Regulation

Funding before and in resolution

A proposal for a funding in resolution mechanism

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Executive summary

The first cases of practical implementation of the new resolution framework in the Eurozone show that more remains to be done in order to improve the newly created regime. **Both the industry and the authorities agree that one of the most pressing issues that needs an urgent solution is the lack of a clear funding in resolution mechanism.**

The **new resolution regime enshrined in the Bank Recovery and Resolution Directive (BRRD) and which requires losses to be absorbed by creditors instead of taxpayers, is incompatible with the "constructive ambiguity"** that has traditionally imbued the framework of Lender Of Last Resort (LOLR)[1]. Indeed, the new resolution regime revolves around the idea of recapitalizing a bank by applying several tools among which the most prominent one is the bail-in. However, the need to also ensure enough liquidity to guarantee a smooth and successful resolution process has been neglected so far. Investors, banks, authorities and the public in general demand clarity and a homogeneous European regime on the conditions of bank resolution. And access to liquidity is a basic aspect of the rules of the game. No matter how much planning is carried out on an ex-ante basis through recovery and resolution plans, a credible public backstop, providing liquidity in resolution is needed as, recommended by the FSB. **Having a proper funding in resolution regime is crucial.**

Another aspect that is often overlooked and that should also be clarified is the **link between funding in resolution and funding before resolution**. In most cases, before reaching resolution, a bank has a considerable exposure vis-a-vis central banks, through regular monetary operations in normal times and through LOLR facilities, such as Emergency Liquidity Assistance (ELA), as market based funding dries up. The establishment of a funding in resolution mechanism needs to take into account this connection and must clarify the role of the central bank before and during resolution.

This note includes a proposal to **establish a funding in resolution mechanism** at the Eurozone level. The first section analyzes the necessary link between ELA and funding in resolution. It then shows the need for a new funding in resolution framework and a possible arrangement where the **European Central Bank (ECB), backed by guarantees (which could be considered as eligible collateral) from the Single Resolution Fund (SRF), assumes the responsibility to also provide the liquidity for a bank in resolution**. Finally the last section sets out some issues which need to be resolved before establishing the new framework, among which the most pressing one would be to ensure that it is compatible with the objectives and tasks of the Eurosystem.

1: The lender of last resort function is a concept that dates as far back as the XIXth century (Bagehot dictum) and is one of the crucial roles assumed by central banks in order to protect the financial stability.

The link between ELA and funding in resolution

- The debates on funding in resolution and on ELA have been separated so far.

  - Funding in resolution is a concept put forward by the Financial Stability Board (FSB) in the resolution work stream, which states that a bank in resolution must **first rely on internal liquidity sources**. If unavailable, the bank must resort to **private markets** as the preferred source of funding in resolution. As a last resort, and if the first two fail, a **credible public sector backstop** mechanism should be in place to enable the temporary funding needs of the firm to maintain the continuity of its critical functions in resolution[2]. The framework is wide enough to allow each country to define its scheme with considerable leeway. In Europe this is more complicated due to the coexistence of one central bank and 19 treasuries, as well as the lack of completion of the Banking Union.

  - ELA is a framework put in place by the ECB in 1999[3] (subsequently revised by several policies, the last was published in 2017) to define the conditions under which banks may receive emergency liquidity support from the National Central Banks (NCBs), with conditions (collateral, etc.) potentially softer than regular liquidity standing facilities.

- Both frameworks have been discussed so far as if they were totally separate, due to the fact that in theory ELA is for banks with a liquidity problem and funding in resolution is for a bank with a solvency problem. But this distinction is artificial for several reasons:

  - **Most banking crises lie in a grey area between liquidity and solvency problems**. When the authorities take a decision on whether to intervene or not they normally do not have full information about the solvency situation. Very often the trigger for intervention is a liquidity problem, as the bank loses access to funding when the rumors of solvency problems propagate.

  - Very **often, when a bank enters resolution it has significant positions in ELA vis-à-vis the central banks**. In these situations, the first problem of funding in resolution is not how or who should lend ex novo to the entity in resolution, but how to renew the existing ELA positions to maintain market confidence during the delicate period immediately after resolution, so as to recover market access as soon as possible. This transition is complicated by the fact that most central banks are prohibited from lending to insolvent banks[4].

  - In a liquidity crisis it is crucial to have sufficient ammunition to stop a speculative attack or a bank run. The **central bank is the only institution with this firing capacity**. Even if the institution in charge of funding in resolution is not usually the central bank, the latter acts as a backstop. In this regard, again, the Eurozone is an exception due to its peculiar institutional configuration.

Why is a clear framework for funding in resolution necessary?

- The **provision of liquidity is crucial for the success of a bank resolution process**. Even if a bank is well recapitalized after the implementation of a resolution tool (bail-in or bridge bank combined with the asset separation tool) and can continue operating, it still needs liquidity to pay its debts as they come due. A lack of liquidity could ultimately lead the bank into a bankruptcy process. The ensuing liquidation of assets and the discontinuation of critical services could put at risk the financial stability of a country which is exactly what the new resolution regime tries to avoid.

2: FSB's guiding principles on the temporary funding needed to support the orderly resolution of a global systemically important bank ("G-SIB") and Funding Strategy Elements of an Implementable Resolution Plan.
3: See M. Hallerberg and R. Lastra (2017).
4: This is certainly the case of the ECB, although some flexibility has been introduced recently in the ELA framework.

- Currently, in the Eurozone, there is no clarity around the provision of funding to a bank in resolution and there is no credible public sector backstop in place, as recommended by the FSB. The Bank Recovery and Resolution Directive (BRRD) is more focused on how to recapitalize an entity rather than on how to also ensure the much needed liquidity during a resolution. This is not the case in other jurisdictions such as the **UK, USA or Canada (see Table 1) where clear frameworks for the provision of liquidity are in place.**

Table 1 Funding before and in resolution in different jurisdictions

	USA	UK	Canada	EZ
Clarity?	Yes	Yes	Yes	No
Who provides funds to banks?	OLF (FDIC)	Bank of England (under the Resolution Liquidity Framework)	Bank of Canada (under ELA framework) and CDIC (with access to funds from the Government)	National Central Banks (ELA) and resolution funds (although no clarity and very limited)
Provides funding in foreign currency?	?	Yes	Yes	Yes for ELA
When does it provide funds?	In resolution only (under OLA)	In resolution only	Both before and in resolution	Both before and in resolution but no clarity between FOLF and recapitalization plan
Public backstop?	Yes Treasury can lend to FDIC	Yes HMT	Yes Government of Canada	No
Unlimited?	First 30 days since receivership limited to 10% of bank's Total Liabilities, then up to 90% of TL	Yes, "in the necessary scale"	Yes (ELA limited by collateral)	NO (ELA limited by collateral, SRF limited to available funds)
Rates	"significant premium"*	"designed to incentivize return to market based funding"	Bank rate for ELA	ELA: equal to the Eurosystem's Marginal Lending Facility rate + 100 pbs. In case of intraday loans: 1%.
Secured?	Yes based on published list of eligible assets. Secretary of Treasury must approve use of other assets*	Yes based on the eligible collateral of the Sterling Monetary Framework	Yes based on a published list of eligible assets which is broader than for normal operations	Yes but no clarity on the eligibility of collateral and haircut policy
Unlimited term?	"It should be limited to a fixed term"*	"for a sufficient period of time to allow the firm to make the transition to market-based funding"	ELA: max 6 months but can be renewed as many times as necessary	ELA: can be longer than 12 months but would need the agreement of the ECB's GC
Ex-post industry reimbursement?	Yes	Yes		For the SRF yes
Super priority?	Yes	No	No	No
Observations	Lender of Last resort prohibited for individual banks in bankruptcy or resolution	No resolution fund. Instead banks pay the Treasury a "bank levy" up to 1% of covered depos by 2024	Last ELA update changes the solvency requirement for a credible recovery and resolution framework and includes mortgages as eligible collateral	Last ELA update changes the solvency requirement for a recapitalization plan in the near future

* According to Treasury's recommendations to amend OLA.
Source: BBVA Research

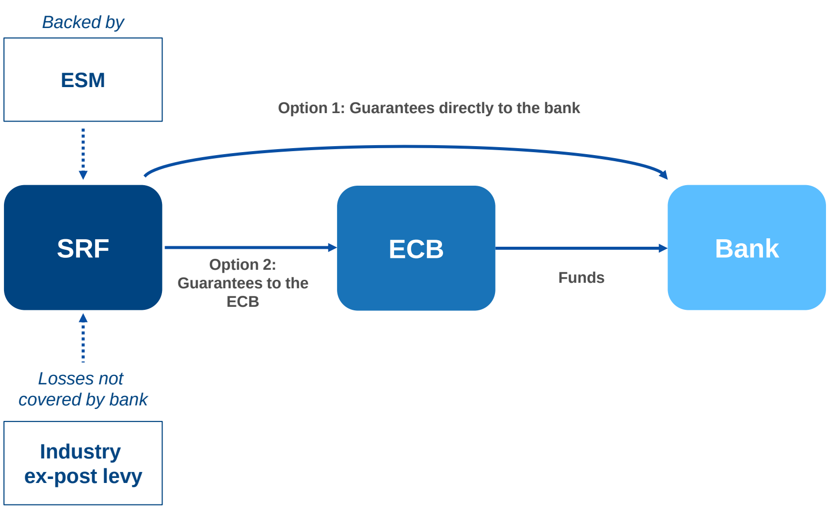
- Therefore, in order to guarantee a level playing field for banks in the Eurozone as compared to their peers in the EU and in other countries, in order to provide clarity to investors in bailinable liabilities and hence raise the credibility of the resolution framework and in order to comply with the FSB's principles[5], it is necessary to establish a clear regime of funding in resolution, including a credible public backstop mechanism.

5: Ibid.

Proposal

Our proposal for a new mechanism of funding in resolution in the Eurozone is based on the following ideas: **i)** First it is crucial to **acknowledge that ELA funding will in most cases be involved at a prior stage**; **ii)** In order to complete the Banking Union the ECB should **centralize the provision of ELA**; **iii)** Once the point of non-viability (PONV)[6] is reached, and as soon as there is a clear path to future solvency of the bank, ELA should still be available for the bank. But, because of a probable lack of eligible ELA collateral, a clear funding in resolution mechanism should be in place where the **SRF would assume the risk by providing guarantees (which in turn should be considered as appropriate collateral) either to the bank directly or to the ECB**; **iv)** The European Stability Mechanism **(ESM) with its full lending capacity should be established as the public backstop to the SRF** when the latter runs out of funds; and finally **v)** Other alternative but counterproductive measures such as **moratorium tools should be avoided**.

Figure 1 Funding in resolution mechanism



Source: BBVA Research

1. Prior to resolution: take into account ELA

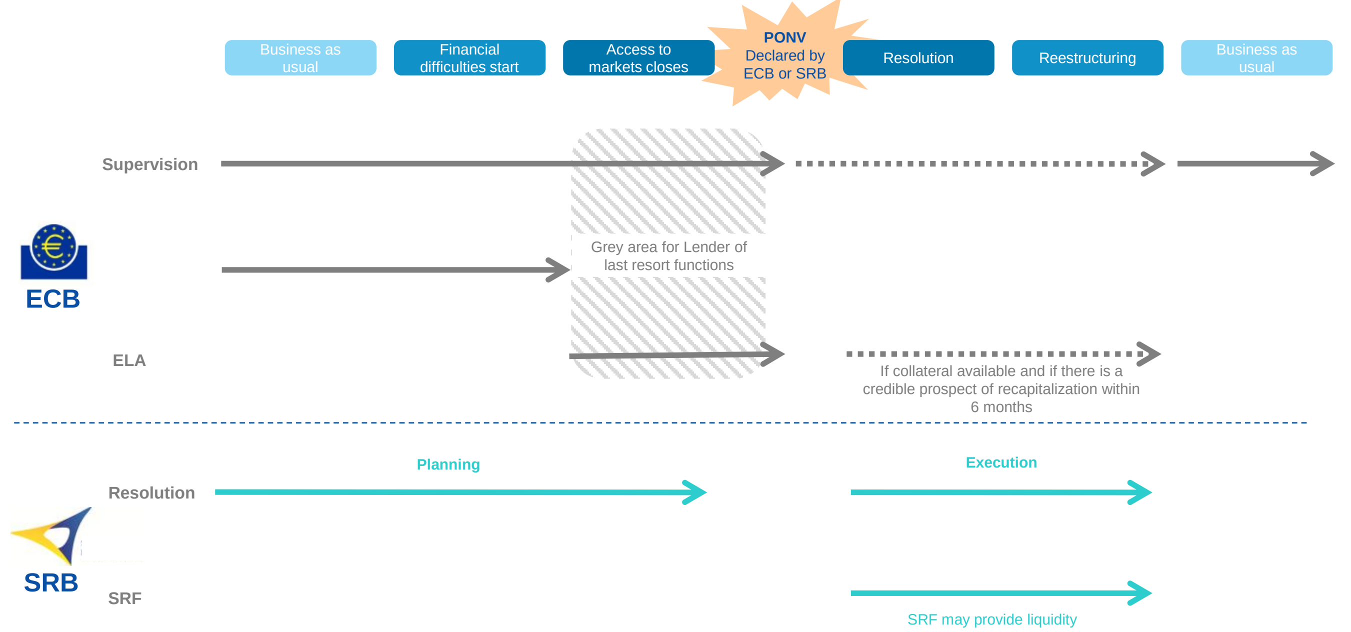
Before discussing funding in resolution it is important to take into account the LOLR function of central banks. Before a bank is declared as failing or likely to fail (FOLF), the corresponding central bank is often already involved in the funding of the entity. This was seen during the recent cases of Banco Popular and ABLV Bank which received ELA prior to reaching the PONV.

Before being declared FOLF, a bank in difficulties gradually loses access to capital markets or suffers a run on deposits, and consequently increases its dependence on the central banks. First, by accessing funds made available through normal monetary policy operations (ECB) and then, exceptionally, through ELA (national central

6: In principle the new framework establishes an automatic relationship between the PONV, the moment at which an institution is failing or likely to fail (FOLF), solvency and illiquidity. According to the BRRD, the PONV should be understood as the point at which the relevant authority (competent or resolution authority) determines that the institution meets the conditions for resolution which are: i) that it has been determined as failing or likely to fail; ii) that there are no private alternatives and iii) that resolution is necessary in the public interest. And an institution should be considered as FOLF when it is in breach of its capital requirements (infringes or is likely to infringe the requirements of continuing authorization or when its assets are or are likely to be less than its liabilities), when it is illiquid (the institution is or is likely to be unable to pay its debts as they fall due) or when it requires extraordinary public financial support (with an exception dubbed as “preventive recapitalization”).

bank). The LOLR function of a central bank is thus situated in a "grey area" between its monetary policy operations and its supervisory functions.

Figure 2 ECB's and SRB's roles before, during and after resolution



Source: BBVA Research

According to the ECB[7], ELA can be provided by national central banks (NCBs) to solvent banks for a short term (although it can exceed 12 months with the approval of the ECB), at a penalty rate higher than that charged under normal monetary policy operations[8] and for amounts up to €2bn (banks can ask for more but then the NCB would need the approval of the Governing Council of the ECB). NCBs must inform the ECB of the details of any ELA operation. ELA is always granted against collateral/guarantees provided by the bank. The NCB needs to value that collateral and apply the corresponding haircuts. As of today, data on collateral and haircuts policy is not disclosed by NCBs. Although it is likely that NCBs in the Eurozone can accept a wider range of collateral under ELA than under normal monetary policy operations, more clarity is needed in respect of the rules and general policy followed (similarly to the Bank of England's flexible approach[9]).

2. Centralize ELA

The ECB announced recently that it is studying the possibility of centralizing ELA for banks in difficulties[10]. At present the responsibility for this window lies with the national central banks, although with the authorization of the ECB in certain cases (see above). NCBs bear the risks and any losses are absorbed by national Treasuries.

The ECB should provide ELA directly to the banks, rather than their NCBs. The centralization of ELA would involve: a sharing of these future risks and would correct the disparities in its application observed in several recent cases of resolution in Spain, Italy, Latvia, etc. ELA centralization would be consistent with the centralization of supervision, monetary policy and bank resolution. The rationale for the national responsibility of ELA is a vestige of the early days of the Monetary Union, when supervision and resolution were also decentralized. Centralizing this emergency window would mean a significant push towards the completion of a credible Banking Union: with a single supervisor, a single resolution authority (and fund) and a single lender of last resort, the incongruity of

7: See Agreement on ELA (2017). ECB.
8: Equal to the Eurosystem's Marginal Lending Facility rate + 100 pbs. In case of intraday loans: 1%.
9: The Bank of England's approach to resolution (2017).
10: See ECB Press Conference of 8 March 2018.

keeping deposit guarantee funds segmented by country would stand out even more clearly. The rationale for a European Deposit Insurance Scheme (EDIS), the third and last pillar of the Banking Union, would be overwhelming.

Some authors view the centralization of ELA as another missing pillar for the Banking Union. Furthermore, they state that the centralization of ELA would not require treaty amendments but a simple change in interpretation of the ESCB Statute[11]. Having the main monetary policy authority providing (in principle) ample liquidity in a short period of time should reinforce the confidence of the markets, minimizing the risk of a bank run.

3. In resolution: Funds from the central bank but backed by the resolution authority

The latest ECB policy on ELA provides some level of clarity regarding funding in resolution. Its principal novelty as compared to its previous policy is that ELA can be provided only to solvent banks (i.e. those that comply with Pillar 1 minimum capital requirements –P1) but can make **an exception** for banks unable to comply with P1 when there is a *credible prospect of recapitalization* during the 6 months following the determination that the bank is unable to comply with P1. Therefore, once the entity is declared failing or likely to fail (i.e. it has reached the PONV) and a plan to apply a resolution tool in order to recapitalize it is approved, **the central bank could continue providing more ELA to the bank provided it has sufficient collateral to pledge**.

However, a mechanism could be designed whereby the liquidity support from the ECB, which is necessarily temporary, is gradually taken over by the institution responsible for resolution (**the Single Resolution Board, SRB, who manages the SRF and with the support from the ESM)** until the entity regains access to the markets.

This could be achieved by establishing **a new funding in resolution mechanism**:

The **central bank could continue providing the funds** because it is the most appropriate institution to commit potentially high amounts of money in a timely matter - and time is of the essence in resolution[12]. However, **the risk could be assumed by the SRF by providing guarantees either i) directly to the bank (which could in turn use them as "collateral" against funds from the central bank) or ii) to the central bank** for the full amount of the loan. Consequently, the **central bank would not be exposed to losses and would only act as a mere provider of funds**. This could also solve the problem of the bank not being able to access ELA because it has run out of eligible ELA collateral, which is very likely to happen during a resolution process. The central bank would have absolute discretion to decide when to provide the funds, how much is necessary and for how long.

The mechanism would be fiscally neutral because the SRF has access to **ex-post contributions from the financial sector** if the entity in resolution is unable to reimburse its funding. The ultimate losses would be absorbed by the private sector, thereby respecting the main principle of the resolution framework: to put an end to bailouts. However, the ex-post contributions should be calibrated in a flexible manner so as to avoid excessive pro-cyclical effects.

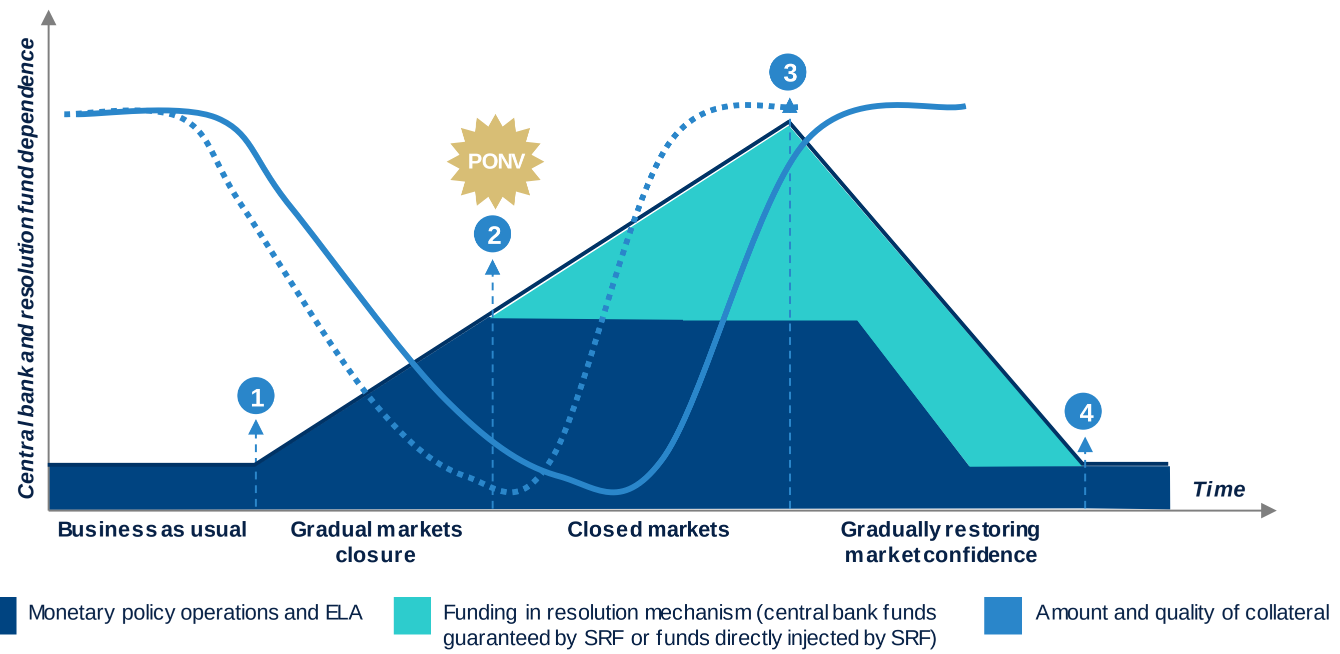
In order to minimize the possible losses, any funding from this mechanism could have a **"super priority"** in the creditor hierarchy of national insolvency regimes. However, the benefits of super priority funding should be measured against its possible unintended consequences in terms of accelerating bank runs. Indeed, other creditors might be incentivized to run before any funding in resolution with super priority is granted, in order to avoid being subordinated in the creditor hierarchy (which would reduce the probability of them being repaid).

11: See M. Hallerberg and R. Lastra (2017).
12: The central bank can commit large amounts of money in a short period of time. It is not clear whether the SRF could commit funds as rapidly as the central bank.

Therefore, the funding of an entity before and during resolution would undergo the following sequence (see Figure 2 below):

1. When the entity starts encountering financial difficulties and begins losing access to the funding from the markets, the institution begins to increase its dependence on the ECB through normal monetary operations and/or ELA.
2. When the institution reaches the PONV (whatever the reasons might be, either capital, funding or both) the bank should still have access to ELA provided it has sufficient collateral deemed as ELA eligible by the central bank (the solid green line on figure 3 below depicts this case where a bank reaches the PONV but still has eligible ELA collateral) and provided there is a prospect of it being recapitalized. However, a new funding in resolution mechanism could guarantee or substitute central bank direct funding facilities. In fact, it is very likely that the entity would have run out of collateral eligible or not at the PONV (see green dash line in Figure 3 below). Therefore, when ELA is unavailable, the new funding mechanism would take over and guarantee the success of the resolution process. A simple communication from the SRB to the central bank stating that the bank will be recapitalized through the use of resolution tools should be sufficient in order for the funding mechanism to be available.
3. Authorities impose a tough restructuring plan in order to restore the bank's long-term viability. From this moment onwards the funding needs of the entity should start to recede if the market considers that the business reorganization plan is credible and realistic.
4. After a period of time the institution may start to recover market confidence. Insofar as the market allows it, the institution would gradually recover to a normal state or 'business as usual'.

Figure 3 New funding in resolution mechanism



Source: BBVA Research based on S. Fernandez de Lis, J.C. Pardo and G. Martin "Funding in resolution: the lender of last resort function in the new resolution framework"

4. Approve a public backstop for the SRF

The SRF's firepower needs to be increased in light of its limited financial capacity. Indeed, the maximum amount of the SRF is 1% of covered deposits of euro area banks (around 55bn EUR). That figure may not be enough to cover the funding needs of a medium to big sized bank in resolution, let alone a more systemic crisis where several banks would need to access the SRF at the same time (and also considering that the fund can be used for either liquidity or capital purposes). Furthermore, that figure is to be achieved by 2024. In the meantime the Member States back the funding gap through a public bridge financing arrangement. But even with that bridge financing an entity may not access the entirety of the funds because there is a progressive merger of compartments where banks can only access a certain percentage of the mutualized funds from other Member States (in 2017: 60%, 2018: 67%, 2019: 73%, etc.). In contrast, Tables 2 and 3 and Charts 1 and 2 of the Annex show the maximum annual liquidity measures and the capital injections approved and used under the Commission's State aid rules during the period from 2008 until 2016. During the period 2008-2016, in the Eurozone a maximum of **€900 bn in liquidity measures and €500 bn in capital injections** were granted by Member States to financial entities. Most importantly, Table 5 of the Annex shows a **cumulative cost for general governments (both for liquidity and capital measures) of the Eurozone of € 206 bn for the period 2008-2016**. Although the total definitive losses/gains are not yet known (governments still have remaining equity or guarantees committed), this is the figure that should be used as a benchmark. The amounts of net costs or ex-post losses show that the SRF alone cannot cope with a crisis of a similar magnitude. It is difficult to envisage a financial crisis as severe as the last one, but a large enough backstop is needed in order to boost confidence and avoid bank runs.

One way to increase the SRF's capacity is by establishing a credible and effective public backstop which could provide it with direct financing or guarantees when it runs out of funds. As the Eurozone lacks a common Treasury, the **ideal candidate would be the European Stability Mechanism (ESM)** which has a maximum lending capacity of €500bn[13]. This would be in line with the Commission proposal package of December 2017. The backstop could also be fiscally neutral because the funds would be recovered from the banking sector. However, unlike the Commission's proposal, there should be no ceiling or limit on the use of the ESM by the SRB (the proposal from 2017 introduces a cap of €60bn). In fact, as observed in Table 5 of the Annex, the additional €60 bn are not enough to cover the costs of a systemic crisis.

5. Avoid moratorium tools

Nowadays, a revision of the Bank Recovery and Resolution Directive is being discussed, which should provide an opportunity to correct some of the deficiencies observed. However, some of the proposals being discussed may exacerbate fragmentation in the euro zone and impede progress towards the Banking Union, particularly the so-called "moratorium tools" on certain liabilities in cases of resolution, including covered deposits. The idea is that in view of the probable outflow of deposits before or immediately after resolution, limits can be established for a few days on the availability of the guaranteed deposits; in other words a '*corralito*' or a freeze of banks' liabilities and deposits. This is a bad idea which may lead to contagion to other institutions and trigger flights of deposits in more vulnerable financial systems, especially if the deposit insurance is kept at national level. With current technology allowing instantaneous transfers of deposits to any country, the moratorium is not an appropriate tool for confronting a liquidity crisis, as flows can continue during the 'weekend of resolution'.

The central banks were created precisely to offer loans of last resort and avoid banking panics. It is paradoxical that Europe, due to its inability to establish a coherent framework for the supply of liquidity in resolution, should now be looking at resorting to the *corralito* as a normal tool for crisis management. If a few days need to be gained in the resolution process, the reasonable way of doing this would be with the support of liquidity, not by imposing limits on the withdrawal of deposits. But for this it is necessary to tie ELA to liquidity in resolution, as pointed out above.

Finally, in order to avoid resorting to moratorium tools to reach the "weekend after", authorities should try to stick to the "weekend before", in order to grant authorities enough time to apply the resolution tools once the PONV is declared. In any case, the case of Banco Popular shows that an overnight resolution is also possible under certain conditions.

13: Although a remaining lending capacity of €380bn.

Issues that need to be resolved

In order to establish the proposed funding in resolution mechanism, including the provision of ELA, some issues need to be resolved:

- **Compatibility with the objectives and tasks of the Eurosystem**. The proposed funding in resolution mechanism may raise concerns of interference with the single monetary policy and with the prohibition of monetary financing. Centralizing ELA would help reduce the risk of contravening the single monetary policy as the ECB would be in total control of providing ELA on its own terms (timing, amount, collateral, haircuts, etc.). Also, the provision of liquidity under the funding in resolution mechanism may increase the money supply but that increase would be temporary in nature and would only be significant during a systemic crisis where the benefits of safeguarding the financial stability should be measured against the hypothetical adverse effects an increase in the money supply would represent. Furthermore, the new resolution mechanism would shift the risk of losses to the SRF (who would provide valid and enforceable guarantees for the full amount of the ECB loans) which in turn is backed by industry wide funds in the rare event of losses. The ECB would not finance any government deficits, no taxpayer money would be involved and thus no monetary financing would take place.

- **State Aid rules must be updated.** The Commission does not envisage in its Banking Communication of 2013[14] a mechanism whereby the ECB would provide funding in resolution with the characteristics explained above. However, according to the Commission, liquidity assistance from a central bank could be considered as State aid if the bank is not solvent, not backed by collateral and if it is backed by a counter-guarantee from a State. The funding in resolution mechanism proposed should not be considered State aid for the following reasons: i) the bank should not be considered insolvent at the moment it would receive the funds because a recapitalization plan would be applied in the short term; ii) as explained above, collateral for ELA purposes might be depleted but the guarantee from the SRF (which should be considered as appropriate collateral for funding in resolution purposes), is backed by funds raised ex-ante and if needed ex-post by the industry so neither taxpayers money nor moral hazard issues would be involved and iii) there is no counter-guarantee from a State.

- **Operationalize the SRF:** According to the Single Resolution Mechanism Regulation (SRMR), The SRB can use the SRF for liquidity purposes ("*to guarantee assets or liabilities of the institution under resolution, its subsidiaries, a bridge institution or an asset management vehicle*"[15]) at the moment the resolution tools are being applied in order to ensure their effective application. However, more clarity is needed on how the SRF would operate as a provider of funding in resolution. Anyway, it is not clear whether the SRF would ever have the capacity to provide lending facilities in a very short period of time.

- **Transparency vs confidentiality**. A balance should be struck between the required confidentiality of publishing data on ELA or funding in resolution at the moment an ailing bank asks for them (in order to avoid accelerating the bank run) and the need for the markets and the public in general to understand the process. Accordingly, more clarity on the general principles of granting ELA would be positive.

- **Collateral requirements**. Although there is currently some level of clarity on the collateral accepted form normal monetary operations, there is no information on the collateral accepted for ELA purposes. In general, NCBs have a certain level of discretion to accept an asset as collateral for ELA purposes even if it is ineligible under the normal monetary framework. For example, in 2011 the Bank of Ireland accepted collateral that the ECB did not judge as eligible for ELA purposes[16]). Other countries extended ELA during the crisis such as Greece [17](up to €123bn in 2011-14 and up to €90bn in 2015-18, see table 4 in the Annex), Cyprus (up to €9.6bn

14: See Commission's State aid Communication (1 August 2013).
15: Art. 76 of SRMR.
16: See M. Hallerberg and R. Lastra (2017).
17: The Bank of Greece accepted Government bonds as collateral even if the ECB considered them ineligible.

in 2012), Belgium (€51.3bn in 2008) and Portugal (€3.5bn in 2014)[18]. Finally, ELA centralization could involve more restrictive policies on collateral requirements and haircuts than the ones currently applied by NCBs. This should be avoided and a clear and flexible approach should be chosen regarding the eligibility of collateral and applicable haircuts. Following the implementation of the new resolution framework and the establishment of the Banking Union, the time is now for clarity rather than constructive ambiguity.

Conclusion

The **provision of liquidity to a bank before and during resolution is not clear in the Eurozone, as opposed to other jurisdictions such as the USA or Canada**. The latest cases of resolution/liquidation have highlighted the shortcomings of the current legislation which is more focused on reestablishing the solvency of the entities.

Recent developments such as the ECB's publication of its updated ELA procedures (which relaxes the requirement that a bank must be solvent in order to receive ELA) may help clarify the framework. But more work is needed in order to establish a clear framework and a level playing field for Eurozone banks on how they are supposed to receive liquidity in before and in resolution.

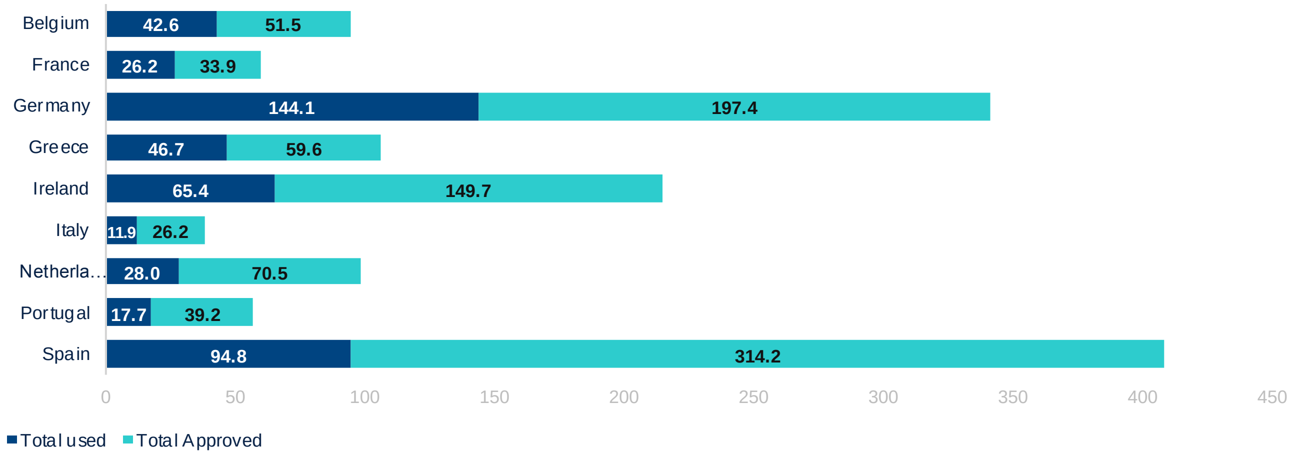
Another aspect that is often overlooked and that should also be clarified is the **link between funding in resolution and funding before resolution**. Most banking crises lie in a grey area between liquidity and solvency problems. Before reaching resolution, a bank has a considerable exposure vis-a-vis its central bank, through regular monetary operations in normal times and through lender of last resort facilities, such as Emergency Liquidity Assistance (ELA), as market based funding dries up. The establishment of a funding in resolution mechanism needs to take into account this connection and must clarify the role of the central bank before and during resolution.

Therefore, a funding in resolution mechanism should be adopted in the Eurozone whereby the **European Central Bank (ECB), backed by guarantees (which could be considered as eligible collateral) from the Single Resolution Fund (SRF), assumes the responsibility to provide the liquidity for a bank in resolution.**

18: See Bank of Greece (2017).

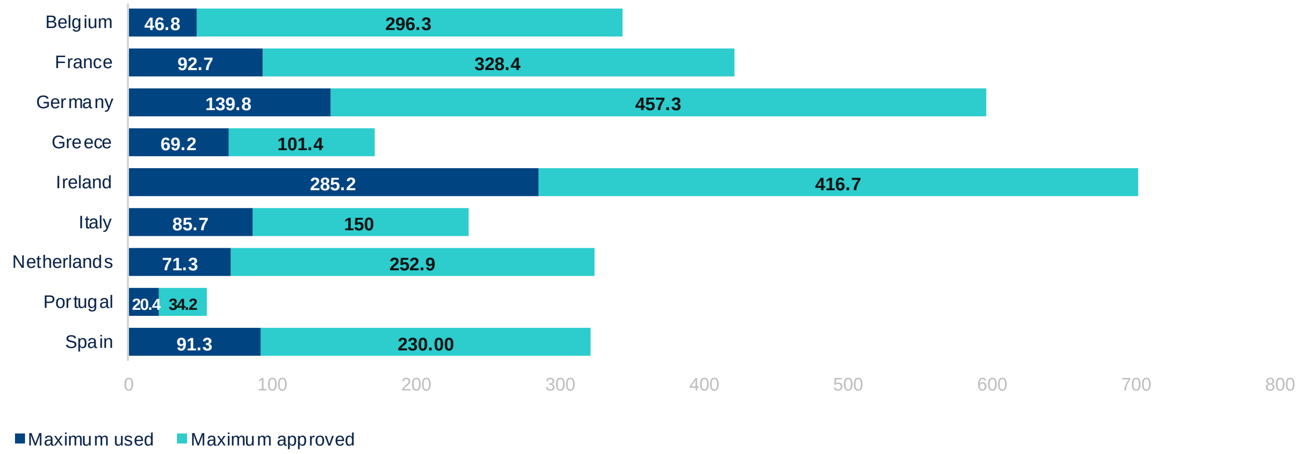
Annex

Chart 1 Total Capital measures used and approved in main EZ countries 2008-2016
(recapitalizations and impaired asset measures, in €bn)



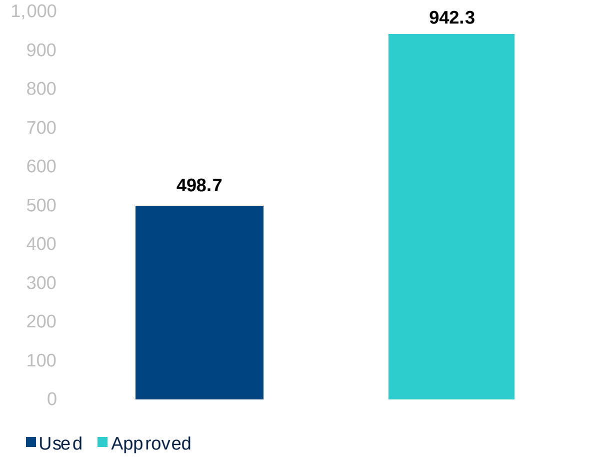
Source: BBVA Research based on information from EU Commission

Chart 2 Liquidity measures: Total maximum State aid used and approved in main EZ countries 2008-2016
(guarantees and other liquidity measures, in €bn)



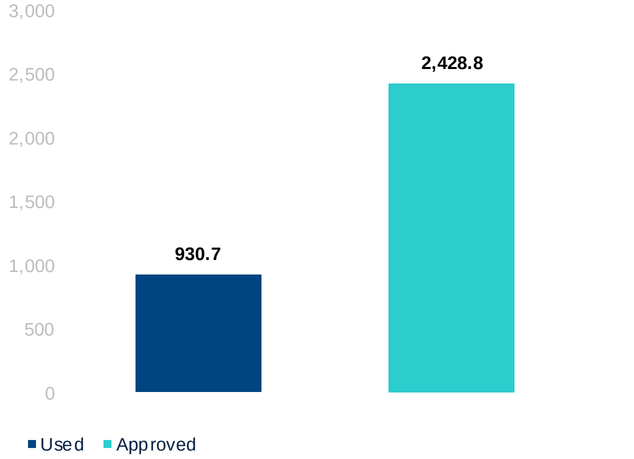
Source: BBVA Research based on information from EU Commission

Chart 3 Capital measures: Total State aid used and approved in EZ 2008-2016
(recapitalizations and impaired asset measures, in €bn)



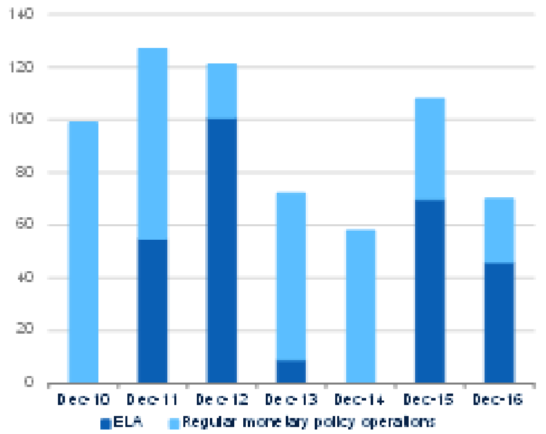
Source: BBVA Research based on information from EU Commission

Chart 4 Liquidity measures: Total maximum State aid used and approved in EZ 2008-2016
(guarantees and other liquidity measures, in €bn)



Source: BBVA Research based on information from EU Commission

Chart 5 ECB liquidity provision to Greek counterparties (€bn)



Source: BBVA Research based on Bank of Greece

Table 2 Cost of government interventions to support financial institutions (capital and liquidity) (€ bn)

	Net revenue/cost for general goverment									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Belgium	-30,0	-0,7	280,9	-239,5	-2.234,6	655,4	-48,5	-121,4	-268,3	**-2.006,7**
Germany	-3.071,5	-2.980,3	-33.004,4	173,8	-1.283,8	1.487,5	429,3	-58,7	-2.192,2	**-40.500,3**
Estonia	-	-	-	-	-	-	-	-	-	**-**
Ireland	-	-3.767,0	-35.543,5	-6.370,5	354,9	438,7	14,6	-1.833,6	-19,9	**-46.726,3**
Greece	-	373,0	960,0	633,0	-5.347,0	-19.446,0	136,0	-4.842,0	351,0	**-27.182,0**
Spain	-12,0	696,0	771,6	-3.515,0	-38.289,0	-3.277,0	-1.350,0	-552,0	-2.389,0	**-47.916,4**
France	48,0	1.356,0	995,0	601,0	-2.198,0	238,0	27,5	-18,2	-45,6	**1.003,7**
Italy	-	-16,5	88,0	177,4	-86,3	-150,0	361,9	-3.310,0	-63,8	**-2.999,3**
Cyprus	-	10,0	27,0	25,0	6,0	-84,0	-1.568,3	-245,4	-81,0	**-1.910,7**
Lativa	2,1	-183,9	-401,7	-70,3	-101,5	-2,5	-3,8	-7,4	5,8	**-763,2**
Lithuania	-	-	-32,3	-888,7	-41,3	-174,9	475,5	212,3	91,9	**-357,5**
Luxemburg	-20,4	-68,7	47,9	52,4	28,6	-27,2	13,8	18,5	22,5	**67,4**
Malta	-	-	-	-	-	-	-	-	-	**-**
Netherlands	-161,0	-2.304,0	-1.082,0	-112,0	-221,0	-1.188,0	-50,0	407,0	345,0	**-4.366,0**
Austria	2,2	-2.656,6	-327,0	-292,4	-1.318,9	-1.489,8	-5.338,9	-2.225,3	-234,2	**-13.880,9**
Portugal	2,4	12,2	-2.217,8	-865,4	-935,0	-663,1	-5.122,6	-2.832,1	-353,0	**-12.974,4**
Slovenia	-	3,7	13,5	-236,9	-62,1	-3.671,5	-673,7	-499,1	-200,1	**-5.326,2**
Slovakia	-	-	-	-	-	-	-	-	-	**-**
Finland	-	-	-	-	-	-	-	-	-	**-**
Euro area (EA19)	-3.240,2	-9.526,8	-69.424,8	-10.928,1	-51.729,0	-27.354,4	-12.697,2	-15.907,4	-5.030,9	**-205.838,8**

Source: Eurostat and BBVA calculations

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