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Basel Committee on Banking Supervision
Email: baselcommittee@bis.org

Dear Sirs,

Basel Committee on Banking Supervision Consultative Document
Global systemically important banks:
Assessment methodology and the additional loss absorbency requirement

The National Research University Higher School of Economics (HSE) is one of the leading Russian economic research and educational establishments actively carrying out the empirical research and policy response analysis.

Banking sector is one of the fields of HSE research primarily focus. It was the International Laboratory of Decision Choice and Analysis within the University to first publish the book on the 'Analysis of Basel II Mathematical Models' (Moscow, Fizmatlit, 2010). The continued research in the area of banking includes the analysis of banking regulation policy options, approaches to banking risks management, banking sector performance analysis, efficient banking branches allocation etc.

The National Research University Higher School of Economics (HSE) is pleased to provide response on the Consultation Document 'Global systemically important banks: Assessment methodology and the additional loss absorbency requirement' published by the Basel Committee on Banking Supervision on July 19, 2011 at <http://www.bis.org/publ/bcbs201.htm>.

The comments are presented in two parts: (a) 'Key Comments' referring to the overall issues of global systemically important banks identification; and (b) 'By-Paragraph Comments' referring to particular regulation details, i.e. point references to the consultative document are provided.

Hope our comments would be of use for deriving financial stability-oriented identification and regulation principles with respect to global systemically important financial banks.

In case of further questions, please, do not hesitate to get in touch through email (alesk@hse.ru), telephone (+7.495.621.13.42, ext. 2006) or fax (+7.495.772.95.90, ext. 2101).

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Key Comments

1. An important issue to be considered in the document is the **bank profile** (including the quality of asset, revenues segmentation).

An increase in capital ratios would not solve the problem of bank's assets poor quality. This matter should to be explicitly addressed while identifying systemically important banks.

Business model and revenue segmentation is expected to provide significant guidance to GSIBs identification. As an example, debt or equity raising projects highly dependent bank will significantly underperform during unstable macroeconomic situation and high market volatility as clients would not like to raise money at the time.

2. One possible negative effect of the proposed document is the **reduced incentives** of banks with respect to mergers and acquisitions. There would be less incentives for a bank to acquire, for example, a failing bank during recession as in the after-the-acquisition-period it might receive higher capital adequacy ratio requirement as entering GSIB category¹.
3. When developing the GSIB regulatory framework, attention is advised to be imposed on low-efficient banks when monitoring GSIBs performance as such banks are the first candidates to be rescued in times of financial turmoil.

By-Paragraph Comments

1. §3, p. 1-2: **“..the moral hazard costs associated with implicit guarantees derived from the perceived expectation of government support may amplify risk-taking, reduce market discipline and create competitive distortions..”**

The possible negative externality of the GSIBs, mentioned in the document, is the excessive risk-taking. However, the methodology does not take into account the risk profile of GSIBs. It is proposed to account for the proportion of RWA related to credit, market and operational risks as supplementary indicators in Table 1 on page 5.

2. §9, p.3: **“...as experience is gained, the FSB will review how to extend the framework to cover a wider group of SIFIs, including financial market infrastructures, insurance companies and other non-bank financial institutions that are not part of a banking group structure”.**

It is recommended to extend the framework in future by accounting for financially-industrial groups or conglomerates monitoring. Such groups or conglomerates form significant part of business activity in Russia and Japan.

The industrial part of such a group provides the sources for additional support. Simultaneously it brings the non-financial sector related exposure to financial companies within such groups.

It is proposed to add the consolidated group-wide asset amount as additional indicator for GSIBs identification in Table 1 on page 5.

¹ Cf. §70, p. 14: “If two banks merge and the resulting bank becomes a candidate for a different treatment within the G-SIB framework, this will be captured through the annual supervisory judgement process”.

3. **§15, p.4: “The selected indicators reflect the size of banks, their interconnectedness, the lack of readily available substitutes for the services they provide, their global (cross-jurisdictional) activity and their complexity.”**

Most of the proposed indicators are more or less positively correlated to the size of the bank. That is why in general it is advised to use either proportion indicators (e.g. ‘non-domestic revenue as a portion of total revenue’ mentioned in Table 2 on p. 11; and Level 3 share of the total assets as indicated in point 6 of the comments), or to use additional indicators (such as bank age, employee number etc.).

When identifying GSIBs, **bank age** indicator is of primarily importance to account for. From the regulators perspective given equal financial status and performance pattern the *more* systemically important would be the bank with the longer history. Such a bank is more credible and reliable for the clients. It is also expected to be oriented on long-term activity. From mathematical point of view its future performance might be forecasted more precisely due to greater historical data *ceteris paribus*.

When dealing with an M&A case, the age is to be calculated starting from the earliest registration date of the credit institutions (in most cases it is exactly the principle banks use when filling their web-site information at ‘About bank’ section). That is why the bank the age is proposed to be added in Table 1 on page 5.

Staff number (though related to bank size in general) is another important indicator to consider when identifying GSIBs. Given all other things being equal, the bank with larger staff would induce higher unemployment if failed, though being less efficient in per capita indicators. Thus staff number is advised to be added in Table 1 on page 5.

For the consultation purposes the correlation matrix of indicators mentioned in Table 1 (p. 5), in Table 2 (p. 11) and that of bank age and staff number is desirable to take a glance on to specify the recommendation on indicator usage.

4. **§16, p.4: “The proposed methodology gives an equal weight of 20% to each of the five categories of systemic importance”.**

On the one side, size is often found as an important criterion for systemic importance, which is not always the case for all other criteria. The same issue refers to the weights within each indicator. For example, within the indicator “cross-jurisdictional activity” cross-jurisdictional claims and liabilities are weighted equally. Within the indicator “interconnectedness” intra-financial system assets and liabilities are also weighted equally. However, a bank with significant liabilities to other financial institutions or jurisdictions could pose more systemic threat if it fails as compared to the situation when a bank has significant claims. That is why intuitively *differentiated weights* are expected to be applied.

On the other side, intending to get the indicators that permit us to differentiate GSIBs from non-GSIBs, it is necessary to put higher weights to the indicators that are most varying within banks. For example, assume all banks have the same cross-jurisdictional claims amount. It implies the indicator is to receive zero weight as it does not differentiate banks.

There is a procedure of **principal components analysis** (PCA) enabling to assign weights depending on the parameter variability. When applying PCA method, three points are to be considered.

Primarily, it is proposed to use two-stage PCA approach firstly identifying weights for the individual indicators (e.g. Intra-financial system assets, Intra-financial system liabilities, Wholesale funding ratio within Interconnectedness category) and secondly identifying the weights for categories.

Secondly, before arriving at the integral indicator of systemic importance, all individual parameters acting as input ones should be normalized to range from zero to unity. This would make GSIBs rankings comparable through time as the GSIB integral indicator would also always range from zero to unity.

Thirdly, when coming at the eigenvalues (c_i) of PCA method, weights (w_i) should be calculated depending on the signs of all the eigenvalues, i.e.

$$w_i = \begin{cases} \frac{c_i}{\sum_i c_i}, & \text{if } \forall i : c_i \geq 0; \\ c_i^2, & \text{if } \exists i : c_i < 0; \end{cases},$$

Where $i = 1; N$ is the i^{th} indicator considered; and N is the number of individual indicators or categories.

To summarize, it is proposed to use two-stage PCA method to weights identification and review weights regularly (e.g. yearly) before GSIB status is to be given to banks.

On the other hand, there are several methods of ordinal aggregation of data more stable to the small changes of initial data (see, e.g., Aleskerov F., Cinar Y. ‘q-Pareto- scalar’ Two-stage Exstremization Model and its Reducibility to One-stage Model, Theory and Decision, 65, 2008, 291-304; Aleskerov, F., Chistyakov V., Kaliyagin V. The threshold aggregation, Economic Letters, 107, 2010, 261-262)

5. §35-42, p. 8-9: Substitutability

Within the category “substitutability” it is also important to consider the participation of a bank in state or infrastructural financing programs, which could be an important determinant of the bank’s systemic importance.

6. §43-51, p. 9-10: Complexity

Within the category “complexity” for the calculation of the indicator “Level 3 assets” it is more appropriate to consider the level 3 assets ratio (with respect to the total assets of a bank), rather than their absolute amount (§49, p.10), and then normalize it by the average ratio across all banks in the sample. The absolute amount of the Level 3 assets does not reflect whether it is huge enough for a particular bank or not, while the proportion of the Level 3 assets on the balance sheet of a bank is a more preferred indicator.

7. §50-51, p.10: “Trading book value and Available for Sale value”.

Primarily, it is more desirable to clarify whether ‘Available for Sale’ category is expected to reflect only part or the whole of the new category of ‘Assets carried at amortised cost’ (the one to substitute both categories of ‘Available for Sale’ and ‘Held to Maturity’) as introduced in new IFRS 9 standard.

Secondly, it is proposed to consider only trading book value for the GSIB indicator excluding 'Available for Sale' as trading book assets are a more liquid component of the balance sheet. Available for sale category assets might sometimes include investments in equity instruments that are not listed (their fair value is quite disputable in the case of emerging economies).

8. **§52, p.10: "The Basel Committee proposes to group G-SIBs into different categories of systemic importance based on the score produced by the indicator-based measurement approach".**

When bucketing the GSIB scores, it is important to deliver to the world banking community with the rationale for choice of buckets based on the essence of each bucket. From this perspective it is recommended to form two general buckets:

- Global systemically important banks; and
- Local systemically important banks

For each of categories the capital add-on function is proposed to be introduced dependent on the GSIB integral indicator value described in point 4 of the comments.

9. **§53, p.10: "This sample of 73 banks was chosen from the world's largest banks on the basis of size and supervisory judgement by Basel Committee member authorities".**

73 banks under consideration in the document have been selected based mainly on the size criterion. The sample could be biased (based on the size criterion) and some systemically important banks according to other criteria could be missed. *Bear Stearns* was relatively small sized, but turned to be systemically important.

It is proposed to account for **failed banks**, not limited to the ones that have survived, as it might happen that different indicators are to be considered or indicator weights are to be adjusted.

10. **§57-63, p. 11-12: Ancillary Indicators "These indicators can be used to support the judgement overlay"**

When revealing *global* systemically important financial institutions, the comparative importance of the indicators is to be determined, i.e. weights are to be proposed for regulators worldwide treating ancillary indicators equally. The pca-based approach (cf. point 4 of the comments) to weight identification is advised.

11. **§69, p.14: "After the G-SIB policy is implemented, the cut-off score and the threshold scores for buckets will be fixed for three to five years."**

The period, for which the threshold scores will be fixed (3-5 years), is too long given the rapidly changing environment. From policy response side it might lead actual GSIBs to adjust their performance pattern as not to enter the formal GSIB category.

Aiming at providing the financial stability and considering the proposal on pca-adjustable weights (cf. point 4 of the comments), the regulator is interested in identifying actual, not formal GSIBs. That is why it is advised to recalculate scores regularly (e.g. yearly).

12. **§69, p. 14: "The bank scores will be updated annually based on new data applied to the numerator in calculating the score"**

It is expected to adjust both the numerator and the denominator in calculating the scores, not limited to numerator only. This is also in line with the logic of regular weights adjustment (cf. point 4 of the comments).

Research Team

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