How will Credit Spread Risk in the Banking Book be put into practice?

Prometeia Survey

June 2019

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Foreword

The **Basel Committee on Banking Supervision**, in its 2016 Standards on Interest Rate Risk in the Banking Book, defines **Credit Spread Risk in the Banking Book (CSRBB)** as "*any kind of asset/liability spread risk of credit-risky instruments that is not explained by IRRBB and by the expected credit/jump to default risk*", stating that "*CSRBB is a related risk that banks need to monitor and assess in their interest rate risk management framework.*"

On the other hand, the **European Banking Authority**, in its 2018 Guidelines on the management of interest rate risk arising from non-trading book activities (EBA/GL/2018/02), defines CSRBB as "*The risk driven by changes in the market perception about the price of credit risk, liquidity premium and potentially other components of credit-risky instruments inducing fluctuations in the price of credit risk, liquidity premium and other potential components, which is not explained by IRRBB or by expected credit/(jump-to-) default risk.*"

In the Guidelines (§18), EBA also states that "*Institutions should monitor and assess their CSRBB-affected exposures, by reference to the asset side of the non-trading book, where CSRBB is relevant for the risk profile of the institution.*"

Starting on 30 June 2019, these Guidelines enter into force for EU institutions, with a transitional provision for smaller banks (SREP categories 3 and 4), allowing for further six months for appliance of paragraph 18.

Waiting for more detailed instructions by the European regulator for implementation, in May 2019 Prometeia has promoted a **web-based survey** involving ALM, Treasury, Market & Liquidity risk units from almost 50 financial institutions to understand **whether and how banks are approaching the assessment of their CSRBB**, and to identify best practices in preparation for compliance.

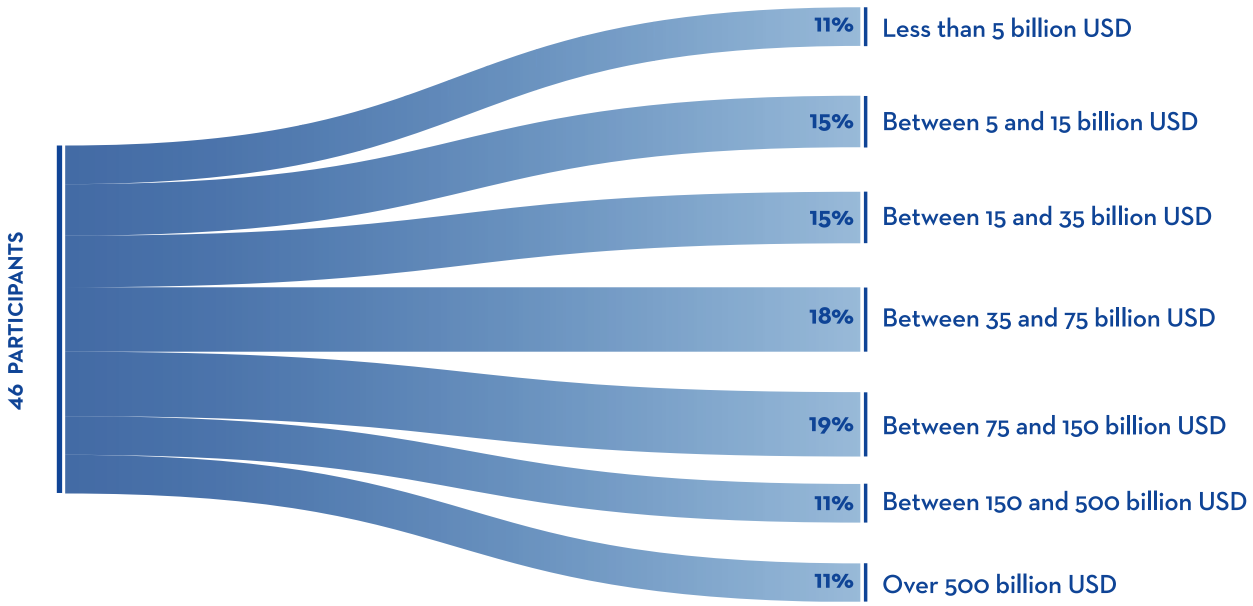
As a matter of fact, a large chunk of the banks surveyed does not have in place yet a regular process for monitoring and assessing CSRBB. **Most of them, though, mean to implement it in the next years**.

This is why we argue these insights can be valuable for institutions willing to address this challenge, whether in the short or medium run.

Survey's participants

Institution's size of total assets

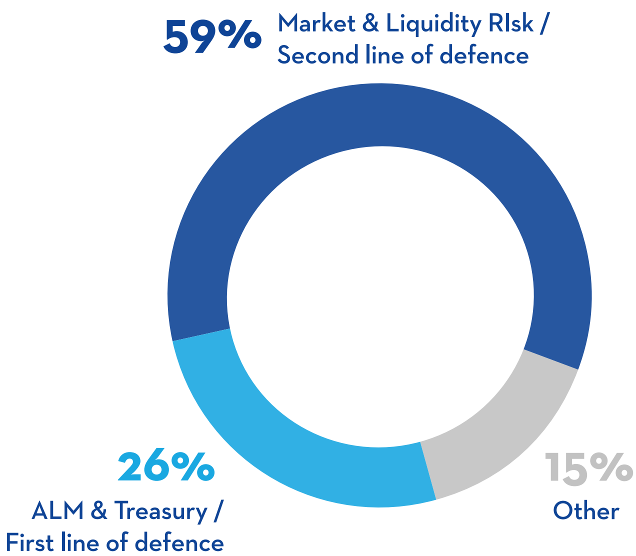
46 banking groups, mainly located in Europe (where EBA Guidelines formally introducing CSRBB monitoring and assessment are entering into force right now), Russian Federation and other EMEA countries.



Department or function

Majority of respondents are from Market & Liquidity risk units (second line of defence), with about 25% from ALM & Treasury functions.

"Other" includes mostly other Risk Management units.



CSRBB today or tomorrow

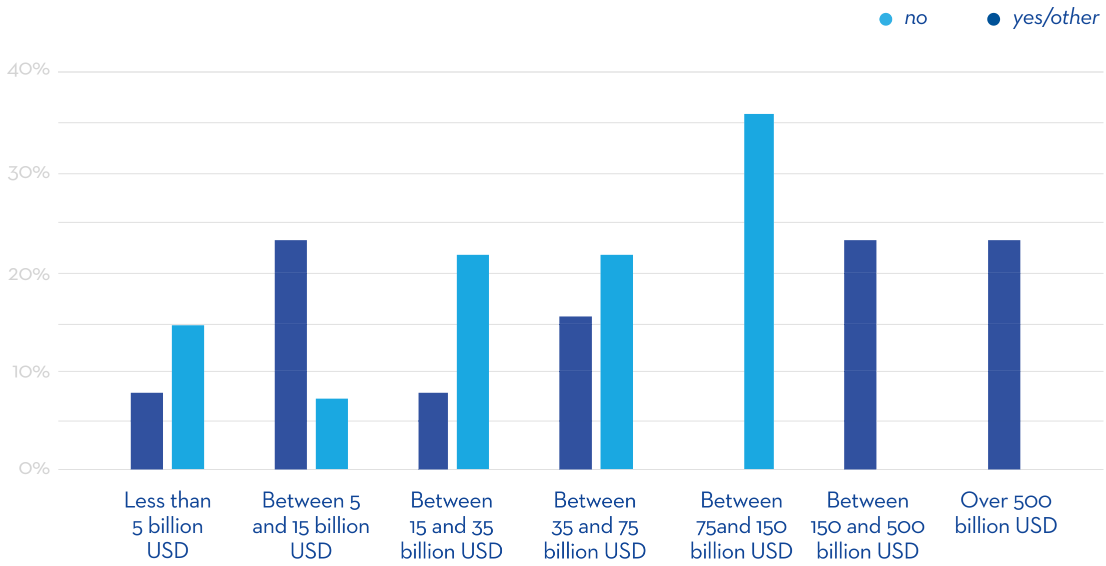
As of today, does your institution have in place a regular process for monitoring and assessing CSRBB?

33% YES
52% NO
15% OTHER

A little more than 50% of respondents do not monitor and assess CSRBB as of today.

More than 30% do, however other respondents specify that they have in place some type of monitoring.

All in all is 50-50, but with some (expected) differences among size classes



Are you currently planning to activate a process and framework for CSRBB analysis?

A few respondents, among those who already have in place a process for CSRBB, say they are planning to make some refinements in terms of methodology or governance

5%YES by end of June

28%YES by end of the year

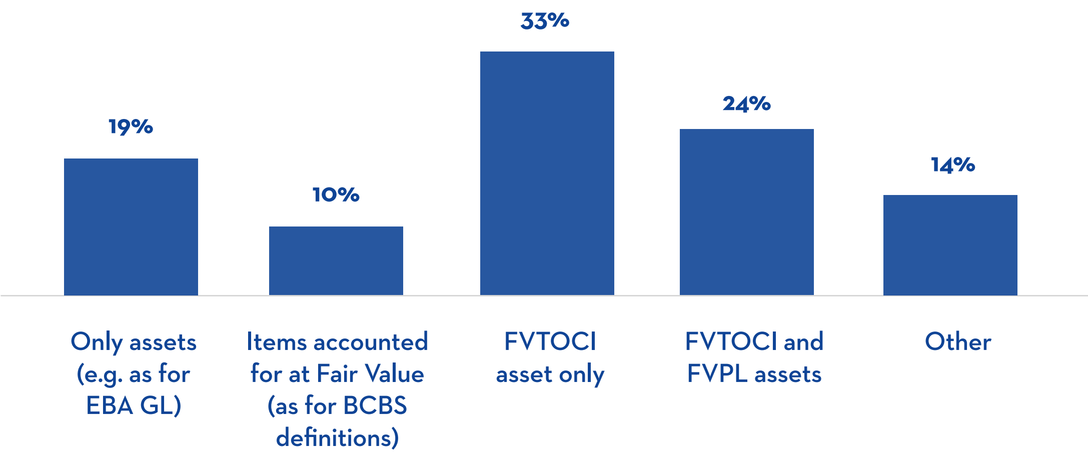
50%YES but later in the next years

17% NO

Most banks that declared not to have in place a regular process for CSRBB (or have only partial monitoring) are planning to bridge the gap (over 80%), although not necessarily within EBA guidelines deadline.

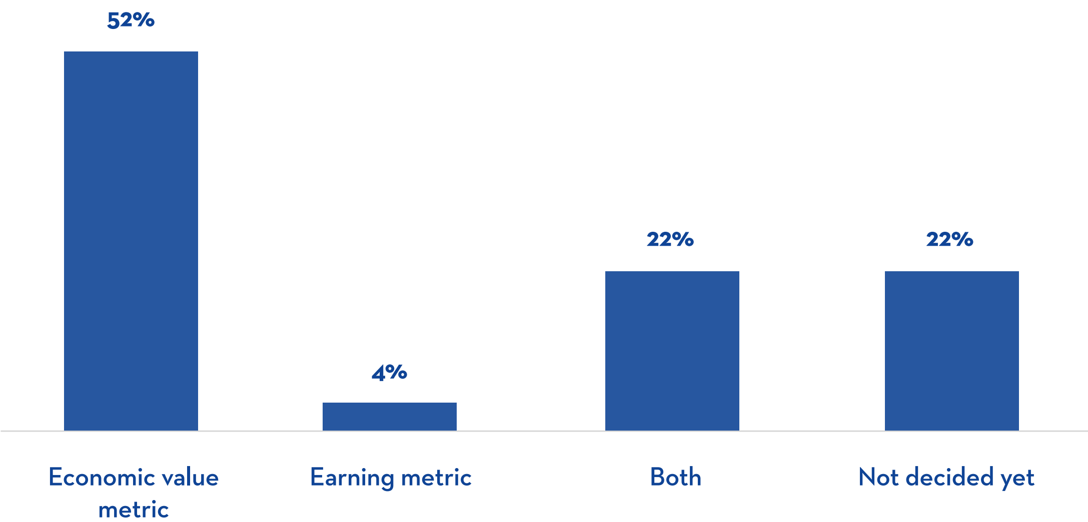
CSRBB metrics & methodology

According to your current/target framework, what is in scope of CSRBB assessment?



Apparently, more than 60% of respondents is taking into account simultaneously both EBA and BCBS definitions, considering in scope only FV accounted items on the asset side (at least for EV measures).

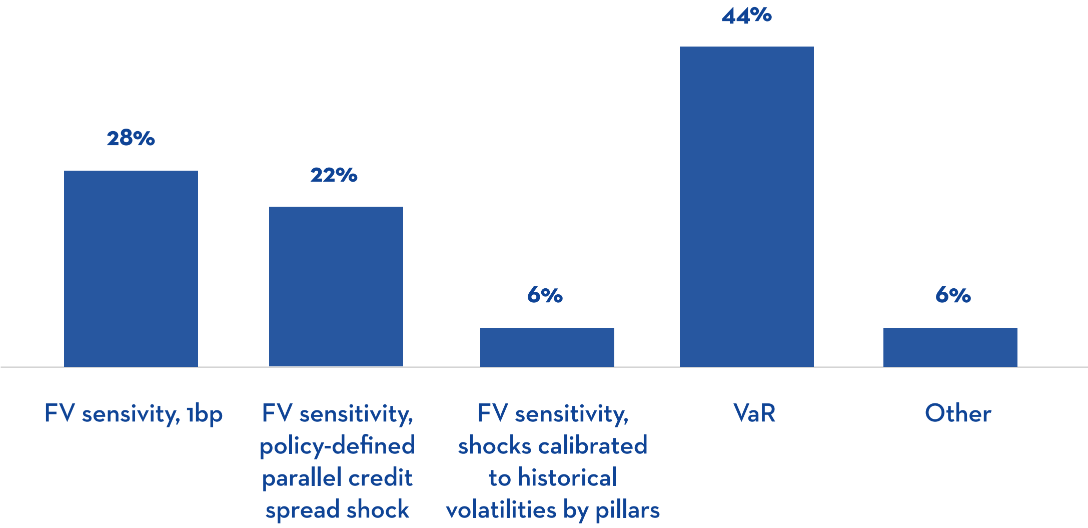
What kind of metric for CSRBB assessment?



The majority of banks is focusing on Economic Value metrics, although some of respondents take into account also Earnings metrics, eventually to complement the former.

For economic value metric, what model is or will be used to assess CSRBB?

A few respondents apply more than one model



The use of VaR models (most often based on Historical Simulation) is a common choice, especially within larger banks, although the choice of confidence level and, even more significant, holding period, is quite heterogeneous.

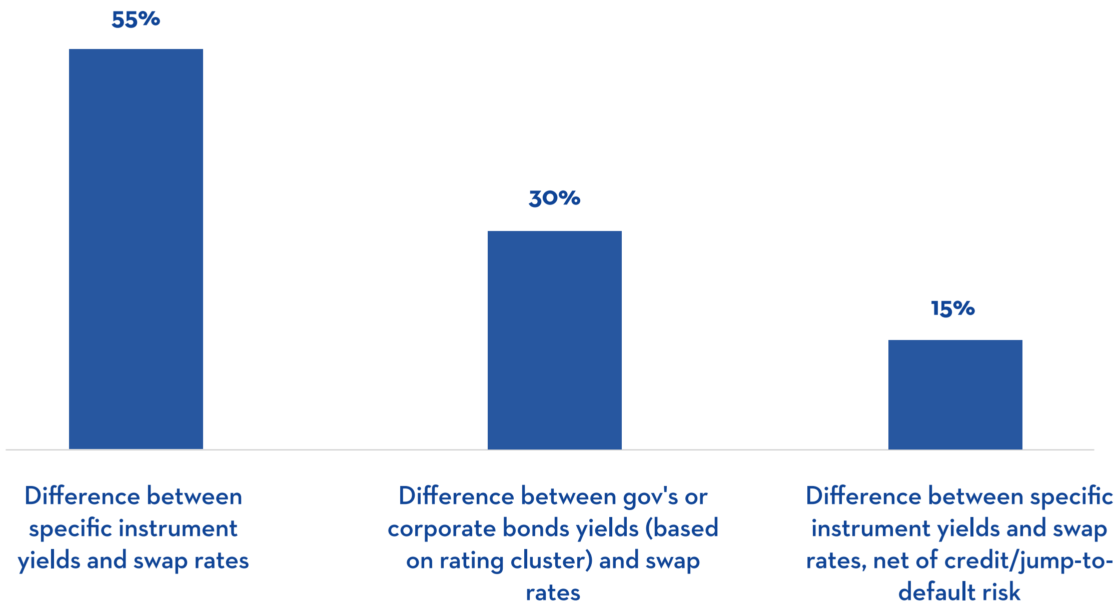
EV sensitivity, either based on deterministic/parallel shocks, or more elaborated stress scenarios, is the approach used by more than half of respondents.

NII metrics

NII metrics are less common as observed before, so statistics were not significant here.

Where applied, the most common approach involves an NII sensitivity analysis based on a conventional parallel credit spread shock affecting the reinvestment of maturing assets and liabilities, although scenario analysis is also a choice.

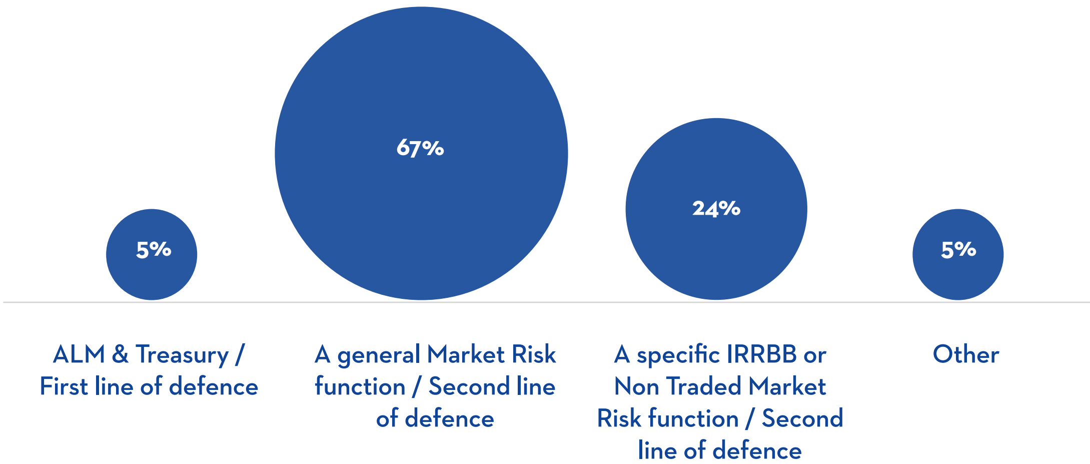
In the definition of the (shock) scenarios, how credit spread is or will be determined for the purpose of CSRBB?



The identification of credit spread, for CSRBB assessment, is mainly related to a broad "asset swap spread", both by specific instrument or by cluster, but not explicitly excluding so called idiosyncratic or jump-to-default risk premium, which seems to be particularly tricky to address.

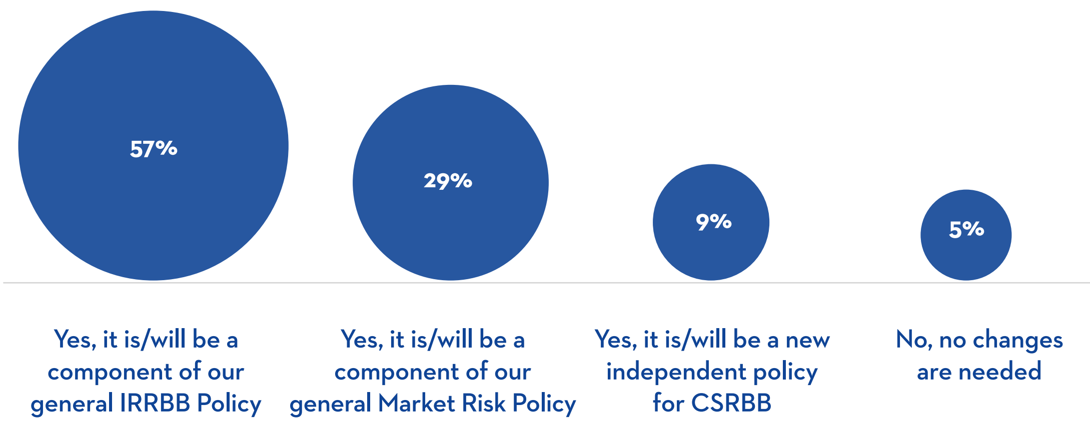
CSRBB impact on governance

Which function will be in charge of monitoring and assessing CSRBB in your institution?



Risk Management function is involved in 95% of respondents institutions, with a prevalence of Market Risk units with respect to IRRBB or Non Traded Market Risk.

Did you make or do you expect a change in your internal policies to support CSRBB governance?



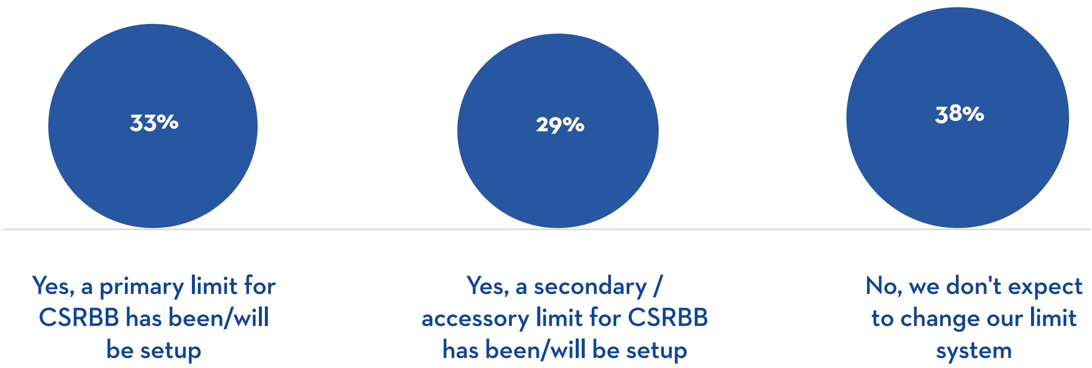
A wide majority of respondents declare they did (or will) revise internal policy to comply with CSRBB requirements.

Responses also show that CSRBB is commonly included within IRRBB framework.

Did you make or do you expect a change in Risk Appetite Framework to support CSRBB governance?

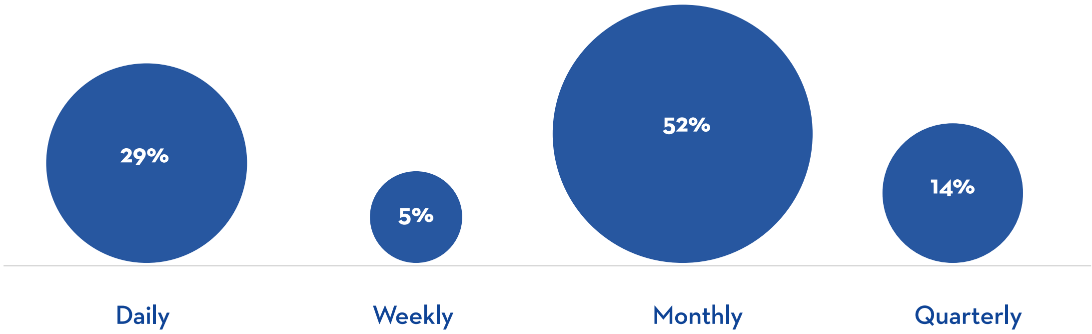
When referring to Risk Appetite Framework, instead, a significant share of banks think that no revision is needed to the current framework.

Did you make or do you expect a change in your limit system to monitor CSRBB?



Although most of respondent declared (see previous slides) that an update of internal policies was/will be necessary to include CSRBB, almost 40% is not expecting any change in terms of limit system.

With what frequency is or will CSRBB be assessed in your institution?



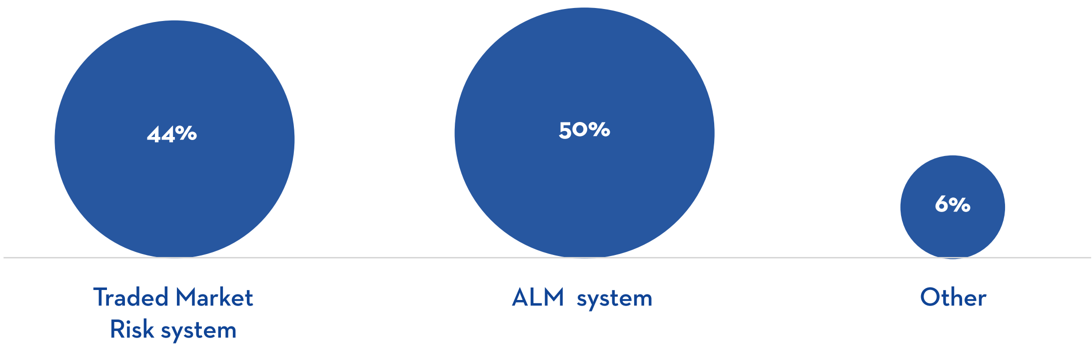
Frequency of monitoring is mainly monthly and daily.

When it is daily, in the majority of cases CSRBB is in charge of Market risk functions (using market risk tools), while when CSRBB is monitored with lower frequency, there is no evident correlation with function and instrument used.

CSRBB IT systems

What solution does or will your institution use for CSRBB analysis?

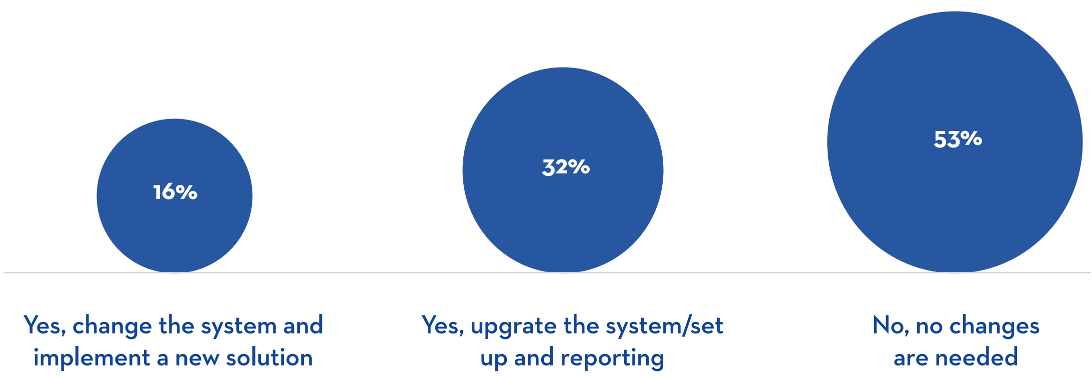
In many cases (roughly half of them), the ALM system is used also when the owner of CSRBB monitoring is a Market risk function



In banks where a framework is already in place or well defined, the choice of the solution is distributed between Market Risk and ALM solutions.

Where CSRBB assessment is not in place yet, decision has still to be taken in most cases.

Did you make or do you expect to introduce changes/upgrades in your system to better capture CRSBB?



Half of respondents declare their solutions were complete enough for supporting CSRBB analysis, while the other half say they had (will have) either to change solution or at least proceed with version upgrades or set up and reporting revision.

Key takeaways and Conclusions

As a first outcome of the survey, we observed that **50% of respondent banks declare they do not have in place a regular process for monitoring and assessing CSRBB yet**, however all participants from largest institutions say they do. Therefore, it seems that compliance to the new requirements will pose a greater challenge to medium and small size institutions. Almost all of those that are not compliant declare that they will, having already a plan to activate CSRBB monitoring, although quite surprisingly this will not be necessarily within the EBA deadlines.

From a methodological point of view, **the most common approach is based on an Economic Value metric**, although some banks are also considering Earning metrics, eventually to complement the former. It is worth noting that among respondents who don't have a process in place yet, a significant portion has not identified the target metric so far (roughly 40%, or 20% of total respondent).

Regardless of the observed preference for Economic Value approach, getting more into deep, a **significant heterogeneity emerges in terms of models** (EV sensitivity or VaR), shock scenarios, and other parameters qualifying the risk indicator, such as holding period and confidence level, thus suggesting that interpretation of CSRBB can vary significantly from bank to bank.

Finally, also the issue of excluding the "jump-to-default" risk component seems to be particularly tricky to address, as only 15% of respondents declare they do. We believe such a diversity in approach is going to pose a challenge not only to banks, working now to identify and implement their framework, but also to **EBA, called to define the criteria for the assessment and monitoring of CSRBB**, as a mandate of recently amended EU Directive (CRD5).

From a governance and organizational point of view, we observed that in the wide majority of cases, **CSRBB involves Risk Management functions**, in charge of either Traded or Non-traded market risk.

The introduction of a specific process for CSRBB in most cases required (or will require) some changes to internal policy (IRRBB or Market risk policy), and to a less extent to the Risk Appetite Framework and to the limit system. In half of the cases changes are also expected to IT systems, ranging from an upgrade or a revision of the set-up of existing system, to the implementation of a brand new solution.

Systems used are **mainly ALM and Market risk solutions**, and the choice of system might have an impact on the frequency of monitoring, which most of the times is monthly (50%) or daily (30%), when market risk functions and systems are involved.

The landscape appears to be quite diversified and evolving as of today, and it will be interesting to see which framework will be shaped over the coming months and years, both in terms of internal and regulatory approaches.

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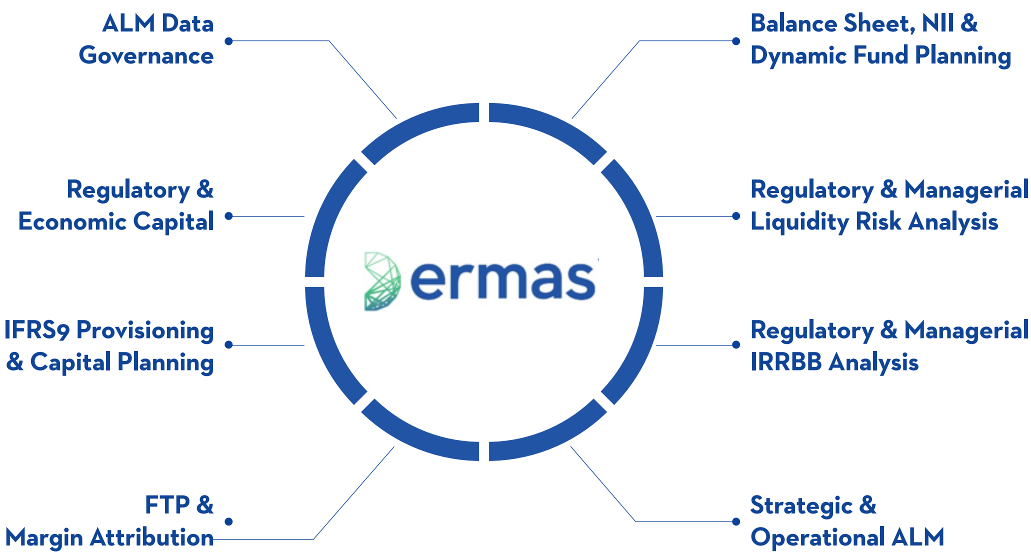
The solution relies on **the most sophisticated methodology for behavioral modelling**, including survival models for prepayments, replication portfolio for retail deposits, etc.



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A partner at Prometeia since 2018. In Prometeia since 1999 after graduating in Economics cum laude at Bologna University. She has developed her expertise in ALM, being in charge of several projects for the banking sector. She is now Head of the ALM & Liquidity competence line within the Prometeia Enterprise Risk Management area, coordinating R&D activities for ALM and innovative pilot projects. She leverages her strong experience in ALM projects, covering interest rate risk, liquidity risk, Funds Transfer Pricing and planning, both in Risk Management and Finance departments for some major Italian and international banking groups. She also supported the Italian Banking Association (ABI) in training courses for bank professionals.

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Our combination of tech proposition, quantitative advisory, training and economic research makes our business model unparalleled in today's market

Prometeia's approach to Enterprise Risk Management is based on the development of quantitative models and analysis methodologies. The production of highly specialized software applications leverages leading technologies, the knowledge of our subject matter experts and our ability to successfully respond to the growing demands of regulation. Our deep understanding of international markets, derived from proprietary economic research, adds a unique element to Prometeia's business model and value proposition.

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-> in **20** different countries

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