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ON MONETARY, FINANCIAL AND

BALANCE OF PAYMENTS STATISTICS

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PART B - ITEMS FOR DISCUSSION

ANNEX A:
Final Report of the Technical Group Direct Reporting

TO

Item B.3.d of the agenda

Final Report of the Technical Group Direct Reporting - Summary

Full Final Report of the Technical Group Direct Reporting

REPORT OF THE TECHNICAL GROUP DIRECT REPORTING PROCEDURES: FROM GENERAL PRINCIPLES TO PRACTICAL IMPLEMENTATION

INTRODUCTION - GUIDE FOR READING THIS REPORT

A number of methods exist for the collection and compilation of balance of payments (BOP) statistics. Major methods include collection from customs administrations of International Trade Statistics, collection of transactions passing through the internal banking systems (ITRS), collection directly from those residents involved in international transactions (enterprises, households, etc), administrative sources etc.

In practice, the BOP statement is compiled piecewise rather than as a single block. Methods used for the collection and compilation of statistics differ among BOP items within a country, as well as among countries. Another feature of the compilation of BOP statistics is that it is a dynamic process, meaning that a method that worked satisfactorily in the past could become less efficient and require some new questioning. For various reasons explained further in the executive summary, ITRS may lose efficiency to some extent, which will differ depending on countries and items collected (varying from negligible changes to alteration requiring alternative collection systems). A current area of concern and action European-wide and world-wide, relates to the appropriateness of alleviating the reliance of BOP statistics on such collection methods.

Taking account of this context, the TG has been mandated to produce the present report, whereas some countries may draw collective benefits (for respondents, compilers and users) from using more direct reporting procedures and less ITRS. **On no account this report is the description of a collection system, which remains of MSs' responsibility and which to a great extent depends on country practices and needs. It is on the other hand an in depth analysis of companies direct reporting procedures, their implications and possible uses; it aims at presenting the statistical process permitting to target the companies liable to be part of the collection system and to get from them the information needed to produce BOP statistics fulfilling the quality criteria. This approach is set out through several modules, which can be read separately.**

Among all items of the balance of payments, the area most likely to undergo the consequences of a decrease in efficiency of ITRS is that of international trade in services (ITS). For this reason, a number of sections focus especially on the item *services* (excluding those relating to *transportation* and *travel* which are the subject of a peculiar reporting), in particular for the aspects where direct reporting procedures are presented by reference to ITRS. The scope of this report is however much broader than a mere discussion of ITRS VS direct reporting systems, and some discussions on technical matters linked to direct reporting concern their possible use for the compilation of all items of the BOP and International Investment Positions (IIP).

GLOSSARY OF TERMS AND ACRONYMS

Bank settlement data, Reporting of bank settlement	Refer to the narrow concept of data concerning individual settlements transferred through banks, as collected within an ITRS.
BOP	Balance of payments
BPM5	the 5th edition of the IMF Balance of Payments Manual
DRC	Direct reporting company
EbXML	e-business XML
ECB	European Central Bank
ERP	Enterprise Resource Planning
EU	European Union
FATS	in the BOP framework, this acronym refers to foreign affiliates trade in services statistics
FDI	Foreign direct investment
GBR	General business register, otherwise called central business register, interdepartmental business register…
GDP	Gross Domestic Product
IIP	International Investment Position
IMF	International Monetary Fund
IP (database)	International Payments (database)
ITRS	International Transactions Reporting System
ITS	International trade in services
TG	Technical Group
MSs	Member States
NCB	National Central Bank
NSI	National Statistical Institute
Settlement system Bank settlement system	A synonymous for ITRS. A settlement system is characterised by the reporting of individual settlements passing through resident banks.
SMEs	Small and Medium sized Enterprises. In the framework of this report, this should be understood in relation to the size of companies' international transactions, as opposed to "big players"
WP	Working party
XML	eXtensible Markup Language
XBRL	eXtensible Business Reporting Language

Terminology in connection to direct reporting (explanations are provided in full detail in section A.2 on definitions)

- **partial direct reporting** and **general direct reporting**: refer to an opposition between peculiar direct reporting procedures that are relevant against the background of bank settlements systems. The opposition "partial" / "general" refers to the fact that there may be "partial" reporting only of transactions settled outside the resident banking system (or which otherwise would be reported incompletely), as well as "general" reporting of international transactions, regardless of whether they are or not settled through the resident banking system.
- **full direct reporting** and **specific direct reporting** (full BOP reporting and specific BOP reporting) refer to an opposition between companies reporting on all their BOP transactions (full direct reporting) and those reporting only for some determined BOP components of their international transactions (specific direct reporting).

Any combination of these is possible.
In the following combinations of systems, the company reports…

	Full direct reporting	Specific direct reporting
General direct reporting	All international transactions, whatever the way they are settled.	Only specific BOP components of their international transactions, whatever the way they are settled.
Partial direct reporting	Transactions covering the whole range of BOP items, the reporting is limited to transactions that are not, or incompletely, reflected in the resident banking system.	Only specific BOP components of their international transactions, furthermore the reporting is limited to transactions that are not, or incompletely, reflected in the resident banking system.

EXECUTIVE SUMMARY

a) The Technical Group (TG) presented a first report on "direct reporting companies" to the BOP WP in October 1999. From this report, **it has been recognised that Direct Reporting from largest companies, complemented by surveys and/or bank settlements data for small and medium sized enterprises (SMEs) could be one important source for the evolution of BOP collection systems**.

- This approach is favoured as compared to pure International Transaction Reporting System (ITRS), in so far as it represents **less dependence on reporting by banks** of cross-border settlements on behalf of their customers. It has been recognised that bank settlements, on which most European BOP collection systems were relying, are losing accuracy since companies use new techniques in managing their assets (among others the cash pooling). Moreover, the implementation of an exemption threshold for the bank reporting on behalf of their customers from January 2002 brings about an important loss of information[1].

- The necessary transfer of part of the **reporting burden on companies has to be carefully monitored. A special emphasis should be put on the collection of big players' transactions through a cost-effective approach**. Items for which collection from big players is not sufficient will require that additional information be found on SMEs from other sources (quarterly and yearly surveys and/or company or bank settlements data and/or administrative sources: see the matrix below).

[1] Regulation (EC) No 2560/2001 of the European Parliament and of the Council 19 December 2001 on cross-border payments in Europe.

b) **These general principles form the basis of "the matrix approach, aiming at providing a broad picture about what are various sources where the relevant information could be obtained to meet the degree of accuracy required for each BOP/IIP item[2] ». The implementation of these principles was considered a precondition for the convergence of collection systems across EU Member States (MSs)**, since a full harmonisation of collection systems was found out of reach for the moment. The national action plans, presented and discussed during the July 2002 CMFB meeting, have been built along these common principles. **This report concentrates on the collection of BOP relevant statistics from enterprises**.

The matrix

Sectors/segments of the statistical population	Enterprises (incl. MFIs on own business)		Government	Households
B.o.p./ i.i.p. items	"large" (multinational)	Small & medium-size enterprises		
Goods	Customs documentation			
Services	DR	Q/Y surveys and/or Company or bank settlements data and/or Administrative sources	DR	*to be defined*
- travel	-			Surveys
Income				
- compensation of employees				
- investment income	DR		DR	Derived from stocks
Current and capital transfers	DR		DR	Administrative sources
Direct investment	DR		DR	-
Portfolio investment	DR	Under investigation	DR	Under investigation
Other investment	DR	DR (accounts abroad) or surveys	DR	*to be defined*
FATS items	DR	Yearly surveys		

c) Once these principles set down, **the mandate of the TG was reassessed. Works had to proceed in co-ordination with the implementation of future BOP collection systems by MSs, regarding the work to be given to companies as reporters.** To summarise, the TG felt important to:

- give clear guidelines for the selection of respondents, through the performance of a new quantitative analysis,
- concentrate on **BOP oriented business registers** and on the organisation of direct reporting, to identify the best practices for the selection of sampling and grossing-up methods,
- study if and how a **common reporting from multinational companies** could be implemented within the future BOP collection system,
- foster the **consistency of the different sources** to be used in the future BOP collection systems,
- scrutinise the **management of the interim period**, as for most EU MSs, future BOP collection systems will not be implemented before 2006, and as there is a risk of deterioration of the output in the coming years.

[2] See "Euro area/EU Balance of payment/International investment position data collection systems" CMFB June 2001 C. 3.a

d) This draft report portrays the results of the TG's works. It raises the main problems MSs will have to face in the future, especially to obtain the requested level of details and to fulfil the quality, timeliness and accuracy requirements.

- **Chapter A provides background information. It explains in detail the mandate and clarifies the terminology used**, as the term "direct reporting" to which the work of the TG refers, is interpreted in different ways depending on the background of existing reporting systems. **Output constraints**, in terms of detail, timeliness and quality required by international and national institutions, as well as the cost constraint, are taken into account for the design of future collection systems. An introduction of the **multinationals specific case** is also provided.
- **Chapter B deals with the analysis and the selection of potential respondents**. The objective is to find the best ways to characterise the population of companies making international transactions (including financial transactions). For this purpose, the BOP/IIP compiler needs an updated BOP register and the stratification of companies, considering some discriminatory criteria.

- Starting from the description of the ideal **BOP/IIP register**, the report considers the potential sources (existing or to be created) which could be used, and the ways of a practical implementation, taking account of the experience of countries already collecting data through surveys.
- **The quantitative analysis of cross-border transactions** is a prerequisite for the choice of the collection system and the selection of the population of respondents. On the basis of several MSs' practical experience, guiding principles are outlined to carry out this quantitative analysis.
- For the selection of the different types of respondents resulting from this quantitative analysis, a special attention is given to **big players,** with the aim of obtaining accurate data while minimising the burden for companies. The report defines big players and the criteria to be used for their selection (threshold or cut-off methods).
- The description of the various stages of a business survey aims at giving some guidelines of the survey process in general, including the **selection of survey respondents.** Special attention is put on grossing up methods and practical difficulties arising from the need (i) for detailed BOP items and geographical breakdown, (ii) to reconcile flows and stocks in the *financial account* and (iii) to ensure different quality, timeliness and accuracy standards.

- **Chapter C deals with the main characteristics and the practical implementation of the reporting from respondents.**

- **The report gives some guidelines for the reporting of transactions from respondents.**
  - As **the transaction approach is consistent with BPM5,** MSs are encouraged to carefully study what is available from companies' accounting, taking into account a triple condition: the need to obtain data fulfilling quality and timeliness standards; with all the details required regarding BOP item and geographical breakdown; and with a limitation of the burden for BOP reporters. The report pleads for pragmatic solutions.
  - **The nature of the information reported by companies (full or specific reporting of their transactions) depends on the status of the respondents**. A full reporting is favoured when a high degree of representativeness can be found in many items with a limited number of big players. Specific reporting through a set of specific surveys will be used as commended by the structure of the population of respondents.
  - **A special attention is paid to multinational companies with a harmonised reporting.** This specific reporting corresponds to a request of companies with affiliates in different EU MSs and suffering from different BOP reporting formats. The harmonisation of reporting rules is deemed to be a source of cost savings for companies and of quality for BOP/IIP compilers. The testing exercise with a sample of companies will give conclusions on that point.

- **The section relating to practical implementation aims at presenting the problems linked to the combination of different sources, as this combination will be the rule for the majority of EU countries.**
    - **Different scenarios are conceivable**, taking account of MSs economic context, features of present collection system, and of the different output requirements in terms of frequency. While defining the optimal combination of sources, BOP compilers will have to bear in mind the requirements for accurate statistics as well as the need for companies' reporting burden to remain reasonable.
    - **The implementation of the future collection systems will take time**. Some MSs will choose a step-by-step implementation, whereas others will prefer to do it in one shot. Either way, **the management of the transitional period could be a critical one**. Some recommendations can be found in this report.
    - Whatever the combination of sources, part of the collection systems will rely on companies. These will therefore be transferred some of the reporting burden, which is today borne mainly by the banking sector. **Legal arrangements will probably be necessary** to get timely and good quality data from companies; they may be developed at national level and at European level.
    - **National action plans for the collection of data on *services***, excluding *transportation* and *travel*, are shortly presented. Where it is the case, this item is indeed well illustrative of the problematic of moving to a collection system based on increased direct reporting procedures.
    - Finally, **explanations on factors of costs linked to direct reporting procedures** are exposed by reference to costs stemming from ITRS, as this provide a convenient basis for the discussion.

RECOMMENDATIONS

The recommendations given in this section are separate modules, which may be read and implemented independently from each other. They provide BOP compilers with advice on various steps to go through when implementing a collection system based on companies direct reporting. Recommendations address key issues outlined in the TG's discussions and further developed in the report, which concern: general considerations and pre-condition, business registers for BOP statistics, the need for a thorough quantitative analysis, the piloting of direct reporting procedures and the retrieval of information from companies.

Section 1: General recommendations

A. **The TG recommends an early investigation on the practical implementation and organisational aspects** of the move towards new collection procedures.

B. When determining the number of respondents and the reporting procedure enterprises belong to, BOP compilers must find the **middle ground** between three variables: the **quality**, the **level of detail** required (items and geographical breakdown) and the **cost** to collect the right information. Thus, **any change in output requirements leading to an increase in the level of detail to be produced should be considered with extreme caution: consequences may be heavy on costs for respondents and BOP compilers, as well as on the quality of statistics produced.**

On the other hand, **it also has to be taken into account that lowering the level of detail requested in BOP data flows could adversely impact on the quality of National Account aggregates** (Gross Domestic Product (GDP), Gross Disposable Income, and sectors accounts).

C. An enhanced **co-operation between National Central Banks (NCB) and National Statistical Institutes (NSI)** is necessary, however the data collection is organised. Possible share of responsibilities for the BOP compiling will require that a formal agreement be reached between the two institutions. Future collection systems will need new qualifications; in particular **BOP compilers' skills will have to expand** on both domains of statistics and accountancy.

D. Following the progressive integration of the internal market and the globalisation currently affecting the world economy, and the request of the European Round Table of Industrialists (ERT), **Member States should explore in depth the ways to include in the future collection system an harmonised reporting for multinational companies, which is presently under testing with a sample of representative companies.**

Section 2: Quality of the registers

E. **It is of utmost importance for BOP compilers to be very demanding on the quality of their BOP specifically designed registers (frames), as this makes up the fundamental of any direct collection for statistics.** Deep investigations must be carried out in a wide range of fields, and relevant sources must be found to build a register, both in terms of relevance in coverage and auxiliary information available.

F. **There is no unique source enabling to target the BOP population.** To reach a sufficient degree of accuracy, it is indispensable to combine sources that are heterogeneous (distinct coverage, variables, updating, etc.). T**he first pre-requisite is for the BOP compiler to have a thorough knowledge of all the available sources, the information they contain, the frequency and delay of updating, as well as the limits of each source.** The possible sources analysed in the report comprise:

- general business registers,
- databases of international payments from banks,
- trade registers,
- VAT registers,

- existing registers for partial direct reporting companies, *foreign direct investment* (FDI) transactions and *portfolio investment* transactions,
- information on international transactions requested in large-scale general surveys, e.g. on structural business statistics,
- other sources of information such as specific registers (available from trade organisation, regulatory authorities, other administrative sources etc.), the press and other media, information from non-resident sources, etc.

G. In relation to the maintenance of the BOP register, the TG stressed the **peculiar relevance of information derived from a simplified reporting by banks on behalf of their customers. Investigations on MSs' possible options for maintaining (or implementing) such a source of information should be a priority.**

H. Among all the potential sources, **the possibility to identify international transactors in services by crossing information on economic activity and total international trade should be explored.**

I. **Countries are advised to conduct an in-depth assessment of the links between auxiliary variables and international transactions.** Once the most relevant variables have been selected, a pragmatic approach must be taken to ensure their optimal exploitation for stratification and updating.

J. The selection of respondents and the updating of registers have to take into account the high volatility of the population of companies. **The accuracy of BOP registers being a peculiarly important condition on the quality of statistics produced, BOP compilers should pay a great attention to operate effective updating procedures for registers.**

K. Actions should be taken from a legislative point of view to **remove possible barriers in BOP compilers' access to potential sources of information, whatever the practical organisation of BOP compiling.**

Section 3: Quantitative analysis

L. **Moving to a new collection system requires that thorough quantitative analyses be conducted in appropriate delays prior to the effective change.**

M. The opportunity of **using the settlement database** when still available, should be fully taken, in so far as the detail they provide permits:

- to **make a photography as precise as possible of the population of respondents,**
- to make all necessary **tests to select intermediate variables** for samples stratification and grossing up procedures,
- **to structure the business registers**.

N. An important output from the quantitative analysis will be the determination of the type of reporting and therefore the **selection of the respondents:**

- **A high concentration of transactions among a limited number of "big players" is considered as a strong argument to choose a system relying partly on "big players" selected as full direct reporters[3], which will represent the core of the monthly reporting,**
- **A low degree of concentration argues for a system relying entirely on surveys**.

Section 4: Piloting the Direct Reporting

O. **Any proposed direct reporting system should be piloted amongst a small selection of potential respondents before going live to ensure that:**

[3] It has to be stressed that in some countries portfolio investments reporting of big players may be made by the banking sector.

- **the design of the form meets good practice and enables optimal understanding by the respondent (well-defined, relevant and targeted questions; accurate and understandable instruction notes accompanying the forms; efficient and logical sign-posting),**
- **the availability of the necessary source data is confirmed**
- **the resources involved in the companies supplying the data and in processing the data are assessed**
- **the processing system is fully tested**
- there is a sensible balance between collecting very specific data in the survey or a wide range of variables (and a long questionnaire)
- realistic response rate targets are set.

Section 5: Report from companies

P. Using accounting systems as a source, the respondents are able to supply data on various types of transactions not resulting in settlements, e.g. accrued interest and intra group transactions. On the other side, the quality of the geographical allocation could be affected, as settlements come from the financial division that is generally more aware of the international character of an operation and of the country and currency breakdowns. Although a survey-based system is deemed to gather information on a transaction basis, **attention should be paid to which of the company's division is providing the information, to assess its nature**.

In any case, depending on what kind of information is provided to the BOP compiler, pragmatic solutions should be envisaged in order to solve possible practical problems of a transactions-based approach.

Q. Regarding the links between accountancy and balance of payments, **the TG considers of utmost important to have early contacts with companies and ERP software providers**, and to take into account the experiences of other statistical domains, like Business Statistics, exploring potential synergies. Various aspects should be tested with companies:

- availability of data,
- timeliness (to enable the compilation of the aggregate in due time)
- accounting practices and definitions used
- cost for the companies.

R. Considering the balance between advantages and shortcomings, and in relation to the quantitative analysis, **the TG favours when it is possible, and at least for "big players", a full reporting. This solution is deemed to ensure a better quality of reporting for the core of companies, and to ensure an easier management of the BOP database, because of the unity of the reporting.**

S. The BOP compiler has to **clearly define its information requirements. In general it can be stated that drafting survey forms and clear guidelines in accordance with accounting language makes reporting easier for companies. Furthermore clearly stating statistical needs and working towards harmonisation of concepts are to be considered as a means to save costs for the economic system in general.**

1. BACKGROUND INFORMATION

This chapter provides background information on the TG's works. It first reminds the detailed mandate and the composition of the TG. Then, the definition of the various direct reporting procedures is clarified. The output constraints regarding the details requested, the timeliness and the quality are described, as well as the problematic of conciliating these with costs constraints. The multinational case is also shortly presented, as it corresponds to a request from a part of European companies for a common reporting system with its own specific features.

1.1. Mandate and composition

1.1.1. Mandate of the TG Direct Reporting

The TG Direct Reporting presented the Report to the BOP WP in October 1999. It was decided that the TG activity should continue and concentrate on the following:

- **The use of registers for Direct reporting**
  - State of play
  - Set up of the register and link with Business Register
  - The update of registers and possible use of settlements
- **The extension of the quantitative analysis to all BOP items**
  - Links with the mode of selection of Direct Reporting Companies (DRCs)
  - A focus on the services transactions: test of the stability of the population and special treatment for the debit side and the credit side
  - The geographical coverage
  - Need of a specific approach to the financial transactions
  - The case of small and medium enterprises
  - How to target the appropriate population of respondents?
  - Geographical details: links with the sample
- **The selection of direct reporting companies**
  - Selection threshold
  - Statistical sampling
- **Reporting characteristics**
  - Different approaches to Direct Reporting
  - Inclusion of portfolio transactions / FDI
  - Harmonisation of reporting rules (e.g. use of common code list, common forms, etc)
- **Common forms for multinationals**
  - Preparation of the common forms
  - Guidelines and organisation of the testing
  - Practicability of the common forms for companies and for compilers
  - A possible extension to other big companies? Pros and cons
- **The consistency of the sources: the view of the BOP compilers**
  - Problems of timeliness and of quality
  - On a monthly basis, the need to gross-up information for key items
  - On a quarterly basis, how to integrate direct reporting with surveys
- **Managing the interim period**
  - Identifying priorities for implementing direct reporting
- **Follow up of national plans and characteristics of companies reporting**

1.1.2. Composition of the TG Direct Reporting (January 2003)

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1.2. Definitions

Before entering a discussion on the future development of reporting systems in Europe it is useful to clarify the terminology used. Especially **the term "direct reporting" to which the work of the TG refers is often interpreted in different ways, depending on the background of existing reporting systems**. The main problem seems to be that the meaning of words has changed over time in connection with the ongoing convergence of data collection systems at play or to be developed. Aspects taken into consideration in the context of this discussion can be described by the following pairs of terms:

- settlement vs. survey system,
- settlements vs. transactions,
- single vs. aggregated reporting,
- general vs. partial direct reporting,
- direct vs. indirect reporting.

1.2.1. Historical development

Until the 1990's there was a clear distinction between **settlement systems** (in the terminology of the IMF later on called ITRS) and **survey systems**. In both cases these are common headings for a variety of different systems in detail.

- **Settlement systems** are mainly characterised by the reporting of **individual settlements** transferred through banks and the possibility to reconcile all payments with changes in stocks. In addition, these systems provide for companies to report directly to the compiler transactions settled through clearing or netting, as well as transactions settled via accounts held abroad.
  The latter type of reporting, which is called **partial direct reporting,** is a necessary complement to the settlement systems, because in case of clearing and netting only net values are settled and thus can be reported and in case of settlements channelled via accounts abroad the national banking system is not involved at all.
  Besides, the **general direct reporting** has been developed in addition to the basic settlement systems with the aim of improving the quality of information. Companies report all their transactions with non-residents, whether they are channelled through the resident banking system or not. Both types are closely related to the French reporting system, but have also been taken over by other countries. **Whereas in settlement systems only single payments are reported, direct reporting can be based on transactions as well as on settlements. In both cases the reporting may be a single or an aggregated one.**
- The **survey system** is generally based on **enterprise surveys**. The main difference to direct reporting is the **procedure for the definition of respondents**. "A survey design includes certain standard steps that are common to the method regardless of the field of statistics: the compiler must define the target population and target variables, carry out the limitation process to establish a frame on the basis of registers and auxiliary information. Finally, for the selection or sampling of the respondents, many solutions are available according to the circumstances of the survey."[4] **It can not be said that surveys are only transaction-based. Especially in the case of services, settlements could also be reported. In all cases it is an aggregated reporting.**

1.2.2. Changes in the "philosophy" of systems

With the start of the work of the TG Direct Reporting Companies and even earlier, in the framework of a questionnaire of Eurostat's Task Force 1 (in the first half of the 1990's), a remarkable step forward was made in the awareness of changes in the meaning of so far well accepted definitions. The main distinction between settlement systems on the one hand, and survey systems on the other hand, started to fade. Step by step the idea of putting instead the emphasis on the question "who is basically requested to report to the compiler?" gained importance.
The **aspect of direct versus indirect reporting** became more prominent, whereas direct reporting could not be regarded as a mere subset of a settlement system.
In a similar way the **distinction** between **general and partial direct reporting** in the meaning described above started to be questioned. The wording "partial direct reporting" could also refer to direct reporting procedures for specific items of the BOP in the *current account* as well as in the *financial account*, regardless of the channel through which the transaction was settled.
Finally, it also became difficult **to distinguish direct reporting from a survey**, because a survey is also a direct reporting of respondents.

1.2.3. A new common terminology[5]

As a follow-up of all these developments the TG proposes a new terminology which is more in line with the current situation and may better help in the future to discuss differences in data collection. The way forward will lead in most countries to less importance for bank settlements-based systems. The discussion has shown that the reporting of settlements or transactions is not so much related to a specific type of

[4] Taken from a Swedish paper by Lars Forss.

[5] Based on a proposal of the Banque de France.

reporting. Therefore no further intensive consideration is given to this point with regards to the classification of systems.
The new terminology follows three axes:

- **The primary basic distinction is between direct reporting and indirect reporting.** This relates to whether the reporter makes the report for himself/herself or if another party does it on his/her behalf. In case of direct reporting the legal obligation is posed on the transactor. It does not matter if he/she makes use of the help of a third party (e. g. legal adviser) or not. In case of indirect reporting the legal obligation is posed on the party who has to report on behalf of the client, e. g. the banks on behalf of their customers.
- **Indirect reporting** is mainly confined to the reporting of banks on behalf of their customers (e. g. in the actual settlement systems or in case of transactions in securities) or the reporting of custodians (again on securities).
- In both cases there can be a reporting of all items of the balance of payments, which is called **full BOP reporting**, or a reporting limited to special items, which is called **specific BOP reporting**. If the system is not based on settlements anymore there does not seem to be a need to talk separately of general direct reporting companies and partial direct reporting companies as described in 2.1. In any case companies will have to report their transactions via resident accounts as well as via accounts held abroad. Banks could be shown separately. But as long as they report their own transactions they form a part of the group of direct reporting companies. Multinational companies are identified separately, because the features of their reporting may be in most cases different from that of other companies.

In the terminology used so far the expression "survey" does not appear anymore relevant to qualify a whole data collection system. Whereas the term "direct reporting" is related to the **responsibility** of reporting, another dimension is the **type of data collection**, which can be further broken down into **a census, a cut-off survey and a sample survey.**

1.2.4. New structure for the terminology

As a result of the above mentioned considerations, the way international transactions may be measured is defined on the basis of three dimensions, which could be combined in a matrix. The **first** one is the **breakdown by type of responsibility:**

- **Direct reporting**
  - Full direct reporting companies (including banks for their own account and transactions via accounts abroad)
  - Multinational companies
  - Other companies
- **Indirect Reporting**
  - Banks on behalf of their customers
  - Custodians

The second possibility to describe the measurement of external transactions is the **breakdown by type of data collection**, which deals with the way in which the population of reporting entities is defined:

- Census
- Cut-off survey
- Sample survey

The **third possible dimension is linked to the question of what reporting entities are asked for**: "Do they have to report all items of the balance of payments or only special parts of it?" Therefore the following distinction is made:

- Full BOP reporting
- Specific BOP reporting

The **matrix** presented below seeks to summarises the three dimensions of reporting:

Type of responsibility Type of data collection	Direct reporting	Indirect reporting
Census	Full and / or specific	Full and / or specific
Cut-off survey	Full and / or specific	Full and / or specific
Sample survey	Full and / or specific	Full and / or specific

1.3. The output constraints on future collection systems

BOP/IIP compilers in the European Union MSs (including most Accession Countries) are bound to supply regularly the ECB and the Commission (Eurostat) with contributions to euro area/EU aggregates, and other international institutions with national data. BOP/IIP statistics also fulfil a number of needs at national level. For these datasets, various requirements discussed below concern the level of detail (target classification and geographical breakdown), timeliness (and revisions) and other quality aspects such as, for instance, the conformity with internationally accepted standards (mainly the IMF balance of payments Manual, 5th edition, BPM5). A discussion is also provided on the conciliation of these output constraints with the necessary limitation of costs involved by collection of statistics.
It should be noted that Eurostat is currently drafting a regulation on balance of payments statistics, which will modify and/or develop the requirements described in the following sections: these should therefore be considered provisional. **The ECB requirements are laid down in the guideline ECB/2000/4**[6].

1.3.1. The target classification and the geographical breakdown

1.3.1.1. External constraints: requirements from international institutions

Looking at the output requirements defined by Eurostat and ECB the following dimensions of the output can be identified.
Economic and financial (instrument) variables: Those are the *BOP/IIP coded items* required by Eurostat and the ECB respectively. 105 different items are listed in the *current account*, 35 of which can be calculated by summing up other items, leaving 70 "basic" items[7]. Together with 20 memorandum items, which can also be seen as "basic" items, requests include about 90 items with different definitions. Looking at the BOP *capital and financial account*, 80 items are required, of which 50 are basic items. The economic variables required in *direct investment* statistics are also considered, as they are covered by BOP/IIP statistics. Foreign affiliates trade in services statistics (FATS) as described in the VADEMECUM add 5 more variables to that list. Possible differences between special FDI-Statistic, BOP-Statistic and FATS were not analysed (real estate, definitions of company groups, indirect relationships). Therefore the figures can be seen as slightly understated.
The economic activity of the resident is a second dimension especially used by Eurostat in its questionnaires for FDI. Data about residents are broken down into 40 different economic activities, this count excluding those that can be calculated by adding up.

[6] "Guideline of the European Central Bank of 11 May 2000 on the statistical reporting requirements of the European Central Bank in the field of balance-of-payments statistics, the international reserves template and international investment position statistics (ECB/2000/4)" (http://www.ecb.int/pub/legal/legal.htm) published in the Official Journal of the European Communities, L 168, 23/06/2001 P. 0025

[7] A basic item is an item, which cannot be derived from other items just by simple calculations like summing up or building the difference

The economic activity of the non-resident is a third dimension especially used by Eurostat in its questionnaires for FATS. Data about non-residents are broken down into 40 different economic activities, this count excluding those that can be calculated by adding up.
The economic variables, the resident economic activity and the non-resident economic variables are combined with **geographical variables**. The fact that for *direct investment* statistics, geographical breakdowns are required both for ultimate beneficial owner and first known counterpart, is disregarded in this analysis.
The institutional sector of the resident is a key variable for BOP/IIP and as a contribution to the rest of the world sector in national accounts. However this classification is straightforward as the direct reporting agent of the sector he/she belongs to.

Number of single data theoretically possible

There are two principal types of tables required by Eurostat and ECB.

- Two dimensional tables: economic variables versus geographical variables
- Three dimensional tables:
    - Economic variables versus geographical variables versus resident economic activity (FDI and FATS)
    - Economic variables versus geographical variables versus non resident economic activity (FATS)

For each cell defined by the two or three variables, credit and debit, net, or stock values are requested.
The number of cells included in a data flows request can thus be calculated easily. Multiplying the number of requested occurrences in each dimension (economic variables, activities, countries etc.) gives the **maximum number of cells** to be reported. Taking into account that some of the cells can be calculated simply by adding or subtracting other cells, a lower, more realistic number of cells, that have to be measured/collected, can be derived. The following table shows these numbers:

Organisation	Request	Dimen-sions		Number of Cells, rough estimates
Eurostat	Quarterly Data (complete set) Q1	2	Economic variable versus Geographical variable	1.500 – 2.000
	Annual Data (complete Set) Y1, Y3 and Y4	2	Economic variable versus Geographical variable	12.000 – 18.000
	Annual Data FDI Flows Y5-1, Y5-2, Y5-3, Y6-1, Y6-2, Y6-3	3	Economic variable versus Geographical variable Versus Resident economic activity	40.000 – 50.000
	Annual Data FDI stocks Y7-1, Y7-2, Y8-1, Y8-2	3	Economic variable versus Geographical variable Versus Resident economic activity	20.000 – 28.000
	Annual Data FATS Y9-1, Y9-2, Y10-1, Y10-2	3	Economic variable versus Geographical variable Versus Resident economic activity ***And*** Economic variable versus Geographical variable Versus Non Resident economic activity	10.000 -12.000
ECB	Monthly BOP	2	Economic variable versus Geographical variable	130
	Quarterly Data BOP	2	Economic variable versus Geographical variable	260
	Annual Data IIP	2	Economic variable versus Geographical variable	180
	Monthly Reserves Template	2	Economic variable versus Geographical variable	290
IMF	SDDS			
BIS	Monthly BOP	1	Economic variable	50
	Quarterly BOP	1	Economic variable	90

This table does not include the requirements of IMF and OECD: it can be assumed that their requirements are covered by those listed already in the table, as they are only subsets of other national or international requirements.

As a conclusion, **the requests totally define an estimate of about 120.000 different statistical items, 85.000 of which are basic items that cannot be derived from other items already covered elsewhere in a questionnaire.**
This huge amount of information, requested to fulfil the needs of international organisations, is a maximum that a given country will not have of course to face. These details, which are required for important reasons (monitoring of monetary policy, trade negotiations…), could cause important collection problems to the detriment of quality. A trade-off between quality and level of details will have to be found, as it is explained in the further developments of this report.

1.3.1.2. National needs

The balance of payments will continue to play an important role at national level, as an indicator of the integration process within the EU, and for the design of the appropriate national economic policy.

Practices vary among MSs on the content and timeliness of the released national BOP. However, MSs have in common that they all use BOP statistics as the main source for the rest of the world account, which is part of the quarterly and yearly national accounts. That is why the mandate given by the CMFB in its June 2000 meeting to the BOP WG required clearly that when designing the future collection systems "it will be necessary to take stock of the requirements of the national accountants for compiling national accounts (including BOP) at both national and EU level". Following this decision, EU MSs were consulted on national accounts needs for intra-EU BOP statistics. The results of this consultation outlined clear guidelines regarding data needs for non-financial accounts[8]:

- **MSs use all or most of the data items of Eurostat BOP data flows requests**, and evenly more details than given for one or several items: relating to *investment income*, *current* and *capital transfers*, and specific *services*,
- **Alternative sources are currently available only to a very limited extent** (it is the case of *transportation* for some EU countries),
- All MSs take the view that **if the level of detail requested in BOP data flows were due to decrease, this would result in a loss of quality in national accounts aggregates** which could be significant, with a possible impact on GDP, Gross Disposable Income and on the sector accounts,
- **The geographical breakdown** requested for national accounts needs is limited to a split between EU MSs / members of the monetary union as a whole / non-members of the monetary union as a whole / EU institutions / third countries and international organisations.

[8] See Eurostat document B1/CN 489[e] presented to the meeting of the Working Party on national accounts on 19-20 June 2001

1.3.2. The timeliness constraint and the revision process

The timetable hereunder shows the delays within which BOP data should be transmitted by the MSs of the EU to various organisations, together with the organisations' revision policy.

Organisation	**Request**	**Deadline**[9]	**Revisions** (used and published)[10]
Eurostat	Quarterly Euroindicators	T+2 months	None *(revised by the next transmission of BOP_Q)*
	Quarterly data (complete set)	T+3 months	Quarters of the current year, and 8 quarters (the two previous years) backwards, together with the first transmission of Q1 (*consistency with treatment of ITS data)*
	Annual data, trade in services	T+6 months	One year backwards
	Annual data, FDI flows	T+6 months	One year backwards
	Annual data, FDI stocks	T+18 months	None
	Annual data, FATS	T+18 months	None
ECB	Monthly euro area BOP	T+30 working days	Revised 4 times
	Quarterly euro area BOP	T+3 months	Revised 3 times
	Annual IIP	T+9 months	Revised 1 time (T+21 months)
IMF	Quarterly	T+3 months	
	Annual	T+6 months	
NATIONAL (BOP and National acc.)	Monthly Quarterly Yearly	Various	The practice of revisions varies among MSs

Example: quarterly data (complete set) are consistently requested by the ECB and Eurostat within T+3 months, e.g. data for the second quarter of 2002 should be sent 3 months after its end at the latest, i.e. before end-September. Together with these new data, revisions corresponding to the first quarter of 2002 are also treated by the ECB and Eurostat.

The requirements (items, geographical breakdowns and quality) are not the same when considering monthly, quarterly and yearly data. This observation is relevant when designing the collection systems, that is to say the choice of the population of respondents and the design of the questionnaires and of the reporting forms.

1.3.3. Other quality constraints

Timeliness and level of detail, described above, are data quality aspects that can be objectively defined. They can therefore be explicitly included in the requirements and represent well-defined constraints of the compilation process. However, the compiler, being responsible to ensure an overall high level of quality for his/her data, has to consider several other quality aspects (such as accuracy, consistency, accessibility etc.) which are similarly important for users. These also form constraints for the compiler. Ongoing work is taking place at the international level to help the overall assessment and comparability of quality in statistics; the IMF "Data quality assessment framework"[11] (DQAF) may be seen as a key milestone in this field.

[9] T: end of the reference period. Discussion is ongoing on to reduce the delays of data transmission

[10] Eurostat's and ECB revision policy allows the institution to take into account more revisions than indicated in the table in case of methodological or significant structural revisions.

[11] IMF, "Data Quality Assessment Framework" (DQAF), prepared by the Statistics Department. July 2001 Vintage (http://dsbb.imf.org/dqrs_generic.pdf)

At the European level, the CMFB set up a joint ECB/Commission (Eurostat) task force on (output) quality to deal with BOP and quarterly national accounts statistics in the framework set out by the IMF.

For the time being, the work of the task force dedicated to BOP/IIP statistics focused on specific dimensions of the DQAF:

- "consistency" (within the dataset and with respect to other data sources) and "stability" (size of revisions), for which quantitative indicators are currently under development.
- qualitative indicators (i.e. Yes/No questions, metadata) for the "methodological soundness" and "accessibility" quality dimensions are being proposed,
- while the remaining quality dimensions, "integrity" and "accuracy", will not be investigated by the task force.

The study of the "accuracy" dimension was considered not feasible within the Task Force on Quality at this stage. Indeed, it would require deep investigations in the input side of the compilation processes. However the Eurostat's LEG Group defined accuracy of surveys and proposed best practices that should serve as a reference. In addition, the mandate of the TG Direct Reporting – centred on the research of best practices for the collection of BOP data – can be considered as a further work in this area.

1.3.4. The costs constraint: conciliating output constraints and available resources

In so far as they impact on both the design and operation of collection procedures and the retrieval of information from respondents, output constraints (i.e. level of detail and quality, as discussed above) are a determinant of costs for the compilation of statistical information. The other factor of cost linked to the collection of statistics is made up by those intrinsic costs that characterise the chosen collection system (discussed in detail in section C.3), independently of output constraints.

As resources (in a broad sense) dedicated to statistics are limited, costs therefore also make up a rather rigid constraint binding on BOP/IIP statistics. The cost constraint of BOP/IIP statistics must be understood in the broadest sense of financial and non-financial resources necessary to produce statistics, and comprises:

- **collective costs for the community of respondents** (mainly banks in a settlements-based systems, companies in a direct reporting system). These basically consist of the resources linked to the retrieval of information, its transformation to bring it in line with statistical concepts, and its transmission, as well as, where applicable, the implementation of automated procedures to perform these tasks, and
- **costs for the BOP compiler**, including among other the implementation of the collection system (that is, the creation of the BOP register, the analyses to select the best procedures, the selection of respondents, etc.), the operation of the collection system (requesting the information from respondent including a reminding process, checking the information obtained and taking relevant action to solve problems, etc.) and the processing of the results (aggregation, grossing-up, checking, etc.).

Thus, when designing a collection system, BOP compilers face **three constraints: detail, quality and costs**. Schematically, it could be said that for a BOP compiler, the task of designing a collection system is basically twofold:

- firstly, the middle-ground between acceptable level of detail, quality and overall costs, must be found,
- then, the design of the collection system itself consists of optimising collection procedures under the constraint made up by this middle-ground.

1.4. The Multinationals as a specific case

1.4.1. The Steering Group on Multinationals

In mid-2000, the **European Round Table of Industrialists** (ERT) presented a request to the President of the ECB, asking to consider the possibility of harmonising BOP/IIP reporting rules across the EU. This request stemmed from the observation that Europe is currently marked by a diversity of national BOP/IIP formats. This diversity may generate costs for (European) enterprises with affiliates in other European countries, in so far as these enterprises often have to report data in different ways for each EU MS. **Standardisation of BOP/IIP reporting rules would result in one common reporting procedure for affiliates in the various European countries, which is expected to foster cost savings.** As another benefit from such a standardisation, the quality of the information retrieved from multinationals would probably improve as a result of the streamlining of the reporting process at the enterprise.
Following the ERT request, the ECB and the European Commission (Eurostat) established the Steering Group on Multinationals (SGM). The SGM's mandate, which is to be fulfilled through close co-operation with multinational companies, consists of assessing feasibility, costs and benefits, of implementing some harmonised reporting across the EU at least for interested multinational companies. When possible and significant, it may also be considered that harmonised BOP reporting rules could be applied by large entities other than multinationals (quality of information). The SGM comprises representatives of the ECB, the Commission (Eurostat), the Bundesbank, the Banque de France, the Office for National Statistics (UK) and the Nederlandsche Bank.

1.4.2. Co-operation between the SGM and the TG Direct Reporting

The SGM was commissioned to run a feasibility study and testing (test completion of report forms) with multinational companies, in order to assess the costs and benefits that would stem from a harmonised reporting. The TG Direct Reporting co-operates closely with the SGM. More specifically **the TG was mandated by the CMFB and the BOP WG to prepare common forms and to follow-up the testing exercise carried out by the SGM**.
Thus, the TG's co-operation with the SGM concentrates on three areas:

- the TG defined the proposed draft European harmonised BOP/IIP reporting model for multinational companies. This draft has been inspired by the concept of the systems of Finland and Ireland (both in operation for a number of years) and of the Netherlands (implemented in 2003). The systems of these three countries have much in common, although there are differences, and **the main common elements such as reporting directly all relevant information to the BOP compiler and the fully reconciled model of financial assets and liabilities are the basis of the draft harmonised reporting model for multinationals**,
- **the TG follows-up the testing exercise carried out by the SGM**; the conclusions of this exercise will have to be carefully analysed, in order to get the design of a common form fully adapted to the information that can be supplied by multinational companies,
- the TG will study **how to integrate multinationals reporting in general collection systems.**

For more information regarding the main elements of the proposed harmonised reporting model and its integration into the design of collection systems, please refer to section C.1.3 of this report and annexes.

2. ANALYSIS AND SELECTION OF RESPONDENTS

The first step when designing a BOP collection system is to carry out a careful analysis of the population of potential respondents, regarding the role they play in international economic and financial transactions.

- A prerequisite is the availability of an updated **register**, containing a view of individual companies involved in international transactions.
- The **quantitative analysis** aims at classifying companies considering the importance of their transactions, trying to find a representative population of BOP respondents.
- A special focus is put on "**big players**" and their characterisation.
- Then the description of the various stages of a **business survey** aims at giving some guidelines for the selection of surveys respondents. Special attention is put on BOP surveys peculiarities.

2.1. Population of respondents and business register

Starting from the description of the BOP tailor-made register (or "ideal BOP register") the report considers the potential sources (existing or to be created) that could be used for the BOP register, as well as issues linked to its practical implementation and updating. These discussions take stock of the experience of countries already collecting data through surveys.

2.1.1. The ideal BOP register

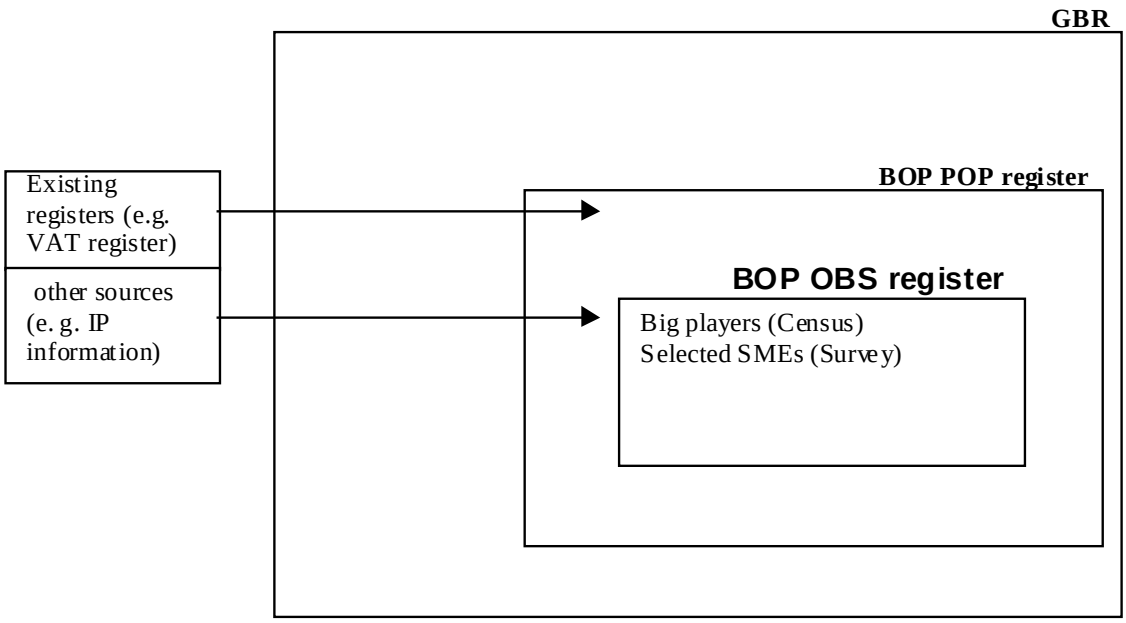
2.1.1.1. Objective

There is consensus on the fact that the **General Business Register (GBR) is a necessary, but not a sufficient source to determine the BOP population (BOPPOP).**
Ideally additional indicators providing information on international transactions (which in principle are not included in the GBR) would be available, enabling the detection of those resident economic operators involved in international transactions. Based on these complementary indicators, the BOPPOP could be determined and integrated in a separate register (or a sub-register of the GBR): the BOPPOP register.
For international transactions in *services* (taken as an example), this register would list up all the resident economic operators having had in the recent past international transactions in *services*. In this context, existing registers (e.g. VAT register and trade register) and other sources, such as international payments (IP) information provided by banks broken down by economic operator (and at best by aggregated items: *goods*, *services*, *income* and financial flows) should be used to establish and update the BOPPOP register.

The BOP observed population (BOPOBS) register would be an extract of the BOPPOP register. The BOPOBS register would contain:

- all "big players" providing monthly information on all international transactions;
- the selected SMEs participating in a sample survey on a quarterly or yearly basis.

Schematic presentation of the ideal BOP register determination



The BOPOBS is determined on the basis of the selection criteria for the "big players" (see B.2.2) and for the sample population (see B.2.3).
The "ideal BOP register" is - by its content and its characteristics - a core element in the organisation of BOP data collection through direct reporting procedures. In addition to the fact that, where relevant, the "ideal BOP register" should contain sufficient information enabling a consistent management of "big players" within the general collection system, it should serve as a reference to run optimal surveys. For this, the following minimum conditions should be fulfilled:

- **regarding the *population* and the identification of the actors, the register should be complete (exhaustive) and updated,**
- **regarding the *variables*, the register should be precise and serviceable.**

In order to conduct an *optimal survey* (comprising the selection of a statistically representative population and the extrapolation of the results), it is essential to know the overall population of resident companies involved in international transactions (BOPPOP). **In this context, a regular updating procedure is an important prerequisite of the BOP register.**

2.1.1.2. Variables

A high detail is requested for the production of BOP/IIP statistics, especially regarding *services* and the *financial account* (see A.3.1). BOP/IIP statistics cover international transactions/positions, broken down according to a number of axes: flows (credit - assets, debit - liabilities and net), item (*current account*, *goods*, *services*, *income*, *financial account*…), geographical breakdown, institutional sector... Consequently, **in addition to the so-called frame data (including the identification, classification, contact, maintenance and linkage data), the register would ideally contain information on all axes, thus guaranteeing almost perfect selection of respondents and grossing-up procedure**.
Regarding these functional options of the BOPPOP register, various economic information like turnover, economic activity, number of employees, balance sheet variables and foreign trade data are found necessary to carry out the selection or stratification of enterprises. Some more BOP specific information is available, like data on foreign ownership. Most of the above mentioned variables are to be classified as auxiliary variables to facilitate the selection, stratification, sampling and estimation.

Below is reproduced a tentative, and still incomplete, list of variables included in the BOP POP register:

	Variables	Purpose	Possible sources
1	ID number	All items	General business register (BR)
2	Institutional sector	All	BR
3	Economic sector	Current Account +FATS	BR…
4	Number of employees	Current Account +FATS	BR, Administrative sources, annex balance sheet…
5	Total turnover	Current Account +FATS	Administrative sources (VAT), companies accounts…
6	Total expenses	Current Account +FATS	Administrative sources (VAT), companies accounts…
7	Exports of goods (indicator/value)	Current Account +FATS	Settlements, VAT, trade in goods register…
8	Imports of goods (indicator/value)	Current Account +FATS	Settlements, VAT, trade in goods register…
9	Exports of services	Current Account +FATS	Settlements, VAT…
10	Imports of services	Current Account +FATS	Settlements, VAT…
11	Total international settlements	All	Settlements…
12	Foreign ownership indicator	All	BR, private databases, stock exchange
13	Group indicator	FDI/FATS	BR, private databases, Stock Exchange information…
14	……..		

It is of utmost importance for BOP compilers to be very demanding on the quality of their targeted register, as this makes up the fundamental of any data collection. Deep investigations must be carried out in a wide range of fields and relevant sources must be found to build a register that tends to the ideal described above, both in terms of relevance in coverage, and auxiliary information available.

2.1.2. Sources

As it is explained above, the different sources used to build the BOP register must be considered under two distinct aspects:

- the identification of the **population** (companies making international transactions) and,
- the **variables** that should be used to identify the BOP population and to select the companies to be approached for direct reporting (BOPOBS), for the stratification of the sample and grossing-up of collected data.

This section provides an overview of potential sources that can be used to establish a BOP register. It takes into account these two aspects.

2.1.2.1. General business registers (GBRs)

Legal framework and variables

Member States of the EU, as well as most other countries, have available a GBR maintained by the NSI. A GBR is essentially a list of the businesses active in the country, whatever their activity (domestic

and/or international). Its main purpose is to provide a frame for business statistics surveys, although it is generally also used for surveys on a wide range of other domains. Business registers are mainly fed by administrative sources like VAT and other tax files, social security files, company and trade registration, etc. (the average is close to 10 sources), but they also use certain survey data as input.
GBRs in the European Union are harmonised according to the Council Regulation No. 2186/93[12], of which the relevant extract is provided in annex. They should contain all enterprises, the legal units responsible for them and local units depending on them, carrying out economic activities contributing to GDP. A register may contain a number of characteristics for each unit, which can generally be divided into four main categories:

- identification variables, e.g. name and address,
- stratification variables, e.g. activity (according to NACE Rev. 1) or size (the three most widely available indicators are employees, employment (including working proprietors) and turnover),
- demographic variables, e.g. date of creation, and
- relationships variables, e.g. links between units.

The variables available from GBRs are relevant tools for the compilation of BOP statistics on the basis of direct reporting procedures (stratification, grossing-up, etc.). **With regards to the population, GBRs embody the universe of all companies out of which the relevant BOP population must be identified** (see figure in section B.1.1.1). They also often include information related to companies' international transactions, such as foreign ownership or a "yes/no" flag on trade in goods. Future developments in the field of EGs will provide an additional useful tool as well, but **in practice, the sole content of GBRs is not sufficient to build a satisfactory BOP register.**
Additionally, it must be noted that the information on enterprise, legal units and local units (and, in future, enterprise group, see following section) is of utmost importance, as the BOP register must include some information on company group structures. As stressed in the IMF Compilation Guide (§ 851), this information is important if an enterprise (or a local unit…) is identified as potentially suitable for inclusion in the BOP register. In these cases, the compiler must know whether or not the enterprise is part of the group that has already been identified.
GBRs are therefore a crucial element, and must be used in combination with other sources to enable an accurate identification of the BOP population.

Future developments

Further regulatory developments are to occur at EU level on the content of GBRs. The inclusion of enterprise group (EG), which for the time being depends on country practices and needs, is one of the major points.
An enterprise group is an association of enterprises bound together by legal and/or financial links (Council Regulation No. 696/93 on statistical units for the observation and analysis of the production system in the Community). In practice EG is generally observed as an association of legal units controlled directly or indirectly by a group head (ultimate beneficiary). The association is obtained through chains of control, linking parent and subsidiary legal units. Control consists of the dominant influence of a legal unit (parent) over one or a set of legal units (subsidiaries). In most cases the control consists of the ownership of the majority (over 50 %) of voting rights, though effective minority control is also possible.
From the information available when this report was written, works to prepare an amendment to the business register regulation were due to begin in early 2003. This amendment should propose that:

- Data on EGs become compulsory in business registers
- NSIs to be able to exchange information on multinational EGs
- All NACE sections become compulsory (including sections A, B and L, which are now optional);
- Certain optional characteristics become compulsory (mainly those linked to EGs);
- Certain compulsory characteristics become optional;
- Revision of some characteristics.

[12] Council Regulation (EEC) No 2186/93 of 22 July 1993 on Community co-ordination in drawing up business registers for statistical purposes

Another development worth mentioning is the creation of the European Company Statute[13].
BOP compilers should monitor the developments of these projects in so far as variables useful for BOP purposes could be made available.

2.1.2.2. Settlements and IP databases

A settlements database exists in a majority of Member States where it is usually maintained by the NCB and serves primarily BOP purposes, its existence being linked to the collection of BOP statistics from bank settlements.
It contains the detail that can be derived from an ITRS, i.e. resident units carrying out international payments through accounts held in resident banks with a geographical and item breakdown.
The quality of settlements database is linked to that of the ITRS, which is due to diminish in the future for reasons exposed in this report's executive summary. Against this background, it is a challenge for BOP compilers to comply with these constraints whereas at the same time keeping from the settlements database a serviceable information.
In the context of direct reporting, a possible tool highly recommended by the TG, could be the implementation of an **IP database** (International payments database) as a simplified settlements database, i.e. based on a simplified reporting of resident banks. For instance, in the system to be implemented in 2004 in the Netherlands, this will consist of a reporting with no indication of the nature of the transaction. In other Member States studies are being carried out on the possibility to obtain further details (e.g. a breakdown between financial/non-financial transactions).
The IP database forms a good starting point to target the relevant BOP population, and countries (e.g. Italy) where confidentiality reasons make it impossible to maintain this source may face difficulties in case they plan to implement a direct reporting system.
Although it is generally recognised as a necessary tool, the IP database can however not be the only basis for a BOP register, for three major reasons:

- It does not cover all transactions such as those settled through international netting or clearing, and transactions settled through accounts held abroad,
- the detail of information (by relevant item) it contains will be minimal, or even non-existent,
- the existence of exemption or simplification thresholds below which transactions are not reported. In particular Article 6 of the Regulation on cross-border payments in Europe provides for Member States to remove, from 1 July 2002 at the latest, "any national reporting obligations for cross-border payments up to EUR 12500 for balance of payments statistics". Furthermore, this Regulation[14] could be revised in future, in the direction of a further upraising of thresholds.

Some MSs are considering IP database as a key element for their future BOP register, and envisage maintaining this instrument to the greatest extent possible. It is recommended for countries where such a tool can not be maintained, that they initiate appropriate actions to solve this issue. A discussion at European level with representatives of the banking community is also under consideration by the CMFB.

2.1.2.3. Trade registers

The trade register includes a list of resident operators involved in international trade in goods. At EU level, a regulation exists for intra-EU trade (Intrastat regulation[15]). Article 10 of this regulation provides that Member States shall ensure that those of their departments responsible for the compilation of such statistics have a register of intra-Community operators at their disposal by 1 January 1993. In many cases, Intrastat registers are fed largely by VAT registers.

[13] As from 2004, a company may be set up within the territory of the Community in the form of a European publicly limited-liability company (Societas Europaea or SE) on the conditions and in the manner laid down in Council Regulation (EC) No 2154/2001

[14] See footnote 1

[15] Council Regulation (EEC) No 3330/91 of 7 November 1991 on the statistics relating to the trading of goods between Member States

A description of the information that Intrastat register should contain – and the minimal provisions for their updating – is given in Commission Regulation (EC) No 1901/2000[16] of which the relevant extract is provided in annex.
In principle, the minimum list of data to be recorded in the register of intra-Community operators, shall contain, for each operator:

- date of entry in the register;
- identification information, i.e. name, address, and VAT identification number;
- where applicable, whether the operator is a party responsible for providing information or a declaring third party;
- in the case of a party responsible for providing information, the total value of his intra-Community operations, by month and by flow, together with the value of trading of goods between Member States which the operator has mentioned in his periodic tax declaration.

Statistics on trade in goods of Member States with non-EU countries (Extrastat) lay on customs declaration. For the time being there is no legislation at EU level providing for Member States to keep a business register for these statistics. However, a number of countries have available an Extrastat register, which generally can be linked to the Intrastat register. This is a useful tool and it is considered important that all Member States have it at their disposal.
Trade registers certainly offer a useful auxiliary information on certain companies active at the international level, especially if a link is established between a company's trade in goods and in services. Some useful detail can be found from this source on the geographical breakdown (e.g. companies trading in goods with only one partner country may have the same partner for trade in services) and on exports and imports.

2.1.2.4. VAT registers

The VAT register is based on data that enterprises liable for VAT have to submit to the tax authorities. It appears to be the largest available database of companies, generally used as a major source for updating the other registers existing in the country (e.g. the GBR).

The basic information in the VAT register includes, in general, the variables turnover, employment, main activity, and total (goods plus specific services) exports and imports. With regards to the latter variable (BOP relevant information), two major drawbacks are generally identified:

- not all services transactions are covered (due to specific "VAT" rules, services such as financial services, insurance services… may be excluded),
- no distinction is made between goods and services (at least on the import side).

Exceptions may exist however: for instance, the Swedish system identifies separately goods from services (this is enabled by the application of different VAT rates to goods and services transactions). For this reason, the VAT register will be a core element of the new Swedish direct reporting system (2003). In other cases, exports and imports information from VAT registers can make up a helpful proxy, whose use as an accurate selection criterion should however be analysed carefully. With respect to the geographical breakdown, France and Sweden reported that the coverage was complete for exports (split between intra and extra-EU is generally available) whereas on the imports side, it covers only intra-EU transactions.

This report provides only general considerations on VAT registers, which may not apply for all countries. **In practice it is recommended for countries to study thoroughly this potential source, and the level of detail it contains.**

Several possible uses for this source can be explored. For instance, even where services are not identified separately from goods, this register could enable to target the population of exporters for specific activities. The economic activities with a high propensity to trade exclusively in services should be identified. Then, this information combined with the information on total international trade (goods plus services) could give, for the specific sectors, the total population of international transactors in services.

[16] Commission Regulation (EC) No 1901/2000 of 7 September 2000 laying down certain provisions for the implementation of Council Regulation (EEC) No 3330/91 on the statistics relating to the trading of goods between Member States

The possibilities in this field should be explored at country level, as it is done by Belgium (see the Belgian quantitative analysis in annex).

2.1.2.5. Other sources

- Countries where the collection system for balance of payments is, or used to be, based on settlements reporting by banks, have very often a **register of "partial direct reporting companies"**[17]. This register is focused on companies doing transactions outside the resident banking system, i.e. transactions settled through accounts held abroad (banks and inter-company accounts) or international netting and clearing (multinationals, FDI companies…). Even though all BOP transactions are not covered, such a source is directly linked to balance of payments and must be used as much as possible for the creation of the BOP register.
- In most Member States, registers also exist for **specific BOP and IIP statistics,** namely **FDI** and ***portfolio investment***. The collection of FDI data is often carried out through direct reporting procedures, which are often based on a separate register containing information on the level of inward and outward investment. These are often compiled and updated by combining a wide range of sources, such as **balance sheet** information, information on financial assets and liabilities for equity capital, commercial sources (e.g. Dun and Bradstreet, Thomson Financial Acquisitions Monthly…), information on Acquisitions and Mergers detected via commercial publications, various websites, financial newspapers, teletext, etc. As regards *portfolio investment*, in the future, the Centralised Securities Database will play a pivotal role to feed portfolio investment registers. Work on this subject is currently being processed in the ECB WG-BP&ER as a follow-up to the Task Force on Portfolio Investment Collection Systems report.
- Targeting of the BOP population can also be achieved by including a **relevant filter question on a large-scale, general survey**. For example, in the UK, a large, multi-purpose business survey based on the GBR includes a filter question on the total values of trade in services credits and debits. Similarly, in the Netherlands a part of the targeted questionnaires forming the Structural Business Statistics survey contain some questions on the net turnover abroad, and business expenses abroad, with a further question on their split between intra and extra-EU. **Each Member State should carefully study the possibility of obtaining relevant information from business surveys (total turnover or exports turnover if available).**
- **Specific registers** may be available from trade organisations, regulatory authorities, other administrative sources, etc. which may also include some BOP-relevant information useful to the survey. Insurance companies, postal and telecommunication operators, trusts, securities dealers and other financial corporations are common examples.
- The **press and other media** are also an important source for obtaining up-to-date information on major BOP transactions that should be identified and followed up quickly. Information may also be obtained from **non-resident sources**. For example, through the use of lists published by foreign authorities, the compiler may be able to monitor securities issued by residents in foreign markets (IMF Compilation Guide § 860 and 862).

There is no unique source enabling to target the BOP/IIP population. To reach a sufficient degree of accuracy, it is indispensable to combine sources that are heterogeneous (coverage, variables, updating…) For this, several issues must be dealt with, but the first pre-requisite is for the BOP/IIP compiler to have a thorough knowledge of all the available sources, the information they contain, the frequency of updating, as well as the limits of each source.

2.1.3. Practical implementation[18]

The sources that can be used to create a BOP register are many. In practice it is necessary to cross the information from a wide range of sources to form and maintain the BOP register. This section provides a discussion on the different practical issues that need to be addressed to create a BOP register:

[17] It is reminded to the reader that this differs from the concept of "specific BOP reporting companies", see section A.2.

[18] This section is based on Member States contributions on the use of registers, which can be found in annex

- the first issue is to ascertain that sources of information are available to the BOP compiler,
- as direct BOP information is seldom available from the existing sources, second best solutions must be found. Among the available auxiliary variables, the most efficient must be selected according to the use they will have,
- heterogeneous sources are likely to be used, and efficient combination will be needed to fulfil the requirements for BOP registers,
- maintaining the BOP register up-to-date may be a resource intensive exercise.

2.1.3.1. Access to sources by the BOP compiler

The access to sources by the BOP compiler is a crucial issue. The GBR, identified as an indispensable element of the BOP register, may currently be inaccessible e.g. due to legal provisions. Restricted access to information may concern other sources such as customs data, administrative sources…
In all MSs, the GBR is maintained by the NSI, whereas BOP/IIP statistics may be compiled by the NCB or the NSI, or the responsibility may be shared between these institutions.
In the UK and Ireland, the NSI is responsible for compiling BOP statistics and uses the GBR. These countries create a BOP/IIP register as a subset of the GBR by combining its information with other sources relevant to BOP.
However, in countries where BOP/IIP statistics are compiled by the NCB, there may be legal obstacles to the consultation and use of the NSI's GBR. For those Member States planning to use direct reporting procedure to complete or replace their current collection system, these obstacles must be overcome. Where relevant, **actions must be taken from a legislative point of view, to facilitate exchanges of information between the NSI and the NCB, as an intensive co-operation between the two institutions will be increasingly necessary in the future.**
GBR are already used extensively for BOP/IIP purposes in some countries:

- In Denmark and in France which both report a satisfactory exchange of information between the NCB and the NSI,
- in Finland, as the NCB is responsible for the overall BOP while specific BOP surveys are under the responsibility of the NSI,
- in countries such as the Netherlands and Sweden, where the responsibility for some of the BOP items (mainly *services* transactions), is about to be transferred to the NSI.

For the time being however, many national BOP compilers are not allowed to access the GBR, as well as other sources relevant for direct reporting procedures. Even where a direct reporting system is not to be implemented in the short run, actions should be taken rapidly to make sure that these indispensable tools are available on time.

2.1.3.2. Selection and use of available auxiliary variables

The basic information needed for the BOP/IIP register, i.e. whether a company is involved in international transactions or not, is seldom available. IP databases can be used to some extent to select both the population of full reporting companies and that for specific BOP items or flows, but this is not the case for all countries. Furthermore, this source has its own limits (see B.1.2.2). Some direct BOP information, for specific component can also be derived from other sources (e.g. services in the case of the Swedish VAT register…) but this is never sufficient either. In any case, BOP relevant information available must be used as a matter of priority, but it is unavoidable to use also auxiliary information.

A number of examples of available auxiliary information are given in section B.1.1.2. **The first step is to select, among the available auxiliary variables, those that are most strongly related to the subject of direct reporting procedures. For this, it is necessary to compare auxiliary variables to available BOP-specific information at the enterprise level, to check if there is a reasonable association**. Researches must be carried out to establish all relevant links: for instance a relationship is likely to be established between foreign ownership and FDI/FATS or, as was emphasised in France and in Belgium, between trade in *goods* and *transportation* and even with *business services*.
Once the best auxiliary variables have been selected for the various relevant components of the BOP, these should be used, in combination with available BOP-specific information, to create the register,

stratify samples and gross up the results. Alternatively different variables may be used for those different purpose. For instance when the "determination" variable is not quantitative (e.g. as it used to be for the UK's filter question on international trade in services), another size information will serve for the grossing-up of survey results (turnover, employment…).

As regards the **use of information for the creation (and maintenance) of the register**, BOP compilers should strive for exhaustiveness and accuracy (the register would ideally contain all and only the population of international transactors). Where indirect auxiliary information is to be used for the purpose of creating and updating the register, this should be done with great caution in order to minimise errors. In this context the use of exploratory surveys, as described further below in section B.1.3.4, could prove particularly useful. It should also be noted that more difficulties might be expected for identifying the debit population than the credit population.

In relation to **stratification and grossing-up**, BOP registers could include a number of auxiliary variables derived from those sources used to create the register. At the design stage, caution should be paid to **avoid overflowing BOP registers with information whose significance has not been firmly established**. In addition, it is strongly advised to ensure that information given in the BOP register is well documented, so as to enable a flexible management of distinct auxiliary variables at the various stages of direct reporting procedures.

The available set of sources bearing information directly related to BOP should be used as much as possible. At the same time, countries are advised to carry-out in-depth studies to assess the links between auxiliary variables and international transactions. Once the most relevant variables have been selected, a pragmatic approach must be taken to ensure that they are used in the best possible way.

2.1.3.3. The combination of heterogeneous sources

As any register, the BOP register must enable an appropriate identification of units and reflect the target population. The fact that independent sources must be combined may complicate BOP compilers' task with respect to these two requirements.

By definition, any register of businesses contains a minimum information enabling the identification of companies (name, address, reference number), which is the key vector to combine varied sources. However, a difficulty could arise from the fact that each of the sources bears its own conventions to identify companies, due to historical reasons.

When combining heterogeneous sources, it is necessary to perform thorough cross-checks and harmonise the identification information, to ensure that the BOP register is functional and sufficiently homogeneous. The aim should be to avoid multiple counting of the same company, and treat possible problems of inconsistencies between sources, since several of them can contain the same information. **In practice, this may be extremely resource consuming, unless a common standard referencing (e.g. ID number) is used in the various registers, as it is the case in Spain, France, Portugal or Sweden. This tool appears to be the only practical way to carry out standard electronic comparisons.**

Another issue is that the BOP population is actually made up of a number of sub-populations relevant for specific items (most companies in the *services* population may not be relevant for FDI…). Various possibilities are achievable: one can consider to create a single register comprising the whole BOP population or to have separate registers for each relevant sub-population. Whatever the option chosen, **the BOP register must allow for a separate identification of those sub-populations** (auxiliary variables could be useful)**, as well as of "big players" relevant for a full BOP reporting**. This strong requirement must be taken into account from the beginning of the constitution of the register, as each source used is often connected to one specific sub-population (e.g. VAT registers may be used in connection with services, not for FDI). Ideally, an additional "variable" specifying the company's sub-population (services, big player…) may be created and filled in at the same time as units are entered in the BOP register.

In practice, a problematic area when creating BOP registers is the one of *services*. Indeed, as was mentioned in section B.1.2.5, registers already exist for FDI and *portfolio investment* in many countries, whereas the *goods* component is often compiled out of Foreign Trade Statistics. **Ideally, the "services sub-register" should enable an immediate discrimination of its population by major kind of service. It would also be extremely useful that the register enables to distinguish the population of services exporters from that of importers in so far as these populations may have significantly different**

features. Indeed, service-exporting companies can generally be identified by their main activity, whereas companies may import any service, whatever their economic sector (including industry).
Possibilities, when designing BOP registers, for enabling discrimination among various sub-populations can only be made at country level, in connection with the definition of these sub-populations themselves (which impacts on the design of the whole collection system, e.g. survey forms, collection processes etc.) and the determination of the relevant auxiliary information. Results of quantitative analyses (see B.2.1) should be used as a basis in this decision process.

2.1.3.4. Update of the BOP register

Whereas globalisation is rapidly developing, the BOP population is becoming more and more volatile. It is therefore necessary to update the BOP register regularly; two aspects should be considered:

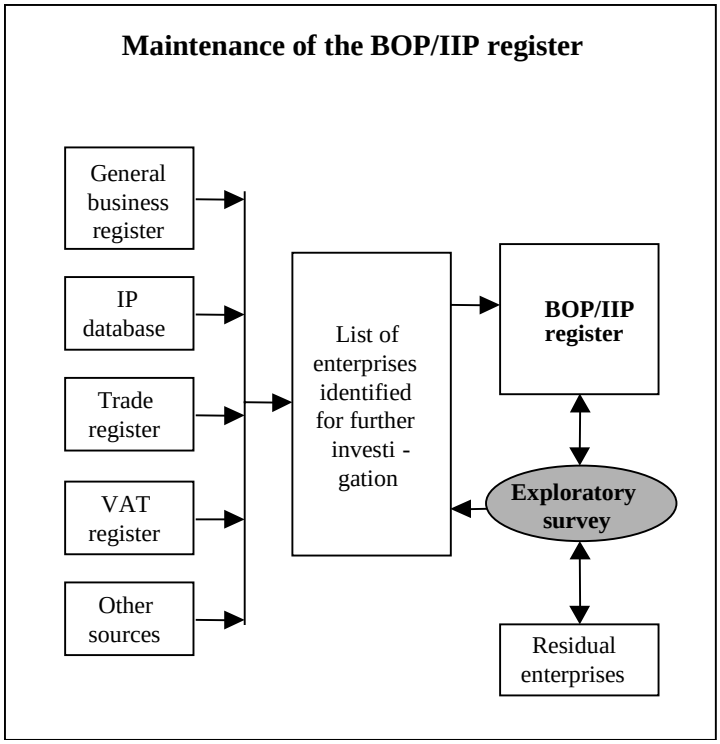
- the requirements concerning the frequency and delay of updating differ by sub-population due to the specific output constraints on BOP compilers (see A.3.1)
- some sub-populations are more volatile than others, as it is emphasised in the quantitative analysis.

In regards to these two considerations, it appears important to stress that for countries that collect or plan to collect *financial account* data through surveys (e.g. Finland), updating the register will be particularly difficult as, on the one hand, the population is highly volatile and, on the other hand, monthly data are necessary for the ECB.
Regarding *services*, even though the output requirements for detail items are not as frequent as those of the *financial account*, the register should be updated on a continuous basis, and in appropriate delays. This should take into account both the changes in demography (birth, death, integration into a group) and the changes in companies' behaviour (starting or ending of international activity).

A pre-requisite is to maintain some links between the BOP register and the sources out of which it was created, **which can be considerably facilitated by the use of a common standard reference for identification of businesses.** BOP compilers should ascertain that the various sources used are updated early enough (in terms of frequency and delay of availability) in such a way that, in turn, the BOP register can be updated on time. It appears obvious that those sources updated in the shortest delay shall be used in priority.
Assessing the timeliness of updating is feasible for administrative sources such as the VAT register. Namely it is necessary for BOP compilers to know the maximum delay allowed for companies to transmit information to these sources. This matter is of high importance because the availability will determine the accuracy of information on which the direct reporting procedures will be based. To the greatest extent possible the same exercise must also be carried out for the non-administrative sources.
As a means to strengthen the updating procedure, the IMF suggests in the Compilation Guide (§ 865 to 872) the possibility of using **exploratory surveys**, simple and at minimal costs, for two purposes.

- to **approach new companies identified through indirect information**, in order to confirm that they are relevant for the BOP population,
- periodic exploratory surveys may be carried out on the **population of the BOP register to determine whether characteristics of enterprises have changed** over time. It is suggested to approach all businesses above a given threshold, and the others on a sample basis.

The IMF advises that enterprises determined (from the exploratory surveys) not to be involved in BOP activity should be recorded on a list of residual enterprises and monitored. These enterprises should be approached via future exploratory surveys approximately once every five years.



To conclude this point, it appears useful to refer to IP databases as a useful and well known tool for the updating. **Where such a tool is available, Member States plan to maintain it to the greatest extent possible**. Some countries have indicated in their National Action plan their intention to maintain a simplified automatic reporting by banks that:

- relieves banks from a consistent part of their reporting burden, as no or partial (e.g. financial / non-financial transaction) indication is asked on the nature of the transaction, whereas at the same time
- enable to monitor the behaviour of the relevant population for BOP/IIP.

2.2. The selection of respondents

Once the BOP population is determined, **the selection of respondents has to go through a preliminary quantitative analysis of cross-border transactions of companies**. This analysis will help to determine the reporting population, defining, where it is the case, which sub-population will make up that of full direct reporters and which sub-population is considered relevant for specific direct reporting procedures.
As a continuation, the emphasis is put on the role of "**big players**". Indeed, whatever the direct reporting approach chosen, "big players" on the international markets should be carefully spotted, considering the prominent role they would have to play in any kind of collection system.

Finally, a discussion is provided on the whole **process of surveying companies**, of which the selection of respondents forms an integral part. BOP-specific issues when using surveys are also tackled.

2.2.1. Preliminary quantitative analysis

The quantitative analysis of cross-border transactions by BOP item and/or by company is a prerequisite in the determination process of the future BOP/IIP collection procedures. It is suggested to run this analysis along the orientations given by the matrix (reproduced in the executive summary of this report). More generally the quantitative analysis is an essential reference: it provides a basis for establishing clear criteria for the assessment of respective burden for respondents and BOP compilers, in the process of comparing potential data collection methods.

2.2.1.1. Guiding principles to carry out a quantitative analysis

The field of the analysis and the characteristics of the population should be defined prior to the quantitative exercise itself.

Field of the analysis

In a first step, the database to be used, the period to be covered, and the degree of details needed for the analysis have to be determined.

Choice of the database

It is obvious that the **BOP settlements database** (available from banks' reports on behalf of their clients and for their own account or (and) by direct reporting companies) should be favoured when available. Indeed, it gives the most extensive view of the population of companies with international transactions, although this approach has its own limits due to the fact that any study aiming at selecting companies for BOP reporting can only refer to transactions that are individually identified. Thus, transactions under an exemption threshold are excluded from the quantitative analysis as well as, for example, transactions identified by a generic code and not by an individual identification code.
When an exhaustive settlement database is not available (as it will increasingly be the case in the future), the selection of respondents will be done mainly through the connection of various registers. In this context, intermediate variables will be used as proxies to determine, as accurately as possible, the population of companies involved in cross-border transactions. **It has to be stressed that without a settlements database, it is not possible anymore to get a full picture of companies involved in cross-border transactions.**

Period covered by the analysis

The period covered by the quantitative analysis has to be as large as possible, because changes may occur over the years among the population of companies (mergers, changing activities…). That is why it is recommended to carry out the analysis over three years at least to be able to test the stability of the population of potential respondents. Following the same idea, it is recommended to use quarterly data when addressing the *financial account*, as financial flows are by nature highly volatile.

The choice of the unit in charge of the reporting

The quantitative analysis can be done at the level of single companies, but some countries would prefer to make this analysis at the level of enterprise groups. If the choice of the respondents is to be made at this level, it implies that BOP registers contain some information on company group structures (see B.1.2.1).

Details needed

The degree of details needed by the analysis concerns BOP items as well as the geographical breakdown

- The choice of the relevant items

For most MSs, the preliminary quantitative analysis focuses on *services*, as the implementation of the exemption threshold makes it difficult to record these transactions. However a quantitative analysis including *investment income* items can be useful, in so far as it can help identify relevant respondents for *financial account* items, for lack of a quantitative analysis of the companies vis à vis the *financial account* which will have to be done in any case. For instance, if a company pays or receives *direct investment income*, it is obvious that they are the result of *direct investment* stocks, and it can reasonably be assumed that this company would report *direct investment* flows[19].
The level of details for BOP items is another important point. A preliminary analysis covering aggregates like the total of *services* or the total of *investments income* can be useful to give a first idea of the population of potential respondents. However the need for a detailed nomenclature of *services* at both national and European levels is a strong argument in favour of an analysis covering detailed items.

- The analysis should be carried out on exports and imports separately

A global approach of exports and imports (or credits plus debits) is quite useful, but it needs to be completed by a separate analysis of credits and debits. As a matter of fact, the nature and the number of transactions carried out by companies is a priori different on both sides. For instance, it can be assumed that a company exports a relatively low number of services but imports a larger number of them; that is why **BOP compilers have to pay a special attention on the debit side.**

- The geographical breakdown

As a minimum, the quantitative analysis should be made on transactions as split between intra and extra-EU and euro area, owing to the high importance of such a breakdown for both national uses and European requirements (balance of payments of the EU/euro area vis-à-vis the rest of the world).

A double approach for studying the characteristics of the population

The population of potential BOP reporters has to be studied in terms of its representativeness and in terms of its stability.

Analysis of the representativeness of the population of companies

The BOP compiler needs, when studying the representativeness of companies, to find the best middle ground between coverage and collection costs for companies and BOP compilers. It means that an in-depth analysis should be made of companies' statistical distribution, according to different levels of coverage: for instance the number of companies responsible for respectively 70%, 80%, 90% of all services transactions or of each item of *services*. It is recommended to identify the companies and calculate the concentration per item for the total companies involved, as the first step of this analysis. A concentration index like the Gini coefficient can be used for that purpose.

This analysis has to be supplemented by an analysis of the diversity of BOP items per company, to get an idea of the concentration of imports and exports transactions by company. It really matters for instance, to know if a company is a transactor in one or more than one kind of services, and –all things considered– those in the latter case will have to be preferred in the selection process.

[19] Other options are possible to identify relevant respondents for the financial account

Analysis of the stability of the population over time

Another important point is to analyse the dynamics of companies, and as a consequence, the frequency at which BOP business registers need to be updated. The BOP compiler should check over a period of time the relevance, in terms of coverage, of a given population (for example the representativeness of a population selected on the basis of the 2001 figures will be analysed together with its transactions reported for the years 1999 and 2000).

- One has to consider the **number of common companies over a defined period**, together with the turnover of the population,
- The focus should also be put on the representativeness **of the common population over the period**. If this representativeness is found to be high, the population could be considered steady even if "absolute" changes observed into this population are relatively important.

2.2.1.2. Main findings of the quantitative analysis carried out by MSs and lessons for the future collection systems

In order to prepare their future collection system, a large majority of MSs carried **out a quantitative analysis of the population of respondents on *services* items.** Even though the methods used for these exercises were not as uniform as for the previous report of the TG, the analysis is very similar across country. It is therefore possible to outline common features and draw some lessons for the implementation of future collection systems.

Empirical observations

A comparison of results obtained from several MSs' quantitative analysis shows some discrepancies among them.

- The **concentration of respondents on *services* items** is relatively high in some countries (France, Belgium, Luxembourg) while it is very low in others, due in peculiar to the item *other business services* (Spain, Portugal, Italy). The latter MSs would therefore face a higher marginal cost to increase the coverage rate of the population of respondents, and the implementation of full direct reporting procedures would involve an excessive number of companies. It appears also in some cases that the number of exporting firms could be larger than the total number of importing companies.
- **The average number of distinct items by company** is in some countries (France, Spain, Luxembourg) higher on the debit side than on the credit side - which means that companies receipts are concentrated in transactions related to their sector of activity.
- Regarding the **stability of the population** over a time period, it appears that all MSs face a high volatility. However varying by country and by item, the representativeness of the common population over the period remains reasonably high.
- The analysis of the **link between international trade in services and international trade in goods,** which has been carried out by some MSs, shows that the assumption that a company trading in goods is a potential candidate for ITS population is not always verified.

Recommendations for the future

Building on the experience of MSs**, four recommendations** can be drawn for the working out of future collection systems.

A. The opportunity of using the settlement database, when still available, should be fully taken in so far as the detail they provide permits:

- to make a photography as precise as possible of the population of respondents,
- to make all necessary tests to select intermediate variables for samples stratification and grossing up procedures,
- to stratify the business registers.

B. Even if it is difficult to find a benchmark, the degree of concentration of the population of respondents is a good instrument for choosing between different possible scenarios:

- a high concentration can be a strong argument to choose a system relying partly on "big players" selected as full direct reporters,
- on the other hand, a low degree of concentration argues for a system relying entirely on sample surveys.

C. The additional cost implied both by an increase of the representativeness of the population and a larger degree of detail for BOP items and geographical breakdowns can be very high (although differences exist among countries).

- this observation should be considered when determining the threshold/criteria to select the respondents as full direct reporters or as part of a sample,
- **this fact also illustrates the high difficulty for future BOP collection systems to fulfil the triple constraint of obtaining data fulfilling quality standards; together with all the details required regarding BOP items and geographical breakdown; and with a limitation of the burden for BOP reporters and BOP compilers.**

D. The selection of respondents and the updating of registers have to take into account the high volatility of the population. The accuracy of BOP registers being a peculiarly important condition on the quality of statistics produced, BOP compilers should pay a great attention to implement effective updating procedures for registers.

2.2.2. Big players on the international market: the selection of full direct reporting companies

In future collection systems, the aim of obtaining accurate data while minimising the burden for respondents should conduct BOP compilers to pay a special attention to "big players" on the international market. The objective will be to obtain the highest representativeness with the lowest number of companies.

A common approach appears unrealistic, owing to fact that the concept of "big players", as well as their role, may differ significantly among countries. Yet, some recommendations can be brought-out, as a continuation of the conclusions of the first report of the TG "Direct Reporting Companies".

2.2.2.1. Definition of "big players"

Finding a relevant definition of the concept of "big players" is somewhat difficult

Generally speaking, large companies, or **"big players" can be defined as companies with important cross-border transactions** (when compared to others that are called SMEs). This rather vague definition covers various patterns:

- **Among countries**: in some countries, exports or imports of goods and services are principally made by companies with an important turnover, whereas in other countries, small and medium size companies (when looking to the total turnover) are highly open to foreign trade.
- **Among sectors**: quantitative studies which have been conducted until now, generally revealed a high concentration of companies with a limited number of "big players" in sectors such as communications and insurance. Conversely, items such as those of *business services* or *personal services* are characterised by numerous small enterprises.

Going further, **considering the "big players" at European level** implies that the analysis of companies' representativeness should be made for cross-border transactions with countries outside the EU or the euro

area, to get the best estimates for the BOP of the EU/euro area. Consequently, **on a EU wide basis, the concept of "big player" could have a different meaning than on a national basis**[20]**.**

"Big players" role is quite different in the various reporting schemes

- **Big players have a prominent role to play when their number is rather limited and when they cover a high part of the population of companies in terms of representativeness**
  - **In these circumstances it is recommended to select big players as full direct reporters**, i.e. respondents reporting BOP transactions on a monthly or quarterly basis, from the top to the bottom of the items included in the BOP[21]. This part of the population of respondents will form a solid pivot on which it will be possible to build the collection system. The advantages of such a system have been described in detail in the first report written by the TG and are reassessed in section C.1.1.2.
  - **Complementary information on items non sufficiently covered will have to be collected on a quarterly or an annual basis through sample surveys**, in order to capture the transactions of SMEs. The complementarity between direct reporting and surveys will of course depend on the each country's economic structure, as shown by the quantitative analysis.
- The role of "big players" will be different when, even if there is a high concentration of relevant companies in the upper class, the size of the population of potential respondents is very large. In this case, appropriate sampling techniques will probably have to be used.

2.2.2.2. Criteria to be used for the selection of "big players"

The issue

The idea is to identify the relevant population of companies for BOP purpose, with the aim of minimising the administrative burden and conciliating efficiency and accuracy. It means that:

- **In order to produce the best possible estimate on a monthly basis, BOP compilers implementing a system using full direct reporting will have to find the highest rate of representativeness at least at the level of the key items**. The selection will have to take into account together the burden for companies and the burden for BOP compilers.
- When implementing a system based on specific direct reporting, the BOP compiler will have to define the "top 50" or "top 100" international transactors when defining the sampling frame. These companies are defined as "definite case" or upper strata in a cut-off survey (see below).

Several methods for several uses

Finding the appropriate threshold to individualise and recruit "big players" is not an easy task, as the scope can vary depending on the part that "big players" will play in the different channels used as a source to build the balance of payments. Furthermore, whereas bank settlements currently provide a direct system of measurement of international transactors' market share, the vision of tools that will be available in the future is less clear. **In the future, the follow-up of the population of "big players" will be closely linked to the way business registers are updated. As it is stated in recommendation "G", the maintenance of a minimum bank settlements reporting on behalf of their customers is highly recommended for that purpose.**

[20] Going further, and introducing the geographical dimension, a "big player " could be defined by its dominant position vis-à-vis a single country

[21] It has to be stressed that in some countries the portfolio investments reporting of big players may be made by the banking sector.

Taking apart the case of those multinational companies that will prefer to adopt the harmonised reporting system, **the method to be used for the selection of "big players" can be a threshold or a cut-off system.**

– **the cut-off method** is generally used in the framework of sample surveys. It consists in defining a rate of representativeness to be reached, and making a stepwise selection of companies, starting from that with the highest turnover, until the objective has been reached.

– **when selecting a population of full direct reporting companies, BOP compilers generally use a threshold relating to the value of international transactions**. Companies whose annual turnover is above the threshold will have to report. It is obvious that the rate of representativeness is an important criterion when determining the amount of the threshold.
  Practically, **the threshold has the advantage of providing an objective measure of companies' international transactions: among others this enables to refer to the threshold in a regulation, for instance as it is the case in France.**

Practical implementation

"Big player" selected for inclusion in the full direct reporting scheme should be those with a high level of transactions, together on exports and imports side, and with a participation in more than one item. It means that the selection will have to consider the following recommendations:

- the **representativeness item by item** should be preferred to an aggregated approach, as the objective is to reach the highest representativeness for each of the items,
- in order to minimise the number of reporting companies, it is recommended to **favour companies involved in both credits and debits,**
- whereas a special attention is to be paid on ***services* items**, the BOP compiler should not disregard the ***financial account***, as it would be inefficient to impose a general reporting to companies with transactions that are restricted to *services*,
- in view of the considerable size of *financial account* transactions, the selection should theoretically be made by using a much higher threshold than the one used for the *current account*. However, it is considered that the management of two thresholds would be too complicated. This is why it is generally preferred, if proven significant and among different alternatives, to **identify relevant respondents for the *financial account* through *investment income*** (see point (d) of B.2.1.1.1),
- The **geographical breakdown between intra and extra EU cross-border transactions** is the fifth dimension to be in principle taken into account, as the collection systems will have to fulfil together national and European needs.

As a conclusion, the utilisation of a threshold for selecting "big players" used as full direct reporting companies appears as a practical solution. For example, a company could be liable to report its transactions when the total annual amount of its cross-border transactions (credit + debit), at least for one item of *services* or *income*, exceeds a defined amount. Other practical solutions could of course be implemented.

2.2.3. Selection of respondents within the framework of an enterprise survey process

This section describes the whole process of a survey, from the selection of respondents (in the construction of frame lists and sample design), to grossing up procedures. It outlines the key features and issues that need to be addressed at each stage (see schematic presentation below). It can not specify how the issues can be resolved, which will vary from country to country.
Discussions on key issues specifically related to the use of surveys in the compilation of BOP statistics are also provided.

A SURVEY PROCESS

1. TARGET & CHARACTERISTICS

Definition of main target variables, frequency and characteristics according to user needs
Legal background and first contacts to enterprise organisations

2. POPULATION & REGISTERS

TARGET POPULATION (in theory)	GENERAL ENTERPRISE REGISTER (in practise), example: 2 mill. enterprises

3. LIMITATION PROCESS

Other information, auxiliary variables related to survey variables, check and update of frame data

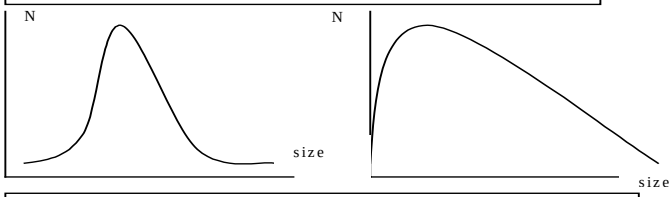
4. FRAMES

LARGE ENTERPRISES	VARIOUS SOURCES INDICATE THESE RELEVANT TO SURVEY	ASSUMED RELEVANT TO SURVEY
Examples: F_1=2000	F_2=20000	F_3=40000

5. TARGETED SURVEY POPULATION = FRAMES

TARGETED SURVEY POPULATION
$N = F_1+F_2+F_3$
Example: N=62000

Possible distributions of survey population



Survey variables or auxiliary variables

6. FORMS

Form planning and form laboratory tests; the IT solution for the forms, form piloting, consultations with respondents: form details, availability of data and respondent instructions

7. SAMPLING

TAKE-ALL STRATUM	TAKE SOME	STRATA	Total sample in example
Example n_1= 2000 Sampling rate 100 %	Example n_2=2000 Sampling rate 10 %	Example n_3=1200 Sampling rate 3 %	$n=n_1+n_2+n_3$= 5200

Boundaries and strata sizes: Variance (precision), total sample size, costs, statistical allocation algorithms available (survey- or auxiliary variables)

8. DATA COLLECTION

IT application for collection and information system; database, input and output

9. Validation of returns, imputation for non-response, treatment of outliers, estimation (grossing-up), processing the results, update of the frame, improvement of methods, etc

2.2.3.1. General considerations on the collection of BOP statistics through surveys

BOP data can be collected from enterprise surveys in the same way as any other data. Nevertheless, the BOP has a number of characteristics that cause additional difficulties. In particular, the fact that (i) BOP statistics comprise very different variables (*current account* and *financial account* transactions -flows and stocks-, with a geographical dimension) whereas (ii) in addition very different enterprises are involved, are difficult to take into account within a survey process. A practical solution taken by BOP compilers could consist of collecting statistics via a range of independent surveys, each survey approaching companies showing common patterns in terms of type of enterprise and BOP component.

The following requirements should apply for the collection of BOP data through a range of specific surveys:

- For data collected through specific enquiries to be exploitable, the experience of countries using survey advises to design a limited number of specific enquiries.

- A pre-requisite is that the identification of the different categories of BOP sub-populations is thought thoroughly, taking into account the information available from the BOP register (see B.1). This "categorisation" of the BOP population by sub-population should ensure for subsequent specific direct reporting procedures to be carried out in full consistency with each other.
- As it is described further below in section B.2.3.3, direct reporting forms must be drafted in such a way that they are understandable for the respondents, in order to enable immediate understanding (lower burden) and better quality of responses. This involves that forms should be custom-designed for the specific population they address.
- The need to address each sub-population in a different way may conflict with the need for the BOP compiler to obtain a sufficiently harmonised information. Therefore, whereas specific forms should be specifically designed for "their" target population, they should at the same time be sufficiently similar to each other to enable a proper treatment by the BOP compiler.

Concerning the survey method itself, typically, each survey should be stratified by an appropriate measure of size, and, in general, all enterprises in each top stratum should be approached.

2.2.3.2. Stratification and sample design

Generally surveys will adopt a stratified random sample approach using the relevant auxiliary information on the register as the stratification variable. Ideally the survey variables themselves would be used, but these are not known (if they were, the survey would not be necessary). However, while conducting high frequency surveys to a limited number of enterprises, it would be useful to know the total frame in terms of survey variables (i.e. for BOP surveys, the total amount of international transactions, as could be proxied by the information from IP databases). In the absence of such a tool, **the compiler assumes a close and stable relationship between the survey and auxiliary variables**. Sampling is then usually based on an optimal allocation across the strata to get an effective balance between costs and accuracy. Grossed-up estimates are produced for each stratum separately.
The structure of the population defined by the targeted register or the frame list needs to be studied as part of the sample design process. **The size as well as the distribution properties are of importance**. Standard descriptive statistics available in all statistical software packages give, in theory, the sufficient information. However, small, highly skewed populations may limit the scope for probability sampling and it may be more important to reduce the risk of serious bias by using some form of non-probability sampling. For instance, it has been demonstrated (Denmark and Finland) that the stratification of the sample in "small" countries is of little use, as the number of companies in each stratum is too small to get a nice statistical distribution. Conversely, the BOP compilers in "major" countries should be able to design efficient surveys with small risk for bias because they have large, nicely-shaped populations which allow sophisticated sampling.

As a consequence, even if the starting point is the same for planning the compilation process – i.e. cost-effectiveness for the respondents and the compiler – the practical model chosen can differ because of country specific circumstances.

Sample designs normally approach all enterprises in the top stratum (i.e. the stratum containing the largest enterprises or "big players" with respect to the particular survey). This minimises the burden placed on respondents and ensures an acceptable level of quality in the population estimates. Businesses within the smaller-size strata are sampled. The sample in these smaller strata in most inquiries is rotated to ensure the form-filling burden is spread evenly among the smaller businesses.
An advantage with statistically designed surveys based on random samples is that it should enable the calculation of sampling errors for particular variables to be made, giving an indication of the level of quality, in terms of survey variables, of the estimates which should be useful (i.e. essential) to the users. However, where the population characteristics do not facilitate formal sampling procedures and ad hoc (cut-off) selection is employed, the level of precision cannot be measured. On the other hand, non-sampling errors such as frame, coverage and measurement errors are generally found to be much larger than the measurable sampling errors.

2.2.3.3. Piloting the survey

Any proposed survey should be piloted amongst a small selection of potential respondents before going live to ensure that:

- the questions asked are well-defined, relevant, and produce the required data,
- the instruction notes accompanying the form are correct, that is business oriented to be understandable to the respondents and useful to define the data they deliver,
- the form is well sign-posted, logically routed and meets good practice for forms design,
- the availability of the necessary source data is confirmed,
- the resources involved in the companies supplying the data and in processing the data are assessed,
- the processing system is fully tested,
- there is a sensible balance between collecting very specific data in the survey or a wide range of variables (and a long questionnaire),
- realistic response rate targets are set.

2.2.3.4. Getting survey results

Validation of returned data

Effort will be needed to maximise the response. Follow-up letters, e-mails and telephone calls (particularly) are likely to be needed. Care should be taken to try to ensure that there is no significant bias amongst the non-responders compared to the responders.
All surveys should have **validation checks** on the data returned by respondents. The checks must be passed before the data becomes suitable for inclusion in the aggregate data for grossing to produce the actual estimate. These validation checks vary depending on the complexity of the variable being measured (e.g. within a certain range, consistent with other data in the return, consistent with data on a previous return).

Processing of inquiry results

Following validation the survey data go through a series of stages before arriving at the final set of estimates. These stages are:

- imputation/construction for non-response, either by hand or automatically by the processing system,
- identification and treatment of outliers,
- grossing-up to population estimates at the required level of detail.

A series of standard algorithms can be developed for conducting each of these stages. It is good practice if all surveys use the same procedures as far as possible. This promotes consistency in the production of estimates. It also allows further analysis of the aggregates and sub-aggregates across different inquiries.
Grossing is usually based on the register 'frame' information used to determine the stratification.

- For example suppose a survey of pension funds identified a stratum in which the total register auxiliary information (e.g. value of financial assets held at end-last year) for all the enterprises in that stratum is 900 bn. If the register information for the enterprises responding to the survey (after the treatment for non-response and outliers) is 90 bn, then all the survey responses are grossed-up by a factor of 10.
- In some cases the register may not have any appropriate information at all. It may simply represent a list of the target population of enterprises, or at worst it may be a list that includes the target population but does not identify them. The sampling process then is based on probability of selection. The register would still be stratified in some way and, for example, if a stratum contained 1500 enterprises of which 100 were selected at random the grossing-up factor for the survey data would be 15.

The grossing-up system also should allow the compiler to drill down from the population estimates back to the individual contributor data to establish the background to the estimates. This can then form the basis of briefing notes to accompany the delivery/publication of the survey results.
The production of the survey estimates tends to be an iterative approach as early results are revised when more responses are received, **submitted data are found to be incorrect or comparison with other sources identify errors and inconsistencies**. It can also reveal errors and shortcomings in the registers used. **It is a demanding and labour-intensive process** but it is always the case that the quality of survey estimates is directly proportional to the effort made on validation and analysis of the data.
Other continual work to ensure that the estimates are reliable and unbiased includes:

- analyses of the revisions made over time to a set of data
- investigations into non-responders and comparisons of imputed estimates with the eventual actual figures
- researching the causes and frequency of outliers
- verifying the coverage of the register and the information held on it.

A key attribute of the survey approach is the flexibility afforded by the system to make changes to the information collected in response to changes in demands (e.g. for more detail), changes in definitions and extra data items. However in the present context, it is highly desirable that the information asked for to companies remain stable over time to avoid adding burden, or a loss of quality for the data produced.

2.2.3.5. Specific issues linked to the use of surveys for BOP statistics

Problem of detail; item and geographical breakdowns crossed

If BOP data can be collected from surveys of enterprises, the combination of the geographical breakdown together with the different items included in a BOP is extremely difficult to take into account within a survey process.

Treatment of the geographical allocation

- **Geographical distribution is not possible to take into account when designing the samples for BOP surveys**. Geographical information is not an auxiliary variable as it varies in a non-continuous way throughout the population and is volatile over time. Therefore it cannot be used in stratification and sampling process. This would probably mean that the target variable and the statistical unit should be defined to include the geographical dimension, leading to very complex solutions.
- In practice, geographical information collected via the surveys totally depends on the data the firms provide. This approach means that the data can be aggregated to whatever geographical levels requested in the sample. **The sample gives the geographical distribution that is then applied to the data grossed up to the population level; this could be a serious shortcoming when detailed breakdowns are needed**. In some surveys, the geographical distribution may be copied from the last known actual, detailed return. This method is used especially in intra annual surveys, which are simpler than the annual structural surveys.
- It should be pointed out that **there might be a data quality issue in terms of whether existing sample sizes are robust enough to support dissemination of data at e.g. single country aggregate levels**. Increasing sample sizes obviously has consequences for staff resources in terms of data validation, and compliance cost on firms. Further work will be required as the BOP Regulation is developed, to assess whether sample sizes will need to be increased, although this may not be necessary if the data are not published at the lower levels, but are aggregated to EU totals.
- However, **this raises the issue of potential disclosure of national confidential data**. Data at a lower level (i.e. more detailed geographic level) may be disclosive in terms of the confidentiality of the data because of too small a number of data items contributing to the grossed data estimate, or dominance of one firm in the grossed estimate. A set of rules for EU aggregates would need to be developed which would cover MSs' nationally disclosive items, and presumably, meet the criteria of their

national disclosure rules which will set out the criteria for allowing a national estimate to be published.

The items breakdown

- Similarly**, the list of service transactions to be measured does not affect the sample size**. If the list of services were increased, this would necessitate some staff resource in terms of amending the existing survey questionnaires to include the new services transactions, and in amending existing systems to allow for the new *services* breakdown. There would also be the consideration of extra compliance cost of the firms completing the survey. However, consideration would have to be given to whether existing sample sizes could support extra service variables in terms of quality.
- **In the FDI surveys, on the contrary, additional industrial activity detail has direct effects on the survey design**. The collection and compilation resources usually determine sample sizes and stratification design. This situation may easily lead to increased standard errors in sampled strata indicating quality problems. This phenomenon has been emerging in such activities where the number of small enterprises in the frame is considerable. The confidentiality problem accentuates in the take-all strata with additional detail. The confidentiality problem is less severe if a more detailed activity breakdown is combined with less detailed geography than vice versa.

In principle, only experience can tell what is feasibly surveyable. Pilot studies are highly recommended. It can be foreseen that the coming of detailed international requirements make the survey design to approach cut off collection. This in turn calls for highly sophisticated IT systems.

The use of surveys to fulfil monthly needs

Importance of bank settlements reporting for high frequency statistics

Monthly data are required to fulfil ECB and national needs. The design of the collection systems for countries using bank settlements has been generally based on this periodicity. Even if the information is enriched with the quarterly and yearly revisions, most of the data are available on a monthly basis. **The limited use of bank reporting on the account of companies in future collection systems could render in some cases the compilation of the monthly BOP more difficult, as the survey design process is generally considered as more appropriate for low frequencies than for high frequencies.**

Procedures for monthly *financial account* statistics

As for the *financial account*, cut-off surveys selecting companies by their overall importance in the financial account, looks as the most appropriate solution, enabling to get a high coverage with a limited number of companies. These cut-off surveys can be part of a general direct reporting system or a subset of surveys tailored for the coverage of the main items of the financial account. In addition, one must bear in mind the peculiar importance of a continuous monitoring of frames for financial account inquiries, to get an updated picture of a population of companies which could be highly volatile.
The situation appears easier to manage for countries with major enterprises playing a dominant role (as it generally seems to be the case in "small countries"), than for countries with a high number of SMEs (in the sense of financial transactions). For the latter countries, if in theory probability sampling can be used, in practice grossing-up from the results of the sample could in some cases lead to absurd results. **It has to be emphasised that the production of monthly data for the *financial account*, estimated on the basis of a model, would not satisfy the ECB's requirements considering the high volatility of these flows.**

Procedures for monthly *services* statistics

Turning to the ***services* transactions**, the estimates to be made on a monthly basis seem easier, as generally only a total of *services* transactions is needed at the highest frequency (key items). Here again this estimate can be the **output of a cut-off survey** or of a full direct reporting system when it is possible to cover a high degree of representativeness with a limited number of companies. In case of a high number of SMEs, the recourse to **modelling** (using for instance ARIMA models family), looks unavoidable.

The use of surveys on the BOP debit side

A priori, there is a close link between the activity of companies and the nature of their exports of services (although it is not always a one to one relation), which have been proven in some countries by the results of their quantitative analysis. It is not the case on the debit side, where the statistician is confronted to a very diversified behaviour by enterprise, most services importers pertaining to the industrial economic sector. Going further, when trying to tackle importing companies, the BOP compiler faces a large number of enterprises together with a great volatility of transactions.

These observations render the use of surveys on the BOP debit side very difficult, with a great risk not to survey significant transactions. For this reason, countries traditionally operating a bank settlements system have a particular interest in exploring possible options for maintaining a form of collection from banks, at least for all debit transactions above the EUR 12 500 exemption threshold. In this field, a CMFB sub-body that was mandated to produce a report on BOP compilers' views about the possible raise to EUR 50 000 of the threshold, is studying possible alternatives for limiting banks' reporting burden and satisfying statistical needs. One of these alternatives could be the use of e-banking, which on the debit side would possibly enable simultaneously to lower banks' burden and ensure minimum quality for statistics.

3. REPORTING FROM RESPONDENTS: MAIN CHARACTERISTICS AND PRACTICAL IMPLEMENTATION

Once the respondents are selected, the question arises on how to get the information from enterprises.

- The **transaction approach** will be favoured, as this approach is recommended by the IMF balance of payments Manual (BPM5).
- The report shows that the coverage of the information reported (**full or specific reporting**) depends on the status of the respondents regarding the importance of their international transactions.
- Co-operation with companies, and in particular efforts for full **mutual understanding (BOP compiler/respondents)** is of high importance
- A special attention is paid to **multinationals companies** with a special harmonised reporting system.

The section of the report relating to the **practical implementation** discusses the problems linked to the combination of different sources, the management of the transitional period and legal aspects. An overview is also provided of MSs' National Action plans concerning the collection of statistics on item *other services* (which excludes the *transportation* and *travel* components), as it provides a relevant illustration of intentions to implement or expand direct reporting procedures.
Finally, an analysis of **costs linked to the implementation and operation of direct reporting procedures** is provided, as discussed in comparison to similar costs arising from an ITRS.

3.1. Characteristics of the reporting from respondents

3.1.1. The use of some common principles

The revision of the BOP collection process is the occasion to re-examine the pros and cons of possible options to require statistical information from companies. Major features relate to:

- the use of transactions versus settlements,
- the use of a full reporting, covering the whole international transactions of a company or to the use of a specific reporting, depending of the transactions involved,
- the use of a national input nomenclature, as it is the case today or to favour the use of a common nomenclature.

3.1.1.1. Transactions versus settlements

Main features

The balance of payments on a transaction basis covers transactions between the economy and the rest of the world, at the moment when a right is obtained over the economic value concerned by the transaction, i.e., when it is created, transformed, exchanged, transferred or extinguished. It means that the transaction basis involves the change of ownership of the economic value. According to the BPM5, "despite the connotation, the balance of payments is not concerned with payments, as that term is generally understood, but with transactions" (§ 26 of the BPM5).
The flows recorded in the **balance of payments on a transaction basis** reflect the time at which external receipts and payments become due, whether or not this is matched by a corresponding payment.

In the **balance of payments on a settlement basis**:

- the flows reflect the time at which they are effectively paid or received, and

- only a partial registration is made of BOP transactions, which are not completely matched in so far as some do not imply a payment between a resident and a non-resident, or imply a partial (netted, etc.) payment.

Discrepancies between these two possible measurements of flows appear particularly noticeable in items like *goods, travel, insurance, construction services* and *investment income*. For other BOP items there are probably no large deviations between settlements and transactions. In the particular case of *services*, most of them are paid when they are due, reason why settlements may be considered as a satisfactory proxy for transactions. On the other hand, differences between the two approaches are not negligible within the *financial account* compilation framework.

Typical cases where data on the effective payment do not reflect the real transaction include transactors' participation in international clearing/netting schemes, whereas correct registry in the BOP[22] implies that gross flows are measured. Furthermore, there are transactions that do not imply a settlement like accrued interest, reinvested earnings within the FDI and trade credits.

Discrepancies between the two approaches result mainly from differences between concepts and information source: the direct reporting from companies emerged as a supplementary source of information regarding the existing basic bank settlement systems adopted in some countries. The direct reporting became a means to secure the coverage, the quality and to supply additional details not easily provided by the basic settlement systems.

The information retrieved directly from companies may be either on a settlement or on a transaction basis, depending on the original source of information, if it is the financial or the accounting division of the companies.

Pros and cons

There are pros and cons regarding the nature of the current reports from companies. Basically, the transaction reporting fully complies with the IMF methodological recommendations, while the settlements reporting speeds the access to data by the compiler. The main advantages and drawbacks of the information's nature were already outlined in the previous final report of TG "Direct Reporting Companies". The following can be singled out:

- **Transactions imply that reporting is made by the company's accounting division, whereas settlements come from the financial division that is generally more aware of the international character of an operation and of the country and currency breakdowns**. **By using the accounting systems as a source, respondents are able to supply transaction data on various types of transactions not resulting in settlements, e.g. accrued interest and intra group reorganisations (FDI) but, on the other side, the quality of the geographical allocation could be affected.**
- The transaction approach ensures that, e.g. transactions in securities and other financial instruments are recorded at contract/closing date, as recommended in BPM5, and that contra-entries are reported for assets/liabilities not paid, etc.
- Transaction reporting facilitates the efforts to neutralise the effects on BOP statistics of some events like the reconciliation with IIP statistics. Reporting on a transaction basis, through a full reconciled model between flows and stocks, will allow an alternative way of monitoring the quality of the information, although, only at the companies (direct reporters) level and not across sectors.
- Reporting on a transaction basis also raises the question of the future of Partial Direct Reporting Companies, i.e. companies that report settlements made abroad via accounts held abroad or by participation in international clearing/netting schemes.
- Reporting on a transaction basis raises the problem of controls since it limits the possibility for crosschecking with settlements reported by the resident banking system, as it currently exists in

[22] However, if complete information on the gross flows are provided even if on a settlement basis, these latter may be considered a reasonable proxy of the transaction.

several countries, to monitor quality and exhaustiveness[23]. The crosschecking between non-financial and financial sectors will be more difficult.

- Transactions are generally reported on an aggregated basis and at the end of the reference period, when aggregates are obtained. This could leave very little time to the authorities to compile the balance of payments and meet the 6-week deadline for monthly data. Settlements are generally reported on an individual basis and could be available in a shorter period than transactions. However, the situation may be different from case to case.

Finally, and as a general remark, it should be stressed that it is the BOP compiler responsibility to clearly define its information requirements. Although a survey-based system (where direct reporting can be interpreted as a cut-off survey) is deemed to gather information on a transaction basis, attention should be paid to which of the company's division is providing the information, to assess its nature. Depending on what kind of information is provided to the BOP compiler, pragmatic solutions should be envisaged in order to solve possible practical problems of a transactions-based approach implementation, as companies settlements form a good proxy of transactions, at least for most services.

3.1.1.2. Full versus specific reporting

As it was already described in point A.2, a direct reporting can be a reporting of all BOP items (a **full BOP reporting**), or a reporting limited to special items, the so-called **specific BOP reporting**.
This direct reporting may occur within what has been called a direct reporting system, which replaces or supplements bank settlement data; or within a survey-based system, regardless of stratification and/or sampling method, i.e., if they are census, sample or cut-off surveys. In both situations the company is approached to report information for BOP compilation: it is the BOP compiler who must define the request for information, in connection with the specific population approached.
In practice, most countries collecting BOP data through surveys (notwithstanding the size of economies) apply a targeted survey approach, often using exclusively **specific reporting** from targeted respondents. In this context, the constitution of frames determines the drafting of survey forms. In the terminology of this report, it could be said that this procedure consists of approaching a sample of respondents, representing one specific sub-population of the BOP (identified through the variables available from the BOP register(s)), for targeted specific reporting.
The **targeted survey approach** involves that a number of requirements are fulfilled, which are described in section B.2.3, in order to minimise the burden for both the respondent and the compiler. In particular **a specific sub-population is requested information on specific BOP items** (a limited subset), that are deemed to be the most relevant for the considered sub-population.

The **full reporting** approach consists of asking the company to supply information on all its BOP operations. This approach may be considered as a targeted reporting, applying to a sub-population (frame) identified as relevant for all BOP transactions, and is therefore not inconsistent within a all-survey system. **The concept of full reporting is tightly associated with that of "big players", regular reporting and high frequency inquiries.**
A further comparison of the two possibilities must be carried out from both points of view of the compiler and the respondent.

For the respondent

- A relative advantage of specific reporting for the targeted respondent may be that he/she reports only a subset of his transactions/positions, which could be easier to retrieve, especially considering that the required information is focused on the items for which the enterprise is most relevant.

  In the "all-specific reporting approach" however, it may be the case that one respondent, identified as relevant for more than one sub-population, is approached for more than one specific reporting. In this case, it may be questioned:

[23] In some countries the settlement systems will remain as a source of information for those operations above the exemption threshold.

- whether it is easier for the company to answer several different forms, differently designed, and for different parts of the BOP, or
- if it is preferable for the respondent to answer a unique, harmonised, form requesting full information (possibly including information whose importance is low for the compiler and whose cost for the respondent to retrieve is high) on all BOP operations.

A case by case analysis may be necessary in most cases, whereas it seems that the balance would be in favour of the unique form for those companies asked to fill all enquiries. Some further elements relevant for this analysis are provided below, with respect to the periodicity of reporting and size of companies.

- The reporting may be on a lower periodicity basis for specific than for full reporting, or even on a random basis. Depending on the size of companies (i.e. the stratum to which they belong), the approach preferable from companies' viewpoint could be different:
  - big companies in upper strata, where the population is deemed to be rather small, may be asked to report very frequently in a cut-off system (even where samples are rotated). Furthermore, big companies often carry out various economic activities on a significant scale: thus they may be in upper strata for more than one BOP enquiry (in systems applying a range of distinct surveys), which could make them subject to frequent reporting for different surveys (see above). **For big companies therefore, regular full direct reporting may be preferable: automated IT procedures for retrieving and transmitting BOP information could be implemented, whose initial cost would be overcome by subsequent cost savings in terms of time and resources**.
  - for small companies in lower strata where the population is sizeable, requests are likely to be more sporadic, especially if samples are rotated. For these, specific reporting may be preferable.

For the compiler

- An important advantage of regular full BOP reporting is that it enhances the process of production of global estimates, namely, monthly estimates, and facilitates the monitoring of the quality of the reporting.
- Furthermore, the management of the database for the production of global estimates is a more difficult process when using specific reporting than with a full reporting. Indeed even if some harmonisation is reached between the different forms, specific reporting procedures imply the reconciliation of different information subsystems with complex IT solutions
- A drawback of the full reporting by a company could be however that, as BOP respondents are selected on their representativeness in some specific items, the number of global respondents would probably have to be higher than with a specific reporting to ensure the coverage of all the items.
- Finally, when using a selection of companies on a random basis (which is a widely used technique in large repeated surveys), it is difficult to ensure a stable relationship with the respondent. This situation could limit data quality, even if all the guarantees are fulfilled (from the respondents and from the BOP compilers).

Considering the balance between the advantages and the shortcomings, the TG favours, where relevant, and at least for "big players", a full reporting. This solution is deemed to ensure a better quality of reporting for the core of companies, and to ensure an easier management of the database.

3.1.1.3. Use of national or common nomenclature

Back looking

The drafting of a harmonised code-list to be used in BOP/IIP data collection procedures was the result of the decision of the CMFB at its meeting in January 2000. The CMFB's concern was to develop a common tool useful for the data collection systems and in particular for settlement-based systems.

In this context, a code-list addressed to banks and taking into account the needs and requirements of all settlements data collection systems was drawn up, although its implementation remains within the competence of MSs since it requires a preliminary agreement between banks and BOP compilers.
Regarding the new and common input code list, **MSs support the principle, as it would be a first step towards harmonisation of the collection systems. However they consider its implementation with much caution, namely because it is seen as a very burdensome task both for the respondents and the compilers**, and it does not appear applicable to all collection systems unless some adaptations are introduced like considering more aggregated level of codes.

The situation today

In fact, the discussion on the usefulness of a common list has evolved towards a common nomenclature/definitions rather than a common code list, more user-friendly and more business oriented to be used within the framework of direct reporting procedures.
However, as ERP software suppliers have pointed it out, the successful implementation of a common nomenclature would be conditioned upon its codification, which should be universal and independent from the peculiarities of each country language.
At the present stage, practical problems regarding the implementation of a common nomenclature might overcome benefits, due to companies' different internal organisation and stage of development, which make it difficult to develop a common codification for the information input. In fact, the different structures among the companies and their respective sources of information, have led the BOP compiler to concentrate the harmonisation efforts on the output rather than on the input side of the information.
Developments are expected in this field, from the work of the TG on Asymmetries (which is in charge of preparing an input Codification) and from further discussions on this matter in the light of mixed full / specific direct reporting and pure surveys-based systems. These developments should provide enhanced instruments to assess the suitableness and the implementation of a common nomenclature in future BOP/IIP collection systems. Whatever the collection systems, a common nomenclature will have to be implemented at least within the framework of the multinationals common reporting.

3.1.2. Catching the data

The collection of BOP data can not be regarded as a unilateral process involving only a request from the BOP compiler and compliance by respondents. A fruitful co-operation between BOP compilers and companies implies that efforts be made in mutual understanding of principles and languages underpinning **accountancy and BOP**. **Discussions with companies** appear essential to reach a better knowledge of each party's expectations and possibilities. Finally, co-operation is also indispensable in the IT domain in order to ensure that **retrieval and transmission of companies' information to BOP compilers** be made, to the greatest extent possible, by using systems already in use in companies such as ERP software.

3.1.2.1. Accountancy and balance of payments[24]

The link between accountancy and BOP is becoming of increasing importance for statisticians as data collection procedures are developing towards systems where companies become an important source of statistical information. However the detail of information which can be disclosed from accounting will have to be carefully studied with companies, together with the appropriate IT solutions to extract and to transmit the data to the BOP compilers.
In most countries where a bank reporting system is in place, some companies are already reporting international settlements, generally made by the company's financial division, directly to BOP compilers (in total or just the payments carried out without the involvement of the resident banking system). The pros and cons of reporting settlements versus transactions from companies have been discussed in section C.1.1.1. The present section concentrates on catching the information directly from the accounting system of a company.
Regarding the information available in the companies' accounts, the matter can be analysed from different perspectives.

[24] Member States' contributions are presented in Annex

- From one side, the level of **detail of the information that will be disclosed** is of particular importance, especially when data are taken directly from company published accounts.

  According to the Regulation on the application of International Accounting Standards (IAS)[25], publicly traded companies will be required to apply from 2005 a single set of internationally agreed standards for the preparation of their consolidated financial statements. This will contribute to harmonise financial reports thus enhancing comparability across the EU.

  However **it appears that official companies returns *per se* (e.g. Balance Sheet, Income statements, etc.) do not look of great usefulness for BOP purpose, as the room offered for statistics, and BOP in particular, is very reduced.**

  The geographical aspect and the level of detail, in particular for *services*, seem to be the most problematic areas[26]. Regarding the geographical breakdown a proposal could be made to the relevant bodies to include in the Financial Statements at least the split of transactions (purchases and sales) and positions (assets and liabilities) between resident and non resident: this could enable to identify companies with an international activity. In fact, the complete information that is needed to compile the BOP and IIP in compliance with the national and international requirements will have to be found in the company ledger and sub ledger and cost accounting, and more generally in the data stored in their data warehouse/ERP systems using electronic solutions.

- **Regarding the comparison between accounting and statistical definitions and classifications, a major concern relates to the difference between accounting and statistical concepts and language**. Accounting and statistical concepts are complex and comparing the two requires high competence. It is important, however, to emphasise that basic principles like time of recording, accruals, double entry accounting and stock and flows concepts are common to companies' accounts and balance of payments. Some areas peculiarly worth exploring are the evaluation principles of financial instruments (and the concept of fair value indicated by the IAS), and the treatment of specific transactions such as insurance, leasing, constructions. The study of the accounting principles related to consolidation and disclosure of participation in associates is also highly relevant, as these concepts are linked to FDI and FATS. An example of divergence between statistical concepts and the IAS is the definition of associates. For FDI statistics, the concept of lasting interest is associated to a threshold of 10% while IAS 28 indicate that a "Significant influence" is presumed to exist if the investor owns more than 20 per cent of the associate.

3.1.2.2. Contacts with companies

The TG considers of utmost important to have early contacts both with companies[27], accounting associations[28] and IT providers. It is also of particular importance to take into account the experiences of other statistical domains, like business statistics, and explore potential synergies.

In the field of BOP, contacts with companies are being established at country level to investigate in depth the information system and evaluate the cost to extract and provide the data to BOP compilers. An important contribution on this issue can be drawn from the results of the feasibility questionnaire that the TG has prepared for the testing with multinationals. The work carried out until now demonstrates that a better understanding of information needs and availability between statisticians and accountants goes to the advantage not only of statisticians, but also of companies, by offering a better correspondence between accountancy and statistical requirements.

However, the TG believes that it is important not to confine the test to multinationals. In fact the feasibility study should include companies with different dimensions and active in different economic activities. Contacts with companies (see further below in section C.2.2.3 for more reflections on the learning process) should aim at finding best solutions for enterprises to report BOP statistics by:

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[25] Regulation (EC) no 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards

[26] The IAS 14 on Segment Accounting deals in part with this issue.

[27] Interesting information on contact with companies can be found in the paper on experience Sweden in Annex.

[28] In the Netherlands the accountancy profession has been consulted to check the feasibility from the accountancy point of new forms and explanatory notes

- **stating BOP compilers' statistical needs**, by explaining the usefulness of statistics, and giving a clear overview of the information needed for statistical purpose,
- **identifying which department within the company will be in the better position to report the requested data**, considering that an inadequate choice would inevitably entail timeliness and accuracy problems, and an unnecessary burden for the company,
- **exploring the possibilities to implement standardised IT solutions**, to generate, to process and to transfer the information from the enterprise to the BOP compiler.

Various aspects should be tested:

– **availability of data** (with all the detail needed: economic nature of flows, geographical and currency breakdowns …),

– **timeliness** (to enable the compilation of the aggregate in due time)

– **accounting practices and definitions used**

– **cost for companies** (evaluation of adjustments/investments needed in structure of information system and, in those countries with a Direct reporting based on settlements, the possible shift from payments to transactions).

In general it can be stated that drafting survey forms and clear guidelines in accordance with accounting language makes reporting easier for companies. Furthermore clearly stating statistical needs and working towards harmonisation of concepts are to be considered as a means to save costs for the economic system in general.

3.1.2.3. The extraction and transmission of information from companies to BOP compilers

Enterprises have to complete BOP declarations and send them to the Institution in charge of collecting BOP data.
Two crucial phases are therefore to be considered:

– data extraction and

– data transmission.

From the technical point of view, this process includes:

(1) **Data gathering within the enterprise**: most of the required data seems available in the enterprise's accounting or ERP systems (Enterprise Resource Planning). This existing data can be extracted in an automated way.

(2) The gathered **data may have to be processed within the enterprise**: this is for example the case when business and BOP concepts for the data in question differ (mapping problem). Another reason might be that data comes from more than one source (a possible source is manual data entry). Error correction also falls in this phase.

(3) Generation of the data format requested by the data collector: **more and more XML** (eXtensible Markup Language) **is being used** in this context.

(4) Sending of the data: **the Internet is increasingly used as the transfer medium**. This phase has to include necessary security measures like encryption and authentication.

All of these steps could be integrated into the commercial accounting or ERP systems installed within many multinational enterprises. Another – more realistic – strategy would integrate only step (1) in these commercial software systems and cover steps (2) to (4) in a so-called electronic questionnaire system, made available by the data collector.
Electronic questionnaires (stand-alone and Web forms) exist and are used by enterprises. An electronic questionnaire system can cover several tasks:

– import existing data (e.g. extracted from accounting or ERP systems, or generated in another way). The data to be imported has to be available in a specific format (e.g. XML).

– process data, if required, as described in step (2) above.

– allow for manual data entry and correction.

– validate data: checking rules can be built in so that data arriving at the collector will be less error-prone.

– generate the required data format (step (3) above).

– encrypt and send the data (step (4) above).

It is important to link accounting or ERP software to electronic questionnaires, particularly by ensuring that when the accounting or ERP software is able to export BOP data in a format that is accepted by the electronic questionnaire system. Missing data can be added from other sources (e.g. manually, or from other databases). This functionality and the required data format have to be created.

For the data exchange between ERP software and electronic questionnaires, XML formats could be used. Currently, UN/CEFACT (the United Nations Centre for Trade Facilitation and Electronic Business) is developing ebXML (e-business XML), a standard framework for XML messages used in e-Commerce. Another XML standard is very successful in the area of financial reporting: XBRL (eXtensible Business Reporting Language)[29].

3.1.3. Multinationals specific reporting

As it has been mentioned in section A.4.2, the TG is co-operating to the works of the Steering Group on Multinationals (SGM) in preparing a specific harmonised BOP/IIP reporting model with regard to multinationals. **In a number of cases, for European multinational companies with affiliates in other EU Member States, standardisation of reporting rules is a justifiable goal to strive for.** The concept of harmonised reporting rules for multinationals is now under investigation. This section explains the main elements of the draft harmonised reporting model.

3.1.3.1. Main general characteristics of multinationals specific reporting

The harmonised reporting of multinationals should take place in compliance with a number of rules:

- Whether or not the preparation of the report is centralised in a first step at the level of the mother company, the reporting of relevant operations by multinational companies is to be done **directly to the BOP/IIP compiler of the country where the enterprise that did the transactions is domiciled**.
- The harmonised BOP/IIP reporting model focuses on a **close link-up with the reporting enterprise's accounting system.**
- Basically, **the frequency of reporting is monthly**. Some information is required only on an annual basis (relating to equity investment in the field of FDI and to real estate), as in principle, it is available only once a year.
- In principle, **full geographical breakdown** of information should be reported (such as country of foreign debtor or creditor) has to be provided.
- There is a **sub-system (set of forms) for the reporting of foreign financial assets and liabilities** of the enterprise concerned and ditto for the reporting of information on **international trade in services (**the main aspect of both sub-systems are discussed further in annex).
- Information should be reported in domestic currency (euro for euro-zone countries) only.
- Information on goods transactions is in principle not required as reporting already takes place via Intrastat/Extrastat channels.

[29] See as a reference "using XBRL for data reporting "; paper submitted by the Australian Bureau of Statistics to the Conference of European Statisticians. See also "electronic data reporting (EDR), metadata, standards, and the European statistical system (ESS)"; paper submitted by Eurostat to the same conference (13-15 February 2002).

3.1.3.2. Reporting of foreign financial assets and liabilities

The following characteristics can be highlighted, with respect to the reporting of foreign assets and liabilities:

- **A fully reconciled model for the reporting of both stocks** (positions, necessary for the IIP statement) **and flows** (transactions, necessary for the BOP statement) has been designed. This model is meant to be used for the reporting of each type of foreign financial asset or liability required.
- For the foreign financial asset or liability concerned, the reconciled model includes the reporting of the opening and closing position (thus, respectively at beginning and at end of period, e.g. month), the transactions, exchange rate changes, market price changes and other changes in the position. The general structure of the reconciliation of stocks and flows of foreign financial assets and liabilities is presented in full detail in annex. The design of report forms relating to specific categories of foreign financial assets and liabilities has been based on this structure.
- The **reporting of related *investment income*** (interest, dividend, whatever is applicable) is also part of the reconciled model. For interest, reporting of information **on an accrual basis** is required.

3.1.3.3. Need of a feasibility study and of a testing to assess the practicability of the common reporting forms

Feasibility study from companies

The feasibility study and the test completion of report forms are on the way with a sample of companies: they will form the basis of a report of the SGM. A first impression of replies to the feasibility study is that **the overall attitude is positive**. The forms filled in with real data are however only partially available for the moment. A revision of the forms towards a simpler presentation will be considered after the testing phase, if relevant.

Feasibility study for BOP compilers

There is no doubt that the implementation of the common forms for multinationals will have important consequences for the design of the collection systems.

- **Whatever the collection system to be implemented in the future, multinational reporting specific case will have to be taken into consideration in its design**, even if nobody knows for the moment how long it will take to implement this specific reporting, and what its extent among MSs will be.
  Even if multinationals will have to be considered as full direct reporters, **it is necessary to plan a supplementary channel and a peculiar processing** besides the "Settlements/DRC/Surveys" ones to compile the information coming from these companies, taking into account the peculiarities of the common forms. An appropriate solution will have to be found to combine these reports with the information from the country's general reporting system for integration in the BOP production process. BOP information from all channels used (including multinationals harmonised reporting) will have to be harmonised so as to produce the final output within the strict timeliness and with the need to fulfil the detailed codification of transactions and the complete geographical breakdown.
- **The organisation of business registers will have to take into account the identification of those companies reporting using the common forms**, with a clear definition and description of the group and of the affiliates. The updating of the registers will need a careful monitoring of the changes intervening in the perimeter of the multinational group, as it has direct consequences on the choice of companies as full direct reporting or surveyed enterprises.
- The **need of an individual report by company** has to be reassessed, even in those cases where, due to the bookkeeping practice, the information is in a first step centralised at the level of the mother company.

- **Clear instructions will have to be given to domestic banks in order to identify the group of multinationals** using the harmonised reporting: specific codes will have to be used to link bank reports and multinationals reports in order to avoid double counting. Namely an appropriate organisation will have to be implemented for those countries using securities resident custodians to provide information about *portfolio investment* transactions, in order to identify and eliminate those transactions which will be reported by multinationals companies following an-end-investor approach.
    - The implementation of a harmonised system of reporting for multinationals will of course **need a common input codification.** Consequently, as long as this common codification is not implemented for the whole collection systems, it needs to be managed together with the present ones with a table for translation.

3.2. Practical implementation

Various key aspects of a Direct Reporting system's implementation are addressed in this section. The reader's attention is drawn on issues relating to the **combination of sources** from the point of view of the various requirements in terms of frequency and from that of the quality of statistics.
The implementation of the future collection systems will take time. Some MSs will choose to do this implementation step by step, and others will prefer to do it in one shot. Whatever the method, the **management of the transitional period** could be a critical one, and need some landmarks.
Whatever the combination of sources, a large part of the collection systems will rely on companies, with a shifting of the reporting burden which is today mainly located in the banking sector. As a consequence, **a legal framework** will be necessary at a national basis to get timely and good quality data from companies.
As an illustration, a quick overview is given of MSs' **national action plans** concerning *other services* (than transportation and travel).

3.2.1. The combination of different sources

3.2.1.1. Different scenarios to meet monthly, quarterly and yearly needs

As it was discussed beforehand, the combined use of different sources is, to a certain extent, linked to the existence of different requirements in terms of frequency, which involve their own coverage (detail in items and geographical breakdown). Broadly, three groups of scenarios exist for future collection systems (see the national action plans):

- Those countries choosing to use a **full direct reporting system associated with bank settlements** will use the same procedure on a monthly quarterly and yearly basis (covering monthly- directly or indirectly- the whole population of companies making international transactions). A priori, this form of collection system will be able to give the same level of details as the one that can be derived from an ITRS. Quarterly and yearly revisions will enhance statistics' accuracy, as information available at a later stage is integrated.
- In **full direct reporting systems associated with surveys**, "big players" will in general transmit information on a monthly basis with the highest representativeness, monthly key items being compiled as grossed-up estimates of this information. The supplement of information will be available quarterly using the results of the surveys with SMEs.

  The quarterly release will have to be accompanied by a revision of the first monthly estimates.
- The approach will be different with an **exclusive use of surveys**, as recourse to modelling appears unavoidable to compile monthly key items.

3.2.1.2. Questions of precision

This section of the report deals with the quality dimension of the BOP compilation, focusing on accuracy. It highlights the potential risks linked to the use of a mix of sources, among which surveys and estimates

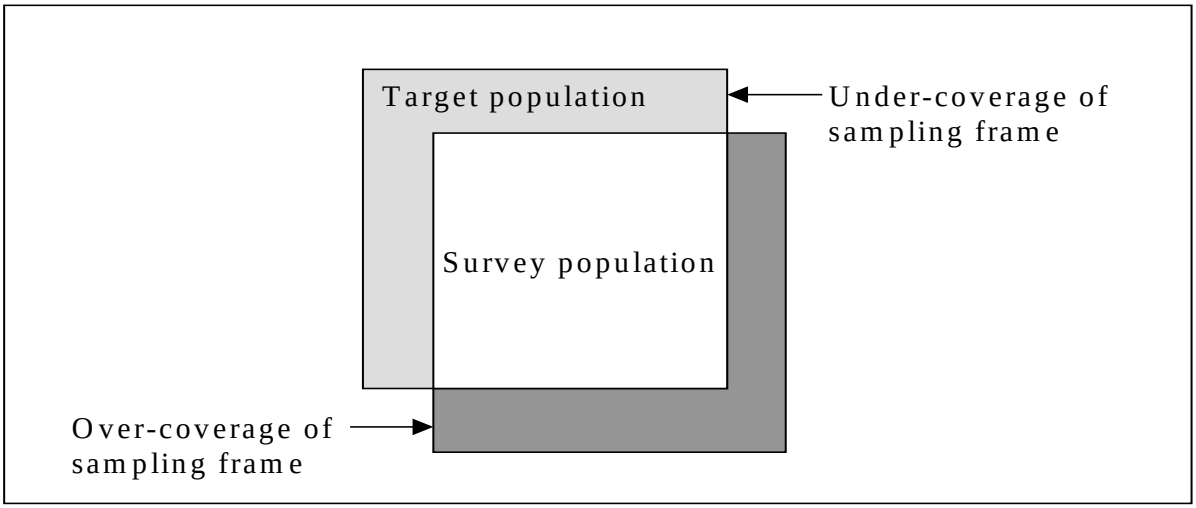
will play an important role, to be integrated into a unique system. A careful monitoring will be needed to ensure that minimum quality standards are reached.

Estimation techniques and accuracy

The BOP is a complex statistic that makes use of different sources in many cases. Whatever the compilation system in operation, BOP statistics provide an estimate of the true value of the target variable. Thus, complying with users' expectations means not only producing (estimated) figures but also making available a set of instruments enabling to assess statistics' quality.
This section focuses on the accuracy dimension of quality, **which is defined as the closeness between the estimated value and the true value that the statistic aims at measuring**. In practice, there are discrepancies between those two values, and this discrepancy is called the estimation error. Apart from estimation technique, there are multiple factors that influence the accuracy of an estimation, relating to the conceptual frame, the consistency of the rules and the definitions.

Two groups of errors are generally distinguished in sample surveys, which can be generalised to other kinds of collection system, when examining accuracy:

- **Sampling errors** arise from the fact that, where it is the case (i.e. in theory not in census surveys), only a part of the total population is observed. A sample value is obtained from data collection, which has to be grossed-up to the total population. The sampling error is minimised when the sample is representative (i.e. it is a fair representation of the population under study).
- **Non-sampling errors** refer to all factors that contribute to the existence of errors in the estimates, not emanating from the sample. **These errors exist in all systems, whether survey-based or not**. The following are common illustrations:
  - **Discrepancies between the sampling frame and the population**, due to the fact that not all the units involved in international transactions are identified, or, on the contrary, that irrelevant units (i.e. non-international transactors) are included in the register (see the diagram below). Such frame errors produce, in general, biased estimates whose importance depends on the characteristics of the awkward (omitted or improperly considered) units. Minimising frame errors implies to pay maximum attention to the implementation and maintenance of BOP registers.
  - **Measurement errors** are the difference between the observed value for an individual unit and the true value of that unit. These may occur at any stage of the compilation process (from the design of the questionnaire to the processing of collected data). Auditing periodically all steps of the compilation procedures should aim at reducing measurement errors.
  - **Methodological errors are caused by defective estimation methods or by model assumptions to gross-up the sample observations**. For instance: in settlement based systems, assumptions are made in order to distribute all the transactions below the existing threshold. In a survey based system, the distribution of the missing observations caused by non-respondents relies also on assumptions, due to the fact that only the number of non respondents is known, but not its magnitude.



It is not the place to describe all the means that could be used to assess the accuracy of the BOP compilation, as these means have been described in depth in the IMF framework and in the joint EUROSTAT-ECB framework. Nevertheless, it should be stressed that in order to reduce sampling and non-sampling errors to produce accurate estimates, it is essential to assess and to verify upstream the different parts of the statistical process. In addition, the recommendations given in the beginning of this report should provide a preventive tool to minimise these errors in future systems.

Potential risks with a mix of sources

The new scenarios are based on three primary sources: settlement systems, full direct reporting from "big players" and specific direct reporting from surveyed enterprises (see point C.2.1.1). These sources have been used to some extent by all EU countries, either as part of a single approach or of a mixed approach. Even when the settlement system is the main source, other systems (e.g. trade statistics, official data for government international flows, use of surveys for trade credit….) are implemented as secondary sources. **When different sources are used simultaneously, some uncertainty arises related to the possible problems associated with their integration in a unique system. The resulting compound source has to maintain the economic meaning and to be internally consistent.**

Risk linked to the lack of a legal framework

In BOP compilation systems using a mix of sources, the responsibility for producing the statistic is usually shared by several agencies (the framework could be in most EU MSs, a share of responsibility between NCB and NSI). **It is recommended that one single organisation should be legally responsible for the final output, although practical implementation is carried out by distinct institutions**. Competencies should be legally clarified and the possibility of information exchange clearly based on a flexible framework.
Some issues related with the co-operation between different agencies are listed below:

- Regulation assigns principal responsibility to a single institution. This agency is responsible for collecting information from all other agencies and assembling it to produce an integrated statistic.
- Agreements should be signed between the agencies involved in the BOP data compilation process, in order to facilitate practical implementation, such as:
  - Procedures to exchange timely information at aggregate level (final outputs of the estimation methods).
  - Procedures to exchange information of single units, which is subject to confidentiality constraints in some EU countries. This is a crucial point, both to prevent double accounting and to update business registers.
  - Arrangements to settle which agency is responsible for managing possible methodological changes and revision policies.

Risk of internal inconsistencies

BOP statistics are internally inconsistent if the different sources used to compile the whole set of data are not compatible, or if the integration of the different sources leads to errors due to methodological discrepancies. These discrepancies refer to:

- **The definition of statistical units**: in a settlement system, the reference unit is the one that orders the receipt or the payment of international transactions, whereas in a direct reporting system the statistical unit is usually the unit responsible for the international transaction. In many cases, these units do not coincide. When using a mixed approach, this non-coincidence is a source of errors in the process to eliminate transactions carried out by one specific respondent from one of the sources, in order to prevent double accounting. Moreover, in survey based systems (but also for "big players") it could be useful to choose the head firm of a group to report all parent companies' transactions, or to select, as the reference unit, the part of a company involved in a particular economic activity, when the firm produces more than one product. In these cases, the BOP register has to include information of relationships between firms that belong to groups of enterprises.

– **The time of recording**: in a settlement system, international transactions are recorded when they are settled (following a financial criterion), whereas in other systems the recording time could follow the transaction principle (economic criterion). Errors arise in the integration process if these moments do not coincide in time.

– **The valuation of transactions**: when using information provided by administrative sources or by surveys or special statistics measuring a specific phenomenon (e.g. trade statistics), transactions could be valued according to different criteria than BOP methodological criteria. Then, the producer has to make assumptions, e.g. when measuring *freight transport* freights out of trade in *goods*.

Double accounting

The integration of different sources to produce a unique output could lead to duplicate information in the absence of appropriate actions. The key variables needed to avoid double accounting will depend on the specific characteristics of collection systems. Some examples are outlined below:

- for instance, in a mixed system based on bank settlements and surveys, the key variable should be related to the type of international transaction estimated by the surveys. Then, all information related to this item, reported via bank settlements system, will be removed from the system in order to avoid double accounting,
- Nevertheless, a different scenario might need a different key variable. This is the case of a system combining bank settlements and full direct reporting from "big players", in which the relevant variable should be related to the identification of the respondent, in order to eliminate the transactions reported from the "big player" in the bank settlements source.

Other risks related to double accounting exist, of which:

- In mixed systems, if the firm ordering the payment or receipt is not the one engaged in the international transaction, or **if the selected unit reports data for more than one single firm (enterprises of the same group**), additional information is needed to avoid double accounting. The direct reporting frame should include a variable to indicate exactly the reporting unit considered.
- **Risks related to the existence of a threshold**: this risk is specific of mixed systems using settlement as one of the possible sources. When direct reporting is applied, information provided from settlement must be removed in order to avoid double accounting. However, some transactions reported directly by enterprises are not matched in the settlements system because they fall below the reporting threshold. These data cannot be directly deleted. In this case, assumptions on the distribution of data below the threshold for full or for specific items are necessary. These assumptions are always a source of error.

Matching current transactions and their counterparts in the *financial account*

This risk refers to discrepancies in reporting both sides (economic and financial) of international transactions, within a double-entry accounting framework. **In systems combining surveys and bank settlements, data collected by a survey to cover a specific item does not include information on the financial counterpart of the economic transaction.** If this counterpart is a receipt or a payment ordered by a resident bank, the counterpart is accounted in the financial accounts of the banking system. However, if the financial counterpart is accounted in an account held abroad by the enterprise, or if it is a financial operation involving financing via loans (e.g. trade credits), risks of non-accounting the financial side of transaction arise.

Importance of revisions

Last but not least, the revisions process will need a careful monitoring when using a mix of sources. Taking as an example the scenario where "big players" will report monthly, as SMEs will be surveyed only on a quarterly basis, the monthly BOP will rely partly on estimates and could be subject to important revisions when introducing quarterly surveys results.

3.2.2. Managing the transitional period

Once the target known, **the change to new collection systems will follow different patterns among MSs**, some of them choosing to make the change from scratch (as soon as 2003 or around 2006)[30], others choosing to switch progressively from the present systems to new ones.
Whatever the process of change, and whatever the efforts made by MSs to respect the minimum output quality standards, **there will be necessarily a transitional period for the adaptation to the change, during which the quality of the BOP data could suffer**.
The problematic of the transition is analysed through four critical points:

- the coexistence of data reported on a transaction and on a settlements basis,
- problems linked to the management of the exemption threshold,
- the learning process by the new reporters,
- trend changes in time series that BOP compilers will probably have to face.

3.2.2.1. The coexistence of data reported on a transaction and on a settlement basis

This coexistence, which is already a common phenomenon in current collection system, is expected to expand in case of a progressive change towards the new system. For instance, some countries which are presently compiling the data from a dual approach with together a direct reporting and a bank settlements system, and which will orientate towards the use of a full direct reporting associated with surveys, intend to carry out the change in two steps[31]:

- the first one will be the definition of a new sample of full direct reporting companies to get a higher representativeness on a monthly basis. Some of the units already reporting on a settlements basis will continue to do so, as the new reporters will have (if available) to report on a transaction basis.
- the second step, which will probably in most cases not occur before 2006, will be the implementation of surveys with SMEs. During the interim period, the channel for reporting will of course continue to be bank settlements.

There is clearly here an increased risk of internal inconsistency (see point (b) of section C.2.1.2.2)**, associated to the use of a mix of sources which are not directly compatible.**
To avoid these discrepancies, the TG recommends that MSs manage carefully all the statistical adjustments linked to this double approach of companies' international transactions. Special attention should be given to the way trade credit –as a mean of reconciliation between transactions and settlements-, is accounted for in the *financial account*.

3.2.2.2. The management of the exemption threshold on bank settlements

All consequences of the implementation of the regulation on cross-border payments, with the use of an EUR 12 500 exemption threshold for BOP bank reporting on behalf of their customers are not perfectly known yet.

- A quantitative analysis has been asked for to MSs, measuring the consequences of the implementation of the exemption threshold on the loss of information. It appeared as a conclusion that the situation would be slightly different among them, and that on average at the EU level the loss would reach 9% of the total services transactions on the credit side (10% on the debit side), with important discrepancies between *services* items[32]. As a consequence Member States have been invited to make use of estimates to fill in the gap of information.
- The situation is not as simple today**,** as **the state of play of the implementation of the regulation clearly shows the lack of a common level playing field[33].** In the absence of a legal

[30] Netherlands and Sweden are implementing their new collection system from the beginning of 2003.

[31] See the results of the quantitative analysis and the national plans

[32] See the answers to the "Questionnaire on the loss of information due to the introduction of the EUR 12 500 reporting threshold"

[33] See the report of the TG Asymmetries on "the state of play in the field of the threshold issue" October 14 2002.

basis, more than half of the EU MSs are indeed using a simplification threshold, or being on the way to implement an alternative collection system have chosen to avoid the transitional phase.

Implementation of the regulation on cross-border payments by Member States

Country	Implementation	Date of implementation	Practice
Austria	P	01-07-2002	Exemption threshold but **general agreement with banks** that allows not to adapt the present system; in practice, mostly simplification threshold
Belgium	Y	01-01-2002	**Exemption threshold**; exception regarding type of transaction for own account of the banks
Germany	Y	01-01-2001	**Exemption threshold;** some exceptions regarding the type of transactions for own account of the banks and other specific transactions Transmission of data beneath the threshold is accepted in practice
Denmark	Y	01-10-2002	**Exemption threshold**; probably exceptions regarding type of transactions for own account of the banks. Second threshold at 30 000 € as simplification threshold with a simple intra-/extra-EMU breakdown
France	Y	01-01-2002	**Full exemption threshold**
Greece	P	01-07-2002	Exemption threshold (on a voluntary basis banks apply **simplification threshold**) Beneath 12 500 euros, simplified procedure with 4 codes and split intra/extra-EMU
Italy	Y	01-01-2002	Exemption threshold. Information below the threshold would be available for other than BOP purposes.
Lux	Y	01-01-2002	**Exemption threshold** : exception regarding type of transaction for own account of the banks
Netherlands	Y	Last change 01-01-1999	**Simplification threshold** 50 000 € Considering the implementation of the new system in 2003, no further modifications were made to the present one.[34]
Portugal	P	01-01-2002	Exemption threshold: exception regarding type of transaction for own accounts of the banks. In practice, few banks have adapted their reporting procedures; **simplification threshold** still applied
Spain	P	01-01-2002	Exemption threshold with no exception. In practice still **simplification threshold** because banks did not adapt their procedures.

Y : yes — the new exemption threshold is applied
P : Partial — the new exemption threshold is not applied in practice
N : no — the new threshold is not applied.

- Going further, when using a simplification threshold, countries encounter an allocation problem of a lump sum between different items, as when using an exemption threshold MSs face an additional problem for the estimate of the total amount which is not reported under the threshold.

As a consequence **the former quantitative analysis on the impact of the implementation of the exemption threshold remains theoretical to a large extent, at least when considering the diagnostic which can be done at the EU level.**
Whatever the nature of the threshold, a clear methodology is necessary on how MSs manage the processing of the lack of data below the threshold, in order to maintain the reliability of the whole BOP:

- methods used to estimate the non reported amount (if it is an exemption threshold), and/or the rules which are applied for a geographical breakdown and a breakdown by item.
- the way MSs will update the estimates and the allocation keys is at least as important, as there is no reason to think that the structure of international transactions by amount will remain stable over the period. The underlying assumption of a parallel development of transactions below and above the threshold that is generally used when making the estimates, will have in particular to be carefully checked.

Regardless of the accuracy of the methodologies to be used by MSs, there is no doubt that the quality of the data on services transactions, which are the main items under the influence of the threshold, will deteriorate over time during the transitional period, at least at a detailed level.

[34] The simplification regime contains some refinements, which are not explained here.

3.2.2.3. The learning process by new reporters and its possible consequences

The fact that a part of the reporting burden is to be transferred on companies makes it necessary that discussions with potential respondents be conducted at an early stage. This phase goes further than the piloting exercise for surveys shortly described in section B.2.3.3, whose purpose is to get a first feedback from companies on the design of a survey. Contacts with companies, as they have been discussed in section C.1.2.2, should aim at explaining the purpose and the methods of reporting, and to make an inventory of methodological and technical problems that could be encountered.
This learning period is of primary importance to ensure a quality reporting, **but, in most cases, the target will probably not be reached in one shot[35].** Indeed, experience shows that the starting of a survey, whatever its nature, suffers unavoidable trials and errors, with problems of non-response and quality. **That is why the BOP compiler will have to keep a close contact with companies** as part of a gradual process to improve the quality of responses.

- The answer to these requirements depends on the clarity of instructions given to companies, but will probably also require when beginning, an assistance from the BOP compiler to the respondent when elaborating the data.
- In the case of specific direct reporting companies, and in order to anticipate a non-response, it could be useful to deliberately enlarge the sample for the strata where collection problems are expectable.
- Another and supplementary technique would be to use a dynamic grossing-up methodology, with a periodic re-estimate of the grossing-up matrix, in order to take account of the non response to the survey.

3.2.2.4. Possible changes of trend in time series

Changes to new collection systems will represent a very important shock for most EU MSs. The necessary recourse to surveys (even at various degrees) and a different conceptual approach of companies' international transactions through the accounting, will inevitably have important consequences on the level of the amounts of BOP aggregates with possible changes in the observed trends. These problems will be encountered at the national level, and will impact on EU/euro area aggregates.

- **As a retropolation to back data of the information that will be obtained from the new collection systems looks inappropriate,** there are theoretically two possible ways to smooth the breaks[36]:
  - **The first one would be to use simultaneously the old and the new systems during a transitory period,** to be in a better position to judge on the quality of the data reported and on how the aggregates are evolving, and to apply a fine tuning policy on the management of the data to be compiled.
    That goes without saying that this ideal solution implies a negotiation with banks in charge of the reporting to convince them to report in duplicate with companies during a limited period.
  - **The second solution would be to make progress step by step towards the target data that result from the new collection systems.**
- This smoothing process at national level will not guarantee the absence of breaks at the EU level, as here the focus will have to be put on extra-EU and extra-euro area data. As a consequence **a specific statistical treatment will have to be done at the EU level to ensure that a continuity –at least visible- is guaranteed to the compiled data.**

3.2.3. Legal aspects (national and supranational)

The transfer of part of the reporting burden from banks to companies, which presently are not, or only partly, involved in BOP collection systems, needs to be backed by a legal framework, taking the form:

[35] The implementation of panel surveys, where the same company is surveyed along several consecutive periods, presents together with the theoretical advantage of an easier interpretation of the evolution of the data, the practical advantage of an optimisation of the training of respondents.

[36] Another solution would be to record the change of the trend as it is.

- of a national legislation setting out the statistical obligation for companies to report their cross-border transactions
- and taking the form of instructions to the reporters delimiting the content of their reporting.

3.2.3.1. National legislation

The regulations presently in force need to be adapted to the new collection systems based on a direct reporting from companies (for those that are not directly involved in the collection process currently). This adaptation will be made by MSs according to the institutional and to the practical organisation of the BOP compilation:

- where BOP compilation is due to remain under the entire responsibility of the NCB, MSs will use amended regulations published in the NCB's code of statutes, and/or in a law and a decree containing practical rules concerning the statutory reporting framework,
- where the responsibility of BOP compilation is to be shared between the NCB and the NSI, the institutional position of the two bodies will have to be carefully defined within an agreement (see point (a) of C.2.1.2.2).
- It should be noted that the multinationals model will, in most cases, be apart from any regulation, as the model will be applied on a voluntary basis.

- Whatever the new reporting system, and even if is to be based for some MSs on an extensive system of inquiries[37], the rules for this reporting will have to be laid down in the form of regulations if the NCB and the NSI want to impose fines on companies.
  It is indeed highly recommended to **plan within the regulations the possibility of a legal enforcement action and the possibility to impose administrative fines on those companies failing to fulfil their reporting obligation,** in order to avoid a possible decrease of the quality of reporting (lack of data or delays for reporting, errors…).
- In addition, some MSs would probably like to chose to make **reference to European legislative provisions**, such as the ECB guideline or the regulation on Community statistics on international trade in services, FDI and BOP statistics to support national legislation.

3.2.3.2. Instructions to the reporters

Future collection systems will have to rely on clear and detailed instructions to new reporters

- The information to be reported under the BOP framework will have to be described in the instructions to reporters, which will include :
  - A general presentation of the reporting system, explaining the specifications relating to BOP statistical reporting, indicating which information should be reported and at what frequency, and the possible modes of transmission of the data,
  - The purpose and the design of the reporting forms: statistical statements or survey questionnaires,
  - The detailed classifications to be used: input codification, table of countries and currencies…
- **These instructions will have to be business oriented** to be easily understandable by the respondents. In particular, the common input codification for services, which is though to fit well with the needs of future collection systems, could be used. As a minimum, it is recommended to use the guidelines for users accompanying these codes, as these provide clear indications of what has to be included and what is excluded.

3.2.4. National Action Plans concerning the compilation of *other services* (excluding *transportation* and *travel*)

This section provides general indications on what collection systems are, and will be. It focuses on the compilation of *other services* (than *transportation* and *travel*), which provide a peculiarly relevant illustration of changes in collection systems for more direct reporting procedures. A quick overview is

[37] In case of a surveys reporting system, the regulation will have to clearly state that all the companies are potentially under the obligation to report their transactions

given of collection systems in force at end 2002 (this appears a convenient date to illustrate changes, as two MSs switched to a new system in early 2003) and of MSs prospects in broad outline. This overview is followed by a discussion of MSs plans for the future concerning the use of full direct reporting, specific direct reporting and bank settlements.
The discussion does not enter in the detail of specific collection methods (such as the compilation of specific services items from administrative sources etc.) that BOP compilers often use apart from the general scheme. Neither does it deals with the management of the transitional period, which is tackled in section C.2.2.

3.2.4.1. Overview: towards more direct reporting

- For the time being, **three Member States are collecting services data by using surveys** of services providers and consumers: Ireland, Finland and the UK.
  In these countries, data on international trade in services are collected under the responsibility of the NSI, through a range of targeted surveys (specific direct reporting in the terminology of this report), which are generally sample surveys (sometimes census surveys are also used for specific items, e.g. *financial services* in Ireland).
  None of these countries envisage implementing major changes in their systems.
- **The other Member States generally run an ITRS** as a major source for the collection of *other services* statistics. Concurrently, some of these countries also use some "general direct reporting" (all transactions, regardless of those carried out through the resident banking system), whose usefulness is often double:
  - in all cases such procedures are a valuable complement to bank settlements data,
  - often, countries have implemented such procedures in the framework of a gradual changeover to a new collection system.
  - 10 of these 12 MSs plan to modify their collection system (at different degrees and according to different time schedules) by giving direct reporting procedures an increasingly prominent role for the collection of *other services* statistics.
  - The other two are:
    - Greece, for which it is not certain that direct reporting procedures will be developed (studies are currently taking place to assess the feasibility of specific direct reporting),
    - Italy that will probably maintain as far as possible the current bank-settlements system in the future.

3.2.4.2. National schemes for the future collection systems

Currently, MSs' views on new collection systems for the item *other services* are more or less precise, depending on a range of factors, such as organisational aspects, etc. In general however, ideas are rather precise on the future system's structure and/or the way direct reporting procedure will be implemented. Practical organisational arrangements are seldom known at the moment, but studies in this field will be undertaken in the near future for all.
Generally, future systems are to be implemented around the year 2006. The Netherlands and Sweden started earlier as a changeover to direct reporting took place in early 2003.

The table on next page provides an overview of Member States plans for their future collection system.
Apart from administrative sources and specific procedures that will be used for specific items (such as *government services* or *financial services*), three major channels are to be used in future collection systems for *other services*, forming combinations that will vary much among MSs: full direct reporting, specific direct reporting and bank settlements.

MEMBER STATES CURRENT AND FUTURE SYSTEMS FOR THE COLLECTION OF STATISTICS ON *OTHER SERVICES*

MS	CURRENT SYSTEM			FUTURE SYSTEM						
	Surveys	Bank settlements	Full direct reporting	full implementation of new system	Use of bank settlements		Surveys	Full direct reporting	Responsibility	
					Directly in data collection	for maintenance of BOP register			Compilation of *other services*	Overall BOP
IE	YES	NO	NO	NO CHANGE PLANNED					NSI	NSI
FI	YES	NO	NO	NO CHANGE PLANNED					NSI	NCB
GB	YES	NO	NO	NO CHANGE PLANNED					NSI	NSI
NL	NO	YES	NO	2003	NO	YES	YES	YES	NSI	NCB
SE	NO	YES	NO	2003	NO	NO	YES	NO	NSI	NCB
DK	NO	YES	NO	2005	NO	NO	YES	*Expected*	NSI	NSI
ES	NO	YES	NO	2006	*If feasible*	*If feasible*	YES	NO	NSI and NCB	NCB
AT	NO	YES	NO	2006	NO	??	YES	*Expected*	NSI, possibly shared	shared
PT	NO	YES	YES	2006	YES	YES	YES	*Expected*	NSI, possibly shared	NCB
BE	NO	YES	NO	2006	NO	*Unknown*	YES	*Expected*	NCB	NCB
FR	NO	YES	YES[38]	2006-2007	Households, portfolio and possibly SME's financial flows	YES *if feasible*	YES	YES[39]	NCB	NCB
DE	NO	YES	NO	*Gradual*	*Unknown*	*Unknown*	YES	*Expected*	NCB	NCB
LU	NO	YES	YES	*Gradual*	YES	??	NO	YES	NSI	shared
GR	NO	YES	NO	NO PLANS YET				NO	NCB	NCB
IT	NO	YES	NO	NO CHANGE PLANNED					NCB	NCB

[38] excluding portfolio investments when those are carried out through the resident banking system

[39] see above

Use of full direct reporting

At the time this report was written, it was not known for all countries if full direct reporting would be used (some prospects are still provisional), this decision depending to a great extent, although not exclusively, on the results of the quantitative analysis (see section B.2.1).
Where full direct reporting procedures are to be used, this will be as a complement to another broader channel of collection (specific direct reporting and/or settlements) whose scale is deemed to provide the necessary coverage for quarterly and annual data. In addition, planned regular full direct reporting procedures are generally due to form the basis for the compilation of monthly BOP statistics. Generally, MSs most interested in the possible use of full direct reporting procedures are those of the euro area, in relation to the production of monthly key items.
The Netherlands, France, and Luxembourg will undertake regular full direct reporting as part of their collection system. In these countries, the usefulness of full direct reporting has been demonstrated from the quantitative analysis, and its organisation is already well advanced: France and Luxembourg already use it as a complement to the settlements data, and the Netherlands started operating the new collection system in 2003.
Austria, Belgium, Denmark, Germany and Portugal have not made the final decision yet, but it is expected that regular full direct reporting procedure will be used (or maintained) in the future.
Conversely, **Spain and Sweden** made the decision not to use any regular full direct reporting procedure, as well as **Greece** (even though Greece does not known yet whether the collection system will change or not in the future). In these three cases, the quantitative analysis revealed that it would be useless to implement full direct reporting procedures, in relation to the structure of the population and the place of "big players":

- for Spain and Greece, the population of "big players" is not considered to be representative enough and/or is too volatile
- in the case of Sweden, companies seem too "specialised", which makes it irrelevant to require from them information on all their BOP operations.

Use of bank settlements and specific direct reporting

Although it is deemed to form a satisfactory channel for the collection of monthly BOP data, full direct reporting is not sufficient for the collection of quarterly and annual statistics, for which the data collection should have a wider scope.

Concerning the use of ITRS, it is reminded that most MSs consider that the significance of bank settlements will seriously diminish in their future system. It is therefore often contemplated to stop using them as a direct means to collect BOP information (although if possible, simplified bank settlement information could still be used for the maintenance of the register).
Conversely, most MSs will increasingly operate direct reporting procedures as, among other, a means to ensure an adequate coverage for the production of quarterly and annual statistics (with the exception of Italy and Greece for which no changes are currently scheduled). In this respect, most countries will implement a set of specific direct reporting procedures (whether or not full direct reporting will also be used). Such a changeover makes up a substantial change in collection systems, which often requires that institutional arrangements be taken. In most cases, these arrangements will involve some transfer of work and/or responsibility from the NCB to the NSI for the compilation of relevant items of the BOP. Concerning the item *other services*, such a transfer will (or already did) take place in the Netherlands, Sweden, Denmark, Austria, Spain, and Portugal. In Luxembourg, the NSI is and will remain the institution responsible for the compilation of *services* statistics. On the contrary, in France, Belgium and Germany, the NCB will keep the full responsibility for *services* statistics (though the German NCB contemplates to set up a specialised centre to undertake some part of the collection).

3.3. Factors of costs

Referring to the list of actions of the CMFB meeting on 28-29 June 2001, giving precision to the likely direction of change in balance of payments collection systems, it was stated that "the reporting burden is likely to progressively shift from banks to enterprises in some countries. The overall cost effect on respondents needs further investigation at the national level".

The costs evaluation would need a careful analysis and quantification of the different factors which are at stake, such as: the extent of the population of respondents, the coverage of transactions, the reporting channels (direct or indirect), the detail of the information reported, the ways used for the transmission of information. It would have also to compare the BOP compilation cost of each of the two systems. The report does not go so far at this stage but is confined on **the enumeration of the factors inducing costs for respondents and for BOP compilers.** For practical reason, the analysis of costs for direct reporting procedures is made as a comparison to intrinsic costs of ITRS.

3.3.1. Problematic

Data collection systems for BOP/IIP purposes may be organised in two major ways, depending on which specific channel of reporting is favoured. The first one rests on an indirect reporting by the banking system on behalf of its customers, the second being based directly on the original provider of the information, mainly the enterprises. Each of these systems has its own characteristics, implying a specific organisation and thus initiating their own specific costs. The structure of the costs linked to each data collection system depends on the organisation of the handling, treatment and processing of the basic information.
To compare the costs of each system or of a combination of sources following different possible scenarios, it is useful to remind the main mechanisms of data collection procedures.

3.3.2. Description of the organisation of the data collection systems

3.3.2.1. Data collection in an ITRS

Data collections based on an ITRS are mainly characterised by the reporting of individual settlements. This indirect reporting implies that for each settlement reported by the intervening bank, the resident (payer or payee) provides sufficient information about the underlying transaction. It may also imply an interpretation function of the intervening bank when it is in charge of transmitting the data to the BOP compiler under a codified format.

3.3.2.2. Data collection based on a direct reporting by enterprises

A data collection based on a direct reporting by companies may be organised in two different ways:

- the use of settlements versus the use of transactions as the source of information
- the use of individual data (settlements or transactions) or the use of aggregated data.

This collection system implies that the reporting enterprise has implemented a procedure to isolate "foreign transactions" from "domestic transactions" together with sufficient details (items and geographical breakdown).

3.3.3. Coverage of different collection systems

The coverage of data collection systems may be considered from two angles: the coverage of the population of respondents on the one hand, and the coverage of the reported transactions on the other hand. For both dimensions, the coverage can be defined in an exclusive way or in a restrictive or selective way. Data collection systems are built on a specific combination of the above mentioned criteria.

3.3.3.1. Data collection based on ITRS

Considering that ITRS aim to record cross-border settlements, they imply almost necessarily that their coverage is defined as broad as possible when considering both the population of respondents and the transactions to be reported.
As a result, **the obligation to report applies to all residents in so far they make a payment with non-residents.** The coverage of the transactions to be reported may be defined as exhaustive, apart a possible implementation of an exemption threshold.
As a conclusion one may say that **settlements based data collection systems are characterised by their concern to approach exhaustiveness**.

3.3.3.2. Data collection based on a direct reporting by enterprises

Data collection systems based on direct reporting procedures can follow different patterns.
These systems are organised with a rather limited population of reporting enterprises. Various options are possible to select these populations, going from a dedicated census procedure to a sampling procedure, over different cut off procedures. Whatever the approach, the whole population of enterprises active in cross-border transactions will never be concerned.
Relating to the transactions to be reported, the coverage may also range from a full coverage of all transactions (full direct reporting) to a very narrow selection of transactions, depending on the ultimate goal of the data collection.
As a conclusion one may say that **systems directly based on enterprises are characterised by their concern to be selective.**

3.3.4. Channelling the information to the BOP compiler

3.3.4.1. Elements

Considering that the procedures used to report the data of the above-described systems are fundamentally different, the collected information is channelled and compiled using different ways.
The comparison between both procedures to handle the information must be made at different levels: source(s) of information, mode of transmission, frequency of transmission, detail of the data transmitted, level of intermediation in the transmission, processing with the intermediation, processing with the BOP compiler.

The result may be summarised as follows:

	ITRS	Direct reporting from companies
- **BOP data source**	- Transfer of the bank on behalf of its client	- Accountancy and/or treasury department
- **Flows recorded in the BOP**	- Settlements	- Transactions or settlements
- **Secondary source**	- Enterprises	
- **Population of respondents**	- Stable - Limited number - Quasi exhaustiveness => equal treatment	- Volatile - Large number - Sample population => discrimination
- **BOP register**	Limited (partial direct reporting and complementary information from enterprises)	- Development and maintenance/updating
- **Mode of transmission**	- Indirect	- Direct
- **Reporting frequency**	<= monthly	>= monthly and/or quarterly
- **Volume of data transmitted**	- Individual transaction - Specific notification for each transaction	- Individual transaction - Aggregated data broken down by BOP items and with a geographical breakdown
- **Level of intermediation**	- Pure transmission - Interpretation	- Direct reporting
- **Processing with intermediation**	- Production of specific reports	
- **Training of respondents**	- Limited	- Frequent
- **Reminder for "non-response"**	- Limited (in principle)	- Frequent
- **Processing with compilers**	- Aggregation - Validation - Analysis - Final aggregation	- Aggregation - Validation - Analysis - Completion, grossing-up - Estimates - Final aggregation

3.3.4.2. Costs factors

The reorientation from indirect reporting to direct reporting implies, whatever the combination of sources which will be made by MSs, a transfer of the reporting burden and a different organisation of compilation procedures. **It looked impossible in this report, at least at the present stage, to give a clear estimate of the overall cost of this change.**

Although it is impossible to provide a precise quantification, which can only be done at a national level on the basis of specific elements, it looks possible to list some general factors implying costs. This short presentation distinguishes the cost for respondents and the cost for BOP compilers.

Costs for respondents

When implementing a direct reporting collection system from companies, there is a transfer of the burden from banks to the latters, without any compensation for the new reporting population.

- **The costs for companies relate to:**
  - **the implementation of a "new" reporting procedure (programming)**, with the organisation of the information extraction process from accountancy, treasury, with the possible use of adapted ERP systems,

- **the investment in human resources and internal training** (management and updating process),
- **the preparation and transmission of the report to the BOP compiler.**

- **The costs for banks reporting settlements on behalf of their customers are not easy to assess**. The regulation on cross-border payments and the report of the Commission on this matter refer to very different results between MSs, and do not emphasise any clear correlation between the cost of a cross-border payment and the cost of BOP reporting. Several factors can intervene:
  - **The way coding is implemented,** from an interpretation by the agent in charge of the reporting to a dialogue with the company,
  - The possible implementation of **global reports and simplification threshold**,
  - The implementation of an **exemption threshold** from January 2002 could limit the cost of reporting.

Costs for BOP compilers

- The qualifications required to operate an ITRS are not the same as those needed for the organisation of direct reporting procedures. If the implementation of a direct reporting collection system is due to occur, **BOP compilers' skills will have to expand** on both domains of statistics and accountancy.
- **The BOP information systems will have to be adapted to the new environment:**
  - implementation and management of a special BOP business register,
  - implementation of collection procedures with a reminder process in order to minimise the "non-response",
  - development and regular application of grossing-up and/or modelling.
- **The training of newly recruited companies and the need of permanent contacts with enterprises are other factors of cost.**
- **Last but not least, the change of collection systems will bring about a decline of the cost effectiveness that stemmed from the prior centralisation of the reporting task at the level of a limited number of banks.**