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# Discussion Paper

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Treatment of structural FX under Article 352(2) of the CRR

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# 1. Responding to this Discussion Paper

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The EBA invites comments on all proposals put forward in this paper and in particular on the specific questions stated in the boxes below (and in the Annex of this paper).

Comments are most helpful if they:

- respond to the question stated;
- indicate the specific point to which a comment relates;
- contain a clear rationale;
- provide evidence to support the view expressed;
- describe any alternatives the EBA should consider; and
- provide where possible data for a cost and benefit analysis.

## Submission of responses

To submit your comments, click on the 'send your comments' button on the consultation page by 22.09.2017. Please note that comments submitted after this deadline, or submitted via other means, may not be processed.

## Publication of responses

Please clearly indicate in the consultation form whether you wish your comments to be disclosed or to be treated as confidential. A confidential response may be requested from us in accordance with the EBA's rules on public access to documents. We may consult you if we receive such a request. Any decision we make not to disclose a response is reviewable by the EBA's Board of Appeal and the European Ombudsman.

## Data protection

The protection of individuals with regard to the processing of personal data by the EBA is based on Regulation (EC) No 45/2001 of the European Parliament and of the Council of 18 December 2000, as implemented by the EBA in its implementing rules adopted by its Management Board. Further information on data protection can be found under the [Legal notice section](#) of the EBA website.

## Disclaimer

The views expressed in this discussion paper are preliminary and will not bind the EBA in any way in the future development of the draft Guidelines. They are aimed at eliciting discussion and gathering stakeholders' opinion at an early stage of the process.

## 2. Executive Summary

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The concept and specific application of the structural FX provision pursuant to Article 352(2) appear to be subject to several interpretations, across both supervisory authorities and institutions. Over the last few years banks have become increasingly interested in the application of the structural FX exclusion. In addition, the implementation of this provision seems to be quite uneven across jurisdictions, and there is a lack of clarity around what constitutes a structural position for the purposes of Article 352(2). Finally, the treatment of the structural FX has been modified in the recently published Fundamental Review of the Trading Book (FRTB).

Accordingly, and in order to ensure there is harmonised EU interpretation and implementation, the EBA considers it necessary to produce guidance on how to implement the structural FX provision contemplated in Article 352(2) of the CRR. As a first step, the EBA has decided to publish this Discussion Paper (DP) to gather feedback on current stakeholder practice and interpretation of the structural FX provision, and to provide the EBA's preliminary views on the topic. The DP aims to elicit discussion and gather stakeholders' opinions at an early stage of the process.

As a consequence, this paper aims to outline the EBA's preliminary views regarding the rationale and mechanics behind the structural FX provision, which allows Competent Authorities to authorise, on an ad hoc basis, the exclusion of FX positions of a 'structural nature', provided they have been taken on purpose to function as a hedge of the capital ratio(s).

The DP outlines the rationale behind this treatment and, without pre-empting any conclusions, discusses several general elements that would need to be considered by banks and Competent Authorities when assessing this provision, such as: (i) the limitation of types of FX positions, (ii) the maximum size of the position to be potentially excluded, (iii) the consideration of the minimum CRR levels for the capital ratio or (iv) the possible assessment of instruments as an alternative to 'positions' in the application of any structural FX exclusion.

Apart from these general elements, the DP provides a more detailed initial assessment of the specific cases where the exclusion of an FX position may be justified from an economic perspective. These specific cases are analysed in Annex 1 of this DP using simplified examples, which are provided in order to illustrate the various balance sheet elements that may have to be considered in the articulation of the FX provision, such as: (i) the level of the capital ratio, (ii) the accounting treatment, in particular the presence of items held at historic cost (iii) the 'density' of the RWAs stemming from the positions denominated in the foreign currency and (iv) the existence of items deducted from capital. Additionally, when assessing the specific cases that might sustain the rationale for the exclusion of FX positions, the DP also considers the capital ratio from two perspectives, (i) individual and (ii) consolidated ratio.

While increasing the level of understanding of the impact of structural FX provision is the main objective of this paper, it also discusses broader issues related to this concept, such as the actual

nature of FX risk, considering both the accounting and regulatory perspectives. In this regard, the EBA is interested in institutions' practices regarding the prudential FX treatment for those non-monetary items held in the balance sheet at the historic exchange rate.

At the same time, the DP also examines in greater detail the potential inconsistencies in the articulation of the FX requirements, both in the current CRR as well as in the CRR2 proposal, for institutions applying the standardised and internal model approaches. Finally, the DP highlights the changes introduced by the FRTB, incorporated to the European Commission's legislative proposal for CRR2.

It is important to emphasise that the examples in this DP are theoretical and are provided solely to illustrate the discussion. Indeed, they do not imply any kind of endorsement from the EBA or its members on any of the cases presented. It is worth noting that, apart from the mechanics shown in the practical analysis, other elements (such as governance requirements or the overarching prudence of the capital framework) would have to be considered by the Competent Authorities when assessing any bank request to exclude a position. These additional elements are not considered in this DP but would certainly be a significant part of any assessment of whether or not an FX position is considered a structural FX position in line with Article 352(2).

### 3. Background and Rationale

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1. The structural FX provision in Article 352(2) of the CRR is today subject to various interpretations that have led to differences in its application both in EU Member States and across banks. In order to ensure a harmonised approach, this Discussion Paper (DP) outlines a number of considerations on the application of the structural FX provision in the CRR with a view of gathering feedback on banks' current practices.
2. It is also important to note that, even if this DP mainly considers practices under the current CRR, a similar provision exists under the CRR2 proposal<sup>1</sup> issued by the European Commission in November 2016, which again builds on the 'Fundamental Review of the Trading Book' (FRTB)<sup>2</sup>, published by the Basel Committee of Banking Supervision (BCBS) in January 2016. The interpretation of the structural FX provision will therefore continue to be of importance under the new framework, given the similar nature of the provisions in the CRR2 proposal.
3. The application of this provision could have a significant effect on capital requirements. This raises potential concerns about the level playing field, as it could lead to significant differences in capital requirements across institutions with similar exposures. The EBA is therefore of the view that a more harmonised application and enforcement of Article 352(2) is potentially necessary. In order to harmonise existing practices the EBA is considering producing own initiative guidelines on the practical implementation of the 'structural FX' provision contemplated in Article 352(2) of the CRR.
4. This is an area where the EBA believes that further input from stakeholders is necessary at an early stage, before considering how further convergence is needed. Therefore, the EBA is seeking preliminary input on the subject in order to fully identify existing industry practices. The DP also provides an overview of the interlinkages with other provisions, especially with the accounting framework, and identifies the elements, which in the view of the EBA would appear to play a significant factor in the determination of capital requirements.
5. This DP is structured as follows:
  - a. The current regulatory treatment of relevant structural FX positions is given in section 4.1, which outlines the CRR provisions and highlights the main differences between the EU regulation and the BCBS current market risk framework.
  - b. Section 4.2 discusses the nature of FX risk, assessing the interaction between the accounting and prudential frameworks. This section shows that there are two

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<sup>1</sup> See <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2016:0850:FIN>.

<sup>2</sup> See <http://www.bis.org/bcbs/publ/d352.htm>.

possible interpretations regarding the market FX treatment that should be applied for those items which banks held in the balance sheet at historic FX rates.

- c. Section 4.3 provides a stylised example of the application of the structural FX provision, which illustrates how capital ratios may be sensitive to FX movements despite having their FX assets totally matched with liabilities in the same currency.
- d. Section 4.4 discusses some general elements that will have to be clarified in any guidelines on the structural FX treatment, such as the maximum size and directionality of the position to be potentially excluded (also considering minimum capital levels established in Article 92(1) of the CRR), or the possible assessment of instruments as an alternative to 'positions' in the application of any structural FX exclusion.
- e. Section 4.5 provides an overview of the cases where the exclusion of FX positions may be justified. Annex 1 lays out illustrative examples of the theoretical implications of applying different structural FX exclusions. These simplified examples in Annex 1 attempt to illustrate the different balance sheet elements that may need to be considered in the articulation of the FX provision, such as (i) the level of the capital ratio, (ii) the accounting treatment, in particular the presence of items held at historic cost, (iii) the 'density' of the RWAs stemming from the positions denominated in the foreign currency, or (iv) the existence of items deducted from capital. Section 2.2 of Annex 1 illustrates the case of a consolidated group. Annex 1 also provides an assessment of the impact of the application of the structural FX on both the individual and consolidated capital ratios.
- f. Finally, section 4.6 discusses potential implications of the CRR2 proposal, which will incorporate the FRTB framework into EU legislation, regarding the application of the structural FX provision.

## 4. Discussion

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### 4.1 Treatment of the structural FX in the CRR and Basel.

6. This section provides an overview of the regulatory treatment of the structural FX provision both in the CRR and in the current Basel frameworks. The section also discusses the main differences between both texts.

7. Article 352(2) of the CRR states that:

*'Any **positions** which an institution has **deliberately taken** in order to **hedge** against the **adverse effect of the exchange rate on its ratios in accordance with Article 92(1)** may, **subject to permission** by the competent authorities, **be excluded from the calculation of net open currency positions**. Such positions shall be of a **non-trading or structural nature** and any variation of the terms of their exclusion, subject to separate permission by the competent authorities. **The same treatment subject to the same conditions** may be applied to positions which an institution has which relate to **items that are already deducted** in the calculation of own funds.'*

8. The provision allows Competent Authorities to authorise, on an ad hoc basis, the exclusion of FX 'positions' taken deliberately by firms to hedge against the adverse effect of exchange rates on capital ratios where those positions are of a non-trading or structural nature. According to the rationale behind this treatment, a fully 'matched' currency position (which is the same as a fully closed position or 'no position') would not imply a matched capital ratio<sup>3</sup>.

9. The starting point of the EBA analysis is that the provision has a rather limited scope of application, as the hedging activity must be '*deliberately taken in order to hedge against the adverse effect of the exchange rate on its ratios in accordance with Article 92(1)*'. Specifically, this is totally different from hedging specific exposures and would indicate that only positions taken to hedge the overall FX risk of the capital ratios, i.e. at the level of the overall balance sheet of the bank, can be taken into consideration.

10. In addition, the CRR wording in Article 352(2) which states that '*such positions shall be of a non-trading or structural nature*' would appear to limit the use of the provision for positions outside the trading book, though it is not entirely clear whether or not 'non-trading or structural nature' is exactly the same as 'banking book' positions.

11. It is important to stress that such exclusions would always be subject to individual permissions granted by Competent Authorities. Consequently, in the view of the EBA, the provision should clearly be subject to significant restrictions and intended strictly to target structural FX

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<sup>3</sup> A matched portfolio of foreign assets and liabilities may result in a reduction in the capital ratio if the domestic currency depreciates.



positions of a firm, for instance because of lending activities. It does not, however, exclude positions taken to hedge overall FX imbalances.

12. As a general principle this implies that institutions with no or very limited cross-border activity and FX risk taken solely in the context of trading book positions would not qualify for the provision. The provision would be relevant mainly, for instance in the context of a cross-border group with financial reporting in a single currency, but exposure from lending activities in cross-border subsidiaries or branches.

13. Such a reading would also appear to be consistent with the Basel framework, on which the CRR is based, and reflects the wording in the Basel framework (paragraphs 718(xxxvii) and 718(xxxviii) of the market risk amendment), which provides some rationale concerning the exclusion of these positions from own funds requirements:

*718(xxxvii). 'A matched currency position will protect a bank against loss from movements in exchange rates, but will not necessarily protect its capital adequacy ratio. If a bank has its capital denominated in its domestic currency and has a portfolio of foreign currency assets and liabilities that is completely matched, its capital/asset ratio will fall if the domestic currency depreciates. By running a short position in the domestic currency the bank can protect its capital adequacy ratio, although the position would lead to a loss if the domestic currency were to appreciate.'*

*718(xxxviii). 'Supervisory authorities are free to allow banks to protect their capital adequacy ratio in this way. Thus, any positions which a bank has deliberately taken in order to hedge partially or totally against the adverse effect of the exchange rate on its capital ratio may be excluded from the calculation of net open currency positions, subject to each of the following conditions being met:*

- Such positions need to be of a "structural", i.e. of a non-dealing, nature (the precise definition to be set by national authorities according to national accounting standards and practices);*
- The national authority needs to be satisfied that the "structural" position excluded does no more than protect the bank's capital adequacy ratio;*
- Any exclusion of the position needs to be applied consistently, with the treatment of the hedge remaining the same for the life of the assets or other items.'*

14. The wording in Basel also considers that items deducted from capital should be part of the structural position; however, it includes a third case which is not contemplated in the CRR:

*718(xxxix). 'No capital charge need apply to positions related to items that are deducted from a bank's capital(...) nor to other long-term participations denominated in foreign currencies which are reported in the published accounts at historic cost. These may also be treated as structural positions'*

15. The EBA considers that while the overall use of the provision is fairly restrictive, there are still several aspects of its application that are unclear.

## 4.2 Interactions between the accounting and prudential treatments of FX risk

16. Before assessing what positions may be excluded under the structural FX provision, it is important to clarify the scope of the FX capital charge and its links to the accounting framework. In particular, from an accounting point of view, it is worth considering those items which are held in the balance sheet at the exchange rate which was observed on the day of the transaction (i.e. the historic rate). At the same time, it is also appropriate to examine in greater detail the CRR requirements that institutions shall follow to determine their FX positions.
17. From an accounting perspective it is worth looking at the differentiation between monetary and non-monetary items (see IAS 21):
- Monetary items: would refer to assets/liabilities to be received or paid in a fixed or determinable amount of money. For all these items, regardless of whether they are reflected at historic cost or at fair value, the FX rate applied shall be that of the reporting date.
  - Non-monetary items: for a typical bank this would cover real estate and equity. These items should be translated using the exchange rate at the date of the transaction, unless they are designated FV, either applying FV option or if they are held with trading intent. Accordingly, the participations in subsidiaries in the individual balance sheet, as well as real estate items, are likely to be reported using the exchange rate at the date of the transaction, although this may not always be the case.
18. It is debatable whether non-monetary items, reflected using the exchange rate at the date of the transaction in the accounts, should or should not be subject to market risk FX capital charges, considering the fact that these items may not change their balance sheet value with the movements in the exchange rates.
19. There seem to be two points of view related to this. According to the first, the scope of positions to be considered for the overall net foreign exchange position pursuant to Article 352 CRR comprises the items mentioned in paragraph (1) of that article which are denominated in foreign currency irrespective of their accounting treatment.
20. This view would be supported by the fact that many banking book non-monetary items tend to be at historic cost. In addition it is clear that, in the Basel framework, positions at both market and book value are included in the scope of the capital charges. Indeed, paragraph 6 of the original BCBS market risk amendment notes that:
- ‘The capital charges for foreign exchange risk and for commodities risk will apply to banks’ total currency and commodity positions, subject to some discretion to exclude structural foreign exchange positions. **It is understood that some of these positions will be reported and hence evaluated at market value, but some may be reported and evaluated at book value.**’*

21. In addition, the fact that Basel allows the exclusion of items held at historic cost as part of the structural FX treatment (as previously noted) clearly implies that these positions should be included in the calculation of the net open position. Although this is not clearly stated in the CRR, the EBA considers at this stage that this is the appropriate treatment under the current CRR.
22. However, an alternative view could be that historic cost instruments should not be included in the overall net foreign exchange position. This interpretation would stem from IFRS Conceptual Framework point 4.55, under which measurement would be the process of determining the monetary amounts at which the elements of the financial statements are to be recognised and carried in the balance sheet and income statement. This involves the selection of the particular basis of measurement. A number of measurement bases are employed to varying degrees, and in varying combinations, in financial statements. They include historic cost, current cost, realisable (settlement) value and present value.
23. According to this interpretation, for the purpose of IFRS 7, currency risk would not arise from financial instruments that are non-monetary items or from financial instruments denominated in the functional currency (reporting currency).<sup>4</sup> This would imply that positions booked at the time of their acquisition using historic exchange rate would be considered as positions in the bank's reporting currency.
24. This interpretation would provide coverage to the third case noted in the current Basel framework (i.e. the possibility of treating items at historic cost as structural positions) though it would make compulsory the exclusion (or rather 'non-inclusion') of all items held at historic cost for the purpose of calculating the net FX position.
25. However, in the context of the accounting discussion, it is also worth considering the impairment rule (IAS 21.25), whereby an FX loss might be recognised as impairment instead of market loss, and would still affect the P&L of the relevant institution.<sup>5</sup> Accordingly, a sharp FX move may produce a loss, which would be recognised as impairment instead of market loss. Regardless of this, the effect of (significant) drops in the exchange rate would still affect the P&L of the institution.
26. In Annex 1 of this DP, the EBA provides a simplified assessment of the effect that items held at historic cost could have on the application of the structural FX provision, but, regardless of this possibility, it also seeks stakeholders' feedback on their market treatment for the banking book FX positions held at the historical FX rate. Additionally, if these banking book items are included in the net FX position, the actual position that should be considered needs to be

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<sup>4</sup> The essential feature of a non-monetary item is the absence of a right to receive (or an obligation to deliver) a fixed or determinable number of units or currency. Non-monetary items that are measured in terms of historical cost in a foreign currency shall be translated using the exchange rate at the date of the transaction

<sup>5</sup> Under this rule, the carrying amount should be the lower of the current value and its recoverable amount. For non-monetary items measured at historical cost the carrying amount is determined by comparing: a) the historical cost at the rate at the date of the transaction; and b) the net realisable value or recoverable amount translated at the date when the value was determined.

clarified, i.e. the value converted at the historic FX rate or the last FX rate available, as with the monetary positions.

**Question 1.** What is your current practice regarding the treatment of FX non-monetary items held at the historic FX? In particular, do you include these items in the overall net foreign exchange position pursuant to Article 352 CRR? If you include them, what value (i.e. historic or last FX rate) do you use for the purpose of computing them? How do you manage such positions from an FX point of view?

27. An additional element of the current regulation related to FX positions which may be worth clarifying stems from the differences between the standardised and internal model regulatory frameworks. As has been previously mentioned, the current treatment of structural FX is established in Article 352, which is located in Title IV, Chapter 3 of the CRR. That Chapter deals with the FX treatment under the standardised rules. Importantly, the same article also specifies the requirements for the calculation of the 'net foreign exchange position'.

28. In this regard, it is worth noting that there are no rules in the internal model part of the CRR (Chapter 5) regarding the calculation of the net FX position or the possible exclusion of structural FX. While it may be argued that the determination of the net FX open/structural position is common for both IMA and SA, this may not be entirely clear.

29. The EBA is of the view that the exemption should be available regardless of the approach followed by the institution to capitalise market risks<sup>6</sup>. The underlying risks are deemed the same under both the standardised and internal model regulatory approaches. This would imply that there should be a single scope of application article for FX (and, possibly, commodity risks), and a single rule for net position in each currency as well as for the treatment of structural FX.

30. Finally, it may also be worth noting that the European Commission's proposal for a Regulation amending the CRR, published on 23 November 2016, has incorporated in Article 325c the updated treatment for the structural FX established in the FRTB. This is likely to incorporate the Structural FX treatment for banks using either the FRTB internal or standardised new approaches.<sup>7</sup>

**Question 2.** Do you share EBA's view that there is no clear risk justification for making the determination of the net FX position as well as of the structural FX exclusion dependent on the approach for the calculation of FX own funds requirements?

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<sup>6</sup> This is also true for the determination of the net FX position.

<sup>7</sup> At the same, the current CRR treatment for the structural FX provision also remains in place, though this would only be available for banks that carry on applying the existing SA.

### 4.3 Illustrative example of an FX position on the capital ratio

31. The example below provides an illustration of the behaviour of the capital ratio when assets are denominated in foreign currency. Let us consider two banks: Bank A maintains a matched FX position while Bank B keeps open an unmatched long FX position.

32. It is assumed that no own funds requirements exist for market risk (except FX risk), operational risk, counterparty credit risk and CVA risk. The risk weights for credit risk are assumed to be 100%, and all assets and liabilities are translated to the reporting currency with the exchange rate of the reporting date. In this example, we consider the effect of a 15% depreciation of the domestic currency (DC), i.e. appreciation in the foreign currency<sup>8</sup>. A similar example can be constructed for the case of depreciation in the foreign currency (not shown here).

Bank A			
<b>FX Assets</b>	400	<b>FX Liabilities</b>	400
<b>DC Assets</b>	200	<b>DC Liabilities</b>	140
		<b>Capital</b>	60
<b>Sum</b>	600		600
<b>Open FX position</b>	0		1.000
<b>Capital Ratio</b>	10%	60/600	

Bank B			
<b>FX Assets</b>	400	<b>FX Liabilities</b>	360
<b>DC Assets</b>	200	<b>DC Liabilities</b>	180
		<b>Capital</b>	60
<b>Sum</b>	600		600
<b>Open FX position</b>	40		
<b>Capital Ratio</b>	10% <sup>9</sup>	60/600	

Following depreciation of domestic ccy (15%)

<b>FX Assets</b>	460	<b>FX Liabilities</b>	460
<b>DC Assets</b>	200	<b>DC Liabilities</b>	140
		<b>Capital</b>	60
<b>Sum</b>	660		660
<b>Open FX Position</b>	0		
<b>Capital Ratio</b>	9%	60/660	

<b>FX Assets</b>	460	<b>FX Liabilities</b>	414
<b>DC Assets</b>	200	<b>DC Liabilities</b>	180
		<b>Capital</b>	66
<b>Sum</b>	660		660
<b>Open FX Position</b>	46		
<b>Capital Ratio</b>	10% <sup>10</sup>	66/660	

33. The simplified example shows that the capital ratio of an institution (Bank A) that maintains its FX assets completely matched with FX liabilities (i.e. no FX net position) is sensitive to movements in the foreign currency; more specifically, the capital ratio would be directionally 'short' in relation to movements in the foreign currency, since an appreciation of the foreign

<sup>8</sup> Note that the example is very simple and focuses on the basic effect of the appreciation and depreciation of the domestic currency. There are no "dynamics" such as retained earnings, nor any other effects that may arise in reality. <sup>9</sup> In case the FX exclusion under Article 352(2) is not applied the open FX position will be subject to a capital charge of 8% (equivalent to 40 in RWAs). As a consequence the capital ratio would be  $60/(600+40) = 9,375\%$ .

<sup>9</sup> In case the FX exclusion under Article 352(2) is not applied the open FX position will be subject to a capital charge of 8% (equivalent to 40 in RWAs). As a consequence the capital ratio would be  $60/(600+40) = 9,375\%$ .

<sup>10</sup> If the FX exclusion under 352(2) is not applied the open FX position would be subject to a capital charge of 8% (equivalent to 46 in RWAs). As a consequence the capital ratio would have been  $66/(660+46) = 9,35\%$

currency would decrease the ratio and a depreciation would increase it. Of course this is because the FX assets would grow or shrink depending on the currency movement, producing higher/lower RWAs to the denominator of the capital ratio while the numerator (capital) would remain unchanged.

34. The second institution (Bank B), which keeps a net long open position, would maintain its capital ratio constant despite movements in the foreign currency. It is worth noting that this 'perfect hedge' is generally the case not for any net long open position, but only for those meeting a specific proportion in relation to the initial capital ratio<sup>11</sup>. It is also worth noting that the starting ratio would be the same as for the other firm (i.e. 10%) only where the structural FX exclusion contemplated under Article 352(2) of the CRR is allowed by the Competent Authority. Naturally, the ratio would be lower (9.375%) if the exclusion were not granted but, regardless of whether the Competent Authority has authorised it or not, the capital ratio remains largely hedged to movements in the exchange rate (although not completely, since in this second case the ratio would be reduced from 9.375% to 9.35%).

35. The symmetrical effect could be observed in case of depreciation in the foreign currency. Of course, in this second case the capital ratio improves for the first bank (since there is a reduction in RWAs, while capital remains unaffected) but the ratio remains unchanged for Bank B, as would be expected for a 'hedged' ratio.

#### 4.4 Considerations around the structural FX position exclusion

36. As has been mentioned, the starting point of the CRR regarding the capital charges for FX risk is established in Article 352. First, the institution must determine an 'overall net foreign exchange position' by each currency; this shall be performed by netting all assets, liabilities (spot position) derivatives (forward position), guarantees, delta-equivalent positions for options etc.<sup>12</sup>

37. Notably, according to the CRR wording (Article 352(2)), it would not be 'instruments' that may be excluded in the case of structural FX, but 'positions', provided the institution has deliberately taken them in order to hedge against the adverse effect of movements in the exchange rate. However, according to Article 352, each 'net position' would be the result of aggregating long and short 'gross positions' stemming from instruments (assets, liabilities and derivatives) some of which may be the result of 'trading activities' while others will result from 'non-trading activities', such as loans, deposits denominated in a foreign currency, long term capital holdings or real estate.

38. Therefore, it is important to acknowledge that the 'net' position by currency applied for capital purposes is the result of aggregating together all sorts of instruments, regardless of its

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<sup>11</sup> In particular, a proportion that makes the relative increase in capital equal to the relative increase in total assets, thus keeping the proportion between the two magnitudes unchanged.

<sup>12</sup> As previously noted, it is debatable whether these requirements to determine the FX position would apply to all banks regardless of whether they are under SA or IMA, but for the rest of this DP it is assumed that Article 352 applies to both.

‘trading’ or ‘structural’ nature, and regardless of whether the individual instruments are booked at historic cost, marked to market or even deducted from capital. In any case, as may be seen in the examples provided in Annex 1, the accounting treatment of the instruments would have to be considered when assessing the size of the long position that needs to be ‘taken’ in order to hedge, partially or totally, the capital ratio.

39. Having said that, it is worth noting that Article 352(2) of the CRR allows the exclusion of ‘positions’ only if they are of a ‘non-trading’ or ‘structural’ nature; however, the CRR does not define a ‘non-trading’ or ‘structural’ position. Accordingly, there is a lack of clarity about what positions might qualify as non-trading or structural, although it does appear to conform to the trading book and non-trading book delineation in the CRR, which would be the starting point for the EBA.
40. Thus, one potential view is that the wording could mean that positions are limited to those stemming from banking book items only. Alternatively, we could extend this possibility to the trading book as long as they are not actively traded for proprietary profit, but taken simply to hedge the ratio. In any case, the EBA considers that this categorisation does not provide a sound risk basis to further identify which positions in the banking book are structural, or indeed, why comparable positions held in the trading book are not exempt.
41. The definitions of trading book and banking book, furthermore, may not be the most appropriate or relevant classification for identifying structural FX positions. Alternatively, a more qualitative and risk-focused interpretation could be taken. One argument is that the intention of limiting the exemption to non-trading or structural is to ensure that the exemptions are not broad-based, but focused and limited to a specific type of FX position.
42. Therefore, other position characteristics might be more indicative of a non-trading or structural position; for example, maturity (or intention to hold roll-over short-dated structural positions), the size of the position, how the position is managed within the firm, and the context of the position within the FX strategy of the firm.
43. When considering whether or not a position is ‘deliberately taken’, this could be seen as analogous to ‘deliberately not closed’ or ‘maintained’. Within the full context of the article, the structural FX positions therefore appear to be limited to active positions taken, or maintained, with a view to hedging the ratios of the bank.
44. Finally, as may be observed in the previous example, it would seem that only long positions could potentially qualify to be treated as ‘structural’. Indeed, if an institution maintains a net short position, the effect on P&L (and thus on the numerator of the ratio) of the fluctuations in the exchange rate would actually go in the reverse direction to the effect of the FX movement in the RWAs, exacerbating the effect of FX movements in the ratio, which is the opposite of what would justify the application of the rule (i.e. hedge the capital ratio).

**Question 3.** Do you consider that the ‘structural nature’ wording in the CRR would limit the application of the structural FX provision to those items held in the banking book? Do you agree with the EBA’s view that the potential exclusion should only be acceptable for long FX positions? If you consider that it should be allowed for short positions, please provide rationale and examples.

45. As has been noted, in addition to being non-trading in nature, Article 352 of the CRR refers to positions ‘deliberately taken’ to hedge against the ‘adverse effect’ of FX movements in the ratio. While it is clear that ‘positions’ are different from ‘instruments’ the wording might suggest that certain instruments could be excluded from the FX position (or, more precisely, the FX position stemming from those instruments), provided that they have been ‘deliberately taken to hedge against the adverse effect of FX movements’.

46. The definition of ‘deliberately taken’ positions may also prove challenging as FX items would include positions that might have either been taken years ago (such as real estate or subsidiaries holdings abroad) or be the result of clients’ trades, so it cannot be argued that these items have been ‘deliberately taken’ to protect the capital ratio. Nevertheless, given the wording of the CRR, a clear justification would always be required and it would also appear necessary to identify the specific positions.

**Question 4.** How should firms/regulators identify positions that are deliberately taken in order to hedge the capital ratio? What types of positions would this include? Do you consider that foreign exchange positions stemming from subsidiaries with a different reporting currency can be seen (on a consolidated level) as ‘deliberately taken to hedge against the adverse effect of FX movements’? If yes, how do you argue that this is the case?

47. In addition, keeping a long position open might protect the ratio from a rise in the foreign currency, but it will also eliminate the potential benefit from a drop. This might be seen as contradictory to the CRR language, which allows the exclusion of positions provided that they hedge ‘against the adverse effect’ of FX movements in the ratio but does not say anything about renouncing to a potential gain in the ratio.

48. In this regard, a bank could buy FX options to hedge the capital ratio from a rise in the foreign currency and still be able to benefit from its drop. Of course this would imply treating ‘delta-equivalent positions’ that, by nature, change on a daily basis and tend to be considered ‘trading book’ instruments as structural FX positions.

49. On the other hand it may be argued that hedging is generally symmetrical, and the CRR does not state that it is not acceptable to ‘lose’ a potential gain in the capital ratio. In addition, the original BCBS language that provides the rationale for the structural FX provision specifically refers to this loss of a potential gain as a ‘price to be paid’ for hedging the ratio:



*‘By running a short position in the domestic currency the bank can protect its capital adequacy ratio, although the position would lead to a loss if the domestic currency were to appreciate’*

50. Finally, by maintaining the open FX position, the bank assumes a potential loss in the value of their assets. It is of course worth noting that, regardless of whether this loss may be acceptable from a prudential perspective, any reduction in the ‘net value’ of the firm would go against the bank’s shareholders main interest. In general, protecting the ‘net value’ of the firm also hedges the ratio as such, but, in the case of FX risk, protecting the ‘net value’ may render the ratio sensitive to FX movements. Accordingly, in this case, the rule is seeking to ‘protect’ the capital ratio of the firm (i.e. ensuring that for the risks reflected in the form of RWAs there is enough capital to withstand any potential losses) instead of ‘protecting’ the actual net value of the institution’s balance sheet.

**Question 5:** Do you consider that the structural FX treatment could be applied to specific instruments instead of being understood as being applicable for ‘positions’? Taking into account the risk rationale of hedging the capital ratio, do you consider that it is acceptable to renounce to potential gains in order to protect the ratio from potential losses? Do you consider that both types of hedging (i.e. reducing the sensitivity of the ratio to movements of FX in both directions, or only if the movement produces losses) are acceptable from an economic perspective? If so, do you consider that both approaches would be acceptable under Article 352?

**Question 6:** If ‘structural FX’ is used conceptually internally within your organisation (e.g. in risk policies, capital policies, risk appetite frameworks etc.), how do you define the notion of ‘structural FX position’ and ‘structural hedge’? Please describe how any ratio-hedging strategies are mandated within your organisation. Are ratio-hedging strategies prescribed in risk policies approved by the board? How do you communicate structural FX risk and position taking to your external stakeholders (e.g. in Pillar 3 reports, or reporting to regulators, investors, etc.)?

## Maximum size of the structural position

51. As has been mentioned, in order to act as a hedge of the capital ratio, the structural position would in principle have to be long and non-trading in nature; in addition, it should be relatively stable throughout time (as would be expected for any position classified as structural). A final element to be considered relates to the maximum size of the exclusion.

52. Due to its own definition, the size of a structural FX position should be limited by the amount that would act as a hedge of the capital ratio, meaning totally or partially reducing its sensitivity. Following this rationale, it would not look acceptable that the sensitivity of the ratio to movements in the FX rate would change its sign (or directionality) as a result of maintaining the open position considered as structural.

53. An example illustrating the maximum size of the structural position to be excluded from the scope of FX risk is provided in Section 1 of Annex 1 of this DP.

## Consideration of the minimum capital ratio levels established in Article 92(1) of the CRR

54. An additional element to be considered when assessing the maximum size of the structural FX position relates to the actual minimum level of the capital ratios required under the CRR. In this regard, Article 352(2) of the CRR refers to the FX position hedging their capital '*ratios in accordance with Article 92(1)*'. This Article establishes the minimum levels of the institution's capital ratio, expressed in terms of (i) CET1, (ii) Tier 1 and (iii) overall capital.

55. Accordingly, it may be considered that, for prudential reasons, the RWA relief should be limited by the minimum CET1 / Tier 1 / overall capital requirements of 4,5% / 6% / 8% respectively.

**Question 7.** Do you share the EBA's view that the maximum FX position that could be considered as structural should be the position that would ideally neutralise the sensitivity of the capital ratio to FX movements? Alternatively, in light of the reference to Article 92(1), do you consider that the size of the structural position should be limited by the minimum capital ratio levels? If this is the case, which one of the three levels established in Article 92(1) do you apply?

## 4.5 Elements to be considered in the assessment of the structural FX position

### From an individual ratio perspective

56. Section 2 of Annex 1 of this DP provides some 'simplified' examples to illustrate how an FX position may affect the capital ratio, from an individual perspective, under different circumstances. The examples aim to cover several accounting and capital treatments, though necessarily from a simplified perspective.

57. The simplified examples try to assess the various elements that may have an influence in the size of the FX position that should be maintained to hedge the capital ratio, such as: (i) the level of the capital ratio, (ii) the accounting treatment, and in particular the presence of items held at historic cost (iii) the 'density' of the RWAs stemming from the positions denominated in the foreign currency and (iv) the existence of items deducted from capital<sup>13</sup>.

58. It is worth noting that, in practice, all the elements illustrated individually in the simplified examples provided in the Annex will interact and play a joint role in the determination of the structural position for each individual bank. They will also be dynamic and change over time; however, from a regulatory perspective it is also reasonable to assume that the various elements should be relatively stable, and be of a non-trading nature, in order to be acceptable under the structural FX provision.

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<sup>13</sup> The examples take the actual level of the capital ratio as a starting point; however (as noted in the previous section of this DP), the maximum position that can be considered as structural may, in the end, be limited by the capital ratio level(s) established in Article 92(1).

## From an consolidated ratio perspective

59. In the case of a consolidated group there are two capital ratios that need to be assessed when determining whether an FX position acts as a partial or total hedge of the ratio(s):

(i) at individual level, where there is a long FX position that ‘naturally’ stems from the participation in the foreign subsidiary.

(ii) at consolidated level, once the elimination of the investment versus equity has taken place and the RWAs stemming from the subsidiary’s risks have been integrated in the consolidated capital ratio.

60. In section 2.2 of Annex 1 of this DP we consider the case of a consolidated group with subsidiaries located in countries with a currency different from the group’s reporting currency. The RWAs<sup>14</sup> stemming from the foreign subsidiary are ‘denominated’ in the foreign currency and have to be converted into the reporting currency when calculating the consolidated ratio.

61. Accordingly, if the bank decides to ‘hedge’ the long FX position stemming from the value of the investment in the subsidiary, then the consolidated capital ratio will be ‘open’ to movements in the exchange rate. If the bank wants to reduce the sensitivity of the capital ratio to movements in FX, it will have to maintain part of the long FX position open<sup>15</sup>.

62. Compared with the ‘individual’ ratio case, an additional element to be considered for the consolidated case stems from the fact that three capital ratios are involved, i.e. the individual ratios of both the parent bank and the subsidiary and the consolidated ratio. The structural FX ‘position’ is held by the parent bank and, as illustrated in the example in section 2.2 of the Annex, should be intended to work as a hedge of the parent bank’s and consolidated capital ratios<sup>16</sup>; however, the actual levels of the individual ratios of the parent bank and the subsidiary should be considered in any assessment of the efficiency of the structural FX hedge, particularly where they are very different.

**Question 8.** How do you assess the consolidated ratio? How does your treatment differ between subsidiaries and branches?

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<sup>14</sup> In this case, not just for credit as in the previous example, but also for market and operational risks

<sup>15</sup> The size of the open position would depend on the level of the consolidated ratio.

<sup>16</sup> The ratio of the subsidiary is obviously not affected by changes in the exchange rate of its ‘functional’ currency according to IAS21.

## 4.6 Treatment of the structural FX under the CRR2

63. The recently published CRR2 proposal incorporates the new BCBS FRTB market risk framework. It maintains in the possibility of excluding FX positions, though some additional restrictions have been introduced:

*‘Article 325c Structural hedges of foreign exchange risk*

*1. Any position which an institution has deliberately taken in order to hedge against the adverse effect of foreign exchange rates on its ratios referred to in Article 92(1) may, subject to permission of the competent authorities, be excluded from the calculation of own funds requirements for market risks, provided the following conditions are met:*

*(a) the exclusion is limited to the largest of the following amounts:*

*(i) the amount of investment in affiliated entities denominated in foreign currencies but which are not consolidated with the institution*

*(ii) the amount of investment in consolidated subsidiaries denominated in foreign currencies.*

*(b) the exclusion from the calculation of own funds requirements for market risks is made for at least six months;*

*(c) the institution has provided to the competent authorities the details of that position, has substantiated that that position has been entered into for the purpose of hedging partially or totally against the adverse effect of the exchange rate on its ratios defined in accordance with Article 92(1) and the amounts of that position that are excluded from the own funds requirements for market risk as referred to in point (a).*

*2. Any exclusion of positions from the own funds requirements for market risks in accordance with paragraph 1 shall be applied consistently and remain in place for the life of the assets or other items.*

*3. Competent authorities shall approve any subsequent changes by the institution to the amounts that shall be excluded from the own funds requirements for market risks in accordance with paragraph 1.’*

64. Apart from the size limitation of the exclusion, which is not included in the current wording, the changes in language introduced by the CRR2 proposal might have implications regarding the applicability of the structural FX provision at individual level. Indeed, the wording restricts the exclusion to investments in affiliates, which might imply restrictions for institutions with non-equity assets denominated in a foreign currency, as well as for institutions that maintain branches in foreign jurisdictions, instead of being a banking group with a subsidiary-type structure.

65. In addition, the two 'other' cases<sup>17</sup> contemplated in the current Basel text are not included in the CRR2 text:

*'(i) positions deducted from capital and/or*

*(ii) other long-term participations denominated in foreign currencies which are reported in the published accounts at historic cost.'*

66. Finally, there is a new requirement that the exclusion of the hedge must remain 'in place for the life of the assets or other items'. This might be problematic, since, by definition, equities do not have a maturity and the 'hedge' is actually the position which is maintained (i.e. not necessarily an instrument). In addition, once a decision has been taken to exclude a position from the scope of FX capital charges, it might not be possible to revert it provided that the participation in the subsidiary/affiliate remains in the balance sheet.

**Question 9.** What are your views on the CRR2 text of the structural FX article? What significant impacts might this have on your current hedging strategies?

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<sup>17</sup> Of which only the first is explicitly mentioned in the CRR. <sup>18</sup> In this simple example, this follows from the fact that the ratio 'assets in FX divided by assets in DC' is equal to the ratio 'liabilities in FX divided by liabilities in DC'.

# Annex 1 - Structural FX balance sheet examples

## 1: Illustrative example of the maximum size of the position excluded.

1. Bank A has a balance sheet as shown below. Without considering Article 352(2) CRR (i.e. no approval for the structural FX position exclusion is granted), the overall net FX position is equal to DC 45 which leads to RWA in the amount DC 1.045 (=700+300+45) (credit RWAs are 100% in all cases) and a CET1 capital ratio of 14,35% (=150/1.045).
2. If the supervisor agrees that the position is structural, then the open long FX position does not contribute to the overall net FX position (i.e. is “excluded”), and the total RWAs are equal to DC 1.000. The CET1 capital ratio would then be equal to 15%.

Bank A			
<b>FX Assets</b>	300	<b>FX Liabilities</b>	255
<b>DC Assets</b>	700	<b>DC Liabilities</b>	595
		<b>Capital</b>	150
<b>Sum</b>	1.000		1.000
<b>Capital Ratio</b>	15%		

3. If the foreign currency now appreciates or depreciates, one can easily see that the capital ratio does not change<sup>18</sup>. Assuming that the foreign currency depreciates by 25%, the assets would decrease from DC 1.000 (=700+300) to DC 925 (=700+300\*0.75) but, at the same time, the CET1 capital would decrease from DC 150 to DC 138,75 (=925-595-255\*0.75). The capital ratio would not change and still be equal to 15% (=138,75/925).
4. Bank B has a balance sheet almost identical to that of Bank A above, but the FX position is slightly smaller than that of Bank A (40 instead of 45).

Bank B			
<b>FX Assets</b>	300	<b>FX Liabilities</b>	260
<b>DC Assets</b>	700	<b>DC Liabilities</b>	590
		<b>Capital</b>	150
<b>Sum</b>	1.000		1.000
<b>Capital Ratio</b>	15%		

<sup>18</sup> In this simple example, this follows from the fact that the ratio ‘assets in FX divided by assets in DC’ is equal to the ratio ‘liabilities in FX divided by liabilities in DC’.

5. If we accept that this position is structural, then the CET 1 ratio would be 15% ( $=150/1.000$ ), just as in the first case. If we assume that the foreign currency depreciates by 25%, the assets would decrease from DC 1000 to DC 925 and the CET1 capital would also fall from DC 150 to DC 140 ( $=925-590-195$ ). Thus, the capital ratio would increase to 15,13% ( $=140/925$ ). If the currency appreciates instead of falling, the ratio will drop, though obviously not to the same extent as if there were no long position.
6. Accordingly, it may be observed that if the bank keeps open a long position smaller than 45 the ratio remains sensitive to movements in FX, still behaving like a directionally 'short' position (i.e. drops in the foreign currency increase the ratio and vice versa), although the sensitivity has significantly reduced compared with a bank showing a zero net FX position.
7. Bank C also has a balance sheet very similar to that of Bank A, but in this third case the FX position is slightly larger than that of Bank A (50 instead of 45).

Bank C			
<b>FX Assets</b>	300	<b>FX Liabilities</b>	250
<b>DC Assets</b>	700	<b>DC Liabilities</b>	600
		<b>Capital</b>	150
<b>Sum</b>	1.000		1.000
<b>Capital Ratio</b>	15%		

8. As in the previous case, if we accept that this 50 position is structural, then the CET 1 ratio would be 15% ( $=150/1.000$ ). If the foreign currency depreciates by 25%, the assets will decrease from DC 1.000 to DC 925 and the CET1 capital will also fall from DC 150 to DC 137,5 ( $=925-600-187,5$ ). Accordingly, in this case the capital ratio would decrease to 14,86% ( $=137,5/925$ ).
9. It may be observed that, if the bank keeps open a long position larger than 45 the ratio remains sensitive to movements in FX, just like the bank showing a net FX position of 40, but importantly it also changes the sign of the sensitivity. The ratio behaves in this case like a directionally 'long' position to FX movements (i.e. the ratio improves if the foreign currency increases and deteriorates if it drops).
10. The EBA considers that the maximum position which can be computed as structural would be the one that keeps the ratio totally neutral to FX movements (45 in this simplified example). Therefore, it would not be acceptable to classify larger positions as structural, since they would change the directionality of the capital ratio (i.e. no 'overhedging' would be allowed). In the example above, it may be considered that the 'real economic' overall net FX position for Bank C is equal to DC 5 (45-50) which would lead to RWA DC 1.005 and a CET1 capital ratio of 14,93% ( $=150/1.005$ ). Importantly, the ratio does remain sensitive to movements in FX (i.e. the fact that there is a capital requirement for 5 would not 'neutralise' this position, which affects the ratio in a similar way to before) but, precisely for this reason, the 'excessive' position should always be subject to capital requirements.

## 2: Elements to be considered in the assessment of the structural FX position

11. This section of the annex provides some ‘simplified’ examples to illustrate how an FX position may affect the ratio, from both individual and consolidated perspectives, under different circumstances. The examples aim to cover several accounting and capital treatments, though necessarily from a simplified perspective.
12. For each one of these cases, the purpose is to examine the extent to which the open positions would act as total/partial hedge of the capital ratio in case of appreciation / depreciation of the foreign currency. In these examples it is assumed that no own funds requirements exist for market risk (except FX risk), operational risk, counterparty credit risk and CVA risk. If not stated otherwise, the risk weights for credit risk are assumed to be 100%, and all assets and liabilities are translated to the reporting currency with the exchange rate of the reporting date.
13. The simplified examples try to assess the various elements that may have an influence in the size of the FX position that should be maintained to hedge the capital ratio; these elements are (i) the level of the capital ratio, (ii) the accounting treatment, in particular the presence of items held at historic cost (iii) the ‘density’ of the RWAs stemming from the positions denominated in the foreign currency and (iv) the existence of items deducted from capital<sup>19</sup>.
14. Additionally, when assessing the specific cases that might sustain the rationale for the exclusion of FX positions<sup>20</sup>, we need to consider the capital ratio from two perspectives, (i) individual and (ii) consolidated ratio.

### 2.1 Individual capital ratio:

15. The following examples have been drafted taking into account the individual ratio only. Banks that operate in different jurisdictions with a branch-type structure would be represented in these examples. Banks with a subsidiary-type structure would be covered in the following section.

#### 2.1.1: Level of the capital ratio

16. Consider two banks identical in all aspects except the level of capital. As a consequence of this, one of them has a higher capital ratio than the other (10% versus 12%). In both cases it has been assumed that the supervisor has agreed that the FX position is structural and, thus, not subject to capital charges.

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<sup>19</sup> The examples take the actual level of the capital ratio as a starting point; however (as noted in the previous section of this DP), the maximum position that can be considered as structural may, in the end, be limited by the minimum capital ratio level(s) established in Article 92(1).

<sup>20</sup> It should be noted that banks are of course free to hedge their ratios without any Competent Authority pre-approval. The approval concerns the permission to exclude hedging positions from the calculation of net open currency positions.



Bank A			
FX Assets	200	FX Liabilities	180
DC Assets	800	DC Liabilities	720
		Capital	100
Sum	1.000		1000
Open FX position	20		1.000
Capital Ratio	10%	100/1.000	

Bank B			
FX Assets	200	FX Liabilities	180
DC Assets	800	DC Liabilities	700
		Capital	120
Sum	1.000		1000
Open FX position	20		
Capital Ratio	12%	120/1.000	

Following depreciation of domestic ccy (20%)

FX Assets	240	FX Liabilities	216
DC Assets	800	DC Liabilities	720
		Capital	104
Sum	1.040		1.040
Open FX Position	24		
Capital Ratio	10%	104/1.040	

FX Assets	240	FX Liabilities	216
DC Assets	800	DC Liabilities	700
		Capital	124
Sum	1.040		1.040
Open FX Position	24		
Capital Ratio	11.92%	124/1.040	

17. The structure of assets is the same; the only difference is the larger capital for the alternative bank. As a result of this higher level the position that fully hedges the ratio for Bank A (20 long) does not completely eliminate the sensitivity to FX movements for Bank B.

### 2.1.2: Effect of items deducted from capital

Bank A			
FX Assets to be deducted	100	FX Liabilities	100
DC Assets	20.000	DC Liabilities	18.000
		Capital	2.000
Sum	20.100		20.100
Open FX position	0		1.000
Capital Ratio	9.5%	$(2.000-100) / 20.000$	

Bank B			
FX Assets to be deducted	100	FX Liabilities	0
DC Assets	20.000	DC Liabilities	18.100
		Capital	2.000
Sum	20.100		20.100
Open FX position	100		
Capital Ratio	9.5%	$(2.000-100) / 20.000^{21}$	

<sup>21</sup> Same calculation as before – i.e. this is considering the open FX position has been excluded in accordance with Article 352(2). If not the ratio would be 9.453%  $(2.000-100)/(20.000+100)$

Following depreciation of domestic ccy (20%)

<b>FX Assets to be deducted</b>	120	<b>FX Liabilities</b>	120
<b>DC Assets</b>	20.000	<b>DC Liabilities</b>	18.000
		<b>Capital</b>	2.000
<b>Sum</b>	20.120		20.100
<b>Open FX Position</b>	0		
<b>Capital Ratio</b>	9.4%	$(2.000-120) / 20.000$	

<b>FX Assets</b>	120	<b>FX Liabilities</b>	0
<b>DC Assets</b>	20.000	<b>DC Liabilities</b>	18.100
		<b>Capital</b>	2.020
<b>Sum</b>	20.120		20.120
<b>Open FX Position</b>	120		
<b>Capital Ratio</b>	9.5%	$(2.020-120) / 20.000$	

2.1.3: Effect of items subject to 1.250% risk weighting

<b>Bank A</b>			
<b>FX 1.250% Assets</b>	100	<b>FX Liabilities</b>	100
<b>DC Assets</b>	20.000	<b>DC Liabilities</b>	18.000
		<b>Capital</b>	2.000
<b>Sum</b>	20.100		20.100
<b>Open FX position</b>	0		1.000
<b>Capital Ratio</b>	9.41%	$2.000 / (20.000 + 12.5 * 100)$	

<b>Bank B</b>			
<b>FX 1.250% Assets</b>	100	<b>FX Liabilities</b>	0
<b>DC Assets</b>	20.000	<b>DC Liabilities</b>	18.100
		<b>Capital</b>	2.000
<b>Sum</b>	20.100		20.100
<b>Open FX position</b>	100		
<b>Capital Ratio</b>	9.41% <sup>22</sup>	$2.000 / (20.000 + 12.5 * 100)$	

Following depreciation of domestic ccy (20%)

<b>FX 1.250% Assets</b>	120	<b>FX Liabilities</b>	120
<b>DC Assets</b>	20.000	<b>DC Liabilities</b>	18.000
		<b>Capital</b>	2.000
<b>Sum</b>	20.120		20.120
<b>Open FX Position</b>	0		
<b>Capital Ratio</b>	9.3%	$2.000 / (20.000 + 12.5 * 120)$	

<b>FX 1.250% Assets</b>	120	<b>FX Liabilities</b>	0
<b>DC Assets</b>	20.000	<b>DC Liabilities</b>	18.100
		<b>Capital</b>	2.020
<b>Sum</b>	20.120		20.120
<b>Open FX Position</b>	120		
<b>Capital Ratio</b>	9.395%	$2.020 / (20.000 + 12.5 * 120)$	

18. It may be observed that, according to examples 2.1.2 and 2.1.3 provided above, items deducted from capital (or subject to 1250% RWA) have to be fully considered when determining the structural FX position that must be kept open in order to hedge the capital ratio. This is fully consistent with what is stated in Article 352(2) regarding the inclusion of deducted items as part of the structural position.

<sup>22</sup> Same calculation as before – i.e. this is considering the open FX position has been excluded in accordance with Art. 352(2). If not it would be 9.37%  $2.000 / (20.000 + 12.5 * 100 + 100)$

19. As may also be seen, the effect in the ratio of computing an asset using a 1.250% RWA is greater than the effect of deducting the same asset from capital (9.5% versus 9.42% capital ratio). Leaving the full position open does offset the effect of an appreciation of the foreign currency but it does not fully revert the effect when a 1.250% RWA is applied. However, this is because the ratio in the example is greater than 8%. For ratios below 8% the effect is the reciprocal one (i.e. the effect of 1250% RWA is smaller than the effect of deduction). If the capital ratio were 8%, then the effect of deduction would be the same as the effect of 1250% RWA.

#### 2.1.4: Effect of items subject to 0% risk weighting

Bank A			
<b>FX 0% Assets</b>	100	<b>FX Liabilities</b>	100
<b>DC Assets</b>	20.000	<b>DC Liabilities</b>	18.000
		<b>Capital</b>	2.000
<b>Sum</b>	20.100		20.100
<b>Open FX position</b>	0		1.000
<b>Capital Ratio</b>	10%	$2.000/(20.000 + 100*0\%)$	

Bank B			
<b>FX 0% Assets</b>	100	<b>FX Liabilities</b>	0
<b>DC Assets</b>	20.000	<b>DC Liabilities</b>	18.100
		<b>Capital</b>	2.000
<b>Sum</b>	20.100		20.100
<b>Open FX position</b>	100		
<b>Capital Ratio</b>	$10\%^{23}$	$2.000/(20.000 + 100*0\%)$	

#### Following depreciation of domestic ccy (20%)

<b>FX 0% Assets</b>	120	<b>FX Liabilities</b>	120
<b>DC Assets</b>	20.000	<b>DC Liabilities</b>	18.000
		<b>Capital</b>	2.000
<b>Sum</b>	20.120		20.120
<b>Open FX Position</b>	0		
<b>Capital Ratio</b>	10%	$2.000/(20.000 + 120*0\%)$	

<b>FX 0% Assets</b>	120	<b>FX Liabilities</b>	0
<b>DC Assets</b>	20.000	<b>DC Liabilities</b>	18.100
		<b>Capital</b>	2.020
<b>Sum</b>	20.120		20.120
<b>Open FX Position</b>	120		
<b>Capital Ratio</b>	10.1%	$2.020/(20.000 + 120*0\%)$	

20. Similarly it can be shown that assets subject to a 0% RWA imply that no position should be considered as structural, since the movement in capital will not be accompanied by an increase or decrease in RWAs.

21. Examples 2.1.3 and 2.1.4 (i.e. 1.250% or 0% RWAs) illustrate that the 'density' of the FX assets in terms of RWAs is a key factor in determining the size of the FX position that may be considered as structural.

<sup>23</sup> Same calculation as before – i.e. taking into account that the open FX position has been excluded in accordance with Article 352(2). If not, it would be  $9.95\% \frac{2.000}{(20.000+100)}$

### 2.1.5: Effect of items reflected at the historic FX rate:

Bank				Following depreciation of domestic ccy (20%)			
<b>FX Assets HC</b>	100	<b>FX Liabilities</b>	200	<b>FX Assets HC</b>	100	<b>FX Liabilities</b>	240
<b>FX Assets MtM</b>	100			<b>FX Assets MtM</b>	120		
<b>DC Assets</b>	400	<b>DC Liabilities</b>	340	<b>DC Assets</b>	200	<b>DC Liabilities</b>	340
		<b>Capital</b>	60			<b>Capital</b>	40
<b>Sum</b>	600		600	<b>Sum</b>	620		620
<b>Open FX position</b>	0		1.000	<b>Open FX Position</b>	20		
<b>Capital Ratio</b>	10%			<b>Capital Ratio</b>	6.45%		(60-20)/620

22. In the example above, where the institution considers such items as part of the FX position rather than an item in its reporting currency<sup>24</sup>, the initial 'open position' from a capital perspective would be zero, but there is an increase in RWAs (those held at market value) together with a reduction in capital of 20, because the liabilities are revalued while half of the assets remain constant. Accordingly, in this simplified example, any long position 'taken' in order to hedge the capital ratio would have to incorporate the effect of these assets held at the historic FX rate, as seen in the example below.

### 2.1.6 Example: Assets at historic Cost and mark to market: long position

Bank				Following depreciation of domestic ccy (20%)			
<b>FX Assets HC</b>	100	<b>FX Liabilities</b>	90	<b>FX Assets HC</b>	100	<b>FX Liabilities</b>	108
<b>FX Assets MtM</b>	100			<b>FX Assets MtM</b>	120		
<b>DC Assets</b>	400	<b>DC Liabilities</b>	450	<b>DC Assets</b>	400	<b>DC Liabilities</b>	450
		<b>Capital</b>	60			<b>Capital</b>	62
<b>Sum</b>	600		600	<b>Sum</b>	620		620
<b>Open FX position</b>	110			<b>Open FX Position</b>	110		
<b>Capital Ratio</b>	10%	Considering FX position has been excluded. If not it would be 8.45%		<b>Capital Ratio</b>	10%		62/620

23. If the bank above held no FX items at historic cost, the long position that would have to be maintained in order to hedge the ratio would be 10. Instead, in this example the structural position that would hedge the ratio is 110.

<sup>24</sup> See section 4.2 of this DP discussing the alternative view.

24. These simplified examples illustrate that long positions held at the historic FX rate<sup>25</sup> may, in the end, form part of the structural FX position, since they need to be considered in the computation of the position to be maintained 'in order to hedge the capital ratio', as mandated in Article 352(2).

25. In conclusion, it is worth noting that, in practice, all the elements illustrated individually in the simplified examples (2.1.1 to 2.1.6) will interact and play a joint role in determining the structural position for each individual bank. They will also be dynamic and change over time; however, from a regulatory perspective it is also reasonable to assume that the various elements should be relatively stable, and be of a non-trading nature, in order to be acceptable under the structural FX provision.

## 2.2: Consolidation basis

26. A simplified example consists of a consolidation of a subsidiary located in a jurisdiction with a different currency (USD in this case). There is neither goodwill nor any consolidation reserves. Taxation is not computed. All assets are subject to a 100% RWA; there are no charges for market or operational risk. It should be noted that non-credit RWAs would not modify the outcome at the individual level; however, at consolidated level, it is really the RWAs from the subsidiary (denominated in USD, including RWAs for market and operational risks) that are computed in the denominator of the consolidated ratio.

27. The parent bank in the example has no FX position in USD and the participation in the subsidiary is kept at historic cost. The equity investment at individual level is computed in accordance with Articles 49(2) and 133 of the CRR, which allow firms subject to supervision on a consolidated basis to avoid deducting the equity investment from capital (as it would otherwise be requested under Article 48) and assigns a 100% RW to the investment.

### Example 2.2.1: Investment in a subsidiary

Parent Bank			
<b>Bank A – USD HC</b>	100	<b>USD Liabilities</b>	100
<b>Other Assets - Euros</b>	1.900	<b>Rest of Liabilities - EUR</b>	1.650
		<b>Capital</b>	250
<b>Capital Ratio</b>	12.5%	Individual capital ratio: $(250)/(1.900+100)$ = 12,5%	

Bank A (Initial FX rate: 1 to 1)			
<b>USD Assets</b>	1000	<b>USD Liabilities</b>	900
		<b>Capital</b>	100
<b>Individual Capital Ratio</b>	10%	<b>100/1.000</b>	
<b>Consolidated Capital Ratio</b>	8.6%	Consolidated capital ratio: $250/(1.900+1.000)$	

<sup>25</sup> That, by institution's applicable accounting treatment are recognized as FX items and not as reporting currency items.

## Increase of 20% in the USD

<b>Bank A – USD HC</b>	100	<b>USD Liabilities</b>	120
<b>Other Assets - Euros</b>	1900	<b>Liabilities - EUR</b>	1.650
		<b>Capital</b>	230
<b>Capital Ratio</b>	11.39%	Indiv capital ratio: (230)/(1.900+100+20)	

<b>USD Assets</b>	1.200	<b>USD Liabilities</b>	1.080
		<b>Capital</b>	120
<b>Individual Capital Ratio</b>	10%	120/1.200	
<b>Consol. Capital Ratio</b>	8.1%	Cons capital ratio: (230+20)/(1.900 + 1.200)	

28.As may be observed, for the parent bank with no FX position, the individual capital ratio decreases by more than 1%. If we now look at the consolidated ratio, we can observe a decrease of 0.5%.

29.Now we consider that the parent bank has no liabilities in USD and, accordingly, maintains a long USD position equal to the value (at historic cost) of the participation in the subsidiary. For the calculation of the capital ratio it is assumed that this long position has been considered structural and, thus, is not subject to capital charges.

## Example 2.2.2: Alternative - FX position open (no FX capital charge since it is structural)

## Increase of 20% in the USD

<b>Parent Bank (1 USD is 1.2 EUR)</b>			
<b>Bank A – USD HC</b>	100	<b>USD Liabilities</b>	0
<b>Other Assets - Euros</b>	1900	<b>Liabilities - EUR</b>	1.750
		<b>Capital</b>	250
<b>Capital Ratio</b>	12.5%	Indiv capital ratio: (250)/(1.900+100)	

<b>Bank A</b>			
<b>USD Assets</b>	1200	<b>USD Liabilities</b>	1.080
		<b>Capital</b>	120
<b>Individual Capital Ratio</b>	10%	120/1.200	
<b>Consol. Capital Ratio</b>	8.7%	Consol. capital ratio: (250+20)/(1.900+ 1.200)	

30.In this second case the ratio at individual level remains constant, while at consolidated level it becomes slightly higher than in origin, this is because the ratio at sub level is 10%, while the (initial) consolidated ratio was 8.6% and the whole position was kept open. Instead, if the position open had been 86 (i.e. the percentage of capital needed to meet the consolidated ratio), the result would be:  $(250+86*0,2)/(1.900+1.200)=8,6\%$

31. According to the simplified example, it may be observed that keeping the position open at the individual level maintains both the individual and the consolidated ratio as neutral (i.e. 'hedged') against movements in exchange rates. Accordingly, keeping the 'equity' position in the subsidiary open at the parent bank level would work as a hedge of both ratios (although imperfect, unless the ratios at both levels are exactly the same)<sup>26</sup>.

**Question 10.** Do you agree with the analysis in the simplified assessment, from both an individual and a consolidated perspective, of the various elements discussed in this Annex of the DP or do you have any comments? In particular, do you have comments regarding the analysis of:

- the actual level of the capital ratio
- the effect of items deducted from capital / subject to a 1.250% RWA / subject to a 0% RWA
- the effect of items held at the historical FX rate?

Are there any additional elements, not included in the simplified examples, which should be considered in the analysis, both from an individual and a consolidated perspective? Please provide simple examples to illustrate them.

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<sup>26</sup> As mentioned in section 4.5 of this DP, if the capital ratios of the parent bank and the subsidiary are very different, the efficiency of the hedge for both ratios will be questionable.

## Annex 2 - Summary of questions

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**Question 1.** What is your current practice regarding the treatment of FX non-monetary items held at the historic FX? In particular, do you include these items in the overall net foreign exchange position pursuant to Article 352 CRR? If you include them, what value (i.e. historic or last FX rate) do you use for the purpose of computing them? How do you manage such positions from an FX point of view?

**Question 2.** Do you share the EBA's view that there is no clear risk justification for making the determination of the net FX position as well as of the structural FX exclusion dependent on the approach for the calculation of FX own funds requirements?.

**Question 3.** Do you consider that the 'structural nature' wording in the CRR would limit the application of the structural FX provision to those items held in the banking book? Do you agree with the EBA's view that the potential exclusion should be acceptable only for long FX positions? If you consider that it should be allowed for short positions please provide rationale and examples.

**Question 4.** How should firms/regulators identify positions that are deliberately taken in order to hedge the capital ratio? What types of positions would this include? Do you consider that foreign exchange positions stemming from subsidiaries with a different reporting currency can be seen (on a consolidated level) as 'deliberately taken to hedge against the adverse effect of FX movements'? If yes, how do you argue that this is the case?

**Question 5.** Do you consider that the structural FX treatment could be applied to specific instruments instead of being understood as being applicable for 'positions'? Taking into account the risk rationale of hedging the capital ratio, do you consider that it is acceptable to renounce to potential gains in order to protect the ratio from potential losses? Do you consider that both types of hedging (i.e. reducing the sensitivity of the ratio to movements of FX in both directions, or only if the movement produces losses) are acceptable from an economic perspective? If so, do you consider that both approaches would be acceptable under Article 352?

**Question 6.** If 'structural FX' is used conceptually internally within your organisation (e.g. in risk policies, capital policies, risk appetite frameworks, etc.), how do you define the notion of 'structural FX position' and 'structural hedge'? Please describe how any ratio-hedging strategies are mandated within your organisation. Are ratio-hedging strategies prescribed in risk policies approved by the board? How do you communicate structural FX risk and position taking to your external stakeholders (e.g. in Pillar 3 reports, or reporting to regulators, investors, etc.)?

**Question 7.** Do you share the EBA's view that the maximum FX position that could be considered structural should be the position that would ideally neutralise the sensitivity of the capital ratio to FX movements? Alternatively, in the light of the reference to Article 92(1), do you consider that the size of the structural position should be limited by the minimum capital ratio levels? If this is the case, which one of the three levels established in Article 92(1) do you apply?



**Question 8.** How do you assess the consolidated ratio? How does your treatment differ between subsidiaries and branches?

**Question 9.** What are your views on the CRR2 text of the structural FX article? What significant impacts might this have on your current hedging strategies?

**Question 10.** Do you agree with the analysis in the simplified assessment, from both an individual and a consolidated perspective, of the various elements discussed in this Annex of the DP or do you have any comments? In particular, do you have comments regarding the analysis of:

- the actual level of the capital ratio
- the effect of items deducted from capital / subject to a 1.250% RWA / subject to a 0% RWA
- the effect of items held at the historical FX rate?

Are there any additional elements, not included in the simplified examples, which should be considered in the analysis, both from an individual and a consolidated perspective? Please provide simple examples to illustrate them.