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F.4 Financial Derivatives by Type

Prepared by the Financial and Payments Statistics Task Team (FITT)

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F.4 Financial Derivatives by Type¹

A financial derivative is an arrangement that is linked to other assets through which specific financial risks can be traded. The methodological framework for derivatives in the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6) and the System of National Accounts 2008 (2008 SNA) remains relevant but could be improved. This Guidance Note (GN) examines alternatives to the current classification scheme for derivatives that may generate more analytically useful measures for users of the external sector statistics and national accounts data. Additionally, the GN (a) examines options for prioritizing the presentation of the breakdowns in on-balance sheet positions, and the notional value of foreign currency derivatives (Appendix 9 of BPM6); (b) proposes changes in derivatives recording related to revaluations and gross/net recording; and (c) recommends clarifications of the standards for treatment of post-trading processes.

SECTION I: THE ISSUE

BACKGROUND

1. **The update of the sixth edition of the *Balance of Payments and International Investment Position Manual (BPM6)* and the *System of National Accounts 2008 (2008 SNA)* is an opportunity to re-examine the current concepts, treatment, and presentation of derivatives in the new international standards.** The current presentation of derivatives offers few breakdowns, and thus is seen as less analytically useful than other possible classification schemes. Also, the *BPM6* does not adequately emphasize the role that foreign currency derivatives play in measures of countries' gross and net foreign currency investment positions. Additionally, the treatment of valuation changes for foreign currency derivatives can be simplified. The guidance for recording net/gross transactions can be clarified and further aligned between the manuals. Finally, post trade processes were not as prominent as they are today when the current standards were released. This Guidance Note (GN) addresses these shortcomings in the overall presentation of financial derivatives in the external sector statistics (ESS) and national accounts (NA) and proposes options for enhancing the recording and presentation of foreign currency derivatives.

2. ***BPM6* and *2008 SNA* describe derivatives as financial instruments that are linked to another specific financial instrument, indicator or commodity and through which specific financial risks can be traded in their own right in financial markets (*BPM6*, paragraph 5.80; *2008 SNA*, paragraph 11.111).** Transactions and positions in derivatives are treated separately from the values of any underlying securities to which they are linked. The *BPM6* presentation distinguishes derivatives as a separate functional category (i.e., financial derivatives are not included in portfolio investment, direct

¹ Prepared by Patrick McGuire and Branimir Gruic (Bank of International Settlements, BIS), Maciej Anacki, and Martin Schmitz (European Central Bank).

investment (DI),² etc.), apart from those included in reserve assets.³ In both cases, derivatives are valued at the market prices prevailing on balance sheet recording dates or using other fair value methods (*BPM6*, paragraph 7.33).

3. **A shortcoming of the current presentation of derivatives is the lack of information (along several dimensions) on the types of derivatives being recorded.** Currently, *BPM6* recommends that, in the supplementary items, financial derivatives be classified in two broad categories: “options” and “forward-type contracts” (*BPM6*, paragraph 5.84; *2008 SNA*, paragraph 11.115). This classification scheme, while simple, has limited analytical application since it provides no characterization of the risks associated with different types of derivatives. GN F.5 [Treatment of Credit Default Swaps](#) recommended expanding the classification of derivatives by market risk category.

4. **In addition, not all derivatives can be easily classified in the broad categories “options” and “forward type contract”.** Some (e.g., credit default swaps (CDS)) have a “dual nature”, with both option- and forward-like characteristics. *BPM6* and GN F.5 both note that the main features of CDS are quite similar to those of put options. But the recording of CDS can change from one side of the balance sheet to the other (like forwards) and involve up-front payments/premiums (like options).

5. **In principle, derivatives can be further classified in many other ways, some of which are more analytically useful than the two broad categories above.** These include:

- a. ***By market risk categories:*** interest rate risk, foreign exchange risk, equity and commodity price risks and credit risk or risks to other underlying instruments (*BPM6*, paragraphs 5.80 and 5.95; *2008 SNA* paragraph 11.112);
- b. ***By instrument:*** options (*BPM6*, paragraph 5.85; *2008 SNA*, paragraph 11.117), forwards and related instruments (i.e., futures) (*BPM6*, paragraph 5.88; *2008 SNA*, paragraph 11.120), swaps (*BPM6*, paragraph 5.91; *2008 SNA*, paragraph 11.121), credit derivatives (*BPM6*, paragraph 5.93, *2008 SNA*, paragraph 11.123), marketable employee stock options (*BPM6*, paragraph 5.96, *2008 SNA*, paragraph 11.125) and other instruments;
- c. ***By trading venue and clearing status:*** exchange traded; over-the-counter (OTC) (cleared); OTC (not cleared);
- d. ***By delivery type:*** physical or cash delivery.

6. **Not all of the classifications schemes above are explicitly “recommended” by *BPM6*.** For example, *BPM6* paragraphs 5.85–5.96 provide full descriptions of many derivative instruments, but the presentation tables contain only the two broad categories listed above as supplementary items. Similarly, *BPM6* paragraph 5.95 and *2008 SNA* paragraph 11.115 mention an “additional supplementary

² GN D.12 [Including Intra-Concern \[Between Affiliates\] Derivatives in Direct Investment](#) on changing classification of financial derivatives between affiliates concluded that this class of derivatives should not be classified under DI. Also, it recommended to introduce a supplementary item for intra-group derivatives under the financial derivatives’ functional category.

³ The functional category financial derivatives and employee stock options (other than reserves) largely coincides with the corresponding financial instrument class (*BPM6*, paragraphs 5.79–5.98), while derivatives associated with reserve asset management are included in reserve assets (*BPM6*, paragraph 6.91).

breakdown” by market risk categories (and defines a hierarchy in the classification of derivatives with more than one risk category), but this breakdown is not explicitly recommended or included in the presentation tables. Other classifications listed above are not explicitly recognized by *BPM6*. An explicit recommendation that *BPM6* include classifications by market risk category, trading venue and delivery type would bring the ESS and SNA further in line with other derivatives datasets, in particular the [BIS OTC derivatives statistics](#), and would also be in line with the recommendations contained in the final report of the ESCB Task Force on Financial Derivatives.

7. **A second shortcoming is that *BPM6* places too little emphasis on the reporting of derivatives linked to foreign currencies.** Foreign currency derivatives, unlike many other types of derivatives, often involve payment obligations in a foreign currency for the notional (principal) amount, and thus are akin to foreign currency debt, as these involve foreign currency delivery. *BPM6* Appendix 9, Section C “Additional Analytical Position Data” lays out a series of tables that capture the on-balance-sheet external claims and liabilities positions *by currency* (Tables A9-I-1a and A9-I-2a), as well as the notional amount of off-balance-sheet foreign currency claims and liabilities that arise from derivatives linked to foreign currencies (Tables A9-I-1b and A9-I-2b).⁴ Although these tables are presented in *BPM6* as “memorandum items/tables”, a very limited set of countries actually provide these data (related *BPM6* tables are in Annex I).

8. **The information captured in these memorandum tables is critical for the analysis of countries’ foreign currency debt sustainability, and for understanding cross-border currency mismatches.** Measures of a country’s gross and net external foreign currency positions based only on the on-balance sheet-positions miss the additional foreign currency debt (or mitigation of on-balance-sheet foreign currency debt) that arises from off-balance-sheet foreign currency derivatives.⁵ Thus, an analytically useful enhancement of the *BPM6* framework would be to explicitly “recommend” that the notional amounts for foreign currency derivatives (involving foreign currency delivery) be reported.

9. **A third shortcoming is the recording of revaluations due to exchange rate and other price changes for foreign currency derivatives.** Holding gains and losses in financial derivatives are recorded as revaluations (*BPM6*, paragraph 8.36). They arise from changes in market prices and from changes in exchange rates, if a financial derivative is quoted in a foreign currency. *BPM6* recommends that all revaluations be classified as exchange rate changes when separation of exchange rate changes

⁴ The notional (or nominal) value of a derivative is the amount underlying a derivative that is needed for calculating payments or receipts on the contract (*BPM6*, paragraph 7.37). For most derivatives, this value is never exchanged, and thus is not indicative of a payment obligation. However, for foreign currency swaps, notional values are exchanged at inception of the contract, and at maturity (for forwards only at maturity): here they do indicate a payment obligation.

⁵ The BIS has estimated that the unobserved US dollar repayment obligations of non-banks outside the United States that arise from foreign currency swap/forward contracts roughly equals their observed on-balance sheet US dollar debt (see [FX swaps and forwards: missing global debt?](#)). Also, [Data Template on International Reserve and Foreign Liquidity](#) includes notional short and long positions in forwards and futures in foreign currencies vis-à-vis the domestic currency.

from other revaluations is impractical (*BPM6*, paragraph 9.31).⁶ The current convention is hence not fully in line with *BPM6* paragraph 9.28, which defines that exchange rate changes are always zero on instruments denominated in the currency of international accounts compilation and thereby obstructs analytical clarity on what constitutes an exchange rate revaluation across the various financial instruments.

10. **Finally, the derivatives reporting in *BPM6* does not capture many salient features of derivatives markets in the post-2008 financial crisis era, when legislative actions globally, particularly in the European Union and in the United States, were put in place to mitigate the risk of financial derivatives trading.** Regulations such as the European Market Infrastructure Regulation (EMIR) and the Dodd Frank Act in the United States changed the landscape of derivatives markets considerably by introducing, amongst other items, stricter clearing and reporting obligations. These changes also brought forth so-called post-trade processes, including novation, clearing, portfolio compression, and collateral management. Neither *BPM6* nor *2008 SNA* currently reflect this new reality.⁷

ISSUES FOR DISCUSSION

Issue 1—Broad Classification of Financial Derivatives

11. **The broad classification of derivatives as forward-type and option-type instruments does not seem to be widely used in analysis.** Users are typically interested in one of the other possible classifications mentioned in paragraph 5, in particular the classifications by market risk category and clearing status. Moreover, not all derivatives can be easily classified as forward- or option-type, suggesting that a new, generic category may be needed for CDS and other more exotic instruments that may emerge in the future.

12. **The authors propose to drop the current presentation of derivatives by broad type and replace with a presentation with more analytically useful classifications.** The authors believe that the following breakdowns would provide more useful information: (i) by market risk categories, (ii) by instruments and potentially, and (iii) by trading venue and clearing status. A more ambitious approach would be to cross these breakdowns. Alternatively, the current presentation of derivatives by broad type could be expanded to include a new category for hybrid derivatives.

⁶ This is, for example, the case for exchange rate options for which the “underlying” is the exchange rate between a pair of foreign currencies, while the option itself may be denominated in the currency of international accounts compilation. Hence, the market price of such an option is directly impacted by movements in the exchange rate between the two foreign currencies, rather than by developments in the currency of international accounts compilation.

⁷ These processes are conducted by specialized financial infrastructure providers including central counterparties (CCP). Central clearing is required in the European Union for certain classes of financial derivatives.

13. **The following classifications are the options to address this issue:**⁸
- a. *By market risk category*: foreign exchange; single-currency interest rate; equity; commodity; credit; others;⁹
 - b. *By instrument*: options, forwards and related instruments, futures, swaps, credit derivatives, marketable employee stock options and other instruments;
 - c. *By trading venue and clearing status*: exchange traded; OTC (cleared); OTC (not cleared);
 - d. *Cross classification*: market risk category by instrument, trading venue and clearing status;
 - e. *By broad type*: forward-type derivatives; option-type derivatives; hybrid derivatives;
 - f. No change to the current presentation of derivatives in *BPM6* and *2008 SNA*.

Issue 2—Compiling Notional Values of Foreign Currency Derivatives

14. **Only a very limited set of countries actually compile data for Tables A9-I-2a and A9-I-2b of *BPM6* Appendix 9 that capture the currency composition of the notional amounts of derivatives with foreign currency payment obligations crossed by sector.**

15. **The options to address this issue are:**

- a. Emphasize in the main text of the updated *BPM* and *SNA* that the presentation of foreign currency derivatives notional amounts by currency is requested as described in *BPM6* Appendix 9, Tables A9-I-1b and A9-I-2b.
- b. Remove Tables A9-I-1b, and A9-I-2b, and replace them with a simplified table that captures only the essential information on the notional value of foreign currency linked derivatives (as in Annex II).
- c. No changes to this item in the updated *BPM* and *SNA* and related documents (compilation guide).

16. **The same presentation of cross-border foreign currency derivatives notional amounts in ESS should be mirrored in NA for both domestic and cross-border derivatives.**

Issue 3—Convention for Recording of Revaluations on Foreign Currency Derivatives

17. **Any amounts accruing under financial derivatives are classified as revaluations and are included in the other changes for both assets and liabilities (*BPM6*, paragraph 6.59).**¹⁰ This is, for example, the case for exchange rate options for which the underlying asset is the exchange rate between

⁸ For example, all BIS derivatives datasets (OTC Derivatives, Triennial Survey, exchange traded derivatives) support market risk categories and instrument categories. In addition, introduction of maturity breakdown could also be considered.

⁹ If there is doubt about the correct classification of multi-exposure derivatives, the allocation by risk component should be made according to the order of precedence adopted by the BIS: commodities, equities, foreign exchange, and single currency interest rate (*BPM6* paragraph 5.96).

¹⁰ Unlike other functional categories, no primary income accrues on any financial derivative.

a pair of foreign currencies, while the option itself may be denominated in the currency of international accounts compilation. Hence, the market price of such an option is directly influenced by movements in the exchange rate between the two foreign currencies, rather than by developments in the currency of international accounts compilation.¹¹ Additionally, *BPM6*, paragraph 9.28, defines that the exchange rate effects are always zero on instruments denominated in the currency of international accounts compilation.¹²

18. The options to address this issue are:

- a. To enhance analytical clarity on what constitutes an exchange rate revaluation and to comply with *BPM6*, paragraph 9.28, the convention in *BPM6*, paragraph 9.31, shall change so that all revaluation effects are due to other price revaluations rather than as exchange rate revaluations for those types of derivatives where it may not be practical to separate exchange rate changes from other revaluation.
- b. No change to the convention currently included in *BPM6*, paragraph 9.31.

Issue 4—Recording of Post Trading Activities

19. The changes to the market infrastructures for financial derivatives over the past decade were not included in *BPM6* and *2008 SNA*. However, due to additional complexity in the markets, methodological guidance is needed to ensure a symmetric recording across countries. This concerns in particular the issues of novation and portfolio compression which involve CCPs and often have a cross-border dimension.

20. The options to address this issue are:

- a. Expand the current *BPM6* Chapter 8 (Financial Account) and *2008 SNA* Chapter 17 by providing methodological guidance for the recording of novation and portfolio compression. Annex III illustrates this in the form of a box designated for the main text of the updated BPM and SNA. More detailed examples on novation and portfolio compression shall be presented in the BPM Compilation Guide.
- b. No change to the current presentation of derivatives in *BPM6* and *2008 SNA*.

Issue 5—Gross and Net Recording of Assets and Liabilities

21. Both *2008 SNA* and *BPM6* recognize the need for net recording of assets and liabilities in some cases, but the guidance for transactions is not fully aligned and is possibly not sufficiently detailed. Positions should be recorded on a gross basis and can switch between assets and liabilities (*2008 SNA*,

¹¹ This change in convention would be in line with the ECB requirements in balance of payments and the IIP statistics for net financial derivatives follow the convention to record revaluations from both market price and exchange rate movements in “other price revaluations”.

¹² The special role of financial derivatives in terms of revaluations is also reflected in BPTT [Guidance Note B.4](#) on “Reconciliation between stocks and flows” which excludes financial derivatives from the proposed integrated approach on investment income and rates of returns as financial derivatives do not pay interest income, while revaluations are difficult to relate to the original investment position.

paragraph 17.290; *BPM6*, paragraphs 7.36–7.37).¹³ For transactions, *BPM6* permits net recording when gross reporting is impractical (paragraph 8.34; for example, payment [netting under the International Swaps and Derivatives Association \(ISDA\) Master Agreement](#)), without a clear indication what this means or a link to the recording of positions. In paragraph 3.118, *BPM6* provides forwards as an example, but not in paragraph 8.34. The *2008 SNA* guidance specifically on financial derivatives is very limited and somewhat ambiguous (paragraph 11.114), implying that general rules (paragraph 11.41) requiring gross recording of assets and liabilities should apply.

22. The options to address this issue are:

- a. To clarify in paragraph 8.34 of *BPM6* that recording of transactions on a net basis is acceptable where separate data on transactions in assets and liabilities are not available, and the position may change between assets and liabilities (e.g., forwards, swaps).¹⁴ The method used should be consistently applied during the life of the instrument, not only when switching from assets to liabilities. The same should be included in Chapter 17 of *2008 SNA*.
- b. No change to the current presentation of derivatives in *BPM6* and *2008 SNA*.

SECTION II: OUTCOMES

Recommendation for Issue 1—Options a, b, and c

23. This GN proposes to discontinue the current breakdown by broad type in favor of more analytically useful classifications. The following classifications should be introduced: (a) by market risk category (standard component), (b) by instrument, and (c) by trading venue (both b and c are supplementary items but to be listed in the list of standard components and selected supplementary items/presentation tables [Appendix 9 of *BPM6*]). Weighing-up all the arguments for and against, the authoring team does not believe that there is a strong enough case to maintain the current breakdown by broad type. Although GN F.5 *Treatment of Credit Default Swaps* recommended classifying CDS as option-type derivatives, it also recognized its dual nature and called for a potential review of that recommendation in light of the outcome of the work undertaken in this GN. The current requirement creates issues in cases where a derivative has characteristics common to both options and forward-type contracts. Option (d) cross classification is not recommended because it requires collecting granular data which could be challenging for many reporters. Option (e) by expanded instrument broad category was not recommended because it does not bring any new analytical information.

¹³ *BPM6*, paragraph 6.91, recommends net recording for financial derivatives for positions classified as reserve assets.

¹⁴ Payments can be made during the period when a derivative contract switches between asset and liability positions (e.g., forwards or swaps). If country A makes a payment to country B when the derivative contract is in a liability position, the transaction should be recorded as a decrease of the country A derivative liability position. When the derivative contract is in an asset position for country A which receives a payment from country B, the transaction should be recorded as a decrease of the derivative asset position. However, in cases where several payments by both counterparts are involved and gross recording is impractical, net recording should be allowed (i.e., net payment could be recorded as a reduction in liabilities for one party and a decrease in assets for the other party).

Recommendation for Issue 2—Option a

24. **The importance for compiling the currency composition of the notional values of the derivatives linked to foreign currencies should be emphasized in the updated *BPM* and *SNA*.** Specifically, the current Tables A9-I-1b and A9-I-2b of *BPM6* Appendix 9 should be presented more prominently in the updated *BPM* and *SNA*. In the event that the compilation of these is too burdensome, the authoring team believes that a simplified table (see Annex II) could be introduced to balance these competing objectives. Tables A9-II and A9-III of *BPM6* Appendix 9 should remain as supplementary reporting tables.

Recommendation for Issue 3—Option a

25. **The GN proposes to change the convention in *BPM6*, paragraph 9.31, and 2008 *SNA* Chapter 17 so that for derivatives with an FX component where it may not be practical to separate exchange rate changes from other revaluations, all revaluations are due to other price revaluations rather than exchange rate revaluations.** This change enhances the analytical clarity of exchange rate revaluations and complies with *BPM6*, paragraph 9.28.

Recommendation for Issue 4—Option a

26. **The GN proposes to expand the current *BPM6* Chapter 8 (Financial Account) and 2008 *SNA* Chapter 11 by providing methodological guidance for the recording of novation and portfolio compression as financial transactions.** The recording of novation and portfolio compression does not lead to methodological changes, but rather calls for additional guidance within the existing methodology. The changes to the market infrastructures for financial derivatives over the past decade were not yet included in *BPM6* and 2008 *SNA*. However, due to the additional complexity in the markets, there is a need for methodological guidance to ensure a symmetric recording across countries. Annex III presents one possible solution.

Recommendation for Issue 5—Option a

27. **The GN proposes to expand the current *BPM6*, paragraph 8.34, and Chapter 17 of 2008 *SNA* by clarifying the cases in which recording transactions on a net basis is acceptable** (i.e., where separate data on transactions in assets and liabilities are not available, and the position may change between assets and liabilities (e.g., forwards, swaps)). While gross recording should remain the generic recommendation, practical limitations necessitate that net recording should in some cases be permitted. This change enhances the clarity and consistency of *SNA* and *BPM* and complies with *BPM6*, paragraphs 8.34 and 3.118. Option b is rejected as it is important to avoid discrepant interpretations of the manuals.

28. **The majority of the FITT members strongly supported the proposals in this GN.** The GN proposes only one breakdown by risk category as a standard component, while the other breakdowns (by instrument and by trading venue and clearing) are supplementary items. The currency breakdown proposed in this GN refers to the presentation of financial derivatives in both ESS and NA. That said, the GN implicitly suggests that the same currency breakdown for balance sheet items should remain in *BPM6* Appendix 9, since both on- and off-balance sheet positions contribute to foreign currency payment receipts and obligations. The GN also stresses that price changes should be used when the separation of

exchange rate changes is impractical. Similarly, if there are practical issues in the recording of transactions on a gross basis, net recording should be permitted. The recording of novation and compression related trades is illustrated in two examples.

Questions for Discussion:

1. *Do you agree with the proposals to:*
 - *Discontinue the current breakdown by broad type and introduce the new breakdowns:*
 - (i) *by market risk category (standard component),*
 - (ii) *by instrument (supplementary item), and*
 - (iii) *by trading venue and clearing type (supplementary item)?*
 - *Review the recommendation in GN F.5 Treatment of Credit Default Swaps in light of the outcome of this GN related to discontinuation of derivatives aggregate breakdown by broad type?*
2. *Do you agree with the proposals to emphasize in the main text of the updated BPM and SNA that the compilation of notional values of foreign currency derivatives by currency is requested as described in Tables A9-I-1b and A9-I-2b of BPM6 Appendix 9?*
3. *Do you agree with the proposals to change the convention in BPM6, paragraph 9.31, so that for those types of financial derivatives where it may not be practical to separate exchange rate changes from other revaluations all revaluations are due to other price revaluations rather than exchange rate revaluations?*
4. *Do you agree with the proposals to introduce a Box in Chapter 8 (Financial Account) of BPM6 and in Chapter 11 of 2008 SNA providing methodological guidance for the recording of novation and portfolio compression as financial transactions?*
5. *Do you agree with the proposals to recommend in paragraph 8.34 of BPM6 and in Chapter 17 of 2008 SNA recording of transactions on a gross basis, while permitting net recording when gross recording is impractical (i.e., for those financial derivatives that can be either an asset or a liability depending on the valuation—e.g., swaps)?*

Annex I. Additional Analytical Position Data in *BMP6* Appendix 9 Standard Components and Selected Other Items, PART C, Tables I–III.

Table A9-I-1b. Financial Derivative Positions with Nonresidents
Foreign Currency Derivatives: Notional Value of Contracts with Nonresidents⁸

| | Central bank | General government | Deposit-taking corporations, except the central bank | Other sectors ⁵ | | | Inter-company lending | Total |
|--------------------------|--------------|--------------------|--|----------------------------|-----|-------|-----------------------|-------|
| | | | | Total | OFC | Other | | |
| Receive foreign currency | | | | | | | n.a. | |
| U.S. dollar | | | | | | | n.a. | |
| Euro | | | | | | | n.a. | |
| Yen | | | | | | | n.a. | |
| Other currencies | | | | | | | n.a. | |

¹Table A9-I is a memorandum item.

²Excluding reserve assets.

³See paragraph 5.107 on when currency data is shown as unallocated.

⁴Original maturity.

⁵OFC = other financial corporations, Other = nonfinancial corporations (except intercompany lending), households, and NPISHs.

⁶Data on debt instruments from the direct investment category. Intercompany lending (as defined in paragraph 6.26) is classified as long-term by convention. Intercompany lending is excluded from data for the other sectors.

⁷Total reserve assets.

⁸Data on notional value of derivatives in this table should include those derivatives that swap foreign currency liabilities into domestic currency (e.g., if the monetary authority issues a foreign currency bond and uses a foreign currency swap contract with a nonresident to swap the proceeds into domestic currency, the notional value of the swap contract to receive foreign currency when the swap contract matures should be reported in the Table I-1b). For similar foreign currency derivative transactions with residents, similar data on notional positions with other residents could be considered.

Table A9-I-2b. Financial Derivative Positions with Nonresidents
Foreign Currency Derivatives: Notional Value of Contracts with Nonresidents

| | Central bank | General government | Deposit-taking corporations, except the central bank | Other sectors ² | | | Inter-company lending | Total |
|----------------------|--------------|--------------------|--|----------------------------|-----|-------|-----------------------|-------|
| | | | | Total | OFC | Other | | |
| Pay foreign currency | | | | | | | n.a. | |
| U.S. dollar | | | | | | | n.a. | |
| Euro | | | | | | | n.a. | |
| Yen | | | | | | | n.a. | |
| Other currencies | | | | | | | n.a. | |

¹Original maturity.

²OFC = other financial corporations, Other = nonfinancial corporations (except intercompany lending), households, and NPISHs.

³Data on debt instruments from the direct investment category. There is no original maturity breakdown for intercompany lending (as defined in paragraph 6.26); see also paragraph 5.103 on maturity for direct investment). Intercompany lending is excluded from data for the other sectors.

Table A9-II-1b. Financial Derivative Positions with Nonresidents
Financial Derivatives: Notional Value of Foreign Currency Contracts with Nonresidents

| | 2007 | 2008 | 2009 | 2010 |
|--------------------------|------|------|------|------|
| Receive foreign currency | | | | |
| U.S. dollar | | | | |
| Euro | | | | |
| Yen | | | | |
| Other currencies | | | | |

¹Table A9-II is supplementary and covers time series data, not projections.

²Excluding reserve assets.

³Original maturity.

Table A9-II-2b. Financial Derivative Positions with Nonresidents
Financial Derivatives: Notional Value of Foreign Currency Contracts with Nonresidents

| | 2007 | 2008 | 2009 | 2010 |
|----------------------|------|------|------|------|
| Pay foreign currency | | | | |
| U.S. dollar | | | | |
| Euro | | | | |
| Yen | | | | |
| Other currencies | | | | |

Table A9-III-1b. Financial Derivative Positions with Nonresidents

Financial Derivatives: Notional Value of Foreign Currency and Foreign-Currency-Linked Contracts with Nonresidents

To Receive Foreign Currency

Central bank

Forwards

Options

General government

Forwards

Options

Deposit-taking corporations, except the central bank

Forwards

Options

Other sectors¹

Forwards

Options

Total

Forwards

Options

¹A further breakdown for (1) other financial corporations and (2) nonfinancial corporations (except intercompany lending), households, and NPISHs is encouraged.

Table A9-III-2b. Financial Derivative Positions with Nonresidents

Financial Derivatives: Notional Value of Foreign-Currency and Foreign Currency-Linked Contracts with Nonresidents

To pay foreign currency

Central bank

Forwards

Options

General government

Forwards

Options

Deposit-taking corporations, except the central bank

Forwards

Options

Other sectors¹

Forwards

Options

Total

Forwards

Options

¹A further breakdown for (i) Other financial corporations, and (ii) Nonfinancial corporations (except intercompany lending), households, and NPISHs is encouraged.

Annex II. A Model Table for Foreign Currency Derivatives Notional Amounts

1. The following table may be used to simplify the current Tables A9-I-2a and A9-I-2b of *BPM6* Appendix 9. It separately covers currencies to be received at maturity from currencies to be received at maturity.

2. Also, it is proposed to replace the current list of currencies requested in the existing tables (euro, US dollar, Yen, other) with the currencies from a basket of currencies that determines the value of the SDR, or those used in the Currency Composition of Official Foreign Exchange Reserves (COFER), or some other set of major currencies.

| | Stock |
|---------------------------------------|-------|
| Currencies to be received at maturity | |
| Chinese yuan | |
| Euro | |
| Pound sterling | |
| US dollar | |
| Yen | |
| Other currencies | |
| Currencies to be provided at maturity | |
| Chinese yuan | |
| Euro | |
| Pound sterling | |
| US dollar | |
| Yen | |
| Other currencies | |

Annex III. Recording of Post Trading Activities in Financial Derivatives – Proposal for a Box in Chapter 8 of BPM6

1. The 2008 financial crisis triggered several legislative actions around the world, particularly in the European Union and in the United States, to mitigate the risk of financial derivatives' trading. Regulations such as the EMIR and the Dodd Frank Act in the United States changed considerably the landscape of the financial derivatives markets by introducing, amongst others, stricter clearing and reporting obligations. These changes brought along so-called post-trade processes, which are necessary for the completion of the trade, including novation, clearing, portfolio compression, and collateral management. These processes are conducted by specialized financial infrastructure providers including CCP. Central clearing is required in the European Union for certain classes of financial derivatives. **This box provides methodological guidance for the recording of novation and portfolio compression as financial transactions.**

2. **Novation** is a process in which a bilateral OTC derivative contract between two market participants is replaced by two bilateral contracts between each of the market participants and a CCP. An important factor in the recording of novation is the timing between entering the initial contract and the novation. If the novation process takes place immediately after the initial contract (i.e., within the reporting time frame of the entities involved) only the (novated) contracts vis-à-vis the CCP have to be reported. However, there may be cases in which novation takes place with a significant delay after entering the initial contract. In such cases, both counterparts of the original contract should report two (offsetting) transactions for the reference period(s) when they take place: one transaction terminating the initial contract (e.g., extinguishing an asset position in financial derivatives) and a second transaction creating an asset position in financial derivatives of equal market value vis-à-vis the CCP. The CCP thus becomes the new counterpart to both initial parties and takes over the risks and rewards associated with the contract. In case the two initial parties are not clearing members of the CCP, each side of the bilateral contract may be replaced by two, rather than one contract—one between the entity and the clearing member, and another one between the clearing member and the CCP, giving rise in total to four transactions/positions.¹⁵ The country (countries) of residence of the market participants and the CCP is decisive in determining whether a novated contract is recorded in cross-border statistics and how it is treated in national accounts (see Example 1 for more details).

3. **Portfolio compression** refers to a bilateral or multilateral process in which the counterparties wholly or partially terminate the derivatives submitted for inclusion in the portfolio compression and replace the terminated derivatives with new derivative(s) whose combined notional value is less than the combined notional value of the terminated derivatives.

¹⁵ The relationship between the client and the clearing member may take two main forms: the agency model or the principal-to-principal model. Under the agency model, the clearing member acts as an agent on behalf of the client and is not considered as a counterparty to a derivative transaction. Under the principal-to-principal model, each party acts on their own behalf, which implies that for cleared derivatives there will usually be two derivative contracts: one between the client and the clearing member, and another one between the clearing member and the CCP. The distinction whether the clearing member acts as an agent or as a principal is based on the risk exposure (economic as well as counterpart) with regard to the derivative contract according to the contractual arrangements with the client.

4. In particular, a number of contracts between market participants are replaced by new (fewer) contracts. Consequently, all counterparties involved in the compression process should report a number of offsetting transactions: (i) transactions terminating the initial contracts (extinguishing asset/liability positions in financial derivatives) and (ii) transactions creating new asset/liability positions in financial derivatives. While the overall net positions of the involved parties should remain unchanged, the post-compression gross positions can be quite different compared to the initial positions. Moreover, the bilateral counterparts of the new transactions and positions may also differ considerably from the original ones. Hence, a comprehensive recording of all transactions extinguishing the initial positions and of the transactions creating the new positions is required (see Example 2 for more details).

Example 1. Recording Positions in Financial Derivatives Before and After Novation

This example shows how two entities (A and B), which are clearing members of a CCP and resident in country X, sign a financial derivative OTC contract, resulting in assets and liabilities of 100 of A and B, respectively. As both entities are resident in country X no positions are recorded in balance of payments and IIP statistics.

Subsequently, the contract is novated to the CCP which is resident in country Y, requiring a recording in balance of payments and IIP statistics. The original contract between A and B is replaced by two new contracts, respectively of A and B with the CCP. As the CCP is resident abroad, the novation creates a cross-border asset position for A and a cross-border liability position for B, while the original purely domestic asset and liability positions of A and B disappear.¹⁶ These changes in asset and liability positions arise entirely from financial transactions as shown in the example.

Globally, the novation results in a doubling of positions compared with the situation before novation. The net IIPs of countries X and Y remain however unchanged at 0.

Table 1. Recording of Positions in Financial Derivatives Before and After Novation

| | | Entity A | Entity B | CCP |
|-------------------------------|-------------|----------|----------|-----|
| Resident in country | | X | X | Y |
| 1. Before novation | | | | |
| Vis-à-vis non-residents (IIP) | Assets | | | |
| | Liabilities | | | |
| Vis-à-vis domestic sectors | Assets | 100 | | |
| | Liabilities | | 100 | |
| 2. After novation | | | | |
| Vis-à-vis non-residents (IIP) | Assets | 100 | | 100 |
| | Liabilities | | 100 | 100 |
| Vis-à-vis domestic sectors | Assets | 0 | | |
| | Liabilities | | 0 | |

¹⁶ If entities A, B, and the CCP are all residents of economy X, no transactions or positions in the external accounts will be recorded, but domestic asset and liability position will both amount to 200 after the novation.

Example 2. Recording Positions in Financial Derivatives for Portfolio Compression Related Trades

This example shows how three entities (residents A and B, and non-resident C) compress positions outstanding at the end of the previous reporting period.

Table 2. Recording of Positions in Financial Derivatives Arising from Compression

| | | Entity A | Entity B | Entity C |
|-------------------------------|-------------|----------|----------|----------|
| Resident in country | | X | X | Y |
| 1. Before compression | | | | |
| Vis-à-vis non-residents (IIP) | Assets | 10 | | 20 |
| | Liabilities | | 20 | 10 |
| Vis-à-vis domestic sectors | Assets | | 30 | |
| | Liabilities | 30 | | |
| Net assets position | | -20 | 10 | 10 |
| 2. After compression | | | | |
| Vis-à-vis non-residents (IIP) | Assets | | | 10 |
| | Liabilities | 10 | | |
| Vis-à-vis domestic sectors | Assets | | 10 | |
| | Liabilities | 10 | | |

For the purpose of this example, there are no obstacles for entities to involve in multilateral compression. Entities A and B have both bilateral domestic positions and cross-border positions with non-resident entity C. The net overall position of entity A is a liability (20), while the other two entities each have asset positions (10 + 10). The original deals are “tore up” and replaced with new, lower volume deals that do not change net position of each entity. Note that the new deals are additionally presented as transactions, and the termination of all previous deals should also be recorded as financial transactions. Note that the net international investment position changed for entities A and B in this example (i.e., from assets of 10 to zero for A; and from liabilities of 20 to zero for B) and remained unchanged for entity C (asset 10 before and after compression).

Globally, the compression may change net international investment positions in cross-border deals and reduces the outstanding notional amounts. Net positions of each entity on combined domestic and cross-border segment do not change.