ratio, respectively.

c The relative increase (defined as the change in probability as a percentage of average probability in unstressed conditions) in the probability of non-performance in the event of downturns in the macro conditions and in the individual financial position for shocks ranging from 25% to 150% of the historical downturn between 2007 and 2012 is presented for the sectors of interest analysed.

d Total sectors analysed in this chart includes manufacturing sectors sensitive to global value chains (imports accounting for more than 25% of their intermediate consumption) and important segments of the services sector.

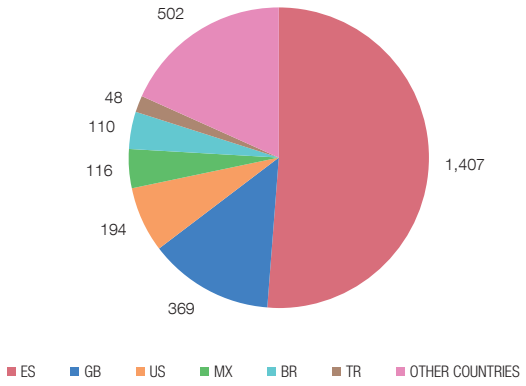
The economic measures to support the private sector will lessen the pandemic's impact on the non-performance of loans to businesses, by directly supporting firms' financial position and through the macroeconomic stimulus. As mentioned above, the Spanish government's guarantee programme and the moratorium on tax payments to tax authorities will help firms cover their liquidity needs. Furthermore, the possibility of temporarily laying off employees will also help to prevent further deterioration in profitability and solvency in these sectors. Moratoria on household lending, unemployment benefits, the programme to support vulnerable families and the soon-to-be-implemented subsidy for families with practically no income announced by the government will also shore up household income. These programmes will not only limit the non-performance of loans granted to firms and households, but should also enable a swifter economic recovery when the confinement measures can be lifted.

Chart 2.6

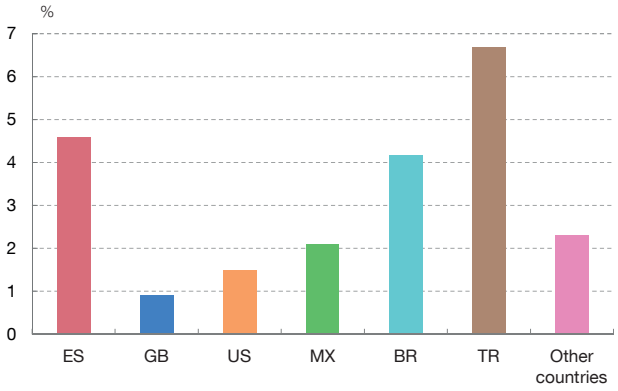
HALF OF THE VOLUME OF BANK LOANS IN 2019 RELATED TO OPERATIONS ABROAD, WITH THE UNITED KINGDOM, UNITED STATES AND LATIN AMERICA HAVING A PREDOMINANT WEIGHT

Loans in Mexico (4%), Brazil (4%), the United States (7%) and the United Kingdom (14%) accounted for nearly one third of the total lending by Spanish deposit institutions in December 2019. Operations in Spain, with a volume of €1,407 billion, represented approximately half of this total. Exposures abroad were concentrated in large institutions. With the exception of Turkey with a ratio of 6.7%, the NPL ratio abroad was lower than that of operations in Spain.

1 LOANS IN SPAIN AND ABROAD (a)
Consolidated data. December 2019



2 NPL RATIO IN SPAIN AND ABROAD
Consolidated data. December 2019



SOURCE: Banco de España.

a Volume of loans in € billion.

In order to fully assess the impact of the COVID-19 pandemic on Spanish deposit institutions' credit exposure, their significant activity abroad must be considered. In 2019 financial assets abroad (mainly loans) grew year-on-year by 9.3%, and accounted for more than 50% of consolidated financial assets. Conversely, the financial assets of operations in Spain shrank by 1.8%. Loans in Mexico and Brazil each represented 4% of the total at December 2019, while loans in the United States and the United Kingdom accounted for 7% and 14%, respectively. There has been a widespread drop in the NPL ratio abroad in recent years, except in Turkey (see Chart 2.6). The geographical expansion of the pandemic in jurisdictions where Spanish deposit institutions have a significant presence is an additional source of impact for them. Many of these countries are also implementing policies to support their business sectors. As in Spain, this should limit the impact of the crisis on credit risk attributable to insolvency.

Liquidity and financing conditions

The ECB has taken one-off measures geared towards mitigating the impact of the pandemic. As detailed in Chapter 1, the Eurosystem has substantially increased its ability to inject liquidity directly into the financial system by bolstering its asset purchase programme through the creation of a new emergency programme.

Furthermore, it has also increased the liquidity provided to institutions by easing the conditions for TLTRO III and through additional longer-term refinancing operations (LTROs), consisting of a fixed rate tender procedure with full allotment, with an interest rate equal to the average rate on the deposit facility.

Further, the ECB has expanded its US dollar swap lines in a coordinated action with other central banks. The pricing of these lines has been lowered[2] and the frequency of operations has been increased in order to satisfy greater global demand for funding in this currency. This programme has been coordinated with the Bank of Canada, the Bank of England, the Bank of Japan, the Federal Reserve, and the Swiss National Bank.

The expansion of the purchase programmes and the volumes allotted in the refinancing operations have led to a substantial increase in the liquidity provided by the Eurosystem. The expanded purchase programme (see Box 1.1 for a description of the changes in the ECB's monetary policy) has led to significant increases in the Eurosystem's balance sheet since March. The total change in these programmes is €138 billion, and they amount to €2,809 billion at the cut-off date of this FSR, representing 53% of its balance sheet total. The same has occurred in connection with the net funding provided to European banks through the refinancing operations denominated in euro. The balance sheet total has increased by €230 billion[3] to €893 billion. Lastly, since the expansion of the US dollar swap lines on 18 March,[4] US dollar funding through these lines has increased substantially. The cumulative outstanding amount at the cut-off date of this FSR totals $133 billion in operations with 84-day maturity and $6 billion in 1-week operations for the Eurosystem institutions as a whole (see Chart 2.7).

Dollar funding costs, reflected in the cross-currency basis swap (CCBS) spread,[5] rose considerably during March due to greater demand for liquidity in this currency. Investor response to the pandemic has been a large-scale withdrawal from risky assets and a flight to more liquid assets and safer currencies, in particular the dollar (see also Section 1.2 on this development in the financial

2 Specifically, the interest rate on these operations has been lowered to the USD OIS (US Dollar Overnight Index Swap) rate plus 25 bp.

3 This is the result of the €257 billion obtained through new LTRO tenders and the €213 billion through TLTRO III (€98 billion in December 2019 and €115 billion in March 2020, the increase being explained by the easing of the related conditions), and simultaneous early repayments of a substantial portion of their obligations under TLTRO II (€147 billion in December 2019 and €93 billion in March 2020).

4 On that date, $76 billion were allotted in operations with 84-day maturity and $36 billion were allotted in 1-week operations.

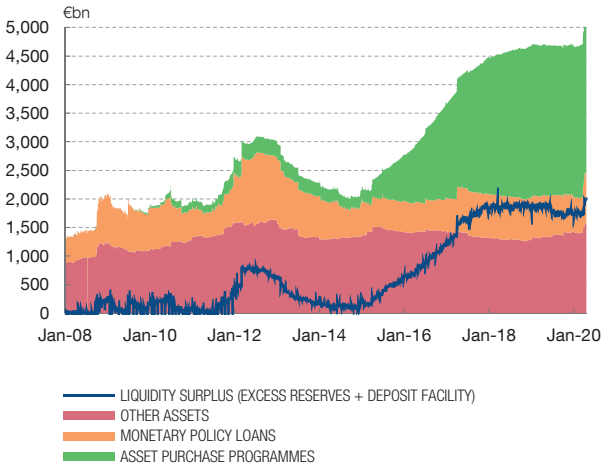
5 The EUR/USD cross-currency basis swap (CCBS) spread, which measures the additional premium paid to the lender by the counterparty receiving dollars, is used as a reference. In this type of operation, there is an agreement between two parties: the party obtaining dollars in exchange for the same amount translated to euro, who must pay interest based on the euro reference rate (generally EURIBOR), and the party providing dollars in exchange for interest payments (USD LIBOR). The CCBS spread represents the (positive or negative) premium required by the counterparty offering dollars.

Chart 2.7

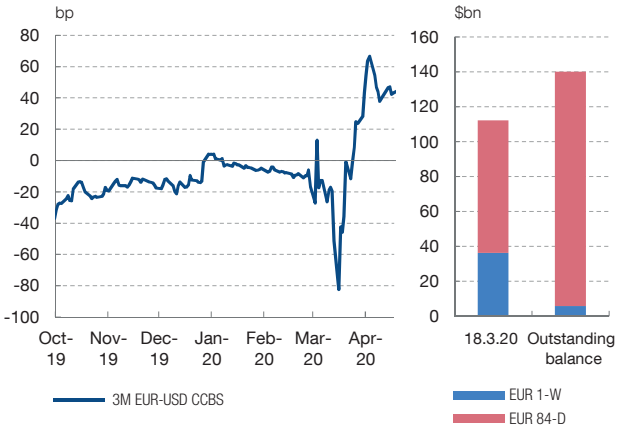
THE CENTRAL BANKS' REACTION TO THE CORONAVIRUS CRISIS HAS MANAGED TO STABILISE THE MONEY MARKETS. IN PARTICULAR, THE ECB HAS INCREASED THE LIQUIDITY PROVIDED TO CREDIT INSTITUTIONS AND EXPANDED ITS ASSET PURCHASE PROGRAMME (a)

The expansion of the ECB's balance sheet accelerated as a result of the new liquidity-provision measures. The increase in the demand for US dollars has generated a slight scarcity, resulting in the swap rate rallying, which induced coordinated intervention by the central banks to mitigate this development. A decrease in volume is observed in the secured segment of the money market as a result of the central banks' intervention. Conversely, an increase in the volume of institutional deposits at banks is observed in the unsecured segment. The initial reaction to the COVID-19 crisis led to a positive spread between the €STR and the secured rate, but this has disappeared as both rates returned to their pre-crisis levels. The rise in the Euribor rate has held over the most recent weeks, despite the measures adopted, indicating some worsening of the conditions in the interbank market.

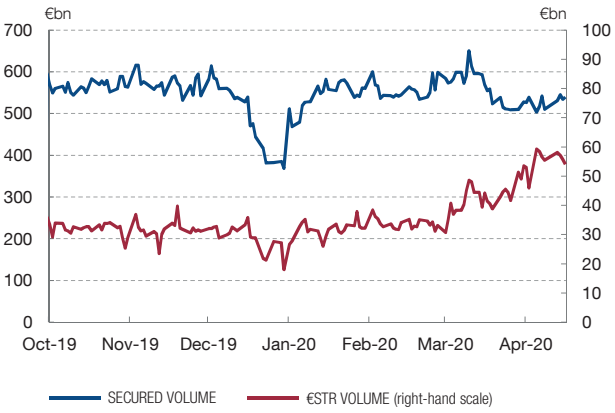
1 EUROSYSTEM BALANCE SHEET AND EXCESS LIQUIDITY



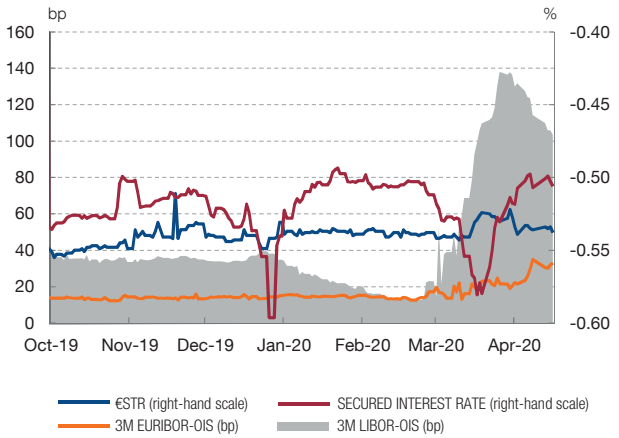
2 CROSS-CURRENCY BASIS SWAP AND AMOUNTS REQUESTED ON USD SWAP LINES (b)



3 TURNOVER (SECURED AND UNSECURED SEGMENTS) (c)



4 INTEREST RATES IN THE SECURED AND UNSECURED SEGMENTS



SOURCES: BCE, Bloomberg, Money Market Statistical Reporting (MMSR) and Banco de España.

a Data up to 17 April 2020
b This chart shows the 3M cross currency basis swap (CCBS) spread and the amounts requested through the USD swap lines maturing at one week (1-w) and at 84 days (84-d).
c The turnover in the secured market includes all the overnight transactions banks report to the MMSR with the other counterparties.

markets). Thus, the substantial increase in the amounts requested has been accommodated by a greater supply of dollars provided by central banks, thereby contributing to calming the dollar funding market. These swap lines already existed, but banks made limited use of them. Moreover, although the EURIBOR-OIS spread

in Europe has risen,[6] it has remained well below the LIBOR-OIS spread[7] in the United States, which suggests less tightness in the money market in Europe (see Chart 2.7).

Thanks to the measures adopted by the Eurosystem, the uncertainty surrounding coronavirus has had a moderate impact on money markets in Europe. There has been a pick-up in the volume of unsecured transactions (€STR)[8] in March. Specifically, the daily volume is currently at a historical high of around €58 billion, well above the mean of €30 billion recorded since publication of the €STR began. In turn, the €STR rose and the secured rate fell, resulting in a positive spread between the two rates, which would have since been corrected. It should be noted that the new measures introduced by the Eurosystem to provide liquidity in collateralised transactions and the expansion of the asset purchase programmes could reduce the trading volume in the secured markets. The rise in the Euribor rate, from historical minima, has held over the most recent weeks, despite the measures adopted. This indicates some worsening of the conditions in the interbank market.

In early 2020, the cost of the different liability instruments was at very low levels for Spanish deposit institutions, but the COVID-19 crisis is also adversely affecting the wholesale segment. At the European level, the cost of covered bonds and senior debt decreased in 2019, whereas that of subordinated debt eligible as additional Tier 1 capital remained flat, and that of subordinated debt eligible as Tier 2 capital rose (see Chart 2.8). In the case of Spanish deposit institutions, the environment of low interest rates was conducive to a reduction in the cost of both deposits and debt issuances between 2014 and 2019. The greater risk aversion could hamper the wholesale issuance of liability instruments, particularly subordinated debt, and increase the related cost. Indeed, information from the secondary market (see Chart 1.6) points to a clear rise in the cost of such funding. Higher issuance costs for this type of instrument could impede achievement of MREL targets, although the Single Resolution Mechanism (SRM) has already clarified that it will take a forward-looking approach when assessing fulfilment of those targets. Furthermore, the intervention by the ECB to provide liquidity and expand its purchase programme should serve to cushion these adverse effects, specifically in respect of debt instruments.

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6 An increase in the EURIBOR-OIS spread has been observed since 3 April that does not appear to be linked to a rise in banks' credit risk.

7 The 3M EURIBOR-OIS spread (calculated on the basis of the €STR) and 3M LIBOR-OIS spread (calculated on the basis of the Effective Federal Funds Rate (EFFR)). These interest rates (EURIBOR and LIBOR) are typically used as risk indicators in the interbank market and represent the reference rate for the cash flows performed in a swap transaction.

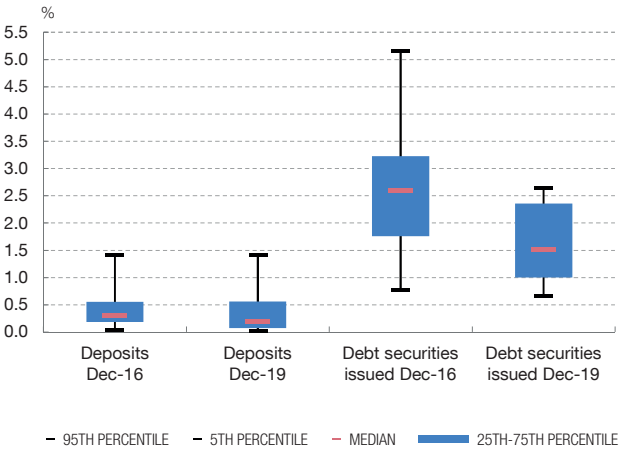
8 This refers to the transactions used to calculate the €STR, which reflects the wholesale euro unsecured overnight borrowing costs of banks located in the euro area. The €STR and trading volume are calculated and published each TARGET2 business day by the ECB based on the information provided by the 52 euro area banks that report to MMSR. In addition to transactions conducted and settled with other banks, those performed with other financial institutions (such as investment funds, insurance companies and money market funds, among others, located both in and outside the euro area) are included. For further information, see: ECB Overview of the euro short-term rate.

Chart 2.8

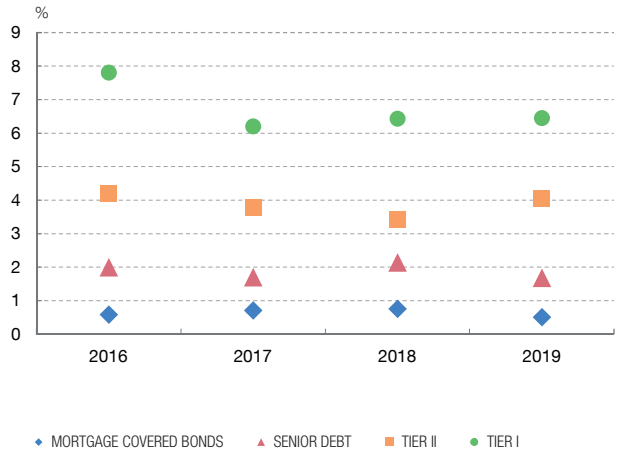
THE COSTS OF LIABILITIES WERE VERY MODERATE IN EARLY 2020, BUT THE COVID-19 CRISIS IS ADVERSELY AFFECTING THE WHOLESALE SEGMENT. HOWEVER CENTRAL BANKS' POLICIES LIMIT FUNDING TENSIONS

Deposit institutions face the COVID-19 crisis with deposit rates initially at levels close to zero and median rates on debt securities of 1.5%, albeit with certain heterogeneity among institutions in this latter metric. The cost of subordinated debt eligible as Tier 1 or Tier 2 capital presented a slight upward trend in 2019 and these products are more sensitive to the financial stress triggered by the coronavirus pandemic, which could increase their cost and even hinder their issuance in the coming quarters. Intervention by central banks has to date prevented severe funding tensions.

1 RATES ON DEPOSITS AND DEBT SECURITIES ISSUED (a)
Consolidated data



2 AVERAGE COST OF ISSUANCE FOR DEPOSIT INSTITUTIONS IN MAIN EUROPEAN COUNTRIES



SOURCE: Banco de España.

a The chart shows the dispersion in interest rates on deposits for Spanish deposit institutions and in interest rates on debt securities issued.

Deposits taken by Spanish institutions continued to grow in 2019 and the COVID-19 crisis, with the foreseeable increase in the saving rate of households and the pursuit of liquid and low-risk assets, is expected to support growth therein. Stock of deposits rose by 2.6% in 2019 (well above the growth of 0.9% in 2018); this increase was widespread among institutions. Deposits taken continue to be Spanish banks' main source of funding (78.2% of total liabilities in December 2019). The weight of private sector deposits is also noteworthy (approximately 78% of total deposits at December 2019), with growth of 4.8% in the last year (compared with 1.1% in 2018). The weight of sight deposits has increased in recent years and at December 2019 accounted for nearly 65% of the total (well above the level of approximately 50% they represented in December 2015), probably owing to the interest rates on time deposits of practically zero as a result of the low-interest-rate scenario. This situation will foreseeably continue following the outbreak of the COVID-19 crisis, insofar as the pursuit of liquidity associated with the pandemic encourages economic agents to withdraw funds from riskier financial instruments and to increase bank deposits, thereby maintaining their volume and limiting their profitability. The effect of the expected increase in the saving rate of households under these circumstances can be compensated by the use of liquidity by non-financial corporations to cover part of the differences between income and

expenses that can take place. Nevertheless, the uncertainty surrounding the spread of the virus compels to monitoring closely the evolution in institutions' liquidity.

2.1.2 Profitability and solvency

Profitability

In 2019 consolidated net profit of the Spanish banking system as a whole amounted to around €19 billion, down 13.1% on 2018. This drop resulted in falls in the return on assets (ROA) and return on equity (ROE),[9] which, in turn, were amplified by the growth, of around 2%, in average total assets (ATA) and average equity. The ROA decreased by 9 basis points (bp) from 0.61% in 2018 to 0.52% in 2019, while the ROE fell by 1.2 pp from 8.3% to 7.1% (see Box 2.1). The main factors behind this fall were: the decrease in net gains on financial assets and liabilities; the increase in operating expenses, largely attributable to extraordinary expenses to reduce staff at certain institutions; adjustments resulting from the impairment of goodwill of the two most internationally active institutions, also of a non-recurring nature; and, for the first time since 2012, the increase in impairment losses (see Annex 2 and Chart 2.9).

The coronavirus pandemic will have an adverse impact on institutions' already modest ability to generate profits. As analysed above, the coronavirus crisis will adversely impact the volume of economic activity and, therefore, of credit. Moreover, impairment losses will rise and net interest income will worsen due to the lower volume of performing assets. These effects on banks' profitability will not impact institutions uniformly; the impact will instead depend on their exposure to the sectors and geographical areas most affected by the pandemic. Net gains on financial assets and liabilities and goodwill may also be subject to significant adjustments. Lastly, the context of low or even negative interest rates will persist over time, thus limiting institutions' ability to increase their net interest income.

However, the economic measures adopted to palliate the coronavirus crisis will mitigate, to some extent, its adverse impact on deposit institutions' profitability. This mitigating effect will work maintaining macroeconomic activity, as mentioned in Section 2.1.1, and having a direct effect on the profit and loss account. The guarantees provided to firms will directly limit impairment losses on the loans guaranteed in the event of default, and will reduce the probability of default. Interest rates remaining low and the moratoria on mortgages may have some temporary adverse impacts on interest income. These would be offset, at least partially, by contained liability costs, limits on households' loan losses and extensions of loan terms. The microprudential

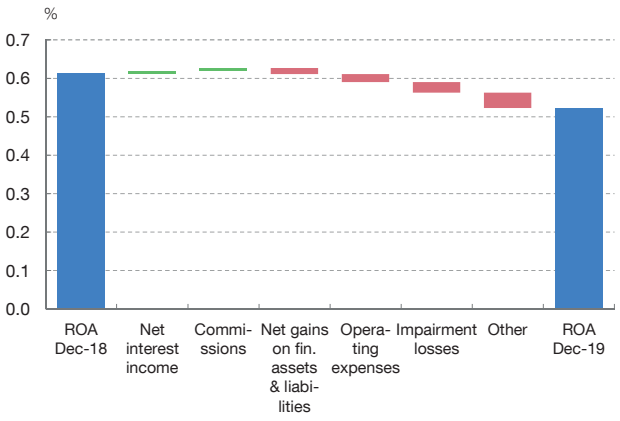
9 Future FSRs will use the definitions of ROA and ROE contained in the EBA risk indicators methodological guide: Revised EBA Methodological Guide - Risk Indicators and Detailed Risk Analysis Tools. The explanation of these definitions and the differences with respect to those previously used in the FSR are analysed in detail in Box 2.1.

Chart 2.9

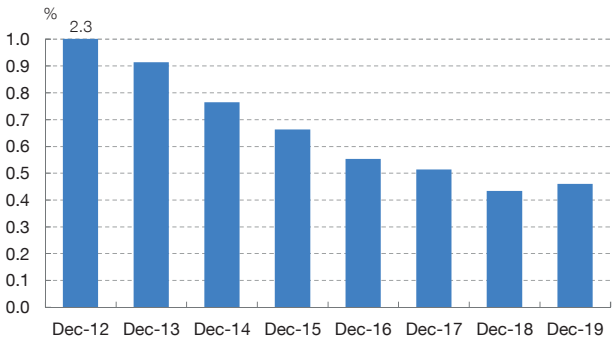
THE PROFITABILITY OF THE BANKING SECTOR FELL IN 2019 AND THE CRISIS ASSOCIATED WITH COVID-19 WILL DRIVE IT DOWN FURTHER, IN PARTICULAR BY REDUCING VARIOUS CATEGORIES OF INCOME AND INCREASING IMPAIRMENT LOSSES

Despite the slight increase in net interest income and commissions, the decrease in net gains on financial assets and liabilities, the increase in operating expenses (affected, to a certain extent, by workforce restructuring) and impairment losses, and the adjustment to goodwill at two significant institutions led to a 9 bp fall in ROA in 2019. Impairment losses on financial assets increased in 2019 for the first time after six consecutive years of decreases. The severe impact of the COVID-19 crisis on global economic activity will foreseeably result in adverse impacts on income, affected by the reduction in performing assets, and impairment losses due to the increased cost of credit risk.

1 BREAKDOWN OF THE CHANGE IN PROFIT
Consolidated profit as a percentage of ATA (a)



2 FINANCIAL ASSET IMPAIRMENT LOSSES (as a % of ATA)
Consolidated data



SOURCE: Banco de España.

a The red (green) colour of the bars indicates a negative (positive) contribution of the corresponding item to the change in consolidated profit in December 2019 with respect to December 2018.

measures and the prudential response regarding accounting rules (see Section 3.2) will also contribute to partially moderating the adverse effect on profitability.

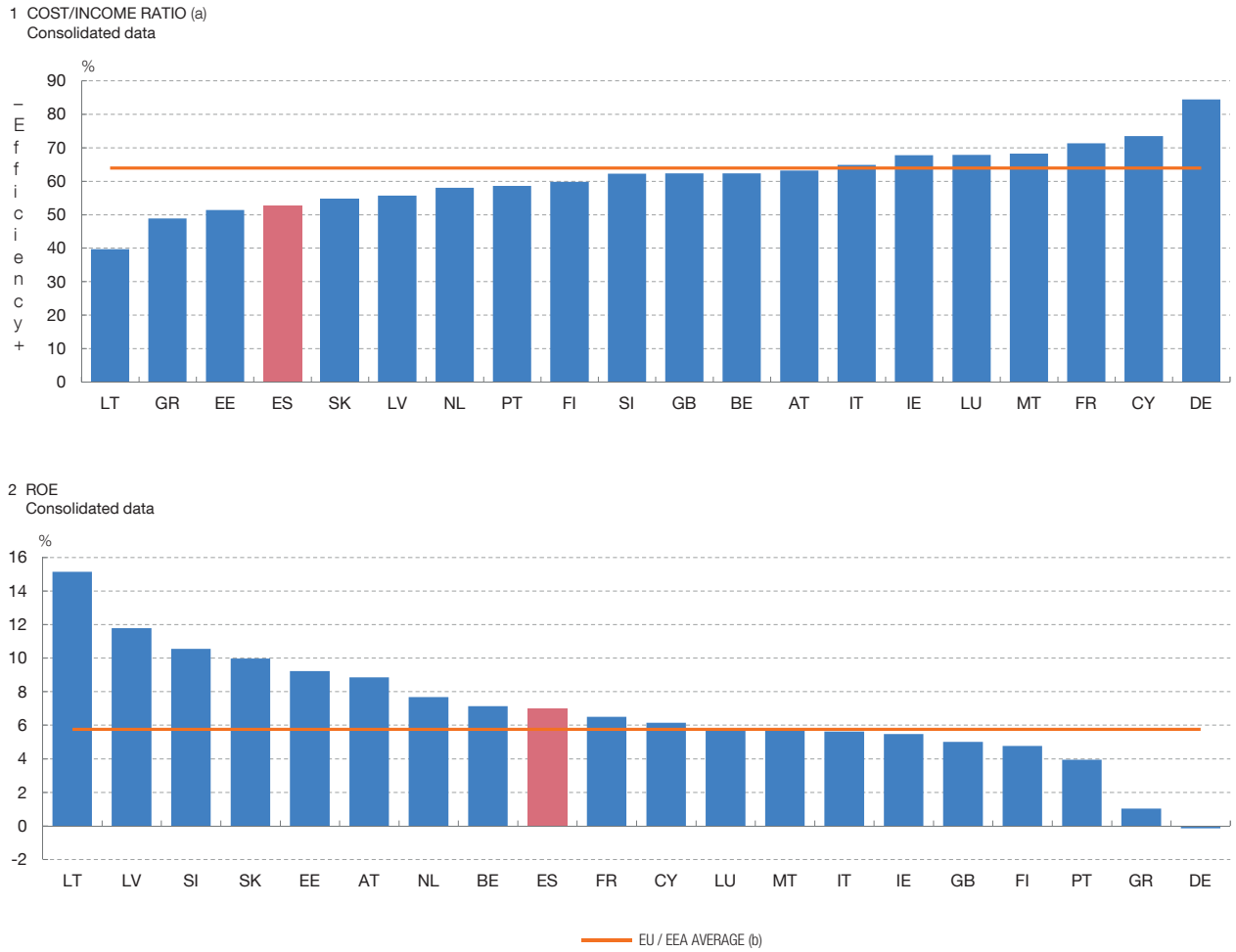
Spanish banks' favourable cost/income ratio and profitability compared with other European banks represent a head start for coping with the coronavirus crisis; however the profitability level is historically low for both Spanish and other European banks. The profitability of the main Spanish deposit institutions in 2019 remained above the European average, and their cost/income ratio continued to be among the lowest (best) among European banks (see Chart 2.10). Spanish banks' return on equity ratio is higher than that of banks from the main European countries according to the data published by the EBA in its most recent risk dashboard featuring data at December 2019.[10] However, the drop in Spanish banks' rate of return has been sharper than the European average in the last year. In any event, it is also necessary to take into account that the profitability of the Spanish banking sector and of other European banks was low in 2019, and still far from pre-crisis levels and the estimated cost of capital. This limits the ability to organically generate capital.

10 See EBA Risk Dashboard December 2019.

Chart 2.10

SPANISH BANKS ARE MORE EFFICIENT AND PROFITABLE THAN THE EUROPEAN AVERAGE, ALTHOUGH THE TREND IN THE VOLUME OF ACTIVITY AND LOAN LOSSES WILL BE KEY TO THE DYNAMICS OF THESE VARIABLES IN 2020

The ROE ratio of the main Spanish deposit institutions at December 2019 is above the European average (5.8%) and the main EU economies. The cost/income ratio of Spain is one of the lowest (best) in the EU, standing slightly above 50%. The COVID-19 crisis will adversely affect the profitability of both Spanish and other European banks.



SOURCE: EBA.

a The cost/income ratio is defined as the ratio of administrative expenses and depreciation to net operating income.
b EBA data include Iceland.

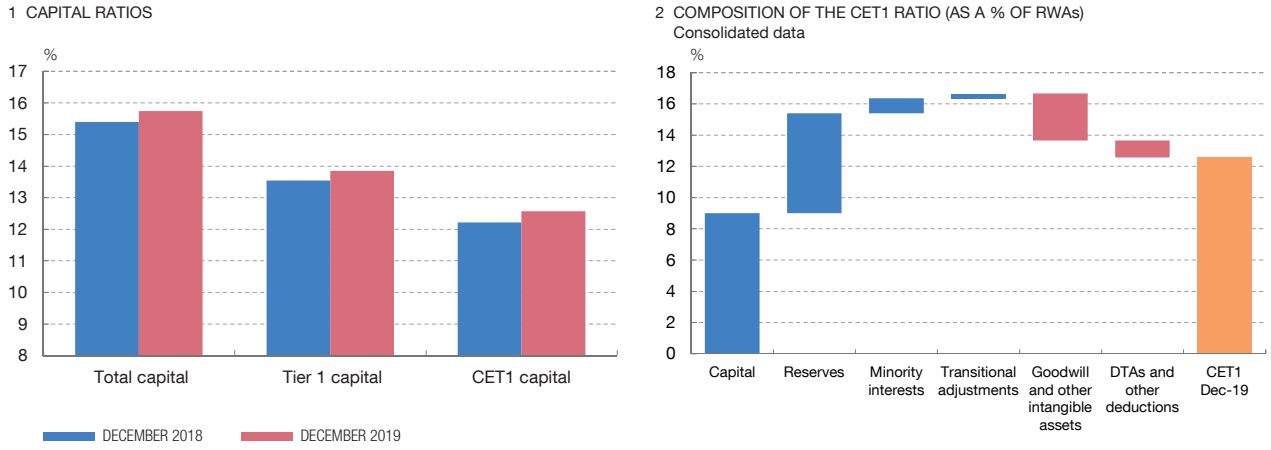
Solvency

At end-2019 the CET1 ratio stood at 12.6%, above the Pillar 1 minimum capital requirements. The CET1 ratio rose by 35 basis points in 2019. Along the same lines, the Tier 1 capital ratio and total capital ratio also increased over the last year, by 30 and 35 basis points, respectively, to stand at 13.8% and 15.7% in December 2019 (see Chart 2.11). This increase in capital ratios was widespread among institutions. Capital instruments and reserves together account for more than 90% of the CET1 ratio. Indeed, the growth in reserves is the main reason behind the ratio's increase.

Chart 2.11

BANK SOLVENCY HAS INCREASED SIGNIFICANTLY SINCE THE END OF THE FINANCIAL CRISIS, WITH THE CET1 RATIO STANDING AT 12.6% AT DECEMBER 2019, AFTER A RISE IN 35 BP IN THE LAST YEAR

Along the same lines, the Tier 1 capital ratio and total capital ratio increased by similar magnitudes to 13.8% and 15.7%, respectively. Capital instruments and reserves are the main components of the CET1 ratio, together accounting for more than 90% of its eligible items.



SOURCE: Banco de España.

Most of the deductions relate to goodwill and other intangible assets, a category which decreased in 2019, thereby contributing to the increase in the ratio.

Despite the growth in the CET1 ratio in 2019, the average ratio of Spanish institutions remained below that of other European countries. However, their relative position in terms of the leverage ratio is better than the European average. Based on the latest data published by the EBA in its risk dashboard at December 2019,[11] Spanish institutions had the lowest CET1 ratio, 2.7 pp below the European average (see Chart 2.12). Spanish banks' leverage ratio was above that of banks from the main European countries, excluding Italy, and was slightly above the European average. One factor behind Spanish institutions' relative position in the CET1 ranking is their wider use of the standardised approach. Moreover, virtually no use is made of agencies' credit ratings in the case of corporate portfolios under this approach. Such methodological decisions result in average weightings that are higher but which are less sensitive to increases in risk and to changes in these external agencies' ratings. This is expected to contribute to a lesser relative worsening in Spanish institutions' solvency during the pandemic.

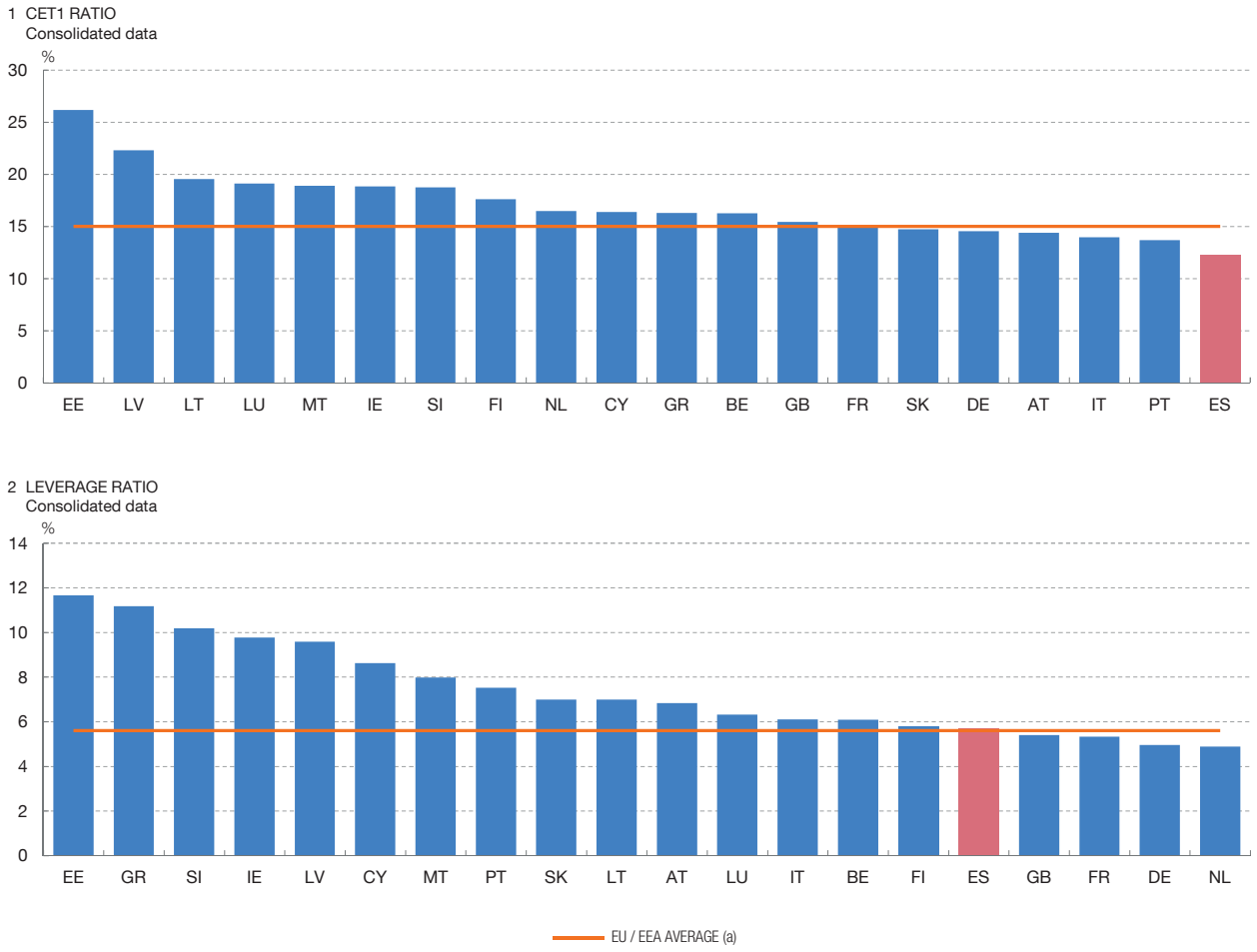
The voluntary buffer of CET1 of the Spanish banking system as a whole stood at €28 billion in December 2019. In December 2019, Spanish deposit institutions had €194.5 billion in CET1. The voluntary buffer of CET1 (see Chart 2.13) can be

11 EBA Risk Dashboard December 2019.

Chart 2.12

THE SOLVENCY RATIOS OF SPANISH DEPOSIT INSTITUTIONS ARE THE LOWEST IN THE EUROPEAN UNION, WHILE THEIR LEVERAGE RATIO IS HIGHER THAN THAT OF THE MAIN EUROPEAN COUNTRIES

According to data at December 2019 (the most recent data available), the main Spanish deposit institutions' CET1 ratio is at the bottom of the European ranking, while the leverage ratio is slightly higher than the European average and is better than that of the main EU countries. This difference in the ranking of the two ratios is due to the fact that the risk weights of Spanish Institutions are higher, basically as consequence of the more intensive use of the standard method. The advantage in this type of situations is that the standard method is much less sensitive to increases (and reductions) in risk than the IRB method.



SOURCE: EBA.

a EBA data include Iceland.

calculated on the basis of this total. This buffer could be used to absorb unexpected losses associated, for example, with the coronavirus crisis. To calculate it, the Pillar 1 requirements, amounting to €77 billion in December 2019, must first be deducted from total CET1. Then the macroprudential buffers must be deducted: the capital conservation buffer (CCB) (€38.7 billion); the countercyclical capital buffer (CCyB) (€1.4 billion); and the buffers for systemically important institutions (€9.5 billion).[12]

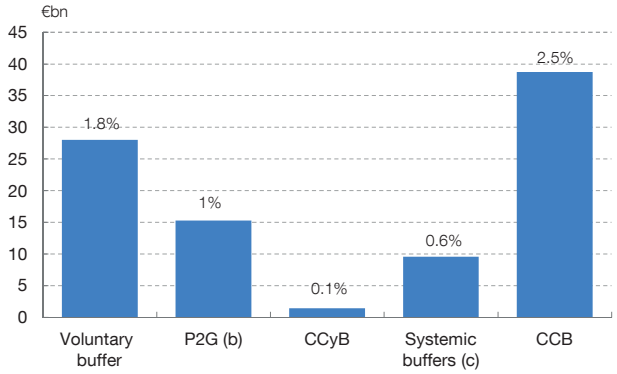
12 The systemic risk buffers include the global systemically important institution (G-SII) buffer, amounting to €6 billion for the only Spanish institution in that category, and the other systemically important institution (O-SII) buffer, totalling €3.5 billion for the other four Spanish institutions included in that category.

Chart 2.13

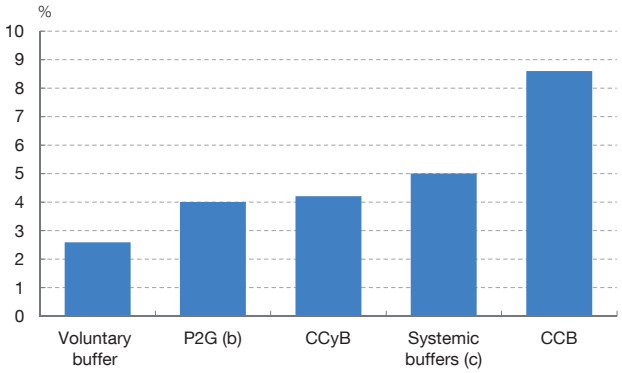
THE RELEASE OF BUFFERS AND CAPITAL LINKED TO THE PILLAR 2 GUIDANCE PROVIDES A SIGNIFICANT VOLUME OF CAPITAL WITH WHICH TO COPE WITH THE UNEXPECTED LOSSES ASSOCIATED WITH COVID-19

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 release of the capital conservation and macroprudential buffers, together with the P2G, which is possible after the prudential measures adopted in the euro area, would be sufficient to cover an increase in the NPL ratio of nearly 8.2 pp. The effect of the moratoria and of the guarantee programme approved by the Spanish government would significantly increase the non-performance that could be absorbed by these buffers.

1 VOLUME OF BUFFERS AND THEIR RELATIVE WEIGHT AS A % OF RISK-WEIGHTED ASSETS (a)
December 2019



2 CUMULATIVE PERCENTAGE OF POTENTIAL NPLs THAT EACH BUFFER COULD ABSORB (d)
December 2019



SOURCE: Banco de España.

a Above each bar is the percentage of total risk-weighted assets that it represents.
b P2G refers to Pillar 2 Guidance.
c This item includes both the buffer for global systemically important institutions and the buffer for other systemically important institutions.
d Each bar represents the cumulative percentage of credit at December 2019 whose classification as non-performing could be covered by the various buffers. Under the current supervisory guidance of the ECB and the national authorities, the voluntary buffer, the countercyclical capital buffer, the systemic buffers, the capital conservation buffer and the capital linked to P2G can be released to absorb losses, whereas the Pillar 2 Requirements are maintained, although the related rules on the composition thereof are relaxed, with a lower weight of CET1 required.

Lastly, the amounts under the Pillar 2 requirement (P2R) (€24.5 billion) and the Pillar 2 guidance (P2G) (€15.3 billion) must be deducted.

The buffers whose release is permitted as part of the prudential response to the crisis are estimated to be sufficient to cover an increase in the NPL ratio of around 8.2 pp. This rises significantly when combined with the positive impact of the moratoria and the guarantee programme for firms announced by the government, which also contribute to reducing RWAs. Chart 2.13 shows the percentage of risk-weighted assets and potential non-performing assets covered by each of the buffers that may be used in accordance with the supervisory response to the COVID-19 crisis (see Section 3.2 for a description of the prudential response to the spread of the pandemic). The CCB (2.5%) and the voluntary buffer (1.8%) cover the largest percentage of risk-weighted assets.[13] The sum of all this capital

13 The Pillar 2 requirements represent additional loss-absorbing capital equal to 1.6% of RWAs. Although the microprudential response to COVID-19 does not envisage a reduction in capital in respect of these requirements, it does relax the rules on its composition and allows a reduction in the weight of CET1 capital.

could cover losses equal to nearly twice the current stock of non-performing loans in the system, i.e. approximately 8.2% of existing bank loans. If the loan moratoria and the government's guarantee programme are also taken into consideration, the banking system's capacity to absorb default increases significantly. The 0% risk weight for Spain's sovereign exposures would also be applied to the guaranteed portion of the loans benefitting from this programme, as the State, acting as the collateral provider, would replace the obligor in the measurement of credit risk. This would result in a decrease in RWAs, which would automatically increase solvency ratios. This additional headroom may also be necessary to deal with unexpected losses on other types of assets, such as foreclosed assets.

Prior experience shows that using buffers during times of crisis can have a significant impact on sustaining the flow of credit. The so-called dynamic provisioning in force in Spain between 2000 and 2016 is not legally equivalent to the capital buffers, since they have different rules and targets. Yet it represents a benchmark that informs of the effect of the availability of loss absorption resources in times of crisis. The impact of dynamic provisions has been studied from their introduction up to their release in the 2008 financial crisis.[14] During the 2008 financial crisis, deposit institutions that had built up a bigger buffer of provisions reduced the flow of credit less than other institutions. This had real positive effects among their borrowers, such as the fact that far fewer companies closed (up to 50% fewer closures) than among firms financed by institutions without the buffer.[15] Chapter 3 also analyses the macroeconomic impact of building up and releasing capital buffers.

The analysis of the banking sector's resilience in adverse macrofinancial scenarios also shows that loss-absorbing items limit a rapid deterioration in solvency. However the trends therein will need to be monitored if this downturn persists over time. There is a high level of uncertainty over the macroeconomic scenario, with a very large impact on GDP, which is concentrated in 2020 with a slight recovery expected in 2021. This uncertainty and data availability at the cut-off date for this FSR hamper an exact quantification of the impact of the COVID-19 crisis. Nonetheless, prior experience in several stress tests and preliminary analyses provide a useful guide, even though the scale of the shock admittedly has no close precedent. Balance sheet repairs and the build-up of capital in recent years have gradually increased resilience to more severe scenarios. Furthermore, experience with stress scenarios shows that periods of stress followed by swift recoveries do not entail very pronounced deteriorations in the banking system's aggregate solvency. The consequences of adverse macrofinancial scenarios lasting several years can

14 See Jiménez *et al.* (2017).

15 The introduction of dynamic provisioning in 2000 led the banks most affected by this new requirement to reduce their credit supply, above all among firms with better risk profiles. However, this did not have an aggregate contractive effect since the initially restricted firms were able to find new lenders given the favourable economic situation in which dynamic provisioning was introduced. The circumstances surrounding its introduction are less relevant to the current crisis than the release.

significantly undermine aggregate solvency, but loss-absorbing items prevent immediate erosion and provide the necessary reaction time for the economic policy response, which must, in any event, be swift and unequivocal.

In any event, it should also be borne in mind that heterogeneous trends in solvency are expected for different institutions. Besides, banks whose solvency and credit quality are initially worse could reach significantly lower solvency levels. Moreover, in the current crisis, the geographical and sectoral dimensions are more important than in previous years' stress tests, and solvency is expected to deteriorate to a greater extent for institutions that are more exposed to the economic sectors and areas most affected by the pandemic.

2.1.3 Changes in operational risks

The coronavirus crisis has significantly increased operational risks due to the establishment of urgent business-continuity measures. The disruptive nature of the coronavirus pandemic and the necessary containment measures applied have required the implementation of emergency measures, such as widespread teleworking. These measures were not necessarily envisaged in existing contingency plans and pose risks to the functioning of individual institutions and financial markets. So far the solutions applied have been effective and both credit institutions and financial markets have continued to operate smoothly, particularly in the case of central counterparties (CCPs). However, the scope of the contingency plans must be increased in light of the extreme operational risk events that this crisis may pose. Specifically, the implementation of urgent technological solutions may have increased the technology infrastructure's vulnerability to malware attacks. It is necessary to be extremely alert to cyber risks.[16] The growing complexity of the information systems used by financial institutions may heighten vulnerability in this context.

Spanish credit institutions have implemented specific operating procedures in order to adapt to the new situation posed by the health crisis and ensure the continuity of their business. All institutions have made significant efforts, although the complexity of the measures adopted has varied depending on their size, business type and specific characteristics. Institutions have implemented working from home for most staff at head offices (figures approaching 100%) and critical services and important operational units have been identified and staff have been separated at different locations. Institutions have kept their branches open, although the number of branch employees working from home has increased to around 50%. In any event, sufficient numbers of staff continue to provide services to customers at branches. The online service capacity and loading of automated

16 Section 2.1.4 of the 2019 Autumn FSR outlines financial system-related cyber risks.

teller machines have been bolstered, while security systems have been reviewed to minimise potential cyber attacks.

In the weeks leading up to the spread of the pandemic, important court decisions were issued affecting the projected legal costs of Spanish deposit institutions. First, on 3 March 2020, the Court of Justice of the European Union (CJEU) issued its judgment concerning a request for a preliminary ruling on the use of the mortgage loan reference index (IRPH) in mortgage loan agreements. Subsequently, the Spanish Supreme Court (SC) issued its judgment on the usuriousness of some revolving credit card agreements.

The CJEU's judgment of 3 March 2020 concerning the request for a preliminary ruling on the potential unfairness of a mortgage loan agreement's contractual term governing the variable interest rate tied to the IRPH provided helpful criteria for clarifying the situation of litigation over these contractual terms. The CJEU held that the IRPH term falls within the scope of Directive 93/13/EEC; consequently, the potential unfairness of such a contractual term may be analysed by national courts. To conduct this analysis, the judgment considers that national courts should verify not only whether the contractual term is intelligible, but also whether an average consumer is in a position to understand the specific functioning of the method used for calculating that rate and thus evaluate its economic consequences. The CJEU provided clear guidance to Spanish courts by stating that information that is particularly relevant to this assessment includes (i) the fact that essential information relating to the calculation of the IRPH is published in the Official State Gazette, thus enabling a reasonably well-informed customer to assess the contractual term, and (ii) the fact that, under the national legislation in force at the time, institutions were required to inform consumers of the fluctuations in the IRPH over the two calendar years prior to the conclusion of the agreement.

It should be noted that the CJEU stated that EU law does not preclude the use of a supplementary index provided for by law to replace the IRPH. The CJEU concluded that, where a national court declares the IRPH term null and void and considers that the mortgage loan agreement in question is not capable of continuing in existence without such unfair term and that annulment of that agreement in its entirety would expose the consumer to particularly unfavourable consequences, it could, in the absence of an agreement between the parties, replace the IRPH under the annulled term with a supplementary index provided for in Spanish law (the CJEU expressly mentions the index provided for in the fifteenth additional provision of Law 14/2013 of 27 September 2013). This is an important guideline for assessing the projected potential costs for institutions, since it would largely limit their amount should the aforementioned IRPH contractual terms be declared null and void. These points reduce the uncertainty surrounding this event, since they decrease the likelihood of the most adverse scenarios – in cost terms – for deposit institutions associated with litigation concerning IRPH contractual terms.

Supreme Court Judgment 149/2020 of 4 March 2020, on the nullity of a revolving credit agreement due to the usuriousness of the interest under the loan, increases the likelihood of a number of lawsuits being brought in connection with these agreements and may force some institutions to review their business models. However, it must be taken into account that the credit exposure potentially affected by these lawsuits is significantly lower than that affected by the IRPH contractual terms. In December 2019, Spanish deposit institutions' exposure to credit card products totalled around €14 billion, and revolving credit cards only account for a subset of this total. It should be noted that the criterion applied in the Supreme Court's judgment to determine the usuriousness of the agreement at issue was based on a comparison of the rate applied under the agreement (27.2%) with the average rate in the system for credit card products (20%), since this will serve as a benchmark for future litigation.

2.2 Non-banking financial sector and systemic interconnections

2.2.1 Non-banking financial sector

An exhaustive assessment of the financial implications of the spread of the coronavirus pandemic must also consider the non-banking financial sector, which represented 34% of the total assets of financial intermediaries at December 2019. Chart 2.14 shows that other non-bank financial intermediaries (13.9%) in Spain, which include specialised lending institutions, outweigh insurance companies (8.3%), investment funds (8.3%) and pension funds (3.8%). These three sectors, however, have witnessed the sharpest growth since 2014 in an environment of low interest rates. Specifically, investment funds are the only sub-sector whose cumulative growth exceeds that of nominal GDP. At the other end of the scale, the assets of the banking sub-sector (–10%) and of other financial intermediaries (–20%) as a percentage of the total have continued to decline. Indeed, the significant global development of the non-banking financial sector over the last decade has led national and international regulatory bodies to incorporate various aspects of this area of the financial system into their analyses[17] (Box 2.2 summarises the latest Financial Stability Board (FSB) report on this matter).

Specialised lending institutions

Lending by specialised lending institutions (SLIs) continued to rise in 2019, underpinned by the consumer credit expansion. As such their growth model is

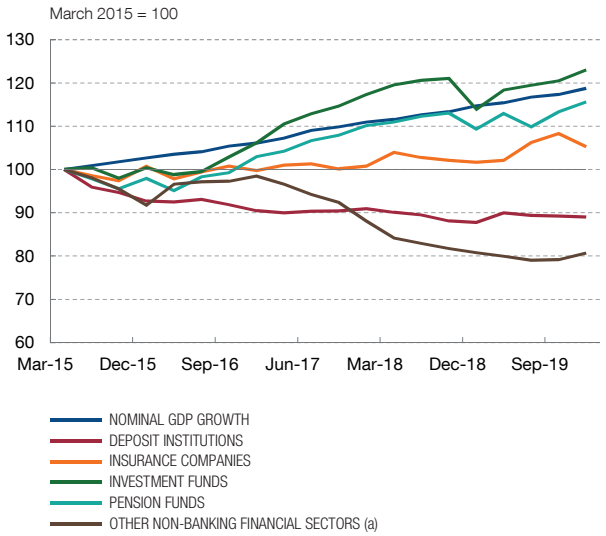
17 See, for example, IMF (2016). *Monetary Policy and the Rise of Nonbank Finance. Global Financial Stability Report,* October 2016, Chapter 2. See the 2019 Spring and Autumn FSRs for insights into the performance of the various resident financial sectors in recent decades and their direct and indirect interconnections.

Chart 2.14

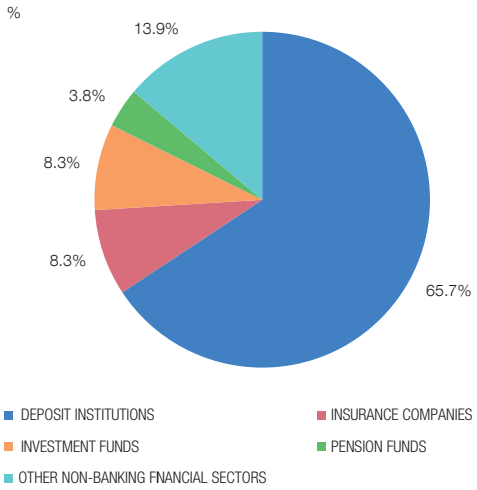
OWING TO THEIR GROWTH AND RELATIVE WEIGHT, NON-BANK INTERMEDIARIES MUST BE CONSIDERED TO ENSURE A FULL ANALYSIS OF THE EFFECTS OF THE CORONAVIRUS CRISIS

Since 2014, the cumulative growth of the main non-banking financial sectors (insurance companies, investment funds, pensions funds) has been comparable with that of nominal GDP, while deposit institutions (-10%) and other financial sectors (-20%) have seen their financial assets significantly reduced. Consequently, the relative weight of the non-banking financial sector has increased moderately, with the relative weight of investment funds within this sector growing.

1 RELATIVE GROWTH OF FINANCIAL SUB-SECTORS. 2014-2019



2 RELATIVE WEIGHT OF FINANCIAL SUB-SECTORS. DECEMBER 2019 (b)



SOURCE: Financial accounts of the Spanish economy (Banco de España).

a Other non-banking financial sectors include: financial auxiliaries, captive financial institutions and money lenders, specialised lending institutions and other financial intermediaries.
b As a percentage of total financial assets excluding central banks.

vulnerable to the shock from coronavirus. In contrast with the decline in lending by deposit institutions, loans granted by specialised lending institutions have shown high rates of change since 2015 (see Chart 2.15). Specifically, taking account solely of the set of entities classified as SLIs in December 2019, credit rose by 8.1% on the prior year. Since 2015, the weight of the consumer credit segment has remained above 40% of the total for this sector, compared with around 6% for deposit institutions in Spain.

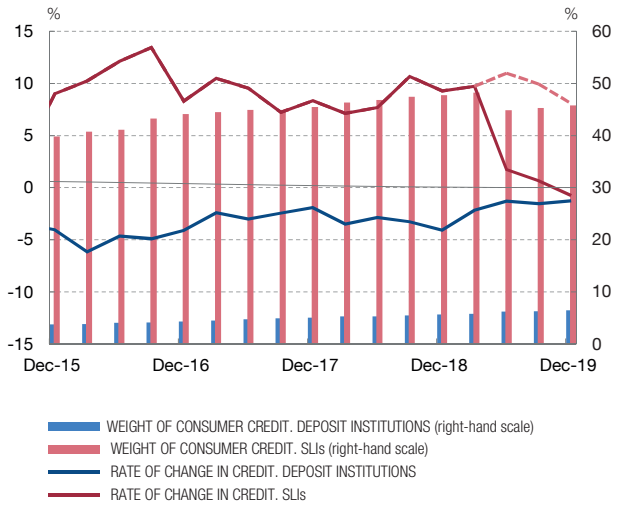
The robust growth in lending has enabled SLIs to maintain a lower NPL ratio for consumer credit than that of deposit institutions, but the coronavirus crisis is expected to drive this ratio up. Non-performing consumer credit of SLIs has increased in recent years, bringing their NPL ratios closer to those of deposit institutions. If, as appears likely, the coronavirus crisis curbs growth in the denominator, an increase in this ratio can be expected. It should also be noted that, as a business segment, consumer credit generally presents higher levels of non-performance, particularly in periods of worsening financial conditions. In any event, the extension of the moratorium by the government to include non-mortgage loans

Chart 2.15

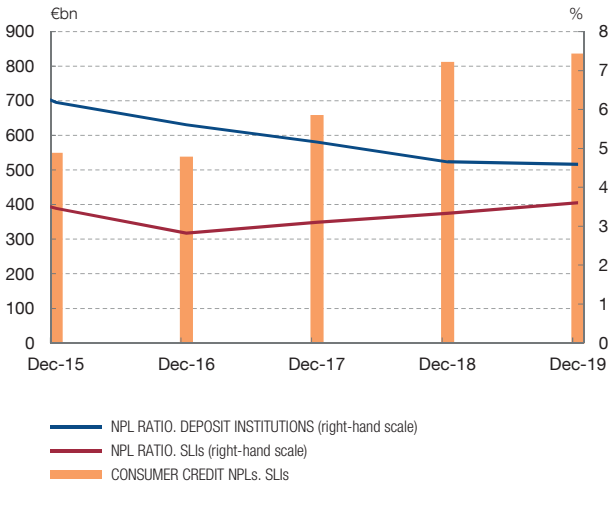
CREDIT FROM SLIs CONTINUED TO GROW IN 2019, UNDERPINNED BY THE CONSUMER SEGMENT, INCREASING THE VULNERABILITY OF THESE FINANCIAL INTERMEDIARIES TO THE COVID-19 CRISIS

Credit from SLIs sustained growth at rates in excess of 8% during the last year. Consumer credit continued to account for more than 40% of the portfolios of these institutions. The COVID-19 crisis will adversely affect the credit quality of these institutions' balance sheets, with greater growth in NPLs expected.

1 RATE OF CHANGE IN CREDIT AND WEIGHT OF CONSUMER CREDIT (a)
Business in Spain, ID



2 NPLs AND NPL RATIO IN CONSUMER CREDIT
Business in Spain, ID



SOURCE: Banco de España.

a The dashed line shows the change in credit from SLIs that existed in December 2019. In June 2019 an SLI of considerable size became a deposit institution, causing the notable decline in the rate of change in credit as of that date (continuous red line).

for the most vulnerable cohorts will help contain this potential rise in non-performance during the ongoing crisis.

Insurance companies

The COVID-19 pandemic will adversely affect insurance companies' balance sheets and income statements. The impact will likely be more intense in terms of financial investment valuations than in terms of direct compensation. Over the coming months, these companies are expected to see rising expenses in respect of health care, payments for death benefits, cancellations of events and travel, business interruption, etc., which will only be partially offset by a reduction in claims in other segments. Revenues associated with activities that, like travel, are often insured are also expected to decrease. However, market estimates suggest that the impact of these expenses on the balance sheet, income statement and solvency ratio will be more moderate than the potentially very significant impact stemming from the protracted scenario of low interest rates and the reductions in value of their financial asset investments, as most such exposures are not protected.

The impact of the crisis on the returns of insurance companies may be very significant, both in the life segment, which at the outset has very low returns, and the non-life segment, where greater risks are concentrated. The non-life segment's investments, in which equity securities and property have a larger share, present a riskier profile and may therefore be more sensitive to the coronavirus crisis. However, this segment represents a small percentage of the investment portfolio. The weights represented by non-fixed income securities (loans, property, equities, etc.) in the Spanish life and non-life insurance sector's portfolios have been approximately 20% and 60%, respectively, since 2016. The distribution of investments between the life (80%) and non-life (20%) segments has remained stable in recent years, with the aggregate downturn in yields explained by the greater proportion of the life segment with investments linked to fixed-income securities, which have offered decreasing and even negative returns. Insurance companies are therefore especially sensitive to negative adjustments caused by the COVID-19 crisis to the values and credit ratings of the fixed-income securities concentrated in the life segment.

Investment funds

The coronavirus crisis may drive returns to negative levels in virtually all investment fund categories, although those with a greater fixed-income exposure could maintain a more neutral behaviour. Investment funds' assets recovered in 2019, driven by positive returns which have admittedly shown marked volatility in recent periods (see Chart 2.16). Specifically, their assets rose by 7.4% year-on-year, compared with a 2.1% decrease in 2018. Other than in 2019 Q4, where a positive contribution was more notable, net subscriptions made practically no contribution to the increase in investment funds' assets. A reduction can already be seen in assets of investment funds in 2020 Q1, mainly as a result of both negative returns, reversing the upward trend of previous years, and a very significant volume of fund withdrawals.

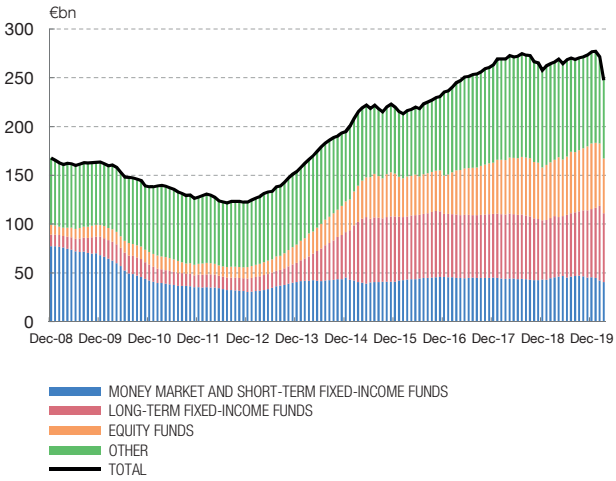
Investment funds with illiquid or unlisted investments would be most affected in liquidity stress events. Tensions could affect funds with investments in corporate debt with higher credit risk, as the related credit ratings could also be revised by rating agencies, thereby increasing the risk in the profile of their portfolios. This risk could be exacerbated by significant redemptions by their unit holders. Indeed, the pandemic crisis appears to have prompted a significant increase in such fund withdrawals. Both factors, which entail putting part of their assets up for sale on the market, may have implications for the other financial sub-sectors, as they could potentially drive down the price of such securities also on their balance sheets. The stabilisation measures from central banks have to date prevented more adverse scenarios from materialising in this segment, and the relevant supervisors have tools to tackle short-term scenarios of increased stress, such as the possibility of temporarily suspending redemptions and fostering consistent sales of funds' assets.

Chart 2.16

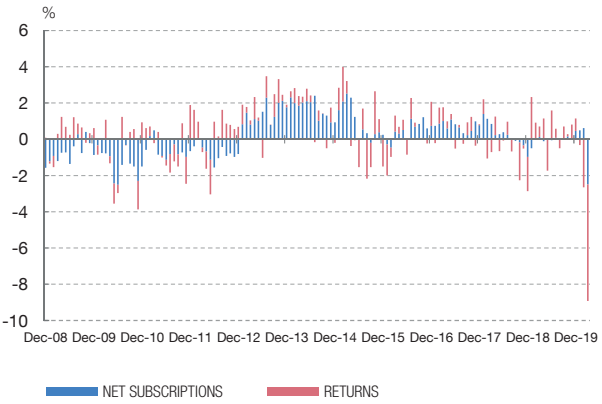
THE ASSETS OF INVESTMENT FUNDS HAVE GROWN STRONGLY SINCE 2014, BUT THE COVID-19 CRISIS IS REVERSING THE TREND IN 2020, BOTH DUE TO THE WITHDRAWAL OF FUNDS AND LOWER RETURNS

In the last five years the assets of money market funds and fixed-income funds have held relatively stable, while the weight of equity funds has increased. In 2019, growth in the assets of investment funds was driven mainly by positive returns and, to a lesser degree, net subscriptions registered in the last quarter. The latest data available (March 2020) already show a strong impact on assets of investment funds, due to both net redemptions and, especially, negative returns.

1 ASSETS OF INVESTMENT FUNDS
Breakdown by category (a)



2 CONTRIBUTION OF RETURNS AND NET SUBSCRIPTIONS TO CHANGE IN ASSETS OF INVESTMENT FUNDS



SOURCE: Inverco.

a The "long-term fixed-income funds" category includes long-term fixed-income investment funds, mixed fixed-income funds, international fixed-income funds and international mixed fixed-income funds. The "equity funds" category includes equity investment funds, mixed equity funds, international equity funds and international mixed equity funds. The "other" category includes hedge funds, passive management funds, absolute return funds, global funds and collateralised investment funds.

Pension funds

As with the investment funds sector, the negative outlook for returns will spill over to pension funds' assets in 2020. Positive returns were key to the pick-up in pension funds' assets in 2019, as they were for investment funds. Net contributions showed negative values, continuing the trend initiated in 2018, and the contribution from profitability was a record high for the time series (8.8%), resulting in a year-on-year increase of 8.9% in their assets. To provide liquidity to these assets, the government will temporarily allow the individuals most affected by the crisis to obtain partial redemptions of their units.

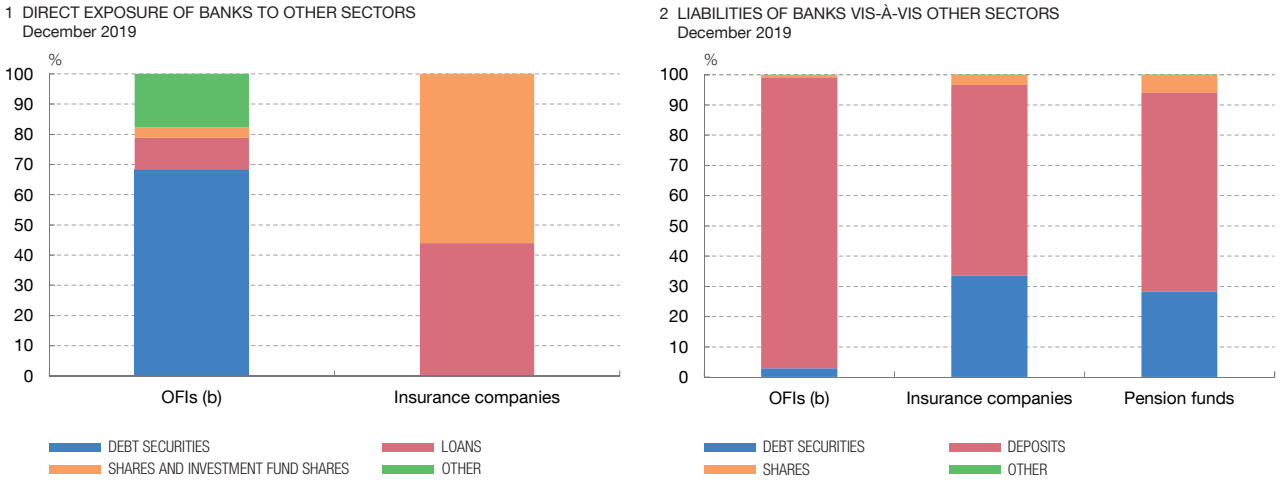
2.2.2 Systemic interconnections

The banking sector has significant exposures to certain financial sub-sectors. As shown in the analysis in the 2019 Spring FSR, through the assets on its balance sheet the banking sector has significant exposures to insurance companies, in the

Chart 2.17

THE BANKING SECTOR'S CENTRAL POSITION IN THE SPANISH FINANCIAL SYSTEM IS UNDERPINNED BY SIGNIFICANT DIRECT INTERCONNECTIONS WITH THE NON-BANKING FINANCIAL SUB-SECTORS (a)

The banking sector's exposure to other financial institutions (OFIs) via assets and liabilities is very significant, mainly as holder of debt securities and deposit-taker. The insurance sector likewise accounts for a high volume of loans and equity holdings among bank assets. Insurance companies and pension funds also hold a significant volume of deposits in the banking sector.



SOURCE: Banco de España.

a The stacked bars indicate the weight of each instrument relative to the banking sector's total exposure, whether via asset or liability positions, to the corresponding non-banking financial sub-sector.

b As a whole, other financial institutions (OFIs) include money market and non-money market investment funds, specialised lending institutions and other financial intermediaries (broker-dealers, securitisation special purpose vehicles, venture capital firms, bank asset funds, central counterparties and asset management companies, including Sareb, and other entities).

form of shareholdings and loans, and to other financial intermediaries, chiefly through fixed-income securities (see Chart 2.17). Logically, a downturn in those sub-sectors during this crisis would, through these channels, have a knock-on impact on deposit institutions.

The deposits of other financial intermediaries with the banking sector represent the main direct interconnection in terms of liabilities, which to date have not experienced significant tension. The other financial sub-sectors have significant volumes of deposits in the banking sector, and a material percentage of the exposure of insurance companies and pension funds to the banking sector (37% and 27.4%, respectively) is through fixed-income securities. As indicated in the section on financing and liquidity risk, some evidence indicates a rise in such deposits and the related remuneration in response to the shock triggered by coronavirus, and the stabilisation of money markets by central banks would help mitigate tensions through this channel.

Financial intermediaries also have significant interconnections through CCPs, whose operations have remained stable despite the pressure triggered by COVID-19 crisis. The current crisis has led to a major change in how both CCPs

and clearing members work. This, coupled with a strong surge in transactions, is putting the operating capacity of their systems to the test. Although in some cases there have been delays in certain members complying with their obligations, the CCPs have proven to be robust and resilient. BME Clearing, the Spanish CCP, is not an exception to this general pattern, and it has not experienced any operational incidents, significant delays, or instances of non-compliance by members in settling their financial obligations. Similarly, the latest data suggest that the intraday margin requirements could be returning to normal following the increases at the outset of this crisis.

Despite the across-the-board rise in the number and amount of margin calls by CCPs, the situation in this market segment has remained under control and no instances of non-compliance by members have been identified. The sharp price drops in the global financial markets have led to greater contributions required by CCPs from their members. It is still too early to determine whether CCPs' decisions regarding changes in the models for calculating margins have helped mitigate the procyclical movements detected in previous crises. However, the experience of this crisis may be useful in analysing the effectiveness of the measures previously implemented by CCPs in accordance with EMIR.

The indirect interconnections as a result of similarities between portfolios of marketable securities may also be a channel for magnifying the shock. Prior to the impact of the coronavirus crisis, the effect of the environment of low or even negative interest rates on risk-taking by financial intermediaries was a focal point for supervisors. Greater risk-taking could manifest in changes in the characteristics (term, rate of return, credit rating, etc.) of the marketable securities in these intermediaries' portfolios, and this could now represent a vulnerability to the financial shocks associated with coronavirus. It is important to bear in mind that marketable securities represent 80% of the total assets of the non-banking financial sector (NBFS) analysed in this sub-section (insurance companies, investment funds and pension funds), but only account for around 25% of total domestic assets of deposit institutions,[18] given the preponderance of loans.

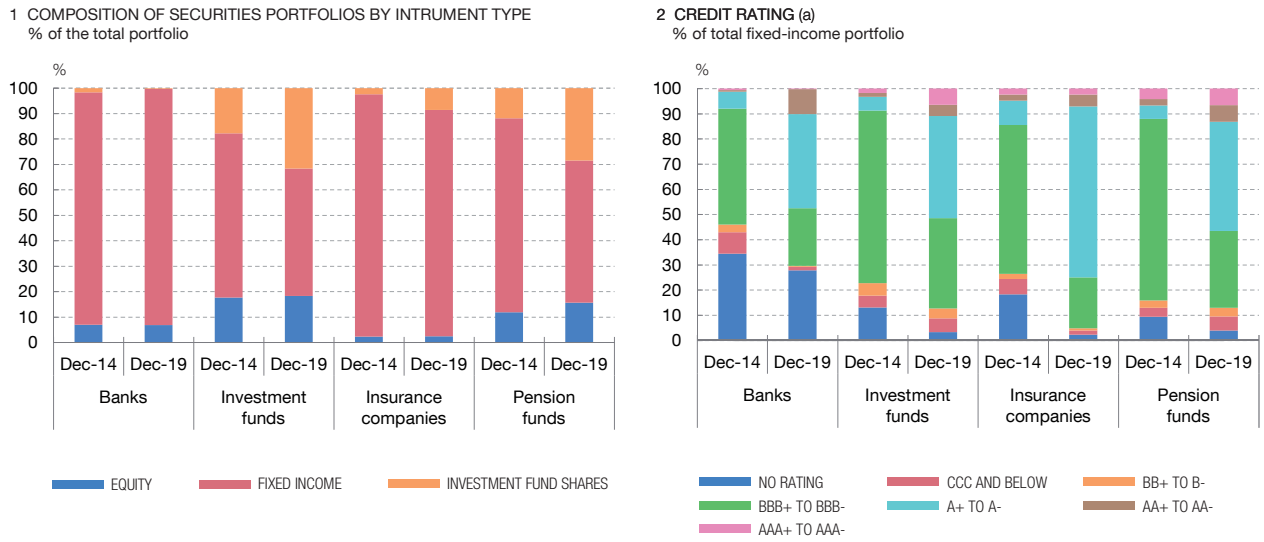
The securities holdings of banks and insurance companies are highly concentrated in fixed income and present greater resilience to the volatility stemming from coronavirus, especially following the expansion of the ECB's purchase programme. Chart 2.18 shows that the percentage of fixed-income securities held by banks has increased slightly since 2014 (these instruments represent more than 90% of their total securities portfolios in 2019). Conversely, the

18 The information on marketable securities portfolios of financial intermediaries comes from the ECB's Securities Holdings Statistics by Sector (SHSS) database, which identifies the country of residence of the various holders. The assets of the various financial intermediaries are obtained from the Financial Accounts of the Spanish Economy (FASE) of the Banco de España. The weight of the securities holdings is obtained by combining the two sources, which are prepared on an individual basis, rather than on a consolidated basis at financial group level.

Chart 2.18

BANKS AND INSURANCE COMPANIES HAVE A HIGHER WEIGHT OF FIXED-INCOME SECURITIES THAN INVESTMENT FUNDS AND PENSION FUNDS. THE CREDIT RATINGS OF THESE SECURITIES HAVE IMPROVED SINCE 2014, BUT THE CORONAVIRUS CRISIS IS SET TO ALTER THIS TREND

Relative to 2014, the securities holdings of banks and insurance companies have remained concentrated in fixed income, while investment funds and pension funds, which already held larger equity positions, have increased their holdings of investment fund shares (proliferation of funds from funds). The credit ratings of the financial sectors' fixed-income holdings have improved relative to 2014, but it should be borne in mind that ratings may be adjusted procyclically in view of the coronavirus crisis, and that securities on the edge of investment-grade rating (from BBB+ to BBB-) may be especially sensitive.



SOURCES: SHSS and Eikon.

a The most recent credit rating is shown, regardless of the rating agency.

weight of fixed-income securities held by insurance companies has declined since 2014 and the proportion of their investment fund shares has increased; nevertheless, their portfolios remain highly concentrated in fixed income.

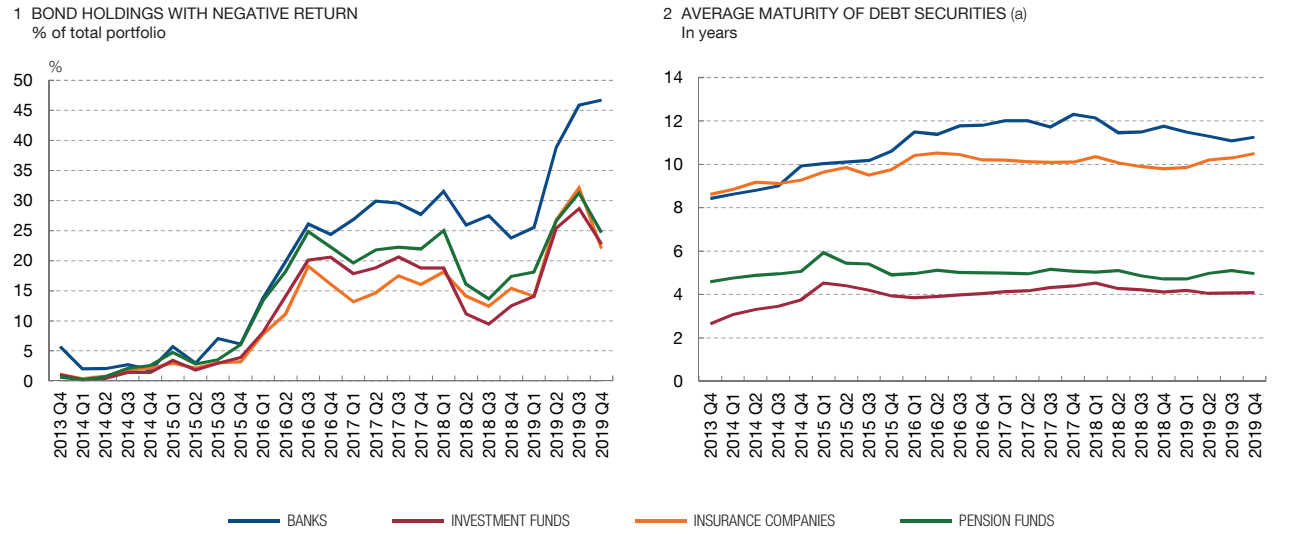
Compared to banks and insurance companies, investment funds and pension funds are more exposed to equity securities and shares in other funds. The proportion of equity securities held by investment funds has remained flat, but shares in other funds have risen at the expense of fixed-income securities (see Chart 2.18). There has been greater change in the three types of instruments at pension funds since 2014, with increases in the weight of equity securities (from 11.8% to 15.6%) and investment fund shares (from 12% to 28.5%), and a drop in that of fixed-income securities (from 76.2% to 55.9%).

The credit ratings of the investments of all sectors improved between 2014 and 2019. However, given the current circumstances, ratings may be adjusted, with securities on the edge of investment-grade rating being the most sensitive. At end-2019, investment-grade debt instruments prevail across all sectors (see Chart 2.18) and account for approximately 70% of the banking sector's total

Chart 2.19

SINCE 2014, ALL SUB-SECTORS, IN PARTICULAR BANKING, HAVE INCREASED THE WEIGHT OF DEBT INSTRUMENTS WITH NEGATIVE RATES OF RETURN IN THEIR PORTFOLIOS AND ASSUMED LONGER AVERAGE MATURITIES

Since 2014, the weight of debt instruments with negative rates of return in marketable securities portfolios has increased at various financial intermediaries, in particular for banks, where they represented around 45% of their portfolio in December 2019 compared with 30% in other sub-sectors. In 2019 Q4 a decline in this share can be observed for non-banking sectors. In addition, an increase can be seen in the average maturity of portfolios, especially for banks and insurance companies. Debt securities with longer maturities are more sensitive to valuation changes, and holdings with negative returns reduce income generation capacity.



SOURCE: SHSS.

a Maturity calculated as the weighted average of residual maturities of debt instruments (excluding irredeemable bonds).

holdings and around 90% in the case of non-banking sectors.[19] As little use is made of external ratings in Spanish banks' capital models for exposures to corporates, such valuation adjustments would not also result in a sharp increase in RWAs. The portfolios of insurance companies (31.7%) and pension funds (26.1%) have the highest proportions of securities rated between BBB– and BBB+, which are particularly susceptible to downgrade in the event of a worsening in macrofinancial conditions prompting agencies to review their ratings.

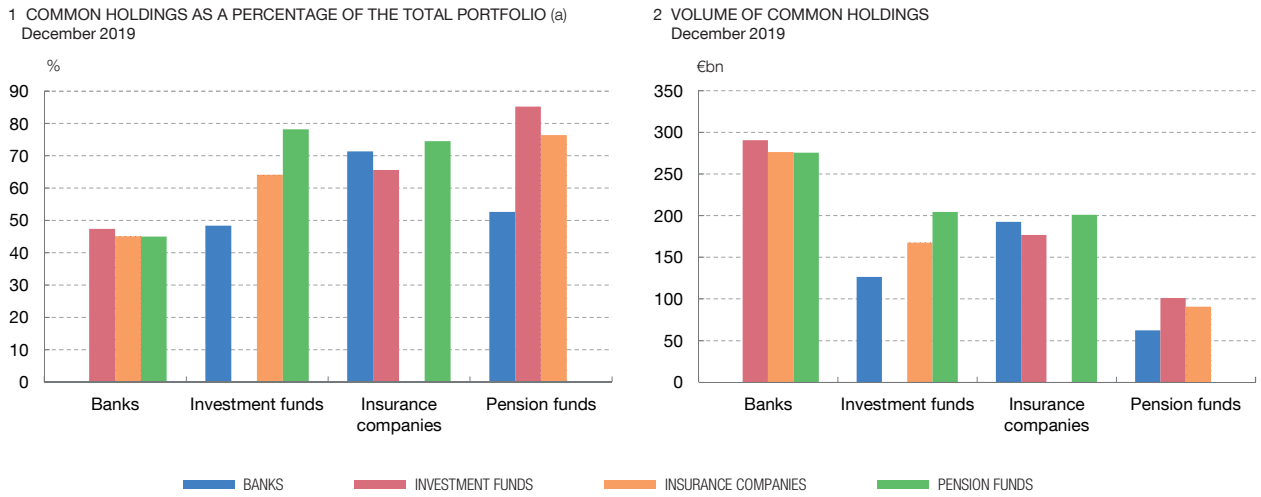
Debt securities with negative returns in the portfolios of all sectors, in particular banking, reduce the aggregate returns for their holders. However, it also makes them more resilient in reviews of risk premia. Moreover, the expansionary monetary policy response eliminates the interest rate risk that could otherwise affect them to a greater extent. The environment of low or even negative interest rates and the need to maintain a reserve of liquid assets has driven up the percentage of holdings of debt securities with negative interest rates from below 2% in 2014 to between 22% and 47% in 2019. This rise is especially significant for banks, where

19 The increase in the AA category is largely the result of the upgrade of Spain's credit rating in 2019.

Chart 2.20

EXPOSURES TO COMMON ISSUERS OF MARKETABLE SECURITIES ARE MATERIAL BOTH FOR THE BANKING SECTOR AND THE OTHER FINANCIAL INTERMEDIARIES, REPRESENTING A POTENTIAL CHANNEL OF CONTAGION OF THE SHOCKS TRIGGERED BY COVID-19

The banking sector has the largest volume of common holdings of marketable securities with the other sub-sectors (between €250 billion and €300 billion with each of them), but these holdings make up a smaller percentage of the total than that observed in other sub-sectors. The highest figures are for pension funds (76% common holdings with insurance companies and 85% with investment funds) and investment funds (78% common holdings with pension funds).



SOURCE: ECB (Securities Holding Statistics by Sector).

a The chart shows common holdings of marketable securities, understood as ownership of identical securities issued by the same issuer, considering the market value of the holdings reported by the institutions (or, where appropriate, fair value). For example, of the common holdings between banks and investment funds, banks hold around €300 billion, which is 49% of their total portfolio. For their part, investment funds hold around €130 billion, which is 51% of their total portfolio.

these securities already account for 47% of their portfolio in 2019 (see Chart 2.19). In the current climate, with central banks providing a high amount of liquidity, the rate of return may shift towards more negative levels in the case of securities that could be considered safe assets, such as certain sovereign bonds, whereas greater risk aversion could increase the returns required for other securities.

The average maturity of the debt securities portfolio of the various sectors has gradually risen over the last five years, heightening sensitivity to possible adjustments to required returns. The increase in average maturity has been more significant for banks and insurance companies, whose portfolios primarily comprise debt instruments. As shown in the right-hand panel of Chart 2.19, the average maturity of funds' portfolios has increased to a lesser extent, remaining at lower levels throughout the period. This trend may also be attributable to the environment of low interest rates and abundant liquidity in previous years.

The presence of significant indirect interconnections through exposures to the same issuers means that the various sub-sectors are exposed to common shocks in the face of valuation adjustments. It may also mean that a sale of

assets by one sector could prompt a downward adjustment in their prices, which would logically also affect the other sectors holding such assets. In relative terms, exposures to common issuers are especially high for investment funds and pension funds (see Chart 2.20). At end-2019, more than 45% of every marketable securities portfolio of each sub-sector related to common issuers whose securities also formed part of the portfolios of another sub-sector. This proportion was particularly high, above 75%, for pension funds vis-à-vis investment funds and insurance companies. In absolute terms, the banking sector held the greatest volume of securities of common issuers, with more than €275 billion vis-à-vis each of the other sub-sectors (see Chart 2.20). The common exposure to certain sovereign bonds is one of the main factors determining the high degree of portfolio overlap.

Box 2.1

MEASURING THE RETURN ON EQUITY OF SPANISH DEPOSIT INSTITUTIONS

In theory, banking profitability is a perfectly defined and precise concept. Yet in practice, both the various supervisors and the deposit institutions use different metrics to measure it. This box aims to review the information content of some of these metrics, by analysing the possible differences in their time variation and cross-institution distribution.

In prior FSRs, the definition of return on equity (ROE) included (annualised) net profit attributable to the parent as the numerator and (average) own funds[1] as the denominator. This definition of ROE is consistent with that historically published by Spanish deposit institutions in their earnings reports. By excluding non-controlling interests (the share of a subsidiary's equity not owned by a parent) from the ratio's numerator and denominator, this metric measures exclusively the return for shareholders of the group's parent. This is the return which may have the most direct impact on managers' incentives.

However, the FSR will henceforth use a modified definition of the ROE ratio to bring it into line with the European Banking Authority (EBA) Risk Indicators Methodological Guide,[2] thereby ensuring that the data published in the FSR and the EBA's data, which are also used by the European Central Bank (ECB), are comparable. Specifically, return on equity will be obtained as the ratio between (annualised) net profit of the period and (average) equity.[3] Consequently, the numerator will include the net profit attributable to non-controlling interests and the denominator will include the items of equity corresponding to non-controlling interests and, furthermore, accumulated other comprehensive income (income and expenses not accounted for in profit or loss). This definition measures the return on institutions' overall equity. It may therefore be a more informative measure for explaining the average cost of accumulating equity.

This box also provides an additional definition of profitability called return on tangible equity (ROTE). In this case, based on the new definition of ROE consistent with the EBA Methodological Guide, goodwill and other intangible assets are deducted from the denominator in order to obtain an approximate ROTE ratio. The return as a percentage of the carrying amount of the equity instruments

Chart 1
TREND IN PROFITABILITY (ROE AND ROTE) OF SPANISH DEPOSIT INSTITUTIONS (a)

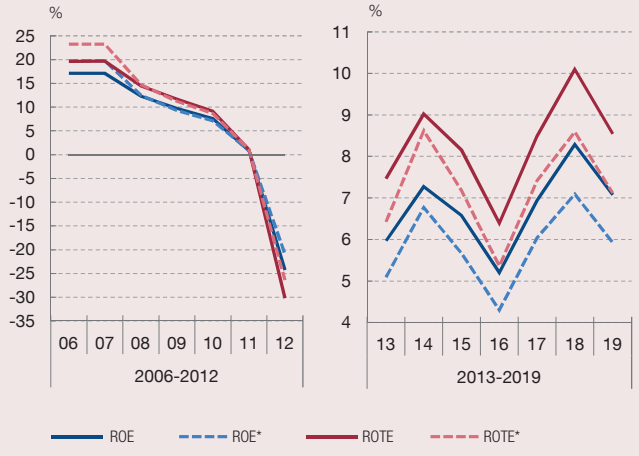
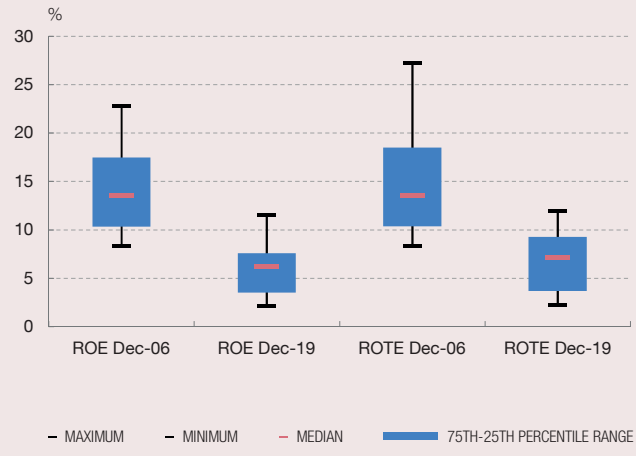


Chart 2
DISPERSION OF PROFITABILITY (ROE AND ROTE) OF SPANISH DEPOSIT INSTITUTIONS (b)



SOURCE: Banco de España.

a The chart shows the ROE and ROTE ratios of Spanish deposit institutions between December 2006 and December 2019 calculated using the revised definition aligned with the EBA methodology and using the definition historically used in prior FSRs (dashed line).
b The chart shows the maximum, the minimum, the range between the 75th percentile and the 25th percentile and the median of the ROE and ROTE ratios of Spanish deposit institutions in December 2006 and December 2019.

1 Own funds include mainly capital, reserves, share premium and other equity instruments issued other than capital. Unlike equity, own funds do not include non-controlling interests or accumulated other comprehensive income.
2 See Revised EBA Methodological Guide - Risk Indicators and Detailed Risk Analysis Tools.
3 The ROE ratio's denominator is calculated as an average of equity at the end of the prior year and at the end of the current quarter.

issued and accumulated reserves, i.e. of the funds actually contributed by the investors or retained as reserves, is thus obtained. Conversely, intangibles represent future expectations of profit generation, not contributed funds. This measure thus contributes to estimating the average cost of raising additional funds.[4]

Spanish deposit institutions include in their quarterly earnings reports various measures of profitability; specifically, the ROE and ROTE ratios. Indeed, in recent years institutions have increasingly defined profitability targets in terms of ROTE in their strategic plans. Institutions' reports include profitability metrics based on assets (Return on Assets (ROA)) or on risk-weighted assets (Return on Risk-Weighted Assets (RORWAs)), and efficiency metrics.[5] These metrics are part of the alternative performance measures (APMs) that institutions include in their earnings reports and prepare in accordance with the European Securities and Markets Authority (ESMA) Guidelines published on 30 June 2015.[6] In the last year, the main Spanish deposit institutions have also changed the definition of ROE and ROTE so as to deduct from the denominator the equity item "Accumulated Other Comprehensive Income", which increases the ratio when it presents a material negative amount.

Chart 1 shows these four ratios (ROE and ROTE calculated according to the definition aligned with the EBA Methodological Guide, and ROE* and ROTE* calculated according to the definition historically used in prior Financial Stability Reports)[7] for Spanish deposit institutions. First, it should be highlighted that all the ratios have trended very similarly over the last 14 years, with a correlation coefficient of 0.99 in all cases; however, differences in the ratios' levels are observed. Specifically, since 2013 ROE is higher than ROE* (8.3% and 7.1%, in December 2018). Furthermore, the ROTE ratio is higher than both ROE and ROE* (10.1% and 8.6%, respectively, in December 2018). It is very important to take into account these different levels when the definition changes, so that an actual change in profitability is not attributed to something that is purely methodological.

Chart 3
TREND IN PROFITABILITY (ROE AND ROTE) OF THE MAIN SPANISH AND EUROPEAN BANKS (a)

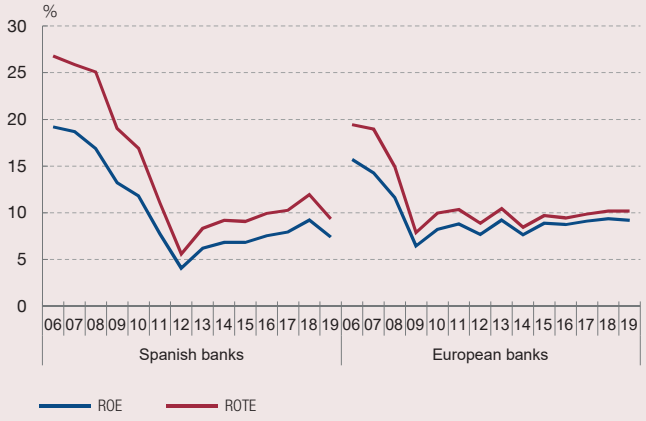
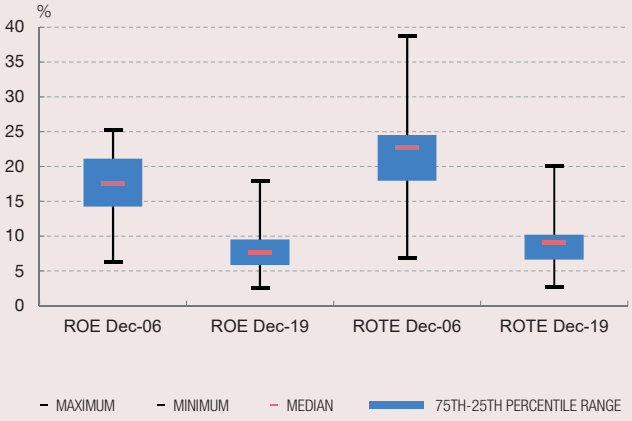


Chart 4
DISPERSION OF PROFITABILTY (ROE AND ROTE) OF THE MAIN EUROPEAN BANKS (b)



SOURCE: SNL Financial.

a The chart shows the ROE and ROTE ratios calculated using the revised definition aligned with the EBA methodology for the main Spanish and European banks (sample of 27 banks) between December 2006 and December 2019.
b The chart shows the maximum, the minimum, the range between the 75th percentile and the 25th percentile, and the median of the ROE and ROTE ratios of the main European banks (sample of 27 banks) in December 2006 and December 2019.

4 A broader definition of the ROTE ratio would include as the denominator equity less not only goodwill and other intangible assets, but also convertible bonds and *participaciones preferentes* (hybrid instruments).

5 Other market alternatives also exist to measure institutions' profitability, such as the price-earnings ratio (PER) or earnings per share, which is the inverse of PER.

6 See ESMA Guidelines on Alternative Performance Measures.

7 The ROE* and ROTE* ratios were calculated in prior FSRs as the ratio between (annualised) profit attributable to the parent and average own funds or average own funds net of average intangible assets, respectively.

Chart 2 shows a high level of heterogeneity between the main Spanish deposit institutions (12 banks under direct SSM supervision) both in terms of ROE and ROTE (e.g. difference between the 25th and 75th percentiles of 4.1 pp for the ROE ratio and of 5.6 pp for the ROTE ratio in December 2019). Furthermore, the period following the global financial crisis of 2008 is characterised by a reduction in both the level and heterogeneity of the two measures of profitability (ROE and ROTE), with the main Spanish banks more concentrated.

From an international standpoint, Charts 3 and 4 compare the trend in and dispersion of these measures of profitability (the ROE and ROTE ratios) among Spanish and European banks.[8] The two panels in Chart 3 show that the difference between the ROE and ROTE ratios is greater in the case of Spanish banks. This is due to their intangible assets (mainly goodwill), which are deducted from the ROTE ratio denominator, being higher. In turn, comparing Chart 2 with Chart 4 shows that the pattern observed for Spanish banks is maintained for European banks and that in 2019 both the level and heterogeneity of the two measures of profitability decreased with respect to 2006. Moreover, in 2018, the difference between the 25th and 75th percentiles is smaller for European banks (3.6 pp for the two ratios, ROE and ROTE) than for the Spanish banks.

8 A sample of 27 European banks, 3 of which were Spanish, was considered. The sample was selected from a list of institutions that participated in the EBA's most recent stress test (see https://eba.europa.eu/risk-analysis-and-data/eu-wide-stress-testing/2018) for which data for the entire period considered was available in SNL Financial.

Box 2.2

ANNUAL EXERCISE BY THE FSB ON NON-BANKING FINANCIAL INTERMEDIATION

In January 2020 the FSB published the ninth edition of its annual report on non-banking financial intermediation (NBFI).[1] As in previous years, the report uses detailed data provided by 29 countries to conduct a review of the financial system and related trends at global level and in each economy.[2] For example, the report shows how in Spain the decline in banks' weight in total financial sector assets, ongoing since the end of the crisis, has continued (see Chart 1).

Using data at end-2018, the report takes as its starting point the situation of the financial system in each country and goes on to quantify and analyse the importance and risks of the non-banking sector. To that end, the FSB defines a broad measure of this sector, which encompasses the entire financial system except for central banks, banks and public financial institutions (MUNFI - Monitoring Universe of Non-bank Financial Intermediation). The ultimate aim is to focus on those entities that may pose bank-like risks to financial stability, possibly as a result of regulatory arbitrage.

To identify this type of entity and subsequently analyse the related risks, the FSB has developed a methodology which excludes agents that i) do not conduct credit intermediation activities; or ii) are consolidated into a banking group and are therefore subject to banking prudential regulation. This methodology defines a narrow measure of NBFI comprising

Chart 1
STRUCTURE OF THE FINANCIAL SYSTEM IN SPAIN (a)
% of total financial assets of financial institutions

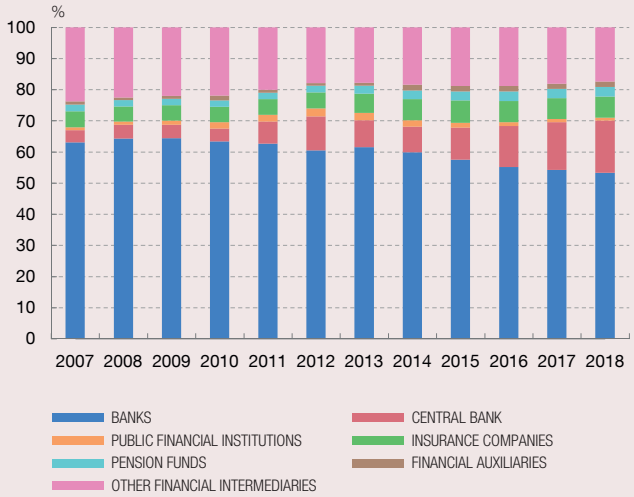
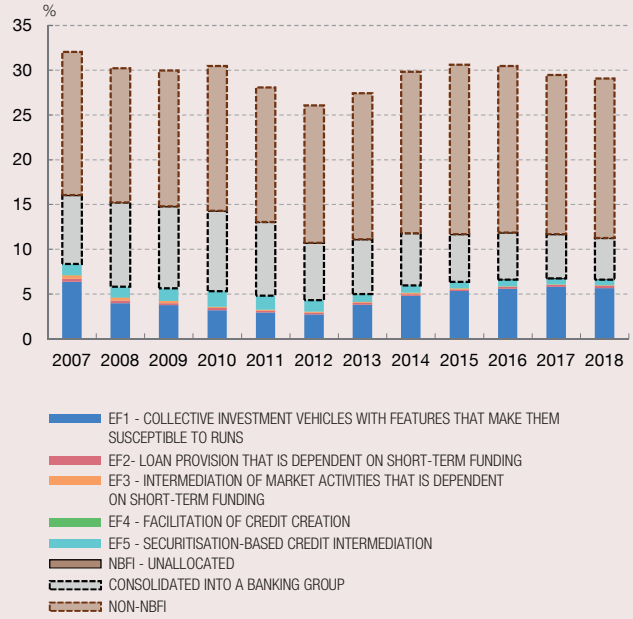


Chart 2
NARROW MEASURE OF NBFI IN SPAIN COMPARED TO TOTAL MUNFI (b)
% of total financial assets of financial institutions



SOURCES: FSB and Banco de España.

a Central banks do not form part of MUNFI or the narrow measure of NBFI. The Other Financial Intermediaries category defined by the FSB does not correspond to the category of the same name in the Financial Accounts (S.125). In addition to that category (which includes broker-dealers, securitisation special purpose vehicles, venture capital firms, bank asset funds, central counterparties and asset management companies), this category includes money market funds and non-money market investment funds, finance companies (in Spain, specialised lending institutions) and captive financial institutions and money lenders (such as issuers of preference debt instruments and other marketable securities).

b The narrow measure of NBFI in Spain includes alternative investment funds or hedge funds; money market funds; fixed-income funds; mixed fixed-income funds; open-end investment companies; specialised lending institutions; broker-dealers; mutual guarantee societies; and special

1 In 2018 the FSB began to use the term "non-banking financial intermediation" for shadow banking. This change in terminology did not affect either the scope (which continues to be that of credit intermediation involving entities and activities outside or partly outside the banking system) or the annual exercise of the FSB.

2 The FSB's report also uses complementary, less detailed data from jurisdictions beyond these 29 countries to expand its analysis.

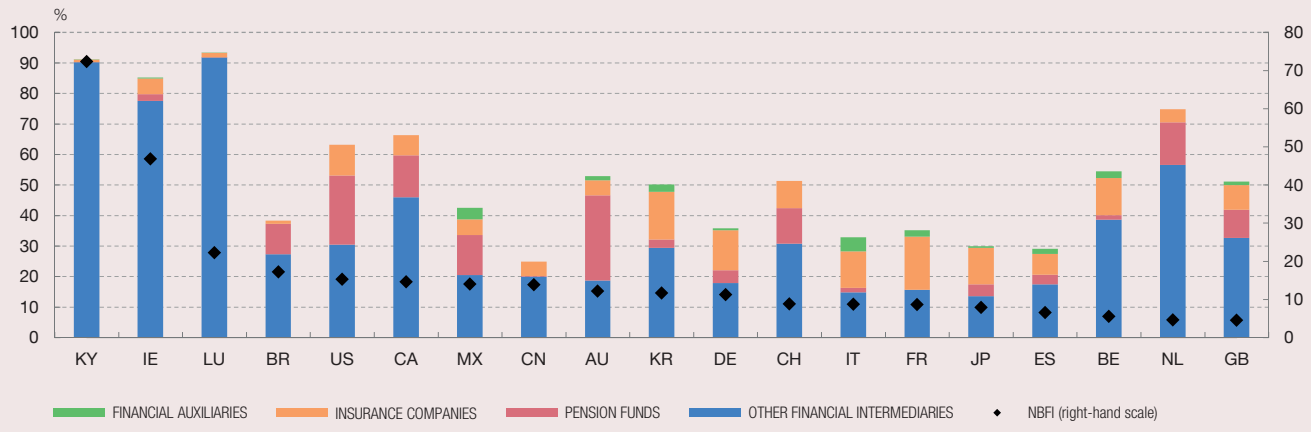
entities that perform one of the five economic functions (EFs) associated with such credit intermediation:

- **EF1 - Management of collective investment vehicles with features that make them susceptible to runs.** In Spain, five types of entity are classified in this category, all of which are registered as collective investment vehicles at the CNMV: alternative investment funds or hedge funds; money market funds; fixed-income funds; mixed fixed-income funds; and open-end investment companies.
- **EF2 - Loan provision that is dependent on short-term funding.** This category includes specialised lending institutions (SLIs) registered with the Banco de España that are not consolidated into a banking group.
- **EF3 - Intermediation of market activities that is dependent on short-term funding.** Included in this category are broker-dealers registered with the CNMV, which may operate on their own account or on behalf of their clients.
- **EF4 - Facilitation of credit creation: this category includes, for example, monolines and financial guarantors.** In Spain, the only entities in this category continue to be mutual guarantee societies (MGSs).
- **EF5 - Securitisation-based credit intermediation and funding of financial entities.** This category includes special-purpose vehicles (registered with the CNMV).

Under this methodology, the narrow measure of NBFI represented 13.6% of global financial assets at December 2018, having grown by 1.7% in 2018. In Spain, the narrow measure accounts for 6.6% of the financial assets held by financial institutions (see Chart 2), having decreased by 3.5% in the previous year. If we consider the results by country in other jurisdictions, this measure is higher in countries with a considerable level of financial specialisation and favourable taxation for these activities, such as the Cayman Islands, Luxembourg and Ireland (see Chart 3). These countries are characterised by having more significant non-banking sectors and more cross-border interconnections.

In absolute terms, the United States concentrates the greatest NBFI activity (see Chart 4), with 30% of the global total. However, its weight has decreased in recent years, in contrast with the growing importance of China (whose sector stagnated at around 15% in 2018). Spain has always accounted for less than 1% of the volume of the narrow measure.

Chart 3
SIZE OF MUNFI AS COMPARED WITH THE NARROW MEASURE OF NBFI, BY COUNTRY (a)
% of total financial assets of financial institutions



SOURCE: FSB.

a The Other Financial Intermediaries category defined by the FSB does not correspond to the category of the same name in the Financial Accounts (S.125). In addition to that category (which includes broker-dealers, securitisation special purpose vehicles, venture capital firms, bank asset funds, central counterparties and asset management companies, such as Sareb), this category includes money market funds and non-money market investment funds, finance companies (in Spain, specialised lending institutions) and captive financial institutions and money lenders (such as issuers of preference debt instruments and other marketable securities). The narrow measure of NBFI is a subset of MUNFI (OFIs, pension funds, insurance companies and financial auxiliaries).

By type of entity, investment funds make up most of the sector (see Chart 5). At global level, collective investment vehicles, whose weight has increased in recent years, represent 72% of the assets included in the measure of NBFI. However, there was some slowing in this growth in 2018 owing to the valuation effects caused by falling prices on securities markets. In Spain, investment funds are also the largest sub-sector in the narrow measure of NBFI, with a share of 86% (see Chart 2).

Aside from the data needed to quantify the non-bank financial sector, the FSB collects additional information on interconnections, credit assets, repo markets, financial innovations and regulatory frameworks. The involvement of these entities in bank-like activities is also analysed.

Specifically the FSB collects information that enables indicators to be calculated on the involvement of entities classified in the narrow measure of NBFI in credit intermediation, maturity transformation and leverage. On the basis of this information, at global financial system level the FSB has in recent years focused on: i) the growth of collective investment vehicles (EF1) with a high proportion of loans and receivables and lower liquidity; ii) the elevated leverage of entities that provide loans using short-term funding (EF2), which in some jurisdictions is accompanied by high levels of maturity transformation; and iii) the significant leverage of market intermediaries (EF3) which grew in 2018 (but remained below pre-crisis levels), because they may be vulnerable to runs given their dependence on short-term funding.

Chart 4
INTERNATIONAL ALLOCATION OF THE NARROW MEASURE OF NBFI ASSETS
% of total financial assets of financial institutions

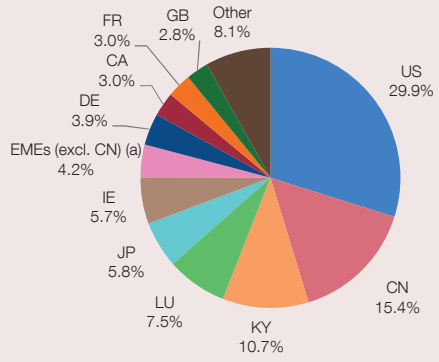
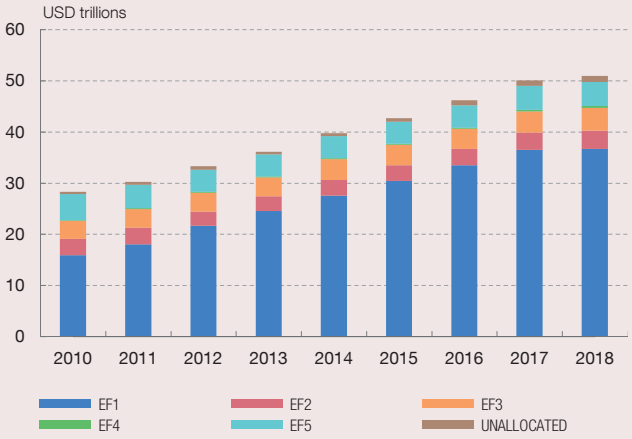


Chart 5
NARROW MEASURE OF GLOBAL NBFI BY ECONOMIC FUNCTION



SOURCES: FSB and Banco de España.

a EMEs (excl. CN): emerging market economies. These include AR, BR, CL, ID, IN, MX, RU, TR, SA and ZA.

3

SYSTEMIC RISK AND PRUDENTIAL RESPONSE TO COVID-19

This chapter analyses developments in systemic vulnerabilities and describes the prudential measures implemented to mitigate the adverse effects of the COVID-19 pandemic. The first section uses the map of indicators and the systemic risk indicator to assess the Spanish financial system's current level of vulnerabilities. The macrofinancial disruption caused by the spread of COVID-19, which is already reflected in the contemporaneous indicators such as the systemic risk indicator, has required the adoption of a series of supervisory measures, which are addressed in Section 2. These measures include decisions on macro- and microprudential instruments, a prudential response relating to accounting matters which takes into account that the shock is, in principle, temporary in nature and other supplementary measures to strengthen the solvency of banks.

3.1 Analysis of systemic vulnerabilities

Until end-2019 the map of systemic vulnerabilities did not show signs of systemic risk build-up.[1] In addition, all the categories of the map of indicators have remained stable since the latest FSR (see Chart 3.1). Therefore, the starting point of the financial cycle in the face of the shock triggered by COVID-19 does not show the vulnerabilities existing at the onset of the 2008 global financial crisis. Private indebtedness levels are currently substantially lower and no overvaluations in aggregate terms are observed in the real estate market. The situation at the beginning of the new phase also reflects that COVID-19 is a systemic risk that has not been generated endogenously by the financial system.

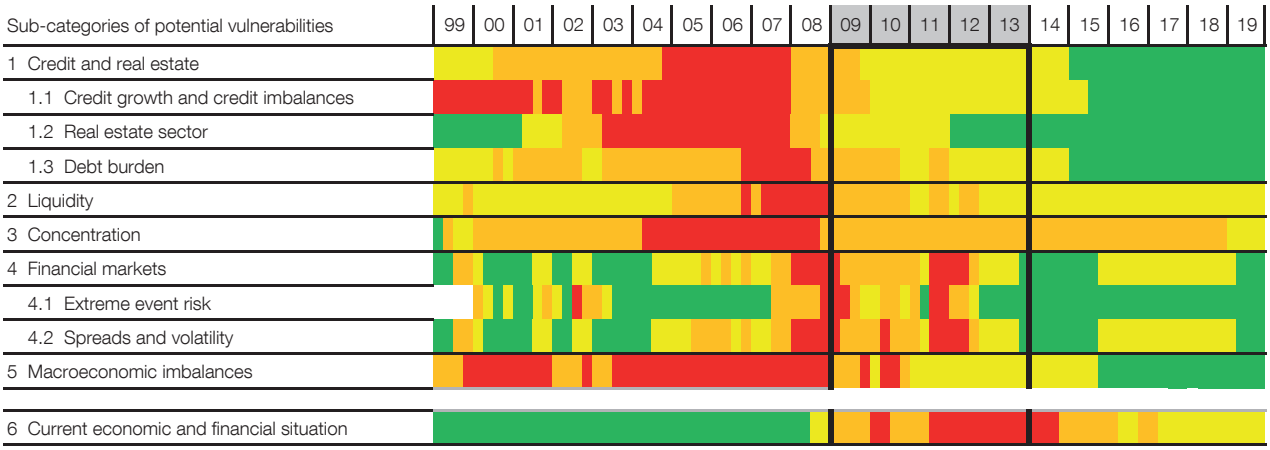
As a result of the substantial disruption of global activity and the foreseeable tightening of financial conditions in 2020 Q2 and Q3, some of the components of the map of systemic vulnerabilities, such as the financial market or liquidity components, may be significantly affected. These indicators are constructed using financial market data, which tend to react rapidly to changes in the macrofinancial environment. It is to be expected that the indicators of

1 The map of systemic vulnerability indicators aggregates information on a broad set of indicators based on their capacity to anticipate systemic banking crises. The definitions of the main categories correspond with those established in Recommendation ESRB/2013/1 of the European Systemic Risk Board on intermediate objectives and instruments of macroprudential policy. To interpret the chart, it should be borne in mind that the intensity of the warning signals in each of the categories represents a weighted average of the intensity of the indicators it includes. Intensity rises as the tone becomes redder, while green represents a normal situation. For further details about the specific indicators included in each category, and on the calculation of their weightings, see Mencía, J. and Saurina, J. (2016) "Macroprudential policy: objectives, instruments and indicators". Occasional Paper 1601, Banco de España.

Chart 3.1

THE MAP OF SYSTEMIC VULNERABILITIES REMAINED STABLE AND WITHOUT ANY SIGNIFICANT EARLY WARNING SIGNALS IN LATE 2019 (a)

The map of systemic vulnerabilities, whose aim is to emit warnings about systemic banking crises, held stable in 2019. Early warnings of risk were absent or low. Meantime, the macroeconomic and financial vulnerabilities of the Spanish economy continued to be corrected. This pattern of indicators as at December 2019 shows that the coronavirus crisis has not arisen endogenously in the financial system, but is rather an exogenous shock to it.



SOURCE: Banco de España.

a The colour scheme identifies four levels of risk: i) green denotes a normal, risk-free situation, ii) yellow indicates low risk, iii) orange is medium risk and, iv) red is high risk. The shaded band denotes the last systemic crisis. Some December 2019 indicators are based on provisional information.

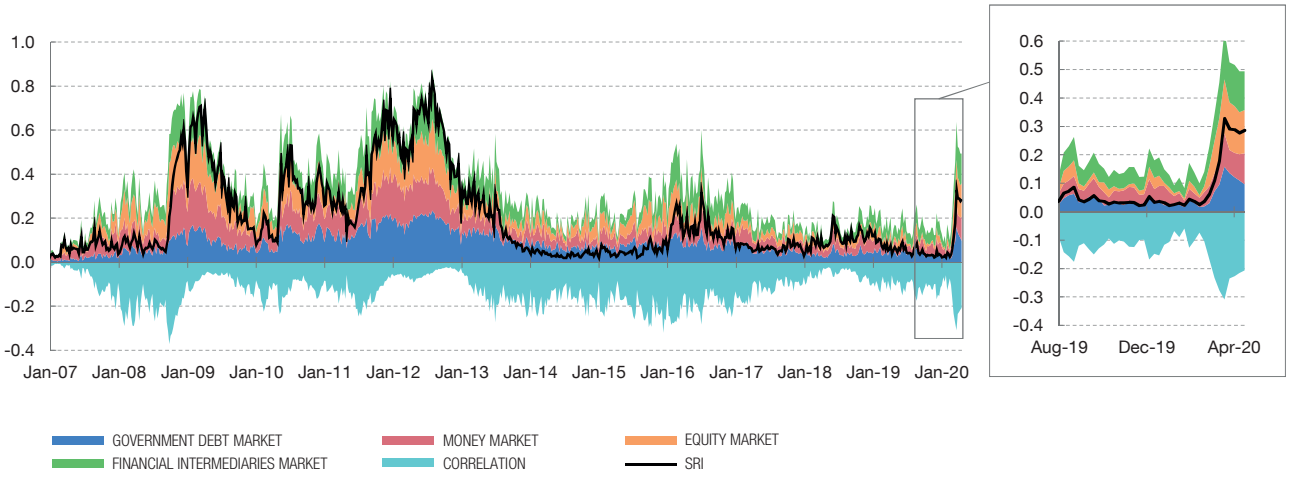
the current economic and financial situation will also start to show slightly more lagged warning signals, as the partial freeze of economic activity begins to spill over into changes in GDP, unemployment and the rest of variables in this category.

Against this backdrop, the systemic risk indicator (SRI) has rebounded strongly due to the increase in volatility in financial markets. (see Chart 3.2). The SRI belongs to the class of "contemporaneous" macroprudential indicators because it is designed to capture in real time increases in the level of systemic shocks. Indeed, it is a synthetic indicator including information about the four segments that are the most representative of financial markets (the money, government debt, equity and bank funding markets). Therefore, increases in this indicator capture simultaneous tensions in these four segments, such that SRI increases indeed reflect that this stress is systemic. This indicator has remained at low warning levels since the financial tensions which arose following the Brexit referendum in 2016, dropping to all-time lows at end-2019. However, it has rebounded strongly since February 2020, coinciding with the increase in volatility in the financial markets associated with COVID-19, and has already exceeded the levels recorded in 2016. In fact, the initial pace at which the SRI rose during this crisis exceeded that seen at the onset of the global financial crisis. Indeed, the latest data show a slight correction in the indicator, which might reflect the impact of the measures adopted, although it seems to have stalled in the past few weeks.

Chart 3.2

THE SYSTEMIC RISK INDICATOR FOR THE SPANISH FINANCIAL SYSTEM HAS RISEN FORCEFULLY OWING TO THE SPREAD OF THE COVID-19 PANDEMIC (a)

The Systemic Risk Indicator (SRI), which held at very low levels throughout 2019, has risen forcefully owing to the effects of the coronavirus on the financial markets. The level of stress in the different markets on which the indicator draws is not homogeneous; it is particularly high in the equity market and not so high in the money market.



SOURCES: Datastream and Banco de España.

a The Systemic Risk Indicator (SRI) aggregates 12 individual indicators of stress (volatilities, interest rate spreads, maximum historical losses, etc.) of different Spanish financial system (markets for money, government debt, equity and financial intermediaries). In calculating the SRI, the effect of cross-correlations is taken into account, whereby the SRI posts higher values when the correlation between the four markets is high (i.e. situations in which there is a high – or low – level of stress in the four markets at the same time), and lower values when correlation is lower or negative (i.e. situations in which the level of stress is high in some markets and low in others). For a detailed explanation of this inidcator, see Box 1.1 in the May 2013 FSR.

3.2 Prudential actions in response to COVID-19

3.2.1 Macroprudential policy actions

Macroprudential policy aims to mitigate the impact of systemic financial shocks, such as that generated by COVID-19, on the real economy. The COVID-19 pandemic and the measures necessary to contain it are severely disrupting economic activity worldwide. Although this may be a temporary shock, the persistence of its effects will largely depend on public policy response and on the behaviour of the economic agents. Against this backdrop, credit institutions can and should play a key role in contributing to stabilise the economy. Their role as intermediaries of flows of funding allows economic agents to meet their short-term financial needs, transforming them into longer-term liabilities.

One of the main objectives of macroprudential policy is to help institutions continue to provide the financing required by households and businesses, even in adverse environments such as the current one. To this end, certain

previously established capital buffer requirements can be eased to help institutions be in a better position to absorb the foreseeable increase in losses and to try to prevent them from being forced to restrict the credit supply for projects that were financially viable before the shock. In keeping with this reasoning, several European national authorities have recently taken macroprudential measures, according to the specific circumstances of each country and based on the calibration of the capital buffers built up prior to the outbreak of the pandemic (see Box 3.1).

Macroprudential policy works through the building of capital buffers and ensuring that loan granting conditions are suitable in the phases of risk accumulation, and releasing these buffers when risks materialize. In this way, this policy would contribute to smooth the financial cycle, by limiting the build-up of systemic risk in expansive phases and mitigating the adjustment to credit activity in recessive phases. Under the current circumstances, facing an exogenous shock rather than the materialization of a risk generated endogenously by the financial sector, the release of previously constituted capital buffers would allow banks to absorb the foreseeable increase in losses without constraining credit supply to financially viable projects. In this manner, it would be avoided that the financial sector aggravates the economic recession, by keeping the provision of financing to firms and households.

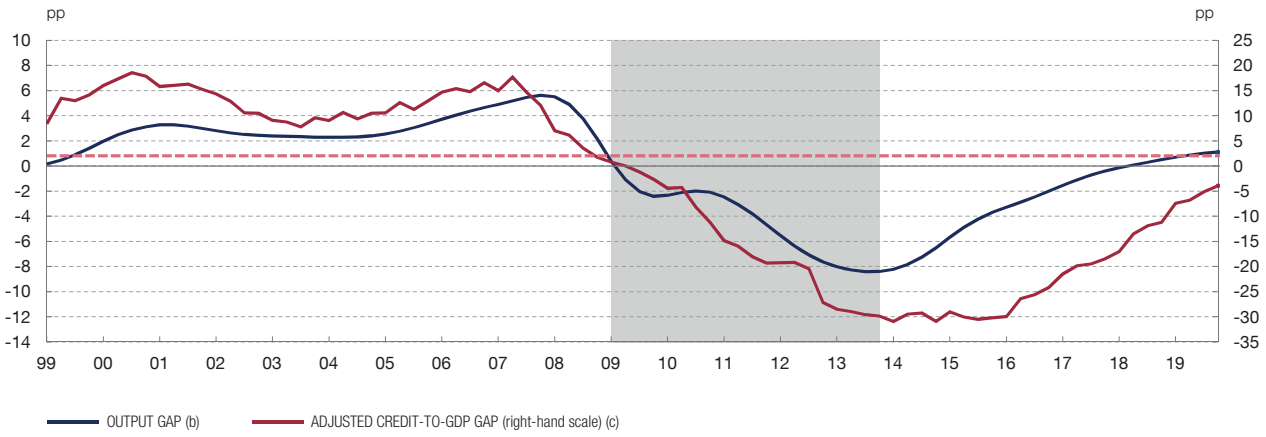
The Banco de España has maintained the countercyclical capital buffer (CCyB) at 0% and the current circumstances advise to maintain this level, unless until the economic and financial effects of the coronavirus crisis have faded.[2] In fact, the authorities of other European countries that had activated this instrument in the past, in most cases owing to excessive credit growth in their economies, have now proceeded to provide for its release (setting it at 0%, see Box 3.1). In Spain's case, the countercyclical capital buffer is currently set at 0%, given the previous analysis of the absence of warning signals. In any event, 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 coronavirus crisis have been dispelled. In this connection, an important lesson from the effects of this shock is the need to explore all the possibilities provided by the original framework designed by the Basel Committee on Banking Supervision (BCBS), so that decisions to activate this instrument are not limited exclusively to situations of excessive credit growth. It also reveals the need for the capital requirements that are more adjustable to the macrofinancial cycle to gain weight in the total requirements for institutions (see Box 3.2 for a cost-benefit analysis of the build-up and release of macroprudential measures).

2 See press release of 31 March 2020: "The Banco de España maintains the countercyclical capital buffer at 0%". In 2019 a review was once again conducted of the buffers set for Other Systemically Important Institutions (O-SIIs) with effect in 2020 and Global Systemically Important Institutions (G-SIIs) for 2021, as described in the press release of 25 November 2019: "Banco de España updates the list of systemically important institutions and sets their capital buffers" of 25 November 2019. The list of identified O-SIIs and G-SIIs and the associated capital buffers did not change with respect to those announced in the previous year.

Chart 3.3

THE CREDIT-TO-GDP GAP SWIFTLY DREW CLOSER TO ITS ACTIVATION THRESHOLD IN 2019, BEFORE THE SUDDEN OUTBREAK OF THE COVID-19 CRISIS (a)

In late 2019 the output gap continued to show positive values, while the credit-to-GDP gap continued to close. The foreseeable downturn in GDP in 2020 will alter these trends, changing the interpretation of the credit-to-GDP gap in relation to the recovery period.



SOURCE: Banco de España.

a The shaded area shows the last period of systemic banking crisis (2009 Q1-2013 Q4). The horizontal broken line depicts the CCyB activation threshold (equal to 2 pp).
b The output gap is the percentage difference between actual and potential GDP. Values calculated at constant 2010 prices. See Cuadrado, P. and Moral-Benito, E. (2016), "Potential growth of the Spanish economy", Occasional Paper 1603, Banco de España.
c The credit-to-GDP gap is calculated as the difference, in percentage points, between the observed ratio and the long-term trend calculated using a one-sided Hodrick-Prescott filter with a smoothing parameter equal to 25,000. This value is more in line with the financial cycles historically observed in Spain.

The credit-to-GDP gap, which is the main indicator for identifying credit imbalances in advance, remained below the long-term equilibrium level before the pandemic (see Chart 3.3).[3] There will foreseeably be a significant downturn in GDP this year, although there is much uncertainty over the magnitude of the drop. Some empirical research shows that during this phase of adjustment of activity GDP can drop faster than credit, since GDP is a flow measure that reacts more rapidly than stock measures such as total credit.[4] This could result in the credit-to-GDP gap, as well as other similar imbalance indicators, sending misleading signals. Therefore, the indicators normally used to identify unsustainable developments during upturns in the financial cycle are less useful during this new phase of disruption of activity, which has, additionally, been caused by factors not related to the financial cycle. Consequently, it is necessary to include contemporaneous indicators of systemic risk such as the SRI in the CCyB-related decisions during GDP contraction phases.

3 Box 3.2 of the May 2019 Financial Stability Report contains a description of the credit-to-GDP gap used by the Banco de España and its performance. For details about its calculation and a comparison with the standard specification of the credit-to-GDP gap by the Basel Committee on Banking Supervision and other alternatives, see Galán, J.E. (2019). (2019), "Measuring credit-to-GDP gaps. The Hodrick-Prescott filter revisited". Occasional Paper 1906, Banco de España.

4 Repullo, R. and J. Saurina (2011). "The countercyclical capital buffer of Basel III: a critical assessment". CEPR Discussion Paper No. DP8304.

Banks will be allowed to operate temporarily below the structural macroprudential requirement levels. Although Spain has not yet activated the CCyB, over the last few years Spanish banks have built up buffers and capital requirements precisely with the aim of using them to absorb losses in the face of scenarios such as that generated by COVID-19. The ECB, the EBA and the BCBS have encouraged credit institutions to use the capital and liquidity buffers available and to make appropriate use of the flexibility existing in prudential regulation to adapt to the new situation. Furthermore, the BCBS has decided to postpone the implementation of the revised methodology for identifying Global Systemically Important Institutions by one year (from 2022 to 2023) and the full implementation of Basel III. The BCBS has also postponed to 1 January 2028 the conclusion of the transitional period for the floor for capital requirements stemming from internal models.

3.2.2 Microprudential policy actions

The microprudential authorities have implemented a series of operational, prudential and regulatory flexibility measures to prevent disruptions in the operation of the banking system and to ensure the continuity of the flow of bank credit. Spanish deposit institutions have received a series of guidelines on these flexibility measures through recent statements issued by the EBA, the SSM and the Banco de España. As a competent national authority and member of the SSM, the Banco de España has assumed the measures announced by the SSM, applying them to the institutions under its direct supervision to the extent possible.

In the first place, the supervisory processes have been adapted to release the operational resources of banks that can be directed at ensuring the continuity of the business. The EBA decided to postpone the stress test exercise to 2021, expanding the content of the 2020 transparency exercise with the aim of releasing banks' resources to allow them to prioritise the continuity of the business. At the same time, it recommended the national supervisory authorities to act in this line in all supervisory reporting areas that are not essential for closely monitoring the situation during the crisis. Along the same lines, to ensure operational continuity, the SSM requested banks to address pandemic risk in their contingency plans and to revise their business continuity plans, while ordering a series of measures aiming to alleviate the supervisory burden and compliance with capital requirements. Thus, the extension of deadlines was announced for compliance with the corrective measures required in on-site inspections and the finalised internal model reviews, as well as for the flexible application the ECB guidance on non-performing assets.

In addition, supervisory requirements have been adjusted to allow banks to make use of the buffers available to absorb unexpected losses associated with the COVID-19 pandemic. The EBA has encouraged banks to use their liquidity buffers. Likewise, the SSM has also announced that banks would be allowed

to operate temporarily below the levels defined by the P2G, the capital conservation buffer and the liquidity coverage ratio, and the possibility of meeting the P2R with capital other than CET1 capital would be brought forward, all with the aim of maintaining credit. Finally, the Single Resolution Mechanism also clarified that a forward-looking approach would be used to monitor MREL compliance and that this requirement would not limit making use of the capital buffers released by the macro- and microprudential authorities.

3.2.3 Prudential response relating to accounting matters

Both national and international bodies (the Banco de España,[5] the ECB,[6] the EBA,[7] the European Securities and Markets Authority (ESMA)[8] and the Committee of European Auditing Oversight Bodies (CEAOB)[9] have issued different statements to clarify the effects of COVID-19 on financial reporting by banks and, in many cases, providing greater flexibility to the regulatory framework and the prudential impact of such reporting. The measures focus on clarifying the existing accounting regulations for an adequate calculation of credit risk impairment of financial assets in 2020, distinguishing temporary from permanent effects and recognising the role of public measures in sustaining credit. The key elements of the supervisory guidelines clarify the following matters:

— The existence of amounts past due more than 30 days as a result of the pandemic crisis does not entail the automatic classification of the exposure as Stage 2.

— The existence of liquidity difficulties in the case of borrowers with a good payment history will not automatically lead to identification of forbearance in the event of modifications of transactions as a result of the COVID-19 crisis.

— When estimating expected credit losses banks should consider the entire life of the transaction and give more weight to longer-term projections.

5 Briefing note of 30 March 2020 on the use of the flexibility envisaged in the accounting standards in view of the shock caused by COVID-19. Updated at 3/4/2020.

6 ECB Press release of 20 March 2020 on further flexibility to banks in reaction to coronavirus.

7 EBA Statement of 25 March 2020 on the application of the prudential framework regarding default, forbearance and IFRS 9 in light of COVID-19 measures.

8 ESMA Statement of 25 March 2020 on accounting implications of the COVID-19 outbreak on the calculation of expected credit losses in accordance with IFRS 9.

9 CEAOB decision on areas that are of high importance in view of COVID-19 impact on audits of financial statements. Adopted on 24 March 2020.

— Flexibility shall be applied, on a temporary basis, with respect to the classification of debtors as non-performing for reasons other than arrears when banks call on public guarantees granted in the context of COVID-19, legal moratoria or moratoria established by the banking sector which meet certain conditions.

— All public aid received as a result of COVID-19 will be taken into consideration in calculating expected losses.

These measures will contribute to prevent a procyclical and mechanistic behaviour of provisions that would lead to a downward adjustment of the volume of credit in the face of the COVID-19 crisis, also moderating the impact on profitability.[10] The supervisory expectation of an adequate application of accounting standards, with the aim of differentiating temporary liquidity problems from permanent credit quality impairment, will prevent a mechanistic and abrupt adjustment of credit ratings, restricting the automatic reclassification of exposures affected by temporary shocks to non-performance and forbearance. Consideration of the positive impact of public guarantees and moratoria on private sector agents' ability to pay also mitigates credit rating deterioration. The two effects would provide banks with incentives to maintain their credit intermediation function and avoid automatic reductions in credit volume that would compound the impact of the COVID-19 crisis. The distinction between temporary and permanent deterioration of credit quality and the consideration of the value of public aid granted would also limit the pace of growth of impairment provisions and moderate the negative impact on profitability.

The application of ongoing and adequate supervision, within the scope of the operational needs imposed by the COVID-19 pandemic, must avoid delays in the identification and recognition of the risks that effectively materialize. The measures aim to prevent the mechanistic application of accounting standards from causing a procyclical effect. However, an inappropriate use of them could lead to certain inadequate accounting practices, delaying the recognition of effective deteriorating credit quality in certain exposures. For this reason, the supervisory guidelines also consider that these flexibility measures should not prejudice the appropriate identification of credit impairment or the assignment of reasonable credit risk coverage, providing banks with the incentives necessary to maintain standards adapted to supervisory expectations. These also include the adaptation of banks' internal systems for the correct identification of transactions affected by the measures that have been put into place to adapt accounting to the COVID-19 crisis.

10 For a more in-depth analysis of the potential impact of a mechanistic application of accounting standards in the face of a temporary shock, see: Abad, J. and J. Suárez (2017): "Assessing the cyclical implications of IFRS 9 – a recursive model", ESRB Occasional Paper Series, No. 12.

Authorities are also trying to temporarily reduce the amount of accounting information banks are required to report. Given the operational implications of the pandemic, authorities are also prioritising the reporting of information that allows monitoring the impact of the crisis more closely and the effectiveness of the measures adopted. In this connection, the Banco de España is collecting from banks all the information needed to closely monitor the way in which banks are making use of the public measures in place to combat the crisis and relating to accounting adaptation. At the same time, a temporary moratorium is being provided for the submission of other types of information deemed secondary in this situation.

3.2.4 Other actions

The suspension of the distribution of dividends and the practice of prudence in the payment of bonuses to employees, as recommended by the EBA and the ECB to the banks under the latter's supervision and as extended by the Banco de España to the less significant institutions in Spain,[11] are necessary instruments aiming to channel the generation of income to the strengthening of solvency. The ECB[12] Banco de España and subsequently the EBA[13] have approved recommendations in which they ask banks not to distribute dividends for 2019 and 2020, at least until 1 October 2020, and to refrain from share buy-backs aimed at remunerating shareholders. The Spanish National Securities Market Commission and the Registrars Association of Spain have issued a joint statement to indicate how entities which have approved a dividend and wish to make changes should proceed.[14]

Banks have the capacity to adjust their dividend distribution policies to adapt to the guidelines issued by the microprudential supervisors and so strengthen their solvency. Generally, All Spanish significant institutions that may legally suspend or postpone the dividend distribution out of profit for 2019 have followed the ECB's recommendation and carried out these actions. As an illustration, Chart 3.4 shows changes in profits and in the dividend distribution policy of six Spanish deposit-taking institutions in recent years. Against a backdrop of declining profits in the sector in 2019, prior to the ECB's recommendation of 27 March 2020, one of the banks which had posted a decline in profits anticipated a dividend cut and the other four envisaged maintaining their dividends. Following the recommendation, the first bank announced a more drastic cut and another bank adhered to the adjustment. The rest were unable to comply with the recommendation owing to legal obstacles

11 See Banco de España press release of 27 March 2020.

12 See ECB press release of 27 March 2020.

13 EBA Statement on dividends distribution, share buybacks and variable remuneration (31 March 2020).

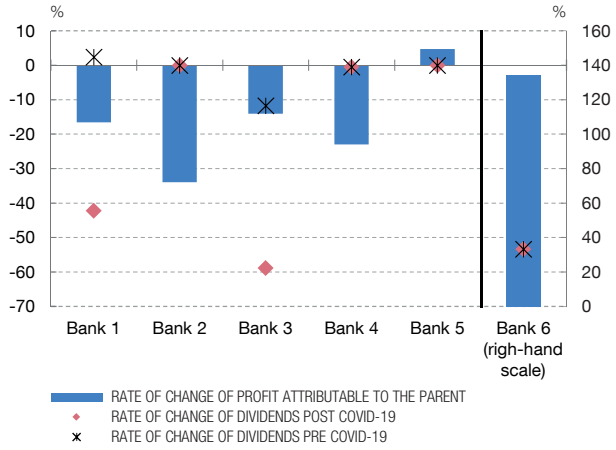
14 Joint statement issued by the Registrars Association of Spain and the Spanish National Securities Market Commission in relation to annual accounts and the proposed distribution of profit of corporate entities in the context of the health crisis resulting from COVID-19 (26 March 2020).

Chart 3.4

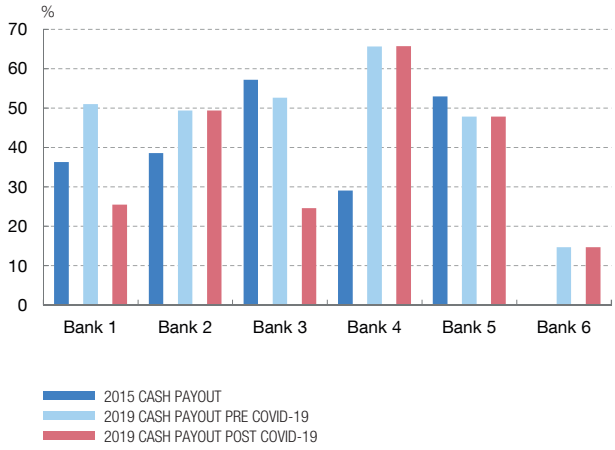
THE ECB AND THE BANCO DE ESPAÑA'S RECOMMENDATION TO SUSPEND DIVIDEND PAYMENTS WILL ENABLE BANKS TO STRENGTHEN THEIR CAPITAL LEVELS TO DEAL WITH THE IMPACT OF THE CRISIS

The volume of distributed dividends generally remained stable in 2019 for Spain's major listed banks, despite the average decline in income in the past year, with payout ratios higher than those for 2015 at four of the six listed banks. As a result of the ECB's recommendation of 27 March 2020 on the distribution of dividends during the COVID-19 pandemic, banks with the legal capacity to limit the distribution of dividends out of profit for 2019 took action, which has generated a significant reduction in cash payouts with respect to their plans prior to the expansion of the coronavirus pandemic. The ECB's recommendation will also have a moderating effect on the 2020 payout ratios.

1 CHANGES IN 2019 IN CONSOLIDATED PROFIT ATTRIBUTABLE TO THE PARENT AND IN DIVIDENDS (a)
Top listed banks in Spain



2 CASH PAYOUT RATIO (a) (b)
Top listed banks in Spain



SOURCE: CNMV.

a The dividends refer to dividends out of profit for the related year, regardless of the year in which they are paid.
b The cash payout ratio is calculated as the ratio of the cash dividend (disregarding scrip dividends) to profit attributable to the parent.

relating to the previous approval of the distribution of dividends at their shareholders' meetings. In consequence, the average cash payout ratio (ratio of cash dividends to profit attributable to the parent bank) has decreased as regards the initial plans to distribute dividends against profit generated in 2019. This ratio will likely decrease even further in 2020.

Box 3.1

MACROPRUDENTIAL MEASURES ADOPTED ACROSS EUROPE IN RESPONSE TO THE COVID-19 CRISIS

The coronavirus pandemic and the necessary measures to contain it are severely disrupting economic activity worldwide. This may be a temporary shock, but it will in any event depend on the public policy response and on agents' behaviour to ensure that its effects do not become longer lasting. In this setting, credit institutions may and should play an essential part in helping to stabilise the economy. Their role as intermediaries of flows of funding allows economic agents to meet their short-term financial needs, which are transformed into longer-term liabilities. One of the main objectives of macroprudential policy is precisely to help credit institutions continue to provide the funding that households and firms require in adverse environments such as the present one. For this purpose, existing capital buffers would be released, enabling credit institutions to absorb the foreseeable increase in losses without having to restrict the credit supply for financially viable projects. In consequence, various national authorities across Europe have taken macroprudential measures, according to the specific circumstances of each country and depending on the capital buffers already activated previous to the outbreak of the pandemic.

Table 1
MACROPRUDENTIAL MEASURES IN EUROPE (a) (b)

Country	CCyB (%)			Other measures adopted recently
	Actual rate March 2020	Last announcement before COVID-19	Announced after COVID-19	
Belgium	0.00	0.50	0.00	
Bulgaria	0.50	1.50	0.50	
Cyprus				Deferral to 2023 of end of implementation period for O-SII buffers
Czech Republic	1.75	2.00	1.75	
Denmark	1.00	2.00	0.00	
Estonia				Complete release of SyRB
Finland				Complete release of SyRB and selective release of O-SII buffers
France	0.25	0.50	0.00	
Germany	0.00	0.25	0.00	
Hungary				Complete release of O-SII buffers
Iceland	2.00	2.00	0.00	
Ireland	1.00	1.00	0.00	
Lithuania	1.00	1.00	0.00	
Netherlands				Partial and selective release of SyRB and O-SII buffers Deferral of introduction of minimum floors on risk weights for real estate exposures calculated by institutions using internal models
Norway	1.00	2.50	1.00	
Poland				Complete release of SyRB
Portugal				Easing of recommendation to banks on financing conditions (limits on debt servicing of loans to households to cover temporary liquidity constraints)
Slovenia				Temporary restrictions on profit distribution by credit institutions
Sweden	2.50	2.50	0.00	
United Kingdom	1.00	2.00	0.00	

SOURCE: Banco de España.

a The table shows the macroprudential measures adopted across Europe, drawing on public information available at 15 April 2020.
b CCyB is the countercyclical capital buffer and SyRB the systemic risk buffer. O-SIIs are other systemically important institutions. The third column refers to the last CCyB rate announced before the COVID-19 outbreak and that would have come into place 12 months after the announcement. Release of the CCyB has effect immediately. The countries in the table for which there is no figure in the CCyB columns have not altered their CCyB rate since the COVID-19 outbreak. European countries that have not altered any macroprudential instruments in response to the COVID-19 outbreak are not included in the table.

1 See Banco de España press release of 31 March 2020: "The Banco de España holds the countercyclical buffer at 0%".

Communication is an important aspect to be considered in light of its immediate impact on agents' expectations. Indeed, as COVID-19 has spread in Spain, the authorities have issued increasingly frequent public statements to inform on events and on how the situation is developing, including considerations about the impact on economic activity. Communication is a key element of macroprudential policy, and especially in the case of the countercyclical capital buffer (CCyB) which is reviewed quarterly.[1] The present crisis has underlined the fact that our position in the economic and financial cycle has changed, and that the new environment is not conducive to activation of the CCyB in Spain, not only now but at least until the main economic and financial effects of the coronavirus crisis have disappeared. In accordance with this decision, most European countries that had activated their CCyBs in the past, in many cases because their authorities had observed signs of excessive credit growth in their countries, have responded rapidly, releasing all or part of these buffers (see Table 1).

Other countries had not made use of the CCyBs but had activated other macroprudential instruments available under the regulations, such as the systemic risk buffer (SyRB). These are mainly structural or countercyclical instruments, i.e. they are not designed to be released in adverse cyclical environments such as the present one. However, the severity of the systemic shocks experienced, and the lack of buffers of other kinds, have led some countries to release these buffers as the only immediate alternative available to ease the regulatory pressure on their credit institutions. Indeed, as Table 1 shows, some countries are also reducing or delaying the implementation of other structural buffers, such as those required of other systemically important institutions (O-SIIs). In the euro area, all these national macroprudential measures have been supported by the ECB.[2]

The use of structural instruments to achieve cyclical objectives poses a communication challenge, not only because the instruments are being used for a different purpose than that for which they were designed, but also as regards managing the return to normal and the uncertainty this may create as to the use of these buffers in response to future potential shocks. In practice, these decisions entail a transfer of macroprudential space, from structural instruments to other, more automatic, instruments based on cyclical indicators such as the CCyB. In this respect the announcement made by De Nederlandsche Bank on 17 March is noteworthy. It indicated that once the crisis was over, it intended to set a positive CCyB rate, to compensate for the recent reduction in the SyRB and thus resume the capital requirement levels existing before COVID-19, and to ensure, at the same time, a more flexible structural-cyclical composition of capital requirements with which to address future adverse episodes.

As indicated above, there were no cyclical macroprudential requirements not activated in Spain, although in recent years Spanish banks have built up other buffers and capital requirements, precisely to be used to absorb losses in the event of scenarios such as that generated by COVID-19. In this respect, on 12 March the ECB announced that it would temporarily allow significant institutions (under its direct supervision) to operate below the level set for certain requirements, such as the capital conservation buffer, Pillar 2 guidance (P2G) and the liquidity coverage ratio (LCR). The overall capacity of the micro- and macroprudential capital buffers to absorb unexpected losses at Spanish deposit institutions is described in Chapter 2 (see Chart 2.13).

2 See Banco de España press release of 15 April 2020: "ECB supports macroprudential policy actions taken in response to coronavirus outbreak".

Box 3.2

COST-BENEFIT ANALYSIS OF MACROPRUDENTIAL POLICY

Most empirical studies analysing the impact of macroprudential policy on the economy identify positive effects, such as a decline in the probability of systemic crises occurring or a moderation of the growth of credit and of house prices when these expand at an unsustainable rate. However, a negative impact on GDP growth in the short term is generally identified. This is attributed to the fact that the moderating effect on the financial variables also smooths out the pace of economic growth. Nonetheless, it could be considered that the decrease in systemic financial risk should also be reflected in a lower risk of very low economic growth or of very severe recessions in the future.

To try to analyse the balance between short-term costs and medium and long-term benefits, a study has been developed at the Banco de España for the European Union as a whole which estimates the effects of macroprudential policy on future economic growth.[1] Based on this methodology it is possible to assess the impact of a series of macroprudential measures on different percentiles of the future distribution of real GDP growth at different horizons. In particular, this exercise permits differentiating the impact on a baseline scenario of economic growth (50th percentile) from the impact on a scenario of very low growth or recession occurring with a probability of 5% (5th percentile).

The results evidence differentiated effects both on the different percentiles of the distribution and on the different horizons. The main result is that even though the impact of activating or tightening macroprudential measures normally affects GDP growth negatively under a baseline scenario, the impact on the left tail of the distribution (recession scenarios) is positive. In other words, the activation of macroprudential instruments curbs growth under normal circumstances, but substantially moderates the decline in GDP under adverse scenarios.

Additionally, the impact of macroprudential tools depends on the phase of the financial cycle and the direction of these policies. On the one hand, macroprudential policy tightening during the cycle's expansionary phases has positive effects on possible future adverse scenarios. These effects are normally observed with some delay. On the other, the deactivation or loosening of macroprudential tools during episodes of financial crisis has benefits across the GDP growth distribution and they materialise rapidly.

Nevertheless, the scale of these benefits and how fast they materialise depend on the type of instrument implemented. In the case of measures which change institutions' capital requirements, their tightening during the upswing in the financial cycle would lead to increases of up to 1 pp in future economic growth rates under adverse scenarios occurring with a probability of 5%. This means that an increase in the capital requirements (e.g. through a countercyclical capital buffer (CCyB)) would reduce the economic impact resulting from materialisation of the vulnerabilities identified. However, these benefits materialise with some delay. In particular, the maximum benefit arising from a capital measure is seen three years after it is implemented (see Charts 1 and 2). Also, the effects of releasing capital measures such as the CCyB during periods of financial crisis would be positive across all the GDP growth distribution, but would particularly result in improving the more negative scenarios. Additionally, the positive effects of such a capital release would be immediate. This exercise confirms that the benefits of increasing the CCyB during the upswing and its subsequent release in periods of crisis would clearly be higher than the cost of its build-up in periods of expansion.

As regards the introduction of limits to credit standards, their tightening during the upswing in the cycle also has positive effects on the more negative scenarios of economic growth. This positive impact exceeds the estimated negative impact on the median of the distribution (see Charts 3 and 4). Unlike capital tools, in the case of limits to credit conditions, benefits can be observed almost immediately after they are implemented and their effects are longer-lasting. Also, the benefits of deactivating or easing these limits during periods of financial crisis are more limited. This last result may suggest that, in practice, institutions tend to tighten credit conditions under these circumstances. Easing the limits established by the macroprudential authority would have a limited capacity to change this dynamic and, accordingly, applying these types of measures is more significant during expansionary phases.

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1 Quantile regression models with fixed effects, where the dependent variable is the future growth of real GDP at time horizons of between 1 and 16 quarters, are used for these estimates. The explanatory variables are the annualised growth rate of the credit-to-GDP ratio in the last two years, the annualised growth rate of house prices in the last two years, the current account balance to GDP, a financial stress index, the coincident growth of GDP, a variable identifying periods of financial crisis, as well as indices of the use of different types of macroprudential measures, and their interaction during periods of crisis. The sample for the estimates is composed of a panel with quarterly information on 28 EU countries from 1970 to 2018. For further details, see Galán J. E. (2020). The benefits are at the tail: uncovering the impact of macroprudential policy on growth-at-risk. Working Paper 2007. Banco de España.

Chart 1
IMPACT OF ACTIVATING THE CCyB ON THE 5TH AND 50TH PERCENTILES OF THE GDP GROWTH DISTRIBUTION AT HORIZONS BETWEEN 1 AND 16 QUARTERS (a)

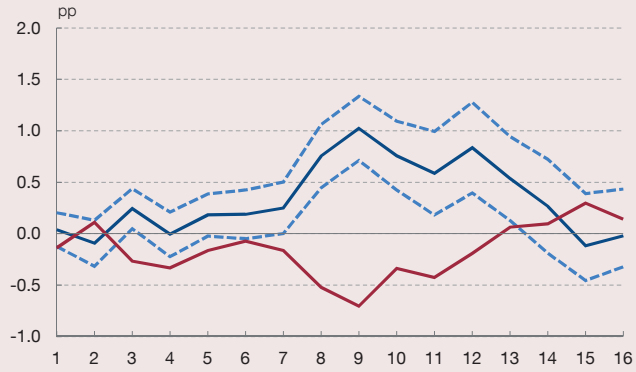


Chart 2
IMPACT OF RELEASING THE CCyB ON THE 5TH AND 50TH PERCENTILES OF THE GDP GROWTH DISTRIBUTION AT HORIZONS BETWEEN 1 AND 16 QUARTERS (a)

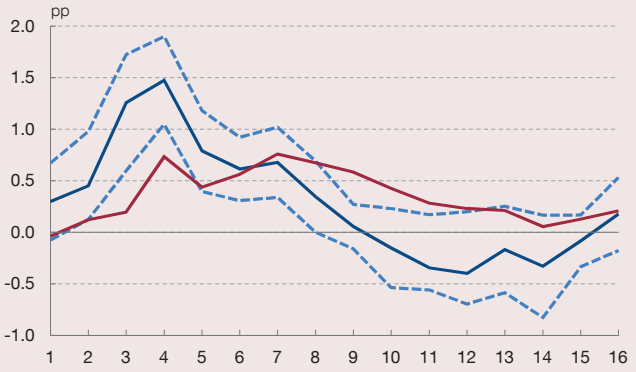
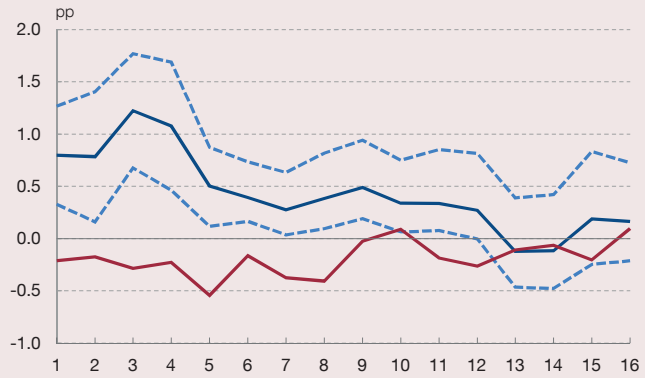
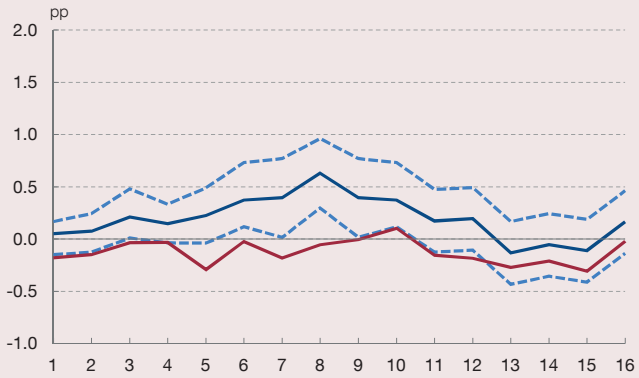


Chart 3
IMPACT OF LENDING CONDITIONS ON THE 5TH AND 50TH PERCENTILES OF THE GDP GROWTH DISTRIBUTION AT HORIZONS BETWEEN 1 AND 16 QUARTERS (a)

3.1 TIGHTENING OF LIMITS TO LENDING CONDITIONS IN EXPANSIONARY PERIODS



3.2 EASING OF LIMITS TO LENDING CONDITIONS IN PERIODS OF FINANCIAL CRISIS



SOURCES: Banco de España estimates using ECB and BIS data.

a The solid blue and red lines represent the estimated impact in percentage points on the 5th and 50th percentiles, respectively, of the conditional distribution of GDP growth. The dotted blue lines represent the 95% confidence bands, obtained through the use of bootstrapping. The analysis is conducted for a sample of 28 EU countries. The periods of crisis are those identified by the national authorities as significant systemic events from a macroprudential viewpoint and published on the ECB/ESRB EU crises database (for further details, see Lo Duca, M., Koban, A., Basten, M., Bengtsson, E., Klaus, B. and Kusmierczyk, P. (2017). *A new database for financial crises in European countries. ECB/ESRB EU crises database*. ESRB Occasional Paper Series 13, July). Expansionary or normal periods are those outside a crisis. Capital measures (provisioning and capital requirements, including buffers) are captured by means of a cumulative index which distinguishes between activation or tightening and release or easing of measures (for further details, see Galán J.E. (2020). *The benefits are at the tail: uncovering the impact of macroprudential policy on growth-at-risk*. Working Paper 2007. Banco de España).

Annex 1

CONSOLIDATED BALANCE SHEET
DEPOSIT INSTITUTIONS

Assets	Dec-19	Change Dec-19/Dec-18	Relative weight Dec-18	Relative weight Dec-19
	€m	%	%	%
Cash and balances with central banks	234,064	-9.3	7.3	6.4
Loans and advances to credit institutions	217,004	13.4	5.4	5.9
General government	95,794	-1.3	2.7	2.6
Other private sectors	2,168,807	4.8	58.4	59.2
Debt securities	496,121	0.2	14.0	13.5
Other equity instruments	41,243	23.7	0.9	1.1
Investments	27,308	8.8	0.7	0.7
Derivatives	139,354	4.1	3.8	3.8
Tangible assets	65,222	32.0	1.4	1.8
Other	181,694	-5.6	5.4	5.0
TOTAL ASSETS	**3,666,611**	**3.4**	**100.0**	**100.0**
MEMORANDUM ITEMS				
Financing to private sector	2,248,733	4.3	60.8	61.3
Financing to general government	484,924	1.2	13.5	13.2
Total NPLs	86,979	-12.6	2.8	2.4
Total NPL ratio	2.8	-15 (b)		

Liabilities and equity	Dec-19	Change Dec-19/Dec-18	Relative weight Dec-18	Relative weight Dec-19
	m€	%	%	%
Balances from central banks	192,372	-17.9	6.6	5.2
Deposits from credit institutions	287,531	4.9	7.7	7.8
General government	105,238	0.7	2.9	2.9
Other private sectors	2,071,103	4.8	55.8	56.5
Marketable debt securities	437,020	7.0	11.5	11.9
Derivatives	132,542	4.1	3.6	3.6
Provisions for pensions, tax and other	29,950	-2.6	0.9	0.8
Other	139,316	8.4	3.6	3.8
TOTAL LIABILITIES	**3,395,072**	**3.4**	**92.6**	**92.6**
MEMORANDUM ITEMS				
Eurosystem net lending (a)	132,713	-20.8	4.7	3.6
Own funds	278,173	3.7	7.6	7.6
Minority interests	21,999	-1.2	0.6	0.6
Valuation adjustments relating to total equity	-28,633	-3.7	-0.8	-0.8
TOTAL EQUITY	**271,539**	**4.2**	**7.4**	**7.4**
TOTAL LIABILITIES AND EQUITY	**3,666,611**	**3.4**	**100.0**	**100.0**

SOURCE: Banco de España.

a Difference between funds received in liquidity-providing operations and funds delivered in absorbing operations. December 2019 data.
b Difference calculated in basis points.

Annex 2

CONSOLIDATED INCOME STATEMENT
DEPOSIT INSTITUTIONS

	Dec-19		Dec-18	Dec-19
	€m	% Change Dec-19/Dec-18	% ATA	% ATA
Financial revenue	112,933	3.4	3.09	3.13
Financial costs	39,975	5.7	1.07	1.11
Net interest income	72,959	2.3	2.02	2.02
Return from capital instruments	1,233	20.4	0.03	0.03
Net financial income	74,192	2.5	2.05	2.06
Share of profit or loss of entities accounted for using the equity method	3,073	-16.3	0.10	0.09
Net commissions	27,290	3.0	0.75	0.76
Gains and losses on financial assets and liabilities	4,204	-10.0	0.13	0.12
Other operating income (net)	-3,023	—	-0.08	-0.08
Gross income	105,736	1.4	2.95	2.93
Operating expenses	54,985	3.4	1.50	1.52
Net operating income	50,751	-0.6	1.44	1.41
Asset impairment losses (specific and general provisions)	16,589	8.3	0.43	0.46
Provisioning expense (net)	5,128	36.7	0.11	0.14
Income from disposals (net)	-2,192	—	-0.03	-0.06
Profit before tax (including discontinued operations)	26,844	-12.9	0.87	0.74
Net income	18,822	-13.1	0.61	0.52
MEMORANDUM ITEM				
Income attributable to the controlling entity	16,170	-14.8	0.54	0.45

SOURCE: Banco de España.

BANCO DE ESPAÑA PUBLICATIONS

The Banco de España publishes various types of documents that provide information on its activity (economic reports, statistical information, 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.

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SYMBOLS AND ABBREVIATIONS

€	Euro
€STR	Euro short-term rate
APM	Asset performance management
AT1	Additional Tier 1
ATA	Average total assets
AUC-ROC	Area under the curve - receiver operating characteristics
BCBS	Basel Committee on Banking Supervision
bn	Billions of euro
bp	Basis points
CBSO	Banco de España Central Balance Sheet Data Office
CCB	Capital conservation buffer
CCBS	Cross-currency basis swap
CCP	Central clearing counterparty
CCR	Banco de España Central Credit Register
CCyB	Countercyclical capital buffer
CEAOB	Committee of European Auditing Oversight Bodies
CET1	Common Equity Tier 1 capital
CJEU	Court of Justice of the European Union
CNMV	Comisión Nacional del Mercado de Valores (National Securities Market Commission)
COVID-19	Coronavirus disease 2019
CRD	Capital Requirements Directive
CRE	Commercial real estate
CRR	Capital Requirements Regulation
CSPP	Corporate Sector Purchase Programme
DFR	Deposit facility rate
DTA	Deferred tax asset
E	Equity
EBA	European Banking Authority
EBITDA	Earnings before interests, depreciation and amortisation
ECB	European Central Bank
EEA	European Economic Area
EF	Economic Function
EFF	Encuesta Financiera de las Familias (Spanish household financial survey)
EIB	European Investment Bank
EMCI	Emerging markets currency index
EMIR	European Market Infrastructure Regulation
ERTE	Expendiente de regulación temporal de empleo (temporary layoff arrangements)
ESM	European Stability Mechanism
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
EU	European Union
FASE	Financial Accounts of the Spanish economy
FSB	Financial Stability Board
FSR	Financial Stability Report
GDI	Gross disposable income
GDP	Gross domestic product
G-SII	Global systemically important institution
ICO	Instituto Oficial de Crédito (Official Credit Institute)
ID	Data obtained from individual financial statements
IFRSs	International Financial Reporting Standards
IIP	International investment position
IMF	International Monetary Fund
INE	Instituto Nacional de Estadística (National Statistics Institute)
INVERCO	Asociación de Instituciones de Inversión Colectiva y Fondos de Pensiones (Spanish Association of Investment and Pension Funds)
IRB	Internal ratings-based approach
IRPH	Índice de referencia de préstamos hipotecarios (mortgage loan reference index)
LCR	Liquidity coverage ratio
LCS	Living Conditions Survey
LGD	Loss given default
LTP	Loan-to-price
LTRO	Longer-Term Refinancing Operations
LTV	Loan-to-value
m	Millions of euro
ML	Machine learning
MMSR	Money Market Statistical Reporting
MPE	Macroeconomic Projection Exercise
MREL	Minimum Requirement for own funds and Eligible Liabilities
MUNFI	Monitoring Universe of Non-bank Financial Intermediation
NBFI	Non-banking financial intermediation
NPL	Non-performing loan
OFI	Other financial institutions
OPEC	Organization of the Petroleum Exporting Countries
O-SII	Other systemically important institutions
P2G	Pillar 2 guidance
P2R	Pillar 2 requirement
PD	Probability of default
PEMEX	Petróleos Mexicanos (Mexican Petroleum)
PEPP	Pandemic Emergency Purchase Programme
PER	Price earnings ratio
PMI	Purchasing Managers' Index
pp	Percentage points
Q	quarter
ROA	Return on assets
ROE	Return on equity
RORWA	Return on risk-weighted assets
ROTE	Return on tangible equity
RWA	Risk-weighted asset
SC	Spanish Supreme Court
SHS	Securities holdings statistics by sector
SHSS	Securities holdings statistics by sector
SLI	Specialised lending institution
SRB	Single Resolution Board
SMEs	Small and medium-sized enterprises
SREP	Supervisory review and evaluation process
SRI	Systemic risk indicator
SRM	Single Resolution Mechanism
SSM	Single Supervisory Mechanism
SyRB	Systemic risk buffer
T2	Tier 2
TA	Total assets
TLTRO	Targeted Longer-Term Refinancing Operations
TTS	Two-tier system
US OIS	US Dollar Overnight Interest Swap
USD	United States dollar
WEO	World Economic Outlook
UEM	Unión Económica y Monetaria
USD	United States dollar
WG-RFR	Working group on euro risk-free rates

ISO COUNTRY CODES

AT	Austria	DE	Germany	IE	Ireland	NL	Netherlands
AU	Australia	DK	Denmark	IT	Italy	NO	Norway
BE	Belgium	EE	Estonia	JP	Japan	PL	Poland
BG	Bulgaria	ES	Spain	KR	South Korea	PT	Portugal
BR	Brazil	FI	Finland	KY	Cayman Islands	RO	Romania
CA	Canada	FR	Francia	LT	Lithuania	SE	Sweden
CH	Switzerland	GB	United Kingdom	LU	Luxembourg	SI	Slovenia
CL	Chile	GR	Greece	LV	Latvia	SK	Slovakia
CN	China	HR	Croatia	MT	Malta	TR	Turkey
CY	Cyprus	HU	Hungary	MX	Mexico	US	United States
CZ	Czech Republic						