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TOWARDS HARMONISED BALANCE OF PAYMENTS AND INTERNATIONAL INVESTMENT POSITION STATISTICS

THE EXPERIENCE OF THE EUROPEAN COMPILERS

by Jean Marc Israël
and Carlos Sánchez Muñoz

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publications
feature a motif
taken from the
€20 banknote.

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ABSTRACT

External statistics – specifically balance of payments and international investment position statistics – are among the primary statistics on which policy-making bodies and markets rely as a basis for their decisions in globalised economies. Monitoring and enhancing data quality in the context of rapidly changing economies impose heavy constraints on compilers of these statistics.

As it becomes increasingly important worldwide to adhere to a set of international statistical standards in order to ensure the comparability of statistics, the elaboration of meaningful EU/ euro area aggregates hinges critically on attaining a high degree of homogeneity across countries' contributions. In addition to offering their own value for analysis, the euro area external statistics are the main source for the compilation of the rest-of-the-world account in the quarterly euro area (financial and non-financial) accounts.

Bearing this in mind, a lot has been achieved since the inception of the euro area to harmonise concepts and definitions in line with international statistical standards, to review the data collection and compilation systems, as well as to enhance the overall data quality. However, asymmetries[1] both across euro area countries and with counterparts elsewhere still need to be overcome. Additionally, new challenges lie ahead for compilers of statistics, with the steady process of globalisation and the increasing role of financial innovation (in terms of both new instruments and new institutional vehicles) observed in financial markets.

While the compilation of euro area statistics continues to be based on country contributions, which are mostly derived from national collection systems in accordance with the principle of subsidiarity, common tools are built up and maintained by the European Central Bank and national compilers. In particular, the Centralised Securities Database is playing a pivotal role in the move towards security-by-security reporting and should greatly enhance the quality of security-related information, i.e. portfolio investment flows, stocks and income.

The tremendous work of European statisticians towards producing harmonised euro area statistics that are fit for purpose has also benefited statisticians elsewhere and is playing an important role in the current updating of international standards (the 1993 System of National Accounts and the International Monetary Fund's Balance of Payments Manual, fifth edition). Statisticians have worked in close cooperation in various European fora to clarify concepts and identify best practices with a view to enhancing data quality and reducing the reporting burden.

This paper aims to make this experience widely available.

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1   Bilateral asymmetries arise when the cross-border transactions or financial positions registered in the statistics of a country A (or a grouping of countries in the case of a monetary union) vis-à-vis a counterpart country B that should, in principle, mirror each other show inconsistencies. For instance, country A's exports (e.g. of goods, services, etc.) to country B should match country B's imports from country A for each reporting period, but in practice often do not.

INTRODUCTION

In today's globalised world, large current account imbalances tend to be more persistent than in the first two-thirds of the twentieth century, i.e. at least until the convertibility of the US dollar ended in 1971. The long-term sustainability of such imbalances in terms of their financing nonetheless remains a relevant issue.[2]

Thus, cross-border flows as shown in the balance of payments (b.o.p.) statistics, complemented by the balance sheet of external financial assets and liabilities of an economy vis-à-vis the rest of the world, i.e. the international investment position (i.i.p.), become paramount in the analysis of economic developments.

External statistics – specifically b.o.p. and i.i.p. statistics[3] – are indeed among the primary statistics on which policy-making bodies and markets rely as a basis for their decisions in globalised economies. Monitoring and enhancing data quality in the context of rapidly changing economies impose heavy constraints on b.o.p./i.i.p. compilers.

Statistics usually need long lead times to adapt to new circumstances. In the preparation of Stage Three of Economic and Monetary Union (EMU), statistics were considered as key for monetary policy, and it soon became obvious that the simple aggregation of national data would not be appropriate, as the underlying methodology would differ significantly across countries. Beyond the necessity of harmonising concepts and definitions in line with international statistical standards, specific requirements were set out regarding the frequency, timeliness and detailed breakdowns of euro area statistics.

Moreover, the financial integration of European markets, in particular the development of a Single Euro Payments Area (SEPA), soon increased pressure on b.o.p. data collection in the EU/euro area, as information on cross-border transactions was in most EU countries derived from bank settlements reporting when the euro area was formed in 1999.

This paper aims to provide an overview of the efforts that have been made over time towards achieving a sound methodological framework for the development of euro area b.o.p./i.i.p. statistics as well as of the more practical issues related to data collection, compilation and dissemination of the resulting statistics. The work was performed under the methodological framework set out by the International Monetary Fund's (IMF) Balance of Payments Manual, fifth edition (BPM5), and by the 1993 System of National Accounts (SNA 93) and the European System of Accounts (ESA 95). Thus, changes following the 2002-08 review of international statistical standards may still lead to some changes in data requirements as well as in, though probably to a lesser extent, the assessment of best practices.

The paper is based on the experience of all the European statisticians that have actively worked towards the achievement of the ambitious goal of publishing high-quality euro area (and EU) statistics and, in turn, also contribute to a fruitful outcome of the work mentioned above. The Memorandum of Understanding between the European Central Bank's (ECB) Directorate General Statistics and the European Commission (Eurostat)[4] assigns shared responsibility to the two institutions in the area of balance of payments statistics at Community level. To collect the information necessary for the fulfilment of its tasks, the ECB relies on the active contribution of the Directorate General Statistics, and in particular the External Statistics Division, and of the ESCB bodies involved as reflected in this paper. The paper also makes reference to the previous and

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2 See Hausmann and Sturzenegger (2005) and Gros and al. (2006).

3 Other external statistics, e.g. effective exchange rates or statistics on the international role of the euro, are also compiled by the ECB. See L. Buldorini, S. Makrydakis and C. Thimann (February 2002); or ECB (December 2005).

4 ECB (Directorate General Statistics)/European Commission (Eurostat) (March 2003)

parallel work undertaken by Eurostat's Balance of Payments Unit and other European bodies.[5]

The remainder of this paper consists of the following parts:

– the policy and other uses of b.o.p. and i.i.p. statistics and their translation into statistical requirements;

– the main features of b.o.p./i.i.p. collection and compilation systems; and

– specific opportunities and constraints to consider in developing and running b.o.p./i.i.p. collection and compilation systems.

5 These references are aimed at informing the reader and cannot be seen as comprehensive. Further information can be found on the websites of Eurostat and the Committee on monetary, financial and balance of payments statistics (CMFB).

I THE POLICY AND
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I THE POLICY AND OTHER USES OF BALANCE OF PAYMENTS AND INTERNATIONAL INVESTMENT POSITION STATISTICS AND THEIR TRANSLATION INTO STATISTICAL REQUIREMENTS

1.1 POLICY USES OF EXTERNAL STATISTICS

The testimonies of numerous prestigious speakers illustrate the importance assigned to the analysis of external statistics in diverse fora. In his foreword to the BPM5, Michel Camdessus, the then Managing Director of the IMF, wrote that "because of the important relationship between external and domestic economic developments, timely, reliable and comprehensive balance of payments statistics based on an appropriate and analytically-oriented methodology are an indispensable tool for economic analysis and policy-making. Indeed, with the growing interdependence of the world's economies, the need for such statistics – which reflects in part the underlying movement towards greater liberalisation and integration of markets – has increased over time."

In his speech at the second ECB Conference on Statistics, José Viñals, then Director General at the Banco de España, noted that "the most important structural change that has taken place in the world economy over the last two decades has been the very significant degree to which trade and financial relationships have increased across countries. This phenomenon – popularly known as globalisation – is having a deep impact on the way modern economies work and on the manner in which the effects of shocks and policies are transmitted internationally. Thus, it should be no surprise that discussions focusing on the economic and financial effects of globalisation figure nowadays prominently in the agendas of both policy-makers and private-sector participants. Because globalisation is nothing but the reflection of the growing interdependency of national economies, and since b.o.p./i.i.p. statistics are precisely designed to record such interdependency in the most faithful possible way, it follows that the more globalisation progresses, the more interest there is in such statistics both from the economic and the policy-making viewpoints."

In his concluding statement at the third ECB Conference on Statistics on "Financial statistics for a global economy",[6] Jean-Claude Trichet, President of the ECB, said that "in view of the still growing importance of euro area statistics, I am particularly looking forward to a forthcoming new milestone, i.e. the first release of integrated financial and non-financial euro area accounts for the institutional sectors – namely households, non-financial corporations, financial corporations and the government – and for the transactions with the rest of the world."

As these three examples show, b.o.p., and increasingly i.i.p., statistics are the subject of in-depth analysis to support the conduct of monetary, foreign exchange and economic policies, and are of growing importance for financial stability analysis and to illustrate the steady process of globalisation. Their first and foremost use is for monetary and foreign exchange policies. The link between changes in short-term (as a direct effect of monetary policy operations) and longer-term interest rates and changes in exchange rates has been the subject of different studies.[7] Many countries have even focused their monetary policy, usually conducted by the national central bank (NCB), on a foreign exchange rate target and used the b.o.p. as their main statistical indicator.[8]

In a floating exchange rate regime, now a more common form of currency arrangement, the link weakens between, for example, current account deficits and exchange rate or interest rate changes. This looser co-movement, particularly in the case of the United States, may largely derive from the excess of liquidity in the second half of 1990s and first half of 2000s.[9]

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6 Trichet (2006).
7 Krugman (1979); Frenkel and Mussa (1984); Jin (2003).
8 E.g. Portugal; see also A.P. Thirlwall (2003)
9 See Obstfeld and Rogoff (2005), Gourinchas and Rey (2005), Hausmann and Sturzenegger (2005) and Gros, Mayer and Ubide (2006). The IMF Balance of Payments Committee dedicated a seminar to this issue in October 2006; the proceedings can be found on the IMF's website.

In the case of the euro area, seen as a single economic entity, the ECB conducts a monetary policy aimed at maintaining price stability in the euro area, as defined in the Treaty establishing the European Community. One pillar of the ECB's monetary policy strategy assesses the short to medium-term determinants of price developments, with a focus on real activity and financial conditions in the economy. This economic analysis focuses on short to medium-term risks to price stability, for which a wide range of economic and financial indicators are used by the ECB. These include developments in exchange rates, balance of payments and external statistics.

Indeed, external transactions and positions may impact the economy in several ways, for instance via the pass-through of inflationary pressures through import prices and exchange rate changes, and via the effect of financial transactions and positions on the developments in broad money and its counterparts. The first of these channels is monitored and analysed via current account developments, while the second is analysed notably through the monetary presentation of the b.o.p.[10]

B.o.p. and i.i.p. data are of relevance to an analysis of economic and financial stability developments, particularly in the context of the ongoing process of economic and financial integration within the EU and the euro area. They are also key indicators, in a wider sense, of globalisation.[11]

In this overall context, policy-makers need high quality data, in particular statistics that are both timely and accurate. Statistics are either used as such, or are integrated into forecasting models. In the latter case, they feed into the analysis of the economic cycle, in which case any revisions to the data must not significantly change the overall picture. In particular, econometricians expect that observations be broadly confirmed by later assessments, and that time series and, above all, (past) data be revised following a pre-announced timetable so as to improve accuracy and help reduce uncertainty

surrounding near-future (usually 12 to 18 months) projections.

In practice, there is a trade-off for statistics between timeliness, accuracy and reliability. While recent data may be revised at a later stage – and the more timely the data the more this is likely to happen – experience shows that both the size and the pattern of revisions are linked much less to the time lag after which data are published than to the data collection and compilation methods themselves.

Against this background, the identification of best practices in collecting data and in compiling b.o.p./i.i.p. statistics has taken a long time. As shown in this paper, much progress has been made within the EU, and some important documents and concrete achievements are now providing answers in this debate.

B.o.p. and i.i.p. statistics are compiled for a reporting economy, usually a country. However, with the formation of the euro area (Stage Three of EMU) in January 1999, further challenges appeared for national compilers in the euro area. It was soon obvious in the run-up to EMU that a simple aggregation of national data would not be sustainable, as both the underlying methodology as well as data collection methods would differ considerably across countries. In addition, unlike for national statistics, an accurate geographical breakdown (at least intra/extra-euro area) is fundamental to the compilation of euro area aggregates.

Much has been achieved since the inception of the euro area. A fully-fledged monthly b.o.p. has been published since April 1999. The initial monthly "key items" have become more detailed so as to enhance regular monetary analysis.[12] A monetary presentation of the b.o.p. has become available at a quarterly (from June

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10 See (i) ECB (June 2005); (ii) Box 1 entitled "Monetary presentation of the euro area balance of payments" in the June 2003 issue of the ECB's Monthly Bulletin; and (iii) the forthcoming ECB Occasional Paper on the monetary presentation of the balance of payments.
11 See in particular Trichet (2006).
12 ECB (2001).

2003) and monthly frequency (from June 2004).[13] Similarly, the originally net annual euro area i.i.p. based on the addition of national data has evolved into a more substantial statement showing separate financial assets and liabilities, and has moved to a quarterly frequency (in 2005). The euro area b.o.p. flows and i.i.p. stocks broken down by major partner countries in the world have also been published since January 2005, thereby greatly improving the information content of the data. Additional data show the international role of the euro, and its effective exchange rates.

What may be considered as core external statistics for the euro area, i.e. the euro area b.o.p. and i.i.p., also constitute the primary contribution – as the rest-of-the-world sector account – to a set of comprehensive *quarterly euro area (financial and non-financial) accounts*, released for the first time by the ECB and by the European Commission (Eurostat) in June 2007. However, important elements such as *foreign direct investment* (FDI) and *foreign affiliate statistics* (FATS)[14] are being scrutinised on their own as indicators of openness of an economy and of globalisation.[15] Some other parts are also needed for various policy purposes and are widely studied by market analysts, such as the *current account balance* and *portfolio investment*. A geographical split into major partners and a limited currency breakdown (e.g. EUR/USD/other currencies) of the financial account may substantially increase the value of b.o.p. and i.i.p. statistics for monetary and other policy-relevant analyses, especially if such data are timely.

All EU Member States, including most recently those which joined in May 2004,[16] are closely involved in the preparation of the euro area external statistics. Statisticians work closely in various EU/euro area fora to set requirements (currently set out in Guideline ECB/2004/15),[17] to clarify concepts and identify best practices to enhance data quality and reduce the reporting burden.

However, as mentioned above, new challenges lie ahead with the rapid pace of globalisation. The share of cross-border transactions in GDP (be it calculated as consumption – via the contribution of imports –, as production – via the contribution of exports – or as income) is steadily growing, partly reflecting globalised competition. This implies that the regular monitoring of external statistics is increasingly important for the economic decisions of markets and policy-makers, as they have effects on productivity, growth and employment. It is also significant how large, persistent current account imbalances are financed, through FDI (as in many emerging countries and in the countries that joined the EU in May 2004), or through more volatile portfolio or "other investment" (mostly deposits and loans).

To give a concrete example of the link between the process of globalisation and the value of external statistics for analysis, for some years a special form of transit trade has developed, resulting in significant difference between the price at entry into the EU (usually at the harbours of Rotterdam or Antwerp) and the price of the subsequent export from the Netherlands or Belgium to the actual destination. While countries do not consider that value has been created in this process, the large differences in prices cannot be explained by taxes, logistics or other freight and insurance services. These differences are rather due to merchanting

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13 See Box 1, entitled "Monetary presentation of the euro area balance of payments" in the June 2003 issue of the ECB's Monthly Bulletin.

14 Long called "foreign affiliate trade in services statistics" (which explains the "T" in the acronym). These statistics have recently been renamed to better reflect their various purposes, which also encompass foreign trade in goods, as well as effects on domestic employment and activity in the host economy.

15 See ECB (May 2005) and ECB (June 2005).

16 The euro area was composed of 11 countries (Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland) at its formation in January 1999, and was enlarged to include Greece in January 2001, and Slovenia in January 2007. The EU has been composed of 27 Member States since 2007.

17 Guideline of the European Central Bank of 16 July 2004 on the statistical reporting requirements of the European Central Bank in the field of balance of payments and international investment position statistics, and the international reserves template (ECB/2004/15), OJ L 354, 30.11.2004, p. 34.

activities or, when occurring between enterprises or units affiliated in the same group, due to the use of special brands to increase sale margins. This often affects the creation of value and the allocation of the profits generated among the different entities of a multinational group, and results in some transfer pricing. To cope with this problem, for sizeable transactions, countries should collect and report additional information to the ECB and the European Commission, which could then record these transactions in a consistent and sound way in European statistics.

As markets become global, and integration develops relatively swiftly, especially within the euro area,[18] European and international fora become ideal platforms to promote the sharing of knowledge, experience and best practices across countries. Statisticians need to proactively anticipate future challenges, meaning that they must (i) maintain a regular dialogue with market players in order to understand recent and forthcoming changes in global markets; and (ii) adapt to such changes within statistical collection systems in a cost-effective manner. The latter implies gathering as much information as possible from the internal systems of reporting agents, while the at the same time classifying and disclosing such information in the most meaningful way according to international statistical requirements, also to ensure international comparability. These implications for external statistics will be presented in Section 3.

1.2 THE INSTITUTIONAL FRAMEWORK AND OUTPUT REQUIREMENTS

In line with the obligations derived from the Maastricht Treaty,[19] the responsibility for compiling and publishing "European statistics" is shared between the European System of Central Banks (ESCB) and the European Commission (Eurostat) and the national statistics institutes (NSIs). In the Memorandum of Understanding cited in the introduction to this paper, b.o.p./i.i.p. statistics are defined as

an area of shared responsibility between the Commission and the ECB.[20]

The policy needs as regards statistics are reflected in various legal texts. The statistical requirements of the European Commission are contained in Regulation (EC) No 184/2005 of the European Parliament and of the Council of 12 January 2005 on Community statistics concerning balance of payments, international trade in services and foreign direct investment,[21] which entered into force in 2006.[22] The statistical requirements of the ECB, upon which the Governing Council of the ECB has adopted various legal acts,[23] are reflected in Council Regulation (EC) No 2533/98 of 23 November 1998 concerning the collection of statistical information by the European Central Bank.[24]

Starting from the above-mentioned legislation, the work of statisticians to set up a sound framework for the compilation of external statistics within a medium to long-term time frame has triggered a number of important initiatives. For instance, the "vision paper" by the Committee on monetary, financial and balance of payments statistics (CMFB)[25] proposed guidance for the long-term future (seven to ten years), which was subsequently developed in two ad-hoc workshop meetings

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18 See ECB (March 2007).

19 See notably Article 285 and Article 5 of the Protocol on the Statute of the ESCB. The ESCB was established by the Maastricht Treaty and comprises the ECB and the national central banks (NCBs) of all EU Member States.

20 See ECB/Eurostat (March 2003), notably Annex 1.

21 OJ L 35, 8.2.2005, p. 23.

22 Beforehand, the European Commission discussed its b.o.p. data needs in detail with EU Member States and laid them down in a Vademecum, which is still in use for more technical aspects and updated every year.

23 In the field of external statistics, the relevant legal instrument was Guideline ECB/1998/17, which was later repealed and replaced by subsequent versions, the version currently in force being Guideline ECB/2004/15 (see footnote 17), as amended by Guideline ECB/2007/3 of 31 May 2007 – OJ L 159, 20.6.2007, p. 48. The European Monetary Institute earlier set out its overall statistical needs in an "Implementation Package" (July 1996), which was ultimately endorsed by the Governing Council of the ECB in September 1998.

24 OJ L 318, 27.11.1998, p. 8.

25 Kidgell (1999).

held in Frankfurt in November 1999 and in Luxembourg in May 2000.[26]

A notable outcome of the work towards developing a vision for b.o.p. statistics was the "matrix approach". This approach provides a forward-looking representation of the various information sources that are deemed to be best placed to deliver accurate data on each combination of b.o.p./i.i.p. items (rows) and institutional sectors (columns). The matrix approach inspired the ESCB Statistics Committee (STC) and the CMFB in the conduct of further work, which eventually led to the design of the b.o.p./i.i.p. collection systems which are, or in some cases will soon be, in place in the euro area and in the EU Member States.[27] This approach is explained in further detail in Section 2.2.

Following the adoption of the matrix approach, most of the resulting work towards the production of consistent external statistics for the euro area has been carried out by the ESCB Working Group on External Statistics (WG-ES).[28] The work has basically consisted of (i) achieving further harmonisation of concepts and definitions; (ii) identifying best practices from Member States; and (iii) preparing final recommendations. The work of the WG-ES has focused on the b.o.p. financial account, and related income and i.i.p. statistics, in compliance with the division of responsibility established by the above-mentioned Memorandum of Understanding. Some of the work, namely that on FDI and on data quality, has been performed in close liaison with the Eurostat Balance of Payments Working Group (BoP WG).

The work carried out so far is only part of a process still under way. An economic and monetary union needs a sound institutional framework enabling and promoting close cooperation across countries. For instance, compilers of statistics within the euro area need to exchange confidential information on a regular basis. With the increasing complexity, and large size, of many cross-border transactions/positions, sharing information

received from various (public and commercial) sources, in addition to the statistical data regularly collected from reporters, has become essential to ensuring the necessary consistency and accuracy of euro area statistics while at the same time limiting the reporting burden on businesses. This needs to be done in an appropriate legal framework, also ensuring the necessary protection of confidential information against undue disclosure.

This is just an example of the distinctive circumstances surrounding the collection of statistics within a monetary union. Many additional challenges still lie ahead of the compilers of statistics and, while a sound framework has been already achieved, the process can by no means be deemed complete. Following the overview provided in this section, the next section gives a more detailed picture of the process towards harmonised external statistics for the euro area.

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26 In its Opinion set out on 17 July 2000 and further refined in January 2001, the CMFB recalls that "the ECB requires b.o.p. and i.i.p. statistics for the euro area to support the conduct of monetary policy. The European Commission requires similar data and data relating to the European Union in order to analyse and monitor economic policies. The European Commission also requires data, in particular detailed data on trade in services, foreign direct investment and foreign affiliate trade in services covering the European Union, for commercial policy purposes. National b.o.p. statistics continue to be needed for analytical and policy purposes and as a part of the national economic and financial accounts, which are a legal requirement under the ESA 95".

27 CMFB (January 2001).

28 Known as the Working Group on Balance of Payments and External Reserves Statistics (WG-BP&ER) until 2004.

2 MAIN FEATURES OF BALANCE OF PAYMENTS AND INTERNATIONAL INVESTMENT POSITION STATISTICS COLLECTION AND COMPILATION SYSTEMS

2.1 INTRODUCTION

Section 2 of this report describes salient, often common, characteristics of the b.o.p./i.i.p. data collection and compilation systems across the euro area/EU.[29] The development of new, or largely revised, systems in many Member States, e.g. Belgium, Denmark, Spain, the Netherlands and Austria was greatly facilitated by (i) the information sources recommended by the matrix approach for each combination of b.o.p./i.i.p. items and institutional sectors, (ii) the work of several EU/euro area task forces and their published reports and (iii) the cross-fertilisation achieved through different meetings at the European level, which enabled multilateral contacts and discussions among Member States' representatives.

As it becomes increasingly important worldwide to adhere to a single set of international statistical standards in order to ensure the comparability of statistics, the elaboration of meaningful EU/euro area aggregates hinges critically on attaining a high degree of homogeneity (as regards both conceptual guidelines as well as practical approaches) across countries' contributions. The overall approach in EU/euro area fora has been to agree on concepts and definitions, to the greatest extent possible attuned to international standards so as to, in turn, ensure international comparability and define "output requirements" addressed to Member States. Nonetheless, harmonisation of data collection systems, whether full or in part, was in most cases not felt indispensable.

The need for a harmonisation of concepts and compilation methods, and the intensity of that harmonisation, was considered in the light of three main criteria: (a) the degree to which statistical indicators are scrutinised by policy-making bodies and major players in the

markets,[30] (b) the need to minimise the reporting burden and ensure a level playing-field for reporting agents, and (c) the degree of integration of markets.[31] Regarding the first and the second criteria, the ECOFIN Council (the EU Council meeting in the composition of the ministers of economy and finance) endorsed on 29 October 2001 the fourth Status report on information requirements in EMU but at the same time pressed for higher reporting thresholds and for the burden to be shifted from banks to enterprises (see also Annex 1).[32]

The sixth Status report, dated 25 May 2004, gave additional impetus to the need to improve the quality of these statistics by stating that "Member States and European institutions should conduct micro and macro studies with the objective to minimise balance of payments asymmetries.[33] Legal impediments to the conduct of such studies should be removed. Moreover, Community statistics on the structure and activity of foreign affiliates should be further developed".[34]

The three above-mentioned criteria are not independent of each other. So far, in the field of external statistics, they have led above all to the enhancement of portfolio investment (flows, stocks and income) data collection systems and,

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29 A comprehensive description of country specifics is provided by ECB (May 2007).

30 Under any standard "merits and costs" assessment, the greater the use of statistics for policy-relevant analysis, the higher their "merit" and, thus, also the higher the reporting burden and costs that may be deemed acceptable. However, this does not necessarily mean that costly statistics are, ipso facto, more relevant, or that statistics compilers will not make any effort to minimise the burden on respondents.

31 According to the 2001 Lamfalussy report, financial markets have further developed and become integrated since the formation of the euro area. This means a certain degree of concentration, which may facilitate the regular, automated delivery of data, and lead to greater demand for fair, even-handed reporting requirements for all respondents. See L. Baele, A. Ferrando, P. Hördahl, E. Krylova and C. Monnet (April 2004).

32 http://www.consilium.europa.eu/uedocs/cmsUpload/.pdf

33 See footnote 1 on bilateral asymmetries. Note by the OP authors: when the countries involved are members of the euro area, such bilateral asymmetries may in some cases (e.g. portfolio investment and portfolio investment income) impact the cross-border transactions/financial positions of the euro area vis-à-vis the rest of the world.

34 http://www.ecb.int/stats/pdf/statusreportEMU.pdf

to a lesser extent, of FDI data collection systems.[35]

While EU Member States retain autonomy in designing their collection systems, thereby ensuring an appropriate matching with the specific features of their economy, reporting agents are increasingly calling for even-handed (and minimal) common reporting obligations across all euro area/EU Member States.

Two other factors are important in defining national data collection and compilation systems:

– the data quality standards to be met, e.g. timeliness, consistency,[36] accuracy and reliability, or stability[37] (measured by

revisions to the initial assessments of the net transactions and positions); and

– the institutional setting, i.e. which institution (generally the NCB or the NSI) is in charge

35 In particular, it was considered – inter alia – that at least an annual stock survey (instead of the accumulation of b.o.p. transactions) was necessary to value positions and compile reinvested earnings.

36 Consistency is an essential condition of an integrated statistic such as the b.o.p., for which the balancing item (i.e. net errors and omissions) is a central quality indicator which is made openly available to the public. Likewise important is the external consistency dimension i.e. with other related statistics, such as external trade statistics for the b.o.p. goods item or the monetary financial institutions' balance sheet for external transactions and positions of this sector in the b.o.p./i.i.p.

37 Statistical data are considered "stable" in their first assessment when later revisions only slightly affect the picture shown. Conversely, if sizeable revisions occur that may change even the direction of flows (or the sign of the positions), data are unstable. See V. Damia and C. Picón Aguilar (November 2006).

Table 1 The matrix approach: best information sources for each combination of b.o.p./i.i.p. items and institutional sector

B.o.p./i.i.p. items	ESA sectors[1]					
	Financial corporations (S.12)		General government (S.13)	Non-financial corporations (S.11)		Households and NPISH (S.14-S.15)
	MFIs (S.121-122)/ OFIs (S.123)	ICPFs (S.125)/ financial auxiliaries (S.124)		Large (mostly multinationals)	Small/medium-sized	
Goods	Customs documentation (extra-EU) and Intrastat					
Services	FISIM	FISIM, where appropriate	Expenditures and revenues	Quarterly (or annual) surveys, possibly complemented by other (including administrative) sources[4]		Surveys complemented by other sources
- of which: *travel*	n.a.	n.a.	–			
Remittances[2]	DR	–				Surveys
Current and capital transfers	n.a.	Income account	DR[3]			Administrative sources
Investment income	DR or reporting via supervisors or (funds') managers		DR (e.g. reinvested earnings or "other investment" income) or calculation (portfolio investment income) derived from outstanding positions[5]			
Direct investment	MFI balance sheet	Balance sheet + flows	DR, where applicable	DR and/or surveys		–
Portfolio investment	Security-by-security positions as part of one of the four models defined in Guideline ECB/2004/15, Annex 6: DR or custodian survey					
Other investment	Balance sheet data		Debt and deficit reporting	DR (accounts abroad) or surveys		*to be defined*
FATS items	DR, where appropriate		Yearly surveys			

List of abbreviations used in the table: DR: direct reporting; ESA: European System of Accounts; FATS: foreign affiliate statistics; FISIM: financial intermediation services indirectly measured; ICPF: insurance corporations and pension funds; MFIs: monetary financial institutions; NPISH: non-profit institutions serving households; OFIs: other financial intermediaries.

1) The ESA sectors in the columns correspond to the resident party involved in a cross-border transaction/position.

2) E.g. compensation of employees.

3) Directly obtained by statistical authorities from government agencies (as laid down in the ESA 95 Regulation).

4) Credit card information or bank settlements data where already available. Settlements may be a useful source for services imports, compensation of employees and transfers (which are more difficult to capture via sample surveys, being volatile and less concentrated and for maintaining a business register.

5) E.g. calculation of accruals derived from stocks.

of compiling the statistics, and what level of cooperation may be required to avoid duplication and find cost-effective and efficient solutions for these institutions and the respondents.

2.2 THE MATRIX APPROACH

The matrix approach is represented in Table 1. It shows the main orientations for b.o.p/i.i.p. statistics as they are/will be compiled. The matrix approach is aimed at providing a broad picture of the various sources that can deliver information with the necessary degree of accuracy for each b.o.p./i.i.p. item. Direct reporting (DR)[38] – as opposed to a settlement-based system in which domestic banks report their own transactions and those of their customers – integrated with/complemented by surveys, is becoming an important contributor to the data collection. The matrix/table below results from some further development work, although it is still in line with the main features of the integrated matrix approach originally designed in 2000.

This approach matches the user requirements for the euro area and national b.o.p. and i.i.p., while adhering to best practices. In particular, the provision of recommendations specific to each sector permits double reporting to be avoided as data already collected by NCBs or national statistical institutes for other purposes may be reused for b.o.p./i.i.p. (e.g. monetary financial institution (MFI) balance sheet data). Already existing surveys may be extended to cover transactions and positions vis-à-vis non-residents instead of new surveys being developed. In addition, administrative data (e.g. on transfers and compensation of employees) as well as data available from existing (central) credit registers and central balance sheet offices should be used to the extent possible. Credit cards are often used either when travelling or to purchase goods and services through internet; related information can also serve as a source, thus avoiding an additional reporting burden. In addition, the reporting of minimal information on securities

transactions and positions as it is available in the systems run by reporting agents is a step towards minimising the burden on respondents. The compilers of statistics can then value, classify and aggregate this rough information following statistical criteria by using a central register of (reference and price data on) securities.

One of the first conclusions to be drawn following the picture given by the matrix approach has been that systems based on fully closed bank settlements reporting (which had been deemed a global solution for the collection of b.o.p. data) may no longer provide reliable results in open economies (especially within the euro area/EU). Additionally, such systems may only partly deliver additional information on i.i.p. stocks (which are becoming increasingly important for analysis and are necessary for the contribution of external statistics as the rest-of-the-world account in the quarterly national and euro area/EU accounts).

The main factors that led to complementary, or alternative, sources being considered were (a) the development of intra-group netting or compensation within industries,[39] which means that a very significant part of the information relevant for external statistics does not result in immediate (gross) settlements and, consequently, cannot be reported by banks; (b) the fact that the accumulation of flows was not considered as an acceptable proxy for stocks in either direct investment or portfolio investment; (c) the need to split by resident ESA sector (see above table) transactions/positions vis-à-vis non-residents;[40] in particular, contributions to the euro area b.o.p./i.i.p. aggregate require a further breakdown of transactions/positions vis-à-vis

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38 See Annex 4.
39 For instance, the International Air Transport Association (IATA) for airlines.
40 In the BPM5, transactions/positions must be broken down into four sectors (monetary authorities, banks, general government and "other sectors"). In the new manual to be published in 2009, the last category is expected to be broken down further, particularly to identify other financial intermediaries, insurance corporations and pension funds, non-financial corporations and households. This additional split should ease the reconciliation between external statistics and national accounts.

residents of other euro area countries, which heavily affects the data collection and compilation; and (d) the existence of new requirements for more comprehensive and accurate data, for example on direct investment or remittances.

Concerning the role of bank settlements reporting in future data collection, these systems might in theory be seen as contributing to a timely recording of transactions (especially for the financial transactions of the "other sectors"). However, the introduction of an exemption threshold of €12,500 in 2002 already had a significant negative impact on the quality of services data. To ensure the development of the SEPA, European Parliament and Council Regulation (EC) 2560/2001[41] foresees a conditional increase of this threshold to €50,000 for payments in euro between EU residents. Still, already existing bank settlements data remain a useful complement, in particular for the building up and maintenance of an appropriate business register for b.o.p./i.i.p. purposes.[42]

Based on this understanding, the reporting by MFIs, in particular credit institutions, has been refocused to cover only their own transactions/ positions, while the reporting of information relating to customers has gradually become more limited than in the recent past, focusing in particular on securities in custody.

Both general government agencies and large enterprises, including multinationals, are gradually being requested to report directly to the competent statistical authorities. Indeed, they are likely to be taken into account in any sample surveys, owing to their importance in defined strata of the statistical reporting population.

The characteristics of the reports on own transactions by large enterprises would ideally have the following features:[43]

a) a monthly (or quarterly) frequency
b) all transactions/positions encompassed
c) no threshold
d) a detailed geographical breakdown

e) use of a standard codification (and its level of detail) for the nature of the transaction, if available.

Small and medium-sized enterprises may be surveyed only when they are selected in a sample.[44]

The possibility of achieving further harmonisation has been hindered by the absence of agreements beyond the above-mentioned general rules across EU Member States. This lack of agreement also has hampered other initiatives seeking to move forward in the process of harmonisation. In particular, the Steering Group on Multinationals (SGM), at the request of the European Round Table of Industrialists, investigated the possibility of establishing common reporting forms for multinationals at EU level. The SGM produced a substantial feasibility study and conducted a testing exercise with a sample of multinational companies. While there was a broad understanding that this could be a positive way forward, the accumulation of national reporting requirements, rather than an optimally mixed approach, raised some doubts as to the time it would take for companies to recoup the initial one-off costs for their adaptation. In the same vein, most national b.o.p./i.i.p. compilers felt that they could not easily reconcile the information with that of the usual data reporting from other respondents.

This example illustrates the difficulties of reaching agreements across the euro area/EU towards the adoption of common collection systems. For this reason, the matrix approach does not require that all information be collected

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41 Regulation (EC) No 2560/2001 of the European Parliament and of the Council of 19 December 2001 on cross-border payments in euro, OJ L 344, 28.12.2001, p. 13.
42 See in particular Section 3.2.
43 According to the recommendations of Eurostat's Technical Group on Direct Reporting (TG-DR). The TG-DR did not specifically address the issue of (non-MFI) financial companies, e.g. insurance corporations, while it did recognise that they may be of great importance for the b.o.p. financial account, related income and i.i.p., in particular for portfolio investment.
44 Best practices have been defined by the Eurostat Leadership Group on Quality (LEG Group). See Eurostat (October 2003).

in the same way by all EU or euro area countries. Existing systems, the size of the economy, characteristics of the (potential) reporting population in the various sectors and specialisation may justify different solutions for data collection. Furthermore, the matrix itself means that each country can envisage a different trade-off between timeliness, reliability and accuracy (including the level of detail) for the various b.o.p./i.i.p. items and for each relevant ESA sector.

As noted above, there may be arguments for some harmonisation of data collection across Member States. Establishing a level-playing field for reporting agents could require further harmonisation. In the same vein, the size of the potential market is a key factor for software companies developing modules for statistical reporting. Similar reporting requirements across EU Member States would permit a possibly significant cost reduction for business. Harmonisation of data collection methods would also ensure a more definite coverage and a more homogeneous adherence to international statistical standards, and thus better overall quality of the euro area/EU aggregate.

However, there has been general consensus that the impetus for further harmonisation of data reporting should be business-driven; the direct reporting companies, most of them part of multinational firms, are best placed to assess the current reporting costs, the (one-off) cost of changing the reporting requirements and the expected (longer-term) benefits of such harmonisation.

2.3 APPROACH BY B.O.P./I.I.P. ITEM

2.3.1 INTRODUCTION

Within the context of the matrix approach, the work of European statisticians towards further harmonising concepts and improving collection and compilation systems has followed a step-by-step approach, i.e. breaking down the analysis into specific b.o.p./i.i.p. items and sectors. This section provides an overview of the most relevant methodological and practical

achievements, proposes concrete ideas as to how collection and compilation methods may be organised and puts forward possible information sources for each specific item. This section may be especially useful for the compilers of statistics and for those readers interested in the details of external statistics.

DR and surveys should enable Member States to provide the appropriate level of detail, focusing only on the transactions which are most significant to their economies. The CMFB has agreed that b.o.p. current account items representing transactions above €100 million have to be reported. In practice, this may mean that Member States may not provide the same list of services items but a list reflecting particular features of their economy. This will allow flexibility for sampling in a cost-effective way. At the European level, the missing information may or may not be grossed up, depending on its significance.

In addition, the ECB has made clear that, in the area of services, it needs only aggregated data on a monthly basis. This item is among the least volatile in the b.o.p. (except for seasonal factors captured in other ways), which means that where detailed information is not available on a monthly basis, samples of enterprises may be surveyed at a lower frequency (on a quarterly or annual basis depending on the detailed items and structure of the reporting population) and interpolation may be accepted.

Further details on individual items are provided in the following sub-sections.

2.3.2 CURRENT AND CAPITAL ACCOUNT (EXCEPT INVESTMENT INCOME)

External trade statistics are collected and compiled on a monthly basis in accordance with current Community law, and are expected to become timely enough to be included in the first assessment of the euro area b.o.p. within six weeks.

As regards the euro area b.o.p. current and capital account (except investment income),

only the main components (goods, services, income, current and capital transfers) are required on a monthly basis.

Goods: EU trade statistics are collected via customs documentation (for extra-EU trade) and Intrastat (for trade between the euro area and non-euro area EU Member States) and are of the utmost importance for users at the European Commission. The conversion of trade statistics into b.o.p. statistics can either be made directly at the aggregate level, with adjustments for methodological reasons (including the c.i.f./f.o.b. ratio), or indirectly by Member States. External trade statistics already provide volume and unit values (as a proxy for deflators), and have detailed commodity and geographical breakdowns, which users consider satisfactory. As part of the conduct of monetary policy for the euro area, users within the ECB require this information to assess inflationary pressures (import prices) and competitiveness (export volumes).

Services: the general scheme is that (i) DR companies – i.e. mainly large enterprises including MFIs – report on a monthly (or quarterly) basis on their transactions; and (ii) complementary information is available on a quarterly/annual basis through (sample) surveys[45] – in order to capture transactions of small and medium-sized enterprises.

The use of a business register is key for the analysis of the population of enterprises subject to DR or surveys. It must provide information on the number of enterprises for each country, the "stability" (versus "volatility") of the population for each main services market, the differences between the credit and debit sides, and the role of large enterprises as main services importers. A common "EuroGroups" register under a new Regulation will greatly enhance the consistency of data for the current account, as well as for direct investment.

Where most transactions are concentrated in few enterprises, b.o.p. compilers usually rely more on DR (most often on a monthly basis to

meet the ECB's requirements); while those countries with a more significant proportion of trade in services undertaken by small and medium-sized enterprises may conduct mostly (quarterly sample) surveys. Where the breakdowns by sub-item and partner are especially detailed for extra-EU transactions, sampling may be optimised by considering the share of each Member State's transactions with other Member States (and the number of enterprises which conduct only intra-EU business).

In the special case of *travel*, data are recommended to be obtained via different systems (passenger surveys, household surveys and credit card systems) according to the characteristics of the Member States.[46]

Capturing travel or other, e.g. e-commerce, services is becoming increasingly difficult. As these are often paid for using credit cards, related information may be obtained from the main credit card issuers and can serve as a source to identify important criteria such as residency or type of transaction. This source may be only partial and needs cross-checking with other data, including data from partner countries.

Merchandise transport: data are recommended to be obtained via DR and sample surveys of enterprises (purchasing or providing transport services) on a transaction basis (as opposed to a f.o.b.-f.o.b. basis). The transaction basis records all transport transactions between residents and non-residents as indicated in the respective transport contract (whatever the delivery terms: ex-works, f.o.b. or c.i.f.). At the compiling level, detailed information (by mode of transport and partner country) is provided on

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45 These assumptions rest on the view expressed by the CMFB in its Opinion of 25 January 2001 that "Preliminary work suggests that, in the future, alongside remaining reporting by banks on cross-border payments on behalf of customers, systems will rely more on direct reporting by enterprises, complemented by and/or integrated with sample surveys and other information." This results from the increasing difficulty of maintaining settlement-based systems, in particular for reporting on intra-euro area transactions.

46 Eurostat Travel Task Force report (not published).

an invoice basis. In practice, only aggregated information is provided on a f.o.b.-f.o.b. basis (with a reduced breakdown by mode of transport).[47]

Other services: data are recommended to be obtained through DR complemented by and/or integrated with sample surveys and other information.

Income: compensation of employees is recommended to be collected via ad-hoc surveys and administrative sources on an annual basis. Information sources for investment income will be further elaborated on in the next section.

Current and capital transfers: reporting is on a quarterly basis and has already been processed by the European Commission (Eurostat). The number of reporting entities is small and includes EU institutions. Monthly estimates based on the information from the Commission and on interpolation may be enough for the euro area aggregate. Migrant transfers and workers' remittances have been further disaggregated. Other items in the capital account, e.g. debt forgiveness, are compiled on a quarterly basis (and allocated to the correct month/s). Administrative sources are used to derive government transfers.

2.3.3 B.O.P. FINANCIAL ACCOUNT (INCLUDING INVESTMENT INCOME) AND I.I.P.

The monetary analysis performed by the ECB requires that a complete set of high-quality information be made available to ECB policy-makers. Such information should meet requirements in terms of frequency and timeliness. In particular, the monetary presentation of the b.o.p. requires reliable monthly euro area b.o.p. data with a full MFI/non-MFI split. An integrated system of stock (i.i.p.) and flow (b.o.p.) statistics on a quarterly basis with detailed ESA 95 sector and instrument breakdowns are also seen as a necessary input into the euro area "flow of funds" financial accounts statistics.

The provision of timely and "stable" information on financial flows and stocks meeting such

requirements entailed a careful analysis of how to ensure both methodological soundness and sufficiently reliable information sources. Bearing in mind that the ECB (Directorate General Statistics) has prime responsibility for the conceptual work concerning the financial account and investment income,[48] the remainder of this section will analyse both dimensions (methodology and data sources) for specific financial items, namely direct investment and associated income, portfolio investment, income related to portfolio investment and other financial account items (namely financial derivatives, other investment and reserve assets).

2.3.3.1 Direct investment and associated income

One of the most important conclusions resulting from the harmonisation work in the area of FDI is that FDI stocks should be compiled on the basis of information collected via surveys at least on an annual basis. Indeed, the provision of (annual) FDI stocks based on the accumulation of b.o.p. flows is deemed not suitable to produce sufficiently accurate results (see Annex 2).

For the provision of monthly b.o.p. information for FDI, equity transactions may be collected from the flows/changes in stocks reported on a monthly basis by multinationals (and DR companies) and rapid surveys, possibly supplemented by information available in the press. Quarterly and annual flows and stocks may be compiled on the basis of more extensive surveys. In fact, the most detailed flows and stocks in terms of breakdowns by geography and by economic activity require surveys with coverage close to that of a census.

While no harmonisation of collection and compilation methods other than an annual stock survey is required, a coordination mechanism in the form of an exchange of (confidential)

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47 Eurostat Merchandise Transport report (not published).
48 ECB/Eurostat (March 2003). Methodological issues on FDI and related income are dealt with in close liason with the European Commission (Eurostat).

information among Member States has proved necessary for the most significant transactions/positions.

For the *valuation of equity positions*, compilers have agreed on the need to collect both market values and book values from listed companies. To this end, information may be provided by respondents via supplementary questions added to the FDI surveys and/or using the information available in internal databases. In addition, compilers of statistics may also use market information on stock exchange prices and/or other publicly available information. It is considered that leaving the choice of valuation method (market value or book value) to respondents is not an acceptable practice as it would neither ensure the provision of the necessary information to the ECB nor guarantee the compilation of consistent FDI equity stocks.

As it is considered necessary to *distinguish between listed and non-listed companies*, information permitting such a split may be obtained through: (i) registers of (resident) listed companies maintained by stock exchange authorities; (ii) information provided directly by respondents; and (iii) information obtained from internal databases and/or publicly available sources (e.g. financial press and stock exchange websites) are possible information sources that may render acceptable results.

With regard to data sources for *reinvested earnings*, this requires the collection of annual information through FDI surveys. Reinvested earnings are usually calculated as the difference between total profits and dividends payable. Since they should, in principle, be imputed at the time profits are generated, often before any information is available on dividends or total profits (although listed companies are increasingly giving more information on a timely, infra-annual, basis), part of reinvested earnings are temporarily estimated from the projection of total profits as recorded in the last available FDI survey. To that end, a useful information source is the respondents' balance

sheets, through either public or internal accounts.[49]

Concerning the application of the "*directional principle*", i.e. the distinction between assets and liabilities held by affiliates vis-à-vis" parent companies and vice-versa, this may be difficult with regard to "other capital" transactions. The necessary information can be collected through surveys via the addition of questions to the survey form, requesting each element of other capital separately and taking into account the directional aspect of the investment. For settlement-based systems, the codes used to collect information from reporters should be expanded (where necessary) to include the elements of other capital required. They should also include information on the direction of the investment to satisfy the requirements of the directional principle. This principle is expected to be substantially altered in the next version of the IMF Balance of Payments Manual.

2.3.3.2 Portfolio investment

In view of the importance placed by the Executive Board of the ECB on the provision of monthly information on portfolio investment flows and the fact that this is one of the most challenging fields of statistics, much effort has been devoted to it in the euro area, especially from 2000 to 2003. As a consequence, substantial progress has been achieved on both conceptual and, above all, practical aspects. In this regard, all euro area countries have agreed on the need to harmonise collection systems to a substantial degree as well as to use as a central pillar of such harmonised methods the Centralised Securities Database (CSDB).[50]

The compilation of portfolio investment statistics poses a number of challenges to the

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49 The STC is investigating the possibility of using information from central balance sheet offices (CBSOs), including the European Commission's BACH (Bank for the Accounts of Companies Harmonised) database. Information, at least on liabilities of corporations, may also come from the ECB's Centralised Securities Database for securities and from credit registers for (bank) loans.

50 Israël (2002); Sánchez Muñoz and Neudorfer (2005).

compilers as a result of factors including the fungibility and active trading of most instruments measured, the international integration of markets, the expansion of securities lending and repo markets, the proliferation of new forms of trading (e.g. internet). Some examples of the most demanding challenges are (a) a correct recording of portfolio liabilities, (b) obtaining information on securities held by domestic investors and deposited with foreign custodians, (c) reporting by respondents outside the financial sector, (d) a correct identification of the issuer (vital for a correct euro area/non-euro area split), (e) consistency between stock and flow data, and (f) the need for flexibility to produce new breakdowns.

The quality of portfolio investment statistics crucially hinges on the data collection method; a substantially higher quality is achieved when these data are collected security by security (s-b-s) than when only aggregate information is provided to the compiler of statistics. While the collection of aggregate data means that reporters provide information on transactions/holdings grouped (aggregated) by certain statistical categories, the s-b-s collection method means that the compiler receives information on issues, holdings and, possibly, transactions for individual securities.[51] All relevant statistical breakdowns can then be produced with the assistance of a securities database. In addition, s-b-s reporting is considered by respondents to be much less demanding, since the data reported refer only to attributes and breakdowns (such as numbers of securities and individual security identifiers, e.g. ISIN or CUSIP) that are meaningful for them (and thus available and accessible in their internal reporting tools). This is often not the case when they need to aggregate individual data according to statistical requirements. A very rough estimate shows that cost savings for respondents could be of a magnitude above €10 million a year euro area-wide, although this is highly dependent on the circumstances in individual countries.

The implementation of a reduced number of data collection models by all euro area countries

(see Annex 3)[52] led to substantial harmonisation on the input side. Additionally, the analytical work performed in the euro area revealed the merits of s-b-s data collection in terms of, inter alia, flexibility, accuracy of the data and cost reduction for reporting agents.

Following individual national feasibility studies to assess the costs of adopting s-b-s data collection throughout the euro area, all euro area countries agreed to start collecting quarterly portfolio investment stocks on an s-b-s basis from March 2008, i.e. starting with the data corresponding to end-2007 positions. This in fact reduced the number of data collection models to just four, as described in Annex 3. The CSDB is a pivotal tool to support these data collection models.

The CSDB enables the compiler to classify securities in terms of type of security, residence and sector of the issuer, as well as to value them at market prices and calculate related income. Before performing macroeconomic aggregations, compilers link the information collected from respondents on an individual security basis to the CSDB in order to carry out the classifications and valuations according to statistical standards. The combination of the information contained in the CSDB and s-b-s reporting provides the relevant breakdowns by instrument and the MFI/non-MFI split on both the assets and the liabilities side.

In many cases, monthly data can be reported by custodians [predominantly MFIs and certain "other financial intermediaries" (OFIs)], which can be complemented by (monthly or quarterly) surveys of (international) centralised securities depositories and by DR by companies – in particular insurance companies and pension funds – on their holdings with non-resident custodians. Monthly flows can either be collected directly or derived – in net terms –

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51 Detailed information at the level of individual securities is often readily available, at least to the largest respondents (e.g. banks, institutional investors and financial intermediaries).
52 ECB Task Force on Portfolio Investment Collection Systems; ECB (June 2002).

from changes in stocks with the required adjustments (in accordance with the models listed in Annex 3).

Quarterly stocks may provide, beyond the instruments, a detailed sectoral breakdown of resident issuers/holders for the purpose of euro area quarterly financial accounts, and maturity (original for macroeconomic statistics and residual for risk analysis), geographical and currency breakdowns. Other breakdowns (such as economic activity for the resident issuers) may be derived from the CSDB itself or from links with, for example, business registers.

Securities deposited with foreign custodians by private individuals are considered a significant difficulty for collection systems based on custodians. This information could be collected through DR sample surveys at very low frequency, as the volume of flows/transactions is thought unlikely to be substantial. For non-euro area custodians, a regular (e.g. annual) exchange of information under a third-party reporting scheme with major counterparts could also be envisaged.

2.3.3.3 Portfolio investment income
Following strong evidence of large asymmetries in the recording of portfolio investment income within the euro area, substantial conceptual and practical work has been necessary to allow the harmonisation process to advance. This work has been closely linked with that in the area of portfolio investment.[53]

The main difficulties identified in the process were the bilateral asymmetries existing between euro area countries as a result of the accruals principle not being applied, of aggregate versus s-b-s compilation and of debtor versus creditor-based compilation, all of which may have an effect on the euro area aggregates.

Given the strong linkages between investment income flows and financial account flows and stocks, it was recommended that the collection and compilation of investment income data be reviewed, to possibly integrate into the collection of the b.o.p. financial account and i.i.p. at some stage. The aim would be to compile income on a full accruals basis and on the basis of available information on stocks at a reasonable frequency. As portfolio investment stocks are being produced on a quarterly basis in the euro area (and will be produced on an s-b-s basis as of March 2008), and information is supplied by the CSDB, the core data are, or will be, readily available.

Irrespective of the data collection model, the availability of a fully operational CSDB plays a crucial role in all of the above systems. The existence of centralised information plays a key role in the reduction of asymmetries, regardless of the approach followed. Any asymmetries which are introduced by the adoption of different aggregate solutions should be reduced by using the CSDB as the sole source of information for benchmark yields (given a minimum standard of breakdowns, which ensures suitable income figures).

In the case of investment funds, or "collective investment institutions" (CIIs), at the initiative of EU compilers the updated versions of the System of National Accounts and of the Balance of Payments manuals will be amended to record retained earnings of CIIs as if they had been distributed to shareholders and reinvested in the instrument. This will be shown separately both under portfolio investment equity and under related income.[54]

2.3.3.4 Other financial account items
Financial derivatives: data are recommended to be collected from DR companies including MFIs (and certain OFIs), possibly complemented by other sources such as financial market authorities and/or "other financial corporations". No details are required on flows. Instrument and, to a possible extent, sector and geographical breakdowns are required for (quarterly and annual) stocks.

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53 Task Force on Portfolio Investment Income; ECB (August 2003).
54 ECB (Directorate General Statistics)/European Commission (Eurostat), (January 2006).

Other investment: monthly data are recommended to be collected from MFIs (covering at least 95% of the population, i.e. if necessary applying the "cutting-off the tail" rule), and possibly also OFIs, insurance companies and DR non-financial companies on loans/currency and deposits in stocks (with adjustments to derive notional flows). As regards the MFI sector, an approach in which this reporting is integrated with balance sheet reporting would be welcome, as it would possibly alleviate the burden on reporting MFIs and ensure consistency, thereby making the monetary presentation of the b.o.p more meaningful.

For the other resident sectors, the provision of information on deposits and loans could reveal similar problems in timeliness as direct investment figures: government and non-financial corporations may report directly, though they comply less often with tight deadlines. Trade credits in particular could be covered through surveys; monthly data would be compiled with DR company data and by interpolation of (usually quarterly) surveys on trade credits. Information on households and "other non-financial enterprises" not covered by DR would have to be estimated on a monthly basis depending on the available sources. The "locational statistics" of the Bank for International Settlements (BIS) provide, albeit with a lag of one quarter, useful quarterly stock data on deposits of euro area residents (both MFIs and non-MFIs) with banks in and outside the EU.

International reserves: data on international reserves (and related assets and liabilities) are recommended to be collected directly from the Eurosystem (more specifically, by either the operations or accounting departments of the NCBs/ECB).

2.3.4 FOREIGN AFFILIATE STATISTICS

The European Commission needs foreign affiliate trade statistics (FATS), which provide several variables for measuring the activities of the foreign affiliates. This information is needed for trade negotiations (GATS "mode 3": commercial presence). The variables reported

are: employment, turnover and possibly others (exports, imports), on an annual basis and only by multinationals and DR non-financial companies. Detailed breakdowns by geographical allocation and economic activity (following the NACE classification) are required as indicated in Eurostat's Vademecum: questionnaires Y9 and Y10. The collection of FATS is usually done as a complement to FDI information via enlarged FDI questionnaires. For inward FATS, however, the collection is sometimes carried out as a complement to business statistics via enlarged business statistics questionnaires. FATS surveys focus on non-financial activity of affiliated enterprises, rather than on financial flows and levels (as in FDI surveys). Typical examples arise from recent FDI flows in developing countries, where leverage was high between the amount invested and the value added. This may lead to a somewhat different reporting population, unless FDI surveys are redirected in order to better cover and reflect the economic impact (see Section 2.3.4.1). For this main reason, coordination is needed with NSIs in this area.

In order to enhance the measurement of globalisation and its impact on the various economies, as investors and/or investees, the ECB has also expressed its interest in FATS statistics, which have become an important complement to FDI statistics.[55] A regulation is in preparation that foresees the collection of inward FATS and the undertaking of pilots for outward FATS. Moreover, in the context of formerly mentioned investigations concerning Special Purpose Entities,[56] it was felt good practice to set up appropriate (annual) surveys in EU countries to capture both FDI relationships and FATS data in a consistent and meaningful way.

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55 See ECB (June 2005).

56 The generic term "SPE" encompasses several kinds of instrumental vehicle corporations created e.g. to isolate financial risk, to make intra-group funding less easily traceable or to benefit from relatively favourable taxation regimes. For instance, financial holding corporations, financial vehicle corporations created to be the holders of securitised assets, financial conduits (raising funds in tax havens for their parent companies), are considered to belong in the SPE population.

3 SPECIFIC OPPORTUNITIES AND CONSTRAINTS TO BE CONSIDERED IN DEVELOPING B.O.P./I.I.P. DATA COLLECTION

Developing and carrying out data collection systems, especially in the complex field of external statistics and in view of all the issues related to globalisation, is already a challenge. The demand for high-quality and timely statistics is constantly increasing, as reflected in the discussions at the third ECB conference on Statistics. At the same time though, the pressure has grown – not only from reporting agents but also increasingly from national and European policy-makers – for the reporting burden to be minimised.

Ways to overcome such a challenge in the face of increasing demand and increasing limitations in the supply of data have been described in Section 2. This part of the paper focuses on two specific issues relating to non-financial transactions: opportunities and constraints of data gathering via DR and surveys, and the role of bank settlements reporting.

3.1 DIRECT REPORTING AND SURVEYS

The various b.o.p. surveys make use of the information available in (mostly domestic) business registers, which is enhanced using b.o.p.-focused, auxiliary information. For example, information from the registers on ownership and consolidation and balance sheet information are extensively used for the purposes of external statistics. The cut-off point between the "take-all" and sampled strata is determined through various stratification algorithms or through (simpler) cumulative coverage information on the stratification variables. Hence, large companies are usually requested to report, at least for their main activities, as representativeness can hardly be attained otherwise. Another aspect is that large companies prioritise the reduction of indirect costs, so that minimising the reporting burden often means automating data processing from their (well-developed) internal systems.

From the experience and "merits and costs" exercises performed by the ESCB, it appears that the more business-friendly the reporting instructions, the lower the reporting cost for respondents. The main cost component is when a person, or even a team, has to look for information manually, or retrieve it from archived files, even if they are electronic. When information can be made available from internal systems, the one-off cost of building up automated reporting systems can be recouped within a few reporting periods. Conversely, these enterprises may resist surveys more strongly, even at lower frequencies, if they involve more manual work on answering questionnaires.

A supplementary factor in DR is that the enterprise reports on all its business. Data on imports of services are not easy to capture. The population of enterprises having transactions is large and not very concentrated; any sample is relatively difficult to set up, and also grossing-up methods may be inaccurate. Enterprises involved in DR will cover these transactions, which may therefore be of particular help in this field (see Annex 4).

In practice, many Member States have adopted a mixed approach whereby large companies (a few hundred or a few thousand, depending on the size of the economy and concentration of business) report directly to the b.o.p./i.i.p. compiler, while sample surveys address the bulk of the (non-financial) enterprises.

Definitive plans regarding the implementation of DR by some EU countries (in particular, the selection of the companies involved) are still under consideration and may evolve over time. However, the main features of the DR system indicated by almost all EU countries are based on transactions as retrieved from accounting – rather than on settlements as recorded by treasurers – with no reporting threshold and a full geographical breakdown – as country groupings may be less easy to retrieve from internal systems. In particular, other than those countries for which surveys constitute the basis

of the system, most EU countries combine DR for the largest companies with the use of surveys for FDI and some specific services (e.g. construction and transportation) as well as for obtaining information from small and medium-sized enterprises.

3.2 THE ROLE OF BANK SETTLEMENTS IN B.O.P. COLLECTION SYSTEMS

Concerning the role of bank settlements reporting in future data collection, an Opinion of the CMFB[57] states that "the move is likely to comprise less dependence on reporting by banks of cross-border payments and receipts on behalf of their customers, and more reliance on direct reporting by enterprises, complemented and/or integrated with sample surveys and other information".

Some work was also done to assess the feasibility of the "residency approach for straight-through processing"; this approach would have meant banks reporting some information available in payment orders (more readily available in the context of the fight against money laundering and terrorism). However, the introduction of an exemption threshold of €12,500 in 2002 already had a significant negative impact on the quality of services data, impact even widened with the subsequent increase of this threshold to €50,000 for payments in euro between EU residents aimed to facilitate the development of the SEPA.

Hence, closed bank settlements reporting cannot deliver all information needed, especially when the growing importance of i.i.p. data is considered. However, it remains a useful complement, as it delivers information that may be difficult to capture otherwise and can be used in particular to build up and maintain an appropriate business register for b.o.p./i.i.p. purposes. Indeed, it has been noted that the use of a business register based on domestic transactions may be considerably biased.

In greater detail, the situation in the various Member States at the time of publication of this occasional paper is as follows:

– In Belgium, Denmark, Ireland, the Netherlands, Austria, Finland, Sweden and the United Kingdom, no role is played by bank settlements reporting, except in some cases for updating the business register.

– In Germany, the role of bank settlements reporting is limited to route information received from enterprises on outgoing payments (except for goods payments), and enterprises report most of their (current account and financial) transactions and direct investment positions.

– For Greece, Spain, France, Italy, Luxembourg and Portugal, as well as for most of the new Member States, bank settlements reporting remains a complementary source of information.

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57 CMFB, January 2001.

SYNOPSIS OF REPORTING OBLIGATIONS BY CATEGORY OF REPORTING AGENTS

Monetary financial institutions usually report monthly data on own positions and/or current and financial transactions vis-à-vis non-residents. This includes mainly investment income transactions, financial and other business services on the credit side (some imputed as "financial intermediation services indirectly measured" (FISIM) and thus not reported), a range of services on the debit (import) side and the main items of the financial account (direct investment, portfolio investment, financial derivatives and other investment) except reserve assets. Most information as regards "other investment" consists of balance sheet breakdowns in the framework set out by Regulation ECB/2001/13 concerning the consolidated balance sheet of the monetary financial institutions sector.[58] A more detailed sector and geographical breakdown is required on a quarterly basis. In addition, MFIs report, where relevant, as securities custodians on behalf of their customers. The data are reported on an s-b-s basis with a full sector breakdown (on the holding side following ESA 95 sectors), in line with the model set out in Annex 3.

The cost-effectiveness of continuing to channel the reporting of settlements through MFIs reporting on behalf of their customers (possibly covering only transactions over a certain threshold) should be assessed by each country on a case-by-case basis. The possibility to provide information on the originator and destination of payments and their nature, mostly on a voluntary basis, following a much simplified common code list may help countries to maintain a business register for b.o.p. purposes.

As regards *other financial intermediaries* excluding insurance corporations and pension funds (sector S.123 in the ESA 95), collection systems focusing initially on investment funds and subsequently financial vehicle corporations as holders of securitised assets are currently under development in the framework of monetary and financial statistics. Important synergies may be found with the collection of cross-border information for OFIs. In this framework, a definition of OFI sub-sectors has been drawn up identifying:

i. investment funds, which will soon be subject to an ECB regulation, which will make it possible for a large part of the data on their assets and liabilities to be collected on an s-b-s basis;

ii. financial vehicle corporations as holders of securitised assets;[59]

iii. financial corporations involved in lending;

iv. financial holding companies; and

v. securities and derivatives dealers.

The classification and treatment of the current OFIs is being investigated in the review of the System of National Accounts and of the IMF Balance of Payments Manual. As an outcome of this and of the parallel work mentioned above, it is expected to better address the complex issue of SPEs in FDI.

The merits (user needs, subject to priority-setting) and costs (of data collection and compilation for the respondents and NCBs) are the subject of a comprehensive assessment. This assessment takes full account of all ECB requirements and will enable possible synergies across statistics to be better exploited and the best use of information available across the euro area/EU to be made. For example, investment funds could report their transactions/holdings in portfolio investment, either directly

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58 Regulation (EC) No. 2423/2001 of the European Central Bank of 22 November 2001 concerning the consolidated balance sheet of the monetary financial institutions sector (ECB/2001/13), OJ L 333, 17.12.2001, p. 1.

59 A simplified reporting scheme is being studied. It would make best use of information available from other sources, notably MFIs (as they are often the parent companies) or the CSDB, e.g. for the liabilities of financial vehicle corporations or for asset-backed securities such as credit-linked notes.

or via their custodians, on an s-b-s basis, while other instruments such as financial derivatives, loans, deposits or real estate could be reported on an aggregate basis.

Data on transactions/positions of *insurance corporations and pension funds* (sector S.125) are increasingly collected directly from these institutions, often in close cooperation with the national supervisory body. Since this sector is closely related to MFIs and plays a major role in financial transformation, its inclusion among the reporting agents subject to ECB regulations through an amendment to Council Regulation (EC) 2533/98 is currently under consideration. For quarterly data, which are considered an important contribution to euro area financial accounts, no current source is timely enough and, subject to further consultations, a change in the existing legal framework may be envisaged. This would pave the way for a more structured method of collecting cross-border information from this sector, partly through DR.

Non-financial corporations can be split into large, mostly multinational, companies and small and medium-sized companies. *Large companies* are often subject to DR, as, once the initial cost of retrieving the relevant information from their internal systems has been borne, they can automate the reporting and thus recoup the costs relatively rapidly. However, reporting schemes differ across countries.

The Steering Group on Multinationals mentioned in Section 2.2 concluded that a harmonised reporting scheme for multinationals across the EU could be worthwhile, and could lead to cost savings, subject to two prerequisites: (i) national b.o.p./i.i.p. compilers should review their (national) requirements with the aim of setting up an integrated reporting scheme which could be complied with at a reasonable cost, and (ii) software providers should be encouraged to develop and provide software modules enabling their clients to retrieve the information from "enterprise resource planning" and other internal (treasury) systems at a limited one-off cost. A trial was carried out in the Netherlands for the reporting of services. Such a unified reporting scheme might be worth further investigation in the future.

Regarding small and medium-sized companies, according to the matrix approach, these companies would report mainly on the basis of quarterly sample surveys. This information would then be grossed up in accordance with the sample size and complemented by the information provided by direct reporters. The integration of small and medium-sized enterprises into the collection systems should be carefully assessed under a "merits and costs" approach. For example, the size of the sample could be reduced for concentrated economies, where a small number of large enterprises would report a large share of transactions (as DR companies). Another example of room for minimising the burden imposed on small businesses is in those jurisdictions where a large number of enterprises mostly or exclusively carry out intra-euro area transactions; in those cases, the size of the sample does not need to be expanded to give the level of detail requested for extra-euro area transactions.

EU institutions (including the European Investment Bank) would report (via Eurostat) on their transactions with Member States (euro area and non-euro area countries) and with the rest of the world in order to build up their own b.o.p.; a quarterly geographical breakdown of the "rest of the world" sector would be required. Monthly data is expected, in particular, from the European Investment Bank as an important player on international financial markets.

Households: surveys, possibly coinciding with the IMF coordinated portfolio investment survey, could be envisaged to extensively cover households' portfolio holdings abroad. While holdings via resident custodians are relatively easy to capture, alternative ways to estimate holdings abroad need further investigation. Households will also be an important source of information for travel: household surveys

provide information on travel expenditure, and passenger surveys provide information on both receipts and expenditure, as both resident and non-residents are surveyed.

Other sources: various administrative and market sources (e.g. financial market authorities) may also be requested to provide some information. The CSDB has started to play a pivotal role in the compilation of portfolio investment and associated income. It also ensures a more consistent compilation of securities-related statistics within the ESCB. Partners' data (for travel, transfers), BIS data (for consistency checks) or data from other sources could also be relevant for b.o.p./i.i.p. purposes.

Matrix of conclusions: prioritisation and timing for implementation of the Foreign Direct Investment[1] recommendations

Time frame	Importance		
	High	Medium	Low
Short-term	All countries should start compiling FDI equity stocks and reinvested earnings on the basis of the results of FDI surveys, at least annually.[1] FDI equity stocks should be collected separately for listed (both book[2] and market values) and non-listed companies. All indirect FDI relationships[3] should be conceptually treated in accordance with the interpretation of standards outlined in Chapter I of the report of the TF-FDI. All (indirect) FDI transactions/positions should be geographically allocated to the immediate affiliate or parent company.[4]		Contributions to cover losses of direct investment enterprises should be recorded in the financial account.
Medium-term	The Current Operating Performance Concept[5] should be used by all Member States.[6] The components of other capital should be identified on the basis of the recommendations provided in Chapter VI. of the TF-FDI report	Contribute to the development of a European database of information about the structure of multinational groups. Payment of dividends from exceptional capital gains should be recorded in the financial account (and thus not enter the calculation of reinvested earnings).	
Long-term	Indirect FDI relationships[7] should cover in practice (as a minimum) either (i) indirect links of ownership above 50%; or (ii) direct and indirect links of ownership above 10%, calculated as the product of the subsequent links of ownership along a chain. The directional principle should be applied (in full) by all Member States for FDI flows and stocks.		Dividends should be recorded when payable rather than when paid

1) ECB (March 2004).

2) Exception is made for provisional results to be provided at T+9 and real-estate investments. The following non-acceptable practices should be abandoned: (i) leaving the choice of the valuation criterion (market values or book values) to respondents; and (ii) the application of a perpetual inventory method/accumulation of b.o.p. flows to compile stocks.

3) Based on the common definition of own funds at book value.

4) To the extent that they can be identified, considering the practical difficulties existing at present, as addressed in Section 2.

5) For both reinvested earnings and FDI equity stocks.

6) The COPC measurement of earnings is based on income from normal enterprise operations before non-recurring items (such as write-offs) and capital gains and losses are accounted for.

7) Member States may focus on a reduced number of companies (the largest ones and/or holding companies) to make the distinction between ordinary and extraordinary gains and losses.

8) For all elements of FDI statistics (namely equity capital, reinvested earnings and other capital).

ANNEX 3
RECOMMENDED MODELS FOR PORTFOLIO INVESTMENT DATA COLLECTION

Recommended models following Eurosystem national feasibility studies on s-b-s reporting
• Monthly stocks [s-b-s] + monthly flows [s-b-s]
• Quarterly stocks [s-b-s] + monthly flows [s-b-s]
• Monthly stocks [s-b-s] + **derived** monthly flows [s-b-s]
• Quarterly stocks [s-b-s] + monthly flows [aggregate]

Data collection models as assessed by the TF-PICS [1]		
(1)	Monthly flows [s-b-s] + monthly stocks [s-b-s]	Ideal
(2a)	Monthly flows [s-b-s] + quarterly stocks [s-b-s]	Good
(2b)	Monthly flows [s-b-s] + annual stocks [s-b-s]	
(3)	Quarterly stocks [s-b-s] + monthly flows [aggregate]	Acceptable
(4)	Monthly stocks [aggregate] + monthly flows [aggregate]	
(5)	Monthly stocks [s-b-s] + **derived** monthly flows [s-b-s]	
(6)	Annual stocks [s-b-s] + monthly flows [aggregate]	
(7)	Quarterly stocks [aggregate] + monthly flows [aggregate]	
(8)	**Derived** annual stocks [s-b-s] + monthly flows [s-b-s]	Unacceptable
(9)	Quarterly stocks [s-b-s] + **derived** quarterly flows [s-b-s] + *estimated monthly flows [aggregate]*	
(10)	Annual stocks [s-b-s] + quarterly flows [aggregate] + *estimated monthly flows [aggregate]*	
(11)	Quarterly stocks [aggregate] + quarterly flows [aggregate] + *estimated monthly flows [aggregate]*	
(12)	**Derived** annual stocks [aggregate] + monthly flows [aggregate]	

Notes: "Derived stocks" equals the accumulation of flows; "derived flows" equals the difference between stocks (adjusted for exchange rate and price changes); and "estimated flows" equals the monthly split estimated from quarterly flows.
1) ECB (June 2002).

The treatment of DR companies is described earlier, in particular in Section 2 and Section 3.1, and in the reports of several Eurostat's technical groups. However, certain issues may need some clarification, also in the light of recent developments.

1   PORTFOLIO TRANSACTIONS AND POSITIONS

It is necessary to distinguish between financial corporations, for example insurance companies, and non-financial corporations. For the former category, s-b- reporting may be considered and, if chosen, be carried out on the basis of the model adopted by the country.

As regards non-financial corporations, a general point is whether portfolio transactions should all be reported, or only when carried out via non-resident banks/custodians. The second option is that banks acting as custodians report the portfolio transactions they carry out, or positions they hold, on behalf of their customers. This information is usually accessible to them and they are more likely than the corporations to report it on an s-b-s basis.

2   SELECTION OF DR COMPANIES

In the b.o.p. statistics surveys the target population may often be difficult to define and may become overly large, making it impossible to survey. In addition, enterprise populations often are extremely skewed and dominated by major enterprises. According to the literature, in such cases, in the enterprise sector in particular, the frame can be cut off to include: (i) known active entities and (ii) enterprises having a balance sheet or turnover total above certain threshold. This threshold can even be derived from costs and resources available for data collection. Notwithstanding the cut-off frame, survey results can be assumed to represent the entire population.

For the cut-off, there may be two thresholds, one for "total transactions relating to services with extra-euro area counterparties" and another, much higher, for "total financial transactions with extra-euro area counterparties". The thresholds will be expressed in EUR millions. If transactions are above at least one threshold, enterprises will be selected.

The proposal is based on the following considerations:

– Goods transactions do not need to be included in the selection, as trade statistics provide this information.

– The aim is to obtain good quality information on services, which can better be met with a reasonably low threshold (whereas financial transactions/positions involve larger amounts).

– A level-playing field throughout the EU implies that all enterprises be on the same footing.

DR companies will be asked to report on all b.o.p. transactions and i.i.p. positions, usually on a monthly basis. For large enterprises, the reporting cost is minimised if, once they start reporting, they can automate the data processing.

The sample surveys will cover the remainder of transactions in the current and capital accounts. The size of samples and number of enterprises actually reporting will be different from country to country, depending on the coverage by large enterprises.

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