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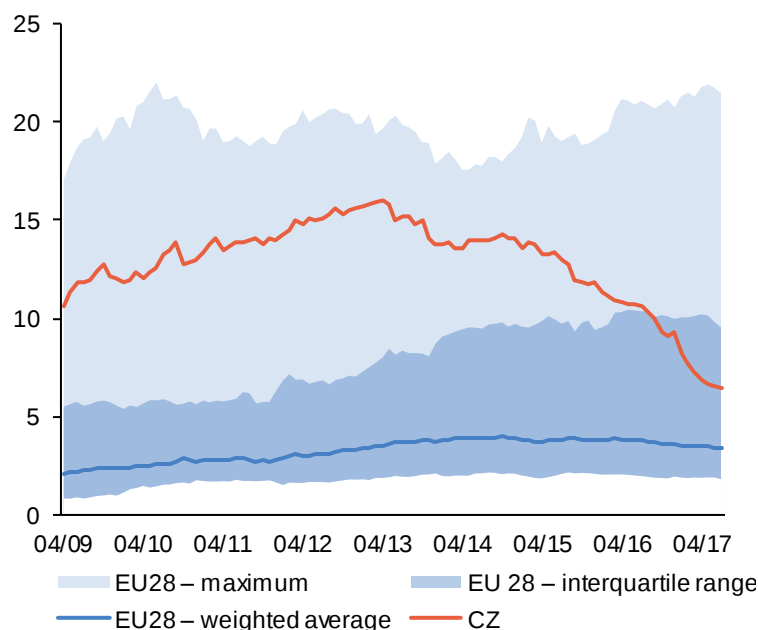
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**The Czech National Bank's comments on
the Basel Committee on Banking Supervision discussion paper
“The regulatory treatment of sovereign exposures”
published in December 2017**

The Czech National Bank (CNB) regards the regulation of sovereign exposures in banks' balance sheets as important. In 2015, the share of domestic government bonds in banks' assets in the Czech Republic was still among the highest in the EU (see Chart 1). As bond yields rise above the exceptionally low (or even negative) levels seen in 2016 and 2017, this share may start coming back to its previous levels. The debt crisis in Europe showed how excessive interconnectedness between banks and their countries' overindebted governments can be risky for both sides.

Chart 1
Holdings of domestic government bonds by domestic MFIs
 (in % of total MFI assets)



Source: ECB, CNB calculations

Note: Central bank holdings are excluded. The indicator includes holdings of general government bonds.

The high concentration of domestic government bonds in domestic banks' balance sheets led to an intense debate at the CNB on how to resolve this situation in timely fashion. Since 2015, the CNB has been reviewing and evaluating the risks arising from the concentration of sovereign exposures in Czech credit institutions' balance sheets on the basis of an internal methodology. The CNB uses this methodology as a microprudential supervisory tool under Pillar 2.¹ The tool is intended solely for managing the risk of concentration of domestic government securities. However, concentration of domestic banks' exposures to other sovereign entities cannot be ruled out going forward.² The extension of the CNB's methodology to cover other sovereign entities would require longer-term research. For these reasons, the CNB welcomes the fact that the BCBS is contemplating modifying the regulatory treatment of sovereign exposures.

The proposed regulatory changes should reflect the specific market position of sovereign exposures. The regulatory change in the area of credit risk should certainly not discriminate

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http://www.cnb.cz/en/financial_stability/stress_testing/download/methodology_review_evaluation_of_sovereign_exposure_concentration_risk.pdf.

² A change in the sovereign portfolio could be motivated by euro adoption or the conversion of some banks into branches.

against particular types of jurisdictions (small vs. large states, states inside and outside currency unions, states with a large share of foreign currency debt, etc.). The risk weights should reflect the credit risk actually undertaken, which for any country is non-zero above a certain level of debt.

Given the already existing close links between banks and sovereign entities, the regulatory changes should not lead to unintended negative consequences for either banks or governments. This applies especially to the regulation of banks' large exposures to sovereign entities. Measures targeting concentration risk should be preventive so as to avoid excessive accumulation of risky sovereign exposures.

We also welcome the discussion paper, as regulation of sovereign exposures should be preceded by a detailed debate with stakeholders from the financial market and elsewhere.

The CNB's replies to selected questions from the discussion paper are provided below:

Q3 *What are your views on the potential definition of sovereign exposures?*

We agree with the proposed classification. From an economic point of view, it makes sense to differentiate between the treatment of exposures to a central bank, a central government and other public sector entities. It also makes sense in justified cases to treat exposures to some types of regional governments and public sector entities as central government exposures. However, one should be careful to thoroughly assess whether these entities actually represent a credit risk comparable to that of the country's central government.

Q4 *Do you agree that the definition of domestic sovereign exposures should be based on both the currency denomination of the exposure and the currency denomination of the funding? How would such a definition be operationalised in practice?*

We do not consider it necessary to take account of whether the currency of a bank's funding is the same as that of the exposure when identifying a domestic-currency exposure to central government. We regard the currency denomination of the central government exposure, not the currency of the bank's funding, as crucial (a bank manages both trading book and banking book currency risk). We believe that the currency denomination of exposures to central government (including public sector entities subject to equivalent treatment as central government) can play an important role. The central government usually collects taxes in the domestic currency. Empirical evidence indicates that there is a higher probability of the government being more selective in defaulting on foreign currency debt than on domestic currency debt. Domestic-currency exposures to central government are thus in theory associated with lower credit risk.

We therefore propose that only the currency denomination of the exposure should be taken into account.

Q5 *Do you agree with the potential relative rank ordering of different sovereign entities and with the principle of a potential risk equivalence criteria for treating certain non-central government exposures as central government exposures? Do you have any comments on the criteria?*

We generally agree with the rank ordering of exposure risk given in the discussion paper. Firstly, we fully agree that central banks bear a significantly lower risk than central governments. We are also of the opinion that national authorities should have the discretion to exclude exposures to central banks from the exposure measure used in the calculation of the

leverage ratio. This is because a significant part of these exposures can be a side effect of monetary policy that is beyond the control of institutions. Such approach would enable the impact of the implementation of monetary policy on institutions' balance sheets to be offset for the sake of proper coordination of monetary and macroprudential policies. Secondly, we agree that central governments are less risky than other sovereign entities.

As regards the issue of defining the conditions for the equivalent treatment of exposures to regional governments and other public sector entities as exposures to central government, it will be difficult to specify such conditions in practice. This will depend on the type of regulation adopted in the given jurisdiction and the specific assessment of the given institution and its supervisory authority. In general, we prefer very strict conditions allowing these entities to be treated as equivalent to central government by regulation.

We do not recommend a further breakdown by entities which do not meet the condition of central government equivalence. On the one hand, exposures to regional governments are usually associated with lower credit risk than those to other public debt entities, as they are generally harder to resolve and central governments are hence more motivated to rescue them if they run into difficulties. On the other hand, these entities are highly diverse and the above may not apply in many cases. All this complicates the setting of risk weights. The CNB therefore favours the option of making no further division so as not to reduce the transparency of the framework.

Q6 Do you agree that capital requirements for sovereign exposures cannot be modelled robustly, and that such exposures should be subject to a standardised approach treatment as a result?

The CNB fully agrees with the scepticism inside the BCBS regarding banks' ability to prudently model sovereign issuer default, that is, to model the risk parameters (PD and LGD) for estimating such default. The aim of the internal models in the Basel II regulatory framework was to use banks' expertise in the management of well-known and statistically robustly modellable risks such as the risk of default on standardised retail loans. Defaults by sovereign issuers are difficult to model due to the limited number of such events. Moreover, these default events are publicly known and individual banks thus do not have better information than other banks, supervisory authorities and the professional public for their modelling. In its supervisory activities, the CNB observes great diversity in the estimates for identical sovereign exposures made by banks using the IRB approach. This indicates the difficulty of robustly modelling credit risk for sovereign exposures and creates an unlevel playing field. The CNB sees no value added of internal models for sovereign credit risk arising from sovereign exposures in relation to the costs incurred by supervised institutions and by the supervisor. Given all these arguments, the CNB supports the abolition of the option of using the IRB approach for sovereign exposures.

We agree with the assessment contained in the discussion paper that for sovereign exposures, LGD is more difficult to model than PD. Removing the advanced IRB approach thus seems to be the first step. However, the BCBS's opinion that only the standardised approach is admissible for difficult-to-model risks, as presented in "Basel III: Finalising post-crisis reforms"³, is consistent with the removal of both variants of the IRB approach.

Q7 What are your views about how a standardised approach treatment for sovereign exposures should be designed and calibrated? How should such an approach balance

³ <https://www.bis.org/bcbs/publ/d424.pdf>

simplicity, comparability and risk sensitivity? Are there any holistic considerations which could justify a differentiated treatment across different types of sovereign entities, including the relative treatment of central bank and central government exposures?

We see two fundamental issues as regards the proposed change to the standardised approach. The first is the **method for setting risk weights**. A look-up table using external rating categories (buckets) or a look-up table using value ranges of several indicators that display a good correlation with credit risk can be considered a suitable compromise between risk sensitivity and simplicity. The CNB sees pros and cons in both methods and is slightly more in favour of the external rating option. In addition, banks would have to evaluate indicators, an illustrative list of which would be recommended by the BCBS, for the purposes of determining internal capital under Pillar 2. Supervisory authorities would then review whether banks have a documented methodology for assessing sovereign exposure risks using these indicators and other available information and whether they prudently reflect the assessment results in their risk weights. The Pillar 1 risk weights would thus form a floor for the risk weights applied by banks for the purposes of determining internal capital (i.e. in Pillar 2).

Although Table 6 in the discussion paper is described as illustrative, we generally agree with the grading of risk weights in it. We believe that the BCBS's considerations imply the use of higher risk weights only for entities with poor ratings. This approach has the advantage that it increases political acceptance, as it allows for low risk weights for a large proportion of countries and reduces the negative impact of regulation on financial markets and sovereign issuers in countries that qualify for the highest rating grade. On the other hand, the table is not sufficiently granular. If the differences between risk weights were large, a "cliff effect" could occur if a change in an issuer's rating led to it being reclassified into a different regulatory bucket. However, "cliff effects" will also generally occur if risk weights are tied to several indicators.⁴ For these reasons, we think it is desirable to consider increasing the number of buckets to six, as in the other exposure categories. We propose that the risk weight for safe buckets should increase only moderately. Conversely, that for worse buckets should rise sharply. Further differentiation between the sovereign exposures within one bucket should be done via Pillar 2.

The second fundamental issue is **whether the highest-quality central government bonds should have a zero or non-zero weight**. The principle of risk equivalence and prudence would require the weight to be non-zero. On the other hand, one needs to carefully consider the unintended consequences of a non-zero risk weight for the highest-quality central government bonds amplified by other regulatory elements (such as the calculation of expected losses under IFRS 9 and LCR) or their mutual inconsistency. A change in demand for government bonds could also negatively affect issuers.

The CNB has always been of the opinion that there are no entirely risk-free assets. Therefore, it inclines to the view that even high-quality sovereign exposures to issuers other than the central bank should be generally assigned a non-zero, albeit very low, risk weight. The very low risk weights envisaged by the discussion paper would generate only modest capital requirements which would certainly not inhibit Czech banks from being compliant with the capital adequacy requirements. Such situation is highly likely to be the case in other jurisdictions as well. For this reason, the CNB agrees with the removal of the national discretion to treat sovereign exposures to central government as exposures to the central bank. Removal of the discretion would also be conducive to the level playing field at the global

⁴ We consider the option of indicator values continuously mapped to risk weights to be too complicated, so we do not support it.

level. Consideration could be given to whether exposures should also be classified by residual maturity. Under such classification, securities with a residual maturity of up to two years, for example, would be assigned a lower risk weight than those with a residual maturity of, say, ten years. Bonds with a short residual maturity could be assigned a very low risk weight even if they had a slightly worse rating, as credit risk rises with increasing residual maturity of an instrument.

In any case, a long phase-in period should be allowed for the implementation of changes to the standardised approach so as to reduce the potential negative impacts associated with portfolio reallocation.

Q8 What role could specific non-rating indicators play in determining sovereign exposure risk weights in the potential standardised approach?

The indicators presented in the discussion paper could reduce the negative effects of mechanistic reliance on external ratings. The CNB agrees that banks should use risk indicators and should do so under Pillar 2. Banks should incorporate the results of the sovereign exposure risk profile analyses using these indicators into their risk weights for the purposes of determining internal capital.

Q9 What are your views regarding the potential marginal risk weight add-on approach for mitigating sovereign concentration risk? Do you have any views on the potential design, granularity and calibration of such an approach?

The CNB sees the risk of sovereign exposure concentration as crucial in the context of sovereign exposure regulation. The management of concentration risk should be based on the classification of sovereign exposures contained in the discussion paper, which the CNB supports.

Exposures to central government (and equivalent entities) should not be restricted by a hard concentration limit as in the other exposure categories – be it a 25% cap or any other. Sovereign exposures play an important role in the economy and the financial market, so hard limits could have highly undesirable impacts on, inter alia, banks' business models. We are of the opinion that the management of sovereign exposure concentration risk requires a special regime. We therefore regard a marginal risk weight add-on penalising a higher degree of concentration as an appropriate tool.

We also agree with the illustrative calibration according to which sovereign exposures of up to 100% of a bank's capital are not subject to an add-on due to their specific function on the market. We also consider it reasonable for the marginal risk weight add-on to rise steeply with continuing concentration. The risk weight add-on converges to a limit of 30% in the illustration, making concentrated holdings of sovereign exposures more capital-intensive than many other exposures (see Table 7, p. 29). We regard this as a suitable way of preventing excessive accumulation of sovereign exposures in banks' portfolios.

The multiplicative option for calculating the marginal risk weight add-on is interesting for its sensitivity to the concurrence of higher credit risk and higher concentration. Concentration risk is most capital intensive when the sovereign entity's credit risk is simultaneously increasing. However, it may be challenging to ensure that the risk weight for credit risk exactly reflects the level of risk (see Q7). We therefore suggest considering whether the proposed marginal risk weight add-ons for concentration risk in Table 7 should be extended to include a second dimension containing the credit risk of the exposure. This dimension could be tied to the proposed credit risk buckets (measured by either external ratings or indicators)

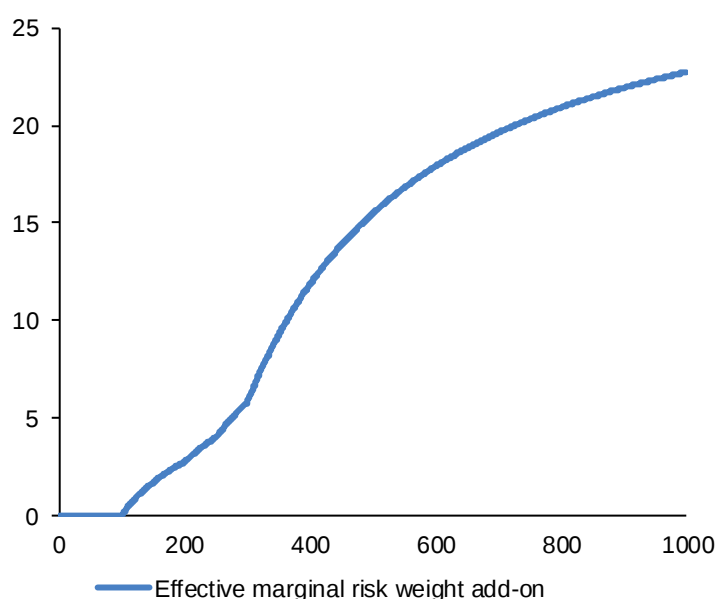
in the standardised approach. Exposures with a higher credit risk would – at the same level of concentration – receive a higher risk weight. The advantage of this solution would be particularly apparent if a zero risk weight for credit risk was set under Pillar 1.

In the illustrative calibration (see Table 7, p. 29), the marginal risk weight add-on of 5% for an exposure bucket of 100–150% of capital does not seem fully consistent with the course of the add-on (see Chart 2). For this reason, we propose that a marginal add-on of 3% be used for this bucket.

Chart 2

Effective marginal risk weight add-on as a function of sovereign exposure concentration

(x-axis: exposure as % of capital; y-axis: pp)



Source: CNB

Note: The x-axis represents the exposure to the sovereign counterparty as a percentage of capital. The y-axis represents the marginal risk weight add-on calculated as the increase in risk-weighted assets divided by the exposure value.

As the capital created using the risk weight add-on will not be sufficient to cover the entire loss in the event of sovereign issuer default, the role of concentration add-ons is primarily preventive. The main aim is to at least partially increase a bank's resilience and motivate it to behave prudently.

Other public sector entities should not be subject to more favourable concentration limits than the private sector.

The CNB has long viewed sovereign exposure concentration risk as an important issue in the Czech Republic. In 2015 it therefore decided to start applying its own microprudential Pillar 2 supervisory tool to pre-empt this particular risk. The tool is designed to provide an incentive to credit institutions to adopt a prudent approach to sovereign exposures that are starting to take on systemic importance. The CNB reviews and evaluates once a year whether the arrangements, strategies, processes and mechanisms implemented by the institutions genuinely ensure safe and sound operation and proper management and coverage of the risk.

The important component of the CNB's methodology⁵ is the stress test of domestic public finance. The CNB has a positive experience with this tool, as turning the process into a regular publicly communicated exercise is viewed by the Czech Ministry of Finance (both the fiscal authority and the debt agency) as supportive to its objective of long-term fiscal stability. Institutions welcome the outcomes of the exercise as guidance for their risk assessment. The introduction of the tool did not receive negative comments from political representatives, the public sector or industry. It was orchestrated at a time of clearly sustainable public finance and thus very low sovereign risk, leading to no increase in capital requirements for banks or debt service cost to the government.

The CNB's tool is in line with the logic presented in this discussion paper. The fundamental principle here is to allocate additional capital to sovereign exposures in institutions exposed to concentration risk if elevated sovereign risk is identified. No capital add-on is asked for until the riskiness of sovereign exposures breaches pre-defined thresholds. The CNB's tool is applied only to classes of sovereign exposures with a systemically important share in the Czech banking sector. The main element of the tool is a percentage limit which divides that exposure into a below- and an above-limit part. The limit is a decreasing function of the PD by the particular sovereign expressed using a sovereign risk indicator (ISR) estimated by the CNB. If the ISR rises, the limit gradually falls. As a result, the above-limit part increases while the below-limit part decreases. The below-limit part continues to be regulated under Pillar 1. For the above-limit part, the credit institution will create an additional capital requirement under the following terms: a) if the three-year outlook for the ISR exceeds a "soft" threshold of 5% and the results of an expert analysis confirm the need, or automatically if the three-year outlook for the ISR exceeds a "hard" threshold of 8%; and b) if the credit institution does not already create sufficient capital for the coverage of concentration risk arising from sovereign exposures.

Q10 What are current market practices related to haircuts for sovereign repo-style transactions? Do you believe that the current repo-style discretion to apply a haircut of zero should be removed from the credit risk mitigation framework?

If the national discretion for a preferential risk weight was removed, removal of this type of discretion would also be consistent with the principle of risk equivalence and prudence. Sovereign exposures would then still be subject to the lowest collateral haircut by comparison with other asset types.

The removal of the option to apply a zero haircut could have some undesirable consequences. It could, for example, amplify portfolio reallocation owing to a change in the asset class with a zero risk weight for credit risk, as assets with a new positive risk weight would be additionally associated with a haircut for banks.

Stricter regulatory treatment of sovereign exposures could also affect exposures to entities with a guarantee from a sovereign issuer, such as export-support institutions. However, we believe that the positive effects of the removal of the national discretion prevail. Removal of the discretion would also be conducive to the level playing field at the global level.

Q11 Do you have any comments on the potential Pillar 2 guidance on sovereign exposures? Is there a need for additional guidance?

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http://www.cnb.cz/en/financial_stability/stress_testing/download/methodology_review_evaluation_of_sovereign_exposure_concentration_risk.pdf.

Pillar 2 procedures are crucial for the prudent management of sovereign risk. They are also important because they prevent excessive mechanistic reliance on risk weights in Pillar 1. Pillar 2 also enables the supervisory authority to respond in time to a situation of worsening risks without this leading to a corresponding tightening of capital requirements under Pillar 1. In our opinion, the capital requirements in Pillar 2 could be an appropriate complement to the capital requirements for credit risk in Pillar 1, especially if the risk weight buckets for credit and concentration risk in Pillar 1 were insufficiently granular. We regard the indicators presented for monitoring as appropriate. The CNB's methodology for the assessment of concentration risk already uses most of them.

Q12 Do you have any comments on the potential Pillar 3 disclosure requirements for sovereign exposures? Is there a need for additional disclosure requirements?

We consider the proposed disclosure templates as sufficiently detailed. If the BCBS wants to increase the level of detail, we recommend linking the templates to the proposed regulatory treatment of credit risk under Pillar 1, i.e. by entity and currency. This means that the following breakdown would be given for each jurisdiction with a significant exposure: (1) central bank in domestic currency, (2) central bank in foreign currency, (3) central government and equivalent entities in domestic currency, (4) central government and equivalent entities in foreign currency and (5) other public sector entities in all currencies put together.

Q13 Do you agree that home authorities of internationally active banks should be encouraged to recognise the prudential treatment of sovereign exposures applied by host authorities for subsidiaries?

The CNB generally agrees with the proposals for home authorities to recognise the treatment applied by host authorities to the greatest possible extent as long as it is sufficiently prudent. Such recognition should lead to greater consistency in the calculation of capital requirements.