

The Bank of Italy's In-house Credit Assessment System (ICAS)

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The use of loans as collateral in monetary policy operations

The Bank of Italy has accepted loans as collateral for monetary policy operations since 1 January 2007 (when the single framework for eligible assets or ‘Single List’” came into effect).

In order to determine the creditworthiness of each loan submitted, the Eurosystem has defined a reference framework, the Eurosystem credit assessment framework ([ECAF](#)), drawing on four alternative sources of information:

1. external credit assessment institutions (ECAIs);
2. counterparties’ internal ratings-based (IRB) systems;
3. third-party providers’ rating tools (RTs);
4. NCBs’ in-house credit assessment systems (ICASs).

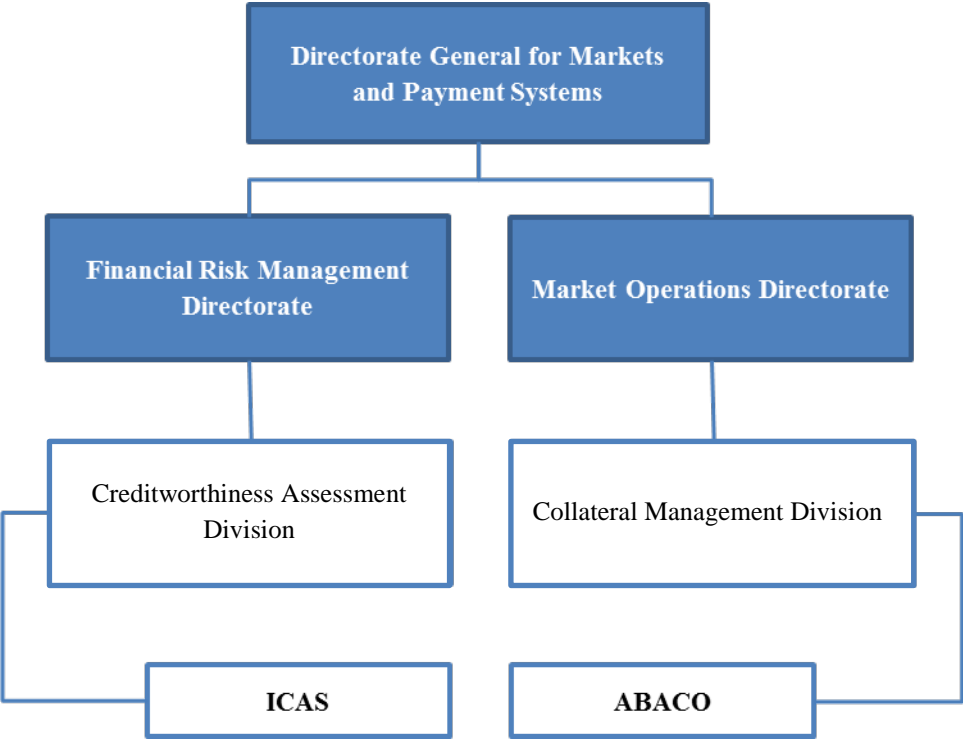
In addition to the ‘ordinary’ framework described above, in December 2011 the Eurosystem temporarily introduced the additional credit claims (ACC) framework, enabling the NCBs to accept other types of credit claims that satisfy additional specific criteria, assuming in full the financial risks of the operations.

The Bank of Italy’s ICAS was developed by drawing on the experience of staff from several Directorates General of the Bank of Italy (Financial Supervision and Regulation; Economics, Statistics and Research; Markets and Payment Systems). It has been operational since 2013 and comprises two phases. In the first phase (ICAS Stat), an automated process estimates the probability of default of companies (PD Stat) that borrowed money from a bank, based on a statistical model that processes financial statement data and information from the Central Credit Register. In the second phase (Expert System), a group of analysts supplement the statistical assessments with additional financial and corporate data and assign each company an overall creditworthiness score. The ICAS system is used in both the ordinary and temporary ACC frameworks.

The definition of default used by ICAS complies with the Eurosystem standards and is consistent with the definition given by the Basel Committee.

The Bank of Italy’s ICAS is run by the Financial Risk Management Directorate within the Directorate General for Markets and Payment Systems. It is subject to internal audit procedures and its performance is monitored annually. The final probability of default (PD Full) calculated by ICAS is sent to the ABACO Collateral Management system.

Organization



The use of ICAS for bank counterparties

Bank counterparties can use ICAS to post their credit claims as collateral for monetary policy operations in both the ordinary and the additional credit claims (ACC) frameworks.

Loans without a valid rating are discarded. The system does not publish a list of assessed companies, nor does it make known ratings or estimated probabilities of default, but only shows the Credit Quality Step (CQS) in which companies have been classified. Ratings are valid for a maximum of twelve months and can be extended for up to twenty-four months from the date of the last balance sheet considered in the assessment process. Assessments are monitored on an ongoing basis, which could lead to a change in the final ratings.

In order to be submitted to ICAS, the loan must meet a number of requirements: the borrower must be a non-financial company incorporated and with its registered office in Italy; at least two out of three of the company's latest balance sheets must have been audited by external auditors or by its board of auditors; the date of the most recent balance sheet must not be earlier than twenty-four months prior to the date of the analysts' assessment; at least one credit line that has been drawn on must be recorded in the Central Credit Register and there must not be any material non-performing loans.

The definition of default adopted is 'system-wide': in other words, it is based on all reporting banks' records in the Central Credit Register and applies certain materiality and persistence thresholds. According to the definition, a borrower is considered to be in default when both the following conditions are met:

1. the total exposure recorded as: bad loans, unlikely-to-pay, and/or past-due loans is greater than 5% of the total exposure toward the banking system and more than €500 (materiality threshold);
2. the condition in (1) above is met for three consecutive months (persistence threshold).

Phase I: ICAS Stat

The ICAS is a two-stage process involving an automated assessment that uses a statistical model, and a qualitative expert analysis.

ICAS Stat is built on discriminant analysis and logistic regression models that estimate the probability of default (PD) of the assessed company over one year's time//over the subsequent year. The statistical PD is evaluated monthly, based on two different components: one that considers historical data retrieved from the Central Credit Register, and one that uses financial statement data.

Central Credit Register indicators have a good predictive power for credit defaults; notably, the indicators selected show:

- trends in credit lines;
- the level of 'tension' in credit relationships;
- signals/warnings of deterioration in borrowers' financial situation.

Financial statement indicators, instead, provide an assessment of corporate fundamentals such as leverage, debt sustainability, profitability of the business, and ability to generate cash flows. Together, these elements contribute to the overall assessment of the financial soundness of the company. However, balance sheet analysis is limited given that financial statements are infrequently updated (generally annually) and that there is a lag between the balance sheet closing date and when the information becomes available.

Phase II: Expert System

The Expert System is the second component of ICAS, where a group of analysts review the PD generated by the statistical model, focusing on additional factors that could affect the credit worthiness of the company considered. These are:

1. financial statement analysis and historical data;
2. financial flexibility and self-financing capability;
3. peer group analysis and consolidated financial statement;
4. industrial sector and business risks;
5. quality of the management and corporate governance;
6. any other relevant news items.

These aspects are examined by two analysts working independently. They may change the statistical PD, adjusting it up or down. For prudential reasons, the final assessment may be raised only within fixed limits. The Expert System produces a comprehensive PD.

In certain circumstances, the Rating Committee, an internal body within the Credit Risk Assessment Division that is in charge of ICAS, is responsible for assigning the final score. For instance, the Committee reviews the assessment in the event that the two analysts have different opinions on the final rating of the company, or when there is a proposal to upgrade the rating above a given threshold.