Framework for Minimum Capital Requirements for Operational Risk in comparison with Operational Risk Losses: analysis of Dipo data

L'impatto di un incremento dei requisiti patrimoniali sui rischi operativi: le analisi di Dipo

An analysis of Dipo (Italian Database for Operational Losses) data shows that the current regulatory requirements in terms of capital loss absorption capacity are prudent and sound. As a result, an indiscriminate increase in minimum capital requirement for operational risk does not seem necessary and a more persuasive and internationally coordinated supervisory action could be more effective.

Dipo Technical Secretariat

Un'analisi condotta sui dati Dipo (Database Italiano Perdite Operative) mostra che, sia in media che a livello di singoli partecipanti, l'attuale regolamentazione relativa ai requisiti necessari per l'assorbimento delle perdite di capitale è prudente e sana. Non appare dunque necessario un indiscriminato aumento del capitale minimo per fronteggiare le perdite derivanti da rischi operativi; un'azione di vigilanza internazionale più convincente e coordinata potrebbe avere maggiori effetti.

1 Introduction

In recent years, and from a prudential perspective of bank regulation, there has been significant focus on Basel 3 (criteria for own funds determination, increase of quantity and quality of capital requested to banks, introduction of liquidity ratios, change on market and counterparty risk methodologies). Now there are a variety of signals related to a concrete re-opening of the international debate on changes and increased strictness of the minimum capital requirement framework for operational risk.

The Basel Committee (and in particular Sigor – Standards Implementation Group on Operational Risk) is working on a Basic and Standardized Approach review whose aim is to[1] «extend the credibility/stability of simplified approaches in order to:

- establish an incentive system above regulatory approaches for capital requirement determination;
- define capital absorption more consistently with effective risk exposure;
- increase the value of these approaches, even as a benchmark/backstop of the methods based on the internal model.

Sigor is working on a Benchmarking exercise for Ama banks' capital requirements. The scope is the identification of outlier banks and related practices in order to update «Ama Supervisory Guidelines» (June 2011) with the recommendation to dissuade the use of these practices».

In order to be sustainable, banks are seeking profitability despite the lack and high costs of their raw material (capital and liquidity). The situation will worsen when Crd and Crr (published on Eu Official Journal on the 27th June 2013) will completely come into force. The prevention and mitigation of operational risk events – that may cause relevant losses and could jeopardize profitability improvements – is obviously on the top of the agenda and represents an issue in which banks are concentrating projects and resources. Having said that, the hypothesis of an indiscriminate, and not risk sensitive, regulatory capital requirement increase does not seem to be the right answer.

Many internationally working groups – in particular the Iif Working Group, in which Dipo Technical Secretariat takes part – are trying to highlight the soundness of the actual capital requirements with respect to their loss absorption capa-

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Jel codes: G21, G28

1 Marco Moscadelli - Banca d'Italia during Annual Dipo Conference which took place in Rome on June 27th and 28th 2013: unauthorized translation.

city not only for un-expected but also expected losses related to Operational risk.

With reference to the Basic and Standardized Approach and in connection with the question of whether Gross Income[2] is a good indicator, the Dipo Technical Secretariat has carried out some analysis based on a recently published article[3]. Further analysis, shown in the final part of this article, compare losses with the total capital requirement (the sum of the capital requirement stemming from the different approaches a group can use).

The Dipo analysis is based on operational losses sent by Dipo members during the 2008-2012 period. Gross Income data («Margine di Intermediazione») and minimum capital requirement data for the same years are those belonging to «Segnalazioni di Vigilanza – Circolare 155 Banca d'Italia»[4] sent from Italian banks to Banca d'Italia and simultaneously collected by ABI.

Dipo data are reported according to a standardized process and with homogeneous criteria that were agreed in many years of debate on highly technical subjects. Dipo members believe that consortia data collected with such high quality standards and strict post collection controls/cross checks are often even more reliable than public data. Some Ama members use the Dipo data in their advanced models.

2 Operational Risk Gross Losses vs Gross Income

The Dipo members average ratio «losses amount per annum (based on discovery date)» on «Gross Income of the same year» is 0.93%, and is therefore completely different from others published in the literature.

The breakdown per year and per Dipo Member is the following (Chart 1).

The lowest reported values for more recent years are likely to be partly related to the fact that certain types of events generate an impact on the bank's P/L[5] in a date that is physiologically lagging behind the date of recognition.

If one conducts the same analysis but for a single Dipo Member[6], the dispersion is as follows, with peaks of around 5% (Chart 2).

Chart 1

Average ratio of gross losses amount per year on gross income of that year

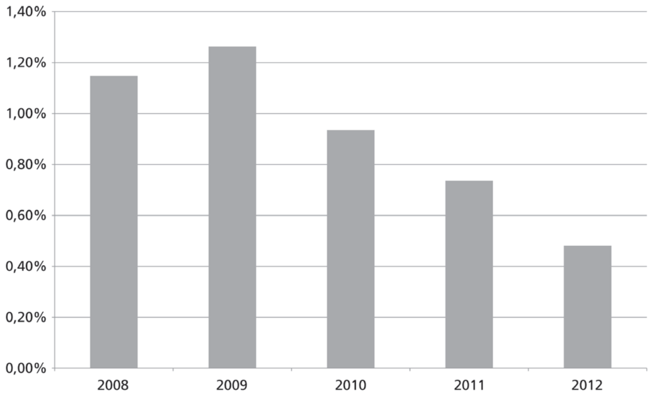
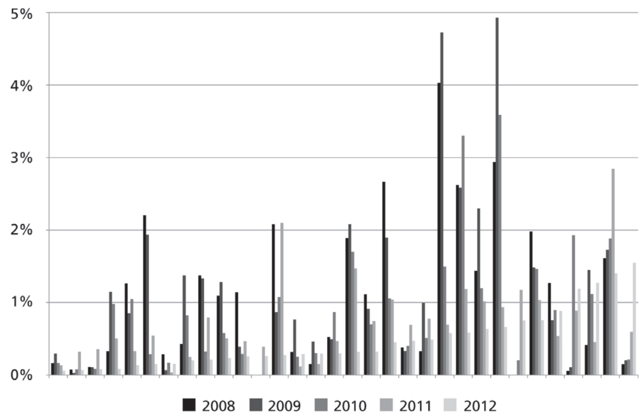


Chart 2

Amount gross loss ratio of a year and gross income of the same year analysis for a single Dipo member



3 Operational Risk Net Losses vs Gross Income

The ratio «operational losses net of insurance recoveries» versus «Gross Income» over a period of 5 years (2008-2012)

2 In the Italian context Gross Income is «Margine di Intermediazione», item 120 Ias.

3 Benchmarking operational risk losses as a percentage of Gross Income - The Risk Universe 2013.

4 Bancoposta was not considered in the analysis because data related to *Segnalazioni di Vigilanza* was not available for this entity.

5 The Dipo criteria is that events must be sent after their have impacted P/L either in the form of a loss or as event specific provisions.

6 In the single Dipo members chart presented in this article the data are always anonymous and are sorted by the value of the variable under investigation in the year 2012.

is on average 0.89%. The breakdown per year and per Dipo Member is as follows (Charts 3, 4).

Chart 3

Average ratio of losses (net of insurance recoveries) per year and gross income of that year

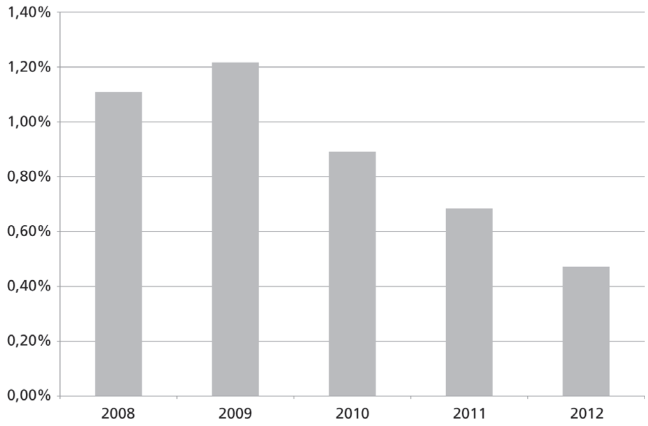
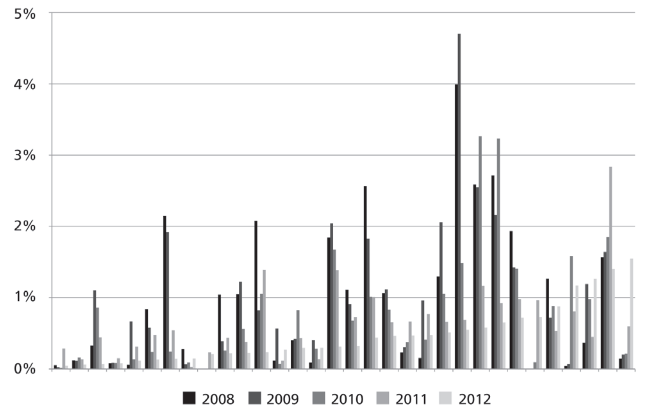


Chart 4

Amount losses ratio (net of insurance recoveries) of a year and gross income of the same year; analysis for a single Dipo member



The peaks recorded in Chart 2 decrease in Chart 4 when insurance recoveries are taken into account. If one also nets operating losses with the amount of other recoveries, the average drops to 0.83% (Charts 5, 6).

Chart 5

Average ratio of losses (net of insurance recoveries and other recoveries) per year and gross income of that year

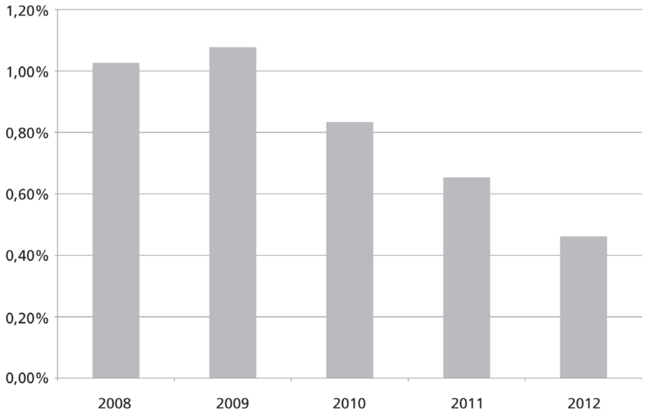
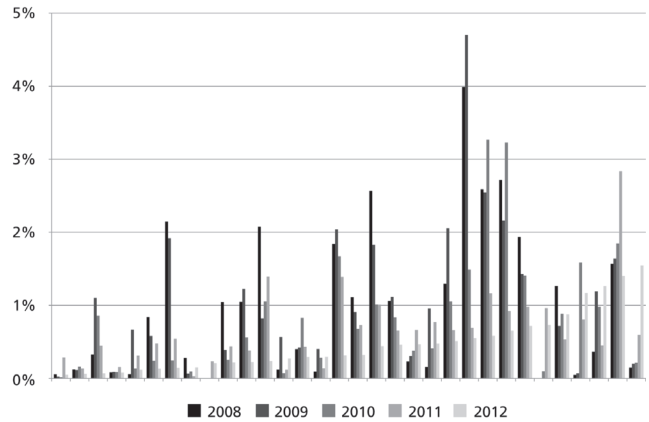


Chart 6

Amount losses ratio (net of insurance recoveries and other recoveries) of a year and gross income of the same year; analysis for a single Dipo member



4 Operational Risk Gross Losses vs Minimum Capital Requirements

With respect to the previously quoted article, an additional analysis was conducted by considering the ratio «Gross Operating Losses» versus «Total Capital Requirements» for the years 2008-2012[7].

7 Further investigations based exclusively on Ama, Basic or Standard requirements weren't conducted because some Dipo Members are in partial use (and it is therefore not possible to split losses according to units whose requirements are calculated according to one of the 3 methods) as well as due to considerations in order to preserve the data confidentiality (especially due to the low number of Dipo Ama members).

Having also considered capital layers based on non-Ama methods as part of the total requirements, it is not surprising that the ratio on average is higher than those computed in the previous paragraphs. In those paragraphs, the entire amount was taken into account whereas here only the «capital related percentage» of gross income was considered (a percentage swinging between 12 and 18 percent).

Chart 7

Average ratio of loss amount per year and capital requirement for operational risk of the same year

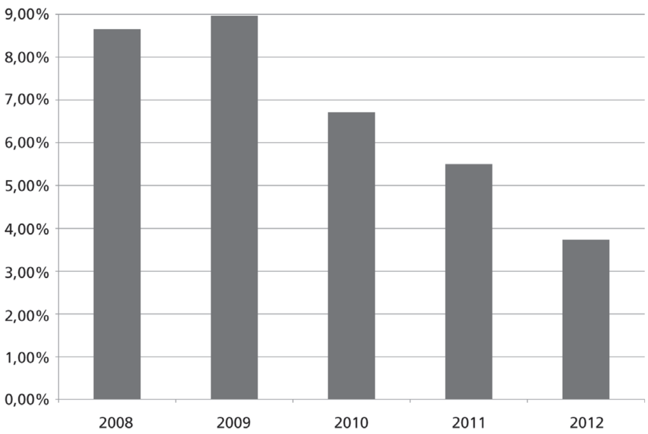
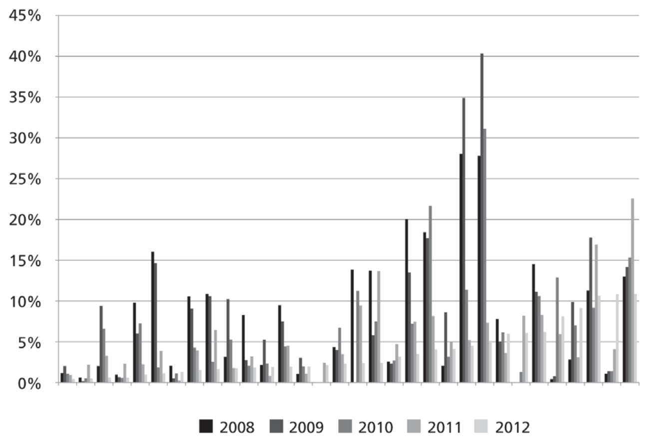


Chart 8

Amount losses ratio (net of insurance recoveries) of a year and total capital requirements for operational risk of the same year; analysis for a single Dipo member



Given the above, the average value of the ratio is around 7% with a peak of 8.7 percent in a year[8].

The breakdown per year and per Dipo Member is as follows (Graph 7, 8).

It should be noted that, in these cases – connected to adverse events and considering gross losses, as a precaution – some values that rise up to 40%.

5 Summary Results

Considering all Dipo participants, the ratio between the average annual losses (based on the discovery date) and the average gross income of the same year – during the years from 2008 to 2012 – is about 0.93%. This value is substantially lower than other recently published similar analyses and becomes even lower if one considers the various recoveries.

If one considers the total minimum capital requirement, this value becomes higher, but does not exceed 8.7%.

If one considers a single Member – even in the few years where rare and extreme events happened – the yearly loss amount does not exceed more than 40% of the bank's minimum capital requirement (capital that, in the near future, will be composed of higher quality assets, as Basel 3 requires).

This analysis shows that, both on average and at the individual participant level, the current regulatory requirements in terms of capital loss absorption capacity is prudent and sound.

As a result, an indiscriminate increase in minimum capital requirement for operational risk does not seem necessary (amongst other things, it must be considered that expected losses, at least for some kind of high frequency events, are already included in pricing policies and therefore do not need capital coverage).

A more persuasive and internationally coordinated supervisory action could be more effective than indiscriminate and stricter regulation.

The supervisory authorities can already request – in their one-on-one Srep analysis on a bank's Icaap – a general

8 Considering the first year where you could record a sufficient number of cases in which almost the entire requirement was represented by the Ama requirement, an analysis of the ratio of «top five gross losses» for requirement was conducted as well. The small number of cases and the risk in overestimating data given that the losses could belong to a non-Ama entity must lead one to very carefully consider the results that showed a range between 1% and 5%.

strengthening of operational risk management (due to historical losses or forward looking consideration) or a tightened plan aimed at removing actual weaknesses, or potentially, a temporary capital increase.

In summary, and in the case of operational risk, an excessive imbalance in favor of a new and stricter post crisis regulation should be avoided. This imbalance, present in the Basel 3 package, risks putting bank sustainability at risk. Banks are challenged by new severe measures of capital and liquidity. An indiscriminate increase in the capital requirement for operational risk as well would only worsen the overall situation.

Dipo, while awaiting for consultation procedures on the new minimum quality requirements that should be issued by both the Basel Committee and Eba, will continue all its activities aimed at supporting its members in operational risk management, particularly with regard to the element of the overall framework consisting of external data. Dipo will continue to provide:

- standard data flows (which provide – each half-year – the entire database of individual events in addition to new reports and updated with changes and corrections);
- the customized reports «My Dipo» for benchmark analysis;
- a qualitative/descriptive flow on high-impact events (Dipo Ai) that are increasingly used in the scenario analysis and in the formulation of mitigation strategies[9];
- a working group and meetings that contribute to increase technical skills and experience sharing amongst members as well as a general increase in bank's operational risk awareness.

9 In the near future the events classification three might be changed, arriving at the third level of granularity, in order to satisfying the increasing demand of operational risk data losses steaming from areas of competence different from the Operational Risk management such as compliance and information technology risk management.