

## Resolution of banking crises: what are the loss absorbency requirements in Europe and the United States?

Europe and the United States (US) have strengthened their capacity to cope with banking crises since the 2008 global financial crisis. The authorities have set up a method for managing bank failures, known as resolution, that safeguards financial stability and protects depositors. Resolution makes it possible to maintain the activities of a failing bank or transfer them to an acquiring entity, with financing provided through contributions from shareholders and creditors rather than taxpayers. To this end, the authorities require significant banks to issue capital and debt instruments capable of absorbing losses on financial markets, in compliance with the international standard on total loss-absorbing capacity (TLAC). This article compares loss-absorbing capacity requirements in Europe and the United States, and finds European standards to be more stringent than those in the US.

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G21, G28

### In the second quarter of 2023:

**EUR 2,700 billion**

total capital, debt and other liabilities of the European banking sector available to absorb losses in resolution

**4% of risk-weighted assets**

the surcharge resulting from average loss-absorbing capacity requirements placed on European systemically important banks compared with US systemically important banks

**8**

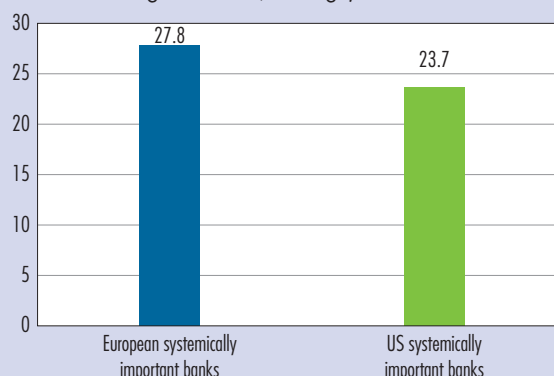
the number of US banking groups subject to loss-absorbing capacity requirements in resolution

**308**

the number of banks in the European Union on which resolution authorities have imposed loss-absorbing capacity requirements in resolution

### Loss-absorbing capacity requirements of European and US systemically important banks at end-June 2023

(as a % of risk-weighted assets, average)



Sources: Single Resolution Board (SRB, 2023), Federal Reserve, financial disclosure.

Scope: Eight European global systemically important banks and eight US global systemically important banks.

# 1 Loss absorption for the resolution of banking crises: European Union and US regulatory frameworks

## Bank resolution: a means of managing failures that is covered by a special legal regime

The need for a new framework to manage banking crises was identified as an international priority in the aftermath of the global financial crisis of 2007-08. The Financial Stability Board (FSB) drew up a standard for resolution regimes (FSB, 2011), which was endorsed by the G20 at the Cannes summit in November 2011.

A bank may be declared to be failing if it suffers losses that deplete its capital or if it is no longer able to honour its debts as they fall due. But banks are not like other businesses: they distribute credit, look after clients' savings and manage means of payment. In some cases, subjecting them to a standard insolvency procedure such as judicial liquidation could disrupt these activities, which play a critical role in the economy, and threaten financial stability.

Bank resolution differs from judicial liquidation in two ways.

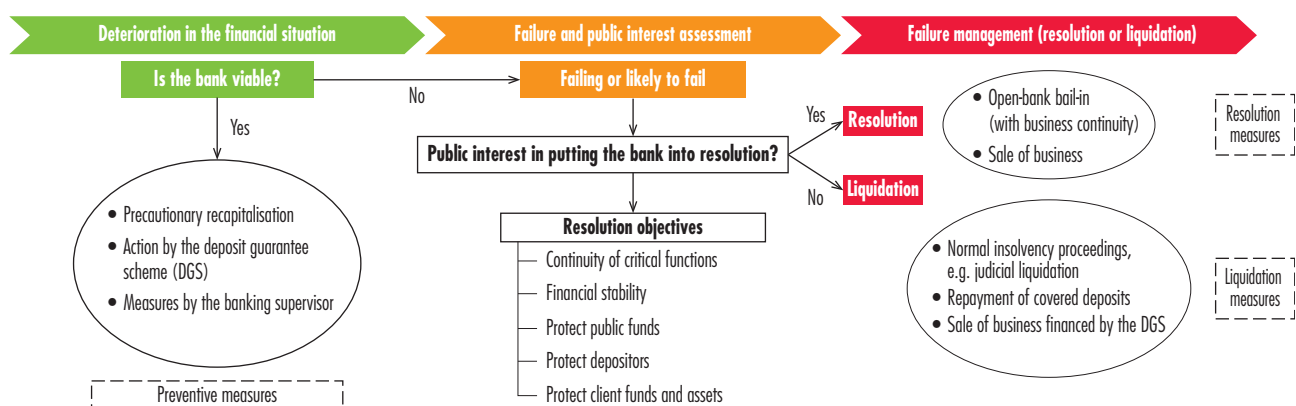
First, the resolution procedure is exceptional. It may be employed only if winding up the bank would not meet the public interest to the same extent (see diagram below).

Second, the procedure is not entrusted to a judge, but rather to an ad hoc administrative authority with special legal powers. The resolution authority may choose between two types of solution in the event of a bank failure (Benahmed and Houarner, 2023). It can require the failing bank's shareholders and creditors to make contributions to recapitalise the institution and maintain its activities (bail-in). Or it can organise for the bank's activities to be transferred to an acquiring entity or a bridge bank. **Resolution is thus an important means of managing failing banks that limits the use of public funds as well as moral hazard.** In so doing, it prevents the "too-big-to-fail" issue from arising.

## Resolution regimes in Europe and the United States

The European Union (EU) complied with the international standard on resolution regimes with the adoption of Directive No. 2014/59/EU of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms. While single supervision forms the first pillar of the euro area's Banking Union, the second pillar is the Single Resolution Mechanism, comprising a European authority, the Single Resolution Board (SRB), along with national resolution authorities. Europe's resolution approach is intended to be applied if doing so is in the public interest as regards certain objectives, including preserving financial stability and protecting public and depositor resources (see diagram).

## Management of banking crises within the European Union



Sources: *Autorité de contrôle prudentiel et de résolution (ACPR)*, author.

Note: A bank's critical functions may include managing client deposits and means of payment, distributing credit to households and businesses, as well as market activities.

In the United States, the company at the head of a banking group is typically a bank holding company, which is not a bank. US federal law thus established two different resolution regimes depending on the category to which a financial institution belongs, i.e. deposit-taking banks, called “insured depository institutions”, or the holding companies that control them.

Since 1933, the Federal Deposit Insurance Corporation (FDIC) has been responsible for managing the failures of depository institutions insured under the Federal Deposit Insurance Act. A special federal framework allows the FDIC to implement resolution measures provided that they are less costly than liquidating the institution (“least cost test”). These measures include transferring activities to an acquirer under a purchase-and-assumption transaction, or, in the absence of a buyer, setting up a bridge bank.

In response to the global financial crisis, in 2010 Title II of the Dodd Frank Act extended the FDIC’s resolution powers to some systemically important holding companies whose failure could threaten the financial stability of the United States. Among other things, the FDIC may set up a bridge bank holding company to receive and maintain the activities of a failing systemically important banking group, with shareholders and creditors of the parent company required to provide contributions for this purpose.

## Loss-absorbing capacity standards to finance the European and US resolution regimes

The prevention of banking crises is based on prudential regulation and banking supervision, which primarily impose capital requirements on banks (see Box 1). However, because these requirements cannot prevent all bank failures, prevention needs to be combined with resolution instruments. That is done through additional capital and subordinated debt, which boost banks’ loss-absorbing capacity, making it possible to manage crises that cannot be averted.

Resolution regimes also set down the principle whereby shareholders and creditors, not taxpayers, must bear the costs of their bank’s failure. In this way, the bail-in mechanism acts as the cornerstone of Europe’s resolution framework. It consists in cancelling some of the failing institution’s debts and other liabilities or converting them into equity, according to a pre-agreed order of priority. For this instrument to be employed, bank balance sheets must hold a sufficient quantity of capital and debt.

European resolution authorities are thus empowered to impose a minimum requirement for own funds and eligible liabilities (MREL) on any institution that would be subject to resolution in the event of failure (see diagram above). The MREL is specific to the EU and exists alongside the

### BOX 1

#### European and US prudential requirements: prevention beats cure

Resolution is a last-resort solution to stop a bank going bust. Failure can be prevented if a bank’s balance sheet structure is sufficiently sound. On a bank’s balance sheet, own funds (or capital) are the difference between total assets and debts and deposits recorded under liabilities. These are resources that are always available to absorb losses.

##### Simplified bank balance sheet

ASSETS		LIABILITIES	
Total assets (loans, bonds, shares, etc.)		Debts and deposits	
		Own funds (or capital)	

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To ensure a sound banking sector, regulations and the banking supervisor require banks to hold a minimum amount of capital, expressed as a share of:

i) risk-weighted assets, which is a measure of total assets that weights each exposure by a factor reflecting the associated risk (solvency ratio);

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

ii) total exposures (on- and off-balance sheet), irrespective of risk level (leverage ratio).

$$\text{Leverage ratio} = \frac{\text{Capital}}{\text{Total exposures}}$$

For large European banks, risk-based capital requirements are stacked in three layers:

- 1) minimum capital requirements (Pillar 1 requirements), set at 8% of risk-weighted assets for all banks, of which at least 4.5% must be Common Equity Tier 1 (CET1) capital;
- 2) additional capital requirements (Pillar 2 requirements), set by the euro area's single supervisor (European Central Bank) according to the specific risk profile of each institution;
- 3) the combined buffer requirement, which banks must comply with to be able to pay dividends. This requirement is the sum of the capital conservation buffer, the countercyclical buffer (Couvillier et al., 2019), buffers for global systemically important banks (G-SIBs) and other systemically important banks (Araujo et al., 2023) and the systemic risk buffer (Gabrieli and Jimborean, 2020).

The requirements of US systemically important banks may also be divided into three categories:

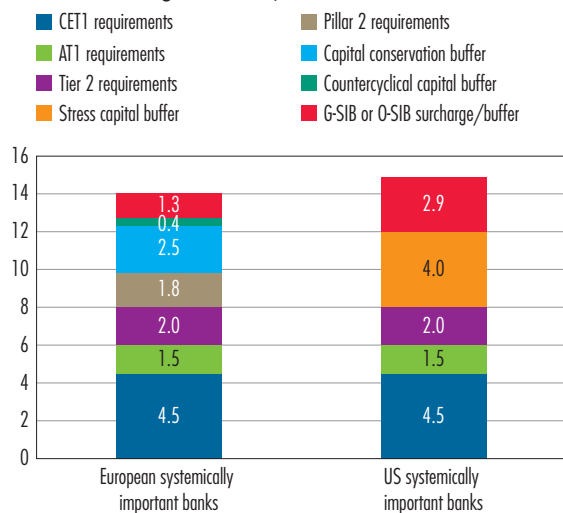
- 1) minimum capital requirements of 8% of risk-weighted assets;
- 2) an additional capital requirement, called the stress capital buffer, set on a case-by-case basis by the US central bank based on stress test results;
- 3) capital buffers: the countercyclical capital buffer and the G-SIB surcharge.

In addition, the capital of European banks must exceed 3% of total exposures. This requirement may be supplemented by a buffer for banks' systemic importance and on a case-by-case basis by Pillar 2 requirements. The leverage ratio requirement for US systemically important banks stands at 5%.

The overall capital requirements of US systemically important banks are slightly higher than those of European systemically important banks (14.9%, compared with 14% of risk-weighted assets at end-June 2023, see chart). However, this prudential discrepancy is more than made up for by the even larger surcharge due to European resolution-related capital and debt requirements (see Section 2).

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### Comparison of overall risk-based capital requirements of European and US systemically important banks, at end-June 2023 (as a % of risk-weighted assets)



Sources: Single Resolution Board (SRB, 2023), Federal Reserve, financial disclosure, ACPR calculations.  
Notes: Weighted averages, weighted by banks' risk-weighted assets.  
AT1: Additional Tier 1 capital. CET1: Common Equity Tier 1 capital. G-SIB: global systemically important bank. O-SIB: other systemically important bank. Tier 2: Tier 2 capital.

international standard on total loss-absorbing capacity (TLAC) set by the Financial Stability Board for global systemically important banks (G-SIBs) (see Box 2 below).

In all, approximately 300 European banks (EBA, 2024) are required to meet MREL in the EU, including more than 80 large banking groups under the authority<sup>1</sup> of the Single Resolution Board in the Banking Union. In the United States, just eight systemically important banks<sup>2</sup> are subject to TLAC requirements. The EU thus stands out for its broad application of rules governing loss-absorbing capacity in resolution (see Table 1). The crisis in March and April 2023 that hit US regional banks, including Silicon Valley Bank, Signature Bank and First Republic, which are not classified as systemically important, underscored the appropriateness

of Europe's model, by showing that even the failure of such banks could have global repercussions (see appendix).

Like prudential requirements (see Box 1 above), European loss-absorbing capacity requirements (MREL) and those of the Financial Stability Board (TLAC) are expressed with reference to two measures of the affected banking group's total consolidated assets: i) risk-weighted assets, a metric that weights each asset exposure by a factor that considers the associated risk; and ii) total exposures, irrespective of risk level. Banks meet these requirements by issuing eligible capital and debt instruments on financial markets (see Box 3 below), where they are mainly acquired by institutional investors such as insurers, pension funds and asset managers.

<sup>1</sup> Significant banks and cross-border groups.

<sup>2</sup> And a few subsidiaries of foreign G-SIBs.

## T1 Scope of loss-absorbing capacity standards in the European Union and the United States

		European Union	United States
Loss-absorbing capacity standard	MREL	European transposition of TLAC international standard	US transposition of TLAC international standard
Affected institutions	Any institution whose capital requirements are deemed by the authorities to be insufficient to cope with failure	Global systemically important banks	Global systemically important banks
Number of institutions (in the second quarter of 2023)	308, including 8 global systemically important banks	8 banks: BNP Paribas, Deutsche Bank, Groupe BPCE, Groupe Crédit Agricole, ING, Santander, Société Générale and Unicredit <sup>a)</sup>	8 banks: Bank of America, Bank of New York Mellon, Citigroup, Goldman Sachs, JP Morgan Chase, Morgan Stanley, State Street and Wells Fargo

Sources: European Banking Authority (EBA, 2024), Federal Reserve TLAC Rule.

Note: MREL: minimum requirement for own funds and eligible liabilities. TLAC: total loss-absorbing capacity.

a) Unicredit was not included in the list of global systemically important banks published in November 2023 by the Financial Stability Board.

### BOX 2

#### The adoption of MREL and TLAC loss-absorbing capacity standards to finance resolution regimes

The 2011 international standard on resolution regimes establishes only the principle that shareholders and creditors will be called on to fund the resolution procedure. In November 2015, the Financial Stability Board specified the minimum size of that contribution for systemically important banks, by adopting the international standard on total loss-absorbing capacity (TLAC). The EU minimum requirement for own funds and eligible liabilities (MREL) regulatory framework dates from 2014 and preceded the adoption of the standard.

The Financial Stability Board's TLAC standard is not legally binding as such. In order to make it so, it had to be transposed into national legislation. In December 2016, the US Federal Reserve adopted a rule that transposed the standard for the United States. In 2019, the EU also implemented the TLAC standard in the internal market for European systemically important banks, while simultaneously strengthening the existing MREL regulatory framework. These banks thus comply with two parallel sets of loss-absorbing capacity requirements: MREL and the TLAC standard transposed by the EU.

### BOX 3

## Capital and debt instruments eligible for MREL and TLAC

To be eligible for the minimum requirement for own funds and eligible liabilities (MREL) and total loss-absorbing capacity (TLAC), capital and debt instruments must notably be issued and paid in, have a residual maturity of more than one year, and be unsecured. On a bank's balance sheet, these instruments correspond to resources provided by investors and are divided into different categories that reflect their stability and their order of priority for repayment. These resources are available to absorb losses or recapitalise a bank in the event of failure, because resolution authorities are empowered to cancel them or convert them into equity.

**Ta MREL- and TLAC-eligible instruments in a simplified bank balance sheet**

ASSETS	LIABILITIES
Total assets (loans, bonds, shares, etc.)	Non-eligible liabilities (other debts and deposits)
	MREL- and TLAC-eligible debt
	Other capital instruments
	Shares and reserves (core capital)

Note: MREL: minimum requirement for own funds and eligible liabilities.  
TLAC: total loss-absorbing capacity.

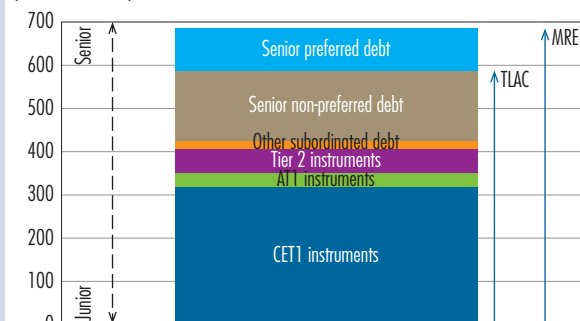
In resolution, losses are attributed to shareholders and creditors according to a pre-agreed hierarchy. For the most part, European banks meet MREL and TLAC requirements through the following six categories of instruments, organised by rising rank of repayment priority:

- 1) Common Equity Tier 1 (CET1): shares making up the capital, reserves and retained earnings of the bank.
- 2) Additional Tier 1 (AT1) instruments: bank bonds, also known as contingent convertible bonds (CoCos), with no maturity and that may be redeemed only at the issuer's initiative. Depending on contractual trigger levels, they may be converted into equity or cancelled.
- 3) Tier 2 subordinated debt instruments: bank bonds with a maturity of at least five years and which rank higher than AT1 creditors and shareholders for repayment, but below all other creditors.
- 4) Other subordinated debt, which ranks below all creditors other than AT1 and Tier 2 creditors for repayment.
- 5) Senior non-preferred debt,<sup>1</sup> which absorbs losses after capital and subordinated instruments, but before ordinary creditors and deposits of large corporates and financial institutions.

<sup>1</sup> Senior holdco debt issued by the parent (holding company) of a banking group in the United States is the US equivalent of this type of European debt.

## Aggregate loss-absorbing capacity of French systemically important banks: eligible instruments at end-June 2023

(EUR billions)



Sources: MREL/TLAC reports, ACPR calculations.

Scope: BNP Paribas, Groupe BPCE, Groupe Crédit Agricole and Société Générale.

Guide: At end-June 2023, MREL-eligible instruments on the balance sheets of France's four systemically important banks (MREL capacity) were worth over EUR 680 billion (32% of risk-weighted assets), including approximately EUR 100 billion in senior preferred debt.

Note: AT1: Additional Tier 1 capital. CET1: Common Equity Tier 1 capital. MREL: minimum requirement for own funds and eligible liabilities. Tier 2: Tier 2 capital.

TLAC: total loss-absorbing capacity.

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6) Senior preferred debt, which is repaid ahead of all the abovementioned bank debt categories. In general, this type of debt is eligible for MREL, but not TLAC.

Compliance with the hierarchy of creditors in resolution means that losses cannot be assigned to a debt category until lower-ranked categories of liabilities have been depleted. In March 2023, Swiss authorities cancelled AT1 bonds when Crédit Suisse failed, even though shareholders had not lost their entire investment. Such a scenario could not happen during a bank resolution in the European Union.

MREL- and TLAC-eligible bank debt issues are costlier to fund than non-eligible bank debt such as covered bonds. They include a risk premium linked to the probability of a bail-in, which moves in the opposite direction to the priority ranking of such debt in the hierarchy of creditors (see Table b).

**Tb iBoxx index: yields on different types of bank debt issued in EUR at 4 April 2024**

(as a %)

iBoxx index	Covered (covered bonds)	Senior Preferred (senior preferred debt)	Senior bail-in (senior non-preferred debt)	Tier 2	AT1
Yield	3.1	3.6	3.7	4.4	7.3

Source: Markit.

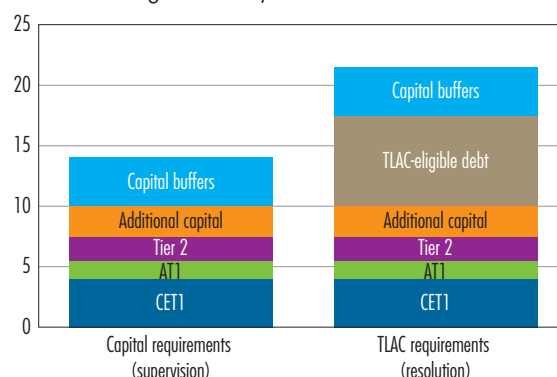
Note: AT1: Additional Tier 1 capital. Tier 2: Tier 2 capital.

## 2 Loss-absorbing capacity requirements are set higher in the EU than in the United States

### MREL and TLAC loss-absorbing capacity requirements in Europe and the United States

Prudential requirements oblige banks to hold: i) capital equal to at least 8% of risk-weighted assets and 3% of total exposures (minimum requirements set by the Basel Committee's international standard); ii) additional capital as determined by the supervisor (referred to as Pillar 2 requirements in Europe, see Box 1 above); and iii) capital buffers over and above the minimum and additional capital requirements, before they may freely pay dividends to their shareholders. For the purposes of resolution, the FSB's TLAC standard interposes a fourth loss-absorbing buffer layer, typically made up of debt, between additional capital and the capital buffers (see Chart 1). Overall, it requires systemically important banks to set aside capital and debt equal to at least 18% of their risk-weighted assets and 6.75% of their total exposures (excluding capital buffers). Europe's transposition of the TLAC standard complies with these levels.

**C1 Stacking of loss-absorbing buffers, systemically important banks**  
(as a % of risk-weighted assets)



Sources: Financial Stability Board (FSB, 2015), Federal Reserve TLAC rule.

Guide: Example of how loss-absorbing buffers (capital and TLAC) are stacked for a systemically important bank with minimum capital requirements of 8%, supplementary capital requirements of 2.5% and capital buffers of 4% of risk-weighted assets.

Note: AT1: Additional Tier 1 capital. CET1: Common Equity Tier 1 capital. Tier 2: Tier 2 capital. TLAC: total loss absorbing capacity.



## T2 US TLAC requirements

(as a % of risk-weighted assets and total exposures)

Requirements	Requirement type	Risk-based requirement	Total exposure-based requirement (irrespective of risk level)
TLAC	Minimum	18	7.5
	Buffer	2.5 + method 1 G-SIB surcharge + countercyclical buffer	2
	Buffer composition	CET1	CET1/AT1
	Total	20.5 + method 1 G-SIB surcharge + countercyclical buffer	9.5
Long-term debt	Minimum	6 + greater of method 1 and method 2 G-SIB surcharges	4.5

Source: Federal Reserve TLAC rule.

Notes: The Federal Reserve uses two different methods to assess the US G-SIB buffer, known as the G-SIB surcharge. Method 1 corresponds to the Basel international standard. Method 2 is specific to the US prudential framework. The Federal Reserve decides unilaterally which method to employ.

AT1: Additional Tier 1 capital. CET1: Common Equity Tier 1 capital. G-SIB: global systemically important bank.

TLAC: total loss absorbing capacity.

As transposed in the United States, the TLAC standard requires a harmonised level of loss-absorbing capacity for the country's eight systemically important banks, set at 18% of risk-weighted assets and 7.5% of total exposures (excluding capital buffers), to be satisfied partially by means of long-term debt instruments (see Table 2). This latter requirement ensures that a sufficient amount of debt will remain available to capitalise a bridge bank even in the event of capital depletion.

Unlike TLAC requirements, MREL is individualised and does not have a harmonised set level. Resolution authorities calculate it annually based on the risk profile of each bank, supplementing pre-existing prudential requirements with a specific amount for resolution, called the recapitalisation amount (see Box 4).

### BOX 4

#### How is a bank's MREL calibrated?

A bank's MREL is the sum of two amounts: the amount of expected losses in resolution and the recapitalisation amount that will allow the institution to continue to fulfil its licensing requirements as a credit institution and to keep operating after resolution.

These two amounts are calculated and updated each year by the resolution authorities. The European legislative framework established the principle whereby the estimated amount of a bank's losses in resolution should be determined by its prudential requirements. The recapitalisation amount is set according to the same base, factoring in the change in total assets expected during resolution. In practice, it also includes an additional buffer<sup>1</sup> to maintain market confidence in the event of resolution. Finally, to be able to freely pay dividends to their shareholders, banks must maintain capital buffers (see Box 1 above) over and above their risk-based MREL (see chart below).

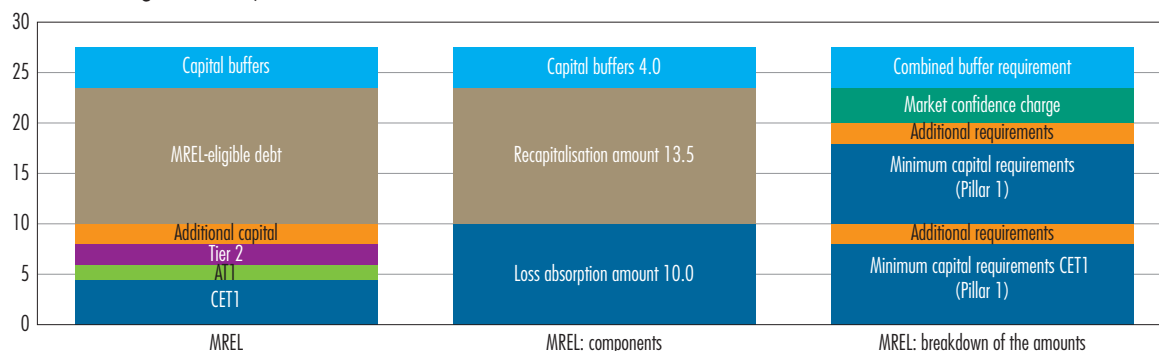
<sup>1</sup> For the risk-based requirement, not the requirement expressed as a share of total exposures.

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For some large European banks, this calculation method comes with a regulatory floor. Specifically, their MREL cannot be less than 8% of the banking group's total liabilities and own funds.<sup>2</sup>

### Sample calibration of MREL based on the specific risks of each European institution

(as a % of risk-weighted assets)



Source: Autorité de contrôle prudentiel et de résolution (ACPR).

Guide: Sample calculation of the risk-based MREL for an institution with additional capital (Pillar 2) requirements of 2% and a combined buffer requirement of 4%, including a countercyclical capital buffer of 0.5%. Its MREL is the sum of the loss absorption amount (10%) and the recapitalisation amount (13.5%), or 23.5% of risk-weighted assets. The overall MREL, including capital buffers, is 27.5% of risk-weighted assets.

Notes: In the Banking Union, the market confidence charge, which is integrated in the recapitalisation amount, is equal to the combined buffer requirement excluding the countercyclical buffer (3.5% in the above example).

AT1: Additional Tier 1 capital. CET1: Common Equity Tier 1 capital. Tier 2: Tier 2 capital.

MREL: minimum requirement for own funds and eligible liabilities.

<sup>2</sup> This measure is different from total exposures (on- and off-balance sheet) and risk-weighted assets. For example, if the ratio of risk-weighted assets to total liabilities and own funds is equal to 0.3, MREL (including capital buffers) cannot be below 26.7% of risk-weighted assets ( $= 8\%/0.3$ ).

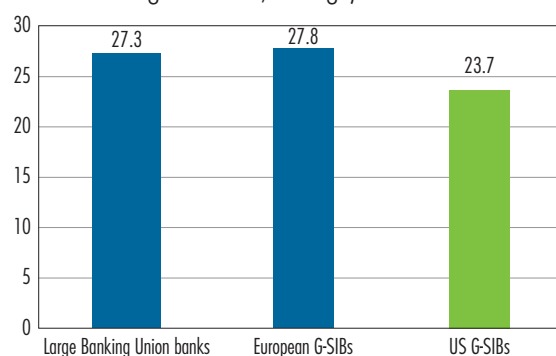
## Comparing the levels of European and US loss-absorbing capacity requirements

On average, MREL for large Banking Union banks amounts to 27.3% of risk-weighted assets, while among European systemically important banks, the average is approximately 27.8% (including capital buffers, in the second quarter of 2023). That represents a surcharge of 4% of risk-weighted assets over the average of 23.7% for the TLAC requirements placed on US systemically important banks (including capital buffers, see Chart 2).

This means that European systemically important banks must issue, proportionate to their risk, more loss-absorbing capital and debt instruments than their US counterparts. It does not reflect a pre-existing difference between US and European prudential requirements, but rather the way in which resolution requirements increase them. The overall capital requirements of US systemically important banks

## C2 European loss-absorbing capacity requirements (MREL) and US requirements (TLAC) at end-June 2023 (including capital buffers)

(as a % of risk-weighted assets, average)



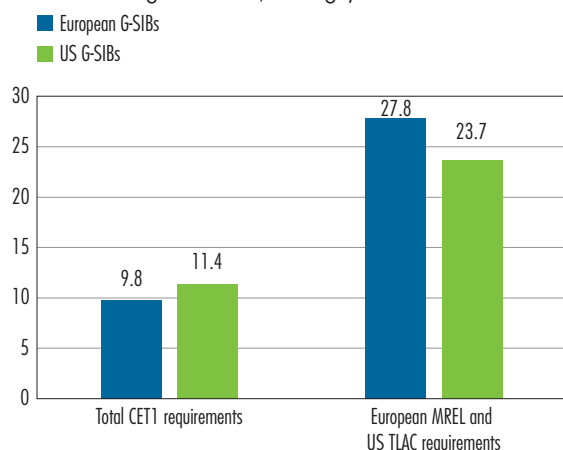
Sources: Single Resolution Board (SRB, 2023), Federal Reserve, financial disclosure, ACPR calculations.

Scope: 82 large banks under the remit of the Single Resolution Board in the Banking Union; eight European systemically important banks; eight US systemically important banks.

Notes: Highest TLAC and MREL requirements (risk-based or irrespective of risk level). Weighted averages, weighted by banks' risk-weighted assets. G-SIB: global systemically important bank. MREL: minimum requirement for own funds and eligible liabilities. TLAC: total loss-absorbing capacity.

### C3 Total Common Equity Tier 1 requirements and MREL and TLAC loss-absorbing capacity requirements of European and US systemically important banks at end-June 2023 (including capital buffers)

(as a % of risk-weighted assets, average)



Sources: Single Resolution Board (SRB, 2023), Federal Reserve, financial disclosure, ACPR calculations.

Scope: Eight European systemically important banks and eight US systemically important banks.

Notes: Overall capital requirements (see glossary and Box 1 above), which must be satisfied through CET1 instruments. Highest TLAC and MREL requirements (risk-based or irrespective of risk level). Weighted averages, weighted by banks' risk-weighted assets. CET1: Common Equity Tier 1 capital. G-SIB: global systemically important bank. MREL: minimum requirement for own funds and eligible liabilities. TLAC: total loss-absorbing capacity.

are actually slightly higher than those applicable to systemically important institutions in the Banking Union. But the MREL increases the prudential requirements for common equity of European systemically important banks by a factor of 2.7, whereas the TLAC requirements of their US counterparts merely double them (see Chart 3).

### Stricter qualitative requirements in the United States than in Europe

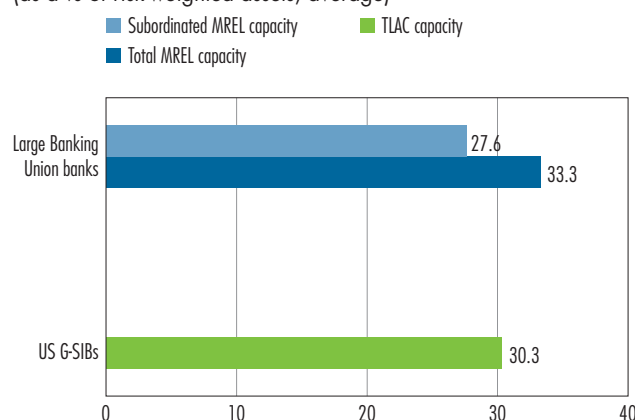
In the US regulatory framework, in the event of resolution, losses are imposed as a priority on all holders of TLAC-eligible capital and debt instruments. Other creditors cannot be called on to contribute until these instruments have been depleted. Thus, the entirety of the TLAC established by US systemically important banks is treated as

subordinate to other balance sheet liabilities. Europe's regulatory framework is less restrictive when ranking MREL-eligible instruments in the creditor hierarchy. Specifically, the MREL capacity of European systemically important banks and institutions with total assets of more than EUR 100 billion must be subordinate to their other liabilities not in full, but only up to 8%<sup>3</sup> of total liabilities and own funds (see Chart 4).

The US regulatory framework includes other qualitative requirements with no European equivalent. For example, to be in compliance with the TLAC standard, US systemically important banks are not permitted to issue debt instruments under foreign, i.e. non-US, law.

### C4 Available MREL and TLAC capacity to absorb losses in resolution, European and US banks at end-June 2023

(as a % of risk-weighted assets, average)



Sources: Single Resolution Board (SRB, 2023), Federal Reserve, financial disclosure, ACPR calculations.

Scope: 82 large banks under the remit of the Single Resolution Board in the Banking Union and eight US systemically important banks.

Guide: TLAC-eligible capital and debt instruments on the balance sheets of US systemically important banks, all subordinated, amount to 30.3% of risk-weighted assets on average. The MREL capacity of Banking Union banks amounts to 33.3% of risk-weighted assets on average, including 27.6% in subordinated instruments.

Notes: Weighted averages, weighted by banks' risk-weighted assets.

G-SIB: global systemically important bank. MREL: minimum requirement for own funds and eligible liabilities.

TLAC: total loss absorbing capacity.

<sup>3</sup> Resolution authorities can adjust this threshold down.

### 3 Loss-absorbing capacity in Europe and the United States: the same goal of controlling moral hazard, but different contexts

#### Protecting resolution funds and deposits

A failing bank's own resources, including capital and subordinated debt, may not be sufficient to support a resolution procedure. "External" funds, financed by the banking sector, are then needed. The importance placed on MREL or TLAC within this combination of financing sources depends on each jurisdiction's specific institutional architecture.

Europe's regulatory framework comprises national resolution funds and the Single Resolution Fund for the Banking Union, which are financed by contributions from banks. The Single Resolution Fund pools the risks of the domestic banking sectors, and drawing on it may lead losses to be shared across countries. In the absence of a federal budget in the euro area, access to the fund's resources, which amount to approximately 80 EUR billion,<sup>4</sup> is therefore restricted. The fund may be drawn on only if a bail-in covers the equivalent of at least 8% of the balance sheet of a bank in resolution. This threshold also corresponds to the regulatory floor of the MREL for some large EU banking groups (see Box 4 above). It reflects the political equilibrium specific to Europe's resolution regime, which was created as a response to the euro area government debt crisis and designed to break the vicious circle between banks and sovereigns. Accordingly, the MREL anchors the funding of the resolution regime.

In the United States, the federal Treasury acts as the final safety net for the resolution regime. For this reason, the FDIC is not subject to equivalent restrictions when it comes to drawing on the deposit guarantee fund.<sup>5</sup> The fund safeguards the financial equilibrium of the resolution procedure for depository institutions, in the absence of generalised loss-absorbing capacity within the US banking sector.

In addition to being a protection factor for resolution funds, loss-absorbing capacity is also a source of balance sheet stability for banks. In the event of a failure, MREL- and TLAC-eligible instruments are first in line to absorb losses and therefore protect uninsured deposits held in client bank accounts. These instruments may thus play an important role in maintaining depositor confidence in the event of difficulties and limit the risks of a bank run (FSB, 2023).

#### Solvency and liquidity during a bank resolution

Loss-absorbing capacity seeks to mitigate solvency problems. Resolution may however originate in or lead to liquidity shortfalls. For example, Crédit Suisse's TLAC, which amounted to 40% of risk-weighted assets in the first quarter of 2023, was not an appropriate instrument to respond to the liquidity crisis in March 2023.

To resolve a systemically important institution, the FDIC may draw liquidity from a special Orderly Liquidation Fund. This public scheme, which is guaranteed by a line of credit from the US Treasury, can provide liquidity up to 90% of the fair value of the institution's consolidated assets.<sup>6</sup>

Europe's resolution regime does not have a single, exceptional liquidity facility for banks put in resolution. Rather, lawmakers designed a scheme that relies on private refinancing on the markets, which could be accelerated by the fact that the bank has been strongly recapitalised. The European regulatory framework, with its high MREL (and especially the market confidence charge, see Box 4 above), offsets the risk of a liquidity shortfall during a resolution.

\*\*\*

Loss-absorbing capacity requirements in Europe and the United States differ significantly, despite the adoption of an international standard. Europe's framework is more

<sup>4</sup> Or 1% of the covered deposits of all credit institutions in the Banking Union at end-2023.

<sup>5</sup> The FDIC is responsible both for resolution and for insuring the deposits of authorised institutions. The deposit guarantee fund therefore also acts as a resolution fund for these institutions.

<sup>6</sup> Thirty days after the start of resolution.

demanding, even though European bank debt markets are shallower<sup>7</sup> than the US market, which raises the question of equal treatment for large, internationally active banks. The discrepancy is an argument in favour of developing a European financial market through the

Capital Markets Union. It is similarly an incentive to complete the Banking Union, to ensure that the equilibrium of Europe's resolution regime is not solely reliant on the MREL calibration.

## References

[Araujo \(A.\), Coffinet \(J.\) and El Fathi \(K.\) \(2023\)](#)

"A specific regulatory framework for global systemically important banks", *Bulletin de la Banque de France*, No. 247/2, July-August.

[Download the document](#)

[Benahmed \(R.\) \(2022\)](#)

"Loss-absorbing capacity requirements in resolution for G-SIBs in the EU and the US", *Working paper on resolution*, ACPR, December.

[Download the document](#)

[Benahmed \(R.\) and Houarner \(M.\) \(2023\)](#)

"Strategic optionality in resolution: combination of tools", *Working paper on resolution*, ACPR, December.

[Download the document](#)

[Couaillier \(C.\), Idier \(J.\) and Scalone \(V.\) \(2019\)](#)

"Activation of countercyclical capital buffers in Europe: initial experiences", *Bulletin de la Banque de France*, No. 222/1, March-April.

[Download the document](#)

[EBA, European Banking Authority \(2024\)](#)

*MREL Dashboard Data as of Q2 2023*, January.

[FSB \(Financial Stability Board\) \(2011\)](#)

*Key attributes of effective resolution regimes for financial institutions*, October.

[FSB \(2015\)](#)

*Total loss-absorbing capacity (TLAC) – Principles and Term Sheet*, November.

[FSB \(2023\)](#)

*2023 Bank failures: Preliminary lessons learnt for resolution*, October.

[Gabrieli \(S.\) and Jimborean \(R.\) \(2020\)](#)

"Systemic risk buffer: what would this instrument be used for?", *Bulletin de la Banque de France*, No. 227/2, January-February.

[Download the document](#)

[SRB, Single Resolution Board \(2023\)](#)

*MREL Dashboard Q2.2023*, November.

<sup>7</sup> Depth expresses a market's capacity to absorb large value transactions in bank debt.

## Appendix

# Proposal to extend loss-absorbing capacity requirements to large US regional banks

## Classification of US banks

Unlike Europe, the United States does not apply the Basel Committee's prudential regulations in a uniform manner, including for large banks. In October 2019, US banking regulators adopted a more progressive approach to the application of prudential standards to such entities. US G-SIBs meet "enhanced" prudential standards relative to Basel III standards. Other institutions reporting total assets of more than USD 100 billion are subject to reduced prudential requirements based on their risk profile and size. These organisations are divided into three categories: i) Category II: USD 700 billion in total consolidated assets or USD 75 billion or more in cross-jurisdictional activity; ii) Category III: total consolidated assets of between USD 250 billion and USD 700 billion or USD 75 billion or more in weighted short-term wholesale funding, non-bank assets, or off-balance sheet exposure; and iii) Category IV: total consolidated assets of between USD 100 billion and USD 250 billion.

TLAC and long-term debt requirements apply only to Category I organisations, i.e. holding companies of US systemically important banks.

## Scope of the proposal

On 29 August 2023, in response to the regional bank crisis in spring 2023, three US federal agencies, namely the Federal Reserve, the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency, published a proposal for a rule imposing a long-term debt requirement on some banks besides G-SIBs. These are organisations

with more than USD 100 billion in total consolidated assets and include: i) bank holding companies and savings and loan holding companies (Category II, III, and IV holding companies); ii) intermediate holding companies (holding companies that are subsidiaries of foreign institutions); and iii) insured depository institutions.<sup>1</sup>

The three agencies estimate that these requirements would cover around 20 institutions in all: 18 holding companies, one subsidiary of a foreign institution and one insured depository institution.<sup>2</sup> By comparison, the Single Resolution Board imposes MREL on 27 banks with more than 100 EUR billion in total assets and 47 banks whose total assets are below that level (excluding G-SIBs) in the Banking Union.

## Calibrating loss-absorbing capacity requirements for large US regional banks

The proposal suggests setting long-term debt requirements at 6% of risk-weighted assets and 2.5% of total exposures.<sup>3</sup> These would be met by means of subordinated debt instruments. Assuming that the balance sheet shrinks by around 15% during resolution, this calibration would make it possible to restore a bank's compliance with Common Equity Tier 1 (CET1) prudential requirements of 7% (minimum requirement of 4.5% and capital conservation buffer of 2.5%) and a leverage ratio of 3%.

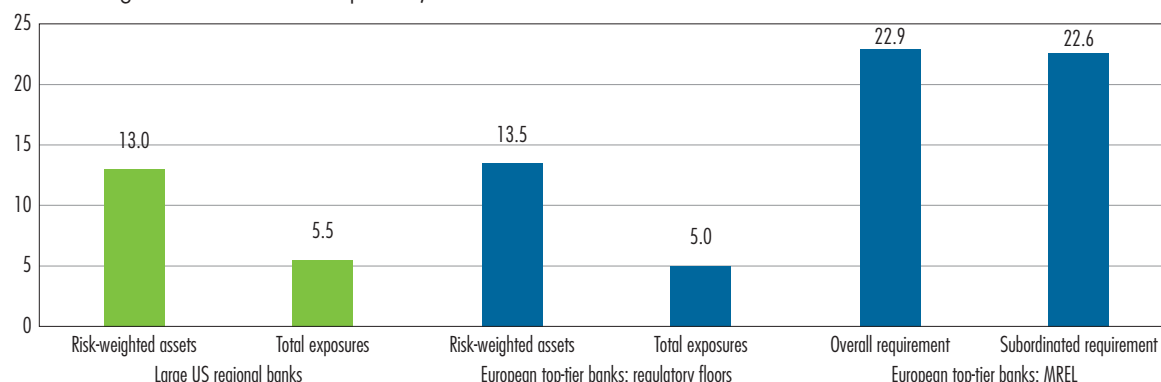
Following the European approach to loss absorption and recapitalisation, this calibration corresponds to theoretical loss-absorbing capacity requirements in resolution of 13% of risk-weighted assets and 5.5% of total exposures.

<sup>1</sup> These organisations may be controlled by an entity that is already subject to requirements. In such cases, the requirements are described as "internal" to a group: debt instruments issued by the organisation must be subscribed by this entity and may not be offered to external third-party creditors.

<sup>2</sup> Within these banking groups, 24 insured depository institutions would also be subject to "internal" long-term debt requirements.

<sup>3</sup> And 3.5% of total assets.

### Calibration of the proposal by federal agencies for US regional banks and of MREL for European top-tier banks (excluding capital buffers) (as a % of risk-weighted assets and total exposures)



Sources: European Banking Authority (EBA, 2024). August 2023 proposal by US federal agencies.

Notes: European top-tier banks: European non-G-SIBs with total assets of more than EUR 100 billion. Highest average MREL (risk-based or irrespective of risk level), excluding capital buffers, of European top-tier banks in the second quarter of 2023, expressed as a percentage of risk-weighted assets.

MREL: minimum requirement for own funds and eligible liabilities.

The BRRD<sup>4</sup> sets regulatory floors for MREL-eligible subordinated instruments for two types of European banks other than systemically important banks: i) banks with more than EUR 100 billion in total assets, also called top-tier banks; and ii) banks with total assets of less than EUR 100 billion but that are deemed to be systemically important by the resolution authority. Owing to their size and the qualitative requirement regarding subordination, they are comparable to the large US regional banks targeted by the proposal put forward by the federal

agencies. While the level of the regulatory floors is close to the calibration contained in the US proposal, the average MREL set for these European banks by resolution authorities is higher by some 10 percentage points of risk-weighted assets (see chart).

If the proposal were to be applied as it stands, loss-absorbing capacity requirements would remain less widely applied in the United States than in Europe, with a larger average gap in the level of these requirements.

<sup>4</sup> Bank Recovery and Resolution Directive (Directive No. 2014/59/EU of 15 May 2014).



# Glossary

Asterisks indicate that a term used in a definition is also defined elsewhere in the glossary.

## **Additional capital requirements (Pillar 2 requirements):**

Capital requirements that supplement the minimum requirements\*. These requirements are set individually by the banking supervisor.

**Additional Tier 1 (AT1) capital:** Bank bonds with no maturity and that may be redeemed only at the issuer's initiative. These bonds may be converted into equity or cancelled if the bank's solvency ratio\* falls below a contractually determined threshold or in resolution.

**Bail-in:** A resolution instrument that the authorities may utilise in the event of failure to absorb losses and recapitalise a bank. It consists in cancelling a bank's shares, debts and other liabilities or converting them into equity.

**Bank resolution:** Method used to manage bank failures that is different from judicial liquidation\*. Resolution is implemented by the resolution authority, an ad hoc administrative authority entrusted with extraordinary powers to maintain a failing bank's activities or, alternatively, transfer them to an acquiring entity.

**Banking supervision:** Supervision of banks' risks and activities, performed by a public authority (usually a central bank), known as a supervisor, to ensure the soundness of the banking sector. Banking supervision, combined with prudential regulation\*, is intended to prevent bank failures.

**Basel Committee:** International body that coordinates banking supervision\*, providing a forum for supervisors around the world to collaborate. The Basel Committee\* has set down standards governing minimum capital requirements.

**Capital buffers:** To be able to freely pay out dividends to their shareholders, banks must at all times maintain capital buffers over and above their i) minimum capital

requirements\* and additional capital requirements\*; as well as ii) resolution-related MREL\* and TLAC\* requirements.

**Common Equity Tier 1 (CET1) capital:** Capital of the highest quality, made up of resources that are always available to absorb losses. CET1 is primarily made up of shares issued by the bank and reserves.

**European systemically important banks** (in the second quarter of 2023): BNP Paribas, Deutsche Bank, Groupe BPCE, Groupe Crédit Agricole, ING, Santander, Société Générale and Unicredit.

**Global systemically important banks (G-SIBs):** Each year, the Financial Stability Board publishes a list of G-SIBs, which are institutions whose disorderly failure would disrupt the international financial system owing to their size, complexity or interconnectedness.

**Hierarchy of creditors:** The order in which creditors are repaid during a judicial liquidation procedure, with shareholders coming last after all other creditors. The hierarchy also determines the order in which creditors are called on to contribute in the event of resolution.

**Judicial liquidation:** An insolvency process that terminates the business of a failing enterprise whose recovery is clearly impossible. Under the supervision of a judge, the company's assets are sold to repay creditors according to a pre-agreed order of priority.

**Leverage ratio:** Ratio of a bank's common equity and additional Tier 1 capital\* to total exposures\*. A bank's leverage ratio\* must always be at least equal to its leverage ratio requirement.

**Loss-absorbing capacity:** All capital and debt on a bank's balance sheet satisfying certain criteria defined in the regulations and available to absorb losses or recapitalise a bank in the event of resolution.



**Loss-absorbing capacity requirements (MREL/TLAC):**

Requirements set under the regulations and by resolution authorities that oblige banks to hold a minimum amount of capital and debt that is eligible for MREL\*/TLAC\* as a share of their risk-weighted assets\* and total exposures\*.

**Minimum requirement for own funds and eligible liabilities (MREL):**

MREL loss-absorbing capacity requirements\* oblige systemically important and non-systemically important European banks to hold a minimum amount of capital and debt that may be used for a bail-in\* in the event of resolution. Unlike TLAC, these requirements are set individually.

**MREL and TLAC eligible instruments:**

Capital and debt instruments issued by banks must meet certain criteria to satisfy MREL\* and TLAC\* requirements. All regulatory capital\* is eligible for MREL\* and TLAC\*. Some debt instruments with a residual maturity of more than one year and that rank the same as or below ordinary creditors for repayment are also eligible for MREL\* and TLAC\*.

**MREL (TLAC) capacity (or MREL (TLAC) ratio):** Ratio of MREL\* (TLAC\*) eligible instruments on a bank's balance sheet to its risk-weighted assets. A bank's MREL\* (TLAC\*) capacity must always be at least equal to its MREL\* (TLAC\*) requirements.

**Other systemically important banks (O-SIBs):** Banks that are recognised as nationally systemically important by the country's authorities.

**Overall capital requirements:** Overall capital requirements oblige banks to hold a minimum amount of capital as a share of risk-weighted assets\* or total exposures\*. They include the minimum capital requirements\*, which are the same for all banks, and additional capital requirements\*, which are set individually by the supervisor, plus capital buffers\*.

**Prudential regulation:** Set of rules that banks must follow to avoid taking excessive risks that might lead to failure.

**Regulatory capital:** Regulatory capital comprises Common Equity Tier 1 capital (CET1\*), additional Tier 1 capital (AT1\*) and Tier 2 capital\*. Banks use regulatory capital to meet their capital requirements.

**Regulatory minimum capital requirements (Pillar 1 requirements):**

The Basel Committee\* has set the regulatory minimum capital requirements, which are the same for all banks, namely 8% of risk-weighted assets\* and 3% of total exposures\*.

**Resolution funding:**

Bank resolution is financed by two sources: i) the bank's own resources (capital and debt), which were provided to it by shareholders and creditors; and ii) under certain conditions, "external" funds financed by the banking sector through contributions collected by a resolution fund.

**Risk-weighted assets:**

Measure of a bank's total assets that weights each asset exposure by a factor reflecting the risks associated with that exposure. Risk-weighted assets are the denominator of the solvency ratio\*.

**Solvency ratio:** Ratio of a bank's regulatory capital\* to its risk-weighted assets\*. A bank's solvency ratio\* must always be at least equal to its capital requirements.

**Tier 2 capital:** Bonds with a maturity of at least five years and which rank higher than AT1\* creditors and shareholders for repayment, but below all other creditors.

**Top-tier European banks:** European banks with more than EUR 100 billion in total assets and that are not G-SIBs.

**Total loss-absorbing capacity (TLAC):**

TLAC requirements oblige G-SIBs to hold a minimum amount of capital and debt that may be used for a bail-in\* in the event of resolution. These requirements were set down by the Financial Stability Board and transposed into national law by the European Union and the United States.

**Total exposures:** Measure of a bank's total on- and off-balance sheet assets, irrespective of risk level. Total exposures form the denominator of the leverage ratio.

**US systemically important banks** (in the second quarter of 2023): Bank of America, Bank of New York Mellon, Citigroup, Goldman Sachs, JP Morgan Chase, Morgan Stanley, State Street and Wells Fargo.

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