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RECENT DEVELOPMENTS IN FINANCING AND BANK  
LENDING TO THE NON-FINANCIAL PRIVATE SECTOR.  
FIRST HALF OF 2021

Pana Alves, Jorge Galán, Luis Fernández Lafuerza  
and Eduardo Pérez Asenjo

## ABSTRACT

Financing conditions for households and firms remained accommodating in the first half of 2021. Improved macroeconomic expectations from the second quarter of the year have allowed credit standards to cease tightening, at the same time as demand for loans has picked up, particularly among households. This has contributed to an increase in the flow of loans as compared with end-2020, especially loans for house purchase. However, up to May (latest available figure) this growth in new financing has not translated into an acceleration of total outstanding household and corporate debt. In the sectors hardest hit by the pandemic, total outstanding bank lending to firms and sole proprietors grew moderately in the initial months of 2021. However, the cumulative growth since the onset of the pandemic has been sizeable as a result of the hefty liquidity needs in 2020, which were covered through increased debt. The significant adverse impact of the COVID-19 pandemic on economic activity is yet to be reflected in a broad-based increase in non-performing loans on deposit institutions' balance sheets. However, Stage 2 credit remained on a rising trajectory in 2021 Q1, with loans to the hardest-hit sectors of economic activity accounting for the lion's share. Non-performing loans also grew in these sectors, albeit by a lesser amount.

**Keywords:** financing, lending, households, non-financial corporations, deposit institutions, non-performing loans, public guarantees.

**JEL classification:** E44, E51, G21, G23, G28.

## RECENT DEVELOPMENTS IN FINANCING AND BANK LENDING TO THE NON-FINANCIAL PRIVATE SECTOR. FIRST HALF OF 2021

The authors of this article are Pana Alves of the Directorate General Economics, Statistics and Research, and Jorge Galán, Luis Fernández Lafuerza and Eduardo Pérez Asenjo of the Directorate General Financial Stability, Regulation and Resolution.

### Introduction

This article examines recent developments in funds raised by the Spanish non-financial private sector from an aggregate standpoint and resident deposit institutions' (DIs) credit exposure to this sector.<sup>1</sup> The article also includes an analysis of the quality of the credit on DIs' balance sheets, with a particular focus on changes in non-performing loans (NPLs). Lastly, the article includes a box analysing the capital available to European banks to sustain the flow of credit and the factors that may potentially limit its effective use, in particular the sector's moderate profitability and the high cost of capital.

### Funds raised by the non-financial private sector

During 2021 H1, financing conditions for firms and households remained accommodating, against a backdrop of the ECB maintaining its accommodative monetary policy stance. Thus, the average interest rates applied to new lending to households and firms stood at historically low levels, albeit with slight increases or decreases in the different segments. While the cost of loans to households for house purchase and of loans of up to €1 million to non-financial corporations (NFCs) declined further, reaching all-time lows in May (latest available figure), that of loans in the rest of the segments rose slightly, by around 10 basis points (bp) (see Chart 1.1). These developments, along with the increase in risk-free rates,<sup>2</sup> which has been far more pronounced in long maturities, have translated into a narrowing of interest rate spreads between bank loans and most other segments. This narrowing has been particularly marked in fixed-rate mortgage lending, reflecting the fact that banks have scarcely passed higher market interest rates through to the final cost of these loans (see Chart 1.2).

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1 In these two approaches developments will not necessarily be identical, since households and non-financial corporations do not obtain funding from these financial intermediaries alone. Households, in particular, may also obtain credit from specialised lending institutions (SLIs), especially consumer credit, while non-financial corporations may tap capital markets by issuing corporate debt. For a detailed explanation of the differences between the two approaches and other statistical aspects, see Box 1, "Statistical information for the analysis of outstanding balances of financing and credit", in Alves et al. (2019).

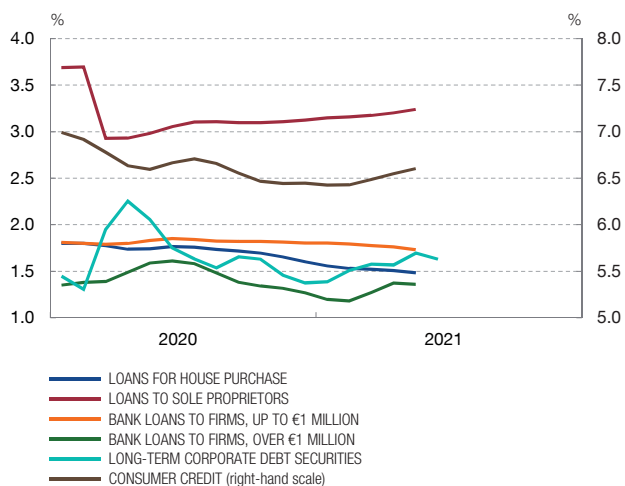
2 Risk-free interest rates are proxied by the swap rate curve.

Chart 1

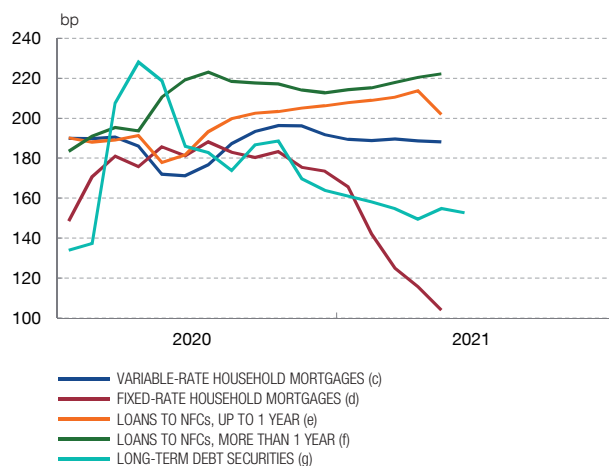
**HOUSEHOLDS' AND FIRMS' FINANCING COSTS HELD AT LOW LEVELS, WITH MORE FAVOURABLE CREDIT SUPPLY AND DEMAND DEVELOPMENTS OBSERVED IN RECENT MONTHS (a)**

The average cost of bank financing to the non-financial private sector has held at low levels, with slight increases and decreases across the different segments. Spreads against market interest rates have narrowed in most cases, particularly in fixed-rate mortgage loans. The average cost of debt securities issuance has risen on account of higher risk-free interest rates. The July Bank Lending Survey suggests that credit standards have ceased tightening at the same time as demand has recovered, particularly household demand. All of which would reflect an improved macroeconomic outlook.

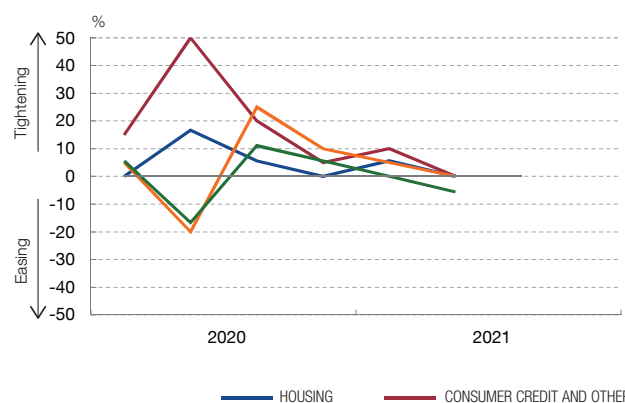
1 COST OF FINANCING: NON-FINANCIAL PRIVATE SECTOR (b)



2 COST OF FINANCING: SPREADS AGAINST RISK-FREE INTEREST RATES (b)



3 BLS: CHANGE IN CREDIT STANDARDS (h)



4 BLS: CHANGE IN DEMAND FOR LOANS (i)



SOURCES: Refinitiv Datastream and Banco de España.

- a Credit transactions include those with DIs and with SLIs.
- b Bank lending rates are NDERs (narrowly defined effective rates), i.e. they exclude related charges, such as repayment insurance premiums and fees. They are also trend-cycle interest rates, i.e. they are adjusted for seasonal and irregular components (small changes in the series with no recognisable pattern in terms of periodicity or trend).
- c Spread over the 12-month EURIBOR of the previous month.
- d Spread over the 20-year interest rate swap of the same month.
- e Spread over the 3-month EURIBOR of the previous month.
- f Spread over the 3-year interest rate swap of the same month.
- g Spread over the 10-year interest rate swap of the same month.
- h Indicator = percentage of institutions that have tightened their credit standards considerably  $\times$  1 + percentage of institutions that have tightened their credit standards somewhat  $\times$  1/2 – percentage of institutions that have eased their credit standards somewhat  $\times$  1/2 – percentage of institutions that have eased their credit standards considerably  $\times$  1.
- i Indicator = percentage of institutions reporting a considerable increase  $\times$  1 + percentage of institutions reporting some increase  $\times$  1/2 – percentage of institutions reporting some decrease  $\times$  1/2 – percentage of institutions reporting a considerable decrease  $\times$  1.



The average cost of long-term debt issues by NFCs climbed by some 25 bp in 2021 H1 (to 1.6% in June), up 30 bp on pre-health crisis levels. This rise owes more to developments in risk-free interest rates than to the higher risk premium. Indeed, this premium, proxied by the spread against the swap rate for the same maturity, declined by some 10 bp.

According to the Bank Lending Survey<sup>3</sup> (BLS), credit standards tightened again, albeit marginally, in January-March 2021, owing to increased risk perception among lenders, thus extending the pattern of previous quarters (see Chart 1.3). By contrast, in April-June credit standards remained unchanged, and even eased slightly in financing to large firms. This stabilisation could owe to the incipient improvement in macroeconomic expectations, which appears to have interrupted the pattern of deteriorating risk perception among banks. The BLS, taken as a whole, also indicates looser credit conditions for loans extended in 2021 H1. This appears to be reflected in lower margins on average loans, particularly loans for house purchase, in keeping with the interest rate information discussed above.

In line with the credit supply tightening indicated by the BLS in late 2020 and early 2021, according to the latest round of the ECB survey on the access to finance of enterprises in the euro area (SAFE), between October 2020 and March 2021 the proportion of Spanish SMEs that experienced difficulties in obtaining bank financing increased by 3 percentage points (pp) to 11%.<sup>4</sup>

By contrast, the BLS suggests a recent change in trend in households' and firms' demand for financing. Thus, following the declines of previous quarters, in April-June loan applications picked up across nearly all segments, with the exception of loans to large firms, which again declined slightly. The upturn in demand was particularly robust in the households segment (see Chart 1.4). This more buoyant demand would be in keeping with the recovery in economic activity.

Recent developments in new lending show a recovery profile in most segments that would be consistent with the less restrictive credit supply trends and increased demand for loans in 2021 Q2 indicated by the BLS. In keeping with the stronger pick-up in households' demand for funds, the growth in new lending to this sector has been more robust, particularly in loans for house purchase<sup>5</sup> (see Chart 2.1). New lending to productive activities also shows a recovery pattern relative to end-2020, except in loans exceeding €1 million, where there was a slight decline consistent with the lower demand for financing among large firms indicated by the BLS (see Chart 2.2). Despite the recent recovery in the volume of new loans, in most segments the levels remain short of those recorded in 2019 (prior to the

3 See Menéndez and Mulino (2021a).

4 See Box 4, "Recent developments in Spanish SMEs' access to external finance according to the ECB's six-monthly survey", in Quarterly report on the Spanish economy, *Economic Bulletin*, 2/2021, Banco de España.

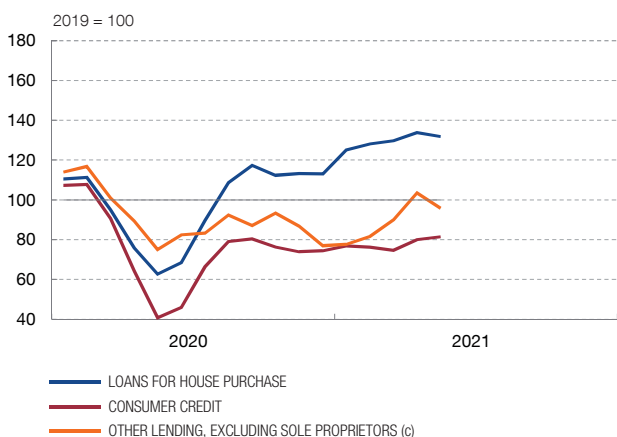
5 Excluding new lending to sole proprietors.

Chart 2

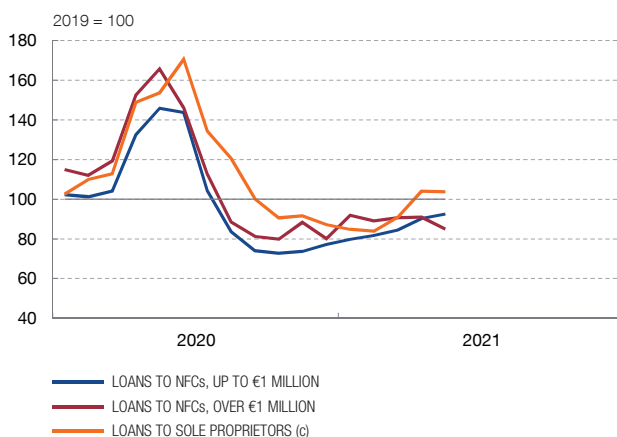
**IN RECENT MONTHS, NEW LENDING HAS SHOWN GREATER BOUYANCY IN MOST SEGMENTS, ALTHOUGH THIS HAS NOT GENERALLY BEEN REFLECTED IN FASTER GROWTH OF OUTSTANDING DEBT BALANCES**

In 2021 to date, new lending has grown in the majority of segments, and more intensely in lending to individuals. Despite this, new lending exceeds 2019 levels (prior to the outbreak of the pandemic) only in loans for house purchase and, to a lesser extent, to sole proprietors. The outstanding balance of lending to households has continued to expand, albeit at more moderate rates, while growth in the outstanding balance of financing to NFCs has slowed.

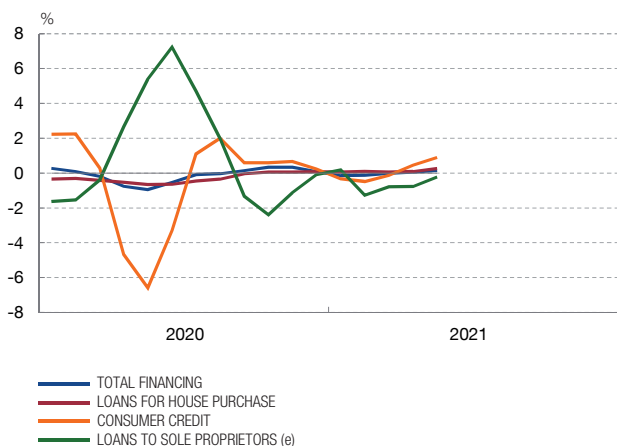
1 NEW LENDING TO INDIVIDUALS (a)  
3-month cumulative flows (b)



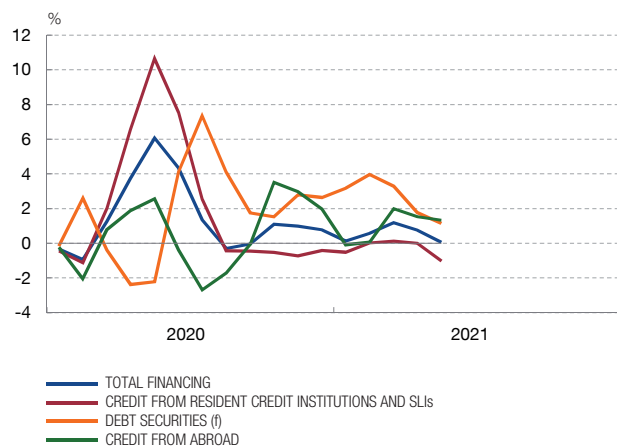
2 NEW LENDING TO PRODUCTIVE ACTIVITIES (a)  
3-month cumulative flows (b)



3 FINANCING TO HOUSEHOLDS. OUTSTANDING AMOUNTS (a)  
Q-o-q change (d)



4 FINANCING TO NFCs. OUTSTANDING AMOUNTS (a)  
Q-o-q change (d)



SOURCE: Banco de España.

- a Bank financing series include financing granted by DIs and SLIs.
- b Flows presented relative to the same month in 2019.
- c Includes renegotiations of previous loans.
- d Seasonally adjusted rates.
- e Excludes securitised lending.
- f Includes issues by resident subsidiaries of NFCs.



outbreak of the pandemic). The main exception here is loans for house purchase, whose flow in recent months have stood at clearly higher levels than observed pre-health crisis. On the BLS data, the growth in lending for house purchase has not come in step with an easing of credit standards, although, as mentioned above, interest rate margins have narrowed somewhat. The volume of new lending to sole

proprietors has also exceeded pre-pandemic levels in recent months, albeit to a lesser extent.

Another notable aspect of recent developments in bank lending to productive activities is the decline in the share of loans channelled through the ICO facilities launched in the context of the COVID-19 crisis.<sup>6</sup> In the first five months of 2021 these facilities accounted for just 10% of the total volume of loans to NFCs and sole proprietors, compared with around 50% during the first five months of the pandemic (March-July 2020). The results of the July BLS<sup>7</sup> for 2021 H1 as a whole indicate that the waning prominence of ICO facilities owes, at least in part, to lower demand for such loans, amid a drop in firms' short-term liquidity needs and less willingness to build up liquidity buffers as the uncertainty gradually abates. At end-June, the guarantees still available under these facilities amounted to around €40 billion,<sup>8</sup> with the application deadline having been extended to 31 December 2021.<sup>9</sup>

The recovery in recent months in the volume of new lending, as compared with end-2020, has not, up to May (latest information available), translated into faster growth of households' and firms' outstanding debt balance. This apparent disconnect between developments in the amount of new lending and outstanding balances could be explained by increased repayments. The latter may owe, for example, to some loan moratoria expiring and to some households and firms, which had built up sizeable liquidity buffers last year in the form of deposits, using a portion of these to reduce their debt, in keeping with the current context of less uncertainty.<sup>10</sup> Recent developments in the outstanding balance of financing raised by households evidence moderate growth similar to that observed at end-2020. Specifically, the seasonally adjusted quarter-on-quarter growth rate<sup>11</sup> stood at 0.1% in May (latest available figure), matching the end-2020 level (see Chart 2.3). This stemmed from the faster quarter-on-quarter growth of loans for house purchase (0.3% in May, up 0.2 pp on December) and consumer credit (growing 0.9% quarter-on-quarter in May, compared with 0.2% five months previously), which was offset by the sharper contraction in other lending.

The amount of financing raised by productive activities reflects a loss of momentum in the first five months of 2021 (see Chart 2.4). Thus, in seasonally adjusted quarter-on-quarter terms, the rate of decline in the outstanding amount of sole proprietors'

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6 See [Royal Decree-Law 8/2020](#) of 17 March 2020 on the urgent extraordinary measures to address the economic and social impact of COVID-19, and [Royal Decree-Law 25/2020](#) of 3 July 2020 on urgent measures to support the economic recovery and employment.

7 The July BLS included a question on supply and demand in relation to guaranteed loans. For further details, see [Menéndez and Mulino \(2021a\)](#).

8 See the [Guarantee facility monitoring report](#) of 30 June 2021.

9 See [Royal Decree-Law 5/2021](#) of 12 March 2021 on extraordinary measures to support business solvency in response to the COVID-19 pandemic.

10 For evidence of firms' recent use of liquidity buffers, see [Menéndez and Mulino \(2021b\)](#).

11 These rates are calculated by comparing the amount for one month with that observed three months earlier and applying a seasonal-adjustment procedure.

bank debt stood 0.1 pp higher in May than at end-2020. In addition, despite the pick-up in new lending activity, the quarter-on-quarter rate of contraction in the stock of credit extended by resident financial institutions to NFCs also increased, standing at 1% in May (up 0.4 pp on December 2020), which may partially be explained by an increase in the volume of repayments, as commented above. For its part, the rate of growth of business financing via corporate debt issuances has moderated, reaching a quarter-on-quarter rate of 1.1% in May, compared with 2.6% five months previously. Similarly, financing from abroad, which is usually more volatile, also decelerated to 1.3% quarter-on-quarter in May. As a result of these developments, the balance of total financing raised by NFCs continued to grow, albeit at a slower pace (0.1% quarter-on-quarter in May, down 0.7 pp on end-2020).

## Lending by the resident banking sector

The outstanding amount of lending by DIs to the resident private sector in Spain held relatively stable between 2020 Q3 and the initial months of 2021 (see Chart 3.1). However, a year-on-year increase of 2.7% is observed between March 2020 and March 2021 (see Chart 3.1). This rise is in line with the year-on-year growth observed since 2020 Q2, which has ranged between 2.5% (June 2020) and 3.5% (December 2020).<sup>12</sup> Naturally, this credit performance has been highly influenced by the health crisis, which raised firms' and sole proprietors' financing needs, and by the significant raft of measures implemented by authorities to mitigate the economic and social impact of the COVID-19 pandemic. Chart 3.2 shows, from March 2019, a shift to the right (moving from mostly negative values to mostly positive values) in the distribution of the year-on-year rates of change in lending to the resident private sector, indicating that the increase observed in the stock of credit has been widespread among institutions. Data for the months after March 2021 show that this rate of year-on-year growth in the stock of lending to the private sector has progressively eased (turning negative in May), due to the disappearance of the pre-pandemic level base effect.

Developments in the stock of lending have varied across institutional sectors in the quarters since the outbreak of the pandemic. On the one hand, lending to NFCs and sole proprietors grew 6.8% year-on-year up to March 2021, somewhat below, but still in line with, the increases observed since June 2020. However, the year-on-year decline observed in May 2021 in the stock of lending to the overall private sector owed in particular to this sector's recent contractionary behaviour. On the other hand, lending to households continued to shrink year-on-year, albeit at a steadily declining rate, with the March 2021 year-on-year rate of change standing just below 0% (-0.2%). In April and May, bank lending to households began to rise as compared with the same months of 2020.

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<sup>12</sup> The growth in December 2020 is affected by the absorption of an SLI by a significant DI. The year-on-year growth in December 2020 excluding this operation is 2.9%.

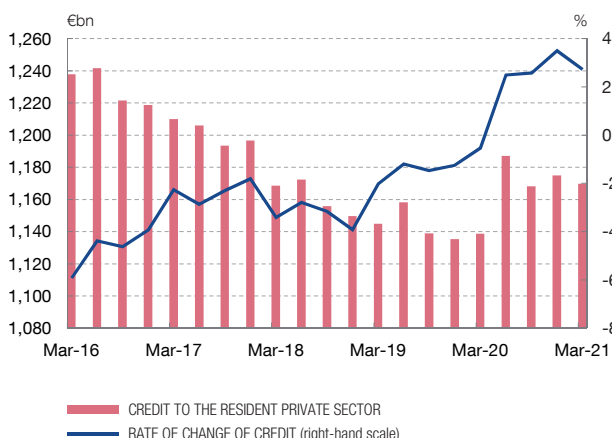


Chart 3

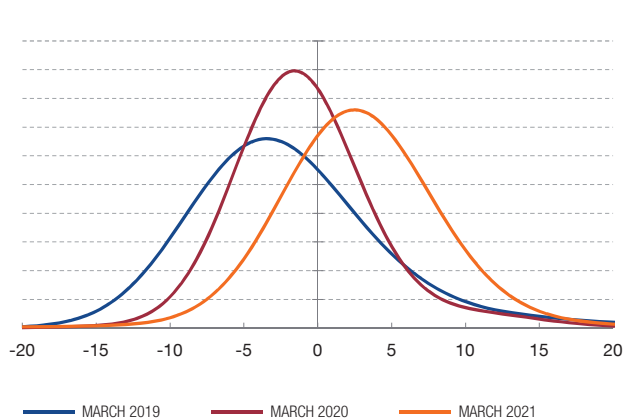
**THE STOCK OF LENDING TO THE RESIDENT PRIVATE SECTOR PRESENTED YEAR-ON-YEAR GROWTH IN EARLY 2021, BUT ITS LEVEL HAS REMAINED RELATIVELY STABLE SINCE 2020 Q3**

In March 2021, the outstanding balance of credit to the resident private sector in Spain grew by 2.7% year-on-year, declining slightly as compared with the December growth, but in line with the year-on-year expansion observed since mid-2020. This growth in the stock of credit in recent quarters has been widespread among institutions. However, the base effect of the outbreak of the pandemic must be taken into account, with the level of stock holding relatively stable since 2020 Q3.

1 VOLUME OF CREDIT AND Y-O-Y RATE OF CHANGE. DIs



2 DISTRIBUTION OF THE RATE OF CHANGE IN CREDIT (a)



SOURCE: Banco de España.

a The charts show the density function of the year-on-year rate of change in Spanish DIs' stock of credit, weighted by the credit stock amount. This density function is approximated through a kernel estimator which allows a non-parametric estimate of the density function, yielding a continuous and smoothed graphical representation of that function.



One of the factors spurring growth in the outstanding amount of credit extended to NFCs and sole proprietors following the outbreak of the pandemic was the ICO-managed public guarantee scheme,<sup>13</sup> which was geared to ensure these agents' liquidity needs. Chart 4.1 shows developments in the stock of lending to NFCs and sole proprietors up to 2021 Q1, divided into two periods: (i) from end-March to December 2020; and (ii) 2021 Q1. In March-December 2020, the stock increased by almost €31 billion and drawdowns of new business lending secured by public guarantee amounted to €93.5 billion; thus, the net change in the rest of the stock would have been a negative €62.6 billion in that same period. The same trend is observed in 2021 Q1, albeit with far smaller amounts. The increase of €5.4 billion in lending backed by ICO guarantee facilities was virtually offset by the decline of €4.6 billion in the outstanding amount of non-ICO lending to NFCs and sole proprietors. Accordingly, the stock increased by just €0.8 billion in the last quarter. The lesser prominence of lending under the guarantee scheme in 2021 and the

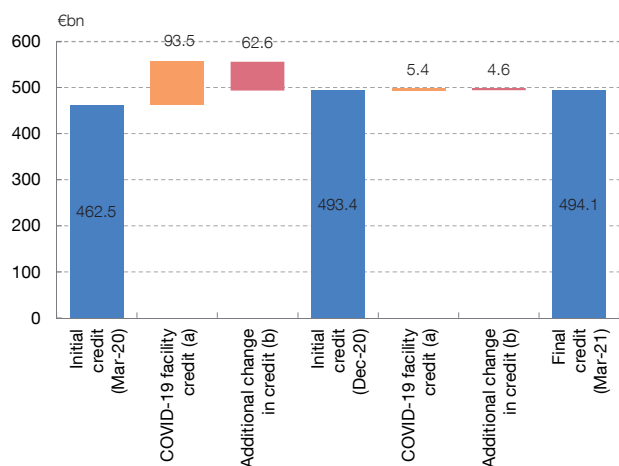
13 See [Royal Decree-Law 8/2020](#) of 17 March 2020 on urgent extraordinary measures to address the economic and social impact of COVID-19, which establishes a guarantee scheme for a maximum amount of €100 billion. Additionally, [Royal Decree-Law 25/2020](#) establishes a second guarantee facility to support business investment, for a maximum amount of €40 billion.

Chart 4

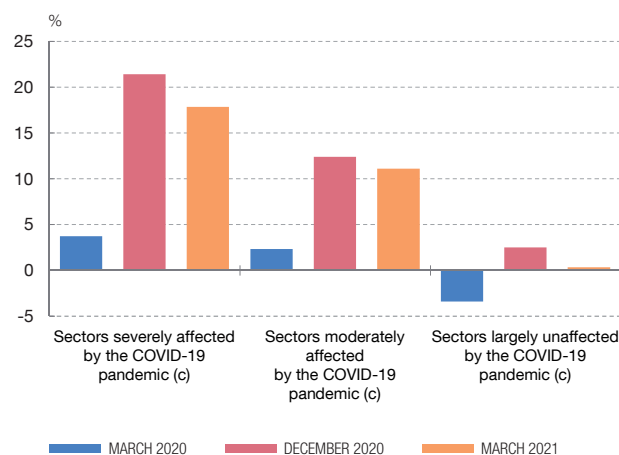
**GROWTH IN CREDIT TO NFCs AND SOLE PROPRIETORS HAS BEEN MORE MARKED IN THE SECTORS HARDEST HIT BY THE PANDEMIC, WITH A VERY LOW AMOUNT DRAWN UNDER THE GUARANTEE FACILITY IN 2021 Q1**

Drawdowns of business credit secured by public guarantee amounted to €5.4 billion in 2021 Q1, compared with more than €93 billion extended in March-December 2020. Lending to sectors severely affected by the pandemic grew by nearly 18% year-on-year in March 2021 (compared with growth of 0.3% in the largely unaffected sectors).

1 CHANGE IN CREDIT TO NFCs AND SOLE PROPRIETORS BETWEEN MARCH 2020 AND MARCH 2021. DIs



2 YEAR-ON-YEAR RATE OF CHANGE IN CREDIT, BY SECTOR. DIs



SOURCES: Instituto de Crédito Oficial and Banco de España.

- a COVID-19 guarantee facility under RDL 8/2020 up to €100 billion, extended by a further €40 billion by RDL 25/2020. The total guaranteed credit granted up to March 2021 amounted to €123.6 billion, with nearly €99 billion actually drawn down by NFCs and sole proprietors.
- b The additional change in credit to NFCs and sole proprietors reflects the change in the stock of credit not explained by the implementation of the COVID-19 guarantee programme, which corresponds to the net difference between new lending outside the guarantee programme and repayments and write-offs.
- c The severely affected sectors include accommodation and food service activities, the manufacture of refined petroleum products, social services and entertainment, transportation and storage, and the manufacture of transport equipment. The moderately affected sectors include basic metals, the manufacture of machinery, other manufacturing, professional services, mining and quarrying, wholesale and retail trade, and repair of vehicles. The other productive activities comprise the group of largely unaffected sectors.



sluggishness of new non-ICO lending has generated a base effect from 2021 Q2, with a significant reduction in the year-on-year growth rates, as noted above.

To analyse the impact of the COVID-19 pandemic on DIs' credit exposure to NFCs and sole proprietors (and the quality of that credit), it is particularly worthwhile disaggregating the developments by business sector based on the extent to which they have been affected by the health crisis. Thus, three groups are identified, according to the intensity of the fall-off in turnover in 2020: (i) sectors severely affected by the pandemic (those whose sales fell by more than 15%);<sup>14</sup> (ii) moderately affected sectors (sales down by between 8% and 15%); and (iii) largely unaffected

14 The conditions for granting direct assistance under *Royal Decree-Law 05/2021* include turnover falling by more than 30%, but this threshold is assessed at individual firm level. Naturally, the severely affected sectors have a higher proportion of firms whose sales fell by more than 30%. However, such a decline may also occur at individual firms in other sectors which, on average, are less affected by the COVID-19 pandemic.

sectors (the rest).<sup>15</sup> Chart 4.2 shows how the impact on lending to each group differed in 2020 and again in early 2021. The sectors severely affected by the pandemic posted the strongest credit growth in 2020 (21.4% year-on-year), with that growth rate easing in 2021 Q1 (17.9%). Credit to the moderately affected sectors likewise grew in 2020 (12.4% to December 2020), albeit to a lesser extent than in the severely affected segment. This momentum only slightly abated in 2021 Q1 (11.1% year-on-year), with less intense base effects from the previous year probably explaining the smaller drop in lending growth to these sectors than to the severely affected group. Lastly, lending to the largely unaffected sectors grew more moderately in 2020 (2.5%) and stood at just 0.3% year-on-year in 2021 Q1, indicating a quarterly loss of momentum in lending to these sectors.

When the direct support measures for households and firms are eventually scaled back, the capacity of and incentives for DIs to provide financing to the non-financial private sector will be decisive for successfully normalising economic activity levels. Box 1 describes how banks in the main European countries have a substantial amount of capital to finance credit growth, but simultaneously face significant challenges in its effective use. Cases in point are their low profitability and the high cost of capital.

## Quality of bank lending

The significant adverse impact of the COVID-19 pandemic on economic activity has, as yet, not been clearly reflected in a broad-based impairment of credit quality on banks' balance sheets, proxied by NPL volumes. However, there are indications of some credit quality impairment in certain institutional sectors and sectors of activity, along with clear signs of latent credit impairment, proxied by Stage 2 exposures.<sup>16</sup>

At aggregate level, the volume of NPLs to the resident private sector fell by 4% year-on-year in March 2021 (similar to the 3.8% drop recorded in December 2020), with this rate of decline rising to 5% up to May 2021. However, since 2020 Q4 the year-on-year decline in NPLs to NFCs and sole proprietors has moderated significantly. Specifically, this year-on-year rate of contraction, which stood at 12% in September 2020 (20% in March 2020 and in previous quarters), eased to 1.8% in December 2020, 1.5% in March 2021 (see Chart 5.1) and 0.9% in May. NPLs extended to

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15 Based on this classification, the severely affected sectors include accommodation and food service activities, the manufacture of refined petroleum products, social services and entertainment, transportation and storage, and the manufacture of transport equipment; the moderately affected sectors include basic metals, the manufacture of machinery, other manufacturing, professional services, mining and quarrying, wholesale and retail trade, and repair of vehicles. Lastly, the largely unaffected sectors comprise the group of other productive activities.

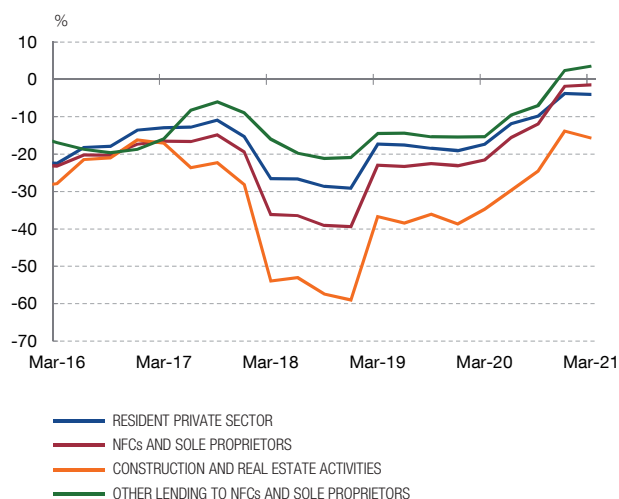
16 Pursuant to Circular 4/2017, a loan is classified as a Stage 2 exposure when credit risk has increased significantly since initial recognition, even though no event of default has occurred.

Chart 5

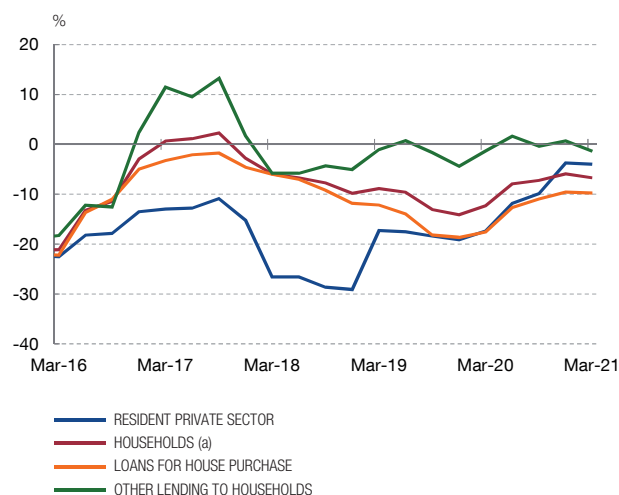
**ALTHOUGH NPLs CONTINUED TO DECLINE IN EARLY 2021, THE PACE OF CONTRACTION SLOWED FURTHER AND IN SOME SECTORS THEY BEGAN TO GROW**

NPLs to the resident private sector declined by 3.8% year-on-year in March 2021. However, while NPLs to households continued shrinking by 6.8% year-on-year, NPLs to firms declined by just 1.5%. Indeed, NPLs to businesses other than construction and real estate activities grew by 3.6% year-on-year. The NPL ratio for all institutional sectors declined year-on-year but held relatively stable in quarter-on-quarter terms.

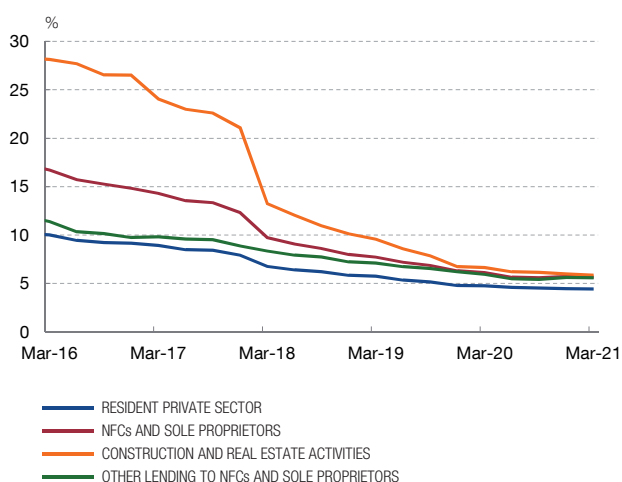
1 Y-O-Y RATE OF CHANGE IN NPLs, NFCs AND SOLE PROPRIETORS. Dis



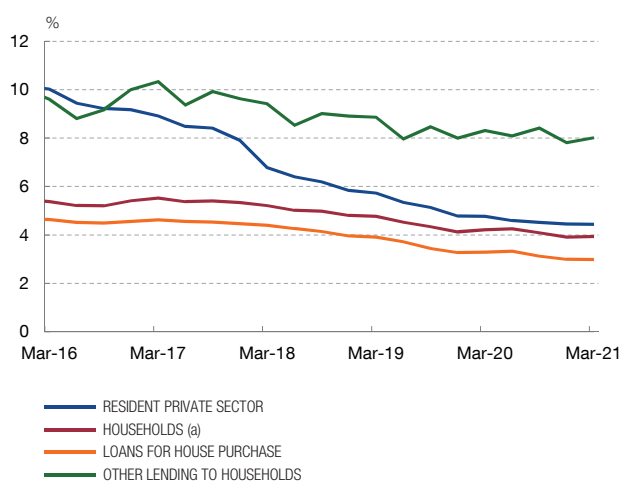
2 Y-O-Y RATE OF CHANGE IN NPLs, HOUSEHOLDS. Dis



3 NPL RATIO, LOANS TO NFCs AND SOLE PROPRIETORS. Dis



4 NPL RATIO, LOANS TO HOUSEHOLDS. Dis



SOURCE: Banco de España.

a Excluding lending for business activities, which is classified as lending to sole proprietors.



activities other than construction and real estate have already increased in year-on-year terms in the two quarters to March 2021 (2.4% in December 2020 and 3.6% in March 2021). Conversely, the rate of decline in NPLs extended to construction and real estate activities slowed from over 20% to around 15% in the two quarters to March 2021, furthering the balance-sheet clean-up that began in the wake of the global financial crisis.

By contrast, the year-on-year rate of decline in NPLs to households was more moderate, standing at 6.7% in March 2021 compared with 12.3% a year earlier (see Chart 5.2). The rate of contraction intensified in the subsequent months, standing at 9.5% in May. This performance essentially owes to developments in NPLs for house purchase (which, for example, declined by 9.8% in March 2021), although the pattern could change over the coming quarters since many of the moratoria granted during the health crisis are set to expire. By contrast, NPLs for purposes other than house purchase have held relatively steady (down by a slight 1.4% in March compared with a marginal increase of 0.7% in December). This comparative stability stems from mixed performances in the two components: growth in consumer NPLs (15.9% in March 2021, albeit down on the December growth figure)<sup>17</sup> and declining NPLs in other lending (such as for acquisition of garages, land, securities and debt consolidation).

The NPL ratio for the resident private sector, and the ratios for lending to NFCs and sole proprietors and lending to households, remained in decline up to March 2021. However, the ratio held relatively stable in the second quarter in the portfolios of all institutional sectors (see Charts 5.3 and 5.4). As a result of the above-mentioned decrease in NPLs and the growth in lending (both year-on-year), the NPL ratio for the resident private sector fell by 31 bp up to 2021 Q1. Thus, in March 2021 the ratio stood at 4.4%, matching the December 2020 level. Conversely, in the subsequent two months the ratio climbed by 0.1 pp, to stand at 4.5% in May.

Along the same lines, the NPL ratio for NFCs and sole proprietors fell by almost 0.5 pp up to 2021 Q1, dropping from 6.1% in March 2020 to 5.6% in March 2021. However, the NPL ratio had already reached the latter level in June 2020, meaning it has held relatively stable in the last three quarters. A slight increase was observed in May 2021, to 5.8%. Breaking down its components, the NPL ratio for activities other than construction and real estate rose slightly in June-December 2020 and has held stable since.

In loans to households, the drop in NPLs coupled with the relative stability of lending to the segment since March 2020 meant that its NPL ratio likewise declined during the year (by 0.3 pp to 3.9% in March 2021). This ratio has held stable in the subsequent months (on data available to May).

For a more in-depth analysis of the impact of the COVID-19 crisis on recent developments in DIs' credit quality, Charts 6.1 and 6.2 present the year-on-year rate of change (at various points in time) in Stage 2 loans and NPLs, respectively, to firms and sole proprietors. These are presented for the three groups of sectors (severely affected, moderately affected and largely unaffected by the pandemic) defined in the above section. There are evident differences between the three groups in the

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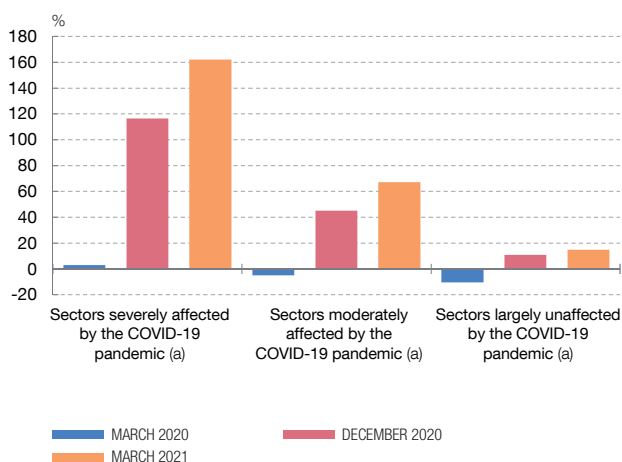
<sup>17</sup> The absorption of an SLI by a significant DI, referred to in footnote 12, likewise contributes towards NPL growth.

Chart 6

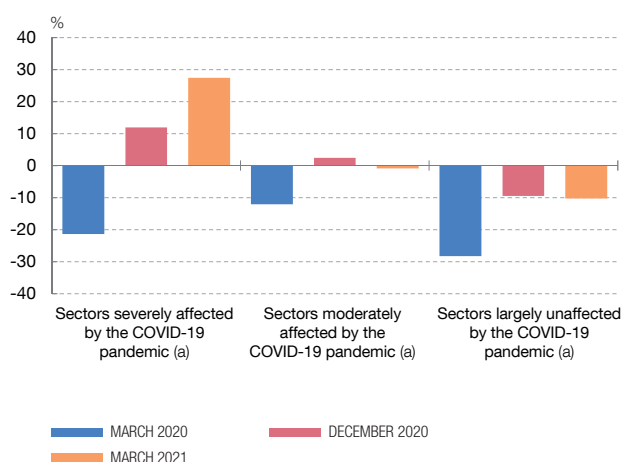
**TO DATE, THE IMPACT OF THE PANDEMIC ON CREDIT QUALITY DIFFERS WIDELY AMONG THE VARIOUS SECTORS OF ACTIVITY**

The sectors severely affected by the pandemic show a very considerable increase in Stage 2 loans, and notable growth in NPLs has begun to be observed. A significant increase in Stage 2 loans is likewise observed in the moderately affected sectors, although NPLs have not yet started to grow. Lastly, the largely unaffected sectors present no growth in Stage 2 loans or NPLs.

1 Y-O-Y RATE OF CHANGE IN STAGE 2 LOANS, BY SECTOR. Dis



2 Y-O-Y RATE OF CHANGE IN NPLs, BY SECTOR. Dis



SOURCE: Banco de España.

a The severely affected sectors include accommodation and food service activities, the manufacture of refined petroleum products, social services and entertainment, transportation and storage, and the manufacture of transport equipment. The moderately affected sectors include basic metals, the manufacture of machinery, other manufacturing, professional services, mining and quarrying, wholesale and retail trade, and repair of vehicles. The other productive activities comprise the group of largely unaffected sectors.



behaviour of Stage 2 loans, which appears to indicate the pandemic having a mixed impact. First, year-on-year growth in Stage 2 loans in the sectors largely unaffected by the pandemic stood at 10.7% in December 2020 and rose to 14.7% in the following quarter. Second, Stage 2 loans in the moderately affected sectors grew considerably in December 2020, by 45% year-on-year and rising to 67% three months later (see Chart 6.1). Lastly, in the severely affected sectors the year-on-year increase stood at 116% in December 2020 and at 162% in March 2021; accordingly, Stage 2 loans in these sectors rose from €5.6 billion in March 2020 to €14.7 billion at end-2021 Q1. Therefore, the notable increase in Stage 2 loans (which varied across the sectors) does clearly indicate latent credit impairment on institutions' balance sheets as a result of the health crisis.

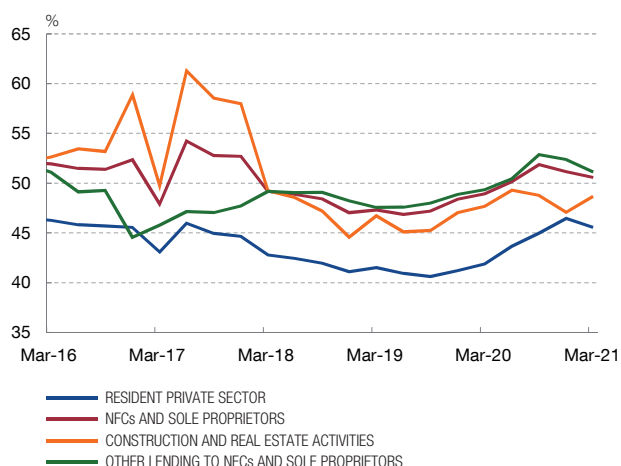
Similarly, NPL developments, differentiating between the sectors based on the sectoral impact of COVID-19, likewise reveal the health crisis having a mixed impact (see Chart 6.2). In March 2020, NPLs were contracting at double-digit rates in all three groups. In December 2020 and March 2021, NPLs in the largely unaffected sectors continued to decline at year-on-year rates of around 10% (albeit down on the 28% recorded in March 2020). NPLs to the moderately affected sectors have held relatively stable in the last few quarters (slight increase in December and

Chart 7

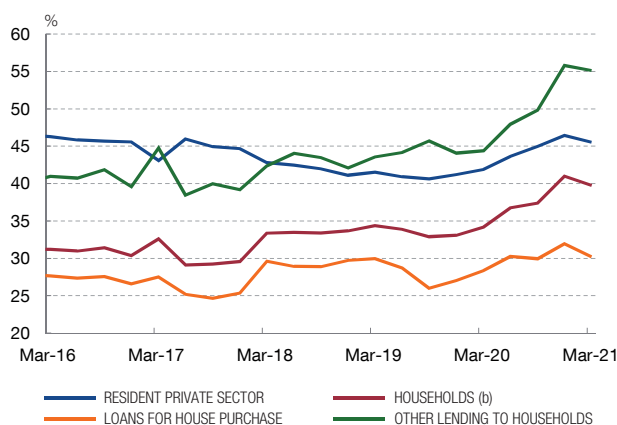
**IN 2021 Q1, GROWTH SLOWED IN THE NPL COVERAGE RATIO FOR ALL INSTITUTIONAL SECTORS**

The NPL coverage ratio in the resident private sector stood at 45.6% in March 2021, up almost 4 pp on March 2020, but meaning a decline of nearly 1 pp in the last quarter. The same trend is observed in the coverage ratios for NPLs to NFCs and sole proprietors (50.6% in March 2021) and households (39.8%).

1 NPL COVERAGE RATIO, NFCs AND SOLE PROPRIETORS. DIs (a)



2 NPL COVERAGE RATIO, HOUSEHOLDS. DIs (a)



SOURCE: Banco de España.

- a The coverage ratio is defined as loan loss provisions as a percentage of NPLs.
- b Excluding lending for business activities, which is classified as lending to sole proprietors.



marginal decline in March 2021). And lastly, NPLs to the severely affected sectors did grow year-on-year in 2020 (by nearly 12% in December) and have gained momentum in 2021 to date (27.4% in March 2021). It seems clear, therefore, that notable credit impairment is now being observed in the severely affected sectors.

Turning to the NPL coverage ratio for the resident private sector, the growth trend that began in December 2019 slowed in 2021 Q1 (see Chart 7.1). The coverage ratio declined by 0.9 pp between December 2020 and March 2021 to 45.6% (still nearly 3.7 pp higher than in March 2020). This drop owed to a reduction in both the coverage ratio for lending to NFCs and sole proprietors and the coverage ratio for lending to households. This indicates DIs' lower expected losses on NPLs, possibly reflecting the improved economic outlook.

In lending to firms the decline began one quarter earlier, in December 2020. The ratio in March 2021 stood at 50.6% (down 1.3 pp on September 2020, but up 1.6 pp on March 2020). The ratio is similar for the construction and real estate activities sectors (48.7%) and for other sectors of activity (51.1%). The coverage ratio for lending to households (39.8% in March 2021) stands below that of loans to firms, although it has risen 5.6 pp in the last year (despite dropping 1.3 pp in the last quarter, see Chart 7.2). It should be noted that more than 80% of the stock of lending to households

is secured by a mortgage, as such credit is typically linked to loans for house purchase. Accordingly, lower loan loss provisions are required to cover the expected loss on the credit exposure, owing to the mitigating effect of the mortgage collateral. By contrast, the coverage ratio in lending to households for purposes other than house purchase stood at 55.1% in March 2021, well above the ratio in loans to households for house purchase (30.2%).

28.7.2021



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## ANALYSIS OF BANK CAPITAL BUFFERS IN EUROPE AND THEIR USABILITY

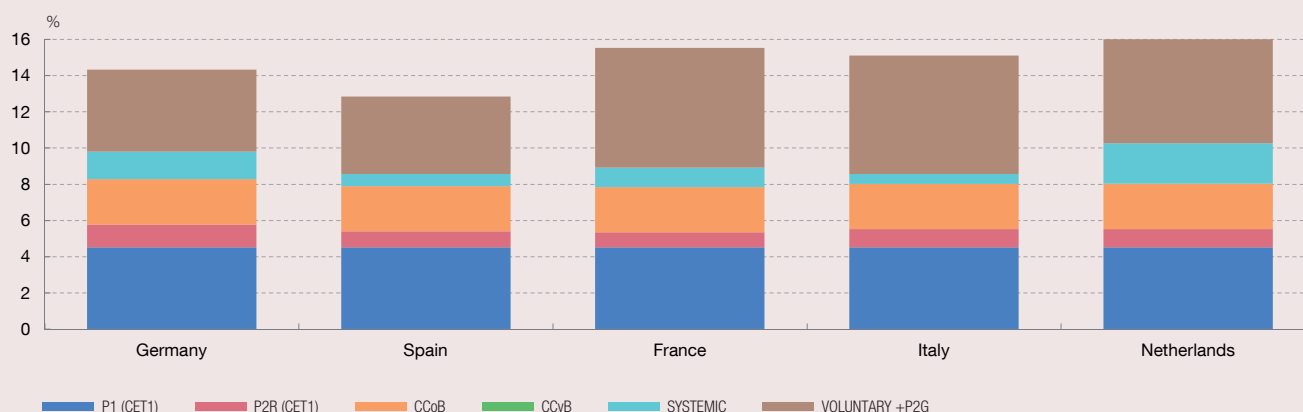
Capital buffers were introduced under the Basel III framework to ensure that banks maintain a high-quality capital reserve in addition to the minimum requirement in order to remain operational. Although regulations include various types of buffer, each with its own specific purpose, they all share two main objectives. First, to improve banks' capacity to absorb expected losses in the face of adverse events or crisis episodes, ensuring their viability and allowing them to continue their financial intermediation activities. Second, to provide adequate incentives to avoid excessive risk-taking and to foster the correct assessment of risks.<sup>1</sup>

A contraction in the aggregate flow of credit in response to an adverse shock can exacerbate the negative macroeconomic consequences of that shock. Capital buffers can potentially

mitigate this possibility. The use of buffers can thus benefit individual banks and the system as a whole, as demonstrated by the available empirical evidence.<sup>2</sup>

In the present crisis, these buffers have allowed banks to face the economic impact of the pandemic with significantly higher capital levels than they had prior to the global financial crisis. Although there is heterogeneity in terms of capital levels across the major European countries' main banks, the regulatory buffers account for a significant proportion of CET1 capital at all of them (see Chart 1), ranging from 3 pp of risk-weighted assets (RWAs) at Italian banks to 4.7 pp at Dutch banks. The voluntary buffers held on top of regulatory buffers – including the supervisory Pillar 2 guidance (P2G) – stand at an average level of 5.6 pp.<sup>3</sup>

Chart 1  
CET1 RATIO, BREAKDOWN



**SOURCES:** ECB, ESRB, S&P Global Market Intelligence and Banco de España.

**NOTE:** data for 2020 Q4. P1R: Pillar 1 Requirement; P2R: Pillar 2 Requirement; CCoB: capital conservation buffer; CCyB: countercyclical capital buffer; Systemic: the highest out of the systemic risk buffer, global systemically important institution buffer and other systemically important institution buffer; Voluntary + P2G: P2G capital guidance and buffer in addition to the regulatory buffers held voluntarily by management. Non-CET1 requirements are not included. The P2R data are obtained from the ECB's supervisory review and evaluation process (SREP). Buffer data are obtained from the ESRB. In both cases, the data for individual banks are aggregated, weighting by the RWAs of each bank taken from S&P Global Market Intelligence, which includes information for each country's main banks (the sample represents a good approximation of total RWAs in each country's system, with the exception of Germany, where coverage is lower (see footnote 3)).

- Higher capital means that shareholders absorb a greater share of the potential losses, limiting the moral hazard in risk-taking decisions and reducing the risk assumed by bondholders and investors in hybrid capital instruments.
- For example, Jiménez et al. (2017) find that, in the seven quarters following the outbreak of the last global financial crisis, Spanish banks restricted the supply of credit by up to 5.3 pp less for every 1 pp of total capital released through the functioning of dynamic provisioning. In the context of the pandemic, Lewrick et al. (2020) find that the international banking sector's pre-pandemic capital buffers could support between 1.3% and 6% of total outstanding loans worldwide. In a more specific analysis, Avezum et al. (2021) find that, for a sample of European countries that released regulatory buffers after the onset of the pandemic, this contributed to growth in lending to households that was 1 pp higher than in countries unable to release such capital because they lacked sufficient macroprudential headroom prior to the crisis.
- For this calculation, the P2R and regulatory buffer data (published by the ECB and the ESRB, respectively) for individual banks are aggregated, weighting by each bank's RWAs. The latter are obtained from the SNL Financial database, which includes data for each country's main banks. This sample represents much of the system's total RWAs (94% for ES, 75% for FR, 90% for IT and 58% for NL), with the exception of Germany (where coverage is just 26%).

**ANALYSIS OF BANK CAPITAL BUFFERS IN EUROPE AND THEIR USABILITY** (cont'd)

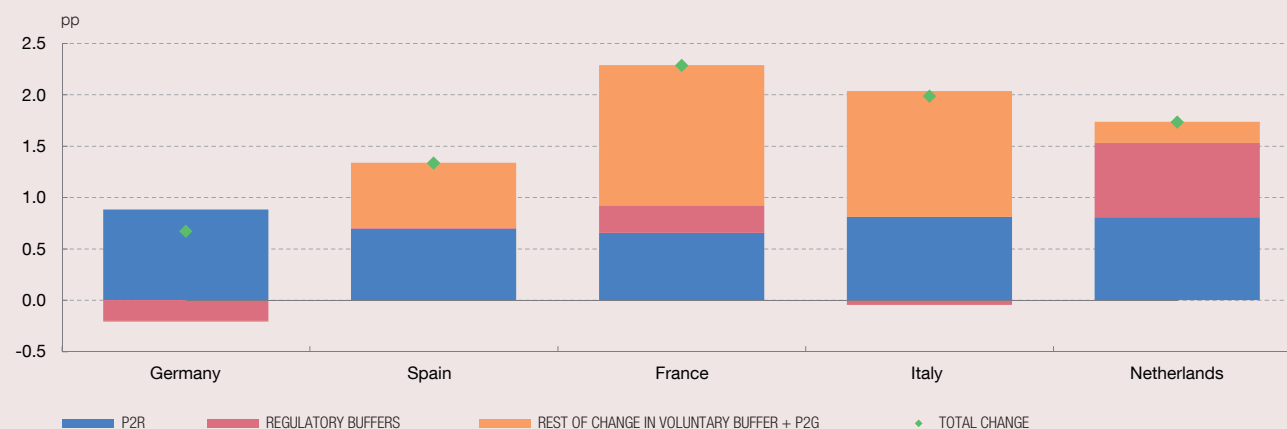
Broadly speaking, the COVID-19 crisis has not eroded the solvency of European banks. The measures adopted in response to the crisis, taking the form of fiscal and monetary stimuli, and in particular the prudential measures to reinforce the banking sector's solvency (e.g. the “quick fix” to the capital requirement regulation, the recommendation to refrain from paying dividends, etc.), have helped to maintain and even improve capital ratios. This is also reflected in an increase in the voluntary buffers (see Chart 2), likewise boosted by the easing of certain requirements, such as the release of macroprudential buffers and allowing Pillar 2 Requirements (P2R) to be satisfied with instruments that do not qualify as CET1.

The main banks of the major European countries have expanded their voluntary buffers by between 0.7 pp (Germany) and 2.3 pp (France). Part of the increase owes to the easing of the CET1 capital requirement under P2R (approximately 0.8 pp) while, in the case of the Netherlands, the loosening of macroprudential buffer

requirements has also had a notable impact (approximately 0.7 pp). The remaining build-up of voluntary buffers appears to stem from the increase in CET1 capital (e.g. recommendation to retain profits) and the decline in RWAs (e.g. lower risk weights on account of public guarantees).<sup>4</sup> Even if these buffer increases are not taken into account, a notable volume of capital was held voluntarily and under P2G at end-2020, as can be seen in the comparison with total voluntary buffers (see Chart 1).

Numerous studies have shown that the banks that extend the most loans, particularly in times of uncertainty, are those with the most capital. Therefore, having a sufficient volume of capital is a prerequisite for banks to fulfil their financial intermediation role. A counterfactual exercise – based on information for the major European countries' main banks<sup>5</sup> – assuming that half of the voluntary buffer (including P2G) at end-2020 is used to extend new credit shows that this could considerably increase the supply of credit (by between 18% and 33%, see Chart 3).<sup>6</sup> The

Chart 2  
BREAKDOWN OF THE CHANGE IN VOLUNTARY CET1 CAPITAL BUFFERS + P2G, 2019 Q4 - 2020 Q4



**SOURCES:** ECB, ESRB, S&P Global Market Intelligence and Banco de España.

**NOTE:** regulatory buffers: sum of CCoB, CCyB and Systemic (the highest of G-SII, O-SII and SyRB). Considered is the overall change in the voluntary buffer and P2G, which cannot be separated with the data available. The reduction in CET1 requirements under P2R does not entail a reduction in total capital requirements; it simply allows the requirements to be met with lower quality capital. The P2R data for 2019 Q4 are those applicable up to 11 March 2020, according to the ECB's SREP. The data for individual banks are aggregated, weighting by the RWAs of each bank taken from S&P Global Market Intelligence, which includes information for each country's main banks (the sample represents a good approximation of total RWAs in each country's system, with the exception of Germany, where coverage is lower (see footnote 3)).

4 See, for example, Chapter 3 of the Banco de España's *2020 Spring FSR* for a more detailed review of the response to the COVID-19 crisis.

5 Again, see footnote 3 for a definition of the sample of banks studied.

6 This exercise assumes that the aggregate credit exposure of each country's banks increases, with capital and other exposures remaining constant, until the aggregate CET1 ratio declines by a value equal to half the aggregate voluntary buffers in each system. As footnote 3 indicates, the buffers are calculated from a sample that only includes the main banks of each country. The counterfactual exercise assumes that, for each country, the relationship between credit and risk-weighted assets in the sample considered is equal to that of the overall system. These banks are diversified internationally, meaning the credit growth may not necessarily be concentrated in the country where they are headquartered.

**ANALYSIS OF BANK CAPITAL BUFFERS IN EUROPE AND THEIR USABILITY** (cont'd)

differences in terms of the potential credit growth across the banks of the European Union's largest countries would chiefly owe to the varying voluntary buffer levels.<sup>7</sup> This illustrates the banking system's sizeable capacity to continue to provide financing to the real economy without having to formally release the regulatory capital buffers. Therefore, the existing capital buffers would allow for credit growth if they were used to that end.

However, the possibility of applying these funds does not necessarily mean that it is optimal to do so or that banks have the incentives or ability to use them. In fact, there is growing evidence of banks' reluctance to use them, as reflected in signs of some contraction in the supply of credit in the euro area in the second half of 2020 and the first quarter of 2021, although, according to the Bank Lending Survey,<sup>8</sup> this trend appears to have ended in 2021. The IMF has recently argued that three conditions need to be satisfied for buffers to be used (see Diagram 1):<sup>9</sup>

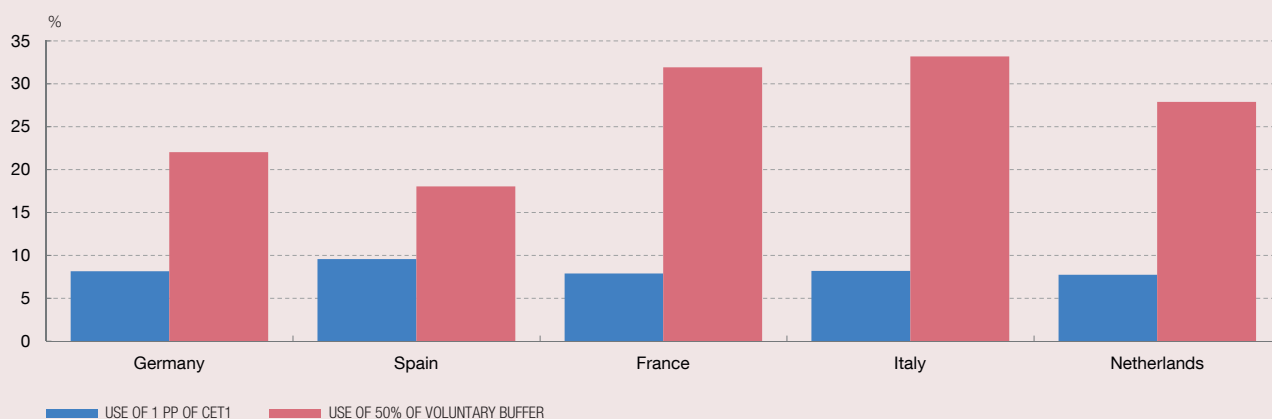
- The first one, known as the capacity condition, relates to the voluntary buffer level, or the difference between

the total amount of capital and the regulatory minimum. The smaller the difference the more difficult it will be for banks to use the voluntary capital.

- The second is the supervisory condition, relating to the ability to rebuild regulatory buffers after the crisis. Banks with lower capacity to rebuild buffers in the next few years will be less inclined to use them in the current situation. In this respect, although it is likely and necessary that prudential measures will be maintained until the recovery firms, the relaxation of the capital framework (e.g. the lifting of macroprudential requirements) is not permanent but only temporary. Providing guidance on timeframes, based on potential deviations from the projected recovery path, for example, would make it easier for banks to plan.
- The final condition is linked to the market's valuation of banks' capital, which requires that the use of buffers should not reduce this amount.

One of the factors that determines whether these conditions are satisfied - closely related to the third

Chart 3  
ESTIMATED EFFECT ON THE SUPPLY OF CREDIT OF PARTIAL USE OF THE VOLUNTARY BUFFER + P2G



**SOURCES:** ECB, ESRB, S&P Global Market Intelligence and Banco de España calculations.

**NOTE:** data for 2020 Q4. The bars depict the estimated increase in total bank credit as a consequence of the use of 1 pp of the CET1 ratio (blue bar) and 50% of the total voluntary buffer, including P2G (red bar).

<sup>7</sup> The illustrative calculation considered far from exhausts the prudential flexibility applied in response to the crisis: it does not consider the use of the capital conservation buffer, which is also contemplated, or the temporary reductions in requirements, in particular the P2R reduction, which would in any case require the released CET1 capital to be replaced with lower quality capital.

<sup>8</sup> See Menéndez and Mulino (2021a).

<sup>9</sup> *Global Financial Stability Report*, International Monetary Fund, April 2021.

**ANALYSIS OF BANK CAPITAL BUFFERS IN EUROPE AND THEIR USABILITY** (cont'd)

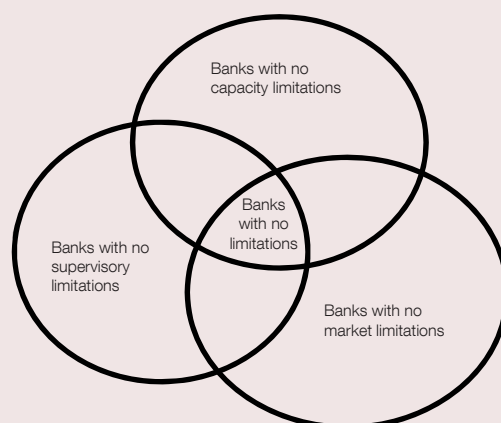
condition - is bank profitability. As identified in the IMF report, the most profitable banks tend to operate close to the regulatory threshold and the risk of falling below this threshold reduces their incentives to use their buffers. In contrast, less profitable banks tend to operate with larger voluntary buffers, but their use could have a larger negative impact on their market value as it may be more costly for them to rebuild their buffers in the medium term, while low profitability persists. Raising new capital through retained earnings and new issues is relatively more costly for less profitable banks, both through retained earnings and through new issues. Insofar as the reduction in buffers as a result of their use is unlikely to be permanent, this greater cost would put pressure on the value of these banks.

Market pressure plays a very important role. If buffers are consumed, the market may, at least in the short-term, raise the cost of financing. Chart 4 shows that the cost of bank capital has tended to be systematically higher than profitability (ROE) in the euro area since 2007, suggesting that most banks would have difficulty

issuing new shares to rebuild their buffers. Chart 5 shows a similar situation in Spain, with especially low levels of ROE in 2012 (during the sovereign debt crisis) and, to a lesser extent, in 2020.<sup>10</sup> Insofar as the use of buffers would stimulate lending and activity, it would also indirectly boost bank profitability by raising the volume of business, which would reduce the probability of an increase in the cost of financing. However, the recovery in activity would take time and not all the benefits would accrue to banks, but would instead spread throughout the economy. Thus, the use of these capital funds might be expected to lead to some short-term pressure on valuations.<sup>11</sup>

In conclusion, the measures adopted in response to the crisis have helped preserve bank capital and will allow the sector to continue to play a fundamental role in the economy during the exit from the COVID-19 crisis by maintaining private-sector financing. However, this requires banks to use some of their capital buffers. A clear communication on the timeframe for rebuilding regulatory buffers is essential to facilitate their use.

Figure 1  
CONDITIONS FOR USE OF CAPITAL BUFFERS BY BANKS



SOURCE: IMF and Banco de España.

NOTE: only the set of banks that satisfy all of the conditions (where all three circles overlap) can be expected to use their buffers.

10 The decline in profitability in 2020 is explained by the impact of the crisis on activity and the cost of credit risk, but also by extraordinary factors (goodwill amortisation, valuation adjustments due to merger, etc.) linked to three of the most important banks in Spain. See Chapter 2 of the [Spring 2021 FSR](#).

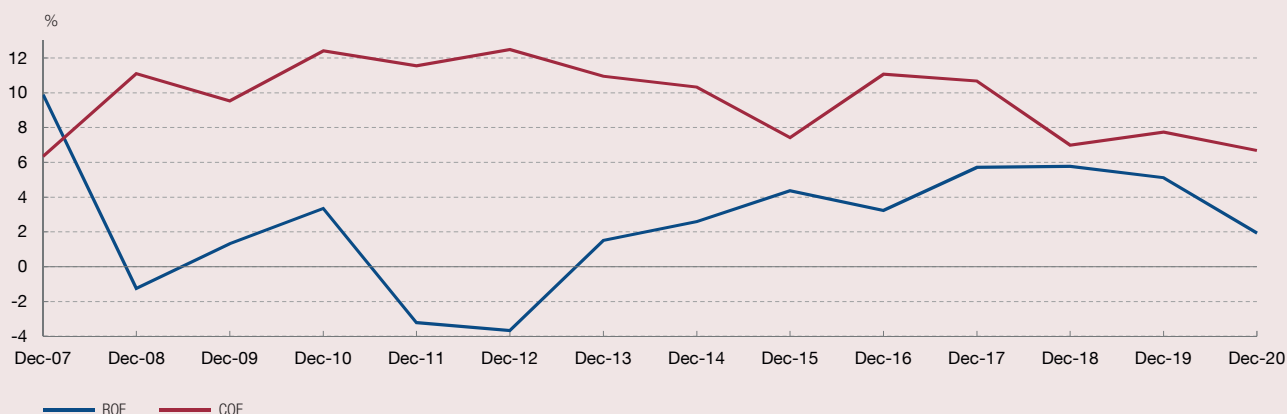
11 In the [Spring 2019 FSR](#), it is estimated that an increase of 1 pp in the CET1 ratio of an issuing bank is associated ceteris paribus with a reduction of 0.3 pp in the costs of issuing subordinated Tier 1 debt, and around 0.15 pp in those of subordinated Tier 2 debt and senior debt,

**ANALYSIS OF BANK CAPITAL BUFFERS IN EUROPE AND THEIR USABILITY** (cont'd)

Also, they will be used more effectively if bank strategies help to improve their profitability, through efficiency gains, for example. In particular, improved profitability

expectations would boost bank valuations and facilitate the rebuilding of buffers, reducing the cost of their use now.

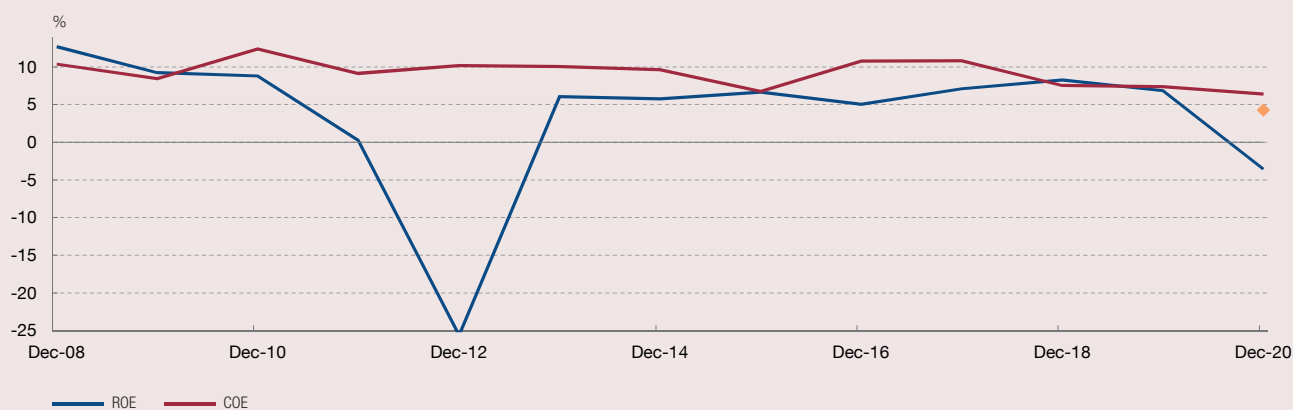
Chart 4  
PROFITABILITY (ROE) AND COST OF EQUITY (COE) IN THE EURO AREA



**SOURCES:** ECB, Datastream, Consensus Economics and Banco de España calculations.

**NOTE:** the cost of equity is estimated using a dividend discount model, based on the model of Fuller and Hsia (1984).

Chart 5  
PROFITABILITY (ROE) AND COST OF EQUITY (COE) IN SPAIN



**SOURCES:** ECB, Datastream, Consensus Economics, Financial Stability Report (spring 2021) of the Banco de España and Banco de España calculations.

**NOTE:** the diamond in 2020 indicates the ROE for Spain which would be obtained if the extraordinary adjustments applied by three of the main Spanish banks were not taken into account (see the Banco de España's Spring 2021 FSR, Chapter 2). The cost of equity is estimated using a dividend discount model, based on the model of Fuller and Hsia (1984).