

The challenges associated with the use of agencies' credit ratings in the context of the COVID-19 crisis

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THE CHALLENGES ASSOCIATED WITH THE USE OF AGENCIES' CREDIT RATINGS IN THE CONTEXT OF THE COVID-19 CRISIS

Abstract

A consequence of the outbreak of the pandemic triggered by COVID-19 is the unprecedented global economic recession that has led rating agencies to increase their credit rating downgrades. This process could continue in the coming months if the unfolding of the pandemic results in a significant worsening of the macroeconomic outlook. Although the financial system's reliance on these ratings has decreased since the global financial crisis, they continue to play a significant role for regulatory purposes and when the investment policies of financial intermediaries and the operational framework of central banks are determined. As a result, these movements could have potentially adverse effects on monetary policy transmission, financial stability and the real economy. The article describes the challenges posed by rating downgrades in these three areas and considers possible measures to mitigate the adverse effects, taking into account the specific characteristics of the current crisis.

1 Introduction

The academic literature has noted the widespread practice of rating agencies downgrading credit ratings in periods of crisis, in order to assess the possible procyclicality of this behaviour.¹ The concentration of rating downgrades during these spells may lead to a worsening of the financing conditions of broad segments of issuers and to lower aggregate investment in the economy.² These impacts are magnified when credit ratings are used for regulatory purposes and when financial intermediaries employ them in their investment policies and central banks employ them in their operational framework. Notwithstanding the fact that the reliance on credit ratings has decreased since the global financial crisis, they still play a significant role, therefore, all of the foregoing developments could have a negative impact on monetary policy transmission, financial stability and real activity.

This article considers the implications for monetary policy implementation and for the macro-financial environment of potential credit rating downgrades that might be applied by external credit assessment institutions (ECAIs) due to the COVID-19 crisis and discusses measures which could be taken, where appropriate, to mitigate the effects that the mechanical use of these ratings could have on central banks' targets.

1 See Auh (2015), Bolton, Freixas and Shapiro (2012) and Broto and Molina (2016), among others.

2 The scale and speed of the downgrades of companies' credit ratings have an adverse effect on their valuation [Holthausen and Leftwich (1986)] and their fixed asset expenditure [Acharya, Davydenko and Strebulaev (2012)]. Similarly, changes in the sovereign debt credit rating of countries where specific firms operate affects the latter's financing and investment capacity [Almeida, Cunha, Ferreira and Restrepo (2017)].

Credit ratings directly affect two essential instruments in the area of monetary policy implementation. First, they determine the eligibility of the assets that credit institutions can use as collateral in refinancing operations and the level of the haircut applicable to their value. Second, they determine which assets are eligible for acquisition as part of central banks' different purchase programmes. The downgrading of ratings reduces the assets that are eligible as collateral, which can limit institutions' borrowing capacity. Similarly, it reduces the universe of eligible assets in purchase programmes, therefore limiting the effectiveness of these programmes. This is why credit rating downgrades pose a risk for monetary policy transmission.

From a macro-financial standpoint, credit rating downgrades can lead to a tightening of the financing conditions of the issuers affected, both in the debt and bank funding markets. The effects would be particularly pronounced if the credit rating drops below investment grade. Spanish non-financial corporations and businesses are currently more exposed to these risks than before the global financial crisis. First, the relative weight of financing from bond markets has increased. Second, the bulk of issuers have ratings which are situated at the lower end of the investment grade rating.

The ratings of most Spanish credit institutions are currently in the lower range of the investment grade rating. A potential downgrade of institutions' credit ratings, in addition to the direct effects on the institutions themselves, may also have knock-on effects on other sectors in so far as they may pass on possible higher borrowing costs to customers. Additionally, the value of credit institutions' and other financial intermediaries' assets is exposed to the effects of higher risk in securities markets and of reviews by ECAs through direct holdings in marketable securities, a significant portion of which are also at the lower end of the investment grade rating. The implications of this exposure are exacerbated by the considerable overlap of securities portfolios across various financial sub-sectors (banking, insurance and investment and pension funds). Therefore, the negative effects which would be triggered by a significant downgrade of credit ratings to below investment grade would be amplified through these common holdings. These changes in the valuation of marketable securities holdings may affect financial institutions' solvency, through unrealised losses which consume capital and the increase in risk-weighted assets (RWAs),³ and they may also potentially affect liquidity, if they modify these securities' eligibility as collateral.

The rest of the article is structured as follows. Sections one, two and three describe the challenges of credit rating downgrades for monetary policy implementation,

3 The impact on the RWAs relating to debt securities holdings under the standardised approach would be very moderate for Spanish credit institutions, owing to the preponderance of sovereign exposures denominated and financed in local currency, which receive a preferential weighting of 0%, and to the low use of external ratings in the RWAs relating to private corporate issues. The impact on RWAs under the internal ratings-based approach may be greater, through the indirect channel of exposures to the bank loans of businesses which also issue securities and are affected by a ratings downgrade.

macro-economic and financial performance, as well as in the area of financial stability and of exposures of Spanish financial intermediaries. Section four discusses possible measures to mitigate the undesired effects of a potential mechanical use of credit ratings by ECAs in the above-mentioned areas. The article also includes a box on recent discussions of these matters by international groups.

2 The challenges of credit rating downgrades for monetary policy implementation

Under the Eurosystem's monetary policy implementation, credit ratings play a significant role both in collateralised refinancing operations and asset purchase programmes.

Refinancing operations granted by the Eurosystem to credit institutions⁴ should be properly collateralised by financial assets. These financial assets have to meet a series of eligibility criteria and a valuation haircut is applied according to their risk level. The collateral eligibility criteria for marketable financial assets include having a credit rating above a specific threshold; the credit rating is also one of the significant parameters for setting the valuation haircut to be applied to those assets.

The eligibility of marketable securities [government bonds, corporate bonds, covered bonds and asset-backed securities (ABSs)] in the Eurosystem's asset purchase programmes⁵ (APP and PEPP) is also determined by their credit rating.

Before the outbreak of the pandemic, marketable financial assets which were acceptable as collateral or eligible for the purchase programmes had to have a rating of at least BBB- (CQS3 in the Eurosystem's nomenclature⁶), except for asset-backed bonds which generally had to have two ratings of at least A- (CQS2), although certain additional asset-backed bonds with two ratings of at least BBB- (CQS3) were also accepted temporarily.

In the context of the COVID-19 crisis, there have been several credit rating downgrades and further reductions are foreseeable. This has an impact on the Eurosystem's *refinancing operations* which is determined by several factors: first, the market value of securities which are eligible as collateral and are affected by these downgrades will decline and second, the valuation haircut applied to them, due to the higher risk, will increase; furthermore, the securities which are no longer investment grade will lose

4 The refinancing operations that the Eurosystem is currently using are main refinancing operations (MROs), longer-term refinancing operations (LTROs), targeted longer-term refinancing operations (TLTROs) and the pandemic emergency longer-term refinancing operation (PELTROs).

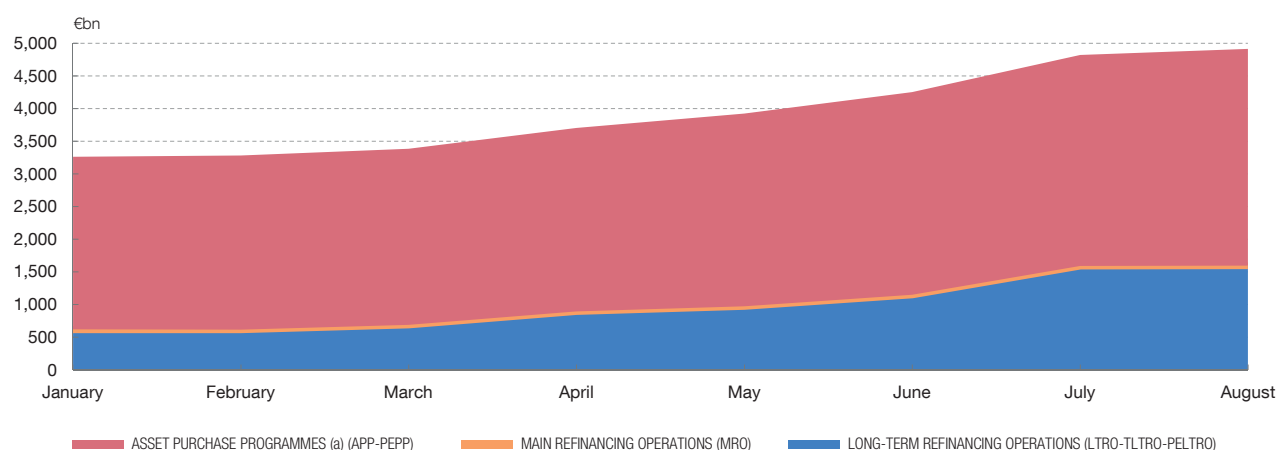
5 Asset purchase programme (APP). Pandemic emergency purchase programme (PEPP).

6 The Eurosystem's ratings or credit quality steps are as follows: CQS1 is equivalent to a rating of AAA to AA-; CQS2 to A+ to A-; CQS3 to BBB+ to BBB-; and CQS4 corresponds to BB+ and CQS5 to BB.

Chart 1

LIQUIDITY-PROVIDING OPERATIONS IN 2020

MONETARY POLICY LIQUIDITY-PROVIDING OPERATIONS



SOURCE: Banco de España: <https://www.bde.es/webbde/es/estadis/infoest/e0801.pdf>.

a 1% of the amount corresponds to other programmes that have already concluded.

their status as acceptable collateral. Consequently, in order to maintain the financing they already received, institutions will have to provide more collateral against a backdrop in which the universe of eligible assets will have also fallen. If institutions needed additional liquidity, their borrowing capacity could be restricted owing mainly to the reduction in the universe of available assets acceptable as collateral, but also to the higher haircuts applied to and the lower value of those assets affected by rating downgrades which continue to be eligible. A restriction on the institutions' capacity to participate in Eurosystem refinancing operations could affect their capacity to finance the real economy.

The following table shows the significance of the use of marketable assets as collateral in Eurosystem refinancing operations and, consequently, the possible impact of credit rating downgrades on them.

In order to ensure access to Eurosystem financing and ahead of greater use of this financing by institutions, on 7 April 2020,⁷ the Governing Council adopted certain measures to relax collateral eligibility requirements which included, most notably, the easing of the conditions for the use of non-marketable assets (loans and advances) as collateral and the general reduction of valuation haircuts for marketable and non-marketable assets. Subsequently, on 22 April,⁸ in order to mitigate the impact of rating downgrades on collateral availability, the Governing Council decided to temporarily

7 See ECB (2020a): <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200407~2472a8ccda.en.html>.

8 See ECB (2020b): https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200422_1~95e0f62a2b.en.html.

Table 1

BREAKDOWN BY TYPE OF ASSET PROVIDED AS COLLATERAL IN EUROSISTEM MONETARY POLICY OPERATIONS IN 2020 Q1

| Assets provided as collateral by institutions (%) | | | |
|---|------------|----|---------------------------|
| Marketable assets | 76 | 16 | Central government bonds |
| | | 4 | Regional government bonds |
| | | 5 | Bank bonds |
| | | 25 | Covered bonds |
| | | 3 | Corporate bonds |
| | | 21 | ABS |
| | | 2 | Other marketable assets |
| Non-marketable assets | 24 | | |
| Total | 100 | | |

SOURCE: ECB: <https://www.ecb.europa.eu/paym/coll/charts/html/index.en.html>.

grandfather the eligibility of marketable assets and the issuers of such assets that fulfilled minimum credit quality requirements on 7 April 2020. These assets will continue to be accepted as collateral as long as their credit rating does not drop below BB (CQS5), except for asset backed securities whose threshold is set at BB+ (CQS4).

The valuation haircut applied to the marketable assets will be calculated based on their actual credit rating so as to maintain adequate risk protection for Eurosystem operations. On 7 April these haircuts had already been reduced in accordance with the temporary increase in risk tolerance determined by the Governing Council.

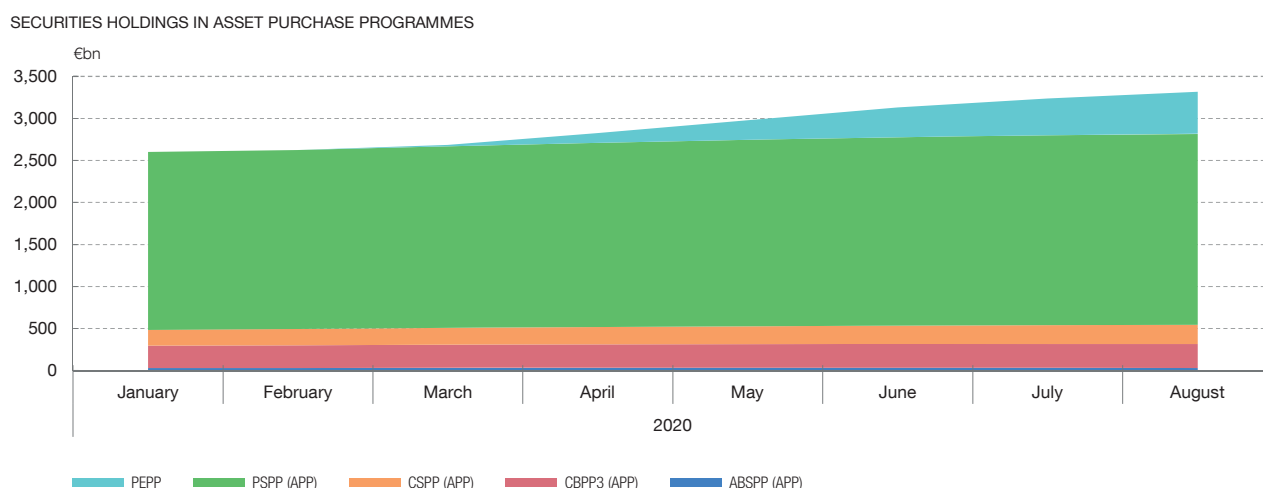
This raft of measures aims to ensure that credit institutions have sufficient assets to contribute as collateral in order to participate in liquidity-providing operations and to continue to provide financing to the economy. The measures will be applied until September 2021 when the first early repayments of TLTRO-III can be made.

The problems posed by credit rating downgrades also affect *the purchase programmes*. In this case, the assets already acquired which are no longer eligible will remain in the portfolio since there would be no obligation to sell them, however, additional purchases of these assets or of these issuers' assets would not be possible.

As a measure to alleviate the effects of the impact of the pandemic, the Governing Council, in addition to expanding the asset purchase programme⁹ (APP) with an

⁹ The asset purchase programme (APP) comprises four programmes: the asset-backed securities purchase programme (ABSPP), the third covered bond purchase programme (CBPP3), the corporate sector purchase programme (CSPP) and the public sector purchase programme (PSPP).

Chart 2

CHANGES IN ASSET PURCHASE PROGRAMMES IN 2020

SOURCE: ECB: <https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html>.

additional envelope of €120 billion and to introducing the pandemic emergency purchase programme (PEPP) with a final envelope of €1.35 billion, decided to allow Greek bonds to be purchased under the PEPP, which were suspended previously because they did not meet the minimum threshold criterion of investment grade. The following chart shows the changes in the programmes' portfolios during 2020. The significant increase in purchases observed from March stems from the Governing Council's decisions.

At a time like this, one of the constraints of purchase programmes is the universe of assets NCBs can buy, which may be reduced by the effect of credit rating downgrades. This situation poses an additional challenge, since problems relating to the feasibility of purchase commitments may adversely affect monetary policy credibility, and the actions of ECAs, if they translate into widespread credit downgrades, may exacerbate such problems.

As can be seen in Table 2, the most vulnerable sector to credit downgrades in the private sector purchase programmes is that of non-financial corporations, a large share of which is already in BBB territory. Thus, the CSPP is the most exposed purchase programme.

In the public sector purchase programme (PSPP), although the likelihood of significant rating downgrades of sovereigns to the point of them becoming ineligible is lower than for private debt, the risk that this would entail for monetary policy is higher (as demonstrated by the case of Greece during the sovereign debt crisis).

Table 2

DISTRIBUTION BY RATING OF THE PORTFOLIOS IN THE EUROSISTEM'S PRIVATE SECTOR PURCHASE PROGRAMMES AND THEIR ELIGIBLE UNIVERSE IN 2020 Q1

| Rating (a) | CSPP | | ABSPP | | CBPP3 | |
|------------|-------------------------|-----------------------|-------------------------|-----------------------|-------------------------|-----------------------|
| | Eurosystem holdings (%) | Eligible universe (%) | Eurosystem holdings (%) | Eligible universe (%) | Eurosystem holdings (%) | Eligible universe (%) |
| AAA | 0 | 0 | 88 | 85 | 69 | 78 |
| AA+-AA- | 11 | 11 | 12 | 13 | 31 | 21 |
| A+-A- | 46 | 48 | 0 | 2 | 0 | 1 |
| BBB+-BBB- | 43 | 41 | 0 | 0 | 0 | 0 |

SOURCE: ECB: <https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html>.

a The Eurosystem recognises the first-best rating, except in the case of asset-backed bonds, for which the second-best rule applies.

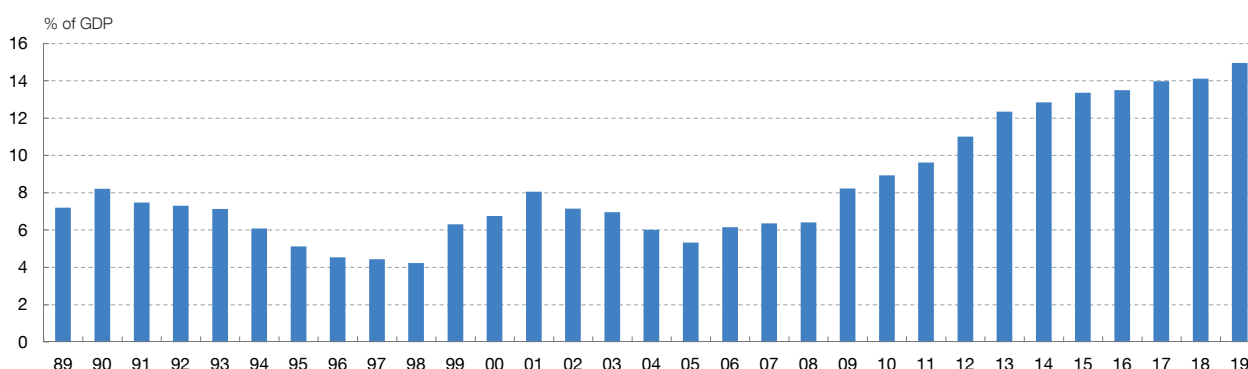
Therefore, an additional deterioration of the credit ratings of issuers and issues could jeopardise the effectiveness of one or several purchase programmes and adversely affect the related bond markets, leading to tensions and to wider spreads, thereby affecting monetary policy transmission.

3 The macroeconomic and financial challenges of credit rating downgrades

The credit rating downgrades of a particular agent's debt issues can translate into a tightening of its financing conditions, both in the debt and the bank funding markets. This effect occurs through various channels: (i) the signalling effect on markets after the rating agency's decision is released; and (ii) credit institutions using external ratings for calculating capital requirements would consume more capital when lending to the agent concerned, an effect which could be passed on in the form of higher interest rates. If the rating were to fall below investment grade, these effects could be amplified, generating a non-linear impact, for various reasons. First, financial intermediaries with an investment mandate that does not allow them to invest in sub-investment grade bonds would be forced to sell them, prompting their price to fall which could be compounded if the asset is illiquid. Additionally, as mentioned above, bonds issued by the agent would cease to be eligible for ECB purchase programmes, leading to further price declines.¹⁰

¹⁰ The contribution of asset purchase programmes to the improvement of the financing conditions of corporations with eligible assets is documented in Abidi and Miquel-Flores (2018) and Arce, Mayordomo and Gimeno (2020), among others.

Chart 3

AMOUNT OF CORPORATE DEBT ISSUED BY SPANISH NON-FINANCIAL CORPORATIONS

SOURCES: Instituto Nacional de Estadística and Banco de España.

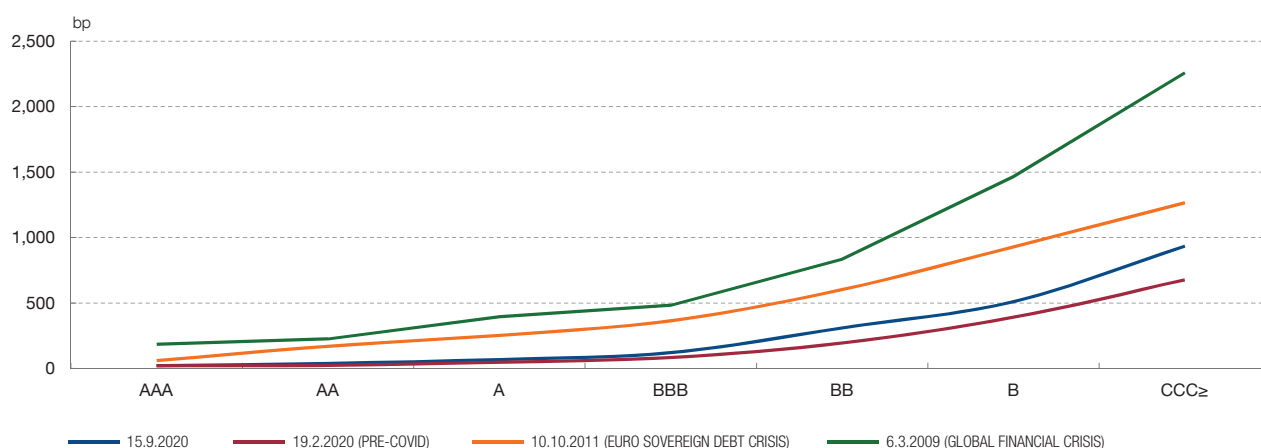
The tightening of financial conditions could spread to other agents not directly affected by the downgrade through various channels. First, if the downgrades affect many issuers simultaneously, markets may infer that these revisions reveal negative information about the economic outlook and credit risk of the sectors affected or the economy as a whole.¹¹ Furthermore, if the credit rating downgrade affects credit institutions or the assets in their portfolios, their market financing conditions could tighten and their possibilities of obtaining financing using their assets as collateral might be hampered. These effects on the banking sector could be even more pronounced if banks' credit ratings are close to speculative grade, as is the case with most Spanish banks. This could lead the banks concerned to pass on the tightening of their financing conditions to their customers.

In the event of a sovereign rating downgrade, the knock-on effects on other national agents could be especially significant, as shown by the global financial crisis and the European sovereign debt crisis. During that period, Spain's credit rating downgrade went hand in hand with equivalent downgrades of private issuers.

For Spanish companies and non-financial corporations, the effects of credit rating downgrades may be more acute than in past crises, considering the growing importance of market-based funding, as illustrated by the considerable increase in the amount of corporate debt issued in recent years in terms of GDP (see Chart 3). Currently, this amount represents around 15% of GDP, as compared with 6% in the run-up to the global financial crisis. Chart 4 shows the relationship on different dates between financing costs for non-financial corporations in the euro area and the credit quality of the bonds issued. The slope of this curve rises when credit quality

¹¹ For example, a downgrade of Lufthansa's credit rating could increase the likelihood of a subsequent downward revision of Iberia's rating.

Chart 4

CORPORATE CREDIT RISK SPREADS IN THE EURO AREA

SOURCE: IFS-DataStream.

NOTE: The spread is calculated as an asset swap spread (ICE BofA indices).

falls below investment grade, especially in times of crisis, reflecting the non-linear effects discussed above.

The COVID-19 crisis has prompted substantial effects in the macroeconomic context, both globally and for the Spanish economy. In line with the deterioration of the macroeconomic outlook and the solvency of non-financial corporations, between 28 February and 15 October 2020, there has been a moderate shift in Spanish companies' credit quality towards worse ratings. Downgrades have affected 11.7% of the outstanding amount. Of this change, 6.8 percentage points (pp) relate to downgrades within the investment grade category (BBB– or higher), 3.8 pp to downgrades within the high yield category and 1.1 pp to downgrades from investment grade to high yield. Although the bulk of the outstanding amount remains in the investment grade category, the persistence of the health crisis could cause further downgrades which would push a non-negligible percentage of debt into the high yield category. In fact, on 15 October, 20.5% of the total outstanding amount of bonds rated BBB or BBB– had a negative outlook.

To assess the scale of the effects that credit rating downgrades could have on the Spanish corporate sector, Table 3 shows the distribution of the outstanding amount of bonds issued by Spanish non-financial corporations by credit quality and quantifies the contribution to the corporate sector's gross value added and employment from companies in each rating category.¹² The credit rating used for

¹² These calculations are based on information from the Integrated Central Balance Sheet Data Office Survey (CBI by its Spanish abbreviation) as at December 2018 (the latest survey available). The GVA and employment for each company are obtained by aggregating the amounts of the parent company and its subsidiaries.

Table 3

DISTRIBUTION OF THE OUTSTANDING AMOUNT OF BONDS AND CONTRIBUTION TO GVA AND EMPLOYMENT BY RATING CATEGORY (in percentages)

| Rating | % outstanding amount | % of GVA (a) | % of employment (a) |
|--------|----------------------|--------------|---------------------|
| A- | 2.7 | 0.3 | 0.0 |
| BBB+ | 16.0 | 0.9 | 0.2 |
| BBB | 57.3 | 4.1 | 2.1 |
| BBB- | 6.5 | 1.1 | 0.9 |
| BB+ | 2.1 | 1.3 | 1.5 |
| BB | 2.9 | 0.2 | 0.1 |
| BB- | 0.2 | 0.2 | 0.0 |
| B+ | 0.0 | 0.1 | 0.1 |
| B | 0.6 | 0.1 | 0.1 |
| B- | 1.6 | 0.0 | 0.0 |
| CCC+ | 0.9 | 0.0 | 0.1 |
| CCC | 0.8 | 0.2 | 0.4 |
| NR | 8.4 | 0.7 | 0.9 |
| Total | 100.0 | 9.3 | 6.3 |

SOURCE: Banco de España.

a Contribution to the total for the NFC sector.

each company is the best given by either of the four ECAIs recognised by the ECB.¹³

Owing to the non-linear effects described above, companies with a BBB- rating, representing 6.5% of the outstanding amount of bonds, are most exposed to the adverse effects of a deterioration in credit quality. BBB-rated companies, representing 57.3% of the amount outstanding, are also highly vulnerable to credit downgrades if the effects of the COVID-19 crisis are so severe they ultimately lead to credit rating downgrades of more than one notch. As a whole, these two groups of companies account for 5.2% of GVA and 3% of employment in the non-financial corporations sector.

4 Challenges to financial stability of credit rating downgrades: exposure of financial intermediaries.

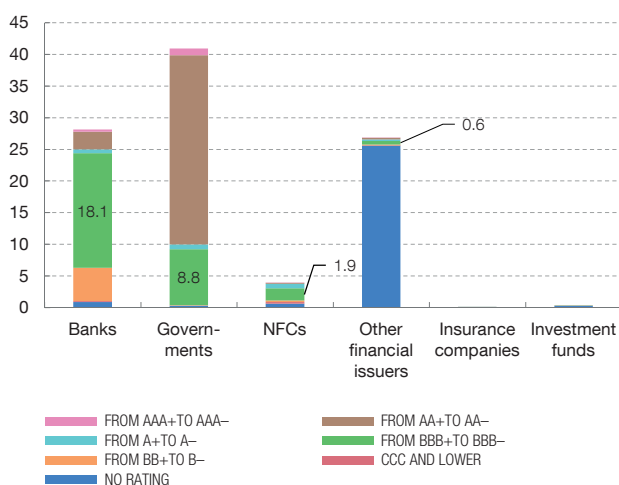
Credit institutions and other financial intermediaries are exposed to actions affecting the credit rating of a number of economic agents through their securities holdings

13 The results are presented on the basis of the S&P and Fitch rating scale. Moody's and DBRS' categories were therefore mapped to this scale. The information on ratings and the outstanding amount of bonds is that available as at 31 July 2020. The outstanding amount of bonds issued by a given company is obtained from issues of the parent company and its resident and non-resident subsidiaries.

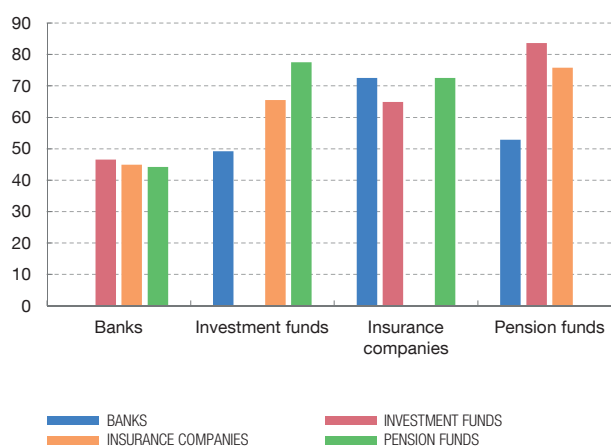
Chart 5

COMPOSITION OF THE BANKING SECTOR'S SECURITIES PORTFOLIO BY RATING AND SECURITIES HOLDINGS OF ISSUERS SHARED WITH OTHER FINANCIAL INTERMEDIARIES

1 COMPOSITION OF THE BANKING SECTOR'S SECURITIES PORTFOLIO BY RATING



2 SECURITIES HOLDINGS OF ISSUERS SHARED WITH OTHER FINANCIAL INTERMEDIARIES



SOURCES: Securities Holding Statistics by Sector (ECB) and Eikon (Reuters).

NOTE: Data at end-2020 Q1. The market value of the holdings is considered (or reasonable value in the case of less liquid instruments). Chart 5.1: the total value of the securities portfolio in the individual balance sheet of the banking sector is approximately €595 billion. The vertical axis shows the percentage of the total portfolio for each counterparty and credit rating. Chart 5.2: for each sector, the vertical axis shows the proportion of securities of issuers shared with the portfolios of other subsectors. For example, the first three bars from the left show that the banking sector has between 44% and 46% of securities in its portfolio with issuers shared with the securities portfolios of other financial intermediaries.

and the interconnectedness of credit institutions with the rest of the financial system, given that, in many cases, banks and other financial agents, most notably collective investment institutions (CIIs), are exposed to the same debtors.

The marketable securities portfolio represents 23% of the Spanish banking system's total assets, on an individual basis.¹⁴ Around 29% of the total securities in this portfolio (some €175 billion) are at the lower limit of the investment grade category, that is, they have a credit rating of between BBB+ and BBB-.¹⁵ The value of these securities could be particularly sensitive to rating downgrades, which in turn, could make it difficult for the issuers to refinance their debt, thereby increasing their risk of default. This category includes holdings of securities issued by the banking sector itself¹⁶ (18%), sovereign bonds (9%) and securities issued by non-financial corporations (1.9%) (see Chart 5.1).

14 Only the assets of Spanish credit institutions are considered, excluding the assets of subsidiaries domiciled abroad. The assets of institutions in other financial sectors which, for prudential purposes, are included in the consolidated financial statements of the same banking group are not considered either.

15 The data refer to the resident banking sector's portfolio of bonds, shares and investment fund shares, which, for prudential purposes, are included in the consolidated financial statements of banking groups that exclude foreign subsidiaries or resident non-banking entities (e.g. securitisation special purpose entities or holding companies). Holdings below investment grade account for around 6% of the portfolio. The information refers to existing ratings as at 16 September 2020.

16 A portion of these securities could be own shares.

The direct interconnections¹⁷ through banking sector holdings of securities issued by other financial sectors are minimal. However, indirect interconnections through securities holdings with shared issuers are significant and range from 40% to 80% of each sector's total assets (see Chart 5.2). Therefore, there is a risk that downgrades of ratings to below investment grade may be amplified (aside from credit institutions' direct exposures) through these shared holdings, for instance, through a spiral of fire sales and price declines. These sales could be triggered by credit rating downgrades to below BBB-, due to the usual mandate of non-banking intermediaries (e.g. investment funds) to invest in the investment grade category. Chart 5 shows, in particular, the large overlap across investment and pension fund securities holdings, which could concentrate similar impacts (the deterioration of their total assets) and lead to symmetrical behaviour (portfolio reallocation, withdrawal of funds by unit-holders) of a large share of these agents in response to the rating downgrade of certain securities. This could affect the banking sector through the aforementioned shared characteristics of securities holdings, but also through its income, to which the marketing of units of CILs contributes significantly.

For the banking sector, the scope of the study is extended to the total exposure at consolidated level to sovereigns, loans and debt securities, and to debt securities issued by private issuers. Holdings through foreign subsidiaries are thus incorporated. A distinction is drawn between credit exposures classified at fair value, whose balance sheet value reacts directly to changes in ratings, and exposures classified at amortised cost, which do not have to record impairment in their market value for accounting purposes. In June 2020, Spanish credit institutions held €632.4 billion of sovereign debt and corporate bonds issues in their consolidated balance sheets, which comprised mostly sovereign debt (83.3% of the total exposures analysed), and significant institutions directly supervised by the ECB accounted for 89.6% of the total exposure.

Sovereign debt (loans and debt securities) in the consolidated balance sheet of Spanish credit institutions, which amounted to €527 billion at June 2020, is concentrated at banks with higher total assets and is distributed similarly in terms of fair value and held for trading, on the one hand, and amortised cost, on the other (with a weight of approximately 7% of total assets for each category, see Chart 6). For the EU banking sector as a whole (see Chart 7), on European Banking Authority data as at June 2020, the weight of sovereign debt at fair value and held for trading (48.7%) was also similar to that at amortised cost (51.3%). There is, however, cross-country heterogeneity in credit institutions' portfolios. For example, exposures at fair value and those held for trading have a higher weight in the Netherlands (65.3%) and exposures at amortised cost have a higher weight in France (58.7%). Outside the

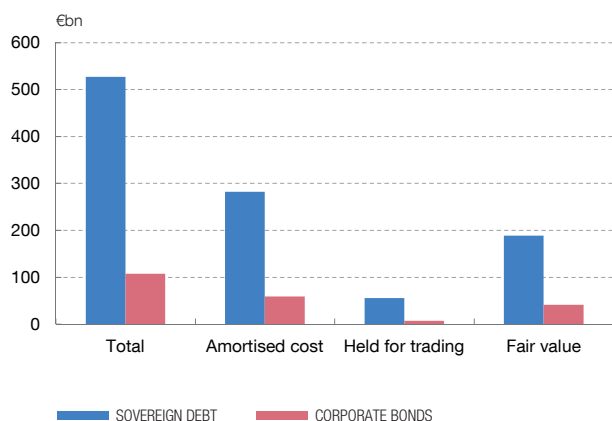
17 Alonso and Stupariu (2019) offer an overview of interconnectedness in the Spanish financial system, highlighting the direct link between the different financial sectors and the indirect interconnections between resident sectors.

Chart 6

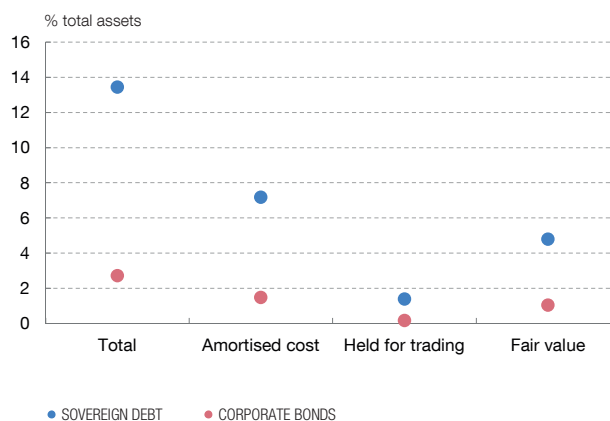
SOVEREIGN DEBT AND CORPORATE BOND HOLDINGS OF SPANISH CREDIT INSTITUTIONS. BREAKDOWN BY ACCOUNTING PORTFOLIO

June 2020

1 SOVEREIGN DEBT AND CORPORATE BOND HOLDINGS OF SPANISH CREDIT INSTITUTIONS
Breakdown by portfolio. Volume



2 SOVEREIGN DEBT AND CORPORATE BOND HOLDINGS OF SPANISH CREDIT INSTITUTIONS
Breakdown by portfolio. Weight



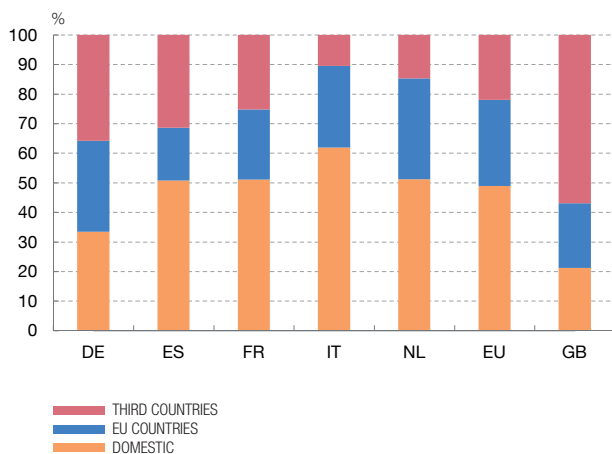
SOURCE: Banco de España.

Chart 7

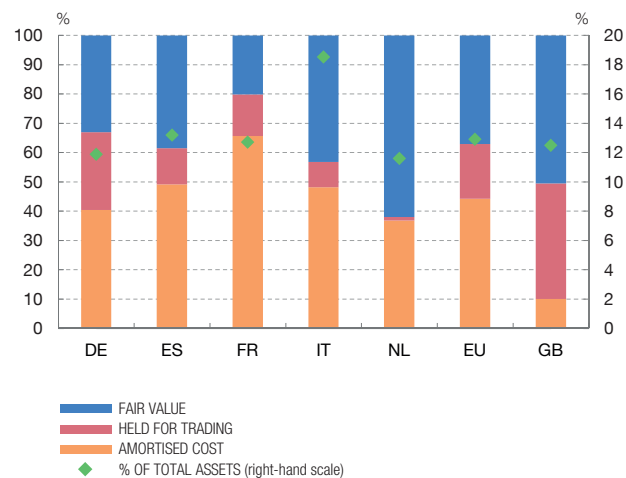
SOVEREIGN DEBT HOLDINGS OF EUROPEAN CREDIT INSTITUTIONS. BREAKDOWN BY COUNTRY AND ACCOUNTING PORTFOLIO

June 2020

1 SOVEREIGN DEBT HOLDINGS OF EUROPEAN CREDIT INSTITUTIONS
Breakdown by issuing country



2 SOVEREIGN DEBT HOLDINGS OF EUROPEAN CREDIT INSTITUTIONS
Breakdown by accounting portfolio



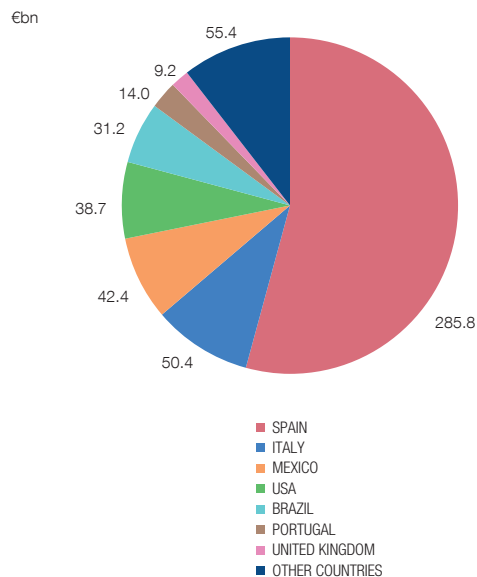
SOURCE: European Banking Authority.

Chart 8

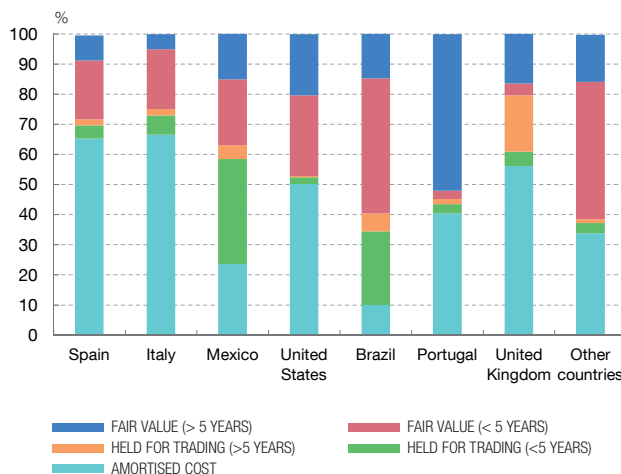
SOVEREIGN DEBT HOLDINGS OF SPANISH CREDIT INSTITUTIONS. BREAKDOWN BY ISSUING COUNTRY AND ACCOUNTING PORTFOLIO

June 2020

1 SOVEREIGN DEBT HOLDINGS OF SPANISH CREDIT INSTITUTIONS
Breakdown by issuing country



2 SOVEREIGN DEBT HOLDINGS OF SPANISH CREDIT INSTITUTIONS
Breakdown by accounting portfolio



SOURCE: Banco de España.

European Union, the sovereign portfolio of UK banks is concentrated in exposures at fair value (89.3%).

The weight of sovereign debt in the total consolidated balance sheet of the Spanish banking sector was 13.4% in June 2020 (see Chart 6). For most significant credit institutions, sovereign debt represented less than 20% of total assets, but in some smaller institutions, it exceeded 25%. In the European Union, sovereign debt carried a weight of 12.9% in the total assets of credit institutions in June 2020, slightly below that of Spanish credit institutions (see Chart 7).

Spanish sovereign debt amounted to €285.8 billion in June 2020, accounting for 54.2% of the total sovereign holdings of the Spanish banking sector (see Chart 8). By volume, the most significant sovereign exposures of Spanish credit institutions were Italy (€50.4 billion), Mexico (€42.4 billion), United States (€38.7 billion) and Brazil (€31.2 billion), jointly accounting for 30.9% of sovereign holdings. Most of the government debt holdings issued by emerging countries (particularly Brazil and Mexico) are classified in held-for-trading and fair value portfolios, while holdings of Spanish and Italian sovereign debt are largely (more than 60%) valued at amortised cost. Holdings of debt issued by the United States and the United Kingdom are

distributed in a comparable manner among the amortised cost and the fair value and trading portfolios.

In the European Union, the weight of domestic sovereign debt in the banking sector's total sovereign holdings was 48.9% in June 2020 (see Chart 7), somewhat below the proportion it represented at Spanish credit institutions. The German banking sector was that in which domestic sovereign holdings carried the least weight (33.4%), compared with the high proportion (61.9%) at Italian banks. In the United Kingdom, UK banks concentrated their sovereign debt holdings in June 2020 in debt issued by third countries (56.9%).

The volume of corporate bonds (issued by credit institutions, other financial corporations – including Sareb – and non-financial corporations) in the consolidated balance sheet of Spanish credit institutions, which amounted to €107.3 billion at June 2020, is concentrated in the largest banks, and mostly valued at amortised cost (54.9% of the total), with some disparity in the use of valuation criteria among institutions. The weight of these exposures in the total assets of Spanish credit institutions was far lower than that of sovereign exposures, below 3% as at June 2020.

5 Possible mitigating measures

Within the domain of monetary policy, in line with the FSB guidelines mentioned in the box above, a measure that would mitigate the impact of automatic adjustments linked to external ratings is the development by central banks of in-house credit assessment capabilities. To date, the Eurosystem has made significant progress in the acceptance of loans to non-financial corporations as collateral through the use of internal credit rating models. It has also developed internal analysis methods in the decisions to purchase asset-backed bonds under asset purchase programmes (APP).

To boost these initiatives, in-house analysis could be extended to other debtor segments, particularly individuals (observing data protection laws) and financial corporations. The internal rating of such loans would allow for a more precise independent analysis of the assets through which they would be indirectly mobilised, such as retained asset-backed securities and own-use covered bonds.

As well as strengthening their in-house assessment capabilities, another way in which central banks can mitigate the adverse effects of the possible rating actions of ECAs is to temporarily raise their level of tolerance to the risk assumed. In an economic crisis the level of risk of financial assets increases, affecting the risk metrics used by central banks and other institutions. Thus, temporarily raising the level of risk tolerance can be an appropriate economic policy measure if it serves to

Box 1

RECENT DISCUSSIONS BY INTERNATIONAL GROUPS

The procyclical behaviour of credit rating downgrades has already been analysed in the past by the Financial Stability Board (FSB), concerned about the adverse effects of these actions during the crisis of 2008. As a result, the FSB published a set of principles to help central banks, among others, avoid approaches that would imply the automatic use of credit ratings by ECAs, and replace these, as far as possible, by internal assessments.¹ Since then, the Eurosystem has been working on applying these principles. Key initiatives include the analysis of the different credit assessment sources used (“due diligence”) and the authorisation of new internal credit rating models. However, there is still significant reliance on ECAI ratings.²

In response to the current pandemic, the FSB has reorganised its work programme to prioritise activities involving analysis of the financial stability implications of COVID-19 and coordination of the response globally. The work of the FSB has identified the procyclicality of credit rating downgrades by rating agencies as one of the risk areas meriting in-depth analysis. In addition, it has launched a mechanism for sharing information about the regulatory and supervisory measures adopted by FSB members to address the pandemic, and has drafted a compendium of measures that is updated and communicated daily to members by the FSB Secretariat. This compendium includes measures relating to credit ratings, such as those taken within the collateral framework for Eurosystem refinancing operations adopted by the ECB.

Turning to the European Systemic Risk Board (ESRB), one of its five priority areas for addressing COVID-19 is analysing the impact of large-scale downgrades of corporate bonds on markets and entities across the financial system. To this end, it set up a working group in April 2020 to research the extent to which these rating downgrades could be problematic, in particular for issuers losing their investment grade status and being downgraded to high-yield (corporate bonds with a rating of BBB represent approximately 60% of the investment grade universe).

The ESRB has observed that the possible forced sales of bonds which were formerly investment grade could result in large spread increases, given the limited absorption capacity of the high-yield bond market, leading to losses for investors and higher funding costs for corporates. From the macroprudential perspective it is therefore important to ensure that the effects of these credit rating downgrades are well understood and do not impair the functioning of financial markets, so that the negative effects on the real economy are minimised. On 14 May, the ESRB published a paper on these issues, and also coordinated a joint analysis with the ECB, EBA, ESMA, and EIOPA,³ to assess the impact of a common scenario of large-scale corporate bond downgrades on the financial sector (credit institutions, investment funds, insurance companies, pension funds and financial markets).⁴

1 See FSB (2010).

2 See FSB (2014), annex C-38, for a summary of the action plans established by the Eurosystem in 2014 to comply with the principles and reduce reliance on external rating agencies.

3 European Banking Authority (EBA), European Securities and Markets Authority (ESMA) and European Insurance and Occupational Pensions Authority (EIOPA).

4 See *A system-wide scenario analysis of large-scale corporate bond downgrades*, an ESRB technical note, July 2020.

prevent second-round effects, since an excessively prudent approach can limit the transmission of other economic policy measures to the real economy, making it less effective.

In this respect, possible measures to mitigate the procyclical behaviour of credit ratings notably include those aimed at eliminating or alleviating the non-linear effects discussed earlier, which are associated with the rating downgrades of certain issuers or financial assets below the investment grade threshold and could have a significant impact on the transmission of monetary policy. These measures include the

possibility of easing, in certain circumstances such as the current crisis resulting from the COVID-19 pandemic, the application by central banks of collateral eligibility requirements in their financing operations or of eligibility requirements in their asset purchase programmes. As mentioned in the previous section, the ECB's Governing Council adopted such a measure within its collateral framework for financing operations. Other central banks, such as the Bank of England or the US Federal Reserve, have taken similar measures under their asset purchase programmes. In the United Kingdom, HM Treasury and the Bank of England launched, in March, the *COVID Corporate Financing Facility (CCFF)*, a scheme to purchase commercial paper from large firms which, to be eligible, are required to be investment grade-rated as at 1 March 2020. They do not lose this status if their credit rating is subsequently downgraded.¹⁸ Under its *Secondary Market Corporate Credit Facility (SMCCF)*, the US Federal Reserve decided that corporate bonds which had lost or might lose their investment grade status would remain eligible, provided that they were investment grade as at 22 March 2020 and did not fall below BB-.¹⁹

In addition, outside the scope of monetary policy, the possibility of temporarily relaxing the investment policies of certain institutional investors with mandates to invest in high credit quality assets should be considered, to avoid disorderly shedding processes which would exacerbate volatility. Such measures would eliminate the amplifying effect that the aforementioned requirements and policies might have on the tightening of financial conditions of issuers affected by rating downgrades to below investment grade. An argument supporting the adoption of such a measure is that the possible increase in exposures with low credit ratings is due, in a crisis such as the present one, to an exogenous event and not to voluntary accumulation resulting from moral hazard issues. This measure would help stabilise bond markets, albeit mainly in the short term, without calling into question the overall use of ratings. Legislation in Spain already covers restrictions on redemptions, the concentration of investments and the liquidity requirements of collective investment undertakings. The instruments implementing this legislation could prove significant for mitigating the impact of rating changes. Moreover, in a crisis such as the current pandemic, extending the scope of these measures to a broad range of institutions should be considered.

The last matter to be addressed here is the assessment of the sensitivity of financial intermediaries' capital and liquidity requirements to procyclical rating adjustments, particularly in the banking sector. Ideally, ratings should already factor in that some issuers are more sensitive than others to cyclical downturns, rather than be subject to real-time adjustments as the downturn unfolds. The problem is that implementing a less cyclical framework in a crisis is not really feasible. For the banking sector, it

18 See <https://www.bankofengland.co.uk/markets/covid-corporate-financing-facility>.

19 See <https://www.newyorkfed.org/markets/secondary-market-corporate-credit-facility/secondary-market-corporate-credit-facility-terms-and-conditions>.

would mean “freezing” risk weights for capital requirements or asset quality assessments for liquidity purposes at their 2019 levels. These would not represent cyclically-adjusted average values, but the values during an upturn. Cyclical downturns should be recognised and values should be adjusted. However, this should be orderly and possibly phased in, while avoiding that the short term is overweighted in these adjustments to the ratings and, consequently, to capital and liquidity requirements. This initial adjustment would subsequently lead to a more comprehensive adjustment in the medium term. This year, the possibility of requesting the European Commission for an easing or a suspension has been explored.

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