

Eleventh Meeting of the
IMF Committee on Balance of Payments Statistics

Washington, D.C., October 21–23, 1998

International Investment Position—Harmonisation Proposals for Step 1

Prepared by the Financial Flows and Stocks Task Force
European Central Bank



EUROPEAN MONETARY INSTITUTE

Working Group on Statistics

INTERNATIONAL INVESTMENT POSITION: HARMONISATION PROPOSALS FOR STEP 1

**THE RECORDING OF FINANCIAL DERIVATIVES IN THE BALANCE OF
PAYMENTS AND THE INTERNATIONAL INVESTMENT POSITION**

Reports for the attention of the Council

NOVEMBER 1997



EUROPEAN MONETARY INSTITUTE

Working Group on Statistics
STA/WG/BOP/IIP97/2

15 October 1997

INTERNATIONAL INVESTMENT POSITION: HARMONISATION PROPOSALS FOR STEP 1

Breakdown and Methodological Aspects

INTRODUCTION AND FRAMEWORK

1. The aim of the compilation of the EMU IIP is to produce an annual statement of the external assets and liabilities of the single currency area as a whole, for monetary policy and exchange market analysis, and to assist in the compilation of balance of payments flows. The IIP data requirements for the single currency area are determined in paragraphs 79-83 of the Implementation Package, July 1996. This includes the use of the IMF's Standard Components as the framework, the compatibility with the breakdown for quarterly and annual balance of payments, frequency and timeliness.

2. In addition, the paper entitled "Data Requirements"¹, approved by the WGS in February 1997, established a *three-step approach* to be followed for the implementation and compilation of the EMU-IIP, similar to the one agreed for balance of payments portfolio investment:

Step 1: Total net EMU-IIP;

Step 2: Separate positions in assets and liabilities (distinction between EMU assets/EMU liabilities);

Step 3: Geographical breakdown of positions in Assets and positions in Liabilities.

3. In accordance with *agreements reached by the WGS in February 1997*, this report deals only with *recommendations for the implementation of Step 1*. These *detailed IIP requirements will be made available to the public*.

¹ "EMU International Investment Position: Data requirements" (STA/WG/BOP/IIP97), February 1997.

IMPLEMENTATION OF STEP 1 (for end 1998 data)

BACKGROUND AND PREREQUISITES

4. With regard to the compilation of Step 1 of an EMU IIP, certain decisions were approved by the WGS in February 1997. At this stage, the *EMU IIP aggregates would be compiled by the simple addition of national aggregates*, thus evaluating EMU rest of the world net holdings. Therefore, Member States have agreed to provide:

- (1) *annual aggregate national IIP* data;
- (2) *harmonised* as far as possible;
- (3) for *end-1998* with a *nine-month delay* (first data by September 1999).

5. Moreover, *concepts, definitions and layout* should be in line with those used for quarterly/annual balance of payments flows. This is a requirement derived from the *link* established between the EMU stock and flow data by the *reconciliation exercise*. Therefore, the *common conceptual framework* established by the IMF Manual and the EU harmonised proposals for the compilation of flows and stocks should be considered as a prerequisite to ensure coherence and compatibility between EMU stock positions and flow data. In addition, the *required breakdown or layout* should also follow the presentation approved for the quarterly/annual flow statistics to enable structural compatibility of both sets of data and should be within the framework of the IMF's Standard Components to allow for international comparability.

6. Lastly, *comparability and compatibility* between stocks compiled for the EMU-IIP and stocks collected or requested for other International Organisations and other EMU statistics (such as Money and Banking and Financial Accounts data) should be ensured to *compare EMU area* figures with those of the other *major economic areas* and to achieve *coherence* with the aforementioned EMU statistics.

PROPOSED BREAKDOWN

7. With regard to the *required breakdown*, it should be emphasised that the proposal for the EMU IIP ensures structural compatibility with quarterly/annual balance of payments flow data and is in line with the Standard Components of the IMF Manual (5th edition), although with some notable exceptions in the following areas:

- (1) *Direct Investment (less detail)*;
- (2) *Portfolio Investment liabilities (presentation and simplification)*: entries for Monetary Authorities and the General Government sector are included under financial derivatives;
- (3) *Other Investment (presentation)*: this item is broken down first by sector and subsequently by instrument. The instrument breakdown applied to Monetary Authorities and MFIs is "Loans-currency and deposits" and "Other assets/liabilities";

(4) The "Banks" sector has been renamed as the "MFIs" sector in order to reflect the fact that this sector should coincide with the definition of the MFI sector for the Money and Banking Statistics, with the exception of the ECB and central banks that should be included as part of the "Monetary Authorities" sector.

8. In order to have analytically useful and timely data the proposal for EMU Direct Investment stocks is to present data broken down into direct investment abroad and direct investment in the reporting economy and a further breakdown of these totals into equity capital and reinvested earnings and other capital. The separate recording of claims on affiliated enterprises and liabilities to affiliated enterprises as required by the IMF is not requested for the EMU IIP.

9. With regard to the sectoral breakdown for Portfolio Investment liability stocks, it is suggested that a breakdown very similar to the IMF proposal should be adopted. However, a difference should be noted: owing to the most recent proposals regarding the treatment of certain financial derivatives (e.g. swaps), entries for Monetary Authorities and the General Government sector have been included under financial derivatives.

10. The proposal for Other Investment stocks follows the lines of the breakdown for flows (for the sake of consistency between stock and flow presentations). As for Other Investment flows, the re-allocation of the breakdown by instrument to the breakdown by sector could be undertaken by the ECB.

11. For the purpose of compiling an EMU-IIP in due course and in order to stress the links with EMU Money and Banking Statistics, it is proposed that the "Banks" sector of the EMU IIP presentation should coincide with the Monetary Financial Institutions (MFI) sector of the above-mentioned statistics. For this reason, the "Banks" sector should be denominated "MFIs" sector. However, one exception would be that, for Money and Banking Statistics, the European Central Bank (ECB) and the National Central Banks (NCBs) should be shown within the MFI sector whereas for the IIP they will be classified outside of the "Banks" sector as "Monetary Authorities".

METHODOLOGICAL ASPECTS - HARMONISATION PROPOSALS

12. Owing to the fact that no geographical breakdown will be required at this stage, for this reason EMU IIP aggregates for Step 1 would be compiled by means of the simple addition of national aggregates. The *priorities* for this stage should focus on:

(i) the *harmonisation of national IIP statistics*, which should be seen as one of the goals of the entire project;

(ii) the *comparability* of the EMU IIP data to figures provided by major countries outside EMU. Only by working in this direction will it be possible to *compare euro area* figures with those of the other *major economic areas*.

13. In order to achieve these targets and taking into account the practical difficulties in obtaining the data needed to derive the IIP statement, the following *methodological and practical requirements* should be addressed with a view to the implementation of Step 1:

(1) Valuation proposals

14. Harmonisation of *valuation principles* is essential if a meaningful EMU-wide IIP is to be compiled. In addition, those valuation principles should also ensure comparability of the EMU-IIP figures with stock figures of other economic areas. **The Task Force agreed that market values should be used in the compilation of the national IIP from which a meaningful EMU IIP will be derived.** For practical reasons, some deviations from this principle may be accepted as proxies to the market value principle. These deviations have been co-ordinated among the Member States in order to ensure consistency at the EMU level. Broken down the IIP figures by instrument, the following valuation proposals were recommended:

15. With regard to the valuation of *direct investment* stocks and according to the *priorities* mentioned in paragraph 7, international comparability of figures suggests that the guidelines provided by the OECD are followed. In acknowledging the practical difficulties to apply the market valuation principle to direct investment stocks, this would imply that use of *book values* are acceptable now and more in line with the Financial Accounting Standard Board practices. Longer term, *market values* for direct investment stocks could be approached to enable their coherence with other statistics (e.g. MU Financial Accounts).

16. Concerning the *portfolio investment* stock data, the conclusion should be again in the direction of international comparability. As financial instruments within the portfolio investment will be affected to a huge extent by price adjustments, the compilation based on market value has a priority in this area. Therefore, market values should be recommended in the case of equity and debt securities both on the assets and liabilities side, owing to the fact that the IIP has to show the economic value of the resources and not the value of redemption.

17. In the case of the *other investment* holdings, the discrepancies between market value and nominal value or book value could be considered quite smaller than in other financial instruments except in the case that these holdings include a huge stake of write-offs or is based on secondary market quotations. For these reasons, book values are accepted as the valuation criteria for other investment stocks, except for loans that are negotiable at a discount where market value should be applied, if possible.

18. With regard to the *exchange rates* to be used, the closing mid-market exchange rates prevailing at the reference date should be applied in all cases to convert into national currency stocks denominated in foreign currency.

(2) *Reconciliation of stocks and flows*

19. The reconciliation of changes in stocks and transaction data is an excellent means by which to validate both sets of data when collected independently and gives possible explanations for the changes in positions at the beginning and end of a given period owing to different factors. These factors are:

- (i) the *transactions* that have taken place during the period;
- (ii) *price* changes;
- (iii) *exchange rate* changes, and
- (iv) *other adjustments* reflecting changes in stocks which are not due to the aforementioned factors.

20. The reconciliation exercise should be improved and developed, not only for analytical reasons, but basically to make it possible to produce more accurate estimates of both stock and transaction data. *General consistency* between both sets of statistics can be ensured in those collecting systems where the same reporting agent provides the basic data for both stocks and flows. Otherwise, compatibility should be achieved via the *implementation of certain links between the stock and flow figures*.

21. In contexts where different sources are used to compile transactions and positions, *a detailed analysis of the valuation differences* would be the most appropriate tool to reconcile transactions and changes in positions. Depending on the information available to the compiler, *different reconciliation methods* could be used to obtain the discrepancies that should be investigated and explained. In general, the *greater the level of detail in the basic information on both stocks and flows*, the *more precise* the reconciliation will be. Thus, some *practical recommendations* which would still enable a meaningful reconciliation exercise relaxing detailed requirements were addressed.

22. However, most of the Member States are far from being able to explain the global change in positions in terms of the three types of changes given for the different instruments and sectors as required in the standard IMF IIP presentation. Difficulties in identifying the relevant price indices or the absence of any information on the currency composition of their investments could cause national compilers insurmountable problems in completing a full reconciliation exercise.

23. Therefore, a *pragmatic approach where price changes, exchange rate changes and other adjustments are shown together under a single heading "Valuation and Other Changes in positions"* could be proposed for the compilation of the EMU IIP under Step 1. At a later stage, a certain level of detail in the reconciliation exercise may be required.

(3) *Compilation of stocks by accumulation of flows: compatibility with “pure” stocks*

24. Some Member States do not collect “pure” stock data to evaluate their external financial assets and liabilities. Instead, these Member States produce stock estimates by accumulating the relevant cross-border flows.

25. From the EMU point of view, in order to ensure the largest degree of *harmonisation and compatibility between accumulated flows and stocks collected directly*, a reconciliation process would be necessary using similar methodological guidelines. Thus, some *minimum requirements* could be established to ensure a certain degree of *reliability of accumulated flows used to calculate stocks*. These minimum requirements could be divided in two groups:

1. *Introduction of a periodical benchmark survey on stocks every three years*

26. Those Member States where accumulation of flows is being broadly used as an alternative for direct collected stocks should introduce a triennial benchmark survey to collect pure stock data (recognising that the household sector is very difficult to survey). Member States with periodic surveys or other reliable pure stock data collection systems are not compelled to develop an additional survey for the special purpose of fulfilling this minimum requirement. An exchange of data between all Member States should be envisaged.

2. *Adjustments* to the accumulated flow figures

27. With regard to *direct investment* stocks, accumulated flows should in general not be used to obtain these data. Accumulated flows should be used to obtain more frequent and/or first estimates only if the basic benchmark stocks data are available, occasional surveys are developed and flows are adjusted to market value.

28. In the case of the *portfolio stock* data, *both price and exchange rate adjustments* are necessary for the accumulation of flows to be a good proxy for marked-to-market stocks and, therefore, to be compatible with direct recorded portfolio stock data. The Perpetual Inventory Model is the most common method used to derive those adjustments.

29. *Exchange rate adjustments* are strongly recommended if accumulated flows are used to derive *other investment* stock data. Otherwise, stock data valuation changes caused by exchange rate fluctuations could be significant, especially if the relevant exchange rates are volatile, the turnover of the assets is high and the net movement in the stock is low.

(4) Improvements on coverage of positions

30. Concerning *data availability*, the *major coverage gaps* in the national stock data seem to be concentrated in the following standard items:

- (i) Direct Investment in those countries not conducting a survey on direct investment stock;
- (ii) Portfolio Investment liabilities, especially for non-financial sectors;
- (iii) Financial Derivatives;
- (iv) Trade credits, loans and deposits for non-financial sectors.

31. Therefore, the coverage of Portfolio Investment liabilities positions could be improved as follows by means of increasing the quality and coverage of *surveys on Portfolio Investment assets in favour of an exchange of information on a bilateral and multilateral basis*. However, the major benefits of such an exchange would derive from the ability to obtain a country attribution for the portfolio liabilities necessary for the compilation of the EMU IIP at a later stage. Thus, the collection of data on assets should be as harmonised as possible and, therefore, the guidelines of the IMF's Co-ordinated Portfolio Investment Survey should be applied as the common conceptual framework guiding the work. In general, three additional recommendations could be made to improve the coverage of the Survey could be made:

- (i) inclusion in the reporting population of end-investors who entrust their non-resident securities holdings directly to non-resident custodians or keep the securities in self custody. The introduction of a reporting threshold for these investors could be considered when this practice is widespread in the household sector;

- (ii) stress the compatibility between the required data and the data directly available from the record-keeping systems used by the respondents. This procedure would reduce the problems of double-counting or undercoverage, especially for complicated issues, such as repo agreements;

- (iii) the use of additional sources, such as published annual accounts of investment institutions or official registers to make proper adjustments to the reported figures when necessary (distinction between Direct and Portfolio Investment securities).

32. In those cases where a survey on Portfolio and/or Other Investment stocks is not conducted, alternative sources should be considered, although this would be limited:

- (i) information on positions for the *MFI sector* could be obtained from the *reports* (e.g. balance sheets) that these institutions have to submit periodically for other purposes. This information would cover Portfolio as well as Other Investment assets and liabilities;

- (ii) at least partial information on Portfolio liabilities of the Government sector could normally be derived from the *Treasury Book-Entry Register*;

- (iii) *International Banking Statistics* could be used as an alternative source for obtaining non-financial sector holdings with non-resident deposit institutions, when pure Other Investment stock data are not collected for this sector. However, these data should be used with caution, because usually

they do not cover all the countries, nationality has priority over residence and information is not always disaggregated by instrument. Therefore, proper adjustments might be required prior to using this data source for the compilation of stock data;

(iv) *accumulated flows, if properly adjusted*, could be an alternative source of pure stock data for trade credits, loans and deposits of the Other Sectors and General Government sectors.

33. *Compatibility between flows and stocks*, which is closely linked to the results of the reconciliation exercise, could be progressively achieved by:

(1) collecting both sets of information from the same reporting population;

(2) favouring as far as possible the collection of data in the form of a reconciliation statement to be filled out by the respondent itself. In addition, the collection form should keep closer to the accounting and book-keeping practices of the reporters. Any adjustments to the reported figures necessary for methodological reasons should be derived by the compilers and not by the respondents themselves;

(3) implementing the recommendations and harmonisation proposals agreed at EU level for flows and also for stocks. In fact, the conclusions of the EMI Sub-groups set up to present practical solutions to certain issues should help to reduce discrepancies between flows and stocks.

(5) *Sectorisation issues*

34. With regard to the sectorisation of stock data, the following conclusions had been agreed:

(1) in general, *no further breakdown regarding "Other Sectors"* can be provided by Member States for the compilation of the EMU IIP;

(2) the sectorisation criteria for certain special cases regarding Other Investment stocks should be the following:

* *(government-guaranteed and/or bank-insured)* trade credits should be treated as private stocks rather than as government or bank lending and, therefore, included under "Other Sectors" stocks;

* *repo agreements* have to be classified to the institutional sector to which the resident that extends or receives the financing belongs, regardless of the nature of the issuer of the securities acting as collateral;

(3) discrepancies in the reconciliation exercise will arise if transactions between resident sectors are not captured and the outstanding stocks are directly covered by an alternative pure stock data collection source. The treatment of *transactions between resident sectors* will have to be agreed;

(4) *functional and institutional changes in the different sectors* should be recorded according to the following scheme:

* *flows* should be allocated according to the new status and thus assigned to the institutional sector which now includes the institution;

* *stocks have to be reclassified* from the former sector to the new sector by means of an annotation in the "Other Adjustments" column of the reconciliation statement.

**The International Investment Position: breakdown into Standard Components
in line with the Quarterly/Annual Balance Of Payments**

1. Direct investment

1.1 Abroad

1.1.1 Equity capital and reinvested earnings

1.1.2 Other Capital.

1.2 In reporting economy

1.2.1 Equity capital and reinvested earnings

1.2.2 Other Capital

2. Portfolio investment

2.1 Assets

2.1.1 Equity securities

(i) *monetary authorities*

(ii) *general government*

(iii) *MFIs (excluding central banks)*

(iv) *other sectors*

2.1.2 Debt securities

2.1.2.1 Bonds and notes

(i) *monetary authorities*

(ii) *general government*

(iii) *MFIs (excluding central banks)*

(iv) *other sectors*

2.1.2.2 Money market instruments

(i) *monetary authorities*

(ii) *general government*

(iii) *MFIs (excluding central banks)*

(iv) *other sectors*

2.1.2.3 Financial derivatives

(i) *monetary authorities*

(ii) *general government*

(iii) *MFIs (excluding central banks)*

(iv) *other sectors*

2. Portfolio investment (cont'd)

2.2 Liabilities

2.2.1 Equity securities

(iii) MFIs (excluding central banks)

(iv) other sectors

2.2.2 Debt securities

2.2.2.1 Bonds and notes

(i) monetary authorities

(ii) general government

(iii) MFIs (excluding central banks)

(iv) other sectors

2.2.2.2 Money market instruments

(i) monetary authorities

(ii) general government

(iii) MFIs (excluding central banks)

(iv) other sectors

2.2.2.3 Financial derivatives

(i) monetary authorities

(ii) general government

(iii) MFIs (excluding central banks)

(iv) other sectors

3. Other investment (proposed)

3.1 Assets

3.1.1 Monetary authorities

3.1.1.1 loans-currency and deposits

3.1.1.2 other assets

3.1.2 General government

3.1.2.1 trade credit

3.1.2.2 loans-currency and deposits

3.1.2.3 other assets

3.1.3 MFIs (excluding central banks)

3.1.3.1 loans-currency and deposits

3.1.3.2 other assets

3.1.4 Other sectors

3.1.4.1 trade credit

3.1.4.2 loans-currency and deposits

3.1.4.3 other assets

3.2 Liabilities

3.2.1 Monetary authorities

3.2.1.1 *loans-currency and deposits*

3.2.1.2 *other liabilities*

3.2.2 General government

3.2.2.1 *trade credit*

3.2.2.2 *loans-currency and deposits*

3.2.2.3 *other liabilities*

3.2.3 MFIs (excluding central banks)

3.2.3.1 *loans-currency and deposits*

3.2.3.2 *other liabilities*

3.2.4 Other sectors

3.2.4.1 *trade credit*

3.2.4.2 *loans-currency and deposits*

3.2.4.3 *other liabilities*

[4. Reserve assets]

4.1 Monetary gold

4.2 Special drawing rights

4.3 Reserve position in the Fund

4.4 Foreign exchange

4.4.1 Currency and deposits

4.4.1.1 *with monetary authorities*

4.4.1.2 *with MFIs (excluding central banks)*

4.4.2 Securities

4.4.2.1 *equities*

4.4.2.2 *bonds and notes*

4.4.2.3 *money market instruments and financial derivatives*

4.5 Other claims

ANNEX 2:

**The International Investment Position: initial and final positions,
and valuation changes required for Step 1 of the EMU**

- 1. Position at beginning of reference period*
- 2. Changes in Positions during the period:*
 - 2.1 Transactions*
 - 2.2 Valuation and Other Changes in Positions*
 - of which:*
 - 2.2.1 Price changes [not required for Step 1]*
 - 2.2.2 Exchange rate changes [not required for Step 1]*
 - 2.2.3 Other adjustments [not required for Step 1]*
- 3. Position at end of reference period*

ANNEX 3: The International Investment Position: valuation proposals

TYPE OF INVESTMENT	RECOMMENDED VALUATION BASIS	ACCEPTED OTHER VALUATION BASIS	INSTRUMENT	
				ED VALUATION BASIS
Direct investment	Market value	Book value	Equity and Other Capital	
	Portfolio Investment	Market value	Quoted price on main stock exchange	Equity listed on stock exchange
			Price of comparable quoted shares	Equity not listed on stock exchange
			Gross price (quoted clean + accrued inter)	Long-term debt securities listed in organised markets
			Quoted price	Listed money market instruments
			Price index (similar maturities & currency)	Debt securities not readily tradable (i.e. private placements, bearer securities)
		Suitable ISMA price indices	Data aggregated by type of instrument & currency (i.e. information not available on a security-by-security basis)	
Other Investment	Market value	Book or nominal value	All instruments except loans that are negotiated at a discount (i.e. loans to heavily indebted countries)	

ANNEX 4:

The International Investment Position: adjustments required for the use
of accumulated flows as acceptable proxies to "pure" stocks

METHOD: ACCUMULATION OF FLOWS

TYPE OF INVESTMENT	CONCLUSION
Direct Investment	<p><i>Not acceptable</i> for final data evaluation</p> <p><i>Acceptable</i> only for provisional or more frequent data</p>
Portfolio Investment	<p><i>Acceptable</i> if price and exchange rate adjustments are derived on a security-by-security basis</p> <p><i>Acceptable</i> if price and exchange rate adjustments are derived at an aggregate level</p> <p><i>Not acceptable</i> if neither price nor exchange rate adjustments are derived</p>
Other Investment	<p><i>Acceptable</i> if exchange rate adjustments are derived</p>



EUROPEAN MONETARY INSTITUTE

Working Group on Statistics
BOP/WGSREP/OCT97/FRDERIVAa

15 October 1997

**Cover note accompanying the note on
THE RECORDING OF FINANCIAL DERIVATIVES IN THE BALANCE OF
PAYMENTS AND THE INTERNATIONAL INVESTMENT POSITION**

Conceptual aspects

1. The Council is invited to endorse the accompanying note submitted by the Working Group on Statistics concerning the recording of financial derivatives in the area of balance of payments statistics, which is covered by the Implementation Package endorsed by the Council in July 1996.
2. The Implementation Package noted that discussions on financial derivatives were continuing in close co-operation with international organisations.
3. The IMF Balance of Payments Manual and the ESA 95 require, broadly speaking, the recording of derivatives instruments in the financial account to the extent that they have a market value. This principle is accepted by the EMI.
4. The Council should be aware of the following points:
 - (a) much has happened in this field since the IMF Manual and the ESA 95 were drafted, and these documents are now considered to be out-of-date in a few respects. The attached proposals, formulated in consultation with the IMF and EUROSTAT, conform to the present view of best treatment. Largely, the proposals are clarifications or refinements of the existing texts, but one important change of treatment is proposed, namely the recording of settlement flows associated with interest rate derivatives in the financial account rather than the current account.
 - (b) the IMF Manual is very likely to be amended accordingly.
 - (c) it cannot be guaranteed that the ESA 95 will be modified in the same way, in particular if the change affects the key for the EU's own resources, where the changes must be decided by the EU Council. If the ESA 95 is not amended, the ECB will have to decide whether to depart from the ESA 95 in this respect.
 - (d) the treatment of derivatives should be consistent throughout the accounts as far as possible.
 - (e) the Working Group notes that, while the proposed conceptual treatments are agreed, consistent application in terms of coverage, valuation and detailed classification may for practical reasons be some years away.



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Working Group on Statistics
BOP/WGSREP/OCT97/FRDERIVA

15 October 1997

THE RECORDING OF FINANCIAL DERIVATIVES IN THE BALANCE OF PAYMENTS AND THE INTERNATIONAL INVESTMENT POSITION

Conceptual aspects

1. In this report the Working Group on Statistics (WGS) presents the work carried out on the *conceptual* harmonisation of concepts and definitions regarding financial derivatives in the balance of payments (BOP) and the International Investment Position (IIP).
2. **Some of the conceptual harmonisation proposals would require a change to the SNA and ESA95 regulations and subsequently the IMF Balance of Payments Manual. This report deals only with balance of payments and International Investment Position aspects. A change to the treatment of derivatives, and in particular, settlement flows associated with interest rate derivatives requires a co-ordinated decision between balance of payments and National Accounts.** The harmonisation proposals have been developed in close co-operation with the International Monetary Fund (IMF). The IMF discussed these proposals with the Inter-Secretariat Working Group on National Accounts (ISWGNA) at its meeting on 13-14 October 1997. The European Commission is also represented in the ISWGNA. The outcome of the meeting will be reported to the IMF Balance of Payments Committee meeting on 22-24 October 1997.
3. It should be noted that this report covers conceptual issues and does not address practical aspects of data collection and data availability. Despite the progress made on conceptual harmonisation, a lot of work still needs to be carried out on the practical implementation of the harmonisation proposals. The WGS recognises the importance of discussing practical implementation issues and would encourage the acceleration of the work of the Sub-group on Financial Derivatives, which is responsible for investigating them.

The discussions covered the following aspects:

⇒ Recommendations on conceptual issues:

The WGS approved the recommendations put forward by the BOP FFS Task Force.

WGS approval of these recommendations signifies a major step forward in preparing for the data collection on financial derivatives. These recommendations form the basic fundamentals of the

treatment of financial derivatives in the balance of payments and the International Investment Position. The approval of the recommendations allows EU Member States to start implementing the requirements regarding the data on financial derivatives and improving the comparability of data. The recommendations are not in line with the IMF Balance of Payments Manual but agree with the new IMF proposals. Some of these recommendations require a change to ESA95 regulations. The timetable for the implementation of these recommendations follows that of the Implementation Package;

⇒ Information on practical aspects:

The WGS was informed about the progress made in the examination of practical aspects of the recording of financial derivatives within the framework of the Financial Terminology Database and the Sub-group on Financial Derivatives;

⇒ Update on co-ordination with other statistics:

The WGS was also informed about co-ordination with other statistics, such as money and banking statistics and Financial Accounts statistics, and with other international statistical forums;

CONCEPTUAL RECOMMENDATIONS APPROVED BY WGS IN APRIL 1997

These recommendations are in line with new IMF proposals. However, some require a change in the SNA and ESA95 regulations and the IMF Balance of Payments Manual. There is compatibility with money and banking statistics.

General

The Task Force proposes to present these agreements and recommendations to other international and European forums, i.e. the IMF and EUROSTAT (BOP Working Party, Working Party on Financial Accounts, Working Group on National Accounts/GNP Committee).

Recording of the premium (options)

The Task Force has concluded that the full premium (i.e. the purchase/sale price of the options and the implied service charge) should be recorded in the Financial Account as the acquisition of a financial asset by the buyer, and as the incurring of a liability by the seller for both over-the-counter and exchange-traded options.

Valuation (options, futures and interest rate derivatives)

The Task Force agreed with the valuation on a market basis. Practical difficulties may arise in the application of this valuation principle. Valuation would be conducted on a marked-to-market basis as far as possible.

Recording of margin payments (options and futures)

In principle, initial margin payments should be regarded as changes in deposits and be recorded, if identifiable, under Other Investment, Other Payables/Receivables. The treatment of variation margin payments depends on the form of the variation margin: options-style variation margins should be

regarded in principle as changes in deposits and should be recorded, if identifiable, under Other Investment, Other Payables/Receivables. Futures-style variation margin payments should be regarded, in principle, as transactions in derivatives and should be recorded under Financial Derivatives. Member States are encouraged to follow this recommendation.

In those Member States where it is impossible, at present, to make a distinction between the two types of margining, it may be possible to estimate the futures-style variation margin. Consideration could also be given to reporting the margin payments under a separate item until the recommended treatment is implemented.

Recording of net streams of settlement flows associated with interest rate derivatives

It is recommended that the net stream of settlement flows associated with interest rate derivatives should be recorded as Financial Derivatives in the Portfolio Investment Account. Transactions in interest rate derivative instruments, i.e. swaps (all transactions in interest rate swaps and the interest rate element of cross-currency swaps) and FRAs should be recorded under Financial Derivatives in the Portfolio Investment Account.

CONCEPTUAL RECOMMENDATIONS APPROVED BY WGS IN OCTOBER 1997

All recommendations are in line with international standards.

Commodity swaps

It is recommended that commodity swaps should be recorded under Financial Derivatives in the Portfolio Investment Account of the BOP and IIP.

Equity (index) swaps

It is recommended that equity (index) swaps should be recorded under Financial Derivatives in the Portfolio Investment Account of the BOP and IIP.

Forward foreign exchange contracts

Transactions in forward foreign exchange contracts occur when the contract is exercised. The difference between the amount agreed at the time of the contract and the amount that would be paid at the spot rate prevailing at settlement should be allocated to transactions in Financial Derivatives.

Embedded derivatives

It is recommended that embedded derivatives should be recorded together with the underlying financial instrument and not be recorded and valued separately in balance of payments statistics and the International Investment Position.

Credit derivatives

In principle, it is recommended that the classification of specific instruments of credit derivatives should be decided upon case by case.

The WGS stresses that the practical implementation of these conceptual harmonisation proposals needs further investigation.

THE RECORDING OF FINANCIAL DERIVATIVES IN THE BALANCE OF PAYMENTS AND THE INTERNATIONAL INVESTMENT POSITION

CONCEPTUAL ASPECTS

Background Information

INTRODUCTION

1. This full report to Working Group on Statistics (WGS) on Financial Derivatives aims to provide information about the work carried out regarding the conceptual harmonisation of the treatment of financial derivatives in the balance of payments and the International Investment Position by the BOP Financial Flows and Stocks (FFS) Task Force. The framework for discussion was approved by the WGS in February 1996 and a progress report was approved by the WGS in April 1997. The WGS approved the recommendations put forward by the BOP FFS Task Force. In addition the WGS was informed about the progress made in the examination of practical aspects of the recording of financial derivatives. The WGS was also informed about the co-ordination with other statistics, such as money and banking statistics and Financial Accounts statistics, and with other international statistical forums.

2. The paper is structured as follows. Part 1 addresses conceptual aspects of the recording of financial derivatives in the balance of payments and the International Investment Position. Part 2 deals with practical aspects of data collection on financial derivatives. Part 3 provides a summary of the reasoning behind the recommendations.

ASSESSMENT AND FURTHER WORK

3. The financial derivatives market is extremely complex and this is reflected in the difficulties encountered when trying to reach a conclusion about the appropriate treatment of certain instruments in the balance of payments and the International Investment Position. These rapid developments and the complexity of the market also explain some of the gaps in data availability in some Member States.

4. WGS approval of recommendations presented by the BOP FFS Task Force signifies a major step forward in preparing for the data collection on financial derivatives. These recommendations form the basic fundamentals of the treatment of financial derivatives in the balance of payments and the International Investment Position. The approval of the recommendations allows EU Member

States to start implementing the requirements regarding the data on financial derivatives and improving the comparability of data.

5. Future work on financial derivatives will include further guidance on the treatment of individual instruments. This will be carried out within the framework of the Financial Terminology Database (paragraphs 30-31). Valuation issues should also be addressed. Although all members of the Task Force agree with market valuation in theory, this poses a number of difficulties in practice. Practical aspects of the recording of financial derivatives and the reconciliation of flows and stocks, one of the most difficult aspects of the statistical treatment of derivatives, will be addressed by the Sub-group on Financial Derivatives (paragraphs 23-29).

6. The WGS supports the close monitoring of the implementation of proposals and data availability for financial derivatives. This could perhaps be carried out as part of the "Monitoring of Implementation Exercise".

PART 1 CONCEPTUAL ASPECTS

SECTION 1: General issues

7. The Task Force discussed the need to develop a definition of financial derivatives and concluded that:

- (i) other forums had spent a considerable length time considering a definition;
- (ii) such a definition was not essential for the statistical treatment of financial derivatives;
- (iii) the issue of which instruments were to be regarded as derivatives and which were not was considered to be more relevant. This is in line with the discussion of the financial asset boundary held by the IMF Informal Group on Financial Derivatives.

8. The FFS Task Force recognises the importance of a reconciliation of flows and stocks for all derivative instruments. This is an extremely difficult area and further investigation will be needed.

9. It had also been suggested that it might be useful to study the quantitative impact of the inclusion of financial derivatives in the various accounts. However, the differences in data availability and the current methods used in Member States do not at present permit an investigation into the quantitative impact of the inclusion of financial derivatives in the various accounts. This will, however, be investigated at a later stage.

10. The financial derivatives market is extremely complex and this is reflected in the difficulties encountered when trying to reach a conclusion about the appropriate treatment of certain instruments in the balance of payments and the International Investment Position. The IMF Balance of Payments Manual (5th edition) (BPM5) deals explicitly with only a few types of financial derivatives and, as a



EUROPEAN MONETARY INSTITUTE

Working Group on Statistics
STA/WG/BOP/IIP97/2a

15 October 1997

**Cover note accompanying the report on
INTERNATIONAL INVESTMENT POSITION:
HARMONISATION PROPOSALS FOR STEP 1**

Breakdown and Methodological Aspects

1. **The Council is invited to endorse the accompanying report submitted by the Working Group on Statistics concerning harmonisation proposals for the International Investment Position, which is covered by the Implementation Package endorsed by the Council in July 1996.**
2. The Implementation Package (July 1996) stated that the ECB would compile an International Investment Position (IIP) - a statement of external assets and liabilities - for the single currency area as a whole. It would be based on IMF standard components as presented in the 5th edition of the IMF Balance of Payments Manual, and follow the breakdown of quarterly and annual balance of payments statistics for the Monetary Union. The IIP would be compiled annually from data submitted within 9 months of the end of the previous year, starting with end-1998. The Implementation Package said that further details remained to be decided.
3. The detailed proposals in the report conform to the outline proposed in the Implementation Package.
4. The Council should be aware of the following points:
 - (a) an IIP compiled at least annually is a user requirement for Monetary Union.
 - (b) consistency is important with international standards (the IMF Manual), and with the new (1995) European System of Accounts (thereby ensuring consistency with stocks of financial assets and liabilities in the financial accounts statistics).
 - (c) consistency with balance of payments flows is also important, to ensure coherence throughout the external accounts of the Monetary Union (this does not imply that balance of payments flows need equal changes in stocks, since adjustment must be made for valuation changes, etc.).

- (d) for practical reasons, the IIP will start by being compiled on a net basis relying on aggregate national data (cross-border positions within the single currency area in principle cancel out). Compiling a balance sheet of external assets and liabilities separately is a second step not covered in this report.
- (e) the IIP will first be compiled for end-1998, with a September 1999 deadline for data. While the proposed conceptual treatments are agreed, consistent application may not be possible by end-98.
- (f) a 3-yearly common benchmark survey is proposed for Member States which do not have reliable recorded stock data more frequently. Member States with periodic surveys or other reliable stock data collection systems will not be required to develop an additional survey. In the intervening years, the IIP will be compiled from a mixture of reported assets and liabilities and estimates of accumulated flows.

result, the appropriate treatment of many other instruments or specific issues is left unresolved. Markets and products have evolved rapidly over the past five years. In addition, since publication of the IMF's BPM5, further knowledge of the derivatives market has been acquired which challenges some of the assumptions underlying the recommendations made in the BPM5.

SECTION 2: Discussions held and recommendations presented by the BOP Task Force

11. The BOP FFS Task Force has discussed the characteristics of groups of derivative instruments in detail and has formulated recommendations on the treatment of those groups of derivative instruments in the balance of payments and the International Investment Position. The groups of derivatives instruments discussed are: options, futures, interest rate derivatives, commodity and equity (index) swaps, forward foreign exchange contracts, credit derivatives and embedded derivatives. A summary of the reasoning behind these recommendations is given in Part 3 of this report.

12. The IMF has also started to discuss the statistical treatment of financial derivatives. A paper entitled "The statistical measurement of financial derivatives" provides proposals for the recording of derivatives in the various statistics, including the balance of payments and the International Investment Position. A second draft of the paper will be discussed at the IMF BOP Committee meeting in October 1997. The IMF intends to include all proposals on the treatment of financial derivatives in the new Manual on Monetary and Financial Statistics. Should the BOP Committee approve the proposals in October 1997, balance of payments compilers would be able to go ahead and implement the changes required. The proposals on the treatment of financial derivatives are presented to the Inter-Secretariat Working Group on National Accounts at its meeting mid-October 1997. There are no differences between the recommendations put forward by the IMF in its most recent paper and those made by the BOP FFS Task Force.

13. The BOP FFS Task Force presents the following recommendations on the treatment of financial derivatives in the balance of payments and the International Investment Position. The reasons behind these recommendations are summarised in Part 4.

Recommendations approved by the Working Group on Statistics in April 1997

General

The Task Force proposes to present these agreements and recommendations to other international and European forums, i.e. the IMF and EUROSTAT (BOP Working Party, Working Party on Financial Accounts, Working Group on National Accounts/GNP Committee).

Recording of the premium (options)

The Task Force has concluded that the full premium (i.e. the purchase/sale price of the options and the implied service charge) should be recorded in the Financial Account as the acquisition of a financial asset by the buyer, and as the incurring of a liability by the seller for both over-the-counter and exchange-traded options (paragraph 35 of this report).

Valuation (options, futures and interest rate derivatives)

The Task Force agreed with the valuation on a market basis. Practical difficulties may arise in the application of this valuation principle. Valuation would be conducted on a marked-to-market basis as far as possible (paragraphs 36-41 and 48 of this report).

Recording of margin payments (options and futures)

In principle, initial margin payments should be regarded as changes in deposits and be recorded, if identifiable, under Other Investment, Other Payables/Receivables. The treatment of variation margin payments depends on the form of the variation margin: options-style variation margins should be regarded in principle as changes in deposits and should be recorded, if identifiable, under Other Investment, Other Payables/Receivables. Futures-style variation margin payments should be regarded, in principle, as transactions in derivatives and should be recorded under Financial Derivatives. Member States are encouraged to follow this recommendation.

In those Member States where it is impossible, at present, to make a distinction between the two types of margining, it may be possible to estimate the futures-style variation margin. Consideration could also be given to reporting the margin payments under a separate item until the recommended treatment is implemented (paragraphs 42-46 of this report).

Recording of net streams of settlement flows associated with interest rate derivatives

It is recommended that the net stream of settlement flows associated with interest rate derivatives should be recorded as Financial Derivatives in the Portfolio Investment Account. Transactions in interest rate derivative instruments, i.e. swaps (all transactions in interest rate swaps and the interest rate element of cross-currency swaps) and FRAs should be recorded under Financial Derivatives in the Portfolio Investment Account (paragraphs 49-58 of this report).

14. The following recommendations were approved by the WGS in October 1997:

Recommendations approved by the Working Group on Statistics in October 1997

Commodity swaps

It is recommended that commodity swaps should be recorded under Financial Derivatives in the Portfolio Investment Account of the BOP and IIP (paragraphs 59-60 of this report).

Equity (index) swaps

It is recommended that equity (index) swaps should be recorded under Financial Derivatives in the Portfolio Investment Account of the BOP and IIP (paragraphs 61-62 of this report).

Forward foreign exchange contracts

Transactions in forward foreign exchange contracts occur when the contract is exercised. The difference between the amount agreed at the time of the contract and the amount that would be paid at the spot rate prevailing at settlement should be allocated to transactions in Financial Derivatives (paragraphs 63-66 of this report).

Embedded derivatives

It is recommended that embedded derivatives should be recorded together with the underlying financial instrument and not be recorded and valued separately in balance of payments statistics and the International Investment Position (paragraphs 67-69 of this report).

Credit derivatives

In principle it is recommended that the classification of specific instruments of credit derivatives should be decided upon case by case (paragraphs 70-73 of this report).

SECTION 2: Compatibility with other statistics

(i) Money and Banking Statistics

15. The BOP FFS Task Force has carried out its work in close liaison with the Money and Banking Statistics Task Force. The secretary of the FFS Task Force is an observer at the meetings of the Money and Banking Task Force and the secretary of the Money and Banking Task Force of the FFS Task Force. The Money and Banking Task Force has dealt with the treatment of financial derivatives in money and banking statistics within the framework of the Compilation Guide. The recommendations made for balance of payments and International Investment Position statistics are compatible with the approach taken for money and banking statistics, even if the Money and Banking Task Force has not yet decided upon the classification of certain derivatives instruments.

(ii) European System of Accounts (ESA95)

16. For the statistical treatment of financial derivatives, the European System of Accounts (ESA95) is the major reference. All recommendations proposed by the BOP FFS Task Force are compatible with the ESA95 with the exception of the treatment of recording of net streams of settlement flows associated with interest rate derivatives. The Task Force recommends that the net streams of settlement flows associated with interest rate derivatives should be recorded as Financial Derivatives in the Portfolio Investment Account. The ESA95 (paragraph 4.47) states that these streams of settlement flows should be recorded in the Current Account. **This change would of course affect measures of GNP. The recommendation on interest rate derivatives therefore involves a change to the ESA95 regulations. EUROSTAT should be consulted on this issue.**

17. The Task Force recognises this difficulty and therefore proposes to present these agreements and recommendations to other international and European forums and to the European Commission (EUROSTAT). The BOP FFS Task Force also encourages the Task Force on Monetary Union Financial Accounts to investigate this matter.

(iii) International Monetary Fund

18. Since publication of the IMF's BPM5, further knowledge of the derivatives market has been acquired which challenges some of the assumptions underlying the recommendations made in the BPM51. In the light of: (1) experience in applying the new balance of payments and SNA standards for financial derivatives, and (2) continuing innovation in the financial markets, the IMF set up an Informal Group on the Measurement of Financial Derivatives in spring 1997 which was asked to give advice on issues related to their implementation, with the objective of amplifying or clarifying the methodologies, as needed. A number of European Union Member States, the OECD and the EMI were represented within this informal group.

19. The Group's work was used as input into the research presented in the IMF discussion paper "The statistical measurement of financial derivatives" (April 1997). The paper aims to be a comprehensive document, whose intention is to clarify the text of the 1993 System of National Accounts (SNA93) and the BPM5. The paper makes some important recommendations for changes to the SNA93 standards. For instance, the paper recommends that net settlement payments associated with interest rate swaps, forward agreements and similar instruments should be treated as financial derivatives rather than as interest. Adoption of this recommended change would directly affect the financial accounts and national accounts estimates of interest income. A second draft of the paper will be discussed at the meeting of the IMF BOP Committee in October 1997. Any changes to the SNA93 standards must be approved by the Inter-Secretariat on National Accounts (ISWGNA), a group consisting of the United Nations, the International Monetary Fund, the World Bank, the Organisation

for Economic Co-operation and Development and EUROSTAT. The IMF presented the proposed changes to the ISWGNA at its meeting mid-October 1997. The outcome of this meeting will be reported to the IMF BOP Committee at meeting later in October.

20. It should be pointed out that there are *no* differences between the proposals made by the IMF in its paper entitled "The statistical measurement of financial derivatives" and the recommendations of the EMI's BOP FFS Task Force on the treatment of financial derivatives in the balance of payments and International Investment Position.

21. The IMF pointed out that there was general consensus, in particular on its proposal to include financial derivatives both as a separate instrument category of Financial Assets in the National Accounts and as a separate functional group in the balance of payments in order to reflect their distinct characteristics. This would be a presentational difference from the requirements of the EMI/ECB as presented in the Implementation Package. If this were to be adopted by the IMF and its Member States, the EMI/ECB may also wish to consider introducing this breakdown in due course. However, at this point no details are given concerning the IMF proposal.

PART 2 PRACTICAL ASPECTS

SECTION 1: Data availability

22. Data availability for financial derivatives varies widely among EU Member States. Few Member States have data on financial derivatives at present. A few EU Member States are currently introducing comprehensive reporting systems concerning data on flows and stocks for financial derivatives. Other EU Member States await the outcome of the work of the BOP FFS Task Force before starting to collect data on financial derivatives.

23. Preliminary investigations have shown that the availability of data on transactions in options and futures differs across the EU Member States. In many Member States data on these types of transactions are already collected, but in some instances these are recorded under a different item in the balance of payments. Other Member States are preparing to collect data on these transactions.

24. Data availability for swaps and FRAs also varies among EU Member States. These derivative instruments are often difficult to capture or to identify separately. It is suggested that the proposed Sub-group on Financial Derivatives should investigate the practical difficulties in collecting data on these instruments.

SECTION 2: Sub-group on Financial Derivatives

25. The Sub-group on Financial Derivatives was set up by the BOP FFS Task Force to investigate the practical aspects, particularly the difficulties, of collecting data on derivative instruments. Since its establishment, the Sub-group has met twice.

26. The Sub-group has started its discussions according to its mandate. The Sub-group will study both simple and complex practical examples of transactions in derivatives and will illustrate how they could be recorded in the balance of payments and International Investment Position, bearing in mind the current international standards and proposed changes to these standards and the availability of data. On this basis, it will investigate the feasibility of a reconciliation between flows and stocks. It will also examine the practical and statistical implications of implementing the current international recommendations for the periodic classification of positions and flows from assets to liabilities and vice versa for those derivative instruments which may "flip" from a positive to a negative value, or vice versa.

27. The Sub-Group on Financial Derivatives will base its work on the conclusions and agreements already reached within the BOP FFS Task Force, including agreements on Financial Terminology Database entries and the IMF Informal Group on the Measurement of Financial Derivatives¹.

28. The Sub-group has decided to discuss both instrument groups and general issues on the basis of examples. The use of examples will highlight the difficulties concerning a reconciliation of flows and stocks and the valuation and definition of assets and liabilities for the different instrument groups. More general statements (or conclusions) would also be derived from the detailed examples. *Therefore, examples of transactions and positions in options, futures, swaps and FRAs* will be discussed in great detail. These examples will initially be simple and may gradually become more complex. The examples included in the recent IMF paper would be taken as a starting-point.

29. In addition to the examples exercise, the Sub-group proposed to discuss the following topics:

- (1) national experiences, for which the Sub-group would act as a forum for an exchange of information;
- (2) investigation into methods of data quality assessment;
- (3) investigation into the work carried out by the Bank for International Settlements (BIS) and the extent to which this would be useful for balance of payments purposes. The link between statistical data and prudential data could also be investigated.

¹ The Sub-group will also take into account the recent IMF paper entitled "The statistical measurement of financial derivatives", April 1997.

30. The Sub-group has started to investigate practices in the Member States represented in the Sub-group. Descriptions of data collection systems for derivatives have been circulated as well as (draft and final) reporting forms. The Sub-group generally finds this to be a useful exercise. The Sub-group would consider the study of data on cross-border flows and stocks in derivatives as a useful exercise in the long term. Owing to data availability constraints, such an exercise can not yet be carried out.

31. The Sub-group presented a progress report to the BOP FFS Task Force in September 1997. A full report on the Sub-group's findings is foreseen for mid-1998.

SECTION 3: Financial Terminology Database

32. The Financial Terminology Database has been developed by the Bank of England under the direction of the BOP FFS Task Force. The main purpose of the database is to act as a reference tool for balance of payments compilers. Its special feature is that it combines capital market expertise with balance of payments methodology. The intention is that BOP compilers will be able to access the database, call up the description of an instrument and seek advice on how to treat the instrument in the balance of payments. The main focus of the database is on instruments falling within the Portfolio Investment category of the Financial Account. In compliance with the IMF standard components, instruments are split between equity, bonds and notes, money market instruments and financial derivatives.

33. To date, the BOP FFS Task Force has concentrated on the conceptual aspects of the statistical treatment of groups of derivative instruments. The findings and recommendations of the BOP FFS Task Force should form the basis for the individual entries of derivative instruments in the Financial Terminology Database. Entries (on options, futures and swaps) have been prepared and are pending approval by the BOP FFS Task Force. The entries are, however, unlikely to be finalised until the Task Force has evaluated the final report of the Sub-group. Additional entries will be prepared by the Bank of England in co-operation with the EMI in due course.

PART 3 SUMMARY OF THE CONSIDERATIONS UNDERLYING THE PROPOSALS

SECTION 1: Introduction

34. Part 3 of this report provides a summary of the reasoning behind the recommendations presented regarding the treatment of the following groups of derivative instruments in the balance of payments and International Investment Position: options, futures and interest rate derivatives (swaps and forward rate agreements (FRAs)), commodity and equity (index) swaps, forward foreign

exchange contracts, embedded derivatives and credit derivatives. Entries for the Financial Terminology Database should be prepared on the basis of these findings and recommendations.

35. *The Task Force notes that the current recommendations made by the IMF were based on assumptions and that views on those assumptions have since changed, mainly as a result of newly acquired knowledge. Markets and products have also evolved rapidly over the past five years. The conceptual debate, compilers' understanding of markets and instruments, and market practice have changed since the IMF texts were first drafted. The recommendations made by the BOP FFS Task Force take into account discussions in other (international) forums as far as possible.*

SECTION 2: Options and Futures

36. With regard to the treatment of options and futures, three aspects were considered to be problematic: (i) the separation of the purchase price and the service charge making up the option premium; (ii) valuation; and (iii) the treatment of margin payments. The reconciliation of transactions and positions was seen as an important issue still to be addressed.

(i) The separation of the purchase price and the service charge making up the option premium

37. For options, the BPM5 states that the option premium consists of two elements: the purchase price and the service charge. The modified Black-Scholes model, which forms the basis for (individual) option pricing and trading, does not include any service charge (unless the spread on volatility is included). Member States agree that, in practice, it would be very difficult and probably impossible to discern a service charge element within the premium. **The Task Force concluded that the full premium (i.e. the purchase/sale price of the option and the implied service charge) should be recorded in the Financial Account as the acquisition of a financial asset by the buyer and as the incurring of a liability by the seller.**

(ii) Valuation

38. Member States are faced with practical problems when following the IMF's recommendation to apply the market value for the recording of *flows and stocks* in options and futures contracts. These practical problems are outlined below.

Valuation of transactions in derivatives contracts

39. The value of an option depends on: (i) the difference between the strike price and the value of the underlying asset; (ii) current interest rates; (iii) the volatility of the price of the underlying asset;

and (iv) the time remaining to expiration affecting the expected future volatility of the price of the underlying asset.

40. At the EMU (and global) level, asymmetric reporting may arise as a result of different practices in the books of the two counterparties. It is standard practice for contracts within a trading portfolio to be "marked-to-market" for valuation on the balance sheet. Contracts entered into for hedging purposes are normally valued in the same way as the primary instrument, against which the derivative is hedged (usually on an accruals basis). However, *convergence* towards marked-to-market valuation seems to be taking place.

Valuation of the underlying instruments in the event of delivery (on a market basis)

41. In the event of delivery of the underlying securities in an options or futures contract, the underlying instruments should be valued on a market basis. In such cases, the actual value of the transactions is measured. Information on the market value of the underlying instruments may not be readily available. A number of Member States have indicated that they agreed with the conceptual recommendations regarding valuation, but would have difficulty in following them. Solutions to this problem or an estimation of discrepancies still have to be investigated.

(iii) Valuation of stocks

42. The problems encountered in performing the valuation of stocks are similar to those related to the valuation of flows. The IMF Informal Group on Financial Derivatives addressed the issue of stocks. The outcome of its discussion was as follows:

"Participants shared their experiences of measuring position data. It was found that, in general, there were not any serious problems in gathering data from banks on a market value basis. However, several participants experienced difficulty in obtaining data on a residency basis or by domestic sector. Extensive market value information was collected by means of the BIS survey of market activity conducted in spring 1995 among twenty-six participating countries."

43. The availability of data on a residency basis is, of course, of critical importance for the balance of payments and International Investment Position.

(iii) The treatment of margin payments

44. With regard to *margin payments* associated with options and futures, although the IMF recommended in the BPM5 that all margin payments should be recorded under "deposits" in Other Investment, opinions continue to evolve. In co-operation with the IMF, an in-depth investigation was

carried out by the Task Force into the institutional arrangement of margins in the Member States. This investigation resulted in agreement that there are, in principle, *two distinct types of margining: "initial margining" and "variation margining", and that the practical administration of variation margining can take two forms: "options-style" and "futures-style"*. On this basis, the FFS Task Force proposes the following recommendation regarding the recording of margin payments:

"In principle, initial margin payments should be regarded as changes in deposits and be recorded, where identifiable, under Other Investment, Other Payables/Receivables. In addition, options-style variation margins should be regarded, in principle, as changes in deposits and should be recorded, where identifiable, under Other Investment, Other Payables/Receivables. Futures-style variation margin payments should be regarded, in principle, as transactions in derivatives and should be recorded under Financial Derivatives. Member States are encouraged to follow this recommendation.

In those Member States where it is impossible, at present, to make a distinction between the two types of margining, it may be possible to estimate the futures-style variation margin payment. Consideration could also be given to reporting the margin payments under a separate item until the recommended treatment is implemented."

45. In general terms, the different types and forms of margins can be described as follows (allowing for different practices in Member States). The initial margin covers the largest potential loss for the contract, given the risk parameters employed by a clearing house, and is held as a deposit (or by the posting of collateral) for the duration of the contract and returned when the contract expires. With futures-style variation margining, the premium is paid gradually along the life of the contract and is incorporated in the daily variation margin. The daily variation margin payment is usually collected by the clearing house from one party - and simultaneously paid to the other party - and provides the means for effecting a change in ownership. Under options-style margining, the writer posts margins to the clearing house in the form of cash, Treasury bills or a bank letter of credit. The clearing house retains this margin until the options are exercised or until they expire. For over-the-counter derivatives, variation margining, when it occurs, normally operates in a similar way to options-style exchange-traded variation margining. Ownership is transferred at the conclusion of the contract, if at all.

46. In most Member States the form of margining is the same for all contracts, regardless of the underlying instrument. In a few Member States the form of margining depends on either the contract type and/or the settlement medium. These forms of (variation) margins do not always appear in the market of a Member State.

47. All the members of the FFS Task Force agree, in theory, with this recommendation. However, The practical implementation of this recommendation may be difficult in some Member States. The Task Force has found that this recommendation can be followed relatively easily for transactions in derivatives carried out by banks on their own behalf. For transactions in derivatives carried out by banks on behalf of their customers, this recommendation is difficult to follow. It is proposed that issues relating to the practical implementation of this proposal should be studied in more detail. At present, only in a minority of Member States is the distinction made, thus making it possible to detect a change in ownership. A few Member States are in the process of introducing either new statistical regulations or new accounting rules to accommodate this distinction.

48. The proposal by the BOP FFS Task Force on the treatment of margin payments is compatible with the proposals made by the IMF in the paper entitled "The statistical measurement of financial derivatives". The proposals are also compatible with proposals made for the treatment of financial derivatives in the Money and Banking Statistics (refer to the "Money and Banking Compilation Guide", Money and Banking Task Force, 1997). Both the IMF and the Money and Banking Task Force distinguish between repayable and non-repayable margins. According to the recent IMF paper, repayable margin deposits should be recorded in Other Investment. Repayable margins equal initial margins and option-style variation margins. Payments of non-repayable margins should be recorded, according to the IMF paper under Financial Derivatives.

SECTION 3: Interest rate derivatives: swaps and forward rate agreements

49. The Task Force discussed the recording of interest rate derivatives (i.e. swaps and FRAs). There are three issues for discussion regarding these derivative instruments: (i) valuation; (ii) the classification of net streams of settlement flows/payments associated with interest rate derivatives; and (iii) the recording of positions in swaps (and all other derivative instruments which may "flip" from asset to liability, and vice versa).

(i) Valuation

50. In principle, swaps should be valued at market prices. In some Member States there is convergence towards valuation on a marked-to-market basis. However, swaps held on the banking book (usually for hedging and always to maturity) are not often marked-to-market. In Member States where data are collected via a settlement system, a swap arrangement may be difficult to detect or identify separately. In such a system, the valuation may also be based on real payments flows.

(ii) Classification of net streams of settlement flows/payments associated with interest rate derivatives

51. The FFS Task Force proposes the following recommendations regarding the recording of net streams of settlement payments associated with interest rate derivatives:

“The net stream of settlement flows associated with interest rate derivatives should be recorded as Financial Derivatives in the Portfolio Investment Account. Transactions in interest rate derivative instruments, i.e. swaps (all transactions in interest rate swaps and the interest rate element of cross-currency swaps) and FRAs, should be recorded under Financial Derivatives in the Financial Account of the balance of payments.”

52. International standards (SNA and ESA95) recommend the recording of streams of interest payments associated with swap transactions, on a net basis, in the Current Account, and the recording of streams of principal repayments in the Financial Account. The members of the Task Force are of the opinion that interest rate swaps and cross-currency interest rate swaps have a market value in practice and should, therefore, be regarded as financial assets/liabilities in the National Accounts and the balance of payments. The complexity and sophistication of inter-dealers' positions primarily account for both the apparent scale of the global market and the growth in cross-border settlement flows. The conceptual reason for the change is a critique of the cost of capital principle which underpins the current international standards. Interest is defined as one form of property income (i.e. the return on the use of capital). However, interest rate swaps do not provide any capital at their inception and, although cross-currency interest rate swaps notionally involve the exchange of principal amounts at the outset, no credit is provided.

53. Swaps may sometimes be used to change the cost of capital, but they are increasingly held and traded for other purposes. The expansion of inter-dealers' business and the associated decline in the proportion of trades directly involving end-users have broken the link between settlement payments and the cost of borrowing. For financial intermediaries, the holding of derivatives contracts is not associated with the provision or receipt of finance; it is simply the acquisition of a financial asset/liability for which the return will come in the form of trading gains and losses. Swaps, like various other financial derivatives, do not themselves involve the provision of capital at the time the instrument is created.

54. Another argument in favour of the change is to ensure consistency of treatment compared with other derivative interest rate products when assessing the use of the resulting data and their quality. A further advantage is that the proposed treatment will enable the analysis of Current Account data to improve as a result of the removal of a large erratic item. The inclusion of the settlement of interest rate swaps and cross-currency interest rate swaps as income may distort the balance of payments Current Account, given the significant impact of interest rate swaps on balance of payments statistics.

55. The majority of Member States are in favour of recording the settlement flows associated with interest rate derivatives as transactions in financial derivatives. A few Member States are of the opinion that interest transactions should be reflected in the income item in the Current Account, as this reflects the specific conditions on the capital markets in these Member States. This treatment would also ensure compatibility with current accounting practices. In addition, this issue affects the size of GNP and some of the Member States concerned would prefer to consult the GNP Committee on this matter. The Task Force also acknowledged that effecting the corresponding change to the ESA95 could be a lengthy and problematic procedure.

56. The IMF's proposals as presented in the recent paper entitled "The statistical measurement of financial derivatives" are in line with the proposals of the BOP FFS Task Force. The following is recommended in the IMF paper:

"Thus it is recommended that interest rate swaps and forward rate agreements, two of the most common over-the-counter instruments, be classified as financial assets, and net cash settlement payments associated with interest rate swaps and with FRAs be classified in the financial account rather than as interest. Such a change would affect recorded interest in the national accounts, and hence have implications for national income" (IMF paper, paragraph 61)

(iii) The recording of positions in swaps and forward rate agreements

57. The Task Force recognises that a swap and an FRA transaction could give rise to a "position" vis-à-vis a non-resident. As swaps and FRA arrangements are examples of derivative instruments which tend to "flip" from being assets to liabilities, and vice versa, the Task Force acknowledges the need to examine this phenomenon further as well as its implications for the International Investment Position and the balance of payments.

58. The recording of positions of swaps and FRAs in the International Investment Position is closely related to their classification in the balance of payments. While these agreements are commonly established without the payment of a premium, market conditions do change and a contract will gain value for one party and become a liability for another. The value of a financial derivatives contract is derived from the difference between the agreed contract price and the prevailing market price, or that expected to be prevailing, which is discounted accordingly. Hence, the relationship between the agreed contract price and the prevailing market price is a crucial element in the valuation of the financial derivatives contract. If the agreed contract price and the prevailing market price are the same, the derivatives contract has no value. If the contract price and the prevailing market price differ, the derivatives contract does have a value, which can "flip" to being positive or negative at various points along the life of the contract. This would mean that the swap contract could be recorded at the end of a reporting period as an asset and at the end of the following reporting period as

a liability, requiring a restatement of positions with a balancing adjustment. The implications of these flips for the classification of the point-in-time valuations according to assets and liabilities needs to be fully examined. This is being carried out by the Sub-group on Financial Derivatives.

SECTION 4: Commodity swaps

59. Commodity swaps are contracts with one or both payments linked to the performance of a commodity price or a commodity index. These contracts involve the exchange of the return on one commodity or commodity index for another, and the exchange of a commodity or commodity index for a floating or fixed interest rate (see the BIS Reporting Forms for the Regular Derivatives Market Statistics).

60. The BOP FFS Task Force recommends that commodity swaps should be recorded under Financial Derivatives in the Portfolio Investment Account of the balance of payments and the International Investment Position.

SECTION 5: Equity (index) swaps

61. Equity (index) swaps are contracts in which one or both payments are linked to the performance of equities or an equity index. They involve the exchange of one equity or equity index return for another and the exchange of an equity index return for a floating or fixed interest rate (see the BIS Reporting Forms for the Regular Derivatives Market Statistics).

62. It is recommended by the BOP FFS Task Force that equity (index) swaps should be recorded under Financial Derivatives in the Portfolio Investment Account of the balance of payments and the International Investment Position.

SECTION 6: Forward foreign exchange contracts

63. This section of the paper describes forward foreign exchange contracts and proposes a draft recommendation regarding their treatment in the balance of payments and the International Investment Position.

64. The BPM5 does not mention forward foreign exchange contracts. In the IMF paper entitled "The statistical measurement of financial derivatives", forward foreign exchange contracts are defined as contracts in which two parties agree to transact a specified amount of foreign currencies at an agreed exchange rate and on an agreed date. The international manuals do not state how they should be handled, although implicitly they are regarded as non-traded forwards. As with other forward contracts, the value of the forward foreign exchange contract at inception is zero, but it acquires value

as market exchange rates change and the interest differential of the two currencies changes. Transactions in forward foreign exchange contracts occur when the contract is exercised. Although the two counterparties have agreed to exchange currencies at an agreed rate in the future, the market rate at expiry will usually be different. Foreign currency must be converted into the unit of account and recorded in the account at the exchange rate prevailing at the time of the transaction. Any difference between the amounts paid and received in the unit of account, using prevailing exchange rates, is allocated to transactions in financial derivatives.

65. For forward foreign exchange contracts, the BOP FFS Task Force recommends that the difference between the amount agreed at the time of the contract and the amount that would be paid at the spot rate prevailing at settlement should be allocated to transactions in financial derivatives. This recommendation is in line with the IMF recommendations contained in the recent IMF Paper entitled "The statistical measurement of financial derivatives" (paragraph 68) and accounting standards for off-balance-sheet instruments for the ESCB/ECB.

66. All the members of the Task Force agree in principle with this recommendation. Some members have pointed out, however, that it may be difficult to follow this recommendation in practice. In settlement systems in which amounts paid are reported, it may be difficult to identify and separate the market price component.

SECTION 7: Embedded derivatives

67. Some financial instruments include derivatives which are embedded within them. These are known as embedded derivatives or embedded options. The SNA93 and the BPM5 recommend that financial derivatives should be treated separately from the underlying transaction to which they may be linked as a hedge. By definition, an embedded derivative has the same two counterparties for both the underlying financial instruments and the financial derivatives. Some would argue therefore that the reasons for identifying and valuing financial derivatives separately do not apply in the case of embedded derivatives.

68. There are strong practical reasons for not identifying and valuing embedded derivatives separately. First, as indicated in the recent IMF paper entitled "The statistical measurement of financial derivatives", it is difficult to identify the embedded derivative itself as the counterparties are the same as for the underlying financial instrument. Second, the value of the financial derivative can not be identified separately. Third, it is practically impossible to identify the payment of the premium associated with the establishment of the embedded derivative. The IMF paper consequently proposes that embedded financial derivatives should not be recorded and valued separately in the National Accounts.

69. While it may theoretically be necessary to differentiate between the derivative element and the underlying security for classification purposes, the practical difficulties must be addressed. The FFS Task Force recommends that embedded financial derivatives should be recorded together with the underlying financial instrument, and not be recorded and valued separately in balance of payments statistics and the International Investment Position (i.e. if a primary instrument, such as a security or a loan, contains an embedded derivative, the instrument should be valued and classified according to its primary function, such as a security or a loan). This is in line with IMF recommendations contained in the recent IMF paper entitled "The statistical measurement of financial derivatives" (paragraph 79) and the ESA95 regulations.

SECTION 8: Credit derivatives

70. Those financial derivatives with the primary purpose of trading credit risk are known as credit derivatives. The types of contracts in question are the same as those involving market risk: option-type and forward-type contracts. Data on credit derivatives are included in the additional data requirements set up by the BIS for the first instalment of regular derivatives market statistics at end-June 1998. The BIS defines credit derivatives as "customised agreements between two counterparties in which the payout is linked primarily to some measure of credit worthiness of a particular reference credit. Contracts specify an exchange of payments in which at least one of the two legs is determined by the performance of the reference credit. Typical credit derivative instruments are credit-spread forwards and options, credit event or default swaps and total return swaps"².

71. The IMF paper states that there is no inherent reason why so-called credit derivatives should not be classified as financial derivative assets. The understanding is that these financial derivatives, like those involving market risk, are frequently drawn up under standard legal agreements and involve collateral and margining procedures, a procedure which leads to agreed valuation methods. However, credit derivatives could include arrangements which are on the dividing line between financial derivative instruments and insurance services. The IMF paper therefore suggests that classification depends upon the characteristics of the specific instrument in question.

72. In line with the IMF suggestion in the recent IMF paper entitled "The statistical measurement of financial derivatives" (paragraph 74), the classification of specific instruments of credit derivatives will be decided upon case by case. This could be done within the framework of the Financial Terminology Database. The Sub-group on Financial Derivatives may also wish to discuss this group of financial derivatives. The further monitoring of market developments and practices may be worthwhile as valuation methods become more sophisticated. No detailed breakdown of credit derivatives is intended.

² Additional data requirements for the first instalment of regular derivatives market statistics at end-June 1998, Bank for Ir

CONCLUSION

73. The financial derivatives market is extremely complex and this is reflected in the difficulties encountered when trying to reach a conclusion about the appropriate treatment of certain instruments in the balance of payments and the International Investment Position. The approval and implementation of the recommendations presented by the BOP FFS Task Force in this report signifies a major step forward in preparing for the collection of data on financial derivatives. These recommendations form the basic fundamentals of the treatment of financial derivatives in the balance of payments and the International Investment Position. As a result, the comparability of data would be improved.

74. Future work on financial derivatives will include further guidance on the treatment of individual instruments. This will be carried out within the framework of the Financial Terminology Database. Valuation issues should also be addressed. Although all the members of the Task Force agree with market valuation in theory, this poses a number of difficulties in practice. Practical aspects of the recording of financial derivatives and the reconciliation of stocks and flows, one of the most difficult aspects of the statistical treatment of derivatives, will be addressed by the Sub-group on Financial Derivatives.

75. Work on financial derivatives, particularly practical issues, will continue. This full report provides a comprehensive overview of the conceptual work carried out by the BOP FFS Task Force.