INTESA SANPAOLO FINANCIAL AND MARKET RISK DEPARTMENT

The Fundamental Review of the Trading Book

Response to EBA Consultation on guidelines on criteria for the use of data inputs in the risk-measurement model referred to in Article 325bc under Article 325bh(3) of Regulation (EU) No 575/2013

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1. Executive summary

In January 2019, Basel Committee on Banking Supervision (BCBS) finalised and published its standards on "Minimum Capital Requirement for Market Risk"¹. The text replaces the previous Minimum Capital Requirements for Market Risk in the global regulatory framework, which are transposed in the EU via Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR).

Article 325bh(3) of the CRR gives the mandate to the EBA to develop guidelines specifying the criteria for the use of data inputs referred to in Article 325bc of the CRR and used in calculating the partial expected shortfall in accordance with the same article. To this purpose, on 12nd August, EBA launched a consultation on guidelines on this topic.

The Guideline should clarify the qualitative conditions that the data related to modellable risk factors should meet to be used in the institution's Expected Shortfall (ES) calculations. The need for delineating which data inputs can be suited to be included in the ES model is also underlined by the Basel Committee when defining principles for the inclusion of risk factors in the ES model after they have been assessed modellable (i.e. after they have passed the Risk Factor Eligibility Test – RFET).

The data inputs used to determine the scenarios of future shocks applied to the modellable risk factors for the computation of the ES measure must, according to Article 325bc of the CRR, be calibrated to historical market data, from either the preceding 12-month period or a continuous 12-month period of financial stress. Institutions may use different sources or types of historical market data for this purpose. In particular, the EBA acknowledges that the historical market data used to calibrate the data inputs referred to in Article 325bc of the CRR does not necessarily need to be the data (i.e. verifiable prices) that were used to assess the modellability of the risk factors under Article 325be.

For this reason, once a risk factor has been deemed modellable, the institution should verify that the data inputs for that risk factor are accurate, appropriate, frequently updated, complete and consistent.

Considering the relevance of these topics within the revisited framework to compute own funds requirements for market risk, Intesa Sanpaolo (hereinafter, the Bank) would like to participate to the Consultation phase proposed by EBA on the aforementioned topic.

¹ BCBS d457, Minimum capital requirements for market risk, January 2019 (rev. February 2019)

2. FRTB – Guidelines on criteria for the use of data inputs in the riskmeasurement model

Q1. To which extent do you intend to apply paragraph 16 of the present Guideline? Please provide concrete examples that could fall under the scope of paragraph 16 and explain why the coefficients cannot be calibrated to the historical data only.

According to the paragraph 16 of the Guideline, where institutions use beta approximations for generating data inputs, the beta coefficients should be calibrated to the historical data referred to in the Article 325bc. When this condition is not verified but, instead, further considerations are involved, then the data inputs obtained shall be considered accurate only if one of the following holds:

- The institution explains why the coefficients can not be calibrated to the historical data;
- The institution describes the methodology used to obtain the values for the coefficients;
- The institution demonstrates that the choice of the values for the coefficients does not lead to a risk underestimation.

As-of today, Intesa Sanpaolo does not apply beta approximations for generating data inputs used to determine the scenarios of future shocks applied to the modellable risk factors to compute PES_t^{FC} and $PES_t^{FC,i}$. Indeed, through Market Data Management activities, the historical time series are collected through Info Providers; however, whereby historical time series are not available for the current / stressed period (i.e. equity of new emission, IR-discount switch), they are re-built through proxies based on statistical analyses, coherently with the internal fair value policies. For example:

- In order to build historical time series of the ESTER curve, as prescribed by the Regulator, Intesa Sanpaolo currently adds 8.5 bps flat to the whole term structure of the OIS curve;
- Similarly, with regard to linear IR Risk Factors, since the market quotes only 6-month curve, in order to re-build for instance the 3-month and 1-month IR curves the Bank applies to the first the quoted basis.

In addition, Intesa Sanpaolo has in pipeline to apply this methodology, in the FRTB context, to extend the modellability attribute. To this purpose, the Bank believes that it is necessary to evaluate the statistical similarities between historical time series of input data (i.e. volatility surfaces) and to provide empirical evidences, which should be periodically revised. Therefore, with regard to the aforementioned conditions, Intesa Sanpaolo considers them reasonable and consequently agrees with the provision specified in the Guideline.

Q2. To which extent do you intend to apply paragraph 17 of the present Guideline? Please provide concrete examples that could fall under the scope of paragraph 17.

According to the paragraph 17 of the Guideline, the data inputs used to determine the scenarios of future shocks should be calibrated to historical data from a continuous 12-month period of financial stress.

When banks use not only historical data from the period of financial stress but also more recent historical data (in order to reflect fundamental changes in the characteristics of financial instruments or in the market), the data inputs obtained shall be considered accurate only if one of the following conditions holds:

- A documented analysis supported by empirical evidence is provided by the institution;
- The institution demonstrates that the data inputs used accurately reflect changes in prices or spreads of similar instruments during the period of financial stress;
- The institution is able to demonstrate that with the data inputs used the risk is not underestimated.

Currently, Intesa Sanpaolo uses data inputs calibrated to historical data from a continuous 12-month period of financial stress. Thus, there are no cases in which the need to use more recent historical data arises. However, Intesa Sanpaolo believes that the aforementioned criteria provided by the regulator are suitable to quantify the impact of the application of art. 31.26(6) BCBS January 2019 Final Text.

Q3. Do you agree with the inclusion of paragraph 31 in the Guideline? Do you envisage any issues that could be associated with paragraph 31?

The paragraph 31 of the Guideline is related to the usage of interpolation/extrapolation techniques, and in general, all replacing methodologies involving <u>other</u> risk factors. According to these approaches, it is possible to replace missing or inconsistent values in the historical time series of data inputs with other risk factors values. In particular, Regulator specifies that risk factors involved in the replacement must be modellable.

The bank believes that this possibility could generate instability problems in the estimation of shocks. Indeed, since the modellability assessment could change over time, this could lead to use other risk factors in the methodology and, consequently, to changes in the shocks for the historical time series that should, instead, remain – at least - stable. As a matter of fact, it would be possible to have gaps in the shocks, and therefore in regulatory risk measures, since they could vary over time.

However, it should be highlighted that the aforementioned instability problems depend on the type of risk factor. Indeed, some of them (i.e. interest rates risk factors) have high stability, while others (i.e. credit risk spread or volatility surfaces) could lead to instability issues since they could change their modellability status more frequently.

Therefore, Intesa Sanpaolo is concerned about the arising of instability in the risk estimation and suggests to exclude such paragraph from the present Guideline.

Q4. Do you agree with the inclusion of paragraph 34 in the Guideline? Do you envisage any issues that could e associated with paragraph 34?

The paragraph 34 relates to the conditions to meet whereas extrapolated values are used to replace missing or inconsistent values in the historical time series of data inputs. In particular, all of the following conditions should be respected:

- the extrapolation methodology should be based on the closest risk factor in each dimension of that risk factor;
- the extrapolation methodology should be based on at least two risk factors for each dimension;
- the values of the two risk factors referred to in point b, including the closest risk factor, should not have been obtained by extrapolation.

Intesa Sanpaolo believes that this provision risks being too prescriptive when proxy methodologies are used. Thus, the extrapolation/interpolation techniques should be left to the choice of the bank and not be mandated by such criteria.

Intesa Sanpaolo states that banks should have flexibility in the choice of the methodologies used to make proxies provided the appropriateness of these practices.

Moreover, it should be highlighted that the similarities (and consequently the correlation) between different risk factors could change over time or it is possible that closest risk factors are not so correlated depending on the market dynamics. Thus, statistical analysis should be provided before applying those replacement techniques. Consequently, Intesa Sanpaolo believes that the prescribed Guidelines paragraph should be revised in order to take into account the aforementioned technicality and considerations.