



Whitepaper

Minimum Requirements of own funds & Eligible Liabilities (MREL) – Group Level Resolution & Liability data

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Synopsis

The ubiquitous financial crisis of 2008 saw that governments worldwide inject large sums of taxpayers money into ailing financial institutions, in an effort at preventing a chain reaction. The subsequent government bail outs came at a significant price; Financial regulators had created and mandated several Regulations, from Basel 1 to 2 to 3 and now, Basel 4, Mifid1 to Mifid2 (to cite a few), but none had the foresight or the ability to prevent a hazardous outcome.

The Basel regulation served its purpose for a brief moment and the third pillar was left to rest without any meaningful effort to implement it. Credit risk, Market Risk and other risks seen in silos before, are now being looked at as correlated, and treated together.

In the run up to the crisis, it was observed that several Bank management executives actively participated in excessive risk-taking, ignoring risk triggers despite established firm-wide risk limits and engaged in wanton over leverage.

Lehman Brothers' leverage/gearing ratio increased from 24:1 in 2003 to 31:1 by 2007 (until its collapse). The above indulgence (bank personnel) was conducted under the firm belief that any losses incurred would be picked up by the government, thanks to the existence of implicit government guarantees better known as moral hazards. The reasoning was not ill-founded since many of these banks were oligopolistic in nature and a collapse

would render the entire system in tatters, leading to an undesirable impact on financial stability and the real economy – the too big-to-fail concept had long arrived and was expected to stay.

The cascading effect of falling banks in the US had a contagion effect worldwide calling for global action and prevention of Regulatory arbitrage between global economies. As a result, the G20 heads of state and government agreed back in 2008 that global reform initiatives were needed to avert future disruptions.

The focus now is on strengthening the resilience of financial institutions (preventing a crisis or triggers precipitating one) and preventing a systemic crisis. This objective was addressed by requiring banks to improve the quality and quantity of the capital they hold, and by introducing quantitative liquidity standards and a non-risk-based leverage ratio.

Bank Recovery & Resolution

A dedicated resolution regime was developed for systemically important financial institutions (SIFI) which, unlike normal insolvency proceedings, aims to ensure the continuity of the bank's critical functions in resolution and thus, preserve financial stability. The above efforts were also seen as an effort (by governments) to cease deploying tax payer's money, in the event of any future bail out.

Against this background, the G20 mandated the Financial Stability Board (FSB) to draft an international standard for resolution regimes.

The FSB's efforts culminated in the publication, in 2011, of the Key Attributes of Effective Resolution Regimes for Financial Institutions (Key Attributes) which, for the first time, at the global level, outline the essential features that should be part of resolution regimes in all jurisdictions.

These Key Attributes require jurisdictions to establish resolution authorities and grant them elaborate resolution powers and tools, such as the new bail-in tool that allows them to allocate losses to creditors, as well as the power to sell an institution's business lines or transfer them to a bridge/SPE institution.

In the EU, the basic principles of the Key Attributes for banks were transposed into the European law by way of the Bank Recovery and Resolution Directive (BRRD).

For EU member states, the BRRD was flanked by the Single Resolution Mechanism Regulation, which aims to create a level playing field for the resolution of failing cross-border banks that fall within the scope of the Single Supervisory Mechanism (SSM).

The bail-in tool was envisaged to bear upon investors the fiduciary responsibility, of not blind trust (in terms of basing judgment on External Ratings) but judicious risk appetite. This principle of liability creates stronger incentives to properly consider risks when making investment decisions thus dis-incentivizing or minimizing moral hazard behavior.

Once shareholders have been bailed in, holders of debt instruments will also be exposed to losses according to the hierarchy of creditors (liability cascade) by writing down the liabilities in question or converting them into equity.

The chosen solution was to switch from "bailouts" to "bail-ins". Under a bail-in approach, lenders of an insolvent bank are offered an equity stake in the restructured bank. In other words, the bank is rescued deploying internal resources without the public/tax payer money and can continue to operate through the agreed resolution approach.

However, while bail-ins are now legal, making them credible in the market terms will require a new liability structure within banks. Hence, the need for MREL; a new "quasi-capital requirement", which means banks must hold a layer of liabilities on top of their equity, so that, in the event of failure, this layer can be easily converted into equity. To ensure effectiveness, the liabilities identified under MREL need to have long-term maturity and be junior to the retail deposits.

By requiring the banks to hold this layer of liabilities in healthy times to draw on if things go wrong, MREL takes the legal reality of bail-ins and enhances its credibility. While banks might have sufficient "bail-in-able" liabilities either way, the authorities might not feel comfortable with a bail-in funded exclusively by these types of liabilities, because of considerations around market disruptions and financial stability.

Not all liabilities are considered for bail in, MREL ring-fences these liabilities into three main categories:

- **Liabilities Excluded From Bail-In**
- **Liabilities Not Excluded From Bail-In**
- **Own Funds**

And, segregating them for a potential resolution based on Sector classification.

TLAC - At the global level, the Total Loss-Absorbing Capacity (TLAC) standard for global, systemically important banks (G-SIBs) was developed by the FSB and published in November 2015.

The BRRD, on the other hand, contains a provision that shares broadly the same objective: the minimum requirement for own funds and eligible liabilities (MREL). Like TLAC, MREL is designed to ensure that each bank has a certain amount of loss-absorbing capacity in case it needs to be resolved. The BRRD applies to all banks in the European Union.

The ensuing literature will focus only on the MREL report in accordance to EU guidelines.

Regulatory Landscape – Maneuvering MREL reporting

Most banks have Data warehouse that serves as a the golden source of all information for regulatory reports. However, given the complexities of the report attributes, some banks' data ecosystem consist of a database/s with several adjoined silos.

For instance, apart from the bank's core business data such as customer, product, regulatory compliance, collateral, risk management data reside in the golden source database, other related and important information resides in other internal systems and dependent on external source systems such as markets, central counterparty, affirmation services, custodians, CCP, CSD and settlement systems.

A detailed GAP analysis would indeed map these sources to the guidelines, but challenges remain in navigating through the path that identifies the desired attributes. To overcome this challenge, banks have pursued the approach of identifying the data, visible first and then linking these up with MREL specifications. The challenges are clearly visible.

The liabilities have never been mapped before as under the scale and proportion, under the TLAC/MREL regime, so the classic 'reinventing of the wheel' scenario presents itself. A top-down approach or a bottom-up approach might find naysayers at both ends, but prudence would suggest a joint, hybrid solution.

Procrustes from Greek mythology have inspired many firms to adopt the 'one-size-fits-all' approach by cherry-picking from readily available, similar reports, such as the BASEL/ FINREP/COREP reports. The LDT 2018 report clearly states that MREL ought to reconcile with the FINREP/COREP report of the bank.

MREL Report Structure

The consolidated reports (Liability structure and Own funds) are basically, aggregated level reports from other granular level reports in the MREL template. This means they cannot be mapped entirely unless attributes in the other reports have and vice versa, further increasing the complexity.

Liabilities reporting, traditionally are seen as a Balance sheet reporting obligation, and hence, was viewed as an aggregation exercise. MREL/TLAC has relooked this reporting item in an entirely different light. Not in recent history have we witnessed liabilities being scrutinized this way until now, so banks cannot rely on existing data on reports, but create an altogether different framework with respect to MREL/TLAC.

The former having been used extensively and widely has acquired institutional status. The problem lies in the complexities of an OTC ecosystem, which (GAAP) Generally Accepted Accounting Principles was not created for. Several calculations and attribute characteristics are alien to a GAAP world, and can only find resonance with the IFRS 9 world. In light of this, firms are now contemplating using a hybrid approach.

The LDR granular reports have also introduced/revisited a different set of classification of Customers/instruments, such as Insolvency Ranking, Contractual third-party Governing law, early termination amount, estimated close out amount and other OTC liabilities mapping. Several banks intend leaving these fields blank with the hope of taking these up, post submission.

To sum it up, MREL/TLAC reports are similar to an exotic OTC derivative – rare, non-linear, correlated, illiquid and higher order in nature and design.

Amount Reporting

Across the 8 reports (save for report T01) the amounts are split between 'Outstanding amount' and 'Carrying amount' the carrying amount does not necessarily represent the value that is relevant for the resolution purposes, for e.g. with reference to the amount that could be bailed-in or is excluded from bail-in, the report also requires information about the "outstanding amount", that is the principal amount of the claims on the debt instrument. This remaining outstanding amount due is equal to the value of the claim, which the creditor could claim under insolvency proceedings.

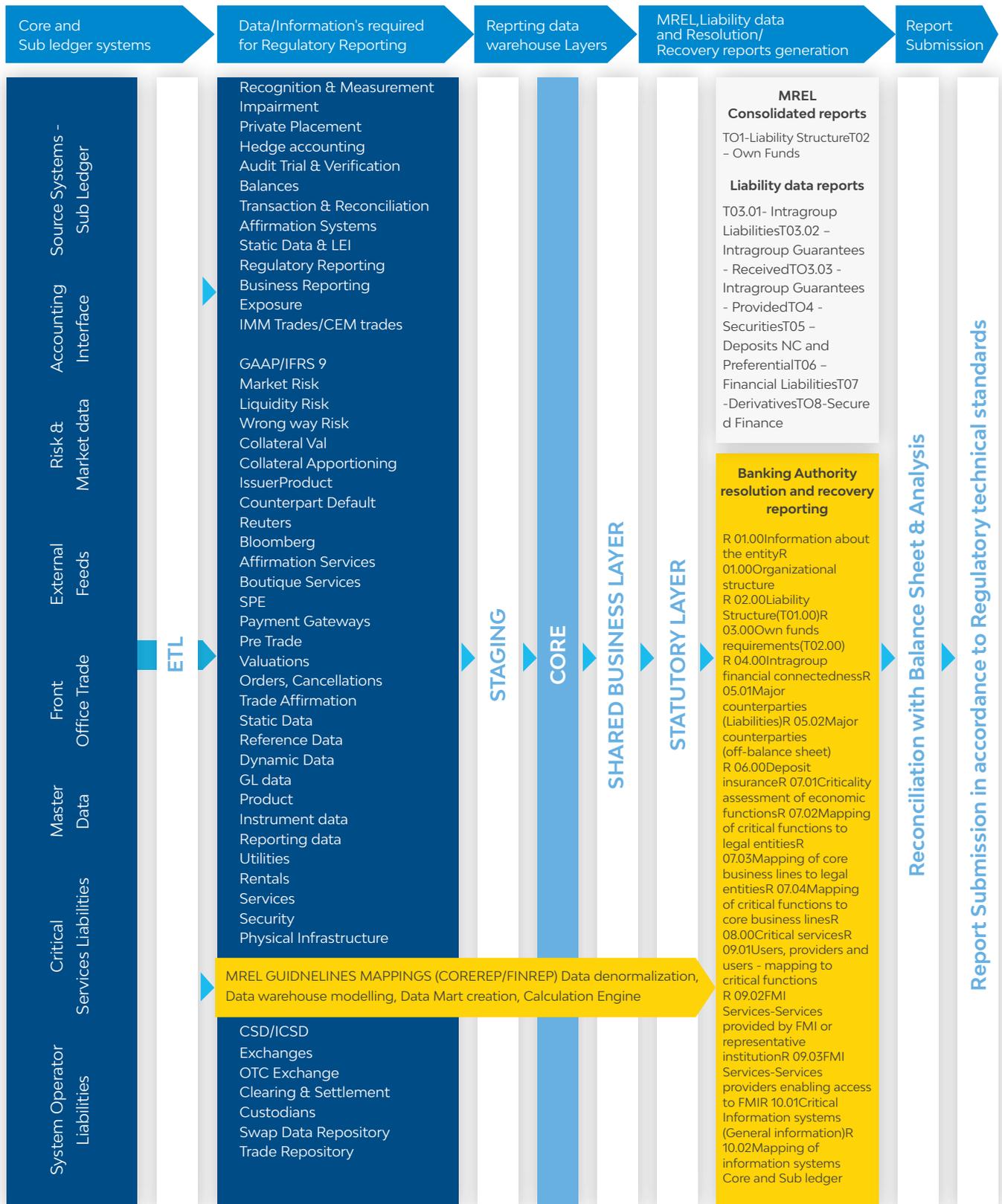


Figure 1.0

Most of the liability data is present in the Enterprise data warehouse of a bank.

Mapping and sourcing them is the challenge. Naming convention differs and several of these need to be created, mapped and domain values created.

Reporting - Challenges

Data sourcing and necessary analytical capability

Regulatory overlap in reporting, with several being implemented simultaneously, like:

Mifid 2, EMIR, Dodd Frank, CCAR, FRTB, Basel 3/4, AIFMD, etc. would see the sourcing of the same data across applications. While this might not result in a huge scope, the data sourcing (initially) would be a challenge. Many data elements reside in legacy systems, and identifying each of these would be complex and tedious in a federated Enterprise data warehouse. The latest LDT guidelines for 2018, specify a detailed consideration of data requirements for MREL. A restructuring of liabilities will become necessary, so a detailed overview of the financial structure is essential, in order to adjust to the strategic orientation.

High granularity of data

The determination of liability instruments is subject to a high level of complexity given their individual design and insolvency laws that vary nationally. SRB intends to harmonize these across the EU. Attributes such as 'Third Country law Contractual Recognition', 'Governing law' and 'Bail-in Clause' are based on legal terms, specific to programs carried out by individual banks. G20 nations would need to be brought aboard with the economic balance gradually shifting from traditional players. This also implies, a high granularity of data, down to individual contract/instrument levels.

Illiquid instrument valuation

Many of the instruments/products are OTC related and bilateral in nature. Geography, foreign currency denominated and cross border, notwithstanding, many of these are highly illiquid and custom-made. Finding the means to a quick disposal or transfer would be extremely difficult, considering the valuations at fair value are either erratic or mispriced. Exposures could increase and in a crisis, could lead to market contagion and thus, systemic risk. Uncalculated risks taken could further precipitate the agony.

High flexibility in implementation

Individual institutions or Intragroup within a group need to report as well. While the data requirements would be the same, the dilemma w.r.t. data would be similar, but to a lesser complexity amid differing regulatory jurisdictions. However, most of the reports will still be filled manually. Currently, Intragroup reporting is consolidated and sent to the Parent Company as reported in T01, T02 and T03. Going forward, they will have to follow a similar exercise.

Dependency on other reports

MREL-reporting content overlaps with that of CoRep, FinRep and BISTA, with respect to capital requirements and liability structure. This offers an opportunity to realize synergies, but also implies additional consistency requirements, for e.g., potential validation rules, by the resolution authority. Cherry-picking from existing reports might solve the interim problem, but only partially. The risk of having incomplete reports serves no purpose. Mapping attributes onto the MREL template would require business understanding, and creating Master data to flow to identified data warehouse.

MREL Eligible Instruments

The market appetite for MREL eligible instruments would be tested severely, especially for issuers, which are not currently present on the senior unsecured market, or for the CEE (central and eastern Europe) markets in general.

FX Risk

Due to missing investors base in the local market, it is highly likely certain banks (e.g.. Czech, Greece, Poland, etc.) will be forced to raise majority of the funding in foreign currencies, which will bring unnecessary FX risk (or related risks associated to FX hedging) into the banks' balance sheets.

Additional Funding

Additional Funding raised by the banks will increase the balance sheet size and leverage, which goes against prudential requirements.

- Increased balance sheet size of the low-risk banks might lead to breaking the leverage ratio requirement (depending on the binding level to be defined in EU), which would require further increase of already high capital ratios of certain banks. This would subsequently lead to spiral increases of the MREL eligible liabilities.
- The conservative business model of certain banks makes it extremely difficult for them to invest in the liquidity surplus into high quality assets available in the market. Adding large amount of liquidity into their balance sheets will make it practically impossible to continue in their conservative investment policies. They will be forced to invest into riskier assets, or cross-border in the markets, which does not correspond to their traditional local focus and low risk appetite. This will increase the riskiness of the banking sector in general and build

undesirable interconnections and dependencies among individual markets, which will likely increase the systemic risk in the EU.

- Part of the additional funding raised due to MREL requirement will be invested into government bonds, which would further increase the interconnectedness of the financial and government sectors.
- The large amount of funding to be raised will bring substantial increase in funding costs, which will have negative impact on profitability of the banks, and thus cancel their capital generation capacity. This impact is again disproportional for some banks, whose existing funding costs are traditionally extremely low.
- In general, the change of business/funding model in the market characterized by the large surplus of deposits over loans is impossible without increase of the balance sheet size, increase of leverage of the banking sector and increase of the riskiness, which is hardly the aim of the prudential regulation.

MREL Compliance

Compliance with the MREL requirements, as they have been drafted by EBA, will have completely opposite consequences than was the original intention of this regulation, i.e. riskier, more leveraged, less profitable banking sector, becoming more dependent on the secondary market. This will certainly negatively influence the overall economy.

Customer Deposits

Deposits remain vulnerable to accelerated outflows in stress scenarios, as could be observed for domestic deposits during the Greek crisis. Some concerns also result from the uncertain

behavior of wholesale deposits, for example those of large corporates, which exceed the level covered by deposit guarantee schemes and do not benefit from the preferred ranking introduced.

Trading market liquidity concerns

Traders provide market liquidity, and their ability to do so depends on their availability of funding. Conversely, traders' funding, i.e., their capital and margin requirements, depends on the assets' market liquidity. Under certain conditions, margins are destabilizing and market liquidity and funding liquidity are mutually reinforcing, leading to liquidity spirals. Furthermore, market liquidity (i) can suddenly dry up, (ii) has commonality across securities, (iii) related to volatility, (iv) subject to "flight to quality," and (v) co-moves with the market.

We believe that firms ought to have models that provide new testable predictions, including that speculators' capital is a driver of market liquidity and risk premiums.

Spreads could become increasingly volatile

Spread differentials between covered bonds and unsecured funding instruments could widen substantially, leading to increasing covered bond issuance volumes than unsecured issuance volumes.

Spread Volatility

Spread volatility attributable to macroeconomic factors, such as resurgent concerns about the euro area and rising spreads for long term sovereign bond yields attributable to intrinsic risk perceptions of funding instruments could rise. Increased spread volatility will adversely affect issuance volumes, as accessing primary markets and identifying adequate offering prices become more challenging.

MREL in (cross-border) groups

Any realistic prescription of a meaningful lower bound for the capital available for bail-in, has to strike a balance between two conflicting goals: on the one hand, potential intra-group transactions constitute a source of stability and should not be neglected altogether, because otherwise the costs of capital for the group become inefficiently high. On the other hand, the regime should not naively rely on the unrestricted availability of transfers, once the crisis hits, because competent authorities have a tendency to ring-fence in view of a crisis.

The current EU framework follows a rather rigid, potentially cost-hiking approach in pertinent regard. By and large, this assessment holds with a view to the proposed amendments to the BRRD, which deviate in important respect from the FSB approach that is more attentive to a group-specific application of TLAC (MREL) requirements. To be sure, the FSB does not harbor unrealistic expectations with regard to cross-border transfers of funds in crisis. Hence, also the TLAC standard requires considerable funds to be committed to institutions that are not necessarily at the center of PSI in the resolution strategy for the cross-border group. Yet, the key difference to the European legislator is that the TLAC standard limits intra-group prepositioning to those scenarios, where material conflicts between national resolution authorities loom. Thereby, it avoids much of the uncertainty that stems from the procedurally complex involvement of a multitude of resolution authorities as the default for setting MREL in cross-border groups under the BRRD.

Macro-economic challenges (apart from home country)

Changes, both politically and economically in countries of investment, pose a significant challenge in terms of exposures and growth. This could have a bearing on a banks' profitability and thus, a strain on their deployable capital. For example: Brazil has experienced an output contraction in recent years, although its growth prospects have started to improve. Meanwhile, many Latin America economies have already slowed down, and macroeconomic uncertainties have increased markedly, especially in light of rising trade

protectionism risks (e.g., for Mexico) The outlook for the United Kingdom has also become increasingly uncertain in the aftermath of the 'Brexit' referendum. Problem assets have been on a rising trend in Brazil and Turkey.

Liquidity Regulation

Liquidity regulation is a new dimension to regulation that has been introduced following recent crises. Although there is practically no academic literature so far on the effects of liquidity regulation and its interrelation with capital regulation, it is plausible to argue that it will help mitigate the problem of fire sales, because banks will have more liquid assets in their portfolios. Therefore, they will be in a better position to withstand liquidity shocks without premature liquidation of long-term assets.

Liquidity requirements may also have some negative effects. Requiring banks to hold more liquid and short-term assets may reduce the long-term profitability of banks. This may induce bank managers to take more risk to compensate for lost profitability, and incentivize investors to respond more quickly, prompting fundamental-based bank runs. Finally, while capital requirements are mostly intended to preserve financial stability in the long run, they may also represent a form of loss absorption in the short run and thus, interact with liquidity regulation in important ways.

The Basel III and the corresponding CRD IV package in Europe introduces liquidity requirements in the form of a Liquidity Coverage Ratio and a Net Stable Funding Ratio. The former is a measure of an institution's ability to withstand a severe liquidity freeze in the next 30 days, and the latter is a longer-term approach designed to reveal risks that arise from significant maturity mismatches

between assets and liabilities. Unlike capital requirements, much less empirical research has assessed the effect of these new requirements.

Decreasing issuance volumes of subordinated debt despite increased funding needs

The trend of significant additional tier 1 (AT1) issuances has become more challenging. Issuing banks were mostly those with strong market perception. Issuance of subordinated debt was scarce mainly for banks with weaker market perception, or for banks domiciled in a sovereign with higher risk perceptions. However, most banks will have to issue further such instruments, driven in many cases by the MREL requirements under the BRRD. Banks will have to demonstrate that they are able to issue these instruments at reasonable costs, while markets need to be willing to absorb further material issuance volumes of these instruments. As subordinated debt has been more susceptible to market volatility, banks remain vulnerable to any snap back in investor risk appetite, which could make it more difficult to issue these debt instruments.

Maturity Mismatches

Although NSFR and LCR within CRD IV try to address liquidity risk, some argue that the liquidity ratios in CRD IV mostly aim at reducing maturity mismatches between assets and liabilities at an institution level. MREL requirements would also warrant that eligible instruments be provided for at all times of the Resolution phase. Maturity mismatch in core institutions is indeed a key financial stability risk in wholesale funding markets, but

it is not the only one. As described by the Federal Government, "Even if an intermediary's book of securities financing transactions is perfectly matched, a reduction in its access to funding can force the firm to engage in asset fire sales or to abruptly withdraw credit from customers. The intermediary's customers are likely to be highly leveraged and maturity transforming financial firms as well, and, therefore, may then have to engage in fire sales themselves. The direct and indirect contagion risks are high. The LCR and, at least at this stage of its development, the NSFR, both rest on the implicit presumption that a firm with a perfectly matched book is in a fundamentally stable position. As a micro prudential matter, this is probably a reasonable assumption. But under some conditions, the disorderly unwind of a single, large SFT book, even one that was quite well maturity matched, could set off the kind of unfavourable dynamic described earlier."

Collateral Eligibility

According to Article 64 of the ECB guidelines on eligibility debt instruments that are subordinated to other debt instruments issued by the same issuer, are excluded. This may limit refinancing options for European banks holding debt instruments with different seniorities.

Funding costs to increase

Market analysts expect that attaining subordinated debt will be more popular than senior unsecured funding or secured funding. Nevertheless, there is hardly any agreement on the potential impact of other refinancing instruments on the banks' funding mix, their expectation in respect of the changes in banks' funding mix, market analysts assume that on average bank funding costs will increase. Increasing funding costs could adversely affect plans to issue additional subordinated debt.

Operational Risk

- Operational risks related to Information and Communication Technologies (ICT) at banks remain at the forefront of the attention of supervisors, banks and consumers. The dimension of ICT risks has expanded further as penetration of ICT continues to increase across the financial sector, while the complexity of ICT increases. In addition to ICT risks, risks related to detrimental business practices as a sub category of banks' operational risks have been highlighted in past risk assessment reports, and risks have increasingly materialized.
- The frequency of incidents and the magnitude of incurred costs remain high, and there should be no room for complacency. Both ICT risks and business conduct risks are key operational risks that require continued heightened attention. This is reflected in the responses to the RAQ, where 35% of respondents indicate that they have identified increased operational risks in their bank.

Recommendations

- The default LAA determined by the resolution authority shall be set at the level of own funds requirements pursuant to Article 92 and 458 of CRR (total capital ratio of 8%), and let the inclusion of some of the elements of capital requirements (especially capital buffer required by CRD IV and SREP requirements pursuant to Art. 104 1a. of CRD IV) into LAA only as a national discretion of a resolution authority. This would help to eliminate different phase-in period for implementation of capital buffers by the individual Member States.
- Possibility to decrease the loss absorption amount and recapitalization amount in a case the institution has a credible recovery plan and the recovery triggers are defined at sufficiently high levels so as it is reasonable to assume, that the probability of the institution entering resolution is substantially reduced.
- Possibility to adjust recapitalization amount downwards in the case the final MREL level would lead to undesirable consequences, contradicting the prudential requirements (higher leverage, increased interconnectedness of the financial sector, increased riskiness of the balance sheet of the institutions concerned, etc.)
- Possibility to set the recapitalization amount to '0' in the case of institutions with specific business model implicitly assuming financing by retail deposits acquired from private individuals and investing within limited range of highly liquid assets defined by legal framework (i.e. building societies). Mortgage banks financed by covered bonds are already excluded from MREL requirement.
- Possibility to adjust the MREL requirement reflecting the size of IG guarantees.

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Raji Daniel, a Senior Consultant within LTIMindtree Consulting, is pursuing his doctorate in capital markets risk management. He holds a post-graduate management degree from the University of Pune. Having worked with several investment banks such as Lehman Brothers, Morgan Stanley, Knight Trading, VPS (Norway), RBS, Barclays, Nomura, UBS, etc. Raji has been involved in business consulting within the investment banking domain in credit risk, market risk management and governance risk and compliance.



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