

## BASEL 3 INTERNAL MODELS FOR CREDIT RISK

The Basel Committee's reforms ("Basel 3") have been translated into EU laws and regulations, effective 1 January 2014. The objective of the reforms is to strengthen banks' ability to absorb shocks arising from financial and economic stress, whatever the source, and improve risk management and governance as well as enhance banks' transparency and disclosure.

In order to abide by the Basel 3 reforms, the Group has implemented appropriate initiatives ahead of the Basel 2 Project targets, aimed at improving measurement systems and the related management systems of risks.

As regards credit risk, the supervisory regulations provide for two approaches for the calculation of the capital requirement: the Standardised approach and the Internal Rating Based (IRB) approach, in which the risk weightings are a function of the banks' internal assessments of their borrowers. The IRB approach is in turn broken down into a Foundation Internal Rating Based (FIRB) and an Advanced Internal Rating Based (AIRB) that differ in the risk parameters that banks are required to estimate: under the foundation approach, banks use their own PD estimates and regulatory values for the other risk parameters, whereas under the advanced approach these are also estimated internally.

As regards the regulatory measures aimed to ensure banks and Supervisors added ability to respond promptly and effectively to the Covid-19 impact, the Group constantly monitors these interventions in order to adequately embed the impacts into its plans of updating and development of the internal risk management systems.

The table below describes the situation as at 31 March 2020.

Portfolio	PD - Model Type	LGD - Model Type	EAD - Model Type	Status
Institutions	Default model (Banks) <sup>(4)</sup>	Market model (Banks)	Regulatory parameters (Banks)	AIRB authorised since June 2017
	Default model (Municipalities and Provinces) Shadow model (Regions) <sup>(4)</sup>	Workout model (Municipalities, Provinces, Regions)	Regulatory parameters (Municipalities, Provinces, Regions)	AIRB authorised since June 2017
Corporate	Default model (Corporate)	Workout model (Corporate; Leases and Factoring)	CCF/K factor model (Corporate)	FIRB authorised since December 2008, AIRB LGD authorised since December 2010, EAD authorised since September 2017 <sup>(1)</sup>
	Simulation models (Specialised Lending)	Simulation models (Specialised Lending)	Regulatory parameters (Specialised Lending)	AIRB authorised since June 2012
Retail	Default model (Retail)	Workout model (Retail)	CCF/K factor model (Retail)	AIRB Retail since September 2018 <sup>(2)</sup>
	Default model (Retail SME)	Workout model (Retail SME)	Regulatory parameters (Retail SME)	AIRB authorised since December 2012 <sup>(3)</sup>

1) Banca IMI (2012), ISP Ireland (2010), VUB (2010), Intesa Sanpaolo Bank (2017), and ISP Luxembourg (2017). Since 2017, the Corporate model has also been used to calculate the risk on the Banking book equity portfolio with LGD 65%/90%.

2) VUB authorised since June 2012 for PD and LGD of Retail Mortgage models.

3) VUB authorised since June 2014.

4) Intesa Sanpaolo and Banca IMI authorised since 2017.

As regards credit risk, the covering of the portfolios of the banks in Italy by the use of internal models has been completed. Consequently, the activities planned for the coming years will be aimed at reaching the targets of the IRB regulatory roadmap, which is focused on the updating and re-estimate of the models in order to update the time series periodically, incorporate the recent regulatory provisions (e.g. EBA Guidelines, new definition of default, TRIM guide to internal models), and implement the remedial actions imposed in the authorisations.

With regard to the International Subsidiaries, the commitments planned for the coming years are focused on the first adoption - roll-out - of the internal models for credit risks. With respect to the Slovenian subsidiary Intesa Sanpaolo Bank and the Slovakian subsidiary VUB, activities will include the updating and re-estimate of the models which, to date, have already been validated by the Supervisor.

Certain exposures, which are the subject of a request for authorisation for the permanent partial use of the standardised approach, are not included in the plan for adopting the advanced approaches. Specifically, these relate to the following: exposures to central governments and central banks; exposures to own banking group; exposures to minor operational units, and non-significant exposure classes in terms of size and level of risk (this category includes loans to Non-Bank Financial Institutions).