



EIOPA-CP-14/059

27 November 2014

**Consultation Paper**

**on**

**the proposal draft for**

**Implementing Technical Standards**

**with regard to the adjusted factors to**

**calculate the capital requirement for**

**currency risk for currencies pegged to the**

**euro**

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## Responding to this paper

EIOPA welcomes comments on the proposal for draft Implementing Technical Standard with regard to the adjusted factors to calculate the capital requirement for currency risk for currencies pegged to the euro.

Comments are most helpful if they:

- contain a clear rationale; and
- describe any alternatives EIOPA should consider.

Please send your comments to EIOPA in the provided Template for Comments, by email [Consultation\\_Set2@eiopa.europa.eu](mailto:Consultation_Set2@eiopa.europa.eu), by 2 March 2015.

Contributions not provided in the template for comments, or sent to a different email address, or after the deadline will not be processed.

### Publication of responses

Contributions received will be published on EIOPA's public website unless you request otherwise in the respective field in the template for comments. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure.

Please note that EIOPA is subject to Regulation (EC) No 1049/2001 regarding public access to documents and EIOPA's rules on public access to documents<sup>1</sup>.

Contributions will be made available at the end of the public consultation period.

### Data protection

Please note that personal contact details (such as name of individuals, email addresses and phone numbers) will not be published. They will only be used to request clarifications if necessary on the information supplied.

EIOPA, as a European Authority, will process any personal data in line with Regulation (EC) No 45/2001 on the protection of the individuals with regards to the processing of personal data by the Community institutions and bodies and on the free movement of such data. More information on data protection can be found at <https://eiopa.europa.eu/> under the heading 'Legal notice'.

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<sup>1</sup> [https://eiopa.europa.eu/fileadmin/tx\\_dam/files/aboutceiops/Public-Access-\(EIOPA-MB-11-051\).pdf](https://eiopa.europa.eu/fileadmin/tx_dam/files/aboutceiops/Public-Access-(EIOPA-MB-11-051).pdf)

## **Consultation Paper Overview & Next Steps**

EIOPA carries out consultations in the case of drafting Technical Standards in accordance to Articles 10 and 15 of the EIOPA Regulation.

This Consultation Paper presents the draft Technical Standards and a technical annex where relevant.

The analysis of the expected impact from the proposed policy is covered under Annex I Impact Assessment.

### **Next steps**

EIOPA will consider the feedback received and expects to publish a Final Report on the consultation and to submit the Consultation Paper for adoption by the Board of Supervisors.

# 1. Draft Technical Standard



EUROPEAN COMMISSION

Brussels, 29.6.2011  
C(20..) yyy final

**COMMISSION DELEGATED REGULATION (EU) No .../..**

**of [ ]**

**COMMISSION IMPLEMENTING REGULATION (EU) No .../.. laying down implementing technical standards with regard to the adjusted factors to calculate the capital requirement for currency risk for currencies pegged to the euro according to Article 109a(2)(c) of Directive 2009/38/EC of the European Parliament and of the Council**

**of [ ]**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/138/EC of 25 of November of 2009 of the European Parliament and of the Council on the taking up and pursuit of the business of Insurance and Reinsurance (Solvency II)<sup>2</sup> and in particular Article 109a(2)(c) thereof,

Whereas:

- (1) This Regulation sets out the adjustments to be made for currencies pegged to the euro in the currency risk sub-module referred to in Article 105(5) of Directive 2009/138/EC, in accordance with the detailed criteria for the adjustments for currencies pegged to the euro for the purpose of facilitating the calculation of the currency risk sub-module, as established under Article 111(1)(p) of Directive 2009/138/EC.
- (2) The adjustments under this Regulation take into account the detailed criteria set out in Article 188(5) of the Implementing Measures.

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<sup>2</sup> OJ L 335, 17.12.2009, p.1

- (3) This Regulation lays down the adjusted factors for the purposes of calculating the capital requirement for currency risk according to Article 188(2) of the Implementing Measures where the local or the foreign currency is the euro.
- (4) In addition, this Regulation lays down the adjusted factors for the purpose of calculating the capital requirement for currency risk according to Article 188(2) of the Implementing Measures between two currencies pegged to the euro.
- (5) This Regulation is based on the draft implementing technical standards submitted by the European Insurance and Occupational Pensions Authority to the Commission.
- (6) The European Insurance and Occupational Pensions Authority has conducted open public consultations on the draft implementing technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the opinion of the Insurance and Reinsurance Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1094/2010.

HAS ADOPTED THIS REGULATION:

*Article 1*

***Adjusted factors for currency risk where the local or foreign currency is the euro***

Where the local or foreign currency is the euro, undertakings shall replace the 25% factor for the purposes of Article 188(3) and (4) of the Implementing Measures with:

- (a) 0.39% when the other currency is the Danish krone (DKK);
- (b) 1.81% when the other currency is the Bulgarian lev (BGN);
- (c) 2.18% when the other currency is the West African CFA Franc (XOF);
- (d) 1.96% when the other currency is the Central African CFA Franc (XAF);
- (e) 2.00% when the other currency is the Comorian Franc (KMF).

*Article 2*

***Adjusted factors for currency risk between currencies pegged to the euro***

For the purposes of Article 188(3) and (4) of the Implementing Measures, undertakings shall replace the 25 % factor with:

- (a) 2.24% when the two currencies are the DKK and the BGN;
- (b) 2.62% when the two currencies are the DKK and the XOF;
- (c) 2.40% when the two currencies are the DKK and the XAF;
- (d) 2.44% when the two currencies are the DKK and the KMF;
- (e) 4.06% when the two currencies are the BGN and the XOF;
- (f) 3.85% when the two currencies are the BGN and the XAF;
- (g) 3.89% when the two currencies are the BGN and the KMF;
- (h) 4.23% when the two currencies are the XOF and the XAF;
- (i) 4.27% when the two currencies are the XOF and the KMF;
- (j) 4.04% when the two currencies are the XAF and the KMF.

*Article 3*  
***Entry into force***

- (1) This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.
- (2) This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

*[For the Commission  
The President]*

*[For the Commission  
On behalf of the President]*

*[Position]*

## Appendix

### I. The currencies fulfilling the criteria for the adjusted factors in the currency risk sub-module are the following:

#### 1. Currencies participating in the European Exchange Rate Mechanism (ERM II):

##### **The Danish krone (DKK)**

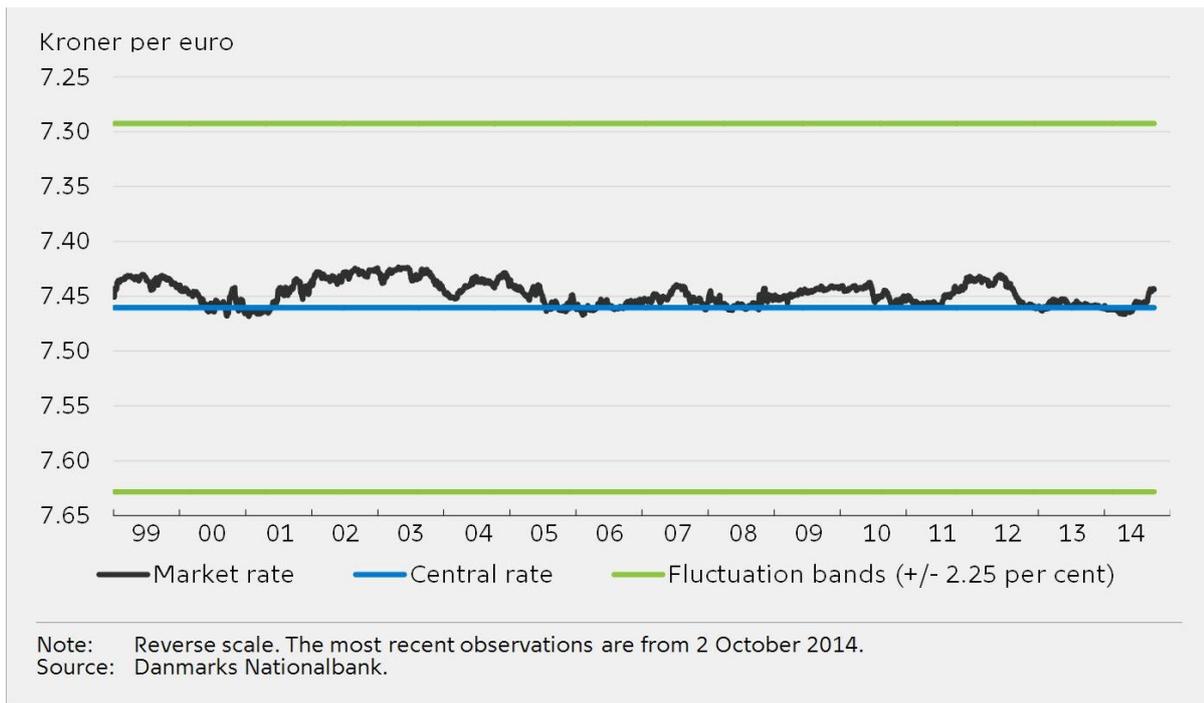
The Danish krone entered the ERM II in January 1999, when the euro was created. The central rate of the Danish krone was set at 1 euro = 7.46038 kroner and the fluctuation band at  $\pm 2.25\%$  around the central rate. This band is much narrower than the 15% fluctuation band usually used by ERM II members. Moreover in practice, the exchange rate does not deviate a lot from the central rate: Since 1999, the deviations from the central rate have always moved in an even smaller fluctuation band of  $\pm 0.5\%$ .

When the ECB changes its monetary policy interest rates, Danmarks Nationalbank (the Danish central bank) typically responds by making similar changes. Danish interest rate changes are typically announced in the afternoon on the same day that the ECB announces its changes.

Danmarks Nationalbank regularly assesses whether the development in the exchange rate of the krone against the euro requires a response. If for example the krone tends to weaken, Danmarks Nationalbank will initially seek to counter this by purchasing kroner against foreign exchange. For this purpose, Danmarks Nationalbank holds sizable foreign exchange reserves.

The very narrow fluctuation band around the central rate in the past (see figure 1 below) as well as the actions taken by the Nationalbank to meet the announced objectives have reinforced the Danish monetary policy credibility.

**Figure 1: Exchange rate of the Krone vis-à-vis the euro**

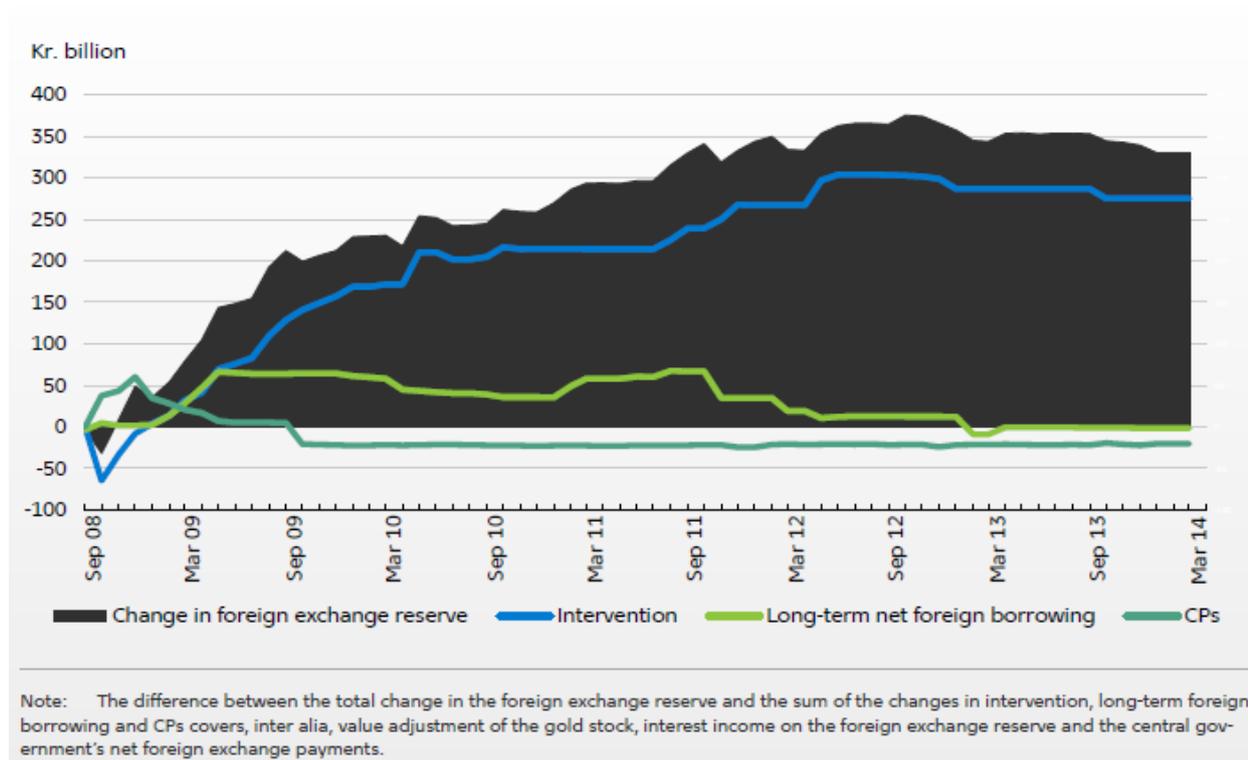


As a result of the high credibility in the fixed exchange rate policy, transactions between market participants will typically be sufficient to keep the krone close to its central rate. However, situations that require a response from Danmarks Nationalbank occur regularly. Usually, the first step is to intervene in the foreign exchange market. Intervention is undertaken by the department "Banking and Markets", which has unlimited authority to intervene to the extent necessary.

The main reasons why the financial resources of Denmark as referred to in Article 188(5) of the Implementing Measures guarantee the sustainability of the pegging arrangement are the following:

- (i) Danmarks Nationalbank holds considerable foreign exchange reserves for intervention purposes. At the beginning of 2014, the value of the foreign exchange reserve was close to 500 billion kroner, mainly held in euro and largely consisting of deposits in foreign banks and foreign securities that can be sold or pledged as collateral.
- (ii) If the reserve is deemed to be insufficient, Danmarks Nationalbank has options for building up a larger reserve. This could be observed in connection with the currency unrest in the autumn of 2008, when the central government resorted to foreign borrowing (see graph below). Initially, short-term loans were raised within the framework of the central government's Commercial Paper (CP) programmes in order to quickly boost the foreign exchange reserve.

**Figure 2: Development in the foreign exchange reserve after the outbreak of the financial crisis**



The fixed exchange rate policy entails that the monetary policy interest rates of Danmarks Nationalbank are used solely to keep the krone close to its central rate. If intervention in the foreign exchange market is not sufficient to stabilize the exchange rate of the krone, the next move of Danmarks Nationalbank will be to adjust its monetary policy interest rates, comprising the lending rate, the rate of interest on certificates of deposit, the current account rate and the discount rate.

The monetary policy instruments are designed with a view to ensuring a flexible and robust implementation of the fixed exchange rate policy. This objective has been met: Danmarks Nationalbank has, for example, been able to introduce a negative rate of interest on certificates of deposit in order to keep the krone stable against the euro. Moreover, maintaining the framework for the implementation of monetary policy on the introduction of a negative interest rate makes the instruments robust in respect of a future normalisation of monetary policy interest rates.

2. Currencies where a decision from the European Council recognises pegging arrangements between that currency and the Euro:

**The Central African CFA Franc (XAF), the West African CFA Franc (XOF) and the Comorian franc (KMF)**

France has concluded several agreements with the CEMAC (Central African Economic and Monetary Community), the WAEMU (West African Economic and Monetary Union) and the Union of the Comoros member states. Those agreements are intended to guarantee the convertibility of the CFA and

Comorian francs into the French franc at a fixed parity, with no fluctuation band allowed.

The cooperation between France and the CEMAC, WAEMU, and the Union of the Comoros is mainly based:

- on the unlimited convertibility guarantee (in euro) given by the French Treasury to the CFA francs and the Comorian franc according to which any conversion request shall be met ;
- on a fixed parity with the anchor currency (the euro): the parity of the CFA francs and the Comorian franc with the euro is established and defined for each sub-area;
- on the principle of free-transferability within the Franc zone;
- on the centralization of foreign exchange reserves: African signatories centralize their foreign exchange reserves within their central banks (Bank of Central African States, Central Bank of West African States or Central Bank of the Comoros), which are required to deposit at least 50% of their foreign exchange reserves of on an "operating" account with the French Treasury, as stated in the relevant monetary cooperation agreements.

Those agreements are:

- for the CEMAC, the «Convention de coopération monétaire du 23 novembre 1972 entre les États membres de la Banque des États de l'Afrique centrale (BEAC) et la République française»<sup>3</sup>;
- for the WAEMU, the «Accord de coopération du 4 décembre 1973 entre la République française et les Républiques membres de l'union monétaire ouest-africaine»<sup>4</sup> ;
- for the Union of the Comoros, the «Accord de coopération monétaire du 23 novembre 1979 entre la République française et la République fédérale islamique des Comores»<sup>5</sup>.

Council Decision 98/683/EC<sup>6</sup> concerning exchange rate matters relating to the CFA franc and the Comorian franc recognizes that the conversion of the CFA and the Comorian francs was guaranteed by a budgetary commitment of the French authorities. This decision states that upon the substitution of the euro for the French franc, France may continue its agreements concerning exchange rate matters with the CEMAC, WAEMU and the Union of the Comoros member states and that France and African signatories are responsible for the implementation and possible modifications of these agreements. The exchange rate was changed only twice (in 1948 and 1994) since the CFA franc was created in 1945. The currency risk linked to a possible evolution of the parity between the CFA franc/Comorian franc and the euro is extremely limited.

### 3. Currencies where the pegging arrangement is established by the law of the country establishing the currency:

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<sup>3</sup> <https://www.beac.int/download/convbeacfr.pdf>

<sup>4</sup> <https://www.tresor.economie.gouv.fr/File/391299>

<sup>5</sup> <https://www.tresor.economie.gouv.fr/File/391300>

<sup>6</sup> [http://eur-lex.europa.eu/smartapi/cgi/sga\\_doc?smartapi!celexplus!prod!DocNumber&lg=en&type doc=Decision&an doc=1998&nu doc=683](http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=en&type doc=Decision&an doc=1998&nu doc=683)

## The Bulgarian lev (BGN)

The Bulgarian lev is not participating in ERM II but has however an exchange rate anchor within a Currency Board Arrangement introduced on the 1<sup>st</sup> of July 1997. Bulgaria has fixed its currency in a pegging arrangement in Article 29 of the 1997 Law on National Bulgarian Bank (BNB)<sup>7</sup>. In pursuance with this applicable legal framework, the BNB is obliged to maintain a fixed exchange rate. With the replacement of the Deutsche mark by the euro, the peg has effectively been set at 1 euro = 1.95583 lev.

As a consequence, the pegging arrangement of the Bulgarian lev established by the law of Bulgaria fulfils the criteria (iii) of Article 188 (5)(b) of the Implementing Measures. The pegging arrangement has been further analysed to decide if a reduced shock factor could be assigned to the Bulgarian lev.

The stipulation of the principles of operation of the currency board in Bulgaria in the Law on the Bulgarian National Bank ensures the rigidity of these principles and makes them immune to short-term considerations and pressures. Two major principles laid down in the Law of the Bulgarian National Bank contribute to guaranteeing the solidity of the pegging arrangement:

- The total amount of BNB monetary liabilities is fully covered by high quality foreign reserves. BNB monetary liabilities consist in banknotes and coins in circulation, liabilities vis-à-vis banks, the government and budget organizations and liabilities to other depositors (see Issue Department balance sheet on the BNB website).
- The Article 30 in the Law on the Bulgarian National Bank, which was amended in 2005, states that "on demand, the Bulgarian National Bank shall be bound to sell and purchase Euro against Bulgarian levs up to any amount within the territory of the country on the basis of spot exchange rates which shall not depart from the official exchange rate by more than 0.5 per cent, inclusive of any fees, commissions and other charges to the customer".

Furthermore, to strictly observe the spirit of the law and the restrictions set therein, the BNB Governing Council decided to stop applying, as from 7 June 2004, the fluctuation band of 0.5% to all cashless transactions conducted between the BNB and its customers for the sale or purchase of the Euro against the Bulgarian lev. From this date on, the cashless transactions with banks, budgetary organisations and other customers of the BNB have been executed at the fixed exchange rate of 1.95583 BGN for 1 EUR. There is therefore no deviation from the central rate, i.e. a 0% fluctuation band.

However, the fluctuation band of 0.5% still exists for all cash operations. This commission of up to 0.5% is part of the policy of the Bank to promote cashless transactions. Since 2009, such cash transactions have nevertheless a negligible share of around 0.1% of all EUR/BGN transactions (in terms of

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<sup>7</sup> [http://www.bnb.bg/bnbweb/groups/public/documents/bnb\\_law/laws\\_bnb\\_en.pdf](http://www.bnb.bg/bnbweb/groups/public/documents/bnb_law/laws_bnb_en.pdf)

volumes) executed by the BNB, while around 99.9% of those transactions are cashless (and thus benefit from the 0% fluctuation band).

The sustainability of the currency board arrangement is guaranteed by the imposition by the Law on the Bulgarian National Bank of the following strict requirements over the fiscal policy, the monetary and supervisory policy and the international reserves management:

(1) The BNB may not extend loans and guarantees in any form whatsoever, including through purchase of debt instruments, to the central government, municipalities, as well as to other government and municipal institutions, organizations and enterprises.

(2) The BNB may not provide credit to banks except in the case of liquidity risk threatening to affect the stability of the banking system. The terms and procedure for extending such a credit, and criteria for identifying the existence of liquidity risk are set by an ordinance of the BNB, and the credit is to be extended up to the amount exceeding the lev equivalent of gross international reserves vis-a-vis the total amount of BNB monetary liabilities. This provision also excludes the possibility to issue national currency beyond the limit corresponding to the currency board principles for the purpose of supporting the banks.

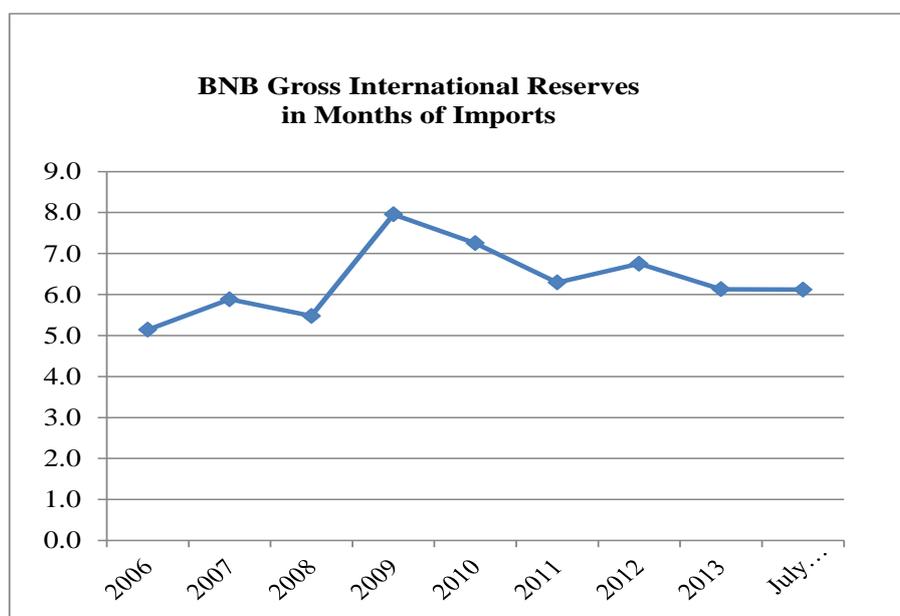
(3) The BNB combines some typical monetary policy functions (money issuance, regulation over the minimum reserve requirements, oversight of the payment systems) with banking supervision (with both regulatory and supervisory powers), and fiscal agency functions. The Central Bank has both a macro- and micro- prudential mandate.

(4) The BNB invests its gross international reserves in accordance with the principles and practices of prudent investment, with investments in securities being limited to liquid debt instruments satisfying the following requirements: Debt instruments issued by foreign countries, central banks, other foreign financial institutions or international financial organizations, where obligations are assigned one of the two highest ratings by two internationally recognized credit rating agencies, and which are payable in freely convertible foreign currency. Rules for investing gross international reserves are also intended to protect the quality of assets in which these reserves are invested. The Currency Board Arrangement operating in Bulgaria is one of the most conservative and complex. Under the roof of the Central Bank, typical monetary policy functions are institutionally combined with banking supervision (with both regulatory policy and supervisory powers), payment system oversight and fiscal agency functions. The general macroprudential strategy of the BNB is to address the overall systemic risks accumulation via calibrated countercyclical changes in its existing micro prudential and other policy tools.

The main reasons why the financial resources of Bulgaria as referred to in Article 188(5) of the Implementing Measures guarantee the sustainability of the pegging arrangement are the following:

- (i) **Adequacy of the coverage of monetary aggregates by the gross international reserves.** Bulgarian international reserves currently cover around three times the currency in circulation. Moreover, international reserves cover much more than 100% of the monetary base, which – while automatically ensured by the construction of the currency board-, brings further confidence in the stability of the fixed exchange rate.
- (ii) **Adequacy of gross international reserves with regard to the value of imports.** The gross international reserves are even adequate under a drastic scenario of complete cessation of balance of payments inflows: The ratio of gross international reserves to the monthly value of imports, which measures the number of months during which imports can be sustained should all inflows (such as export revenue and external financing) cease, is currently around 6.1 in Bulgaria. International reserves are generally considered to be sufficient when this ratio is above 3<sup>8</sup>. Countries with a ratio of 6 or above are considered to have substantial international reserves.

**Figure 3: BNB Gross International Reserves in Months of Imports**



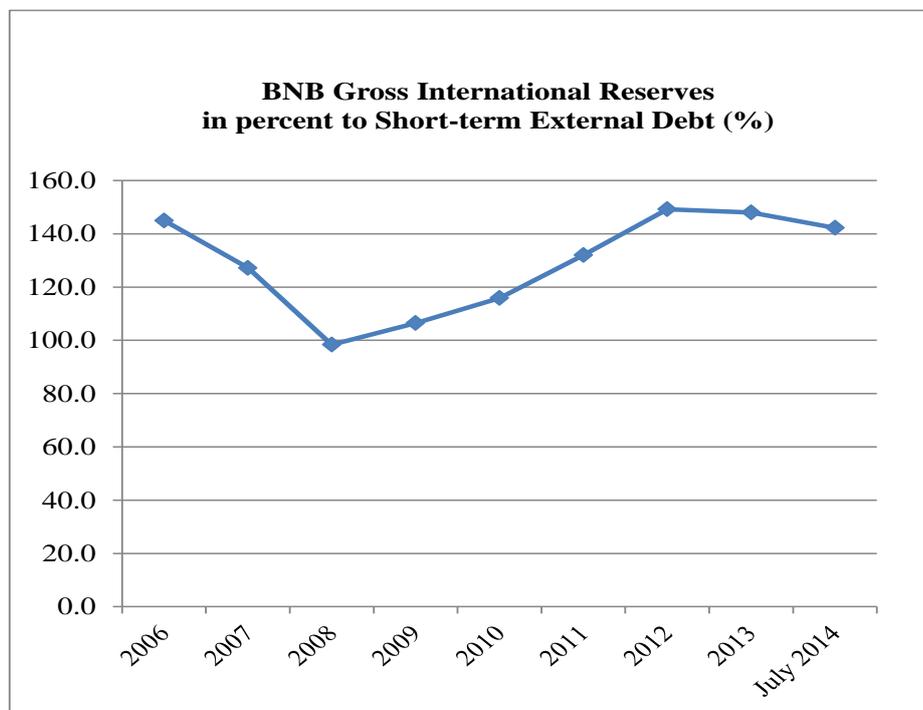
- (iii) **Adequacy of gross international reserves with regard to short-term external debt.** Short-term external debt (STD) has a well-established record as an indicator of crisis risk for open economies and plays a key role in any assessment of international reserves adequacy. The Greenspan-Guidotti rule suggests that STD should be entirely covered by international reserves<sup>9</sup>. The ratio of gross international reserves to short-term external debt in Bulgaria has increased

<sup>8</sup> "Assessing Reserve Adequacy", (February, 2011), Prepared by Monetary and Capital Markets, Research, and Strategy, Policy, and Review Departments of the IMF, p. 12.

<sup>9</sup> "Assessing Reserve Adequacy", (February, 2011), Prepared by Monetary and Capital Markets, Research, and Strategy, Policy, and Review Departments of the IMF, p. 13.

substantially compared to its level during the 2008-2009 global financial crisis and is now comfortably above the suggested minimum of 100%.

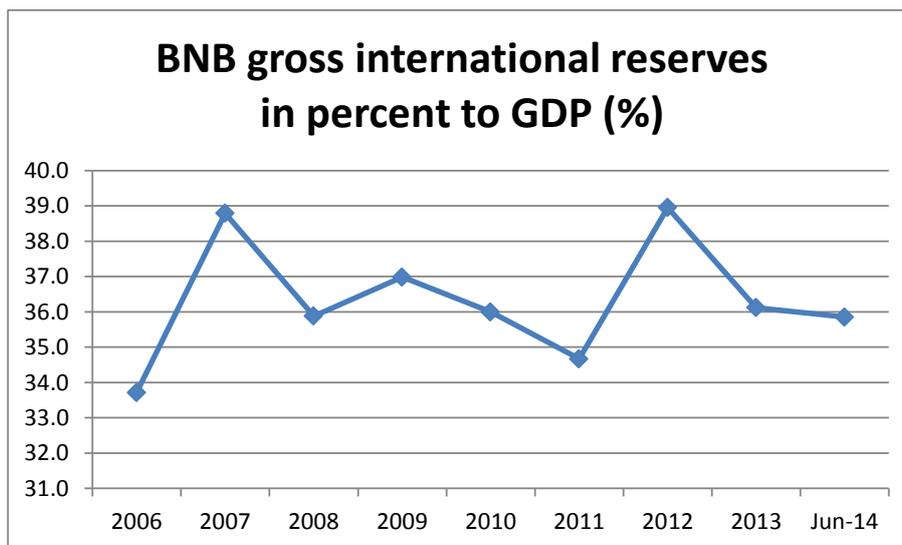
**Figure 4: BNB Gross International Reserves in percent to short-term external debt**



- (iv) **Adequacy of gross international reserves with regard to GDP.** The optimal level of international reserves is considered to be above 15% of GDP but recent empirical evidence suggests that the range of 29-37% of GDP is more appropriate<sup>10</sup>. In Bulgaria, this ratio has been moving around the upper bound, which, again, signals that the international reserves are at a sufficient level.

<sup>10</sup> "Assessing Reserve Adequacy", (February, 2011), Prepared by Monetary and Capital Markets, Research, and Strategy, Policy, and Review Departments of the IMF, p. 14.

**Figure 5: BNB Gross International Reserves in percent to GDP**

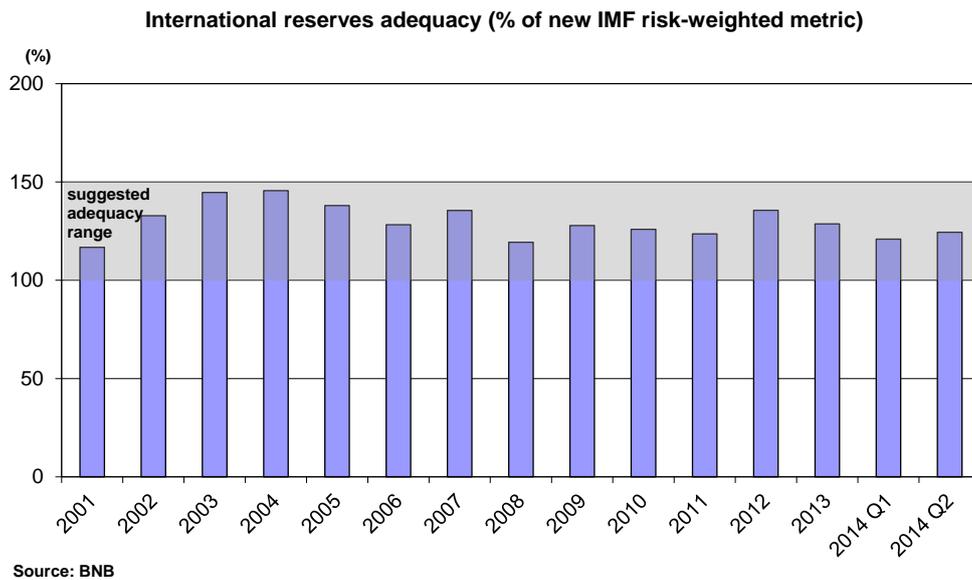


- (v) **Adequacy of international reserves according to the IMF risk-weighted metric.** The metric discussed by the IMF in 2011<sup>11</sup> combines information from existing traditional metrics for the adequacy of the level of international reserves. The IMF highlights that the proposed metric is an extension of existing practices rather than a radical departure and that assessments against this new metrics are broadly consistent with a “combined” approach of traditional metrics. The authors of the paper have calculated an adequacy range for their metric, which consists in the interval 100-150%. In an attempt to better assess the adequacy of Bulgaria’s international reserves, the methodology of the paper has been applied and the metric calculated for Bulgaria. As can be seen in the graph below, Bulgaria’s international reserves have been inside the range in the last 14 years.

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<sup>11</sup> For more information on the computation of the metric and the topic of measurement of the adequacy of foreign currency reserves please refer to the IMF policy paper: “Assessing Reserve Adequacy”, (February, 2011), Prepared by Monetary and Capital Markets, Research, and Strategy, Policy, and Review Departments of the IMF.

**Figure 6: International Reserves in percent of the new IMF risk-weighted metric**



In addition to the legally binding safeguards of the Bulgarian Currency Board aimed at supporting the sustainability of the exchange rate arrangement, the financial resources of Bulgaria back the currency peg. In the light of the analysis of those different economic variables, the Bulgarian pegging arrangement has been deemed to meet the criterion set out in Article 188(5)(a) of the Implementing Measures.

**II. The following currencies do not qualify for a reduced shock factor:**

1. The Bank of England does not participate in the European Exchange Rate Mechanism (ERM II). Moreover, it has not fixed any central rate nor a fluctuation corridor with the euro, and therefore the British pound cannot be considered as pegged to the euro.
2. The Czech koruna, the Croatian kuna, the Hungarian forint, the Polish zloty, the Swedish krona, and the Romanian leu do not participate in the ERM II and are are not pegged to the euro. The 2014 Convergence Report<sup>12</sup> written by the European Commission indeed states that:
  - Since the late 1990's, the ČNB (Czech National Bank) has been operating under an explicit inflation targeting framework combined with a floating exchange rate regime.
  - Croatia conducts a tightly-managed floating exchange rate regime, which allows for foreign exchange market intervention by the central bank.
  - Between mid-2001 and early 2008, the Magyar Nemzeti Bank (Central Bank of Hungary) operated a mixed framework that combined an inflation target with a unilateral peg of the forint to the euro, with a fluctuation band of  $\pm 15\%$ . The central parity was devalued once in

<sup>12</sup>[http://ec.europa.eu/economy\\_finance/publications/european\\_economy/2014/pdf/ee4\\_en.pdf](http://ec.europa.eu/economy_finance/publications/european_economy/2014/pdf/ee4_en.pdf)

June 2003, from 276.1 to 282.4 HUF/EUR. On 26 February 2008, the exchange rate bands were abolished and a free-floating exchange rate regime was adopted that however allows for foreign exchange interventions by the Central Bank.

- Since April 2000, Poland operates a floating exchange rate regime, with the Narodowy Bank Polski (National Bank of Poland) preserving the right to intervene in the foreign exchange market, if it deems this necessary, in order to achieve the inflation target.
- Romania has been operating a “*de jure*” managed floating exchange rate regime since 1991 with no preannounced path for the exchange rate.
- The Riksbank (Sweden’s central bank) pursues its monetary policy under a floating exchange rate regime.

3. Pegging of the Cape Verde Escudo to the euro is recognized by Council Decision (98/744/EC) of 21 December 1998 concerning exchange rate matters relating to the Cape Verde Escudo<sup>13</sup>. This Council Decision indicates that the convertibility of the Cape Verde Escudo is ensured by a limited credit facility provided by the Portuguese government and that the Portuguese government has ensured that the agreement with Cape Verde has no substantial financial implications for Portugal. The credit line open for strengthening exchange reserves is, however, limited to 5,500 millions or 9,000 millions of Portuguese Escudos as per the referred article in the Council Decision (Acordo de cooperação cambial entre a República Portuguesa e a República de Cabo Verde, Decreto nº 24/98 de 15 de Julho 1998)<sup>14</sup>. Therefore, the limited financial resources that the parties guaranteeing the peg have provided to maintain it might jeopardize the robustness of the pegging arrangement, which is a risk identified in [Article 188(5) Delegated Acts].

### **III. Approach used to calibrate the shock factors**

An approach based on past observed exchange rates has been used for determining the reduced shock factors for all currencies pegged to euro. For each daily observation of the exchange rate between 04/01/2006 and 01/07/2014, the relative change over the previous 12 months has been calculated (for the purpose of producing these annual variations data starting from 04/01/2005 have been used). The reduced currency shock factor is the empirical 99.5% quantile of this set of values.

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<sup>13</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31998D0744&from=FR>

<sup>14</sup> <http://www.gddc.pt/siii/docs/dec24-1998.pdf>

# **Annex I: Impact Assessment**

## **Section 1: Procedural issues and consultation of interested parties**

According to Article 15 of EIOPA Regulation, EIOPA conducts analysis of costs and benefits when drafting implementing technical standards. The analysis of costs and benefits is undertaken according to an Impact Assessment methodology.

The draft ITS and its Impact Assessment are envisaged to be subject to public consultation.

## **Section 2: Problem definition**

According to Directive 2009/138/EC, EIOPA is tasked to draft an implementing technical standard regarding the adjustments to be made for currencies pegged to the euro in the currency risk sub-module. Article 188(5) of the Implementing Measures provides criteria which pegging arrangements have to meet in order to qualify for such an adjustment.

This implementing technical standard provides the adjusted factors to calculate the capital requirement for currency risk in accordance with Article 188(2) of the Implementing Measures where:

- a. the local or the foreign currency is the euro; or
- b. the local and the foreign currency are both currencies pegged to euro.

### **Baseline**

When analysing the impact of proposed policies, the Impact Assessment methodology foresees that a baseline scenario is applied as the basis for comparing policy options. This helps to identify the incremental impact of each policy option considered. The aim of the baseline scenario is to explain how the current situation would evolve without additional regulatory intervention.

The baseline is based on the current situation of EU insurance and reinsurance markets, taking account of the progress towards the implementation of the Solvency II framework achieved at this stage by insurance and reinsurance undertakings and supervisory authorities.

In particular the baseline will include:

- The content of Directive 2009/138/EC as amended by Directive 2014/51/EU.
- The relevant Implementing Measures.

It has to be noted that according to point (c) of the second paragraph of Article 109a of the Directive, EIOPA is legally obliged to draft an implementing technical standard with the adjustments to be made for currencies pegged to the euro in the currency risk sub-module.

### Section 3: Objective pursued

Objective 1: To set specific currency shocks to be applied for currencies pegged to the euro, which adequately reflect the risk.

Objective 2: To facilitate the calculation of the SCR for those undertakings using the standard formula, as regards to the currency risk sub-module.

Objective 3: To achieve uniform conditions of the application of Articles 105 (5) related to that calculation.

These objectives correspond to the specific Solvency II objectives "Advance supervisory convergence" and "Better allocation of capital" as well as to the Solvency II general objectives "Enhances policy holder protection" and "Deeper integration of EU insurance market".

### Section 4: Policy options

#### Policy issue 1: Mathematical approach to compute the reduced shock factors for currencies pegged to the euro

##### ✓ Option 1.1: "De jure" approach

In the "de jure" approach, a maximum deviation, which corresponds to the maximum distance between the observed rate and both extremes of the official fluctuation band, is calculated for every day included in the historical observation period. The "de jure" factor is the average value of these deviations on the time period used for calibration relative to the official central rate:

$$factor_{DeJure} = \frac{1}{R_o} \cdot \frac{1}{n} \cdot \sum_{i=1}^n \max(|R_{q,i} - \bar{R}|; |R_{q,i} - \underline{R}|)$$

Where:

- $R_o$  : official central rate of the foreign currency against the local currency
- $R_{q,i}$ : exchange rate of the local currency against the foreign currency for quoted day  $i$
- $\bar{R}$  is the maximum of the official fluctuation band
- $\underline{R}$  is the minimum of the official fluctuation band
- $n$  the number of quoted days taken into consideration.

##### • Option 1.2: "De facto" approach

In the "de facto" approach, the percentage change in the exchange rate is calculated for each 12-month period included in the historical observation period. The reduced shock factor is then the empirical 99.5% quantile of this set.

- **Option 1.3: Maximum of “de jure” and “de facto” approaches**

The reduced factor is set to the maximum of the values that are generated by the “de jure” and the “de facto” approach.

## **Section 5: Analysis of impacts**

### **Policy issue 1: Mathematical approach to compute the reduced shock factors for currencies pegged to the euro**

#### **Option 1.1: “de jure” approach**

- Benefits:
  - The risk charge is set at least at 50% of the width of the fluctuation band irrespective of the observed historical volatility.
  - The more often the historical exchange rates were close to the borders of the fluctuation band, the higher the resulting shock factor.
- Costs:
  - There is no direct mathematical link between the risk charge produced by the “de jure” approach and the 99.5% Value at Risk.

#### **Option 1.2: “de facto” approach**

- Benefits:
  - Under the assumption that the volatility in the past provides an indication for future fluctuations, the approach generates a risk charge that is close to the 99.5% Value at Risk.
- Costs:
  - The width of the fluctuation band (i.e. the legally possible range of fluctuations) is not taken into account. This could result in an insufficient risk charge if the volatility in the past was relatively low.

#### **Option 1.3: Maximum of “de jure” and “de facto” approaches**

- Benefits:
  - The approach takes into account both the historical fluctuations and the width of the fluctuation band.
  - The approach combines two different methods to quantify risk and could therefore be more robust.
- Costs:
  - It is not obvious why the maximum of the two approaches should deliver a risk charge that represents the 99.5% Value at Risk.
  - The approach “inherits” the drawbacks of both approaches.

## **Section 6: Comparing the options**

### **Policy issue 1: Mathematical approach to compute the reduced shock factors for currencies pegged to the euro**

The potential costs and benefits from the perspective of undertakings, supervisors and policy holders are linked to the appropriateness of the adjusted currency risk charge derived with the different discussed options. If the risk charges were insufficient, the resulting risks would not be properly reflected in the calculation of the Solvency Capital Requirement. This could result in an insufficient level of own funds and misplaced incentives to build up exposures in foreign currencies. If the currency risk charges were set too high, this could increase premiums to a level not warranted by the underlying risks and prevent insurers from diversifying their exposures across currencies.

The major weakness of policy option 1 is that there is no direct mathematical link between the risk charge calculated on its basis and the 99.5% Value at Risk. Policy Option 3 "inherits" this drawback.

The preferred policy option is therefore **Option 2** (de facto approach).