# Regulatory and resolution measures needed to foster market discipline

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*SUERF / Bank of Finland Conference, 13 June 2013*

*Banking after Regulatory Reforms – Business as Usual?*

## Introduction and summary

The current policy focus on resolution mechanisms is correct for sure. Effective resolution of any bank that "has or is likely to fail" is key; especially to reduce the Too-Big-To-Fail (TBTF) problem. Non-viable banks need to be effectively resolved and restructured, or exit the market, without the use of public bail-out funds. These are the precise objectives of the draft Bank Recovery and Resolution Directive (BRR) currently being finalised in the EU.

While a quick finalisation of the BRR should be a priority, I think four issues have received too little attention in the current debate. They are all interlinked and instrumental to having a consistent and effective overall regulatory framework. They are also particularly important for the main policy objective of enhancing market discipline and reducing the TBTF-problem.

First, one should also focus on generating further loss absorbtion capacity (LAC) for a bank to remain *going concern* rather than enhancing loss absorbence from private funds only in the resolution process, i.e. only in the gone concern state. The BRR covers the latter by creating a “bail-in” regime for the resolution state in order to limit losses to taxpayers. Requiring *designated debt instruments* that would absorb losses already before a resolution process is initiated rather than considering only common equity instruments for this purpose would have the twin benefit of strengthening financial stability while also enhancing market discipline, and thus reducing risks to Deposit Guarantee Systems (DGS) and taxpayers. Avoiding a resolution process would also be very beneficial if major disruptions in the financial system could be avoided by keeping the bank going concern.

Second, research findings suggest that from the perspective of strengthening market discipline one should move from implicit and discretionary arrangements when handling problem banks to an *explicit* and *rules-based* system as far as possible. In the current policy debate, many argue in favour of maintaining full discretion for national authorities in the resolution process. It is true that resolution is by nature significantly discretionary, as one cannot foresee all eventualities in a bank crisis. Discretion should be, however, reduced as much as possible by adopting clear rules for the resolution

[1] I thank Esa Jokivuolle for many valuable discussions on the topic as well as many other colleagues in Fin-FSA and BoF.

process and having strongly harmonised practices at the EU-level. The most preferable solution would be a Single European Resolution Mechanism (SRM) as this would also eliminate harmful conflicts of interest between home and host-country authorities and complement the Single Supervisory Mechanism (SSM).

Moreover, boosting LAC through requirements to issue loss sharing contractual debt obligations would amount to reducing the scope for discretionary resolution measures. Granting preference for protected deposits would generate the same benefit of reducing the chance of ultimate bail-outs by limiting the risk for DGS.  Hence, the two policy choices might be considered complementary, but when implemented together they would significantly strengthen market discipline.

Third, there is not enough focus on enhancing the *transparency* of banks' asset quality and there are unfortunate delays in promoting consistent asset valuations based on *expected loss (EL) provisions*. Regulatory capital ratios are the key trigger points for supervisory and regulatory actions, as well as central measures for market participants to assess a bank's viability. They are also probably the best indicators for triggering contractual loss sharing, or the ultimate resolution process. However, without adequate provisioning, capital ratios are not reliable indicators. We have seen that failed banks can have shown healthy capital ratios just before their failures. Having accounting rules based on incurred rather than expected losses, which is still unfortunately the case, also creates a major problem in this regard. Audited financial statements can contain major "holes" when the EL are not properly accounted for, and it may be difficult for a supervisor to argue against auditors claiming adequate provisioning levels based on incurred losses.

Finally, despite the significant progress made in Basel III, I think there is still scope for *reducing leverage* and increasing capital protection for assets mostly affected by model risks, market liquidity risks and operational risks. Such suggestions were also included in the report of the High-Level Group chaired by Governor Liikanen. These risks seem greatest still in trading activities, while they can also be present on the banking book side. The difficulties in risk-measurement and the operational risks related to large trading volumes suggest to me that the risk-based capital requirements should be augmented with an *additional non-risk based capital buffer* requirement.  Such a buffer would provide a safety margin against model-risks and additional hazards that pertain especially strongly to trading-related activities. I think that reconsidering the capital requirements would be necessary irrespective of the implementation of the structural measures separating trading from retail activities. Finally, reduced leverage in trading activities could avoid the drawbacks the academic literature tends to associate with continuous marking-to-market and transparency of asset valuations.

In this paper, I will develop more in detail the above four issues. Regulatory proposals presented are collected in the last section.

**Background: Policy shift from bail-outs to bail-ins**

After some EUR 1600 bn was used in various forms of bank support (including guarantees) in Europe according to the estimate of the European Commission since the onset of the financial crisis, there is a clear desire to move to *a completely new regime* where even the failures of the largest banks could be managed without the involvement of taxpayers' funds. A key element in this policy change "from bail-outs to bail-ins" is a new bank resolution regime as set out in the draft BRR, including rules on bailing-in banks' debt-holders in the resolution process. The draft BRR requires that each Member State implements the same new resolution tools for banks and specific resolution authorities are designated. The resolution authorities can employ the resolution tools, e.g. exercise the bail-in of bank liabilities to ensure that private investors bear losses before taxpayers.

The plans to establish a SRM alongside of the SSM are also central in the current agenda. Moreover, the proposals to reform banking structures contained in the Liikanen reportwere fundamentally aimed at tackling the TBTF-problem.

This policy shift is challenging as experiences since 2007 and before have led to a presumption that, in Europe, bail-outs are the rule and losses to banks' debt-holders are rare. If a bank's creditors assume that the government will pay them off, they will not care about disciplining the bank and the bank is able to fund itself at a very low cost.

As argued above, *explicit crisis management arrangements* would be required, in general, for reaching the policy objective of strengthening market discipline and reducing the TBTF-problem. In a joint earlier research with Reint Gropp, we showed that the introduction of explicit deposit guarantee arrangements improved market discipline in Europe (Gropp and Vesala 2004). Increasing the probability of losing money for those creditors not covered by explicit deposit guarantee had the effect of creating some positive incentive effects and activating market discipline as compared to the prevailing presumption of complete bail-outs. Our central conclusion was that flexibility and discretion feed the assumptions in the market that banks will be bailed-out in any case; implicit or non-disclosed arrangements have been taken to imply no losses for private market participants at the end of the day.

**Two-stage bail-in regime for bank debt instruments: Both going and gone concern**

In a two-stage approach (favoured by EBA, for instance), *designated debt instruments* would be used first to allow the bank to remain going concern. The use of designated claims in bail-in before the formal resolution procedure is activated was also supported in the Liikanen report. If a bank's losses are so large to exceed the newly created loss absorbtion capacity from the designated debt instruments (and the other existing capital instruments), the resolution procedure would need to be initiated.

In the resolution (second stage), the bail-in should be extended to *all* debt instruments in accordance with the hierarchy ("waterfall") of the claims under insolvency law. There has to be full clarity of all of this beforehand to follow the rule of having explicit crisis management arrangements, as well as from the perspective of providing certainty for investors. Any exceptions should be limited as bank funding would likely shift to instruments not subject to bail-in (such as any preferential treatment of depositors – see next section).

The EU legislation does not contain provisions to require the issuance of “bail-inable” bonds, nor does the draft BRR facilitate the establishment of the above-described two-stage bail-in regime. Such an approach to bail-in would have several benefits:

- First, this could allow the bank to continue operations after the injection of additional LAC if the losses do not exceed the buffers of capital instruments above the minimum legal requirements. Hence, for instance a very costly unwinding of positions, ensuing market disruptions and systemic risks could be avoided.

- Second, there would be contractual clarity in the designated debt instruments of the risk of equity conversion and/or write-down which would support the effective pricing of bank default risk and support market discipline (see e.g. Flannery 2010).

- Third, increasing bail-in capacity in this way would reduce the risk that when bail-in is executed only in the resolution and in a discretionary fashion by the resolution authority there would not be sufficient LAC and taxpayers’ funds would be called to rescue. The contractual and compulsory conversion of the bail-in bonds into equity would not have the unavoidable uncertainty associated with the discretionary bail-in executed in the resolution phase. Namely, authorities could conclude that liabilities could not be converted into equity or written-down for systemic or legal reasons. The risk of affected creditors asking for a legal recourse is a major risk in every resolution.

- Finally, as bigger risk would be borne by the holders of such bail-in bonds and, consequently there would be less risk for other creditors, there would be less pressure on banks’ funding costs.

Basel III regulation already requires the possibility to write-down non-CET capital instruments, but it does not contain a requirement for additional loss absorbing debt instruments. Recently, Admati and Hellwig (2013) have underlined the need for equity capital (and lots of it) to boost LAC, and have questioned the ability of debt to discipline bankers.

However, it is precisely the existence of debt-holders that have their money at stake that is crucial for market discipline and therefore the additional going concern LAC requirements should be framed in terms of *debt instruments*. Small banks though that cannot issue debt could meet the requirements via additional equity. Debt-holders have a different incentive structure than equity-holders, who can side with bank management in excessive risk-taking, particularly at low levels of equity. The importance of debt holders for market discipline has also gained empirical support (e.g. Gropp and Vesala 2003). Thus, having specific additional LAC requirements framed as required issuance of debt instruments would have the benefit of also supporting market discipline as compared with issuing additional equity.

**Mandatory "bail-in bonds" with triggers above resolution point**

As noted above, requiring a specific contingency of bail-in bonds would make bail-in more credible also in case of systemic banks, which would have a major positive impact on market discipline. For this very reason several authors have already for some time suggested the *mandatory issuance* of CoCo-bonds. Increasing the capacity to absorb losses was also recommended either via additional equity or CoCo's in the report of the Vickers' Commission. Indeed, such a requirement to issue CoCo's would constitute a de facto additional capital requirement (a new "Tier 3" class of loss absorbing capital).

The issuance would have to be *mandatory* because banks could avoid the higher funding costs by using other types of instruments. The requirement could be restricted to significant banks only as small banks may not be able to issue debt instruments and need to be allowed to meet capital requirements via equity instruments only. The requirement should be substantial to make a real difference in terms of market discipline, say at least 5% of Risk Weighted Assets (RWA). Vickers' Commission recommended up to 20% of total loss absorbing capacity.

The trigger point to activate equity conversion or write-down should be mandatory and contractual, allowing no discretion to supervisors. Explicit clauses would be needed to avoid the belief in the market that authorities would favour bail-out in times of trouble for systemic risk reasons. The trigger point for designated bail-in bonds needs to be above the point where the bank "is failing or is likely to fail", which is the trigger point for formal resolution as envisaged in the draft BRR. In theory, the trigger point should be defined as the point where the new loss absorbing capital would be needed to be created from the "Tier 3" instruments as the losses would be too severe to bring the bank under the minimum regulatory capital requirements. But after the injection of new loss absorbency the bank would remain above the regulatory capital requirements and viable. Bigger losses than this would require an immediate starting of the resolution process.

The bank could also always improve its loss absorbency by issuing new equity, which would avoid the triggering of the bail-in bonds. However, contractual clarity and non-discretionary activation of the equity conversion would require the setting of an explicit capital adequacy level when the conversion would be triggered. This could be for instance at the margin of 1 or 2 %-points above the minimum CET-requirements. Flannery (2010) argues in favour of using the market value of equity as the trigger point for CoCo's due to the opaqueness of banks' book values of assets and equity. This approach has the main benefit of not relying on regulatory capital ratios which can be subject to model risks and be affected by incorrect asset valuations. However, using market-based values could be difficult to implement in practice in my view, and the problem would become less significant with enhanced transparency and provisioning on banks' balance sheets.

The credibility of the bail-in via the activation of the CoCo's rather than public bail-out can be further enhanced, as has been argued by e.g. Krahnen, by requiring the bonds to be held outside the banking sector.  The bonds could then be held by e.g. life-insurance companies, pension funds, hedge funds or sovereign wealth funds. From the consumer protection perspective, and limiting bail-out incentives, such instruments should probably not be sold to retail customers.

Insurance regulation (Solvency II) should not overly constrain the exposure of insurance companies vis-a-vis the banking sector from the perspective of the overall well-functioning of the financial system, while sufficient diversification across issuers should be naturally required to prevent systemic problems from spreading to the insurance and pension sector as well. The holdings of insurance companies are typically well-diversified and typically much less significant than interbank exposures which have been a major source of systemic risk.

**Consider deposit preference, but only for protected retail deposits**

Currently senior bank debt is *pari passu* with deposits in the EU. Many argue (e.g. Tucker 2013) that preference for small deposits would not make a difference as they are covered in any case by DGS. Some favour full preference for all deposits. The current EU debate seems to be tilting towards full depositor preference in the resolution mechanism, which I would find vary dangerous.

I would consider deposit preference limited to *protected deposits only*. This would allow reaping the benefits in terms of market discipline as there would be less risk for DGS and it would be easier to impose losses on private bondholders in resolution, while not disturbing too much bank funding opportunities.

Retail deposits enjoy special protection from governments and have protection via DGS. However, the systems can have limited ability to cover deposits in case of major banks' failures and covering depositors' funds would then require public intervention. Moreover, access to deposits is one of most critical banking system function. Hence, bail-in would be more credible if retail deposits would have preference over senior debt. Losses would be then allocated first to senior debt-holders before they are attributed to depositors and to deposit guarantee schemes giving further protection to depositors and ability for governments to execute a bail-in. This higher risk of loss for bank senior debt-holders would be also beneficial from the perspective of creating effective market discipline.

Preference for protected deposits would, hence, increase the credibility of limiting protection to these deposits only over other bank liabilities, i.e. reaping the benefits of explicit limited deposit insurance in terms of enhanced market discipline (Gropp and Vesala 2004). Moreover, deposit preference also gives the possibility to pay-off depositors quickly in a bank resolution, and possibly in full, if asset liquidation values are sufficient, without the risk of having recourse demands by the other creditors of the bank and later unwinding of the remunerations paid to depositors (above deposit guarantee limits). In the handling of the Icelandic banking crises in 2008, deposit preference instituted in Iceland in the middle of the crisis facilitated greatly the resolution of the crisis banks.

The consequence of deposit preference would be increased risk to bank's senior debt-holders and higher bank funding costs and risks of funding difficulties. This would be particularly pronounced in times of banking sector and economic difficulties. Granting preference for all deposits, i.e. also for large deposits which should be equalised with any other private investments, would have a detrimental impact on banks' market-based funding and provide an incentive to banks to switch to deposit funding as much as possible. Senior bank bond markets would seriously suffer. Full deposit preference would clearly not be advisable in my view.

The credibility of bail-in by reducing the losses for DGS would also be achieved via increasing banks' loss absorbing capacity via the mandatory bail-in bonds as suggested above. The higher such requirements, the smaller would be the case for considering any deposit preference.

**A strong case for the Single Resolution Mechanism (SRM)**

The draft BRR requires that national resolution authorities cooperate with each other and that resolution colleges are established from all the resolution authorities of the countries where the bank has business operations. Also cross-border stability groups have been already established to prepare and coordinate crisis management measures across various authorities.

The draft BRR or any other existing arrangements do not, however, contain compulsory coordination of resolution measures before they are taken by home and host authorities. Hence, there is no explicit and binding resolution mechanism for cross-border banks. *Conflicts of interest* and incentives for ring-fencing that have plagued cross-border crisis management in previous cases will still be embedded in the current framework. Both home and host authorities can exercise ring-fencing at their own discretion. Moreover, there is no guarantee for adequate and timely information exchange, or explicit arrangements for fiscal back-stops of burden sharing that could still be needed even under a bail-in regime to foster financial stability (necessary public bridge financing for instance to execute effective resolution measures). Finally, the incompatibility of national solvency laws creates a major obstacle for effective cross-border resolution (see e.g. Avgouleas et. al. 2012).

Hence, it is doubtful that a resolution college could effectively coordinate in time the necessary decisions involved in the resolution of a cross-border banking group and resolve the conflicts of interest. We will need the establishment of the SRM and a European Resolution Authority that would implement a single resolution process across the countries participating in the SSM (see e.g. Schoenmaker 2011 and Huertas 2013 for papers on Pan-European resolution). What is also needed is a strong enough legal basis backing-up the Pan-European resolution mechanism (see Avogouleas et. al. 2012).

Unless the SRM is established, the ECB would have to hand-off problem banks back to national authorities that could also create conflicts of interest as national authorities could disagree with the measures taken on the supervisory side and deviate from a desired course when exercising resolution. Failure to establish the SRM would also mean that the SSM could not exploit all opportunities of single supervision as supervisory decisions on e.g. capital allocation across legal entities in a banking group would have to take into account the constraint of still having nationally-based resolution of problem banks. Under such a regime, it would be natural for host authorities to require adequate capital and liquidity buffers at all times also at the level of the subsidiaries.

It would be advisable in my view to delink a move to a pan-European DGS from the SRM. It could be politically infeasible to mutualise the ultimate public backup-arrangements needed for credible deposit insurance. Moreover, credibility of DGS could be affected if it had other goals than depositor protection, such as being the source of funds for bank resolution measures. For this purpose, specific resolution funds at the European level would be preferable.

Finally, the implementation of the BRR should be coupled with strong powers to EBA to ensure consistent application of the new tools, in particular the supervisory requirements on the recovery and resolution plans. This would be needed to reduce the room for national discretion and, hence, to further support market discipline.

**Less leverage, more transparency, more provisions for Expected Losses**

The Basel Committee has recently issued new initiatives to foster the *existing risk-based* capital requirements on trading books (especially modelling uncertainties). However, trading-activities can be highly complex to understand and manage, and the risks very difficult to measure and model; and they entail unforeseen “tail-risks” that can turn out to be highly destructive. Trading positions, especially derivatives positions, can be used to build-up leverage (as we saw before the financial crisis); and banks can still have strong incentives to maximise leverage (see DeAngelo and Stulz 2013, also for why Modigliani-Miller’s leverage irrelevance theorem is not directly applicable to banks). Trading-related activities – in particular, where large volumes of trades are concerned – are also subject to major operational risks (“fat fingers”, IT-risks, fraud etc.), of which there are several reminders in the past (e.g. Barings, SG, UBS).

The difficulties in risk-measurement, possibility of high leverage and the operational risks related to large trading volumes suggest that the risk-based capital requirements should be augmented by an additional, non-risk-based capital buffer requirement. Such a buffer would provide a safety margin against model-risks (VaR-models fail to capture “tail-risks”, for instance) and the mentioned additional hazards that pertain especially strongly to trading-related activities compared to traditional banking businesses.

The risk-based capital requirements (VaR-model-based Pillar 1 requirements) can be quite small compared to the size of trading assets, allowing for very high leverage. For 21 major EU banks the capital requirement for market risks varies between close to 0 to little over 2 % of the total value of trading assets, the average being around 1% (source: Liikanen Report 2012). This can reflect a large share of customer-driven business volumes and limited open risk positions, but the level of capital protection provided is rather low in any case against model and operational risks. These risks correlate with the size of trading assets, as the failure-potential increases with the size of individual trades and the entire trading book. Hence, the capital buffer requirement should also correlate with the size of trading assets and act to reduce leverage.

The additional capital buffer requirement should be a Pillar 1 capital requirement adding the minimum capital adequacy required at all times, rather than a discretionary Pillar 2 supervisory measure. A Pillar 1 –treatment would ensure consistency across countries. Introducing this buffer would fit well with the overall consideration of the implementation of the SIB-buffers. An option (or a complementary measure) could be to allow (or require) the use of Additional Tier 1 funds (CoCos) to meet the trading book capital requirements. CoCos would in theory be suited to provide “insurance” against unforeseen risks in trading-activities (and are much used e.g. by UBS and CS that have large trading books).

Too high a leverage may also be found in the banking book. The current levels of Risk Weighted Assets (RWA) calculated based on banks internal models (IRBA) and historical loss data tend to be quite low compared to the losses incurred in real estate-driven crises (in some other countries) such as the Irish and Spanish crises. Moreover, the RWAs calculated by individual banks internal models (IRB) can be significantly different for similar risks. It would be illogical in my view to address such a model risk by the IRB-floors as one should allow model outcomes in a risk-based capital framework, but the above issues should be addressed via specific regulatory and supervisory measures.

EBA should make sure that banks' IRB-models include a sufficient safeguard against substantial property market stress (stressed LGD) and produce a high enough capital requirement. EBA would also need to harmonize more generally the treatment of risks to have greater confidence in the adequacy and consistency of the IRB-based capital requirements.

Academic literature tends to be sceptical about the benefits of a mark-to-market regime for assets held by banks (see Plantin et. al. 2008, and Dang et. al. 2013). It is concluded that when assets trade in illiquid markets and feature important downside risks, historical cost accounting could dominate marking-to-market. Reducing the leverage of major market participants such as large trading banks would lower the risk of failures and disruptive fire sales, hence strengthening the case for applying the mark-to-market accounting regime, which is clearly beneficial for transparency and correct continuous assessment of bank capital levels.

Lack of transparency of bank asset valuations and doubts about the adequacy of provisions has been a major factor maintaining lack of *market confidence* in the adequacy of capital levels in the European banking sector. EBA's efforts in increasing transparency, boosting capital levels and promoting asset quality reviews have contributed positively, as will the balance sheet assessments in the SSM, but a lot remains to be done to "X-ray" the losses possibly hiding on bank balance sheets.

The *inconsistency* of the prudential and accounting approaches to provisions also represents a major handicap. Clearly, provisions should at all times cover the EL, such that capital protection remains available for Unexpected Losses (UL), but the accounting reform under the IFRS rules instituted provisions only for losses that have incurred, which has been detrimental in my view for confidence in the adequacy of the provisioning levels. Currently, the coverage ratios displaying the adequacy of provisions are low on average in EU banks and can be quite low for certain banks.

The difference in the approach of prudential supervisors and auditors to provisions is also problematic, as supervisors should be able to trust the adequacy of provisions and asset value adjustments in the audited accounts. The EL approach should be instituted in accounting standards without any further delay, and coverage ratios should be increased to foster confidence in adequate capitalisation levels. In general, a framework based on *EL provisions, marking-to-market* and prudent accounting of losses should be the goal for all regulators, as this would best support both market confidence and discipline and reduce the risk of bad surprises of having banks whose apparently sufficient capital ratios did not after all protect against the losses looming on the balance sheet. Banks should fully disclose their EL calculation methods in order to improve the transparency of their accounts (transparency is the usual argument in favour of incurred loss provisioning).

It is also important to increase the safeguards against counterparty risks in order to reduce systemic risks. The open counterparty positions in derivatives (after collateral) are governed by large exposure rules and increasing capital requirements. However, as an additional measure, there might be a case to require a stricter limit than the normal 25% limit of CET1 in large exposure rules in order to reduce the risk of contagion across the banking sector. In addition, moving from OTC to exchange trading and to the use of Central Counterparties (CCP) substantially helps improving transparency that stem from highly complex trading operations and reducing systemic risks. This has already been the case in the recent regulatory proposals.

**Conclusion**

While a swift adoption of the BRR is clearly desirable, I have suggested in this paper additional measures to complement the regulatory regime in order to strengthen market discipline and support the policy shift from bail-outs to bail-ins. More specifically, I argued in favour of:

- strengthening banks' loss absorption capacity by requiring significant banks to issue a fixed contingent of "bail-inable" bonds (bonds that would convert into common stock or be written-down if the issuer's capital ratio fell below a pre-specified critical value);

- creating a two-stage bail-in regime, where bail-in (i.e. conversion or value reduction) would be in the first stage applied to designated bonds before the bank enters into resolution and in the second stage to all other liabilities in a fully comprehensive way following the "waterfall" of debt instruments (with the only possible exception of granting preference to protected retail deposits);

- increasing capital requirements on especially trading book assets to reduce leverage by introducing additional non-risk based capital buffer requirements (even where structural measures to separate investment banking and trading functions from retail banking are executed);

- executing measures that reduce the risk of having to use public funds to cover the losses for DGS, such as granting preference to deposits protected by the deposit guarantee (especially if banks' loss absorption capacity is not strengthened by other means);

- creating the SRM as a counterpart to the single European supervisor; and separately from DGS;

- underlining the importance of credible and effective recovery and resolution plans and enhancing EBA's powers to develop strong pan-European criteria for the supervisory evaluation and approval of these plans;

- strengthening the disclosure of especially problem assets and coverage by adequate provisioning, and instituting as soon as possible the new accounting rules ensuring sufficient provisioning for Expected Losses (EL).

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