



Activation of countercyclical capital buffers in Europe: initial experiences

When there is a downturn in the financial cycle, banks restrict credit in anticipation of an increase in risks and related provisions. Macroprudential authorities have a specific instrument at their disposal to deal with this: the countercyclical capital buffer (CCyB). During favourable periods, the CCyB can be increased to impose additional capital holdings on banks, which can then be used during unfavourable periods to absorb losses and ensure an appropriate supply of financing to the economy. Nevertheless, the concern remains that increasing the CCyB could burden the economy with a cost that far outweighs the expected benefits. These fears are unwarranted however: countries that have activated the CCyB have experienced no negative effects and now have widened the policy space that could respond to potential crises. As a precautionary measure, the French macroprudential authority, the *Haut Conseil de stabilité financière* (HCSF – High Council for Financial Stability), recently increased the countercyclical capital buffer in two steps.

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E32, E58,
G01

0.25%

the countercyclical capital buffer (CCyB) rate that will come into effect in France in July 2019

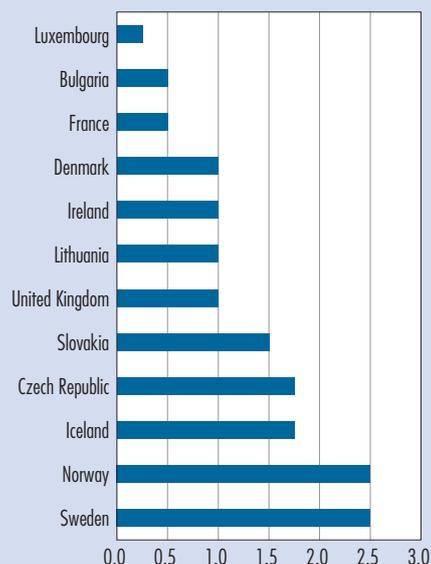
0.5%

the CCyB rate that will come into effect in France in April 2020

12 countries

in Europe have activated their CCyB

Announced rates for 2020 in countries that have decided to activate their CCyB (%)



Source: European Systemic Risk Board (ESRB).



1 What is the objective of the countercyclical capital buffer?

The countercyclical capital buffer (CCyB) is a regulatory capital adequacy requirement applied to banks, whose rate can vary between 0% and 2.5%¹ of risk-weighted assets and which should be increased during the upswing of the financial cycle² and relaxed during a downturn. The CCyB is activated in addition to other regulatory requirements, which taken together define the minimum solvency ratio imposed on banks (see Box 1). It was introduced in the European Union on 1 January 2016, and is set in France by the *Haut Conseil de stabilité financière* (HCSF – High Council for Financial Stability)³ on a quarterly basis.

The CCyB smooths out fluctuations in banking sector capital to avoid a credit crunch

The underlying logic of the CCyB⁴ is to mitigate the procyclicality of banking sector capital, notably observed before and during the great financial crisis of 2008. When the business cycle is bullish, there is an increase in financing and transactional needs while credit risks are perceived to be low. This can lead to a boom in the financial cycle, with excessive and increasingly risky lending, which diminishes banks' capacity to absorb future losses. In the event of a crisis, risks materialise and the losses suffered eat away at banks' capital, while investors demand sounder finances. As raising capital in this type of situation is difficult and costly, banks have to restrict their lending in order to comply with regulatory capital adequacy requirements or market expectations. As a result of a lack of financing, enterprises and households are constrained to reduce their spending and even forced towards bankruptcy, with extremely adverse repercussions for the economy. The CCyB aims to counter the procyclicality of banking sector capital to support "the sustainable provision of credit to the real economy throughout the financial cycle".⁵

The CCyB activation strategy adopted by macroprudential authorities is therefore underpinned by (i) the primary objective of strengthening the resilience of banks in order to limit credit restrictions during crises and (ii) a secondary objective of leaning against excessive lending during the upswing of the cycle.

The CCyB strengthens the resilience of banks

Increasing the CCyB during the upswing of the financial cycle encourages an accumulation of capital at the most opportune moment, as:

- banks can withhold part of their profits as retained earnings rather than distributing them as dividends;
- raising capital on the markets is relatively cheap during an upswing.

Releasing the CCyB during the downturn in the financial cycle thus allows banks to use their capital to:

- absorb, or set aside provisions for, losses resulting from the downturn;
- accommodate the increase in "risk weights" and therefore comply with regulatory ratios.

Consequently banks do not have to reduce their balance sheet and more particularly do not have to ration the distribution of credit.

The CCyB is also likely to affect the upswing of the financial cycle although its extent is uncertain

The potential effect of the CCyB on the upswing of the financial cycle may work through several channels. **The first channel is the signal it sends to the financial markets:** its activation indicates that the period is favourable to the establishment of a safety buffer that

1 A CCyB rate of more than 2.5% can be implemented in exceptional circumstances.

2 The financial cycle represents the overall trend in financial asset prices such as shares, bonds and real estate and is associated with a pronounced appetite for risk from investors.

3 <https://www.economie.gouv.fr/hcsf-en>

4 See Couaillier and Idier, 2017.

5 Recommendations of the European Systemic Risk Board (ESRB/2014/1), Recommendation A, Principle 1.



BOX 1

Capital, solvency ratios, buffers... a few clarifications

In a bank's balance sheet, capital is simply defined as the difference between (i) assets and (ii) debts and deposits recorded under liabilities:

ASSETS	LIABILITIES
All assets held such as shares, bonds, loans granted, etc.	Debts and deposits
	Capital

Capital is a resource that allows a bank to cope with losses to which it may be exposed (economic, financial, legal, etc.). To ensure the resilience of a bank, the banking supervisor has defined a regulatory minimum capital adequacy requirement – the minimum amount of capital a bank has to hold – called the “solvency ratio”, expressed as a ratio of risk-weighted assets:

$$\text{Solvency ratio} = \frac{\text{Capital}}{\text{Risk-weighted assets}}$$

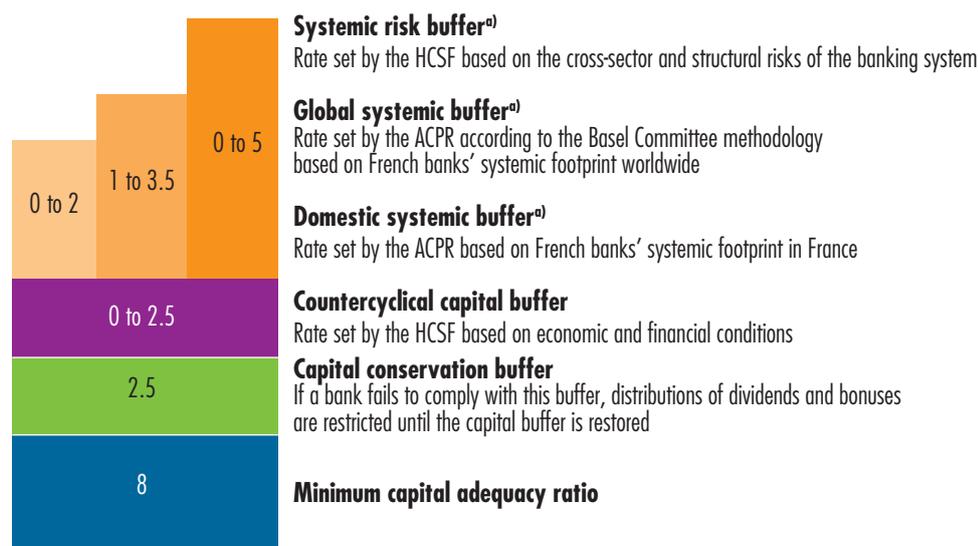
Risk-weighted assets are defined as the product of each asset class of a bank weighted to reflect its level of risk. Some investments considered risk-free are given a zero weight (0%) while others that are rated high-risk are allocated weights over 100%.

European legislation (Capital Requirement Regulation – CRR – and Capital Requirement Directive IV – CRD IV) sets the regulatory minimum solvency ratio at 8%. Supplementary buffers, including the countercyclical capital buffer, come on top of this minimum requirement (see diagram).

In addition to the buffers, banks are also bound by “Pillar 2” capital requirements, which are firm-specific and not subject to communication rules.

Accumulated capital buffers in the banking sector

(%)



a) The largest of the three buffers is applied.

Source: Banque de France.

Note: In the event that the scope of application of the systemic risk buffer only concerns domestic exposures (Article 133(4) of the Capital Requirements Directive), the higher of the two shall apply.



will help to better weather the next crisis. More broadly, this can influence certain behaviours and risk taking.

A second channel passes via the rates on loans granted to customers. Rather than raising capital, banks can increase their lending rates in order to comply with the additional requirement of the CCyB: this reduces their loans without excessively reducing their profits as the increase in earnings on a loan-by-loan basis partially offsets the decrease in volume. This hike in lending rates discourages further borrowing and consequently reduces default risks and bank losses in the event of a crisis.

Lastly, **a third transmission channel is the reorientation of banks towards less risky assets** to take advantage of lower risk weights.

The intensity of these different transmission channels is uncertain as it depends on the behaviour of financial system participants and particularly the strategy chosen by banks to comply with the higher capital requirements. This explains why the communication associated with the countercyclical capital buffer is essential (see Section 3) and its importance is recognised in European

legislation,⁶ under which national macroprudential authorities are required to publish a press release on the setting of the countercyclical capital buffer rate every quarter.

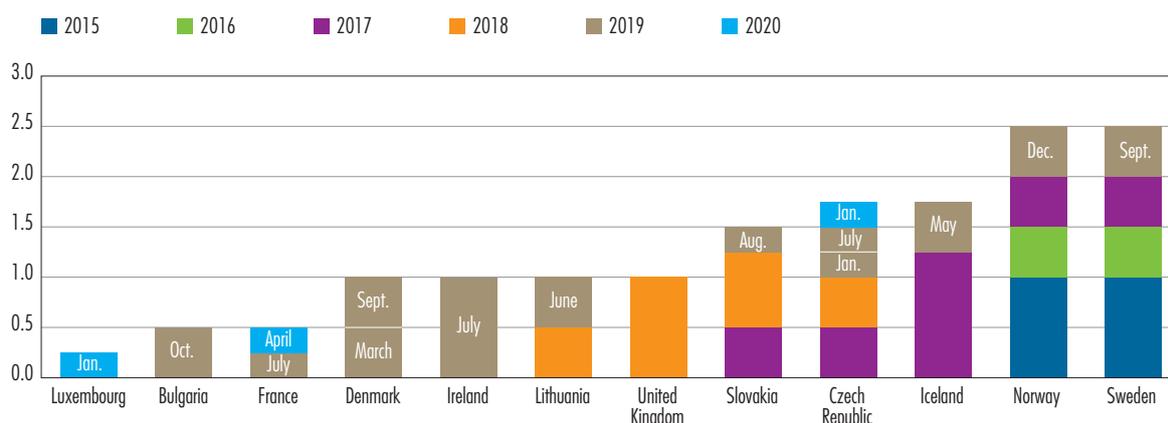
Lastly, it is important to note that the effects of CCyB decisions are limited if the chosen rate does not “bite”, i.e. when banks already report capital ratios in excess of minimum regulatory requirements, including the new CCyB rate. In this case, raising the CCyB only allows for an increase in the “minimum ratio” to prevent banks from overly reducing their solvency ratio during the upswing of the financial cycle.

2 Several countries have implemented a countercyclical capital buffer but they follow different strategies

So far, 10 European Union (EU) countries – Bulgaria, the Czech Republic, Denmark, France, Ireland, Lithuania, Luxembourg, Slovakia, Sweden and the United Kingdom – and two non-EU countries – Iceland and Norway – have decided to activate the countercyclical capital buffer. Chart 1 shows the CCyB rates – announced⁷ and in effect – for these 12 countries.

C1 Countercyclical capital buffers in Europe

(%)



Source: European Systemic Risk Board (ESRB).

Note: The dates of recent announcements are indicated in the Chart. The year when the CCyB came into force is shown in the key. Switzerland’s activation of the countercyclical capital buffer was restricted to mortgage loans (see Box 2) and is therefore not included in the chart.

⁶ Capital Requirement Directive (CRD) IV, Article 136 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013L0036&from=FR>

⁷ Bearing in mind that a regulatory time lag of 12 months applies between the macroprudential authorities’ decision and the date when banks must comply with the new rate.



BOX 2

A real-estate sector countercyclical capital buffer activated in Switzerland

In 2012, Swiss legislation introduced a countercyclical capital buffer (CCyB) with the possibility of a broad application to all exposures or a specific application to a sub-segment. In February 2013, the Swiss Federal Council, acting on a proposal by the Swiss National Bank, set a specific CCyB rate for the real estate sector of 1%. It was subsequently increased to 2% in January 2014. This sectoral CCyB targets bank exposures related to mortgage loans financing residential property located in Switzerland.

The non-sectoral CCyB as we know it in the European Union remained at 0%.

Bank credit and real estate prices had grown strongly in Switzerland, leading to fears that a financial bubble was forming in the residential sector while other types of credit were stagnating. This divergence prompted the introduction of a countercyclical capital buffer that would only be applicable to the real estate sector.

The Swiss National Bank and the Swiss Federal Council nevertheless emphasised that the primary objective was the resilience of the banking system in the face of this targeted risk. This decision could contribute to a dampening of the momentum in the sector, but the authorities considered this objective to be secondary given the surrounding uncertainties.

As provided for in the regulations, the decisions of each country all focused on the primary objective of strengthening the resilience of banks, but the strategy behind its implementation varied, particularly in terms of: (i) the buffer's optimal level; (ii) how quickly the buffer should be raised to its target level; and (iii) the communication employed at the time of the activation and to monitor the measure.

How to decide the appropriate level of the CCyB

EU countries have adopted the principle of "guided discretion" in setting the CCyB:⁸ national authorities can set their own CCyB rate freely, but their decision must be guided by quantitative indicators. Several countries, including France, have publicly disclosed their calibration strategy, from which three main approaches are apparent: (i) the automatic "buffer guide" rule based on macrofinancial indicators; (ii) macroeconomic models; and (iii) stress tests.

Using a "buffer guide" consists in basing the CCyB level on a financial cycle indicator.

The most commonly used guide is that recommended by the Basel Committee, which bases the buffer level on the credit-to-GDP gap.⁹ Under European legislation the use of the credit-to-GDP gap is obligatory but non-binding: the gap and the resulting CCyB benchmark rate must be published alongside the chosen rate. This basic approach provides a useful starting point for a more detailed analysis of risks, but cannot be the only calibration tool. It is impossible for a single indicator to take into account all the determining factors of a financial cycle and the complexity of the financial system.

Some studies have tried to construct more complex indicators able to incorporate the multiplicity of underlying cyclical risk factors and their interactions.¹⁰ While these studies allow us to better grasp the risks, using these "multiple" indicators to arrive at an optimal buffer size generally results in a purely statistical ad-hoc approach

⁸ Capital Requirement Regulation (CRR) and Capital Requirement Directive (CRD) IV.

⁹ See Couaillier and Idier, 2018.

¹⁰ See Coudert and Idier, 2018.



that is peppered with uncertainties. Most countries therefore exploit and publish a larger list of the indicators that are used to carry out the macrofinancial assessment (growth in credit, debt-to-GDP ratio, etc.) without converting them into a CCyB rate.

Using macroeconomic models complements this assessment by taking into consideration the full range of economic fundamentals and their trends. These models incorporate the relationship between banks' capitalisation and the financing of the economy. Their use thus allows us to assess the costs and benefits at the macroeconomic level of activating the buffer. The costs arise from possible credit restrictions during the activation period due to an increase in the borrowing rate, which would put a strain on growth momentum. The benefits are then measured (i) in a lower probability of bank and non-financial private sector default during the activation periods, by dampening excessive debt dynamics, and (ii) in the strengthened resilience of banks to economic shocks during crisis periods, which is particularly reflected in smaller reductions in their credit supply.

Lastly, the CCyB level can also be determined using stress-test models, an approach directly linked to the primary objective of strengthening the resilience of banks. One specific characteristic of these stress tests is the scenario, which must incorporate

two phases: (i) a risk accumulation phase typical of an overheating economy, followed by (ii) a crisis phase consistent with a downturn in the financial cycle with a recessionary effect on the economy. Within this framework, the use of individual data means that one can directly assess the resilience of each bank, the associated effects of interbank contagion and the banking system's capacity to continue to finance the economy. When setting the buffer, some European countries, such as the Czech Republic, published a broad overview of the results of their stress-test exercises.

Given the strengths and weaknesses of each of these approaches, it seems useful to combine them. Qualitative contributions ("expert judgements") are then incorporated into the quantitative analyses in order to arrive at what is considered the desirable CCyB level. Consequently, the size of the economy and the financial system, the country's macroeconomic volatility or the structure of the financial sector are all factors taken into consideration in the final decision. For example, when the Central Bank of Ireland first activated the CCyB in July 2018, it highlighted that, given the extreme sensitivity of the Irish economy to external shocks, it was important to ensure that Irish banks were sufficiently resilient to even imported shocks. Lastly, certain countries have decided to set a "positive neutral rate", i.e. a reference target rate for when the economy is in the median phase of the financial cycle (see Box 3).

BOX 3

The "positive neutral rate" strategy

The positive neutral rate strategy consists in adopting a countercyclical capital buffer rate above zero in the normal "neutral" zone of the financial cycle: in other words, the cycle does not need to be in an upswing to justify a positive buffer. The Bank of England and the Bank of Lithuania have explicitly adopted this strategy. Its aim is to facilitate a possible reduction in capital requirements at any given moment: in the event of an unexpected or imported crisis, a zero buffer would provide no leeway and could not be used as an economic policy lever.¹ As the Bank of England indicated through its Financial Policy Committee (FPC), this strategy allows it to adjust the CCyB both up and down. Consequently, the positive neutral rate for the United Kingdom was set at 1%. In addition, it improves transparency in the choice of the adopted CCyB rate and avoids belated decisions vis-à-vis the evolution of the financial cycle.

¹ However, this strategy, set out in March 2016, was affected by the fallout from the Brexit referendum: fearing a crisis with the announcement of the results and given the uncertainties just after the vote, the FPC decided to cancel the activation of the CCyB. Once the shock of the result had passed and there was no major impact on the economic situation, the FPC resumed its activation strategy towards a positive neutral rate in 2017 by raising the rate from 0% to 0.5% during the second quarter of 2017 while simultaneously signalling its intent to raise it by a further 0.5 percentage point in the fourth quarter of 2017 to anchor expectations. The strategy was confirmed at the end of 2017 when the CCyB rate was increased to 1%.

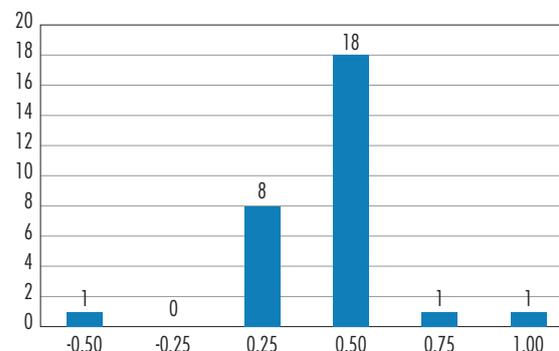


How quickly should the buffer be put in place?

Once the appropriate level (or target) has been determined, the decision still remains as to how quickly it should be put in place. This has an influence on the effects that the activation of the CCyB should produce: larger and quicker rate increases will push banks toward greater credit restrictions or disinvestments from riskier assets. A clear parallel can be drawn between the pace of implementation of a higher CCyB rate and monetary policy measures: key policy rates are generally raised in increments of 0.25 percentage point. At the moment, nothing of this sort has been established for the CCyB and it is therefore difficult for macroprudential authorities to set such a pace. In accordance with the European legislative framework, the CCyB must be calibrated in multiples of 0.25 percentage point. Nevertheless, banks have a 12-month delay to meet the new CCyB requirement, meaning that adjustments to the buffer are inherently slow. Consequently, excessive gradualism by the authorities could prevent the CCyB rate from rising sufficiently to cope with the increase in risks. The time lag involved in building up the buffer too slowly could mean that the CCyB may not reach the required level before the onset of a crisis.

C2 Countercyclical capital buffer adjustments in Europe

(x-axis: percentage points – pp;
y-axis: number of CCyB adjustments of x pp)



Sources: European Systemic Risk Board (ESRB); Banque de France calculations.

Note: Switzerland only activated a sector-specific CCyB for mortgage loans (see Box 2) and is therefore not included in the chart.

Several EU countries have adopted a gradual strategy – more or less explicitly stated – by raising the buffer in steps of 0.25 or 0.5 percentage point with each decision (Bank of England, Banque de France). Other macroprudential authorities have opted for more substantial rate hikes (Sweden¹¹ or Slovakia, for example) and have sometimes eschewed gradualism entirely, as in the case of Ireland,¹² which raised the CCyB rate from 0% to 1% directly. However, there is no instance of a larger than 1 percentage point increase (see Chart 2).

BOX 4

The countercyclical capital buffer in France

The French macroprudential authority, the *Haut Conseil de stabilité financière* (HCSF – High Council for Financial Stability), adopted the proposal of the Governor of the Banque de France to raise the countercyclical capital buffer (CCyB) rate to 0.5% in two 0.25 percentage-point steps: the first increase was decided in June 2018 and the second in March 2019. Banks have one year from the date of each decision to apply the rate.

As it stated in its press release dated 18 March 2019: “The HCSF considers this level as appropriate in the current juncture and specifies that it will relax the CCyB in the event of a reversal in the financial cycle, with immediate application. It would enable banks to mobilize this capital reserve to preserve their ability to provide credit, notably to small and medium-sized firms, which rely most on bank financing.”

¹¹ *Finansinspektionen* (the Swedish banking supervisor) activated its CCyB in 2014 with an initial rate of 1%, although the subsequent increases were smaller (increases of 0.5 percentage point in 2015, 2016 and 2018).

¹² In July 2018, the Central Bank of Ireland also activated its CCyB and set the rate at 1%. This was intended to strengthen the resilience of the Irish banking sector against the increase in cyclical risks and will come into force in July 2019.



While the debate surrounding the pace of the increase is still ongoing, there appears to be a relative consensus on how quickly it should be relaxed: in the event of a crisis, the buffer would be fully released with immediate effect. More precisely, the Basel Committee states that a deactivation of the buffer should be contemplated under two scenarios: (i) when there are losses in the banking system that necessitate the depletion of capital and thus pose a risk to the financing of the economy; or (ii) when events outside the banking sector affect the financial system in such a way that the flow of credit could be disrupted and could undermine the performance of the real economy.

So far, the only example of this being applied is that of the United Kingdom, which, following the Brexit referendum, cancelled the pre-announced 0.5 percentage point increase before the rate could even enter into effect. However, once the immediate aftermath of the referendum and the threat of a crisis were over, the increase in the CCyB was reinstated.

Communication: a key link in the CCyB strategy

There are several levels to the communication on the countercyclical capital buffer. First, the macroprudential authorities must establish their legitimacy by showing that their analyses are robust. Thus, macroprudential authorities regularly publish research papers, analyses and educational articles that are intended to demonstrate that their decisions and their calibration of the countercyclical capital buffer in particular are sound.¹³ Furthermore, communication contributes to making the procedure more transparent.

Presenting the strategy is also an important part of communication. Several macroprudential authorities published their approach to setting the buffer on their website in order to explain how they make their decisions, and some go further, with dedicated web pages detailing all the indicators likely to support the chosen level. This clearly provides greater transparency but also raises the risk of an oversimplification of the detailed analyses

required to properly determine an appropriate buffer level.

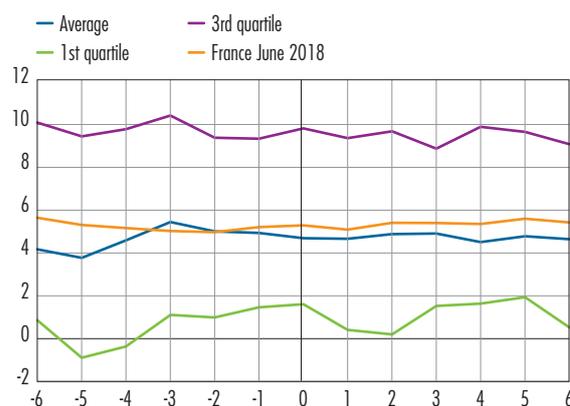
Lastly, the macroprudential authorities are able to disclose their assessments and establish a continuity to their communications through their quarterly press releases announcing the CCyB rate decisions (made compulsory by European legislation).¹⁴ It notably gives them the opportunity to indicate the country's position in the financial cycle on a quarterly basis, thus anchoring expectations regarding future decisions (sometimes going so far as to pre-announce decisions for coming quarters, as the Bank of England did).¹⁵

At this stage, activating the CCyB has not led to any drop in credit

Despite the wide variety of underlying strategies, the various CCyB activations across Europe have had one similar result: there has been no notable impact on the growth in credit (see Chart 3). This is due to two factors: (i) potentially effective communication; and (ii) the instrument's weak impact on credit dynamics during the upswing of the financial cycle, particularly if banks' capital ratios already exceed the new requirements.

C3 Impact of countercyclical capital buffer activations on growth in credit in Europe

(%)



Sources: European Central Bank (ECB) and Banque de France. Note: Credit (adjusted for securitisation) granted by domestic banks to domestic households and non-financial companies; 0 represents the month of the announcement.

¹³ See "References" for macroprudential analyses published in Banque de France documents.

¹⁴ Capital Requirement Directive (CRD) IV, Article 136(7).

¹⁵ In its *Financial Stability Report* of June 2017, the Bank of England stated that it was ready to increase the CCyB rate to 1% during its next meeting in November 2017 if the activation conditions remained unchanged.



It is important to note that the absence of an impact from increasing the CCyB does not mean that its deactivation will also be without effect: capital requirements do not currently restrict credit, but they are likely to during periods of crisis when the release of the CCyB will thus be useful. This is the very logic of the CCyB.

Nevertheless, the fact remains that despite the existence of a common regulatory framework, national CCyB decisions are based on country-specific strategies and different calibration methods. Is perpetuating these differences desirable? Perhaps the next crisis will tell us.



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