

Impact Metrics for Risk-Based Supervision of Financial Firms by the Central Bank and On Impact Based Levies

CP 49

Submission by Caolan O’Callaghan (UCD Actuarial Student) and Andrew Caslin (UCD Economics Student)

We welcome the opportunity to submit this brief response to the Central Bank’s consultation paper entitled: ‘Impact Metrics for Risk-Based Supervision of Financial Firms by the Central Bank and On Impact Based Levies’, CP 49.

Our primary focus is on dealing with questions 7.4, and 7.5 in the ‘summary of questions’ section.

Comments on Section headed ‘Impact Metrics by Firm Type’ – Summary Question 7.4

“Do you think the impact metrics set out in Section 6 above are the appropriate impact metrics for each type of firm? Which two or three would you attach the greatest importance to in each firm category?”

In our opinion, the two most important metrics proposed by the Central Bank for credit institutions are those of ‘Diversified Funding Base’ and ‘Concentration of lending’. We believe that these two metrics are fundamental to assessing an institution’s impact score.

It is of significant importance that a bank has a diverse portfolio of loans. If a bank’s concentration of lending is too high in any one sector, then a collapse of collateral values in that sector or a significant fall in the income of that sector can cause the bank to lose a very large proportion of its assets. This was the case in Ireland; many banks had a very high concentration of lending in the commercial property and construction sectors between 2001 and 2007 and the collapse of these sectors of the economy has had catastrophic implications for the economy as a whole.

Similarly, on the bank funding side, a diversified source of funds is needed. Northern Rock in the UK is a classic example of a bank that ran into a liquidity problem because it was overly reliant on one source of funding, namely, financial institutions. Following the US sub-prime crisis financial institutions became much more cautious about lending to mortgage suppliers like Northern Rock. Following financial support from the Bank of England, Northern Rock experienced a run on deposits with queues outside of its branches and ultimately had to be taken into ownership by the UK government.

Concentration of lending

The impact metric, ‘concentration of lending’ requires a greater attention to detail than it has received in previous years.

In Ireland, unlike in Denmark, we do not have a legislative process that provides specifically for the orderly wind down of banks with burden sharing starting with equity shareholders and moving through subordinated debt holders, on to senior bond holders and ultimately depositors to the extent that their deposits exceed the €100,000 deposit guaranteed amount. Therefore in Ireland, an institution securing the majority of its deposits from retail depositors and extending this capital as loans mostly to property developers and the construction sector puts taxpayers at far greater risk than an institution that diversifies its funding base and operates a much more diversified lending portfolio.

We should like to suggest a function that might be applied to the Concentration of lending metric in order for it to contribute meaningfully to an impact rating.

We suggest that the function would operate as follows: Obtain from each credit institution the percentage exposure to each of a number of different pre-defined industry sectors.

Let’s say there are ten pre-defined industry sectors like construction, commercial property, technology, financial services, manufacturing, pharmaceutical, etc. Square the percentage lending exposure of a bank to each sector and sum the squares to arrive at the contribution to the impact metric. Thus a credit institution with a 100% exposure to one sector would receive a score of 10,000 (100^2) whereas a credit institution with an equally balanced book with 10% exposure to each sector would receive a score of 1,000 ($10^2 \times 10$). The formula very quickly highlights credit institutions with heavily concentrated lending portfolios and raises their contribution to the impact score very significantly for the lack of diversification in lending.

Diversified Funding Base

Similarly, the Diversified Funding Base metric might be divided into ten sources such as retail deposit, commercial deposits, interbank deposits, collateralized ECB funding, unsecured (emergency) ECB funds, etc. and a similar approach applied. Given the implications for a high level of ECB funding for the economy as a whole, instead of squaring the percentage funding from this source the formula might raise the percentage to the power of four instead in order that this source of funding is severely penalized in terms of impact score if it is large.

In order for a bank to manage shocks in the market, basic financial planning requires that an institution match its assets and liabilities by maturity so that, for example, it funds its long-term assets with long-term liabilities and its short-term assets with short-term liabilities.

However, it is extremely challenging for a bank to achieve this financial position as banking, by its nature, operates by using short-term liabilities (demand deposit, term deposits) to fund long-term assets (loans, mortgages etc.). This inevitably leads to a combination of liquidity mismatch and maturity mismatch (the difference between the times to maturity of assets and liabilities) which may increase the risk of insolvency

when a shock hits the financial markets or the economy in which a credit institution operates.

The management of liquidity mismatches has serious implications for credit institutions.

We believe that the liquidity position should feed into a credit institution's impact score by expressing the extent to which a bank's assets and liabilities are mismatched as a percentage of the bank's 'own funds'.

We suggest that the Central Bank use a function that maps the sum of the discounted, squared, maturity mismatches which arise in the absence of ECB funding across time frames that run from one week, to two weeks, to three weeks, to one month and monthly thereafter to cover the entire time span of a credit institution's asset and liability portfolio. The squared, discounted sum would then be expressed as a percentage of the credit institution's 'own funds'

To do this credit institutions would need a computer programme that would calculate the liquidity mismatch for each future time period running from one week, to two weeks, to three weeks, to one month and then monthly thereafter ending on last month of a liquidity mismatch. The mismatched amount at each duration would then be squared. A discounting factor would then be applied to each squared amount based on a chosen rate of interest and the discounted, squared mismatched figures summed. The result would then be divided by the bank's 'own funds' to give a summary measure for reporting on a weekly basis to the Central Bank and for input into the impact score.

While liquidity mismatches can be funded by emergency and collateralised ECB loans the on-going monitoring of credit institutions in this way would quickly highlight credit institutions that might cause systemic problems.

We are of the opinion that if a bank's sources of funding becomes undiversified or if the diversification of its lending portfolio falls below a certain threshold of diversity, the Central Bank should move quickly to increase capital requirements to protect the taxpayer. This would have the effect of sending a message to the credit institution that this lack of diversity in funding and lending is unacceptable.

If this mismatch is not managed with greater care, borrowing from the European Central Bank will become too high, leading to a loss of confidence, which in turn leads to a national problem for the taxpayer. A series of events which we, as a nation, have woken up to in recent times. Given that circa €150 billion has already been injected into Irish banks by the ECB, it seems this series of events is highly undesirable as private debts are about to become the debts of the sovereign nation and ultimately the taxpayer.

Comments on Section headed ‘Impact Metrics by Firm Type’ – Summary Question 7.5

“What other impact metrics should the Central Bank consider using for different types of firms?”

With regard to this question we would like to suggest a possible metric that we have touched on in our response to a previous consultation paper (please see our submission on CP 47 for more details). We believe that the Credit Default Swap spread of a credit institution is a good metric to feed into a firm’s impact score as it looks at the likelihood and severity of a default.

We would suggest that the Central Bank feed not just the absolute value of a bank’s CDS spread into the impact score but also the trend in the CDS spread of a credit institution over time.

Closing Remarks

We should like to thank the Central Bank for the opportunity to comment on its proposals as set out in CP 49.